

C-7.0 NEW DEVELOPMENT/SIGNIFICANT REDEVELOPMENT

C-7.1 Introduction

One of the most important responsibilities of local government is to provide a decision making and approval processing framework for new development and re-development. This framework ensures that development occurs in an orderly and organized fashion in a manner that reflects the vision and needs of the community, assesses the environmental issues associated with development, and provides a regulatory framework to ensure that standards set by the jurisdiction are implemented. Since the inception of the Orange County Stormwater Program, it has been recognized that the incorporation of BMPs into a development project in its planning stages offers a significant opportunity to limit increases in pollutant loads. This area of the program links new development BMP design, construction and operation to the earlier phases of new development project planning encompassed by the jurisdictional General Plans environmental review and development permit approval processes.

C-7.2 Program Development

C-7.2.1 First and Second Permit Terms

In 1993, the New Development/Construction Task Force, comprised of representatives from the Principal Permittee, Building Industry Association (BIA), Association of General Contractors (AGC) and Civil Engineers & Land Surveyors of California (CELSOC), completed a report that provided the basis for requiring the incorporation of structural and non-structural Best Management Practices (BMPs) into new development and significant redevelopment during the First and Second Term Permits. The report, entitled "Best Management Practices For New Development Including Nonresidential Construction Projects (1-5 acres)" (**DAMP Appendix G**), involved additional contributions on specific BMPs from the Western States Petroleum Association (WSPA), Food Sanitation Advisory Council (FSAC), and Orange County's sanitary districts. This report presented a flexible program for new development and significant redevelopment that allowed a strong focus to be placed on constituents of concern identified through the monitoring program and water quality planning process.

In 1997, the Permittees certified that they were implementing Appendix G. From 1997 until 2002, the Permittees and development industry gained considerable experience in implementing over a thousand Water Quality Management Plans (WQMPs) countywide.

C-7.2.2 Third Permit Term

In early 2001, the TAC and the Permittees re-established the Task Force. The goal of the Task Force was to guide the creation of an updated new development/significant redevelopment program that would provide the Permittees with:

- A program framework for reducing the adverse impacts that new developments

- may have on water quality;
- An iterative process by which they can effectively monitor and respond to problems as they are discovered; and
- Methodologies to meet NPDES Third Term Permit requirements.

A Model Water Quality Management Plan (see **DAMP Section 7 Exhibit 7.II**) was completed as the basis of the updated program and was submitted to both regional boards during the 2002-03 reporting period. It is based on the following objectives:

- Support implementation of policies and practices that minimize the impacts of new development/significant redevelopment activities on the region's receiving waters and other environmentally sensitive areas;
- Assist Permittees in maintaining compliance with the requirements of the Third Term Permits and other applicable environmental laws and regulations;
- Provide Permittees with model guidelines for developing and implementing stormwater management requirements for development/significant redevelopment projects; and
- Establish and maintain a feasible balance between the region's development/significant redevelopment needs and the protection of its environmental resources.

For the area of Orange County within the San Diego Regional Water Quality Control Board jurisdiction of Orange County (area south of El Toro Rd.), each municipality was required by the permit to develop a Local WQMP, based on the Model WQMP, to oversee new development and significant redevelopment within their local jurisdiction. These Local WQMPs were finalized for implementation on August 13, 2003.

For the area of Orange County within the Santa Ana Regional Water Quality Control Board jurisdiction of Orange County (area north of El Toro Rd.), the Model WQMP (**DAMP Exhibit 7.II**) explains the requirements placed upon all new development and significant redevelopment projects. The Model WQMP underwent a lengthy public review process and was approved for implementation by the Executive Officer of the Santa Ana Regional Water Quality Control Board on September 30, 2003.

C-7.3 Program Implementation

During the reporting period, 551 WQMPs were processed for 3,227 acres of development compared to 461 WQMPs processed for 1,595 acres of development in 2003-04, 391 WQMPs processed for 2,836 acres of development in 2002-03, 308 WQMPs processed for 3,773 acres of development in 2001-02 and 1,100 WQMPs processed for 3,773 acres of development from 1997 through 2000 (**Table C-7.1**).

Headline Indicator – Number of WQMPs processed and the area (acreage) to which BMPs have been applied: Since the implementation of the program in 1997, a total of 3,193 WQMPs have been approved, covering 27,287 acres which represents approximately 6% of the area within Orange County subject to the Third Term Permits.

During the reporting period, the structural controls (**Table C-7.2**) used most often were:

- Common area efficient irrigation systems (374);
- Storm drain Stenciling (242); and
- Trash Storage Area (241).

During the reporting period, the non-structural controls (**Table C-7.3**) used most often were:

- Employee Training (583);
- Common area litter control (451);
- Education (412);
- BMP Maintenance (411); and
- Activity Restrictions (371).

Treatment control BMPs that have been implemented include catch basin screens, catch basin filters, and stormwater treatment units (hydro-dynamic separators).

During the reporting period, a total of 5,061 BMPs were implemented compared to 2,201 BMPs implemented in 2003-04 and 2,389 BMPs implemented in 2002-03.

Headline Indicator – Number of BMPs Implemented: A total of 5,061 BMPs were implemented in the 2004-05 reporting period. This total represents a 129% increase from the total number of BMPs implemented in 2003-04 and a 112% increase from the total number of BMPs implemented in 2002-03.

C-7.4 Program Training and Outreach

To assist responsible municipal staff in understanding the New Development/Significant Redevelopment Program two training modules were developed.

The two training modules are 1) *New Development/Significant Program Management and 2) Project Planning and Design: Environmental Review, Planning and Permitting and WQMP Development.*

New Development/Significant Program Management (DAMP Appendix B Exhibit B-7.I)

This training module generally targets stormwater program managers, managers of municipal planning and building departments and managers of public works infrastructure projects staff. This training provides an overview of the Stormwater Program as it pertains to a Permittee's General Plan, the preparation and review of environmental documents, conditions of approval for projects, the preparation and

review of Project Water Quality Management Plans (WQMPs) for private development and public agency projects, plan check and permit closeout.

No training sessions for this module were conducted during the 2004-05 reporting period.

Project Planning and Design: Environmental Review, Planning and Permitting and WQMP Development (DAMP Appendix B Exhibit B-7.II)

This training generally targets planners, plan checkers, developers and engineers. The training reviews: general WQMP requirements; BMP selection process; BMP design criteria and sizing; and detailed BMP design.

On June 29, 2005, a presentation regarding Stormwater BMP effectiveness and applicability in Orange County was presented to one hundred and twenty three (123) participants representing twenty six (28) Permittees, other public agencies, and the private sector.

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Table C-7.1: Historical WQMPs and Acreage Covered

Permittee	1997-2000		2000-01		2001-02		2002-03		2003-04		2004-05	
	# of WQMPs Approved	Acreage Covered by WQMP	# of WQMPs Approved	Acreage Covered by WQMP	# of WQMPs Approved	Acreage Covered by WQMP	# of WQMPs Approved	Acreage Covered by WQMP	# of WQMPs Approved	Acreage Covered by WQMP	# of WQMPs Approved	Acreage Covered by WQMP
Aliso Viejo	0	0	0	0	3	92	1	23	3	NA	8	60
Anaheim	51	0	17	60	23	73	38	100	16	41	33	67
Brea	10	0	8	59	2	38	2	NA	5	NA	6	58
Buena Park	4	6	7	12	4	97	14	NA	8	NA	3	18
Costa Mesa	44	215	24	53	16	29	27	93	10	3	157	38
Cypress	4	25	13	55	8	20	11	14	22	NA	8	76
Dana Point	5	32	1	19	4	56	NA	NA	6	NA	1	121
Fountain Valley	6	34	2	10	1	8	5	37	2	NA	5	9
Fullerton	7	465	6	486	11	207	18	145	23	65	10	NA
Garden Grove	40	88	11	29	15	35	28	NA	21	NA	18	42
Huntington Beach	55	391	17	55	27	133	19	133	16	104	20	110
Irvine	161	2,526	117	1,972	61	1,639	87	NA	120	NA	100	485
La Habra	33	0	5	18	10	48	7	NA	0	0	2	1
La Palma	0	0	0	0	0	0	0	0	0	0	2	3
Laguna Beach	1	20	0	0	1	20	0	NA	11	NA	12	22
Laguna Hills	1	1	1	1	1	4	2	NA	6	NA	8	9
Laguna Niguel	5	112	3	153	3	27	2	NA	3	NA	1	21
Laguna Woods	0	0	0	0	0	0	NA	NA	4	NA	3	21
Lake Forest	39	263	25	152	9	101	16	40	7	26	4	8
Los Alamitos	3	5	2	3	0	0	0	0	4	NA	NA	NA
Mission Viejo	90	390	11	40	5	10	8	236	10	246	5	10
Newport Beach	8	0	0	0	0	0	NA	NA	18	NA	15	25
Orange	6	580	4	288	7	20	3	11	14	116	10	58
Placentia	5	50	0	0	0	0	0	NA	0	0	2	3
Rancho Santa Margarita	0	0	6	33	3	33	0	0	4	NA	4	4
San Clemente	22	944	13	455	9	131	10	277	22	146	4	329
San Juan Capistrano	12	113	13	64	3	30	8	85	10	NA	9	102
Santa Ana	66	340	19	82	19	42	19	61	23	NA	12	28
Seal Beach	1	157	0	0	3	34	0	0	2	NA	1	NA
Stanton	0	0	2	1	6	3	NA	NA	6	NA	7	3
Tustin	10	173	7	108	7	5	3	1	9	105	4	5
Villa Park	0	0	0	0	0	0	0	0	0	0	0	0
Westminster	23	68	7	27	3	3	8	8	15	17	13	10
Yorba Linda	4	1	4	418	7	174	6	145	14	234	20	187
County of Orange	384	3,662	37	544	37	661	49	1,426	27	491	44	1,294
TOTALS	1,100	10,661	382	5,196	308	3,773	391	2,836	461	1,595	551	3,227

NA = Not Available

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Table C-7.2: Structural Source Control BMPs Implemented 2004-05 Reporting Period

PERMITTEE	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	S17	S18	S19	S20
Aliso Viejo	8	3	7	6	4	2	1	1	1	1	0	1	3	0	2	0	2	0	4	3
Anaheim	16	2	21	27	1	1	0	0	0	0	3	1	5	0	10	1	2	1	14	2
Brea	4	0	1	6	1	1	0	0	0	0	0	0	0	0	0	3	0	0	0	1
Buena Park	2	0	3	3	0	1	0	1	0	0	0	0	1	0	0	0	0	0	2	0
Costa Mesa	0	6	38	38	0	0	0	7	0	0	0	0	0	3	0	0	0	0	0	0
Cypress	9	1	5	9	0	2	0	1	0	0	0	0	0	0	0	1	0	0	2	0
Dana Point	1	0	1	1	1	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1
Fountain Valley	6	0	6	6	0	6	0	0	0	0	0	0	0	0	0	6	6	0	0	3
Fullerton	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Garden Grove	8	3	11	10	0	1	0	0	0	0	0	0	1	0	0	0	0	0	5	0
Huntington Beach	14	2	11	18	1	4	1	2	0	2	1	0	4	0	2	0	7	0	0	2
Irvine	44	3	28	95	0	3	0	0	0	0	3	0	5	0	2	0	0	0	5	3
La Habra	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
La Palma	1	1	1	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0
Laguna Beach	5	0	7	16	1	0	0	0	0	0	0	8	0	0	0	0	2	0	0	0
Laguna Hills	0	0	2	6	2	0	0	6	0	2	0	2	0	0	0	0	0	0	0	0
Laguna Niguel	1	0	1	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0
Laguna Woods	2	1	2	3	1	0	0	1	0	1	1	1	0	0	1	1	1	0	1	0
Lake Forest	4	1	4	4	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0
Los Alamitos	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mission Viejo	4	0	4	5	2	0	1	1	0	1	0	2	0	0	1	0	0	0	3	0
Newport Beach	50	25	25	25	5	0	0	3	0	2	2	5	45	3	0	0	0	0	3	0
Orange	6	2	7	8	3	1	0	0	0	1	0	1	0	0	0	0	0	0	0	5

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Table C-7.2: Structural Source Control BMPs Implemented 2004-05 Reporting Period (continued)

PERMITTEE	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	S17	S18	S19	S20
Placentia	2	0	2	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
Rancho Santa Margarita	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
San Clemente	3	3	2	4	3	3	0	0	1	0	0	2	0	0	0	2	1	2	2	0
S.J. Capistrano	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Ana	6	0	3	10	0	0	0	1	0	0	0	0	1	1	7	1	2	0	8	0
Seal Beach	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Stanton	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tustin	4	1	4	4	0	1	0	0	0	0	0	0	1	0	0	0	0	0	5	0
Villa Park	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Westminster	2	2	8	10	3	1	0	1	0	1	0	0	2	0	0	0	3	0	13	0
Yorba Linda	12	3	11	16	11	5	0	0	0	0	0	6	0	0	16	0	0	1	21	1
County of Orange	17	5	25	38	26	1	0	0	0	0	0	0	15	3	4	2	0	1	2	3
Total 2002-03	96	53	96	129	11	11	5	9	2	8	9	6	20	8	4	1	66	10	NA	NA
Total 2003-04	128	25	110	158	45	25	8	10	7	9	8	27	24	2	14	10	64	9	NA	NA
Total 2004-05	242	64	241	374	67	35	3	25	2	12	11	31	85	10	46	17	26	5	96	24

S1 = Stormdrain Stenciling
 S2 = Outdoor Storage
 S3 = Trash Storage Area
 S4 = Efficient Irrigation Systems
 S5 = Protect Slopes & Channels
 S6 = Loading Dock Areas
 S7 = Maintenance Bays
 S8 = Vehicle Wash Areas
 S9 = Outdoor Process Areas
 S10 = Equipment Wash Areas

S11 = Fueling Areas
 S12 = Hillside Landscaping
 S13 = Wash Water Controls
 S14 = Comm. Carwash Racks
 S15 = Biofiltration
 S16 = Detention Basins
 S17 = Infiltration Basins
 S18 = Wet Ponds or Wetlands
 S19 = Filtration
 S20 = Hydrodynamics Separation Systems

NA - Not Available

SECTION C7, NEW DEVELOPMENT

Table C-7.3: Non-Structural Source Control BMPs Implemented 2004-05 Reporting Period

PERMITTEE	N1	N2	N3	N4	N5	N6	N7	N8	N9	N10	N11	N12	N13	N14	N15	N16	N17
Aliso Viejo	8	7	8	7	3	2	5	0	1	6	8	6	4	8	5	DEL	0
Anaheim	33	24	28	33	6	3	10	4	7	8	27	24	4	20	26	DEL	2
Brea	6	6	6	6	3	0	4	0	2	2	6	6	1	4	6	DEL	0
Buena Park	2	3	3	3	2	0	2	0	1	1	3	3	1	2	3	DEL	0
Costa Mesa	38	38	34	38	0	0	0	0	0	0	38	15	0	38	38	DEL	0
Cypress	11	13	9	9	2	0	1	0	0	2	11	8	4	10	10	DEL	0
Dana Point	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	DEL	0
Fountain Valley	6	6	6	6	0	0	0	0	0	0	6	6	6	6	6	DEL	0
Fullerton	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	DEL	NA
Garden Grove	13	13	13	11	1	1	1	2	2	10	10	11	4	8	9	DEL	2
Huntington Beach	19	14	20	20	6	3	9	1	5	8	18	18	8	18	18	DEL	0
Irvine	92	95	90	92	13	5	15	4	11	17	95	35	10	62	56	DEL	5
La Habra	1	2	1	2	1	0	1	0	1	1	2	2	1	1	1	DEL	0
La Palma	2	1	1	1	1	1	1	0	0	0	1	1	1	1	1	DEL	0
Laguna Beach	19	17	16	19	0	1	2	0	1	0	14	1	0	14	4	DEL	0
Laguna Hills	8	6	6	8	0	0	0	0	0	0	8	4	0	6	6	DEL	0
Laguna Niguel	1	1	1	1	0	0	1	0	0	0	1	1	0	1	1	DEL	0
Laguna Woods	3	0	3	3	0	0	1	1	0	1	3	3	0	2	0	DEL	0
Lake Forest	4	4	4	4	2	0	2	0	2	3	4	4	1	4	4	DEL	0
Los Alamitos	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	DEL	NA
Mission Viejo	5	4	5	5	1	1	3	0	0	1	5	5	1	4	5	DEL	0
Newport Beach	25	25	50	25	5	25	5	0	0	0	100	356	5	5	2	DEL	10
Orange	9	8	8	9	1	0	2	0	1	2	8	9	2	8	7	DEL	0

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Table C-7.3: Non-Structural Source Control BMPs Implemented 2004-05 Reporting Period (continued)

PERMITTEE	N1	N2	N3	N4	N5	N6	N7	N8	N9	N10	N11	N12	N13	N14	N15	N16	N17
Placentia	2	2	2	2	0	0	0	0	0	2	2	2	0	2	2	DEL	0
Rancho Santa Margarita	3	4	3	4	0	0	0	0	1	0	3	4	1	3	3	DEL	0
San Clemente	4	3	4	4	3	0	3	0	2	4	4	4	2	4	4	DEL	0
San Juan Capistrano	11	11	10	11	1	0	0	0	0	0	7	11	1	11	11	DEL	0
Santa Ana	9	8	9	11	1	1	1	1	0	2	8	7	1	8	9	DEL	0
Seal Beach	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	DEL	NA
Stanton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	DEL	0
Tustin	4	4	4	4	0	0	0	0	0	1	4	4	1	4	4	DEL	0
Villa Park	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	DEL	0
Westminster	13	9	7	13	1	0	0	0	0	2	10	3	2	9	5	DEL	0
Yorba Linda	17	16	16	18	4	0	7	0	4	7	14	10	1	13	11	DEL	0
County of Orange	43	26	35	41	6	1	7	0	4	11	30	19	1	29	24	DEL	0
2002-03 Total	192	180	185	196	69	31	72	16	59	77	185	166	47	181	177	9	3
2003-04 Total	164	150	152	168	47	16	65	10	43	61	157	142	31	147	155	4	6
2004-05 Total	412	371	403	411	64	44	84	13	46	92	451	583	64	306	282	DEL	19

N1 = Education POA
N2 = Activity Restrictions
N3 = Common Area Landscape Mgmt.
N4 = BMP Maintenance
N5 = Title 22 CCR Compliance
N6 = Local Industrial Permit Compliance
N7 = Spill Contingency Plan
N8 = Underground Storage Tank Compliance
N9 = Hazardous Materials Disclosure Compliance

N10 = Uniform Fire Code Implementation
N11 = Common Area Litter Control
N12 = Employee Training
N13 = Housekeeping of Loading Docks
N14 = Common Area Catch Basin Inspection
N15 = Street Sweeping
N16 = Commercial Vehicle Washing (BMP ON HOLD)
N17 = Retail Gasoline Outlets

NA = Not available
DEL = Deleted