

SECTION C-8

CONSTRUCTION

**PROGRAM EFFECTIVENESS ASSESSMENT
2013-14**





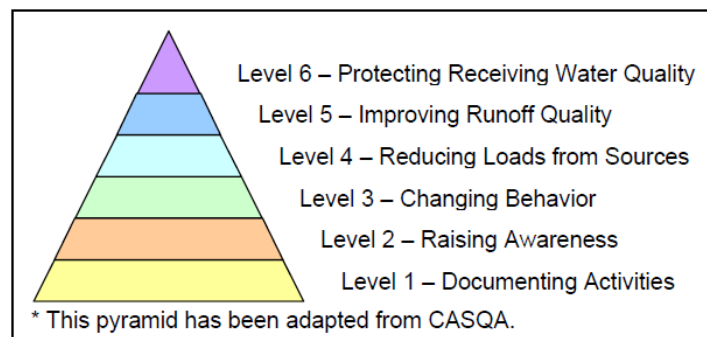
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C-8.0 CONSTRUCTION

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 reported in **Section C-8**, 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 1st, 2014) and prior year 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					
	2014	2013	2012	2011	2010	2009
Private Projects - Santa Ana Region	794	454	712	547	665	637
Private Projects - San Diego Region	288	242	254	207	276	202
Public Projects - Santa Ana Region	21	13	20	24	21	32
Public Projects - San Diego Region	5	3	4	3	6	8
Total for all Categories	1,008	712	990	781	968	2,888

**Summaries of 2014 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	40	0	1	247	0	0
Public Projects	0	0	0	4	1	0
Totals	40	0	1	251	1	0

**Summaries of 2014 Construction Projects by Watershed
Santa Ana Region**

Watershed	San Gabriel River/Coyote Creek	Anaheim Bay/Huntington Harbour	Santa Ana River	Newport Bay	Newport Coastal Streams	Multiple Watersheds
Private Projects	217	104	96	218	159	0
Public Projects	5	7	3	6	0	0
Totals	222	111	99	224	159	0



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

The County has prioritized construction projects within the Santa Ana Regional Board area of its jurisdiction according to the requirements in the Fourth Term Permits. The Fourth Term Permit in the San Diego Region does not require a High, Medium, Low prioritization scheme. 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. 1st, 2014)

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	26	15	20	4
Projects tributary to and within 500 feet of an ASBS	0	0	0	0
Projects over 1-acre tributary to 303(d) waterbody impaired for sediment or turbidity	3	0	6	0
Projects one acre or more within, directly adjacent to or discharging directly to an ESA	0	0	0	0
Number of high priority projects (SAR) or projects requiring biweekly inspections during the wet season (SDR)	5	4	7	1
Number of medium priority projects (SAR) or projects requiring monthly inspections during the wet season (SDR)	13	10	9	2
Number of low priority projects (SAR) or projects requiring inspections as needed (SDR)	776	274	5	2

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 has a subscription to the



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CASQA BMP handbook web portal to allow access to updated construction BMP fact sheets as well as other helpful resources.

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 or the schedule in the San Diego Regional Board Fourth Term Permit. 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 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.



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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 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	

San Diego Region Inspection Frequency of Construction Sites (Table A-8.5 of LIP)				
Criteria (only one applies)			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; OR	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; OR	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:



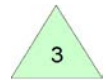
2013-14 Summary of Construction Project Inspections



Facility Category	Number of Inspections During the Reporting Period		
	High	Medium	Low
Private Projects	1,351		
Santa Ana Region Public Projects	37	68	31
San Diego Region Public Projects	21		
Total	1,508		

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

2013-14 Summary of Construction Projects Compliance



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
2013-14	1,508	12	<1%	32
2012-13	890	173	19%	3
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



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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. There was a notable decrease in the number of corrective actions issued for private construction projects during this reporting year (12) compared with 2012-13 (173) and 2011-12 (242). It is believed that this is related to increased contractor awareness of stormwater BMP measures and the associated fines that could occur due to noncompliance.

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:

2013-14 Summary of Construction Projects Enforcement

Type of Project	# of Verbal Warnings	# of Correct Work Notices (Written Notice to Correct Work)	# of Administrative Compliance Orders	# of Stop Work Orders	Misdemeanor, Infraction (Criminal Remedies)
Private	2	10	0	0	0
Public	28	4	0	0	N/A



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



The County conducted and/or participated in training to assist responsible municipal staff in understanding the construction program. The training attended during the 2013-14 reporting period is summarized in the following table:

Type of Training	Date(s)	County Department	Attendees	Location
Pre-Wet Season Construction Training - San Diego Region	September 24, 2013	Various County Agencies(provided by RBF Consulting)	34	City of Mission Viejo - Council Chambers
Pre-Wet Season Construction Training - Santa Ana Region	September 25, 2013	Various County Agencies(provided by RBF Consulting)	28	City of Cypress - Council Chambers

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 implement 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. As noted in the training table above, 62 County staff attended pre-wet-season construction training during the 2013-14 reporting period. Project managers, engineers, designers, plan checkers, stormwater staff, and inspectors were encouraged to attend.

C-8.9 Construction Program Modifications

On October 3, 2013, the County of Orange, Orange County Flood Control District and Santa Ana Region Permittees submitted the Report of Waste Discharge (ROWD) to both the US EPA and Santa Ana Regional Water Quality Control Board pursuant to the requirements of Section XXIII of Order No. R8-2009-0030 NPDES No. CAS618030. On May 20, 2014, the County of Orange, Orange County Flood Control District and San Diego Region Permittees submitted the Report of Waste Discharge (ROWD) to both the US EPA and San Diego Regional Water Quality Control Board pursuant to the requirements of Section K.2.b of Order No. R9-2009-0002 NPDES No. CAS0108740. Both the Santa Ana and San Diego ROWDs presented specific recommendations for the continuation and future development of the Orange County Stormwater Program based upon a consideration of the effectiveness of the Program and need for additional pollutant control initiatives.



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The following recommendations from the ROWDs relate to construction:

1. **Reduce the frequency of inspection for high priority sites** from monthly (bi-weekly in SDR) to twice during the wet season and reduce the frequency of inspection for medium priority sites from twice (monthly in SDR) to once during the wet season.
2. **Pilot a GIS and internet-based database to track construction sites.** In order to provide easier tracking of construction sites on a countywide basis, the Permittees will collectively develop a GIS and internet-based database where information regarding each construction site can be entered. The Permittees would examine the benefits of such a database by piloting implementation with a select number of cities.
3. **Conduct pilot field-testing of personal electronic devices to document inspections onsite.** Use of tablets or other electronic devices during inspections would allow inspectors to immediately upload construction site information to a GIS-based database. The Permittees would pilot the use of these technologies with a select number of cities.
4. **Conduct QSD/QSP Training.** The QSD/QSP Training developed by the State Board and CASQA provides a detailed understanding of the Construction General Permit. The Permittees proposed providing this training to municipal staff every other year to ensure that inspectors and other municipal staff understand the CGP requirements that are to be implemented for construction projects in their jurisdiction. It is anticipated that, with potential changes to the CGP being adopted in 2014-15, municipal staff would be trained in these changes and any new or modified requirements for CGP compliance.