

## Jurisdictional Urban Runoff Management Plan Annual Report Fiscal Year 2011-12

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Attachment 6.2 – Outreach Events Inventory

Attachment 6.3 – Detailed Survey Results

Attachment 6.4 – Residential Complaints Inventory

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### 6.0 RESIDENTIAL COMPONENT

#### 6.1 Introduction

**JURMP Section 8.0** establishes a programmatic framework for the implementation of activities to minimize the impact of discharges from residential areas and sources on receiving waters in compliance with **Permit Section D.3.c**. This annual report section describes the programs and activities conducted by the County to implement its Residential Component during Fiscal Year (FY) 2011-12.

#### 6.2 Source Characterization

The unincorporated portion of San Diego County covers an area of more than 3,500 square miles. **JURMP Section 8.2** describes the population characteristics of this area and identifies the priority activities addressed by the County's residential source management programs. **Table 6.1** lists these activities by type. No changes to them were made in FY 2011-12, and none are planned for FY 2012-13.

#### 6.3 Residential Best Management Practices

**JURMP Section 8.3** and **Attachment 8.1** describe the County's BMP requirements for residential areas and activities. These requirements were reviewed for necessary updates or modifications subsequent to the completion of FY 2011-12. Modifications to BMPs were not determined to be necessary as a result of these reviews.

**Table 6.1 – Summary of Priority Residential Sources and Activities**

- |   |
|---|
| <ol style="list-style-type: none"><li>1. Automobile or Boat Parking or Storage, Maintenance and Repair, and Cleaning</li><li>2. Lawn and Garden Care Activities and Product Use</li><li>3. Household and Home Care and Maintenance</li><li>4. Pet and Livestock and Large Animals Waste Management</li><li>5. Any other residential source that the County determines may contribute a significant pollutant load to the MS4</li><li>6. Any residential areas tributary to a CWA section 303(d) impaired water body, where the residence generates pollutants for which the water body is impaired</li><li>7. Any residential areas within or directly adjacent to or discharging directly to a coastal lagoon or other receiving waters within an environmentally sensitive area</li></ol> |
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### **6.4     Program Implementation**

The County's implementation and assessment strategy for residential sources is described in *JURMP Section 8.4*. As described below, program implementation addresses two distinct, but interrelated target audiences, schoolchildren and the general residential population (adults). FY 2011-12 implementation results are addressed separately below.

#### **6.4.1     Programs for Schoolchildren**

As described in *JURMP Section 8.2.2*, as of January 1, 2009 an estimated 134,526 children under age 19 resided in the unincorporated areas of the County and 101,071 were enrolled in grades Kindergarten through 12. **Figure 6.1** provides an overview of the major elements of the County's strategy for addressing this population as it was implemented during FY 2011-12. Additional documentation, analysis, and discussion are provided in **Table 6.2, Table 6.3, Attachment 6.1** and **Attachment 6.3**.



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**Table 6.2 – Program Implementation and Assessment Results for the Schoolchildren Element**  
**Outcome Level 1 (Level 1 Outcomes)**

FY 2011-12 Targets ⊙		Implementation Result ☑	Assessment Result ☒	Next Fiscal Year Targets ⊙	Explanation 📄
<b><u>Program Administration</u></b>		Administrative Activities support the effective operation or management of the stormwater program.			
☑ <b>Program reviews &amp; updates</b>		Throughout each fiscal year, and during year-end program reviews, County staff provides a thorough review of all elements of its JURMP and ancillary program materials to determine whether modifications are necessary. <b>Table 6.16</b> for an updated list and schedule of modifications.			
<b><u>Completion of identified program modifications</u></b>		The status of program modifications identified in last year's JURMP Annual Report is described below.			
6.4.1.1	Update the JURMP to incorporate previously identified changes (T = completion)	R <sub>I+A</sub> = Complete		Complete additional identified program modifications	There were no program modifications identified during FY2011-12.
<b><u>Identification of additional needed program modifications</u></b>		<b>JURMP Section 6.2</b> and materials were updated as necessary to meet these standards during FY 2011-12.			
☑ <b>Staff training</b>		<b>JURMP Section 10.2</b> establishes updated standards for training municipal staff. Training content and materials were updated as necessary to meet these standards during FY 2011-12. Training results for staff implementing this element are included in <b>Section 4.14</b> .			
<b><u>Facilitation Activities</u></b>		Facilitation activities are those which assist, encourage, or require changes in the knowledge or behaviors of the individuals and populations to which program activities are directed. Facilitation results for schoolchildren are described below.			

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**Table 6.2 – Program Implementation and Assessment Results for the Schoolchildren Element**  
**Outcome Level 1 (Level 1 Outcomes)**

FY 2011-12 Targets ⊙	Implementation Result ☑	Assessment Result ⊞	Next Fiscal Year Targets ⊙	Explanation 📄
☑ <b>Education &amp; outreach to schoolchildren</b>	A variety of outreach activities were provided to more than 25,882 school-aged children in FY 2011-12. Detailed outreach results are provided in <b>Attachment 6.1</b> . The success of several of these programs in meeting individual and combined targeted outcomes is also evaluated below.			
<u><b>Presentations to schoolchildren</b></u>	Presentations are the core of the County’s educational approach to schoolchildren. As described below, more than 19,804 students were reached through a variety of presentations in FY 2011-12.			
Green Machine and Splash Lab presentations (San Diego County Office of Education)	<p>In FY 2011-12, the County continued to contract “Green Machine” and “Splash Lab” school presentations from the San Diego County Office of Outdoor Education for the elementary grade levels. The mission of Outdoor Education is to provide students with experiential learning programs that enhance awareness and scientific understanding of the natural world and their connection to it. These programs provide opportunities for social growth, self-reliance and team work. The Splash Mobile Science Lab and Green Machine Programs do just that by providing a field trip that comes to the school. Splash Lab is a hands-on interactive learning program that is brought directly to classrooms. The curriculum is aligned with California Science Content Standards designed for grade levels 4-6 and includes experience with microscopes, chemistry experiments, computers and cooperative learning skills. Green Machine is a hands-on interactive learning program that is brought directly to classrooms. The curriculum is aligned with California Science Content Standards designed for grade levels K-4 and includes topics on soil research, integrated pest management, and the water cycle. Both programs are vital tools to teach students (grades K-6) and parents about storm drain pollution, water conservation, and water quality issues that affect us all. The Outdoor Education Outreach staff is varied and well versed in all aspects of Environmental Education. They have a dedicated group of program specialists who specialize in delivering hands-on science-based curriculum to students throughout San Diego County. They are experienced with working with children of all ages, developing an excellent rapport, and creating an appealing learning environment.</p>			

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**Table 6.2 – Program Implementation and Assessment Results for the Schoolchildren Element**  
**Outcome Level 1 (Level 1 Outcomes)**

FY 2011-12 Targets ⊙		Implementation Result ☑	Assessment Result ⊞	Next Fiscal Year Targets ⊙	Explanation 📄
6.2.1.3	Conduct school presentations to 5,000 elementary school students in the unincorporated areas of the County (T = 5,000 students)	R <sub>I</sub> = presentations given to 6,585 students	R <sub>A</sub> = >100% complete	Conduct school presentations to 5,000 elementary school students in the unincorporated County	During FY 2011-12 the Splash Lab and Green Machine provided 62 total County sponsored visits to schools throughout San Diego County. With approximately four one-hour classes presented during each visit, over 6,585 students were served. Splash Lab provided 116 presentations to 29 different schools reaching a total of 2,667 students. 132 Green Machine presentations were provided to 33 different schools reaching a total of 3,918 students.
High school watershed outreach presentations (I Love A Clean San Diego)		The County's high school watershed presentations focus on watershed protection, stormwater and urban runoff, pollutants of concern, and the storm drain system. Presentations also provide best management practices applicable to students in their everyday lives. An interactive group activity and visual aids clearly demonstrates the consequences of urban runoff and the importance of keeping our waterways clean and healthy.			
6.2.1.4	Conduct presentations to 4,300 high school students in the unincorporated County (T = 4,300 students)	R <sub>I</sub> = presentations given to 5,070 students	R <sub>A</sub> = >100% complete	Conduct presentations to 4,300 high school students in the unincorporated County	I Love A Clean San Diego provided 166 presentations to 5,070 total students at 14 high schools within the unincorporated County. Presentation covered specific California State Education Standards as well as topics covered by standardized testing. Presentations were held in classes for all grade levels, the majority being Biology classes, but also including Health, Automotive, Agricultural Science and Earth Sciences, Geography, Economics, and History classes.  Through the efforts of ILACSD, 118% of the goal for presentations was met in FY 2011-12. The target for next fiscal year will remain the same.



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**Table 6.2 – Program Implementation and Assessment Results for the Schoolchildren Element**  
**Outcome Level 1 (Level 1 Outcomes)**

FY 2011-12 Targets ⊙		Implementation Result ☑	Assessment Result ⊞	Next Fiscal Year Targets ⊙	Explanation 📄
Recycling and household hazardous waste presentations (R-1-EARTH)		The County's R-1-Earth schools presentations teach children to reduce, reuse and recycle for a better future. Presentations are delivered with a PowerPoint presentation and hands on activities and visual aids and focus on litter, reducing, reusing, recycling and proper disposal of household hazardous waste. Students leave the presentation knowing what, why and how they can help make our community cleaner and more sustainable.			
6.2.1.5	Conduct 20 Recycling and Household Hazardous Waste presentations to grade K-12 students (T = 20 presentations)	$R_I = 49$ presentations given to 4,632 students	$R_A = >100\%$ complete	Conduct 20 Recycling and Household Hazardous Waste presentations to grade K-12 students	DPW Recycling in collaboration with DPW Recycling and DEH-HHW, the R-1 EARTH program provided 49 presentations to schools and community children in grades K-12 on recycling and proper disposal of hazardous waste.
School Composting Education (Solana Center for Environmental Innovation)		The County's School Composting Education teaches children about the benefits and the basics of composting. Students get hands-on demonstration on building their own worm bins and "Composting with Worms" informational sheet, Backyard Composting" brochures, and "Rotline" contact information. Presentations are adjusted to address problems with existing bins for students already involved in composting.			

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**Table 6.2 – Program Implementation and Assessment Results for the Schoolchildren Element**  
**Outcome Level 1 (Level 1 Outcomes)**

FY 2011-12 Targets ⊙		Implementation Result ☑	Assessment Result ⊞	Next Fiscal Year Targets ⊙	Explanation 📄
6.2.1.6	Not targeted	R <sub>I</sub> = 1 presentation was given to 43 students	Not assessed	Conduct School Composting Education as requested	During FY 2011-12, Solana Center for Environmental Innovation presented a composting education class to Chase Elementary. The class built their own worm bin to keep in the class, complete with worms, coir, and compostable material to get started.
DPR presentations		One of the key activities of the County Parks and Recreation Department is educating children about the County's invaluable natural resources. Rangers and volunteers are trained in the Environmental Education program to provide multiple interpretive services to the public. Among these entertaining and informative programs are: Multiple Species Conservation Program (MSCP) , Discovery Kit program Wildlife conservation programs with live animals, Environmental slide programs, Safety talks, Ranger-led nature walks, Plant Propagation program, Community Service. Presentations are available to children of all ages, including schools, parks, campgrounds, interpretive centers, camps, scout groups, and churches.			

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**Table 6.2 – Program Implementation and Assessment Results for the Schoolchildren Element**  
**Outcome Level 1 (Level 1 Outcomes)**

FY 2011-12 Targets ⊙		Implementation Result ☑	Assessment Result ⊞	Next Fiscal Year Targets ⊙	Explanation 📄
6.2.1.7	Not targeted	R <sub>I</sub> = 46 presentations conducted by DPR staff reaching 3,474 children	Not assessed	Not targeted	<p><u>DPR Presentations</u> (36 events; 3,130 reached). DPR provided numerous types of ranger-led presentations based on California Science Standards to 3,130 children, students and campers at County Parks. Park Rangers visited schools and hosted field trips to parks the following day for the Discovery Kit Program. Discovery Kit Program topics include Environment Education, Watershed Awareness, Habitats and Ecosystems. Other presentation topics were more specific, such as the importance of insects, trees and ecology, water protection, and riparian habitats. All presentations generally include issues on benefits of natural areas, open spaces, habitat, and recycling to the watershed.</p> <p><u>DPR Presentations to Boys &amp; Girls Scouts</u> (10 events; 344 reached). Scout talks and presentations were given by DPR with topics including pollution prevention, water quality, habitats, ecosystems, and overall watershed awareness.</p>
<u>Community and special events</u>		The County's presence at community and special events is an integral component of outreach to schoolchildren. Events vary yearly to reach children in different geographic areas of the County and those missed through other education activities.			

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**Table 6.2 – Program Implementation and Assessment Results for the Schoolchildren Element**

**Outcome Level 1 (Level 1 Outcomes)**

FY 2011-12 Targets ⊙		Implementation Result ☑	Assessment Result ⊞	Next Fiscal Year Targets ⊙	Explanation 📄
6.2.1.8	Reach out to 2,500 children through community and special events (T = 2,500 children)	R <sub>I</sub> = 3,195 children reached	R <sub>A</sub> > 100% complete	Reach out to 2,500 children through community and special events	<p>For FY 2011-12, the San Diego County Office of Education's Splash Lab participated in Fiesta del Rio and World Water Day Festival reaching 2,320 children. DPW Recycling reached 800 6<sup>th</sup>-8<sup>th</sup> grade students during America Recycles Day event. Students of Los Coches Middle School rotated through educational activity stations learning valuable information about recycling and the importance of conserving the environment. DPW Recycling also participated in distributing reusable totes during a San Diego Region wide "A Day Without A Bag" event.</p> <p>Through combined efforts the target of 2,500 children was exceeded and 3,195 children were reached during community and special events. The target for next fiscal year will remain the same.</p>
<u>Outdoor activities</u>		County Parks and Recreation Department (DPR) educates children to foster an appreciation for the County's natural resources. Rangers and volunteers are trained in the Environmental Education program to provide multiple interpretive services to children at local parks. Outdoor activities include watershed service projects and hikes.			

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**Table 6.2 – Program Implementation and Assessment Results for the Schoolchildren Element**  
**Outcome Level 1 (Level 1 Outcomes)**

FY 2011-12 Targets ⊙		Implementation Result ☑	Assessment Result ⊞	Next Fiscal Year Targets ⊙	Explanation 📄
6.2.1.9	Reach out to 1,000 children through outdoor events (T = 1,000 children)	R <sub>I</sub> = 2,768 children reached	R <sub>A</sub> > 100% complete	Reach out to 1,000 children through outdoor events	<p>Through the efforts of DPR staff, 2,768 children were provided outdoor education through 58 events (docent-led, scout, mushroom, bird, and bug hikes, etc.). A target of 1,000 children is consistent with previous efforts. Details are as follows:</p> <p><u>Watershed Activities</u> (17 events; 610 reached). Specific watershed activities include clean-up projects and planting of native vegetation at County parks. Specific Boy and Girl Scout projects include trail maintenance and clean-up events.</p> <p><u>Hikes</u> (41 events; 2,158 reached). DPR provided varying types of docent led hikes such as nature awareness, night, early morning, mushroom, bird, and bug hikes to children, students and campers on County Parks. All hikes include talks on the benefits of natural areas, open spaces, habitat and recycling to the watershed.</p> <p>Boy and Girl Scout hikes through County Parks with Rangers included talks on watershed awareness and impacts on wildlife. Some hikes were Lead-a Hike training where rangers taught scouts to lead hikes of their own.</p>
<u>Summary outreach totals</u>		Although the numerous outreach and education activities described above are funded, conducted, and evaluated separately, the County also tracks the sum of these activities as a general indicator of its effort and success in reaching out to schoolchildren each year.			
6.2.1.10	Not targeted	R <sub>I</sub> = 25,882 children reached (392 events or activities)	Not assessed	Not targeted	Since each of the schoolchildren activities is evaluated separately with its own targets, the County will not set an overall target for FY 2011-12.

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**Table 6.2 – Program Implementation and Assessment Results for the Schoolchildren Element**  
**Outcome Level 1 (Level 1 Outcomes)**

FY 2011-12 Targets ⊙		Implementation Result ☑	Assessment Result ⊞	Next Fiscal Year Targets ⊙	Explanation 📄
<b><u>Feedback Activities</u></b>		Feedback Activities are conducted to determine whether and to what degree targeted changes are occurring in schoolchildren. The County currently relies solely on surveys to provide this feedback on schoolchildren.			
☑ <b>Surveys and Tests</b>		Surveys and tests are used to assess the knowledge of schoolchildren during presentations. The scores of pre- and post- survey scores demonstrates a change in knowledge from before and after being presented with information. Comparison of pre-presentation results from year to year also aids in determining whether population level changes are occurring over time.			
6.2.1.11	Survey 25% of elementary school students receiving Splash Lab presentations (T = 980)	R <sub>I</sub> = 1,573 students surveyed	R <sub>A</sub> > 100% complete	Survey 25% of elementary school students receiving Splash Lab presentations	As part of its contract with the San Diego County Office of Education to conduct Splash Science Lab presentations (see <b>Outcome 6.2.1.3</b> ), the County requires that a minimum of 25% of children complete pre- and post-surveys to assess student knowledge and to evaluate the quality of presentations. Of the 3,918 students who heard the presentations, 1,573 students (40 %) completed the post- test assessment of the presentation. Results are discussed in <b>Figure 6.2</b> .
6.2.1.12	Survey all high school students receiving presentations (T = 5,070 students)	R <sub>I</sub> = 4,448 students surveyed	R <sub>A</sub> = 87.7% complete	Survey 90% of high school students receiving presentations	As stated in Outcome 6.2.1.4, a total of 5,070 students received high school presentation from I Love a Clean San Diego (ILACSD). Of those, 4,448 students completed a valid post-test. Of the 4,448 students who completed a post-test, 4,158 (93%) submitted both a pre- and post- test. Survey results are discussed <b>Table 6.3</b> . <b>Attachment 6.3</b> provides a detailed survey results for FY 2011-12.

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Outcome Level 2

**Table 6.3 – Assessment of Knowledge in Elementary Schoolchildren (Grades 3-6; Level 2 Outcomes)**

FY 2011-12 Targets ⊙		Implementation Result ☑	Assessment Result ⌘	Next Fiscal Year Targets ⊙
6.2.1.13	T = Improve post-presentation scores by at least an additional 10% (T = 10%)	$R_I > 100\%$ complete	$R_A$ = post-presentation increases in knowledge successfully achieved.  Student's post-presentation survey scores increased by 39% compared to 37% the previous fiscal year.	Improve post-presentation scores by at least 10%
<p>In prior years, the assessment component for elementary school children receiving the Splash Lab presentations consisted of ten True/False statements. In 2010, a revised assessment tool was created to be more in line with the curriculum and the high school survey, measure behavior and knowledge, and provide assessment by age level. The test consisted of nine knowledge items and two behavioral items, which were identical for both pre- and post- presentation. After piloting and fine tuning, the tests were implemented for use during FY 2010-11.</p> <p>Elementary school children were administered a pre-test to assess baseline knowledge, awareness, and behavioral intention prior to hearing the presentation. Following the presentation, students completed a post-test to evaluate the effectiveness of the presentation at increasing knowledge and behavior intentions. The questions are listed in <b>Figure 6.2</b></p> <p>Of the total 2,667 elementary school students who heard the Splash Lab presentation, 1,573 completed a post-test. The students who completed a post-test were distributed throughout 22 schools and the majority being in grades 4-7.</p> <p>A total of 1,900 students completed the pre-test. Scores on the pre-test ranged from 0-8 (out of a possible 9) with an average score of 3.47 (39% correct). The majority of the students (89%) scored 5 or less out of the 9 possible points in pre-tests, which is considered a failing score. 1 student completed the post-test a with score ranging from 0-9. The average score was 4.80 (53%). Just over two-thirds of students (64%) scored a five or less out of nine possible points on the post-test, again, a failing score.</p> <p>Of the 2,667 students who heard the presentation, 1,407 participated in both the pre- and post- test. Of those who completed both pre- and post-, the average score on the pre-tests was 3.48 out of 9 (<math>SD = 1.62</math>) and the average score on the post-test was 4.83 out of 9 (<math>SD = 1.85</math>). The difference was statistically significant [<math>t(1406) = 27.10, p &lt; .0001</math>] and corresponds to a 39% increase in knowledge.</p>				

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Outcome Level 2

**Table 6.3 – Assessment of Knowledge in Elementary Schoolchildren (Grades 3-6; Level 2 Outcomes)**

FY 2011-12 Targets ⊙	Implementation Result ☑	Assessment Result ⏏	Next Fiscal Year Targets ⊙
<p>A behavioral intention question was asked at the end of the both pre- and post- test. The first question was “<i>Do you plan to tell your friends and family about how to prevent stormwater pollution</i>”, with response categories of: No, Probably not, Maybe Yes, and Yes. Prior to the presentation, 47% of the students said that they would share the information compared to 61% after the presentation.</p> <p>An open-ended item was designated to gauge the students’ awareness of actions they could take to prevent storm water pollution. The item read “<i>Write down one thing you can do to prevent storm water.</i>” Multiple responses were allowed. On the pre-test, a total of 1,550 responses were provided, with the most common pollution prevention behaviors mentioned relating to litter prevention (42%). On the post-test, a total of 1,715 responses were provided. As on the pre-test, the most common pollution prevention behaviors mentioned were related to pollution prevention (52%). There did not seem to be a significant difference between pre- and post-test beside the slight increase in responses in picking up pet waste, from 3% to 12%.</p> <p>Results indicated that students learned some concepts from the presentation. However, over all scores were low at both pre- and post-test suggesting a need for additional emphasis on certain stormwater concepts. It does not appear that the items are too difficult, but rather that the concepts are not covered and there is very little movement from baseline on certain concepts.</p> <p>See <b>Attachment 6.3</b> for more detailed survey results.</p>			



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| <p>1. Which of the following types of water is carried by the storm drain system?<br/><i>Concept: The storm drain is separate from the sewer system.</i></p> <ol style="list-style-type: none"> <li>Waste water from showers and sinks</li> <li>Household toilet water</li> <li><b>Rainwater</b></li> <li>All of the above</li> </ol> <p>2. What happens to the water that goes into the storm drain?<br/><i>Concept: Storm water goes directly to the ocean without treatment</i></p> <ol style="list-style-type: none"> <li>It gets sent to the sewer system where it is cleaned</li> <li><b>It goes directly to creeks, lakes, or the ocean without cleaning</b></li> <li>It goes to the ocean after trash is filtered out</li> <li>It gets stored in case we need it</li> </ol> <p>3. Which of these things can be harmful to plants and animals if it enters a storm drain?<br/><i>Concept: Natural materials can also be water pollutants</i></p> <ol style="list-style-type: none"> <li>Fertilizer</li> <li>Dirt and gravel</li> <li>Grass clippings and leaves</li> <li><b>All of the above</b></li> </ol> <p>4. Fertilizers made with nitrogen are considered what type of pollution?<br/><i>Concept: Pollutants of Concern: Nutrients</i></p> <ol style="list-style-type: none"> <li>Bacteria</li> <li><b>Nutrients</b></li> <li>Sediment</li> <li>Chemicals</li> </ol> <p>5. We all live in a _____.?<br/><i>Concept: We all live in a watershed</i></p> <ol style="list-style-type: none"> <li>A reservoir</li> <li>An estuary</li> <li><b>A watershed</b></li> <li>An aqueduct</li> </ol> <p>6. Bacteria pollution in the water comes from:<br/><i>Concept: Pollutant of concern: Bacteria</i></p> <ol style="list-style-type: none"> <li><b>Animal waste</b></li> <li>Nutrients</li> <li>Sediment</li> <li>All of the above</li> </ol> | <p>7. What is one thing that people can do to prevent stormwater pollution?<br/><i>Concept: Behavior, actions that prevent pollution</i></p> <ol style="list-style-type: none"> <li>Use a hose to clean litter and trash off the sidewalk</li> <li><b>Follow the directions on bug killer</b></li> <li>Sweep leaves and grass clippings into the gutter</li> <li>Dispose of used batteries in the trash can</li> </ol> <p>8. Water that travels through our cities when it is not raining is called _____.?<br/><i>Concept: Definition of urban runoff, dry weather flow</i></p> <ol style="list-style-type: none"> <li>Turbidity</li> <li>Stormwater</li> <li>Watershed</li> <li><b>Urban runoff</b></li> </ol> <p>9. Which of the following is a result of stormwater pollution?<br/><i>Concept: Impacts of storm water pollution</i></p> <ol style="list-style-type: none"> <li>Wildfires</li> <li>Floods</li> <li><b>Beach closures</b></li> <li>Water shortages</li> </ol> <p>10. Which of the following is a result of stormwater pollution?<br/><i>Concept: Impacts of storm water pollution</i></p> <ol style="list-style-type: none"> <li>Wildfires</li> <li>Floods</li> <li><b>Beach closures</b></li> <li>Water shortages</li> </ol> <p>11. Do you plan to tell your friends and family about how to prevent stormwater pollution?<br/><i>Concept: Behavior, Likelihood of sharing information</i></p> <ol style="list-style-type: none"> <li>No</li> <li>Probably not</li> <li>Maybe yes</li> <li>Yes</li> </ol> <p>12. Write down one thing you can do to prevent stormwater pollution.<br/><i>Concept: Behavior, Pollution prevention actions</i><br/>Something I can do to prevent stormwater pollution is: _____</p> |
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**Figure 6.2 - Splash Lab Survey Questions**

# Jurisdictional Urban Runoff Management Plan Annual Report Fiscal Year 2011-12



## Outcome Level 2

**Table 6.4– Assessment of Knowledge in High School Students (Grades 9-12; Level 2 Outcomes)**

FY 2011-12 Targets ⊙		Implementation Result ☑	Assessment Result ☒	Next Fiscal Year Targets ⊙
6.2.1.14	T = demonstrate a post-presentation increase in students' knowledge over pre-presentation levels	R <sub>I</sub> = 68% increase in post-presentation survey scores	R <sub>A</sub> = post-presentation increases in knowledge successfully achieved	Demonstrate a post-presentation increase in students' knowledge over pre-presentation levels
6.2.1.15	T = Increase students' behavioral intention scores	R <sub>I</sub> = 34% and 31% increase in post-presentation survey scores	R <sub>A</sub> = post-presentation increases students' behavioral intention successfully achieved	Increase students' behavioral intention scores
<p>During FY 2011-12, I Love a Clean San Diego continued to provide watershed education presentations to high schools in the unincorporated County of San Diego. The presentations were designed to increase knowledge of local watershed and promote storm water pollution prevention.</p> <p>High school children were administered a pre-test to assess baseline knowledge, awareness, and behavioral intention prior to hearing the presentation. Following the presentation, students completed a post-test to evaluate the effectiveness of the presentation at increasing knowledge and behavior intentions. The questions are listed in <b>Figure 6.3</b>.</p> <p>A total of 4,448 students' completed a post-test for the Watershed Education presentation presented by I Love a Clean San Diego. The presentation reached students at fourteen schools spread across six watersheds. Of the students, 41% were in 9<sup>th</sup> grade, 26% were in the 10<sup>th</sup> grade, 19% were in the 11<sup>th</sup> grade, and 14% were in the 12<sup>th</sup> grade. Presentations reached students in classes that spanned a variety of different subject matters, with the majority (33%) being in Biology class or Health (15%). A total of 4,486 students completed the pre-test. Scores on the pre-test ranged from 0-9 (out of a possible 9) with an average score of 3.92 (44% correct). The majority of the students (79%) scored 5 or less out of the 9 possible points in pre-tests, which is considered a failing score. A total of 4,448 students completed the post-test with scores ranging from 0-9. The average score was 6.56 (73%).</p> <p>Of the 4,448 students who completed a post-test, 4,158 participated in both the pre- and post- test assessments of the presentations. Of the 4,158, the average score on the pre-test was 3.95 out of 9 (<i>SD</i> = 1.90) and the average score on the post-test was 6.62 (<i>SD</i> = 2.18). This corresponds to a 68% increase in knowledge. The difference is statistically significant, <i>t</i> (4,157) = 77.70, <i>p</i> &lt; .0001.</p>				

# Jurisdictional Urban Runoff Management Plan Annual Report Fiscal Year 2011-12



## Outcome Level 2

**Table 6.4– Assessment of Knowledge in High School Students (Grades 9-12; Level 2 Outcomes)**

FY 2011-12 Targets ⊙	Implementation Result ☑	Assessment Result ⊞	Next Fiscal Year Targets ⊙
<p>Two behavioral intention questions were asked at the end of both pre- and post- tests. The first question was “<i>How likely is it that you will take action to prevent storm water pollution?</i>” Using a scale from 0 (Not at all likely) to 10 (Extremely likely), the students average rating for the pre-test was 4.42 out of 10 and 5.91 out of 10 on the post-test. Self-reported intention to take action to prevent storm water pollution increased by 34% a moderate, but significant increase. The differences in scores from pre- and post –test was statistically significant <math>t(3,967) = 36.73, p &lt; .0001</math>. On the pre-test, 9% of students answered a 9 or 10 on this item compared to a 24% on the post-test.</p> <p>The second question was “<i>How likely is it that you will tell other members of your family about how to prevent storm water pollution?</i>” Using the same 0-10 scale above, students average rating for the pre-test was 4.45 out of 10 and 5.81 out of 10 on the post-test. This corresponds to a 31% increase, a moderate, but statistically significant increase <math>t(3,964) = 34.06, p &lt; .0001</math>. On the pre-test, 13% of students answered a 9 or 10 on this item compared to 27% on the post-test.</p> <p>Overall, the presentation is effective in increasing knowledge. Students had significantly more knowledge about watersheds, storm drains, and pollution prevention after hearing the presentation than they did before the presentation. Further analysis of individual test items demonstrates issues with the concepts, either being too easy or difficult. These items will be revised with more difficult concepts or concepts will need to be emphasized in future presentations.</p> <p>See <b>Attachment 6.3</b> for more detailed survey results.</p>			

## Jurisdictional Urban Runoff Management Plan Annual Report Fiscal Year 2011-12

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| <p>1. What is a watershed?</p> <ul style="list-style-type: none"> <li>a) A storage place for water reserves</li> <li>b) A single large water body that drains into the ocean</li> <li>c) <b>A land area that drains into a common body water</b></li> <li>d) The lakes, streams, and waterways in a city</li> </ul> <p>2. Watershed boundaries are determined by:</p> <ul style="list-style-type: none"> <li>a) City and county jurisdictional lines</li> <li>e) <b>The natural contours of the land</b></li> <li>f) Political jurisdictions</li> <li>g) State lines</li> </ul> <p>3. What watershed is your school located in (circle one)? <b>Answers varied based on location of school</b></p> <ul style="list-style-type: none"> <li>a) San Juan</li> <li>h) Santa Margarita</li> <li>i) San Luis Rey</li> <li>j) Carlsbad</li> <li>k) San Dieguito</li> <li>l) Peñasquitos</li> <li>m) San Diego River</li> <li>n) Pueblo</li> <li>o) Sweetwater</li> <li>p) Otay</li> <li>q) Tijuana</li> <li>r) My school is not located in a watershed</li> </ul> <p>4. What happens to rain that falls on urban areas covered with concrete or asphalt?</p> <ul style="list-style-type: none"> <li>a) It soaks in to the pavement</li> <li>b) <b>It runs off into the storm drain and is discharged into waterways without treatment to remove pollutants it picks up along the way</b></li> <li>c) It runs off into the storm drains where trash and other contaminants are filtered out before emptying into the waterways</li> <li>d) It runs off into the storm drains and is routed to local farms for irrigation</li> </ul> | <p>5. Which of the following types of water is carried by the storm drain systems?</p> <ul style="list-style-type: none"> <li>a) Waste water from showers and sinks</li> <li>b) Household toilet water</li> <li>c) <b>Rainwater</b></li> <li>d) All of the above</li> </ul> <p>6. Water that passes through the storm drain system is:</p> <ul style="list-style-type: none"> <li>a) Mixed with sewer water and treated for bacterial contaminants</li> <li>b) Treated for chemical contaminants such as pesticides and fertilizers</li> <li>c) <b>Left untreated</b></li> <li>d) Filtered to remove litter and trash</li> </ul> <p>7. Grass clippings, leaves, and other yard waste that enters storm drains:</p> <ul style="list-style-type: none"> <li>a) Naturally filters the water in the storm drain system</li> <li>b) Provides a food source for fish and other marine organisms</li> <li>c) <b>Contributes to poor water quality by removing oxygen</b></li> <li>d) None of the above</li> </ul> <p>8. Which of the following actions can directly reduce storm water pollution?</p> <ul style="list-style-type: none"> <li>a) Cleaning driveways by sweeping instead of hosing</li> <li>b) Keeping lids closed on trash cans and recycling bins</li> <li>c) Recycling used motor oil</li> <li>d) <b>All of the above</b></li> </ul> <p>9. Paper cups, cans and plastic bottles that are thrown onto the streets or into gutters:</p> <ul style="list-style-type: none"> <li>a) Are generally harmless to plants and animals</li> <li>b) Are filtered from the storm drain system before reaching local beaches</li> <li>c) Do not contribute to pollution of storm water</li> <li>d) <b>None of the above</b></li> </ul> <p>10. In the next 30 days, how likely is it that you will personally take action to prevent storm water pollution (check one)?</p> <p>How likely is it that you will tell other members of your family about how to prevent storm water pollution (check one)?</p> |
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**Figure 6.3 – High School Presentation Survey Questions**

# Jurisdictional Urban Runoff Management Plan

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### 6.4.2 Programs for the Adult Residential Population

**Figure 6.4** provides an overview of the major elements of the County's strategy for addressing the general residential population as it was implemented during FY 2011-12. **Table 6.5** presents and describes targeted FY 2011-12 outcomes and results, as well as implementation targets for FY 2012-13. Additional documentation, analysis, and discussion are provided as necessary in **Table 6.6** through **Table 6.15**.

General Residential Element			
<b>Program Implementation</b>  <ul style="list-style-type: none"> <li>- DPW Watershed Protection</li> <li>- DPW Recycling</li> <li>- DEH HHW</li> <li>- Other Depts.</li> </ul>	<b>Target Audiences</b>  <ul style="list-style-type: none"> <li>- Adult Residents (General)</li> <li>- Hotline Callers</li> <li>- Pet Owners</li> </ul>		<b>Sources</b>  <ul style="list-style-type: none"> <li>- Automobiles / Boats</li> <li>- Lawns / Gardens</li> <li>- Household / Home</li> <li>- Pets, Livestock, Large Animals</li> </ul>
<b>OUTCOME LEVEL 1</b>	<b>OUTCOME LEVEL 2</b>	<b>OUTCOME LEVEL 3</b>	<b>OUTCOME LEVEL 4</b>
<b>Stormwater Program Activities</b>	<b>Knowledge &amp; Awareness</b>	<b>Behaviors</b>	<b>Source Reductions</b>
<u><b>Program Administration</b></u> <input checked="" type="checkbox"/> Program reviews & updates <input checked="" type="checkbox"/> Source inventory updates <u><b>Facilitation Activities</b></u> <input checked="" type="checkbox"/> Staff training <input checked="" type="checkbox"/> Hotline / website operation <input checked="" type="checkbox"/> Education / outreach <input checked="" type="checkbox"/> Recycling / waste collection <input checked="" type="checkbox"/> Enforcement / compliance <u><b>Feedback Activities</b></u> <input checked="" type="checkbox"/> Surveys & tests <input checked="" type="checkbox"/> Complaint investigations <input checked="" type="checkbox"/> Special investigations  (See Table 6.5 for Level 1 Results)	<input checked="" type="checkbox"/> General knowledge <input checked="" type="checkbox"/> Specific knowledge  <input checked="" type="checkbox"/> Informational requests & pollution reporting <input checked="" type="checkbox"/> Public participation & involvement <input checked="" type="checkbox"/> BMP implementation  Table 6.7 through Table 6.14 for Level 2 and 3 Results)		<input checked="" type="checkbox"/> Reductions from HHW collection <input checked="" type="checkbox"/> Reductions from oil recycling  (See Table 6.15 for Level 4 Results)

**Figure 6.4 – FY 2011-12 Program Implementation and Assessment Strategy for the Residential Element**

# Jurisdictional Urban Runoff Management Plan Annual Report Fiscal Year 2011-12



**Table 6.5 – Program Implementation and Assessment Results for the Residential Element (Level 1 Outcomes)**

Outcome Level 1

FY 2011-12 Targets ⊙		Implementation Result ☑	Assessment Result ⊞	Next Fiscal Year Targets ⊙	Explanation 📄
<b><u>Program Administration</u></b>					
☑ <b>Program reviews &amp; updates</b>		Throughout each fiscal year, and during year-end program reviews, County staff provides a thorough review of all elements of its JURMP and ancillary program materials to determine whether modifications are necessary. See <b>Table 6.16</b> for an updated list and schedule of modifications.			
<u>Completion of identified program modifications</u>		The status of program modifications identified in last year's JURMP Annual Report is described below.			
6.4.1.1	No changes to JURMP identified (T = completion)	R <sub>I+A</sub> = Complete		No changes identified	No changes or revisions were identified for the JURMP revisions during FY 2012-13.
<u>Participation in Regional Outreach Program</u>		The County participates in the Regional Residential Education Program with the Copermittees.			
6.4.1.3	Participate in the continued development and implementation of a Regional Residential Education Program by the Stormwater Copermittees (T = confirmation)	R <sub>I+A</sub> = County staff participated in the development and implementation of the program (confirmed)	Not Assessed	None identified	<i>Permit Section F.1</i> requires that the County participate in the development and implementation of a Regional Residential Education Program. During FY 2011-12, the County collaborated with other Copermittees on the Regional Education and Residential Sources Workgroup to further the development and implementation of this program. This group is implementing the plan as laid out by the strategic approach developed in FY 2007-08, including, but not limited to: mass media outreach via PSA in both English and Spanish, adoption of a regional logo, regional surveys for program assessment, and focused outreach to underserved communities. The County has taken the lead on developing partnerships with business and nonprofit groups.

# Jurisdictional Urban Runoff Management Plan Annual Report Fiscal Year 2011-12



**Table 6.5 – Program Implementation and Assessment Results for the Residential Element (Level 1 Outcomes)**

Outcome Level 1

FY 2011-12 Targets ⊙	Implementation Result ☑	Assessment Result ☒	Next Fiscal Year Targets ⊙	Explanation 📄
<u>Identification of additional needed program modifications</u>	An annual review of <i>JURMP Section 6.2</i> and other ancillary program documentation was completed over the course of FY 2011-12 and during the development of this JURMP Annual Report.			
☑ <b>Source inventory updates</b>	<i>JURMP Section 8.2</i> describes the population characteristics of the unincorporated County and identifies the priority activities addressed by the County's residential source management programs. These data are updated as needed. No changes to them were made in FY 2011-12, and none are planned for FY 2012-13.			
<u><b>Facilitation Activities</b></u>	Facilitation activities are those which assist, encourage, or require changes in the knowledge or behaviors of the individuals and populations to which program activities are directed. Facilitation results for this element are described below.			
☑ <b>Staff training</b>	See Section 4.14.			
☑ <b>Hotline &amp; website operation</b> (T = confirmation for all)	As in previous reporting periods, hotlines and websites were operated to provide residents opportunities to obtain detailed information about stormwater issues, to report pollution, and to get involved.			
<u>Regional stormwater hotline</u>	(R <sub>I+A</sub> = confirmation). The County continued to operate a Regional Stormwater Hotline on behalf of all Copermittees (1-888-846-0800). Each complaint received was routed to the respective jurisdiction for appropriate follow-up. FY 2011-12 hotline results are presented and discussed below under <b>Table 6.7</b> and <b>Table 6.8</b> presents a multi-year comparison of call volumes. <b>Table 6.9</b> also provides a multi-year comparison of the numbers of complaints received via the hotline.			
<u>R-1-EARTH hotline</u>	(R <sub>I+A</sub> = confirmation). The County contracts with a local environmental non-profit organization to operate a hotline (1-877-R-1-EARTH) to provide residents with information about reuse, recycling, and safe disposal options for a variety of materials. FY 2011-12 hotline results are presented and discussed below under <b>Table 6.7</b> , while <b>Table 6.8</b> presents a multi-year comparison of call volumes.			

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## Annual Report Fiscal Year 2011-12



**Table 6.5 – Program Implementation and Assessment Results for the Residential Element (Level 1 Outcomes)**

Outcome Level 1

FY 2011-12 Targets ⊙	Implementation Result ☑	Assessment Result ☒	Next Fiscal Year Targets ⊙	Explanation 📄
<u>Project Clean Water website</u>				(R <sub>I+A</sub> = confirmation). The Project Clean Water (PCW) website is an online water quality resource for residents and businesses in the San Diego region. It provides a variety of watershed and water quality information and resources to users. The site also serves as a portal to the Healthy Garden / Healthy Home Integrated Pest Management website, the Clean Water Toolbox for best management practices, and the Integrated Regional Water Management Planning for the San Diego Region website. FY 2011-12 website results are presented and discussed below under <b>Table 6.7</b> and <b>Table 6.11</b> presents a multi-year comparison of site usage.
<u>Online recycling and HHW referral database</u>				(R <sub>I+A</sub> = confirmation). The Recycling Program provides extensive information on recycling and household hazardous waste disposal online, including an online referral database at <a href="http://www.wastefreesd.org/">http://www.wastefreesd.org/</a> .
☑ <b>Education &amp; outreach</b>				Pollution prevention outreach activities were provided to an estimated 170,914 residents in FY 2011-12. The results for several of these programs in meeting targeted outcomes are evaluated below.
<u>Materials distribution</u>				Brochures, pamphlets, downloadable documents, and other materials containing water quality, watershed protection, and best management practices are made available to residents through a variety of means (e.g., community centers, booths, libraries, County offices, and special events).



# Jurisdictional Urban Runoff Management Plan

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**Table 6.5 – Program Implementation and Assessment Results for the Residential Element (Level 1 Outcomes)**

Outcome Level 1

FY 2011-12 Targets ⊙		Implementation Result ☑	Assessment Result ☒	Next Fiscal Year Targets ⊙	Explanation 📄
6.4.1.4	Not targeted	R <sub>I</sub> = approximately 124,500 materials distributed	Not assessed	Not targeted	<p><u>DPW Watershed Protection Program (Estimated ~2,500).</u> Brochures and materials containing water quality, watershed protection, and best management practices were mailed to residents, available at community centers, booths, libraries, County offices, and special events.</p> <p><u>Water Bill Insert (40,000 inserts)</u> The County worked with staff at The Water Conservation Garden to develop a billing insert for stormwater awareness, pollution prevention, and water conservation, in FY 2010-11. Re-prints of the insert were provided to the Sweetwater and Otay Water Districts for inclusion in customer water bills in FY 2011-12.</p> <p><u>DPW Recycling Program (~82,000 materials).</u> Brochures and materials with recycling information were mailed to residents, available at community centers, booths, libraries, County offices, collection events or included as billing inserts. The Recycling Program provides residents with extensive recycling guides, with several available in Spanish (S). They include: Residential, Household Hazardous Waste (S), Automotive (S), Construction and Demolition (S), Apartments and Condos, Junk Mail, Green Waste Recycling Guide, and Sustainable Landscape Practices. These detailed guides are distributed during events and are also available on their website at <a href="http://www.sdcounty.ca.gov/dpw/recycling/guides.html">http://www.sdcounty.ca.gov/dpw/recycling/guides.html</a>.</p>

# Jurisdictional Urban Runoff Management Plan Annual Report Fiscal Year 2011-12



**Table 6.5 – Program Implementation and Assessment Results for the Residential Element (Level 1 Outcomes)**

Outcome Level 1

FY 2011-12 Targets ⊙		Implementation Result ☑	Assessment Result ⊞	Next Fiscal Year Targets ⊙	Explanation 📄
6.4.1.5	Not targeted	R <sub>1</sub> = pet waste materials distributed by County Department of Animal Services	Not assessed	Distribute pet waste material to dog owners through County Department of Animal Services	DPW continued to collaborate with County Animal Services by providing pet waste bag dispensers and tip cards for distribution to dog owners at community and adoption events, and by animal control officers.
<u>Presentations and workshops</u>		During FY 2011-12, County staff participated in presentations and workshops that covered a variety of watershed and water quality topics ranging from recreational water impacts of pollution to integrated pest management and composting practices.			

# Jurisdictional Urban Runoff Management Plan

## Annual Report Fiscal Year 2011-12



**Table 6.5 – Program Implementation and Assessment Results for the Residential Element (Level 1 Outcomes)**

Outcome Level 1

FY 2011-12 Targets ⊙		Implementation Result ☑	Assessment Result ⊞	Next Fiscal Year Targets ⊙	Explanation 📄
6.4.1.5	Reach out to 2,500 residents through presentations and workshops  (T = 2,500 residents)	R <sub>I</sub> = 2,396 residents reached through presentations and workshops conducted	R <sub>A</sub> = 95.8% complete	Reach out to 2,500 residents through presentations and workshops	<p><u>DPW Watershed Protection Program</u> (7 events; 202 reached). The Watershed Protection Program hosted presentations throughout the County on a variety of topics related to watershed protection, water quality, and best management practices.</p> <p><u>Department of Parks and Recreation</u> (8 events; ~1,682 reached). Presentations offered at regional parks included a variety of topics (watershed protection, water quality, ecosystems, etc.). These presentations included messages on best management practices, pollution prevention, water quality, stormwater awareness, erosion control, and watershed awareness.</p> <p><u>UCCE Master Gardeners</u> (8 events; 286 reached). Three Master Gardener community workshops were held during this reporting period. Workshops provided information about identifying and managing pests and how to use less-toxic pest control methods.</p> <p><u>Recycling Program Composting Workshops</u> (12 events; 226 reached). The County performed eight residential composting workshops reaching an estimated 226 residents from the unincorporated areas of the County.</p>
<u>Community and special events</u>		Outreach at special events and booths allow staff to directly interact with the public one-on-one and provide detailed answers to their pollution prevention questions.			

# Jurisdictional Urban Runoff Management Plan Annual Report Fiscal Year 2011-12



**Table 6.5 – Program Implementation and Assessment Results for the Residential Element (Level 1 Outcomes)**

Outcome Level 1

FY 2011-12 Targets ⊙		Implementation Result ☑	Assessment Result ⊞	Next Fiscal Year Targets ⊙	Explanation ⊞
6.4.1.6	Reach out to 2,000 residents through special events and booths  (T = 2,000 residents)	R <sub>I</sub> = an estimated 92,996 residents reached	R <sub>A</sub> > 100% complete	Conduct outreach at events to an estimated 20,000 residents through special events and booths.	<p><u>DPW Watershed Protection Program</u> (15 events; 75,675 reached). The Watershed Protection Program attended 15 community events and provided to the public information concerning watershed protection, urban stormwater runoff, water quality, and best management practices. Additional information provided to targeted audiences included IPM, manure management, composting, and pet waste disposal.</p> <p>FY 2011-12 includes sponsorship of Department of Parks and Recreation's award-winning "SD Movies at the Park" outdoor summer movie series. The Watershed Protection Program sponsored 5 events and shared materials and information at event booths at 4 events, in Lakeside, 4S Ranch, Spring Valley and Julian. (4 events; 1,345 reached)</p> <p><u>Rain Barrel Program</u> The County rain barrel program is being assessed. In FY 2011-12, a customer satisfaction survey was been sent to 50 residents who previously purchased rain barrels. Results to date seem promising, as 24 of 26 responses indicate they have installed the rain barrel they purchased through the County program. Many residents also report installing larger containers and additional rain barrels to increase the volume of capture. The program is under assessment to evaluate customer satisfaction and to determine how to proceed with the rain barrel program in the future.</p> <p><u>DPW Recycling Program</u> conducted outreach for used oil filter exchange and tire amnesty days in Fallbrook, Lakeside, Spring Valley, Alpine and Ramona (6 events; 2,256 reached).</p> <p><u>UCCE Master Gardeners</u> (37 events; an estimated 13,466 residents reached). The Master Gardeners participated in community events around San Diego County, including the Del Mar Fair and Carlsbad</p>

# Jurisdictional Urban Runoff Management Plan

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**Table 6.5 – Program Implementation and Assessment Results for the Residential Element (Level 1 Outcomes)**

Outcome Level 1

FY 2011-12 Targets ⊙		Implementation Result ☑	Assessment Result ⊞	Next Fiscal Year Targets ⊙	Explanation 📄
					<p>Flower Fields. At each event, Master Gardeners and UCCE staff hosts a booth and provided print materials and offer advice on managing pests, landscape and garden maintenance, and best management practices. Special attention was given to integrated pest management and drought resistant plants.</p> <p><u>Department of Parks and Recreation (DPR)</u> (17 events; 254 reached). DPR hosted many park events to provide information concerning stormwater and environmental health, including clean up events. Clean Up events will be documented in the WURMP annual report. Many of the events focused around a specific audience such as gardeners, hikers, birders, or off-road vehicle enthusiasts.</p>
<u>Outdoor activities</u>		Through direct interaction during hikes, clean ups, and restoration activities, outdoor activities conducted at County parks connect residents with the importance of preserving water quality for environmental quality and educate them on watershed concepts.			
6.4.1.7	Not targeted	R <sub>I</sub> = 83 outdoor activities conducted (508 people reached)	Not assessed	Not targeted	<p><u>Parks &amp; Recreation Nature Hikes, Walks, and Talks</u> (27 events; 271 reached). Hikes, walks, and talks led by Parks and Recreation personnel provide campers, park visitors, scouts, and the general public information on natural processes, the environment, ecosystems, habitats, and watershed and stormwater awareness in a natural setting.</p> <p><u>Parks &amp; Recreation Cleanup Events</u> (56 events; 237 reached). The Department Parks and Recreation hosted a number of watershed educational activities such as trash clean up events of waterways and restoration of riparian areas, including the planting of native species.</p>
<u>Mass media</u>		Mass media campaigns through County Television Network (CTN), local cable stations, and outdoor advertising introduce and reinforce messages from other avenues of outreach.			

# Jurisdictional Urban Runoff Management Plan

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**Table 6.5 – Program Implementation and Assessment Results for the Residential Element (Level 1 Outcomes)**

Outcome Level 1

FY 2011-12 Targets ⊙		Implementation Result ☑	Assessment Result ☒	Next Fiscal Year Targets ⊙	Explanation 📄
6.4.1.8	Use of videos to promote watershed awareness	R <sub>I+A</sub> = Complete	R <sub>I+A</sub> = Complete	Not Targeted	CTN continued to air programming that encourages raising awareness and positive behaviors to reduce water related pollution. Videos were aired on CTN and You Tube, as well as at Movies in the Park events sponsored by the County Watershed Program. See <b>Table 6.6</b> for the list of programs airing on County Television Network and You Tube.
<u>Displays</u>		Static displays allow educational information to be displayed continuously and may reach residents that do not attend events or other outreach activities.			
6.4.1.9	Create four new watershed displays at parks, gardens, and other areas open to the public (T = 4 displays)	R <sub>I</sub> = 3 displays at parks, gardens, and other areas open to the public	R <sub>A</sub> = 75% complete	Continue to provide materials and posters for public displays.	<p><u>DPW Watershed Protection Program</u></p> <p>IPM Garden Kiosks – Two IPM Garden Kiosks continue to rotate throughout the County at public lobbies and in libraries. (2,176 reached) The interactive touch screen computer displays allow users to interactively view information about common household and garden pests, less toxic methods for control, landscape maintenance, information on water quality impacts, and water conservation. The kiosks have been updated for bi-lingual use in English and Spanish in FY 2011-12. Summary kiosk reports indicate that kiosk usage has remained primarily in English, with 1,829 English language users, and 347 Spanish.</p> <p><u>DPW Recycling Program Compost Demonstration Sites</u> - The County continues to maintain 7 compost demonstration sites for County residents to see and learn about composting. Three new sites were added in FY 2011-12 at the Whittaker Estate in Lakeside, Sweetwater Summit Campground in Spring Valley, and Otay Lakes Park in Otay Mesa. Compost Demonstration Sites include interpretive signs to help the public learn how to start a home compost pile, how the microorganisms breakdown the materials, and trouble shoot problems</p>

# Jurisdictional Urban Runoff Management Plan

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**Table 6.5 – Program Implementation and Assessment Results for the Residential Element (Level 1 Outcomes)**

Outcome Level 1

FY 2011-12 Targets ⊙		Implementation Result ☑	Assessment Result ⊞	Next Fiscal Year Targets ⊙	Explanation 📄
					<p>in their backyard home bins. Compost bins are maintained by Master Composter Volunteers trained through the County Master Composter Program and County Parks staff.</p> <p><u>Parks &amp; Recreation Kiosks/Displays</u> (16 locations; ~8,000+ reached). The Department of Parks and Recreation has a number of kiosks and displays available at most park locations. Kiosks contain brochures on stormwater, watershed protection, water conservation, general best management practices, pet waste management, native plants, and local waterways. Through the partnership with DPW Recycling and DPW WPP, signs for composting sites have been added as previously mentioned at Sweetwater Summit Campground and at Otay Lakes Park.</p>
<u>Summary outreach totals</u>		Although the numerous outreach and education activities described above are funded, conducted, and evaluated separately, the County also tracks the sum of these activities as a general indicator of its effort and success in reaching out to residents each year.			
6.4.1.10	Reach out to 200,000 residents through combined outreach activities (T = 200,000 residents)	R <sub>I</sub> = 170,914 residents reached	R <sub>A</sub> = 85.4% complete	Reach out to 200,000 residents through combined outreach activities	As of January 1, 2010, the population of the unincorporated County is estimated to be 486,604 (SANDAG). A target of 200,000 represents approximately 41% of that total. On average, reaching this number each year would result in two contacts for each resident in each Permit cycle. Result is total estimated residents reached through materials, events, and media. Attachment 6.2 includes Outreach Event Inventory for FY 2011-12.
☑ <b>Recycling &amp; waste collection</b>		While education and outreach are critical in motivating residents to take action, recycling and waste collection programs provide residents opportunities and means to ensure that critical waste streams are properly managed, and therefore less likely to be disposed to storm drains or receiving waters.			

# Jurisdictional Urban Runoff Management Plan

## Annual Report Fiscal Year 2011-12



**Table 6.5 – Program Implementation and Assessment Results for the Residential Element (Level 1 Outcomes)**

Outcome Level 1

FY 2011-12 Targets ⊙		Implementation Result ☑	Assessment Result ☒	Next Fiscal Year Targets ⊙	Explanation 📄
<u>Household hazardous waste program</u>		The County Household Hazardous Waste (HHW) Program facilitates the proper management and disposal of toxic materials and household hazardous wastes for residents of the unincorporated area.			
6.4.1.11	Provide HHW collection services to residents  (T = confirmation)	R <sub>I+A</sub> = collection services provided to residents (confirmed)		Provide HHW collection services to residents	The County provided numerous HHW collection opportunities for 3,561 residents including a Permanent Household Hazardous Waste Collection Facility (PHHWCF), door-to-door Pick-up services for disabled and elderly residents, four one-day collection events, and three additional Permanent Household Hazardous Waste Collection Facilities available to Unincorporated-area residents. <b>Table 6.12</b> provides descriptions and collection totals for each of these, and <b>Table 6.13</b> compares waste collection totals by year.
<u>Used oil &amp; filter collection</u>					



# Jurisdictional Urban Runoff Management Plan

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**Table 6.5 – Program Implementation and Assessment Results for the Residential Element (Level 1 Outcomes)**

Outcome Level 1

FY 2011-12 Targets ⊙		Implementation Result ☑	Assessment Result ☒	Next Fiscal Year Targets ⊙	Explanation 📄
6.4.1.12	Provide pass-through grants to businesses for used oil collection and promotion (T = confirmation)	$R_{I+A}$ = Pass-through grants provided to area businesses (confirmed)		Provide pass-through grants to businesses for used oil collection and promotion	During this reporting period, the County distributed over \$24,513 in pass-through grants to area businesses for used oil collection and promotion. Grants were awarded to businesses that include local automotive supply stores, auto repair shops, high schools that teach auto repair classes and also accept oil from students, the general public, and waste haulers with curbside collection programs. Drop-off centers and curbside programs were encouraged to apply for funding. Items that have been funded through the grants include motor oil collection equipment, promotional materials, oil filter crushers, hauling/recycling expenses, permits, absorbents, safety materials, drain containers, and other incentive items. County reported the collection of 39,506 gallons of motor oil and 17,818 oil filters for recycling.
6.4.1.13	Provide curbside oil collection services to residents (T = confirmation)	$R_{I+A}$ = curbside services provided to residents (confirmed)		Provide curbside oil collection services to residents	Most unincorporated communities are serviced by two curbside oil collection providers, Waste Management, Inc. and Ramona Disposal. The County also contracts with WM Curbside Inc. to provide curbside collection to all residents of the unincorporated county. During this reporting period, curbside used oil programs in the unincorporated County reported the collection of 6,442 gallons of motor oil and 1,426 oil filters for recycling.

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**Table 6.5 – Program Implementation and Assessment Results for the Residential Element (Level 1 Outcomes)**

Outcome Level 1

FY 2011-12 Targets ⊙		Implementation Result ☑	Assessment Result ⊞	Next Fiscal Year Targets ⊙	Explanation 📄
6.4.1.14	Provide used oil collection centers for residents  (T = confirmation)		$R_{I+A} = 50$ used oil collection centers available for residents (confirmed)	Provide used oil collection centers for residents	Funded by grants from Cal Recycle, the County Recycling Program develops and financially supports used oil collection centers within its jurisdiction. There are currently 29 State certified collection centers and 21 non-certified centers within the unincorporated area. Located in auto parts stores, gas stations, auto repair shops, airports and schools, many of these centers are publicized in the Automotive Recycling Guide, through the R-1-Earth hotline, <a href="http://www.wastefreesd.org">www.wastefreesd.org</a> , and on the DPW Recycling Web site ( <a href="http://www.sdcountry.ca.gov/dpw/recycling/automotive.html">http://www.sdcountry.ca.gov/dpw/recycling/automotive.html</a> ). In FY 2011-12, the collection centers reported a total of 88,455 gallons of used motor oil recycled from at home oil changes. In addition, 27,500 used oil filters were recycled.
<u>Used tire recycling</u>		The County offers tire recycling amnesty events in various unincorporated communities through funding from competitive grants from the California Integrated Waste Management Board. These events are held in partnership with local communities and offer no-cost recycling of tires for residents and participants of community cleanup events.			
6.4.1.15	Provide no-cost opportunities for residents to recycle used tires  (T = confirmation)		$R_{I+A} = 2$ events were conducted (confirmed)	Provide no-cost opportunities for residents to recycle used tires	During FY 2011-12, the County conducted 2 tire recycling events in Alpine and Valley Center communities. The events were funded through an environmental settlement.  In addition to tire amnesty events, a Cal Recycle Tire Amnesty Grant funded 2 volunteer clean ups in the Tijuana River Valley. Details of the waste tire clean up events will be included in the WURMP annual report.

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**Table 6.5 – Program Implementation and Assessment Results for the Residential Element (Level 1 Outcomes)**

Outcome Level 1

FY 2011-12 Targets ⊙		Implementation Result ☑	Assessment Result ☒	Next Fiscal Year Targets ⊙	Explanation 📄
<u>Beverage container recycling</u>		The County receives funding from the California Department of Resources Recycling and Recovery (Cal Recycle) to encourage beverage container recycling in unincorporated communities. Funds are used to educate residents and businesses on the importance of recycling these items and provide recycling containers. Increases in the perceived value of items available for recycling has been linked to reductions in litter.			
6.4.1.16	Facilitate beverage container recycling by residents and businesses  (T = confirmation)	R <sub>I+A</sub> = a variety of facilitation activities were conducted (confirmed)		Continue to facilitate beverage container recycling by residents and businesses	<p>During this reporting period, the County completed the following activities.</p> <ul style="list-style-type: none"> <li>▪ Provided 3,903 promotional materials, including in-unit apartment recycling bags, magnets, door hangers, signs, and literature for 29 apartment and condominium complexes.</li> <li>▪ 47 recycling bins were provided to schools.</li> <li>▪ 320 bins were loaned for community events, fairs and festivals.</li> <li>▪ Offered recycling technical assistance and enforced recycling ordinance requirements provided to 381 hospitality &amp; commercial businesses in El Cajon, Spring Valley, Lakeside, Fallbrook and Ramona. 82 recycling bins and various promotional materials were provided to sites.</li> </ul>
Apartment & condominium recycling		The County offered 29 complexes assistance in implementing their recycling programs. Implementation of a program, adding promotional materials around the complex and resident education are key components of the assistance to multi-family complexes.			

# Jurisdictional Urban Runoff Management Plan

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**Table 6.5 – Program Implementation and Assessment Results for the Residential Element (Level 1 Outcomes)**

Outcome Level 1

FY 2011-12 Targets ⊙		Implementation Result ☑	Assessment Result ☒	Next Fiscal Year Targets ⊙	Explanation 📄
6.4.1.17	Provide recycling assistance to multi-family complexes in the unincorporated County  (T = confirmation)		R <sub>I+A</sub> = a variety of assistance activities were conducted (confirmed)	Provide recycling assistance to multi-family complexes in the unincorporated areas of the County	<p>During this year, assistance included site visits to 29 multi-family complexes, providing 3,903 promotional materials, including in-unit apartment recycling bags, magnets, door hangers, and literature for 29 apartment complexes. 33 bins were distributed to multifamily complexes.</p> <p>Trained staff offers assistance to the apartment/condo complexes, including information on the recycling program, management and resident trainings, and waste audits. Complexes are requested to make a formal commitment to recycling. In exchange, they receive bins, technical assistance, and recycling promotional materials. Posters, stickers, and trainings introduce the program to residents. Once property managers add recycling, door hangers announce that recycling will soon be coming to the complex. Educational presentations and/or newsletters are offered at complexes to teach residents how and where to recycle. Once recycling bins arrive, another door hanger will remind residents to recycle. At this point, residents will be given a convenient in-unit recycling container to store and carry recyclable materials to the recycling and waste enclosure. Signage is installed on the exterior of the enclosures to indicate that recyclables are required to be separated from trash. The program is evaluated for continued participation and additional presentations are offered if needed. In the event that complex managers choose not to participate, County staff has an active enforcement program to achieve ordinance compliance.</p>

# Jurisdictional Urban Runoff Management Plan Annual Report Fiscal Year 2011-12



**Table 6.5 – Program Implementation and Assessment Results for the Residential Element (Level 1 Outcomes)**

Outcome Level 1

FY 2011-12 Targets ⊙		Implementation Result ☑	Assessment Result ⊞	Next Fiscal Year Targets ⊙	Explanation 📄
☑ <b>Enforcement / return to compliance</b>					
6.4.1.18	Correct all instances of non-compliance observed during complaint investigations (T = 49 instances)	R <sub>I</sub> = 49 responsible parties returned to compliance or are on schedule to return to compliance	R <sub>A</sub> = 100% complete	Correct all instances of non-compliance observed during complaint investigations	On investigation, 49 residential stormwater-related complaints were determined to be justified (See also <b>Outcome 6.4.1.22</b> ). As shown in <b>Table 6.10</b> , 46 of 49 complaint-related instances of non-compliance were resolved during FY 2011-12. Three others are on schedule to return to compliance. A more detailed accounting of individual residential complaints is provided in <b>Attachment 6.4</b> .
<u><b>Feedback Activities</b></u>		Feedback Activities are conducted to determine whether and to what degree targeted changes are occurring in targeted staff. The implementation of feedback activities for this element is described below. Results of feedback obtained are provided in Table 6.7.			
☑ <b>Surveys &amp; tests</b>		Surveys and tests provide opportunities whether changes are occurring in the knowledge or behaviors of target populations over time. In FY 2011-12, the County conducted surveys specific to owners with pets including dogs and horses. The County's participation in the Copermittees' Regional Residential Education Program survey will be reported in the Regional report (RURMP).			
<u>Pet waste disposal knowledge / behavior</u>					

# Jurisdictional Urban Runoff Management Plan

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**Table 6.5 – Program Implementation and Assessment Results for the Residential Element (Level 1 Outcomes)**

Outcome Level 1

FY 2011-12 Targets ◎		Implementation Result ☑	Assessment Result ☒	Next Fiscal Year Targets ◎	Explanation 📄
6.4.1.19	Conduct additional surveys of pet waste practices  (T = completion)	R <sub>I+A</sub> = surveys conducted at community events (complete)		Conduct additional surveys of pet waste practices at community events	<p>During FY 2010-11, the pet waste survey was revised to provide meaningful data and inform outreach and education efforts, as well as change attitudes, knowledge, and behavior over time. The new pet waste survey instrument was designed for self-administration and could be completed by all event visitors (not exclusively for dog owners) at community events occurring throughout the County of San Diego. The survey was organized to around the following themes: knowledge, attitudes, self-reported behavior, demographics, contact information, and outreach for those willing to be contacted to provide input on outreach materials.</p> <p>During FY 2011-12, a total of 430 surveys were collected at 17 community events. A large number of surveys were completed at the Fallbrook Avocado Festival and the Agri-Fair at the San Diego County Fair. Survey results are discussed in <b>Table 6.7</b>.</p>
<u>Manure management knowledge and behavior</u>					
6.4.1.20	Conduct surveys of manure management practices  (T = completion)	R <sub>I+A</sub> = surveys conducted at two community events (complete)		Conduct additional surveys of manure management practices	<p>Horse owners previously surveyed were contacted about workshops in Spring 2011. Community Based Social Marketing (CBSM) techniques were employed to study the effectiveness of tools and strategies used in during the workshops. For FY 2011-12 CBSM Techniques were continued to be used. Summary of survey results is discussed in <b>Attachment 6.5</b>.</p>

# Jurisdictional Urban Runoff Management Plan

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**Table 6.5 – Program Implementation and Assessment Results for the Residential Element (Level 1 Outcomes)**

Outcome Level 1

FY 2011-12 Targets ⊙		Implementation Result ☑	Assessment Result ☒	Next Fiscal Year Targets ⊙	Explanation 📄
☑ <b>Complaint investigations</b>		Complaint investigations are conducted in response to reports of potential violations (e.g., through or complaints or staff referrals).			
6.4.1.21	Investigate all justified complaints (T = 49 complaints)	R <sub>I</sub> = 49 justified residential complaints investigated	R <sub>A</sub> = 100% complete	Not targeted	<p>The DPW staff addresses residential sources of stormwater pollution only on a complaint basis under the authority of <i>WPO sections 67.804, 67.806 and 67.807</i>. Although an education-first approach is preferred, DPW staff uses the following enforcement tools to affect a return to compliance: Informal enforcement, i.e., Verbal warning/Advisory Letter and Notice of Violation, and formal enforcement, i.e., Administrative Citation Warning and Administrative Citation.</p> <p>During FY 2011-12, the DPW received 252 stormwater-related complaints, of which 168 related to residential sources. Of the 168 residential complaints investigated by the DPW, 49 (29%) complaints were found to be justified. Because some residential activities may be in violation of other ordinances, such as those for grading and watercourse flow protection, DPW staff referred the remaining stormwater-related complaints to other County departments or agencies.</p> <p><b>Table 6.10</b> summarizes the County's complaint investigations by pollutant type and provides summary information on enforcement actions, including numbers of violations, types of enforcement actions taken, and compliance status. A more detailed accounting of individual residential complaints is also provided in <b>Attachment 6.4</b>.</p>

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**Table 6.6 – Detailed Information on CTN Water Quality Programming**

A. Description of FY 2011-12 Programming										
Program / PSA		Description								Airings*
Down To Earth		24-minute Project Clean Water-sponsored environmentally friendly home gardening tips.								122
How to Manage Manure		13-minute video links manure management and water quality, and tips to reduce organic matter by composting.								12
County Chronicles: Green It Up		County Chronicles discussion of litter pollution prevention featuring Watershed Protection Program staff								198
Science in Action: Compost Wattles		County Chronicles on Poway compost socks experiment								33
Beach Trash: A Whale of a Problem		County Chronicle discussing litter pollution prevention featuring Watershed Protection Program staff								47
									Total	412
* includes CTN and YouTube.										
B. Programming Totals by Fiscal Year										
Fiscal Year	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
No. Programs	8	8	12	12	4	4	2	5	5	5
No. Airings	305	1,252	1,631	1,483	699	304	89	1,293	1,285	412



# Jurisdictional Urban Runoff Management Plan Annual Report Fiscal Year 2011-12



**Table 6.7- Assessment of Behavior in the General Residential Population (Level 3 Outcomes)**

**Outcome Level 3**

FY 2011-12 Targets ⊙		Implementation Result ☑	Assessment Result ⊞	Next Fiscal Year Targets ⊙
☑ <b>Informational requests and pollution reporting</b>		<p>Tracking residential use of hotlines and website provides a general indication of whether people are engaging in targeted behaviors. As shown, County hotlines and websites received more than 35,000 calls and visits during FY 2011-12. Almost all calls received were informational; that is, less than 1% were to report complaints.</p> <p><b>Table 6.8</b> and <b>Table 6.11</b> provide multi-year use statistics for the Regional Stormwater Hotline, the R-1-EARTH hotline, and the Project Clean Water website.</p>		
<u>Calls to the regional stormwater hotline</u>		252 Regional Stormwater Hotline calls were received in FY 2011-12. 7 of these, or 3%, were general inquiries or requests for stormwater information. The remaining 245 calls were handled as residential or business stormwater-related complaints, referred to other County departments, or referred to other agencies or municipalities.		
6.4.1.22	Not targeted	R <sub>1</sub> = 252 Regional Stormwater Hotline calls received	Not assessed	Not targeted
<u>Visits to the Project Clean Water website</u>		<p>A substantial number of Project Clean Water website visits (35,299) were recorded in FY 2011-12, similar to FY 2008-09 (33,420). The total accumulated website visits is 146,787 through FY 2011-12.</p> <p><b>Table 6.8</b> and <b>Table 6.11</b> provide multi-year use statistics for the Regional Stormwater Hotline, the R-1-EARTH hotline, and the Project Clean Water website.</p>		
6.4.1.23	Not targeted	R <sub>1</sub> = 35,299 website visits recorded	Not assessed	Not targeted

# Jurisdictional Urban Runoff Management Plan

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**Table 6.7- Assessment of Behavior in the General Residential Population (Level 3 Outcomes)**

**Outcome Level 3**

FY 2011-12 Targets ⊙		Implementation Result ☑	Assessment Result ⊞	Next Fiscal Year Targets ⊙
<u>Calls to the R-1-EARTH hotline and visits to the online database</u>		During FY 2011-12 the R-1-EARTH hotline received 4,366 calls and the online database received 897 inquiries for a total of 5,263 inquiries for general recycling and specific HHW disposal information. Of the requests, 55.8% were pertaining to hazardous waste and 16.7% were regarding appliances and electronics. Attendants also referred residents with urban runoff questions to the Regional Stormwater Hotline.		
6.4.1.24	Not targeted	R <sub>I</sub> = 4,366 calls and 897 online inquiries received	Not assessed	Not targeted
☑ <b>Public participation &amp; involvement</b>		Public participation is crucial to the effective implementation of the County's General Residential Element. In addition to the measures described below, all of the recycling and waste collection activities described under BMP Implementation are direct indicators of public participation.		
<u>Participation in HHW collection activities</u>		Because a major focus of outreach activities is to encourage residents to call bring in their wastes, rates of participation provides a general indication of whether people are engaging in these targeted behaviors. The current target of 4,400 participants in HHW collection events was established in FY 2004-05 as the average of the three previous reporting periods. See <b>Table 6.12</b> for more detailed information on participation in HHW collection activities.		
6.4.1.25	4,400 residents participate in HHW collection activities (T = 4,400 residents)	R <sub>I</sub> = 3,546 residents participated in HHW collection activities	R <sub>I+A</sub> = 80.6% complete	4,400 residents participate in HHW collection activities

## Jurisdictional Urban Runoff Management Plan Annual Report Fiscal Year 2011-12

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**Table 6.7- Assessment of Behavior in the General Residential Population (Level 3 Outcomes)**

**Outcome Level 3**

<b>FY 2011-12 Targets</b> ©	<b>Implementation Result</b> ☑	<b>Assessment Result</b> ☒	<b>Next Fiscal Year Targets</b> ©
<u>Participation in used oil collection activities</u>		The County places a high priority in properly managing used oil generated by residents. Residents are provided convenient drop-off locations and curbside services, and these services are high promoted through outreach events and publications. Efforts include all collection centers; curbside used oil collection from all unincorporated areas, the Used Oil Permanent HHW Collection Center, and temporary collection events. The County does not target or track numbers of participants; however, waste collection totals are provided in <b>Table 6.14</b> .	
☑ <b>BMP implementation</b>			

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**Table 6.7- Assessment of Behavior in the General Residential Population (Level 3 Outcomes)**

**Outcome Level 3**

FY 2011-12 Targets ◎	Implementation Result ☑	Assessment Result ☒	Next Fiscal Year Targets ◎
<u>Proper disposal of pet waste</u>	<p>A total of 430 pet waste surveys were collected at 17 community events throughout the county. The survey instrument, described in Section 6.4.1.19, assesses self-reported behavior by dog owners regarding pet waste management.</p> <p>Dog owners were asked the following :</p> <ul style="list-style-type: none"><li>▪ In general, where does your dog usually go poop? Options include: enclosed yard, while on walks, open space on my property, indoors (paper trained), open space near my property, and other. Multiple responses were allowed.</li><li>▪ How often is dog waste on your property cleaned up? Options include: daily, several times a week, once a week, every other week, monthly, a few times a year, once a year, never, or other. Multiple responses were allowed.</li><li>▪ Which of the following methods do you use to manage dog waste on your property? Options include: leave to decompose, place in trash can, hose into street, bury it, toss over fence, move it to a landscaped area, compost it, flush down the toilet, and other. Multiple responses were allowed.</li><li>▪ If there is ever a time when you leave the pet waste on your property longer than a week, what is the primary reason why? (Open-ended)</li></ul> <p>Of the 430 pet waste surveys collected, 271 (63%) said they owned a dog, with the average number of dogs owned being 1.62 per respondent, ranging from one to eight dogs. Over half of the respondents (60%) said that their dogs poop in an enclosed yard, followed by 23% who reported that their dogs poop on walks. Over three-fourths (83%) of respondents said they pick up once a week or more often, which includes 43% who reported that they pick it up daily. Disposal methods reported include over three-fourths (79%) of respondents reported that they place it in the trash can. Two hundred thirteen people responded to barriers to picking up pet was on property longer than a week, almost half (46%), the largest percentage of people reported that they never leave dog waste on their property longer than a week. The next largest portion (16%) said that they would leave pet waste longer than a week if they were away from home or on vacation.</p> <p>See <b>Attachment 6.3</b> for more detailed survey results.</p>		

# Jurisdictional Urban Runoff Management Plan Annual Report Fiscal Year 2011-12

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**Table 6.7- Assessment of Behavior in the General Residential Population (Level 3 Outcomes)**

**Outcome Level 3**

FY 2011-12 Targets ©		Implementation Result ☑	Assessment Result ☒	Next Fiscal Year Targets ©
6.4.1.26	T = 100% of surveyed dog owners use proper pet waste disposal practices (271 surveyed dog owners)	R <sub>I</sub> = 79% of respondents indicate they dispose of their pets' waste in the trash	R <sub>A</sub> = 79% success	T = 100% of surveyed dog owners use proper pet waste disposal practices
6.4.1.27	Not targeted	R <sub>I</sub> = 84% of respondents indicate they pick up pet waste on their property once a week or more	Not assessed	Not targeted

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**Table 6.8 – Multi-year Comparison of Residential Hotline Call Volume (FY 2002-03 to Present)**

Hotline	Calls by Fiscal Year									
	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Regional Stormwater Complaint Hotline	347	307	234	194	182	240	355	405	357	252
1-800-R-1-EARTH (Recycling and HHW)	4,239	5,050	5,607	5,491	6,841	11,628	4,650	4,622	4,576	5,263

**Table 6.9– Multi-year Comparison of Residential Complaint Volume (FY 2002-03 to Present)**

Fiscal Year									
2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
347	307	234	194	182	240	168	277	261	252

Note: The numbers in Table 6.9 for FY 2002-03 through 2007-08 indicate stormwater-related calls only because tracking the total volume of calls did not begin until FY 2008-09.

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**Table 6.10 – FY 2010-11 Justified Residential Complaint Summary Statistics**

Pollutant Type								Enforcement Actions												Compliance Status	
Sediment	Manure	Sewage	Trash/Debris	Auto Fluids	Aqueous	Paints, Solvents, Chemicals	Other	Verbal Warnings	Notices of Violation	Citation Warnings	Admin. Citations	Criminal Citations	Pending	Advisory	Corrective Action Form	Referral	Re-Inspection	Stop Work/ Cease & Desist	N/A	Returned to Compliance	On a schedule to return to compliance
8	4	3	9	6	8	6	5	13	8	3	0	0	0	5	0	11	1	0	8	46	3

**Table 6.11 – Multi-year Comparison of Project Clean Water Website Activity (FY 2002-03 to Present)**

	Fiscal Year									
	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
No. Visits	44,906	50,127	57,327	65,777	93,638	47,547	80,967	111,488	67,871	35,299
Av. Visits per Day	123.0	137.9	157.1	180.2	256.5	130.3	221.8	305.4	186	97

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**Table 6.12 - Household Hazardous Waste Program Descriptions & Collection Totals**

Facility	Date / Time of Operation	Description	Residents	Pounds Collected
A. County-operated HHW Services				
1. Permanent Household Hazardous Waste Collection Facility (PHHWCF)				
Ramona	Two Saturdays per month by appointment 9 a.m. – 1 p.m.	Standard collection of household hazardous, electronic and universal waste from unincorporated residents only.	1,052	106,683
All Unincorporated	2nd and 4th Wednesday of each month	Door-to-Door Pick-up services for disabled and elderly residents who have limited access to permanent facilities and one-day events.	111	8,037
2. Special One-Day Collection Events				
1. Fallbrook	1/7/12	One-day HHW collection events in underserved areas.	711	43,573
2. Valley Center	3/10/12		546	67,638
3. Lakeside	6/16/12		389	52,312
3. Household Battery & Sharps Program				
1. 15 County Library Branches	Entire fiscal year	Drop off locations for residentially generated batteries	Unknown	10,192
2. Residential Sharp Kiosks at 8 County locations	Entire fiscal year	Drop off kiosks for residential generated sharps	Unknown	1,493
Sub-Total County Services			2,809	289,928
B. Additional Permanent Household Hazardous Waste Collection Facilities available to Unincorporated-area residents				
El Cajon	Two Saturdays per month by appointment 9 a.m. - 3 p.m.	Available for use by residents of the unincorporated County via use and cost agreements with the host cities. (* Quantity estimates based on percentage of unincorporated use of facility.)	621	64,697
Chula Vista	Every Saturday 9 a.m. - 3 p.m.		116	13,675
Sub-Total Additional Services			737	78,372
Total			3,546	368,300



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**Table 6.13 – Multi-year Comparison of HHW Collection Totals**

Waste Stream	FY 2006-07 (3,672 residents)		FY 2007-08 (7,674 residents)		FY 2008-09 (4,896 residents)		FY 2009-10 (4,896 residents)		FY 2010-11 (3,561 residents)		FY 2011-12 (3,546 residents)	
	Pounds	% of Total	Pounds	% of Total	Pounds	% of Total	Pounds	% of Total	Pounds	% of Total	Pounds	% of Total
Auto Fluids	27,490	5.7	60,112	8.1	28,575	5.6	15,496	4.9	21,101	4.9	19,744	5.4
Asbestos	525	0.1	207	0.1	598	0.1	52	0.0	600	0.1	1,452	0.4
Household Cleaners	22,144	4.6	33,119	4.5	24,536	4.8	15,662	5.0	19,035	4.4	20,612	5.6
Latex Paints	112,376	23.3	129,487	17.4	126,577	24.7	67,416	21.4	127,957	29.7	89,909	24.4
Yard and Garden Products	24,553	5.1	26,182	3.5	19,164	3.7	9,137	2.9	24,470	5.7	23,734	6.4
Auto Batteries	19,177	4.0	34,135	4.6	12,998	2.5	3,930	1.3	3,346	0.8	2,671	0.7
Oil Based Paints & Materials	119,018	24.7	169,867	22.8	101,200	19.7	52,214	16.6	112,406	26.1	103,850	28.2
Oil Filters	681	0.1	1,838	0.3	1,025	0.2	497	0.2	1,004	0.2	876	0.2
Other	25,883	5.4	239,836	32.2	147,508	28.7	15,197	37.1	27,827	6.6	20,453	5.6
Electronic Waste	80,764	16.8	12,205	1.6	23,137	4.5	116,535	5.8	82,933	19.2	71,856	19.5
U –Electronic Waste	49,476	10.3	37,364	5.0	27,802	5.4	18,213	4.8	10,074	2.3	13,143	3.6
<b>Totals</b>	<b>482,087</b>	<b>100</b>	<b>744,353</b>	<b>100</b>	<b>513,120</b>	<b>100</b>	<b>314,349</b>	<b>100</b>	<b>430,753</b>	<b>100</b>	<b>368,300</b>	<b>100</b>

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**Table 6.14 – Multi-year Comparison of Used Oil Recycling Totals<sup>1</sup>**

Used Oil Collection Center Recycling	FY 2006-07		FY 2007-08		FY 2008-09		FY 2009-10		FY 2010-11		FY 2011-12	
	Gallons	Centers	Gallons	Centers	Gallons	Centers	Gallons	Centers	Gallons	Centers	Gallons	Centers
Grant Funded Used Oil Collection Centers	45,395	15	43,403	19	48,211	23	56,880	20	48,211	19	39,506	21
Non-grant Funded Used Oil Collection Centers	32,570	23	44,657	23	45,858	27	48,411	25	45,858	27	48,948	31
<b>Totals</b>	<b>77,965</b>	<b>38</b>	<b>88,060</b>	<b>42</b>	<b>94,069</b>	<b>50</b>	<b>105,291</b>	<b>45</b>	<b>94,069</b>	<b>46</b>	<b>88,454</b>	<b>52</b>

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**Table 6.15 – Source Reductions from the General Residential Population (Level 4 Outcomes)**

**Outcome Level 4**

Reductions Achieved ☑		Explanation ☑
☑ Reductions from HHW collection		
6.4.1.27	R <sub>1</sub> = 3,683 pounds of HHW diverted from the MS4	<p>An estimated 368,300 pounds of household hazardous waste was diverted from the County's MS4 through the activities described above (See <b>Table 6.5 Outcome 6.4.1.11, Outcome 6.4.1.21, Table 6.12, and Table 6.13</b>). This was calculated as follows:</p> <p><math>(368,300 \text{ pounds of total waste collected}) \times (1\%) = 3,683 \text{ pounds}</math></p> <p>For these calculations, it was assumed that 1% of the total waste stream would have been illegally disposed to the MS4 in the absence of these program activities. Of the waste streams collected, the largest amounts were in the paint-related* (52.6%) and electronic waste (19.5%) categories. *Includes latex and oil based combined.</p>
☑ Reductions from oil recycling		
6.4.1.28	R <sub>1</sub> = 8,845 gallons of used oil diverted from the MS4	<p>An estimated 88,454 gallons of used oil was diverted from the County's MS4 through the activities described above (See <b>Table 6.5 Outcomes 6.4.1.12 through 6.4.1.14, and Table 6.14</b>). This was calculated as follows:</p> <p><math>(88,454 \text{ gallons of used oil}) \times (10\%) = 8,845 \text{ gallons}</math></p> <p>For these calculations, it was assumed that 10% of the total waste stream would have been illegally disposed to the MS4 in the absence of these program activities.</p>

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### 6.5 Program Review and Modification

In accordance with *Permit Section I.1.b*, the County has reviewed the results of its JURMP effectiveness assessment and other relevant information to identify modifications needed to maximize JURMP effectiveness and achieve compliance with *Permit Section A*. **Table 6.16** identifies planned modifications and improvements to the Residential JURMP Component and ancillary program documents, and estimated schedule for their completion.

**Table 6.16 – Planned Modifications to the Residential Component**

Target Date	JURMP Section(s)	Planned Modification(s)
<b>A. JURMP Modifications</b>		
		No modifications identified.
<b>B. Ancillary Program Documentation</b>		
No modifications identified.		