

**SECTION C-8**

**CONSTRUCTION**

**PROGRAM EFFECTIVENESS ASSESSMENT  
2009-10**





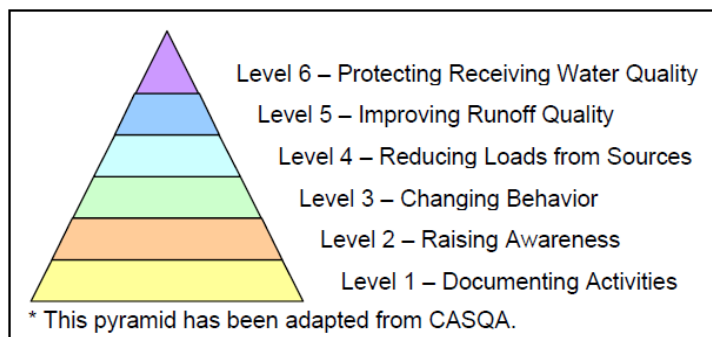
## SECTION C-8, Construction

### C-8.0 CONSTRUCTION

#### C-8.1 Introduction (LIP Section A-8.1)

The County has incorporated the model construction program described in DAMP **Section 8.4** as the basis for this section of its Local Implementation Plan. This construction program presents requirements and guidelines for pollution prevention methods that must be used by construction project owners, developers, contractors, and other responsible parties, in order to protect receiving waters from discharges resulting from construction activities.

As described in detail in **Section C-2.5** of this PEA, the County utilizes the California Stormwater Quality Association (CASQA) method of effectiveness assessment in order to demonstrate if program elements, activities, BMPs, etc., are resulting in desired outcomes. CASQA identifies six Outcome Levels (See pyramid below) and for each measure the County reports, the associated Outcome Level (more than one level may apply) is indicated by a colored triangle with a number.



#### C-8.1.1 Overall Construction Program Management

Within **Section A-8.0** of the LIP, the County has identified which County Departments are responsible for the implementation of this stormwater program element.

#### C-8.2 Inventory of Construction Projects (LIP Section A-8.2)

The County updates on an ongoing basis, a watershed-based inventory of construction projects within the County's jurisdiction. A summary of the County's current (as of October 1<sup>st</sup>, 2010) construction inventory included as **Exhibit A-8.I** of the LIP, is provided below.



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**Jurisdictional Summary of Construction Projects**

Construction Project Category	Total Number of Construction Projects (As of October 1 <sup>st</sup> of each year)			
	2010	2009	2008	2007
Private Projects - Santa Ana Region	665	637	804	939
Private Projects - San Diego Region	276	202	223	378
Public Projects - Santa Ana Region	21	32	30	22
Public Projects - San Diego Region	6	8	8	15
<b>Total for all Categories</b>	<b>968</b>	<b>879</b>	<b>1065</b>	<b>1354</b>

**Summaries of Construction Projects by Watershed  
San Diego Region**

Watershed	Laguna Coastal Streams	Aliso Creek	Dana Point Coastal Streams	San Juan Creek	San Clemente Coastal Streams	San Mateo Creek
Private Projects	32	17	1	217	9	0
Public Projects	1	0	0	5	0	0
<b>Totals</b>	<b>33</b>	<b>17</b>	<b>1</b>	<b>222</b>	<b>9</b>	<b>0</b>

**Summaries of Construction Projects by Watershed  
Santa Ana Region**

Watershed	San Gabriel River/Coyote Creek	Anaheim Bay/Huntington Harbor	Santa Ana River	Newport Bay	Newport Coastal Streams	Multiple Watersheds
Private Projects	118	51	104	269	125	0
Public Projects	4	1	5	8	0	1
<b>Totals</b>	<b>122</b>	<b>52</b>	<b>109</b>	<b>277</b>	<b>125</b>	<b>1</b>



**C-8.3 Prioritization of Construction Projects (LIP Section A-8.3)**

The County has prioritized construction projects within its jurisdiction according to the requirements in the Fourth Term MS4 Permits for Orange County. The Fourth Term San Diego Region MS4 Permit no longer requires a High, Medium, Low, prioritization scheme so the County has adjusted its prioritization accordingly. Prioritizations are updated on an ongoing basis along with the inventory (**Exhibit A-8.I** of LIP). Summaries of the prioritizations are provided in the following tables:

**Summary of Construction Projects Prioritization (as of Oct. 1<sup>st</sup>, 2010)**

Construction Projects Prioritization	Private Projects		Public Projects	
	Santa Ana Region	San Diego Region	Santa Ana Region	San Diego Region
Projects subject to General Construction Permit	18	6	8	3
Projects tributary to and within 500 feet of an ASBS	0	0	0	0
Projects tributary to 303(d) waterbody impaired for sediment or turbidity	271	0	5	0
Projects within, directly adjacent to or discharging directly to an ESA	0	32	0	2
Number of high priority projects (SAR) or projects requiring biweekly inspections during the wet season (SDR)	9	37	3	1
Number of medium priority projects (SAR) or projects requiring monthly inspections during the wet season (SDR)	4	12	4	3
Number of low priority projects (SAR) or projects requiring inspections as needed (SDR)	653	226	12	3

**C-8.4 BMP Fact Sheets for Construction Projects (LIP Section A-8.4)**

BMP fact sheets have been developed and are included as a part of the Construction Program. The fact sheets include a description of specific BMPs for common construction activities that may discharge pollutants and provide a focus on the pollution prevention measures that should be implemented. The Construction BMP fact sheets are from the 2009 edition of the *California Stormwater Quality Association Stormwater Best Management Practice Handbook-Construction* and are included as **Exhibit A-8.II** of the County's LIP. The County purchased a subscription to the CASQA BMP handbook web portal to allow access to these updated construction BMP fact sheets as well as other helpful resources.



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**C-8.5 Documentation Requirements (LIP Section A-8.5)**

The County is required to document and report to the Regional Board, construction projects which fail to comply with the Statewide General Construction Permit or represent a significant threat to human or environmental health.

C-8.5.1 Private Construction Projects

The County made no notifications to the Regional Board regarding private projects during the reporting period.

C-8.5.2 Public Agency Construction Projects

The County made no notifications to the Regional Board regarding public projects during the reporting period.

**C-8.6 Municipal Inspection Requirements of Construction Projects and Reporting Requirements (LIP Section A-8.6)**

The County has inspected construction projects at the frequency determined by the priority ranking assigned to each facility as identified in the LIP. The inspections generally include a review of BMP implementation through the erosion control practices, sediment control practices, tracking controls, waste and disposal management practices on a project and look for visual evidence of past or present unauthorized non-stormwater discharges.

The County inspects construction projects at the frequency stated in **Table A-8.4 and A-8.5** of the LIP and detailed below.

Santa Ana Region Inspection Frequency of Construction Sites (Table A-8.4 of LIP)					
Priority	Criteria (only one need apply)		Inspection Frequency		
			Wet Season (Oct. - Apr.)	Dry Season (May - Sep.)	
High	All sites 20 acres and larger	Sites over 1 acre tributary to Clean Water Act Section 303(d) waters listed for sediment or turbidity impairments.	Sites tributary to and within 500 feet of an Area of Special Biological Significance (ASBS).	Monthly	Conduct at a frequency to ensure that sediment and other pollutants are properly controlled and that unauthorized, non-stormwater discharges are prevented.
Medium	All sites between 5 to 20 acres where none of the other above criteria apply.		Twice during wet season		
Low	All sites less than 5 acres where none of the other above criteria apply.		Once during wet season		



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San Diego Region Inspection Frequency of Construction Sites (Table A-8.5 of LIP)				
Criteria (only one need apply)			Inspection Frequency	
			Wet Season (Oct. - Apr.)	Dry Season (May - Sep.)
All sites 30 acres or more in size with rough grading or active slopes occurring during wet season.	All sites one acre or more, and tributary to a CWA section 303(d) water body segment impaired for sediment or within or directly adjacent to, or discharging directly to, the ocean or a receiving water within an ESA.	Other sites determined by the Copermittees or the Regional Board as a significant threat to water quality.	Biweekly (Once every two weeks)	As needed during the dry season. Sites that meet any of the criteria for biweekly inspections during the wet season must be inspected at least once in August or September each year.
All sites one acre or larger where none of the above criteria apply.			Monthly	
All sites less than one acre where none of the above criteria apply.			As needed to ensure compliance with ordinances and MS4 Permit.	

In addition, if there is evidence of non-compliance, the County re-inspects the project once a month at a minimum in order to ensure that the site is brought back into compliance. After it is in compliance the project is inspected a minimum of once every four months for the next calendar year (assuming it is still active).

The number of inspections completed during the current reporting year is presented in the following tables:

2009-10 Summary of Construction Projects Inspection



Facility Category	Number of Inspections During the Reporting Period		
	High	Medium	Low
Private Projects	1,064		
Public Projects	9	78	57
<b>Total</b>	<b>1,208</b>		

The number of non-compliant projects identified during these inspections is presented below along with information on follow-up inspections and enforcement actions conducted.



## 2009-10 Summary of Construction Projects Compliance

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Reporting Period	Number of Inspections	Number of Private Construction Projects Out of Compliance	Number of Public Construction Projects Out of Compliance	% Out of Compliance
2009-10	1,208	171	0	14%
2008-09	1,378	225	6	17%
2007-08	1,730	220	4	13%
2006-07	1,915	226	5	12%
2005-06	2,666	151	7	6%
2004-05	3,553	640	2	18%
2003-04	5,267	368	2	7%

Inspection information is updated on an ongoing basis in a database format. The inspection related information includes, at a minimum, inspection dates, inspectors present and the results of the inspection. The updated inspection database is included as **Attachment C-8.1** of this report.

#### *Enforcement*

The County's Construction Inspectors and Stormwater Program Authorized Inspectors undertake enforcement activities according to the County's ordinances and the accompanying Enforcement Consistency Guide (**DAMP Section 4.0**). The enforcement mechanisms available are summarized in this section and detailed in the County's LIP.

Enforcement may be handled administratively or in more serious instances, may be prepared for prosecution. As provided for in the Enforcement Consistency Guide, when selecting enforcement options, the County's Inspectors ensure that violations of a similar nature are subjected to similar types of enforcement remedies. More severe enforcement options may be selected when a violator has either a history of noncompliance or has failed to take good faith actions to eliminate continuing violations or to meet a previously imposed compliance schedule.

The following table provides a summary of the numbers and types of enforcement actions against construction projects that have been taken by the County during the reporting period:



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2009-10 Summary of Private Construction Projects Enforcement



Enforcement Options				Criminal Remedies
# of Verbal Warnings	# of Correct Work Notices (Written Notice to Correct Work)	# of Administrative Compliance Orders	# of Stop Work Orders	Misdemeanor, Infraction
2	171	0	0	0

2009-10 Summary of Public Construction Projects Enforcement



Enforcement Options				
# of Verbal Warnings	# of Correct Work Notices (Written Notice to Correct Work)	# of Administrative Compliance Orders	# of Stop Work Orders	Enforcement of Contract
8	0	0	0	0





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**C-8.7 Training and Outreach (LIP Section A-8.7)**



The County conducted and/or participated in multiple trainings to assist responsible municipal staff in understanding the Construction Program. The training attended during the 2009-10 reporting period is summarized in the following tables:

**2009-10 Summary of Training**

County Department	Training	Date	Attendees
OC Public Works (OC Inspection, OC Planning, Operations & Maintenance, , OC Watersheds) OC Parks OC Dana Point Harbor	Pre-Wet Season Training with Santa Ana Regional Board (County sponsored training)	September 29, 2009	50
	Pre-Wet Season Training with San Diego Regional Board (County sponsored training)	September 30, 2009	39
OC Public Works (Flood, OC Inspection, OC Planning, Operations & Maintenance, OC Watersheds) OC Parks	Planning for Post-Fire Remediation (Training provided by Mike Harding and associates)	October 16, 2009	20
OC Public Works (Flood, OC Inspection, OC Planning, Operations & Maintenance, OC Watersheds) OC Parks	2009 Construction General Permit (CGP) Training (County sponsored training)	March 16, 2010	10
OC Public Works (OC Planning & OC Inspection)	Construction BMP/Erosion Sediment Control Plan Training for Plan Reviewers, Plan Checkers, & Inspectors	June 14, 2010 (Classroom)	60
		June 16, 2010 (Field)	
<b>Totals</b>			<b>169</b>

As noted in the table above, a two day training involving both classroom learning and a field visit to an active construction site was conducted in June of 2010 with 60 County staff. The training was aimed at plan review/plan check staff responsible for reviewing erosion & sediment control plans (ESCP), but building and grading inspectors were also included. The classroom session involved breaking up into groups to prepare an ESCP and the field visit to the active construction project was an opportunity to see construction BMPs installed and functioning as part of an effective ESCP.

Other training opportunities that County staff attended include the following:



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- 1. **Title of Workshop or Training:** 24 Hour SWPPP Training  
**Dates Attended:** Sept. 4-9, Nov. 4-6, and Dec. 2-4, 2009. Jan. 6-8 and April 7-9, 2010  
**Training Conducted By:** Global Environmental Network, Inc.

Name	Department
Mike Nguyen - Sept. 2009	OC Public Works/OC Inspection
Hunter Smith - Dec. 2009	
Carlos Lopez - Jan. 2010	
Safi Popal - April 2010	
Chuck Stanfield - April 2010	

**C-8.8 Statewide Construction General Permit**

On September 2, 2009, the State Water Resources Control Board adopted Order No. 2009-0009-DWQ (Construction General Permit). The effective date of this new “CGP” was July 1, 2010. The County has several steps to prepare for the impact this permit will have on both capital improvement as well as private projects, including holding training specifically on this permit on March 16, 2010. Additionally, contract specification language has been updated to reflect the requirements of the new CGP.

The County’s Stormwater Program Manager, Grant Sharp, has obtained CGP Trainer of Record status and has the ability to provide qualified SWPPP developer (QSD) and qualified SWPPP practitioner (QSP) training to County staff (this training is a prerequisite to taking the QSD/QSP exam).

**C-8.9 Construction Program Modifications**

As the last step in the effectiveness assessment process, the County has evaluated the outcomes for this program element to determine if any modifications are necessary. Based on the County’s evaluation, the program is achieving most of the desired Outcome Levels and the framework is solid. The data management system employed by the County to track permitted construction projects (Automated Permitting & Planning System, or APPS) continues to undergo evaluation and retooling to improve the ability of the County to manage this element of its stormwater program.