

SECTION C-8

CONSTRUCTION

PROGRAM EFFECTIVENESS ASSESSMENT  
2011-12





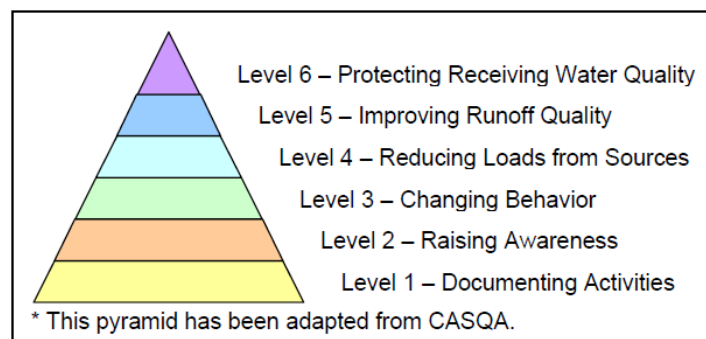
## SECTION C-8, Construction

### 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 **Section A-8.0** of its LIP. 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 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>, 2011) construction inventory, included as **Exhibit A-8.I** of the LIP, is provided below.



### Jurisdictional Summary of Construction Projects

Construction Project Category	Total Number of Construction Projects (As of October 1 <sup>st</sup> of each year)				
	2012	2011	2010	2009	2008
Private Projects - Santa Ana Region	712	547	665	637	804
Private Projects - San Diego Region	254	207	276	202	223
Public Projects - Santa Ana Region	20	24	21	32	30
Public Projects - San Diego Region	4	3	6	8	8
<b>Total for all Categories</b>	<b>990</b>	<b>781</b>	<b>968</b>	<b>2888</b>	<b>3073</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	41	3	3	207	0	0
Public Projects	1	0	0	3	0	0
<b>Totals</b>	<b>42</b>	<b>3</b>	<b>3</b>	<b>210</b>	<b>0</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	207	42	102	231	130	0
Public Projects	1	5	8	5	0	1
<b>Totals</b>	<b>208</b>	<b>47</b>	<b>110</b>	<b>236</b>	<b>130</b>	<b>1</b>



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**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 Permits. The Fourth Term Permit in the San Diego Region 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 table:

**Summary of Construction Projects Prioritization (as of Oct. 1<sup>st</sup>, 2012)**

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	107	13	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	231	0	5	0
Projects within, directly adjacent to or discharging directly to an ESA	0	44	0	0
Number of high priority projects (SAR) or projects requiring biweekly inspections during the wet season (SDR)	16	49	4	0
Number of medium priority projects (SAR) or projects requiring monthly inspections during the wet season (SDR)	10	9	2	3
Number of low priority projects (SAR) or projects requiring inspections as needed (SDR)	686	196	14	1

**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.

<b>Santa Ana Region Inspection Frequency of Construction Sites (Table A-8.4 of LIP)</b>					
<b>Priority</b>	<b>Criteria (only one need apply)</b>			<b>Inspection Frequency</b>	
				<b>Wet Season (Oct. - Apr.)</b>	<b>Dry Season (May - Sep.)</b>
<b>High</b>	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.
<b>Medium</b>	All sites between 5 to 20 acres where none of the other above criteria apply.			Twice during wet season	
<b>Low</b>	All sites less than 5 acres where none of the other above criteria apply.			Once during wet season	



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<b>San Diego Region Inspection Frequency of Construction Sites (Table A-8.5 of LIP)</b>				
<b>Criteria (only one need apply)</b>			<b>Inspection Frequency</b>	
			<b>Wet Season (Oct. - Apr.)</b>	<b>Dry Season (May - Sep.)</b>
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 with a building/grading permit or a public project construction contract, 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:

**2011-12 Summary of Construction Projects Inspection**



<b>Facility Category</b>	<b>Number of Inspections During the Reporting Period</b>		
	<b>High</b>	<b>Medium</b>	<b>Low</b>
<b>Private Projects</b>	1,186		
<b>Public Projects</b>	52	111	102
<b>Total</b>	<b>1,451</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.



## 2011-12 Summary of Construction Projects Compliance

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Reporting Period	Number of Inspections (Private and Public)	Number of Private Construction Project Inspections Out of Compliance Resulting in Corrective Action	% Private Inspections Out of Compliance	Number of Public Construction Projects Out of Compliance Once or More
2011-12	1,451	242	16.5%	6
2010-11	2,000	178	9%	10
2009-10	1,208	171	14%	0
2008-09	1,378	225	16%	6
2007-08	1,730	220	13%	4
2006-07	1,915	226	12%	5
2005-06	2,666	151	6%	7
2004-05	3,553	640	18%	2
2003-04	5,267	368	7%	2

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.



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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:

2011-12 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
89	242	0	0	0

2011-12 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
25	8	0	0	0

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 2011-12 reporting period is summarized in the following tables:

[As noted in the table, County staff were able to attend three separate Qualified SWPPP Developer (QSD)/Qualified SWPPP Practitioner (QSP) training opportunities offered during the reporting period. This training is required by the 2009 Statewide Construction General Permit (CGP), prior to taking the exam to become a QSD or QSP.]





**2011-12 Summary of Training**

County Department	Training	Date(s)	Attendees
OC Public Works – OC Inspection – OC Planning – OC Operations & Maintenance – OC Watersheds OC Community Resources – OC Parks OC Dana Point Harbor	Pre-Wet Season Training with San Diego Regional Board (County sponsored training)	September 29, 2011	38
	Pre-Wet Season Training with Santa Ana Regional Board (County sponsored training)	October 6, 2011	34
OC Public Works – OC Inspection – OC Planning – OC Watersheds	Watershed & Stormwater Management Series on Stormwater Retrofitting and Numeric Limits	July 13, 2011, February 28, and April 18, 2012	9
OC Public Works – OC Flood – OC Road – OC Inspection – OC Planning – OC Operations & Maintenance – OC Watersheds OC Community Resources – OC Parks OC Dana Point Harbor John Wayne Airport	Qualified SWPPP Developer (QSD)/Qualified SWPPP Practitioner (QSD) Training	May 24, 29, and June 5, 2012	79
<b>Totals</b>			<b>160</b>

Other training opportunities that County staff attended include the following:

**Title of Workshop or Training:** CISEC – Certifications in Erosion and Sediment Control

**Dates Attended:** October and November, 2011

**Training Conducted By:** CISEC, Inc. and CPESC, Inc.

Name	Department
Scott Priegel- Inspector S&EC	OC Public Works/OC Inspection
Safi Popal- Professional E&SC	



### **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 was July 1, 2010. Amending Order No. 2010-0014-DWQ became effective on February 14, 2011. The County has taken progressive steps to prepare for the impact of this permit and its ongoing amendments on both capital improvement as well as private projects, including conducting training and drafting new contract specification language which reflects the requirements of the CGP. Training on the 2012 Amendments was performed in the May and June, 2012 sessions.

As noted in the training table in **Section C-8.7**, 160 County staff attended QSD/QSP training during the 2011-12 reporting period. Project managers, engineers, designers, plan checkers, Stormwater staff, and inspectors were all encouraged to attend the training to increase their understanding of the CGP. For County projects one acre and larger, this training has resulted in improved contract bid language being developed, as well as improved overall project management. For private projects, the training provided to plan check staff and building/grading inspectors has helped them understand what is expected for projects subject to the CGP.

The County's Stormwater Program Manager, Grant Sharp, has obtained CGP Trainer of Record status and has the ability to provide the QSD/QSP training to County staff.

### **C-8.9 Construction Program Modifications**

The County has modified this program element to implement the CGP requirements during this reporting period. The County has also evaluated this program element to determine if any other 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.