

SECTION A-7

NEW DEVELOPMENT/REDEVELOPMENT COMPONENT



FOR THE COUNTY OF ORANGE  
AND  
THE ORANGE COUNTY FLOOD CONTROL DISTRICT



## A-7.0 NEW DEVELOPMENT/REDEVELOPMENT

### A-7.1 Introduction

One of the most important responsibilities of the County is to provide a decision making and approval processing framework for new development and redevelopment that occurs within the County's boundaries. This framework ensures that both development and redevelopment occur in an organized and orderly fashion that reflects the vision and needs of the community assesses the environmental issues associated with the proposed changes and provides a regulatory framework to ensure that standards set by the County are implemented.

The Fourth Term MS4 Permits required the County and other Permittees to initiate a comprehensive assessment of their planning and development processes with the intent of providing a greater focus on the protection of water bodies and a more rigorous application of BMPs in development and significant redevelopment projects. The County, as the Principal Permittee, coordinates the development of a model program to guide compliance with these requirements (see **DAMP, Section 7**). With the adoption of a Fifth Term San Diego Region MS4 Permit (Order No. R9-2013-0001, NPDES No. CAS0109266, as amended by order Nos. R9-2015-0001 and R9-2015-0100) and the pending adoption of a Fifth Term Santa Ana Region MS4 Permit a new model program is currently under development to meet new permit requirements. Until this new program is developed and accepted by the Regional Boards (implementation expected by fall 2017) the current Fourth Term MS4 Permit model program remains in effect.

The Fourth Term MS4 Permit model program links BMP design, construction and operation to the earlier phases of project planning encompassed by the County's General Plan, environmental review process and development permit approval processes. The General Plan specifies policies that guide new development. The environmental review process examines impacts from proposed new development /significant redevelopment with respect to the General Plan policies and many environmental issues, including water quality, and includes consideration of mitigation measures to reduce any identified significant impacts.

The development permit approval process carries forward mitigation requirements in the form of conditions of approval, design specifications, tracking, inspection and enforcement actions. These three "front-end" planning processes must be coordinated and linked to the later phases of BMP design, construction and operation for new development/significant redevelopment to help ensure water quality protection features are planned, designed and evaluated in accordance with goals for the protection of water quality and other environmental resources.

The County has used this model program in forming the new development/significant redevelopment plan contained within this section of the LIP. Subsequent sections describe:

- The organization structure for new development/redevelopment in the County;
- The assessment of the County's General Plan and the need for amendment;



- The assessment of the County's CEQA environmental review process;
- The assessment of the County's development project review, approval and permitting process;
- The County's requirement for Water Quality Management Plan (WQMP) preparation;
- The County's program for post construction BMP inspection and verification;
- Education and training programs; and,
- Program assessment.

This section of the County's LIP in conjunction with the following model documents and guidelines were updated to meet the requirements of the Fourth Term MS4 Permits of Orange County concurrent with the implementation of the Model Water Quality Management Plan (Santa Ana Region) and Local Water Quality Management Plan (San Diego Region):

- **DAMP, Section 7, Exhibit 7.II**
  - Model Water Quality Management Plan (Santa Ana Regional Board Area only);
  - Model Water Quality Management Plan for South Orange County (San Diego Regional Board Area only);
- **DAMP Section 7, Exhibit 7.III**
  - Technical Guidance Document for the Preparation of Conceptual/Preliminary and/or Project Water Quality Management Plans; and
- Guidance for Using the Technical Guidance Document in South Orange County (San Diego Regional Board Area only)

These documents and guidelines can be found on the County's website at:

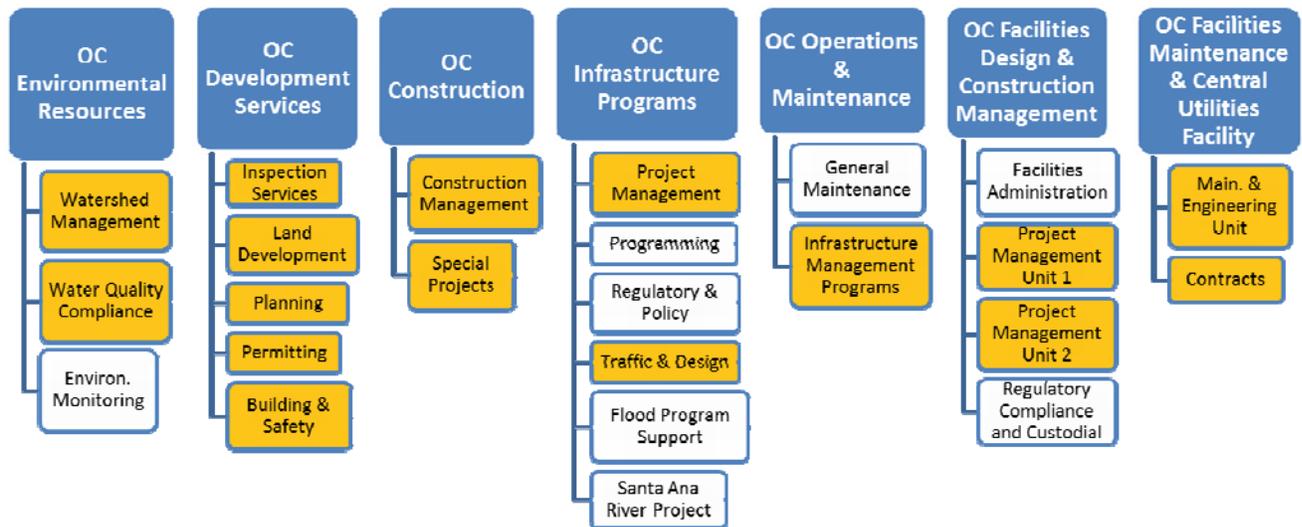
<http://ocwatersheds.com/documents/wqmp/>



## A-7.2 Organization Structure

The County's internal implementation of the Stormwater Program/LIP and related 2003 DAMP programs is managed by OC Environmental Resources, a service area within OC Public Works. The key OC Public Works divisions responsible for overseeing, implementing, and enforcing the new development/significant redevelopment program are highlighted in **Figure A-7.1**.

**Figure A-7.1 New Development/Significant Redevelopment Program Management Organization Chart**



The contact information below describes the County's key divisions in each of the various departments with responsibility for new development and redevelopment. The contact provided has the primary responsibility and oversight for ensuring that the program has been implemented. Additional information is provided under Program Management (**Section A-2**).

### OC Environmental Resources

Address: 2301 N. Glassell Street, Orange, CA 92865, Tel (714) 955-0600

NPDES and MS4 Program Contact - Manager, Water Quality Compliance

OC Environmental Resources responsibilities for new development and redevelopment include:

- Development of countywide program guidance documents and training
- Annual post construction BMP verification of private projects and County agency projects that do not self-verify
- Coordination of internal County agencies and divisions and annual reporting



### **OC Development Services**

Address: 300 N. Flower Street, Santa Ana, CA 92703, Tel (714) 667-8800

General Plan Contact – Manager, Planning

CEQA Review Contact – Manager, Planning

Inspection Contact – Manager, Inspection Services

OC Development Services responsibilities for new development and redevelopment include:

- Implementing the policies and objectives of the County set forth in the General Plan and Zoning Ordinance
- Reviewing proposed developments for consistency with the County’s standards and policies relating to land use and preservation of the environment
- Overseeing building construction in unincorporated areas of the County for compliance with adopted codes, and that permitting systems are efficient and serve the needs of the public, as well as the County.

### **OC Construction**

Address: 1143 E. Fruit St., Santa Ana, CA 92701, Tel (714) 667-8800

CIP Construction Projects - Manager, Construction Management

Job Order Contracting (JOC) and Special Projects – Manager, Special Projects

OC Construction responsibilities for new development and redevelopment include:

- County horizontal project post construction BMP verification prior to intended use

### **OC Infrastructure Programs and OC Facilities Design & Construction Management**

Address: 300 N. Flower Street, Santa Ana, CA 92703, Tel (714) 667-8800

County Vertical (Building) Projects – Manager, OC Facilities Design & Construction Management

County Horizontal Projects - Manager, OC Infrastructure Programs

OC Infrastructure Programs and OC Facilities Design & Construction Management responsibilities for new development and redevelopment include:



- Administration of County public improvement projects and ensuring construction in the public right-of-way complies with adopted codes and engineering standards.
- Administration of County building improvement projects and ensuring construction complies with adopted codes and engineering standards.

### **OC Operations & Maintenance**

Address: 2301 N. Glassell Street, Orange, CA 92865, Tel (714) 955-0200

Maintenance of County Horizontal Projects – Manager, Infrastructure Management Programs

OC Operations & Maintenance responsibilities for new development and redevelopment include:

- Maintenance of County horizontal project post construction BMPs
- Annual post construction BMP verification at County horizontal projects

### **OC Facilities Maintenance & Central Utility Facility**

Address: 300 N. Flower Street, Santa Ana, CA 92703, Tel (714) 667-8800

Maintenance of County Vertical (Building) Projects – Manager, Maintenance and Engineering Unit and the Manger, Contracts

OC Facilities Maintenance & Central Utility Facility responsibilities for new development and redevelopment include:

- Maintenance of County vertical project post construction BMPs

### **A-7.3 General Plan Assessment and Amendment**

The County is required by the Santa Ana Region and San Diego Region Fourth Term MS4 Permits to minimize short and long-term impacts on receiving water quality from new development and significant redevelopment to the maximum extent practicable. The permits require at a minimum that the County's General Plan be reviewed and updated, as necessary, to ensure watershed and stormwater quality and quantity management are considered as specified in Section XII of the Santa Ana Region Fourth Term MS4 Permit and Section F.1 of the San Diego Region Fourth Term MS4 Permit.

To meet these Fourth Term MS4 Permit requirements, the County has undertaken the following actions:

#### **1. Review of County's General Plan**



The General Plan was reviewed during the FY 2012-13 reporting period to ensure that new requirements contained in the Fourth Term permits are adequately addressed. It was determined that a comprehensive update is needed and revisions should be made to several existing elements including Land Use, Resources and Transportation. A General Plan Amendment was completed and adopted by the Orange County Board of Supervisors on December 10, 2013 to incorporate principles of watershed protection and Low Impact Development (LID) into the County's General Plan.

#### **A-7.4 CEQA Environmental Review Process**

The County is required by the Santa Ana Region and San Diego Region Permits to minimize short and long-term impacts on receiving water quality from new development and redevelopment to the maximum extent practicable. The San Diego Region Fourth Term MS4 Permit (Section F.1.b) requires the County to "revise as needed its current environmental review processes to accurately evaluate water quality impacts and cumulative impacts and identify appropriate measures to avoid, minimize and mitigate those impacts for all development projects." The last update to the County's environmental review process was completed in October 2014 with the adoption of a Local CEQA Procedures Manual by the County Board of Supervisors. The purpose of the manual is to serve as a guide for County staff to provide awareness of internal County procedures to comply with CEQA and the CEQA Guidelines.

##### A-7.4.1 Environmental Information Form

The current Environmental Information Form contained in Appendix H of the CEQA Guidelines (State of California Office of Planning and Research, 2014) contains questions about the potential environmental effects of the project and requires the submittal of specific information about the project design. The County has developed a discretionary approval application package to ensure submittal of all of this fundamental information.

##### A-7.4.2. Initial Study Checklist

The current Initial Study Checklist contained in Appendix G of the 2014 CEQA Guidelines and in the County's Local Manual,) has been updated and is used by the County in its environmental review process. This Checklist contains the following considerations under the environmental impact category "Hydrology and Water Quality" (State Section IX, County Section 9) with respect to whether the project would:

- a) Violate any water quality standards or waste discharge requirements?
- b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted.



- c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?
- d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site
- e) Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?
- f) Otherwise substantially degrade water quality?
- g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?
- h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?
- i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?
- j) Inundation by seiche, tsunami, or mudflow?

The County has also added the following question to the “Hazards and Hazardous Materials” (Section 8) checklist:

- Would the project include new or retrofitted stormwater treatment control Best Management Practice (BMP), (e.g. water quality treatment basin, constructed treatment wetlands), the operation of which could result in significant environmental effects (e.g. increased vectors and odors)?

To support awareness of the Fourth Term MS4 Permit considerations described earlier, the County takes the following additional actions:

- Provide the CEQA Initial Study Checklist and training to staff regarding its use in preparing and reviewing CEQA documents for internal County projects and when reviewing CEQA documents prepared by the private sector.
- Distribute the CEQA Initial Study Checklist to consultants and other members of the private sector for use in preparing CEQA documents for private and public sector projects.
- Provide the CEQA Initial Study Checklist to project applicants during the CEQA preliminary review process.

#### A-7.4.3 Guidance for Preparing and Reviewing CEQA Initial Studies and Environmental Impact Reports (EIRs)

The guidance provided in the **DAMP, Section 7, Exhibit 7.I** is considered by the County in evaluating the CEQA Initial Study checklist questions in Section IV, Hydrology and Water Quality (Appendix G of the CEQA Guidelines, State of California Office of Planning and



Research, 2014). This guidance is also considered during the review and preparation of CEQA documents including negative declarations, mitigated negative declarations and environmental impact reports.

## **A-7.5 Development Project Review, Approval and Permitting**

### A-7.5.1 Project Review, Approval, and Permitting Process Overview

During project review, approval, and permitting, the County shall require new development and significant redevelopment projects to address the quality and quantity of stormwater runoff through the incorporation of permanent (post construction) BMPs in project design. The County shall require project-specific Water Quality Management Plans (WQMPs) for all private and public projects that:

- Qualify as one of the Priority Project Categories listed in **Figure A-7.2**
- Do not qualify as one of the Priority Project Categories but meet one of the following criteria:
  - Require discretionary action that includes a precise plan of development, except for those projects specified by the County's Water Quality Ordinance
  - Require issuance of a non-residential plumbing permit, where a non residential plumbing permit is defined as a plumbing permit authorizing the construction and installation of facilities for the conveyance of liquids other than stormwater, potable water, reclaimed water or domestic sewage (see Water Quality Ordinance Section A-4).

The WQMP contains all the information specified for the Standard Urban Stormwater Mitigation Plan (SSMP) in the San Diego Region Fourth Term MS4 Permit and should for purposes of compliance with that permit be considered to be a SSMP.

New development and significant redevelopment projects requiring a WQMP are categorized by the County as either a Priority Project or a Non-Priority Project. The primary difference between a Priority Project and a Non-Priority Project is that Priority Projects are required to include Treatment Control BMPs in project design. The detailed requirements for preparation of a WQMP are included in **Section A-7.6**.

"Significant Redevelopment" in the Santa Ana Regional Board area means:

*Development that would create, or add or replace 5,000 square feet or more of impervious surfaces on an already developed site. Significant redevelopment includes, but is not limited to:*

- *Expansion of a building footprint*
- *Addition of a building and/or structure*
- *Addition of an impervious surface that is not part of a routine maintenance activity such as construction of a new parking lot*
- *Replacement of impervious surfaces, buildings and/or structures when 5000 or more square feet of soil is exposed during replacement construction. Replacement does not include routine*



*maintenance activities, trenching and resurfacing associated with utility work, resurfacing and reconfiguring the surface of parking lots (unless 5000 or more square feet of impervious surface is added to the existing parking lot area) or reconfiguration of pedestrian ramps and replacement of damaged pavement.*

*Where the significant redevelopment results in an increase of less than fifty percent of the impervious surface of a previously existing development, the treatment requirements apply only to the addition, and not to the entire development. In this circumstance, the County works with the project proponent ways by which Treatment Control BMPs can be provided for the entire site (or a greater percentage of the site), consistent with the overall pollution reduction goals of the Fourth Term Permits and DAMP, of which this LIP is a part.*

*Where the significant redevelopment results in an increase of fifty percent or more of the impervious surface of a previously existing development, the treatment requirements apply to the entire development.*

“Significant Redevelopment” in the San Diego Regional Board area means:

*Development that would create or add at least 5,000 square feet of impervious surfaces on an already developed site. Significant redevelopment includes, but is not limited to:*

- *Expansion of a building footprint*
- *Addition to or replacement of a structure*
- *Replacement of an impervious surface that is not part of a routine maintenance activity*
- *Land disturbing activities related with structural or impervious surfaces.*

*Replacement of impervious surfaces includes any activity that is not part of a routine maintenance activity where impervious material(s) are removed, exposing underlying soil during construction. Significant redevelopment does not include trenching and resurfacing associated with utility work; resurfacing and reconfiguring surface parking lots; new sidewalk construction, pedestrian ramps, or bike lane on public and private existing roads; and replacement of damaged pavement.*

*Significant Redevelopment projects may fall into one of several categories:*

- *Following redevelopment, the entire development (including the redeveloped area) would meet one of the Project Priority categories listed in **Figure A-7.2**. The project would be considered a Priority Project and require a WQMP including treatment controls. Where the significant redevelopment results in an increase of less than fifty percent of the impervious surface of a previously existing development, and the existing development was not subject to WQMP requirements, the treatment requirements apply only to the addition, and not to the entire development.*
- *Following redevelopment, the entire development (including the redeveloped area) would not meet one of the Project Priority categories listed in **Figure A-7.2**, but would require discretionary action that includes a precise plan of development, or require issuance of a non-residential plumbing permit. The project would be considered a Non-Priority Project and require a WQMP but would not require treatment controls.*
- *The redevelopment activity would not result in a Priority Project and would not require discretionary action that includes a precise plan of development or issuance of a non-residential plumbing permit. The project would not require a WQMP.*



The County requires project applicants to submit a WQMP at one or both points in the project planning and permitting stage:

- During the discretionary approval process (land use permit) of a proposed project, when the County must exercise judgment or deliberation in order to approve or disapprove a new development or significant redevelopment project, or
- During the ministerial approval process of issuing a grading, building, demolition, or similar “construction” permits in which only fixed standards or objective measures are applied.

#### A-7.5.2 Public Agency Projects

The County has incorporated the requirement for a WQMP into the process of planning, design, approval, and construction oversight of its public agency projects. Depending upon the type of public agency project being planned or designed, the OC Public Works, OC Parks or OC Facilities Design & Construction project designer/engineer or their design architect/engineering contractors prepare the WQMP for a public facility project.

The County does not require a WQMP for public agency projects consisting of routine maintenance or emergency construction activities required to protect public health and safety; interior remodeling with no outside exposure of construction materials or construction waste to stormwater; mechanical permit work; electrical permit work; and sign permit work.

The categories of Priority Projects are listed in **Figure A-7.2**. Although the County does not plan and design some of these categories of projects per se, some public agency projects may have similar functions or characteristics or may conduct similar activities after construction is completed. Therefore, some of the County’s public agency projects are considered Priority Projects requiring Treatment Control BMPs.

For example, a new corporation yard may include a vehicle and equipment maintenance facility, which is very similar to an automotive repair shop. A new civic center or library may be considered a Priority Project since it is very similar in its characteristics to a commercial office building. A new senior citizens center or a jail may have a cafeteria, which is very similar to a restaurant, and, therefore may be categorized as a Priority Project.

For other public agency projects that are not Priority Projects, the County may decide on a project specific basis not to require a WQMP, but may elect instead to require that all routine structural source control BMPs applicable to the project features be identified and included in the project, and Site Design BMPs be considered where applicable. Project types include, but are not limited to:

- Parks and recreation facilities
- Public buildings
- Streets and roadways
- Above ground drainage facilities (e.g. channels, basins)



### A-7.5.3 Conditions of Approval

The County has reviewed its standard conditions of approval to ensure that the existing standard conditions are not in conflict with any provisions of the Santa Ana and San Diego Region Permits, the DAMP, California's General Permit for Stormwater Discharges Associated with Construction Activity, California's General Permit for Stormwater Discharges Associated with Industrial Activity and adopted Total Maximum Daily Load (TMDL) allocations that apply to the County.

The County shall utilize the following standard conditions of approval to protect receiving water quality from the short-term and long-term impacts of new development and redevelopment:

#### *General Conditions*

The following conditions are applied by the County to the projects identified in A-7.5.1:

#### **[WQ01] WATER QUALITY MANAGEMENT PLAN**

Prior to the issuance of any grading or building permits, the applicant shall submit for review and approval by the Manager, Permit Services, a Water Quality Management Plan (WQMP) specifically identifying Best Management Practices (BMPs) that will be used onsite to control predictable pollutant runoff. The applicant shall utilize the Orange County Drainage Area Management Plan (DAMP), Model WQMP, and Technical Guidance Manual for reference, and the County's WQMP template for submittal. This WQMP shall include the following:

- Detailed site and project description
- Potential stormwater pollutants
- Post-development drainage characteristics
- Low Impact Development (LID) BMP selection and analysis
- Structural and Non-Structural source control BMPs
- Site design and drainage plan (BMP Exhibit)
- GIS coordinates for all LID and Treatment Control BMPs
- Operation and Maintenance (O&M) Plan that (1) describes the long-term operation and maintenance requirements for BMPs identified in the BMP Exhibit; (2) identifies the entity that will be responsible for long-term operation and maintenance of the referenced BMPs; and (3) describes the mechanism for funding the long-term operation and maintenance of the referenced BMPs

The BMP Exhibit from the approved WQMP shall be included as a sheet in all plan sets submitted for plan check and all BMPs shall be depicted on these plans. Grading and building plans must be consistent with the approved BMP exhibit.

**[WQ02] COMPLIANCE WITH THE NPDES IMPLEMENTATION PROGRAM**

Prior to the issuance of a certificate of use and occupancy, the applicant shall demonstrate compliance with the County's NPDES Implementation Program in a manner meeting the satisfaction of the Manager, OC Inspection Services, including:

- Demonstrate that all structural Best Management Practices (BMPs) described in the BMP Exhibit from the project's approved WQMP have been implemented, constructed and installed in conformance with approved plans and specifications
- Demonstrate that the applicant has complied with all non-structural BMPs described in the project's WQMP
- Submit for review and approval an Operations and Maintenance (O&M) Plan for all structural BMPs (the O&M Plan shall become an attachment to the WQMP;
- Demonstrate that copies of the project's approved WQMP (with attached O&M Plan) are available for each of the initial occupants;
- Agree to pay for a Special Investigation from the County of Orange for a date twelve (12) months after the issuance of a Certificate of Use and Occupancy for the project to verify compliance with the approved WQMP and O&M Plan
- Demonstrate that the applicant has RECORDED one of the following:
  1. The CC&R's (that must include the approved WQMP and O&M Plan) for the project's Home Owner's Association;
  2. A water quality implementation agreement that has the approved WQMP and O&M Plan attached; or
  3. The final approved Water Quality Management Plan (WQMP) and Operations and Maintenance (O&M) Plan.

**[WQ04] STORMWATER POLLUTION PREVENTION PLAN**

Prior to the issuance of any grading or building permits, the applicant shall demonstrate compliance with California's General Permit for Stormwater Discharges Associated with Construction Activity by providing a copy of the Notice of Intent (NOI) submitted to the State Water Resources Control Board and a copy of the subsequent notification of the issuance of a Waste Discharge Identification (WDID) Number; or other proof of filing in a manner meeting the satisfaction of the Manager, Permit Intake. Projects subject to this requirement shall prepare and implement a Stormwater Pollution Prevention Plan (SWPPP). A copy of the current SWPPP shall be kept at the project site and be available for County review on request.

**[WQ05] EROSION AND SEDIMENT CONTROL PLAN**

Prior to the issuance of any grading or building permit, the applicant shall submit an Erosion and Sediment Control Plan (ESCP) in a manner meeting approval of the Manager, Permit Intake, to demonstrate compliance with the County's NPDES Implementation Program and state water quality regulations for grading and construction activities. The ESCP shall identify how all construction materials, wastes, grading or demolition debris, and stockpiles of soil, aggregates, soil amendments, etc. shall be properly covered, stored, and secured to



prevent transport into local drainages or coastal waters by wind, rain, tracking, tidal erosion or dispersion. The ESCP shall also describe how the applicant will ensure that all BMPs will be maintained during construction of any future public right-of-ways. The ESCP shall be updated as needed to address the changing circumstances of the project site. A copy of the current ESCP shall be kept at the project site and be available for County review on request.

#### **[WQ06] CHEMICAL MANAGEMENT**

Prior to the issuance of building permits for any tank or pipeline, the uses of said tank or pipeline shall be identified and the applicant shall submit a Chemical Management Plan in addition to a WQMP with all appropriate measures for chemical management (including, but not limited to, storage, emergency response, employee training, spill contingencies and disposal) in a manner meeting the satisfaction of the Manager, Permit Intake, in consultation with the Orange County Fire Authority, the Orange County Health Care Agency and wastewater agencies, as appropriate, to ensure implementation of each agency's respective requirements. A copy of the approved "Chemical Management Plans" shall be furnished to the Manager, OC Inspection Services, prior to the issuance of any Certificates of Use and Occupancy.

#### **[WQ07] INDUSTRIAL FACILITIES**

For industrial facilities subject to California's General Permit for Stormwater Discharges Associated with Industrial Activity as defined by Standard Industrial Classification (SIC) Code.

Prior to grading or building permit close-out and/or the issuance of a certificate of use and occupancy, the applicant shall demonstrate that compliance with the permit has been obtained by providing a copy of the Notice of Intent (NOI) submitted to the State Water Resources Control Board and a copy of the notification of the issuance of a Waste Discharge Identification (WDID) Number or other proof of filing to the satisfaction of the Manager, OC Inspection.



A-7.5.4 Review and Approval of WQMPs

The requirements for preparation of a WQMP are described in **Section A-7.6**. The County shall require all new development and significant redevelopment private projects that meet the minimum requirements described in **Sections A-7.5.1 and A-7.5.2** to select appropriate permanent (post construction) non-structural and structural BMPs, prepare a project-specific WQMP, and submit the WQMP for review and approval. Prior to issuance of grading or building permits, the County shall require the project applicant to have an approved final WQMP. The County will require public projects that are considered Priority Projects to complete a WQMP as part of the design review, and Non-Priority Projects to identify and include all applicable routine structural and non-structural source control BMPs and consider site design BMPs in the project.

The County shall utilize a checklist to document the identification of a project as a Priority Project or as a Non-Priority Project. A checklist to be used by the County for categorizing new development and significant redevelopment projects as Priority or Non-Priority is shown in **Figure A-7.2**.

**Figure A-7.2. Checklist for Categorizing Development and Significant Redevelopment Projects as Priority or Non-Priority**

<p align="center"><b>Priority Projects Categories</b> (Unless otherwise indicated, listed requirements apply equally to both the Santa Ana and San Diego Regions.)</p>	<p align="center"><b>Yes</b></p>	<p align="center"><b>No</b></p>
<p>1. <i>Both Permit Areas</i> –New development projects that create 10,000 square feet or more of impervious surface (collectively over the entire project site). This category includes commercial, industrial, residential, mixed-use, and public projects on private, or public, property that falls under the planning and building authority of the Permittees.</p> <p><i>San Diego Region only</i> – All pollutant generating development or redevelopment projects that result in the disturbance of one acre or more of land will be considered Priority Projects starting December 16, 2012.</p>		
<p>2. Automotive repair shops. This applies to facilities that are categorized in any one of the following Standard Industrial Classification (SIC) codes 5013, 5014, 5541, 7532-7534, and 7536-7539.</p>		
<p>3. <i>Both Permit Areas</i> – Restaurants where the land area of development is 5,000 square feet or more including parking area. This category is defined as facilities that sell prepared foods and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption (SIC code 5812), where the land area for development is greater than 5,000 square feet.</p> <p><i>San Diego Region only</i> – Restaurants where land development is less than 5,000 square feet shall meet all WQMP requirements except for structural treatment control BMP/LID, and hydromodification.</p>		
<p>4. Hillside development that creates greater than 5,000 square feet of impervious surface. Hillside development is defined as any development which is located in an area with known erosive soil conditions or where the development will grade on any natural slope that is twenty-five (25) percent or greater.</p>		



SECTION A-7, NEW DEVELOPMENT/SIGNIFICANT REDEVELOPMENT

<p>5. <i>Both Permit Areas</i> – Impervious surface of 2,500 square feet or more located within, directly adjacent to (within 200 feet), or discharging directly into receiving waters within Environmentally Sensitive Areas.</p> <p><i>San Diego Region only</i> – or a project with an increase in impervious area by 10% or more of its naturally occurring condition located within, directly adjacent to (within 200 feet), or discharging directly to receiving waters within Environmentally Sensitive Areas.</p>		
<p>6. <i>Both Permit Areas</i> – Parking lots 5,000 square feet or more including associated drive aisle, and potentially exposed to urban stormwater runoff. A parking lot is defined as a land area or facility for the temporary parking or storage of motor vehicles used personally, for business, or for commerce.</p> <p><i>San Diego Region only</i> – or parking lots with 15 parking spaces or more and potentially exposed to runoff.</p>		
<p>7. <i>Streets, roads, highways, and freeways</i> - This category includes any paved surface that is 5,000 square feet or greater used for the transportation of automobiles, trucks, motorcycles, and other vehicles. (see discussion under Section 7.II –1.6).</p>		
<p>8. <i>Significant Redevelopment.</i></p> <p><i>Santa Ana Region definition:</i> (Model WQMP, Section 7.11-1.2):</p> <p>All significant redevelopment projects, where significant redevelopment is defined as the addition or replacement of 5,000 or more square feet of impervious surface on an already developed site. Redevelopment does not include routine maintenance activities that are conducted to maintain original line and grade, hydraulic capacity, original purpose of the facility, or emergency redevelopment activity required to protect public health and safety. If the redevelopment results in the addition or replacement of less than 50 percent of the impervious area on-site and the existing development was not subject to WQMP requirement, the numeric sizing criteria (see Section 7.II-2.0 of Model WQMP) only applies to the addition or replacement area. If the addition or replacement accounts for 50 percent or more of the impervious area, the Project WQMP requirements apply to the entire development.</p> <p><i>San Diego Region definition:</i> (Order No. R9-2009-0002, Section F.1d):</p> <p>Those redevelopment projects that create, add, or replace at least 5,000 square feet of impervious surface on an already developed site and the existing development and/or the project falls under the project categories or locations listed in the table above. Where redevelopment results in an increase of less than fifty percent of the impervious surfaces of a previously existing development, and the existing development was not subject to WQMP requirements, the numeric sizing criteria (see Section 7.II-2.0 of Model WQMP) applies only to the addition or replacement, and not the entire development. Where redevelopment results in an increase of more than fifty percent of the impervious surfaces of a previously existing development, the numeric sizing criteria applies to the entire development.</p>		
<p>9. <i>Retail Gasoline Outlets (RGOs)</i> – This category includes RGOs that meet the following criteria: (a) 5,000 square feet or more, or (b) a projected Average Daily Traffic (ADT) of 100 or more vehicles per day.</p>		

**Priority Project:** Any question answered “YES.” **Non-Priority Project:** All questions are answered “NO.”

WQMPs for a Priority Project must address:

- Regional or watershed programs (if applicable) – Santa Ana Regional Board area only



- Site design BMPs (as appropriate)
- Routine structural and non-structural BMPs,
- Treatment Control BMPs
- Hydromodification Controls – San Diego Regional Board area only
- The mechanism(s) by which long-term operation and maintenance of all structural BMPs will be provided.

The WQMPs for a Non-Priority Project (Santa Ana Regional Board area only) must address:

- Routine structural and non-structural BMPs,
- Site design BMPs (as appropriate), and
- The mechanism(s) by which long-term operation and maintenance of all structural BMPs will be provided.

When reviewing WQMPs submitted for approval, the County assesses the potential project impacts on receiving waters and ensure that the WQMP adequately identifies such impacts. The County examines all identified BMPs, as a whole, to ensure that they address the pollutants and conditions of concern identified in the WQMP.

The County recognizes the importance of understanding the physical, chemical and biological conditions of the receiving waters at a watershed scale and the impact of incremental projects on these conditions and continues to enlarge its understanding of receiving waters on a watershed scale through implementation of the watershed chapters of the DAMP. This information assists in providing a strong linkage between the planning process (**DAMP Sections 7.4 and 7.5 and Exhibit 7.I**) and the development review and permitting process (**DAMP Section 7.6**) as required by the Fourth Term MS4 Permits.

The Permittees have initiated watershed-scale assessments in some watersheds for watershed restoration and TMDL purposes, including modeling and other types of evaluations, and continue efforts to provide forecasting tools that protect water resources from the impacts of new development and significant redevelopment.

#### A-7.5.5 Plan Check: Issuance of Grading or Building Permits

The construction plans submitted by the applicant for plan check must incorporate all of the structural BMPs identified in a project's WQMP.

#### *General or Special Notes for Plan Sheets*

Prior to the issuance of a grading or building permit, the County shall require the permit applicant to include the following as general or special notes on the plan sheets for new development or significant redevelopment projects:



1. In the case of emergency, call \_\_\_\_\_  
at Work Phone # \_\_\_\_\_  
or Home Phone # \_\_\_\_\_.
2. Sediment from areas disturbed by construction shall be retained on site using structural controls to the maximum extent practicable.
3. Stockpiles of soil shall be properly contained to minimize sediment transport from the site to streets, drainage facilities or adjacent properties via runoff, vehicle tacking, or wind.
4. Appropriate BMP's for construction-related materials, wastes, spills shall be implemented to minimize transport from the site to streets, drainage facilities, or adjoining properties by wind or runoff.
5. Runoff from equipment and vehicle washing shall be contained at construction sites unless treated to reduce or remove sediment and other pollutants.
6. All construction contractor and subcontractor personnel are to be made aware of the required best management practices and good housekeeping measures for the project site and any associated construction staging areas.
7. At the end of each day of construction activity all construction debris and waste materials shall be collected and properly disposed in trash or recycle bins.
8. Construction sites shall be maintained in such a condition that an anticipated storm does not carry wastes or pollutants off the site. Discharges of material other than stormwater only when necessary for performance and completion of construction practices and where they do not: cause or contribute to a violation of any water quality standard; cause or threaten to cause pollution, contamination, or nuisance; or contain a hazardous substance in a quantity reportable under Federal Regulations 40 CFR Parts 117 and 302.
9. Potential pollutants include but are not limited to: solid or liquid chemical spills; wastes from paints, stains, sealants, glues, limes, pesticides, herbicides, wood preservatives and solvents; asbestos fibers, paint flakes or stucco fragments; fuels, oils, lubricants, and hydraulic, radiator or battery fluids; fertilizers, vehicle/equipment wash water and concrete wash water; concrete, detergent or floatable wastes; wastes from any engine/equipment steam cleaning or chemical degreasing and super chlorinated potable water line flushing.  
  
During construction, permittee shall dispose of such materials in a specified and controlled temporary area on-site, physically separated from potential stormwater runoff, with ultimate disposal in accordance with local, state and federal requirements.
10. Dewatering of contaminated groundwater, or discharging contaminated soils via surface erosion is prohibited. Dewatering of non-contaminated groundwater requires a National Pollutant Discharge Elimination System Permit from the respective State Regional Water Quality Control Board.



11. Graded areas on the permitted area perimeter must drain away from the face of slopes at the conclusion of each working day. Drainage is to be directed toward desilting facilities.
12. The permittee and contractor shall be responsible and shall take necessary precautions to prevent public trespass onto areas where impounded water creates a hazardous condition.
13. The permittee and contractor shall inspect the erosion control work and insure that the work is in accordance with the approved plans.
14. The permittee shall notify all general contractors, subcontractors, material suppliers, lessees, and property owners: that dumping of chemicals into the storm drain system or the watershed is prohibited.
15. Equipment and workers for emergency work shall be made available at all times during the rainy season. Necessary materials shall be available on site and stockpiled at convenient locations to facilitate rapid construction of temporary devices when rain is imminent.
16. All removable erosion protective devices shall be in place at the end of each working day when the 5-Day Rain Probability Forecast exceeds 40%.
17. Sediments from areas disturbed by construction shall be retained on site using an effective combination of erosion and sediment controls to the maximum extent practicable, and stockpiles of soil shall be properly contained to minimize sediment transport from the site to streets, drainage facilities or adjacent properties via runoff, vehicle tracking, or wind.
18. Appropriate BMPs for construction-related materials, wastes, spills or residues shall be implemented and retained on site to minimize transport from the site to streets, drainage facilities, or adjoining property by wind or runoff.

#### *Plan Check for Private Projects*

For projects with entitlements, the County shall review the conditions of approval and the submitted WQMP for an understanding of the water quality issues and structural BMPs required. The County shall review construction plans for conformity with the project's WQMP. No grading or building permits are issued prior to approval of the WQMP. If the selected BMPs were approved in concept during the land use entitlement process, the County shall require the applicant to submit detailed construction plans showing locations and design details of all BMPs that are in substantial conformance with the preliminary approvals. The County shall review a project's construction plans to assure that the plans are consistent with the BMP design criteria and guidance provided in **DAMP Section 7, Exhibit 7.II**.

#### *Plan Check for Projects with By-Right Zoning (Ministerial Projects)*

For projects with by-right zoning or projects that do not need discretionary review but are required to prepare a WQMP, the County shall first review the project's proposed WQMP for conformity with the requirements described in **DAMP Section 7.7 and DAMP, Section 7**,



**Exhibit 7.II.** The WQMP shall then be used in reviewing the construction plans for consistency with the BMP design criteria and guidance provided in **DAMP Section 7, Exhibit 7.III.**

*Design Review for Public Agency Projects*

Prior to initiating grading or construction activities, the County shall ensure that the construction plans for its public works projects reflect the structural BMPs described in the project's approved final WQMP. In conducting the design review process for its public agency projects, the County shall review the construction plans and specifications for conformity with the approved final WQMP and for consistency with the BMP design criteria and guidance provided in **DAMP Section 7, Exhibit 7.III.**

*Plan Check for Projects with Alternative Treatment Control BMPs (i.e., BMPs not found in DAMP Section 7, Table 7-11-6, See DAMP Section 7, Exhibit 7.II Section 3.3.3.)*

If an applicant elected to utilize Alternative Treatment Control BMPs in a project's construction plans, the County shall require the project's engineer of record to certify that the Alternative Treatment Control BMPs are equally or more effective in pollutant reduction than comparable BMPs found in the Model WQMP.

A-7.5.6 Permit Closeout, Certificates of Use and Certificates of Occupancy

*Private Sector Projects*

The WQMP continues with the property (it "runs with the land") after the completion of the construction phase and the County requires that the terms, conditions and requirements be recorded with the County Recorder's office by the property owner or any successive owner as authorized by the Water Quality Ordinance. The end of the construction phase therefore represents a transition from the New Development/Redevelopment Program to the Existing Development Program (**Section A-9**). Accompanying this is a close out of permits and issuance of certificates of use and occupancy. The County uses this juncture to assure satisfactory completion of all conditions applied to the projects and all requirements in the WQMP by requiring the applicant to:

- Demonstrate that all structural BMPs described in the project's WQMP have been constructed and installed in conformance with approved plans and specifications;
  - Prepare and submit for review and approval an O&M Plan for all structural BMPs;
  - Demonstrate that the WQMP and the Operations and Maintenance (O&M) Plan have been recorded with the Orange County Clerk-Recorder;
  - Agree to pay for an inspection twelve (12) months after the issuance of a Certificate of Use and Occupancy for the project to verify compliance with the WQMP and O&M Plan;
  - Demonstrate that an adequate number of copies of the WQMP are available onsite;
- and,



- For industrial facilities subject to California's General Permit for Stormwater Discharges Associated with Industrial Activity as defined by Standard Industrial Classification (SIC) code, demonstrate that coverage has been obtained by providing a copy of the Notice of Intent (NOI) submitted to the State Water Resources Control Board and a copy of the notification of the issuance of a Waste Discharge Identification (WDID) Number.

The O&M Plan for structural BMPs that is prepared by the applicant for private sector projects shall include:

- Description of structural BMPs;
- Description of employee responsibilities and training for BMP operation and maintenance;
- Operating schedule;
- Inspection/maintenance frequency and schedule;
- Specific maintenance activities;
- Required permits from resource agencies, if any;
- Forms to be used in documenting maintenance activities; and,
- Recordkeeping requirements (at least 5 years).

At a minimum, the County shall require the annual inspection and maintenance of all structural BMPs including inspection and performance of any required maintenance in the late summer/early fall, prior to the start of the rainy season.

Following satisfactory inspection, those structural BMPs proposed during the planning process to be within County right-of-ways, or on land to be dedicated to County ownership will be offered for acceptance. Upon acceptance, responsibility for operation and maintenance will transfer from the developer or contractor to the appropriate County department, including the funding mechanism identified in the project's approved WQMP.

If a property owner or a private entity, such as a homeowners association (HOA), retains or assumes responsibility for operation and maintenance of structural BMPs, the County shall require access for inspection through an agreement or establish a self-verification process. If the County will be responsible for operating and maintaining structural BMPs on private property, an easement will be established to allow for entry and proper management of the BMPs. Such access easements shall be binding throughout the life of the project, or until the BMPs requiring access are acceptably replaced with a BMP not requiring access. Funding for the long-term operation and maintenance of structural BMPs transferred to the County will be front-funded or otherwise guaranteed via mechanisms such as approved assessment districts, or other funding mechanisms.



### *Public Agency Projects*

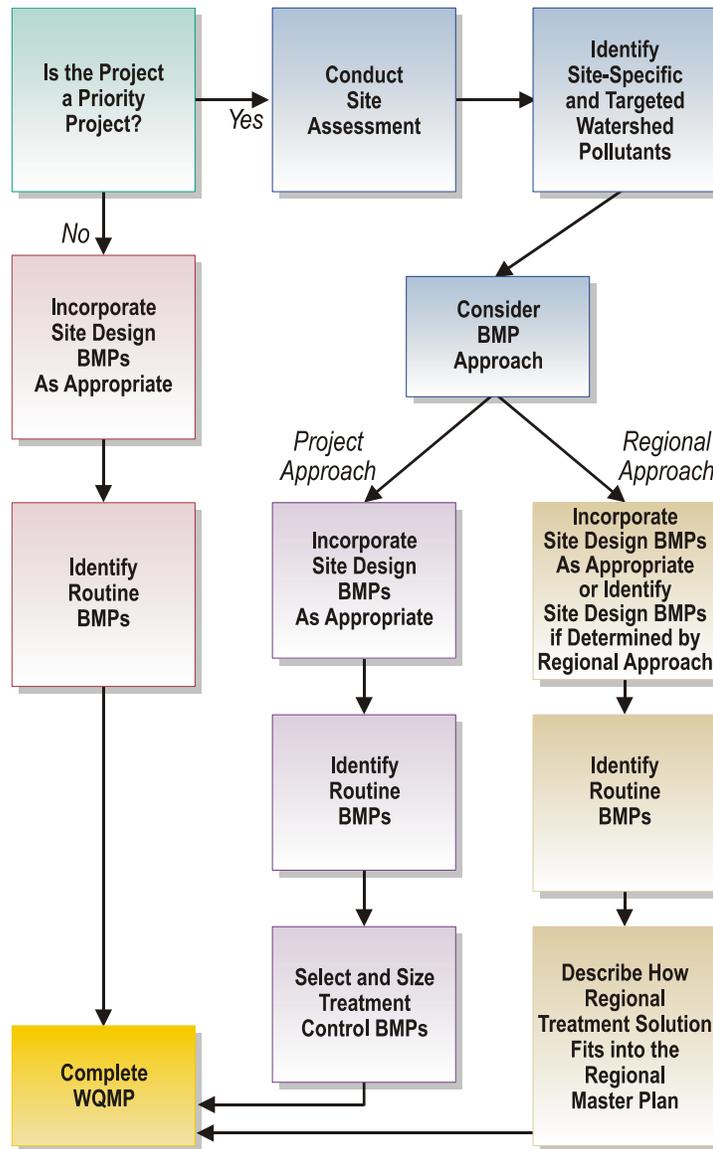
For the County's public agency projects, upon completion of construction when contract close-out occurs the responsibility for operation and maintenance of the structural BMPs will transfer from the contractor to the appropriate County department and become part of the Municipal Activities Program (**Section A-5**). The County has the authority to approve the transfer of structural BMPs to any other public entity within its jurisdiction and shall negotiate satisfactory operation and maintenance standards with the public agencies accepting the operation and maintenance responsibilities. Alternatively, the responsibility for the operation and maintenance of structural BMPs may be transferred to a private entity through contracts or lease agreements. In any such transfer agreement, the County shall be identified as a third-party beneficiary empowered to enforce maintenance agreements.

### **A-7.6 Water Quality Management Plan (WQMP) Preparation**

In accordance with the requirements in the Development Project Review, Approval and Permitting process described previously, the County requires WQMPs to be prepared using the guidelines set forth in **DAMP Section 7** and the model WQMP **DAMP Section 7, Exhibit 7.II**. Development planning and WQMP preparation steps in the Santa Ana and San Diego Regional Board areas are summarized in **Figure A-7.3** and **Figure A-7.4**.

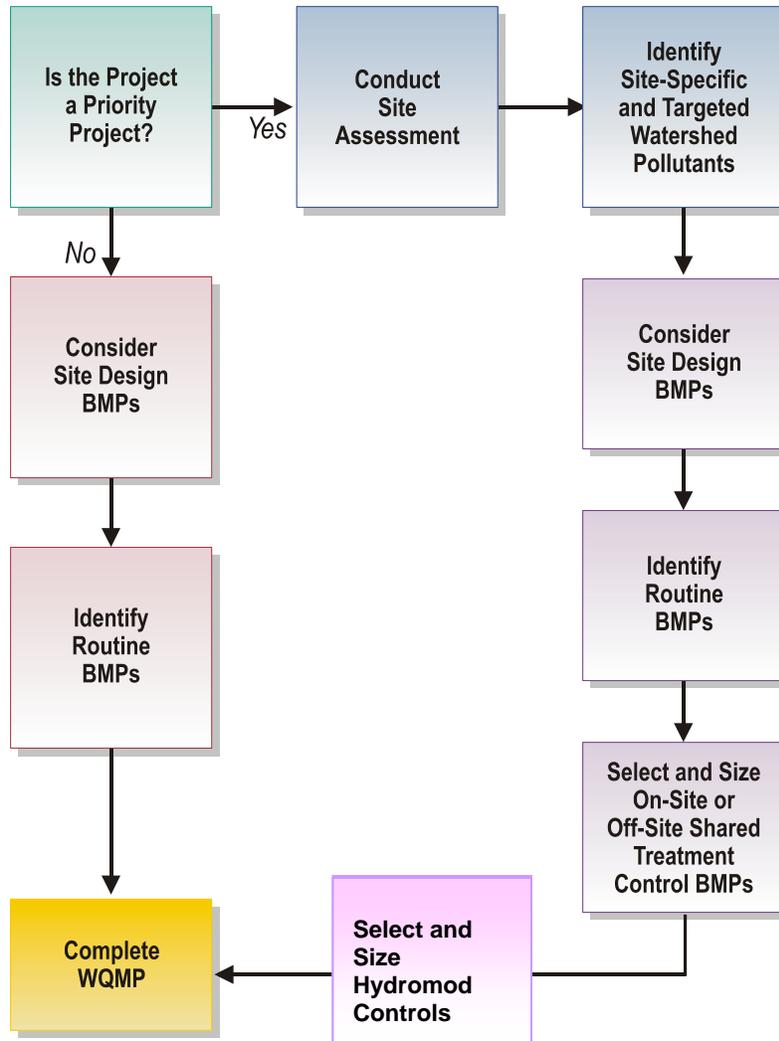


**Figure A-7.3**  
**Development Planning and WQMP Preparation Steps for the Santa Ana Regional Board Area**





**Figure A-7.4**  
**Development Planning and WQMP Preparation Steps for the San Diego Regional Board Area**



#### *BMP Implementation*

Consistent with the Model WQMP, the County requires Priority Projects to:

- Incorporate and implement Source Control BMPs (routine non-structural and routine structural) unless not applicable to the project due to project characteristics, and document why any applicable Source Control BMP was not included;
- Incorporate and implement Site Design BMPs as appropriate; and
- Either:
  - o Implement treatment control BMPs including a selection of such BMPs into the project design, (unless a waiver is granted for infeasibility of all treatment control BMPs, see Model WQMP, **DAMP Section 7, Exhibit 7.II** for details);



Or:

- o Participate in or contribute to an acceptable regional or watershed management program – Santa Ana Regional Board area only.
- Implement Hydromodification Controls – San Diego Regional Board area only.
- The combination of Source Control, Site Design and Treatment Control BMPs, Hydromodification Controls or regional or watershed based-programs must adequately address all identified pollutants and hydrologic conditions of concern.

The County requires all Non-Priority (Santa Ana Region Board area only) projects to incorporate and implement Source Control BMPs as above and incorporate, implement and document Site Design BMPs as appropriate. Once a project reaches the plan check phase, the applicant is required to submit the approved WQMP together with construction plans that incorporate the selected BMPs.

A combination of Source Control BMPs (routine non-structural and routine structural BMPs) and Site Design BMPs is generally the most effective means of pollution prevention because they minimize the need for treatment. The County requires Treatment Control BMPs to be considered for all Priority Projects in addition to Source Controls to meet the requirements of the Fourth Term Permits to minimize, to the maximum extent practicable, the discharge of pollutants to the storm drain system or receiving waters.

The categories of stormwater pollution control BMPs are summarized in **Table A-7.1**, together with the applicable projects and primary pollution prevention objectives of the BMPs.

#### *Routine Source Control BMPs*

Routine structural Source Control BMPs are low-technology practices designed to prevent pollutants from contacting stormwater runoff or to prevent discharge of contaminated runoff to the storm drainage system. Routine non-structural Source Control BMPs are listed in **Table A-7.2**. Routine structural Source Control BMPs are listed in **Table A-7.3**. WQMPs for Public Agency projects are not required to include routine non-structural BMPs if they are already included as part of the Municipal Activities Program (see **Section A-5**).



**Table A-7.1**  
**Summary of BMPs for Development/Significant Redevelopment Projects**

BMP Category		Applicable Projects	Pollution Prevention Objective
Source Control BMPs	Routine Non-Structural BMPs	Required for all projects – as applicable	Prevent pollution by educating the public on proper disposal of hazardous or toxic wastes, regulatory approaches, street sweeping and facility maintenance, and detection and elimination of illicit connections and illegal dumping.
	Routine Structural BMPs	Required for project features (see <b>Table A-7.3</b> )	Prevent potential pollutants from contacting rainwater or stormwater runoff or to prevent discharge of contaminated runoff to the storm drain system or receiving waters. Reduce the creation or severity of potential pollutant sources or to reduce the alteration of the project site's natural flow regime.
Site Design BMPs		All projects shall incorporate as appropriate	Minimize or prevent potential pollutants from contacting rainwater or stormwater runoff or to prevent discharge of contaminated runoff to the storm drain system or receiving waters.
Treatment Control BMPs or Regional Program		All priority projects – at least one treatment control BMP required	Remove pollutants from stormwater runoff prior to discharge to the storm drain system or receiving waters
Hydromodification Controls		All priority projects in San Diego Region not draining directly or via a concrete conveyance system all the way to a harbor, lake, pond, lagoon, basin, or the ocean).	Match post-development hydrologic regime with pre-development for all flows between 10% of the 2 year event, up to the 10 year storm even.



**Table A-7.2**  
**Routine Non-Structural Source Control BMPs**

Identifier	Name
N1	Education for Property Owners, Tenants and Occupants
N2	Activity Restrictions
N3	Common Area Landscape Management
N4	BMP Maintenance
N5	Title 22 CCR Compliance (How the development will comply)
N6	Local Water Quality 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 Private Streets and Parking Lots
N16	<i>BMP has been removed</i>
N17	Retail Gasoline Outlets

**Table A-7.3**  
**Routine Structural Source Control BMPs**

Provide storm drain system stenciling and signage
Design and construct outdoor material storage areas to reduce pollution introduction
Design and construct trash and waste storage areas to reduce pollution introduction
Use efficient irrigation systems & landscape design, water conservation, smart controllers, and source control
Protect slopes and channels and provide energy dissipation
Required for the following project features: <ul style="list-style-type: none"> <li>• Private roads</li> <li>• Residential driveways and guest parking</li> <li>• Loading dock areas</li> <li>• Maintenance bays</li> <li>• Vehicle wash areas</li> <li>• Outdoor processing areas</li> <li>• Equipment wash areas</li> <li>• Parking areas</li> <li>• Roadways</li> <li>• Fueling areas</li> <li>• Hillside landscaping</li> <li>• Wash water control for food preparation areas</li> <li>• Community car wash racks</li> </ul>



### *Site Design BMPs*

The principal objective of Site Design BMPs is to prevent pollution of stormwater by minimizing the introduction of pollutants and conditions of concern that may result in significant impacts generated from site runoff to the stormwater conveyance system. One approach to achieve this objective is to reduce stormwater runoff flows and volumes and reduce pollutants through appropriate Site Design BMPs.

*Start at the Source* (Bay Area Stormwater Management Association 1999) provides design guidance and techniques for implementing site design BMPs. Benefits derived from this approach include:

- Reduced size of downstream treatment controls and conveyance systems;
- Reduced pollutant loading to treatment controls; and,
- Reduced hydraulic impact on receiving streams.

Site Design BMPs should be incorporated and implemented as appropriate. Site Design BMPs include the design techniques listed in **Table A-7.4**.

**Table A-7.4**  
**Site Design BMP Techniques**

Minimize Impervious Area/Maximize Permeability (C-Factor Reduction)
Minimize Directly Connected Impervious Areas (DCIAs) (C-Factor Reduction)
Create Reduced or "Zero Discharge" Areas (Runoff Volume Reduction)
Conserve Natural Areas (C-Factor Reduction)

Fact sheets for routine structural Source Control BMPs and Site Design BMPs are presented in **Appendix XIV of DAMP, Section 7, Exhibit 7.III**. The fact sheets include design criteria established to ensure effective implementation of the required Site Design BMPs and are made available by the County.

### *Treatment Control BMPs*

Treatment Control BMPs are engineered technologies designed to remove pollutants from stormwater runoff and are required to augment Source Control and Site Design BMPs to reduce pollution from stormwater discharges as required by the Fourth Term Permits. The type of Treatment Control BMP(s) to be implemented at a site depends on a number of factors including: type of pollutants in the stormwater runoff, volume or flow of stormwater runoff to be treated, project site conditions, receiving water conditions, and General Industrial Permit requirements, when applicable. Land requirements, and costs to design, construct and maintain Treatment Control BMPs vary by Treatment Control BMP.



Unlike flood control measures that are designed to handle peak flows, stormwater Treatment Control BMPs are designed to treat the more frequent, lower-flow storm events, or the first flush portions of runoff from larger storm events (typically referred to as the first-flush events). Small, frequent storm events represent most of the total average annual rainfall for the area. The flow and volume from such small events is targeted for treatment.

The primary control strategy for designing BMPs is to treat the Stormwater Quality Design Flow (SQDF) or the Stormwater Quality Design Volume (SQDV) of the stormwater runoff. **Table A-7.5** lists BMPs along with the basis of design, SQDF or SQDV, to be used for designing the BMP. The Santa Ana and San Diego Region Model WQMPs shows the approach that should be used to calculate the SQDF and/or SQDV.

**Table A-7-5**  
**Basis of Design for Treatment Control BMPs**

Treatment Control BMP	Design Basis
Vegetated (Grass) Strips	SQDF
Vegetated (Grass) Swales	
Proprietary Control Measures	
Dry Detention Basin	SQDV
Wet Detention Basin	
Constructed Wetland	
Detention Basin/Sand Filter	
Porous Pavement Detention	
Porous Landscape Detention	
Infiltration Basin	
Infiltration Trench	
Media Filter	
Proprietary Control Measures	

BMP fact sheets from the CASQA New Development Handbook are presented for guidance in the **Appendix XIV of DAMP, Section 7, Exhibit 7.III**. These fact sheets include specific design criteria established to ensure effective implementation of the required Treatment Control BMPs.



### *Regional or Watershed Programs*

For the Santa Ana Regional Board area, if a regional or watershed-based program is selected, the regional or watershed BMPs selected must be designed to have the capacity to treat more than the cumulative volume (or flow rate) of runoff from all new development or significant redevelopment projects included in the regional or watershed plan. More detailed analysis (such as detailed planning and modeling) should be employed and cross-jurisdictional issues must be clearly defined and coordinated (see Santa Ana Region Model WQMP).

Regional and/or watershed management programs are not allowed within the San Diego Regional Board permit area. However, under certain conditions within the San Diego Regional Board permit area, offsite shared controls can be considered (see Off-Site Mitigation Projects, **DAMP, Section 7, Exhibit 7.11-3.4.2**, Model WQMP for South Orange County).

### *Hydromodification Management Plans (Applicable in the San Diego Region beginning 10/25/2012)*

On April 16<sup>th</sup>, 2012, all priority projects in the San Diego Region were required to meet the provisions for hydromodification set forth in the Fourth Term MS4 permit. Commencement with coverage under the San Diego Regional Fifth Term MS4 Permit for the South Orange County Permittees, the South Orange County Hydromodification Plan (HMP) went into effect on April 1, 2015. See **South Orange County HMP** located at: <http://ocwatersheds.com/documents/wqmp>.

Within the Santa Ana Region of Orange County, hydromodification control is a function of the Model WQMP which was approved and adopted for implementation on August 17, 2011. To assist with compliance with permit requirements and to explain aspects of the **DAMP, Section 7, Exhibit 7.II**, Model WQMP, a Technical Guidance Document **DAMP, Section 7, Exhibit 7.III** was also developed (updated Dec 2013).

### **A-7.7 Post Construction BMP Inspection and Verification**

The County conducts verifications to assure that implementation and appropriate maintenance described in the WQMP is taking place at structural and non-structural BMPs during the post construction phase. Verification of BMP implementation and ongoing maintenance are conducted by inspection, drive-by surveys, self-certifications, or other equally effective approaches, in compliance with the Fourth Term MS4 permit requirements in the Santa Ana Region and Fifth Term MS4 permit requirements in the San Diego Region. The goal is to perform verifications at:

- All public agency projects with BMPs annually;
- All private developments with high priority BMPs (private developments with structural treatment control BMPs except single family residential homes) annually; and
- All private post construction BMPs within every four year period.



Annual inspections of post construction BMPs at single family residential homes are completed when access is granted by the property owner or verification can be completed by a drive-by survey. When access is denied or a drive-by survey is infeasible a self-certification verification form, to be completed by the property owner or designee, serves as verification. A summary of the inspections conducted and any assessments of effectiveness are provided in the annual Program Effectiveness Assessment, within Section C-9, Existing Development.

### **A-7.8 Education and Training**

To assist responsible County and contract staff in understanding the New Development / Significant Redevelopment Program, annual training sessions are conducted. In addition to Permittee sponsored training, staff may also attend training seminars or workshops related to general water quality and stormwater management during construction, conducted by other organizations.

#### A-7.8.1 Training Modules

Two training modules have been prepared that cover different aspects of the New Development/Significant Redevelopment Program. These modules are provided in **DAMP Appendix B-7**.

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

This training module is for Permittee Stormwater Program managers and the managers of a Permittee's planning and building departments. It provides an overview of the Stormwater Program as it pertains to a Permittee's General Plan, the preparation and review of environmental documents (Initial Studies, Environmental Impact Reports, Environmental Impact Statements, Negative Declarations, Mitigated Negative Declarations, etc.), conditions of approval for projects, the review of WQMPs, plan check, and permit closeout. The training module also briefly describes a Permittee's responsibility for verifying and inspecting permanent BMPs and for assessing the effectiveness of the New Development/Significant Redevelopment program element.

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

This training module is targeted to planners, plan checkers, developers and engineers, and addresses laws and regulations applicable to new development/significant redevelopment; the connection between new development/significant redevelopment and water quality; how to review and prepare California Environmental Quality (CEQA) compliance documents with regard to stormwater/urban runoff effects, how to develop and review a WQMP; and how to design and incorporate into a project Source Control, Site Design and Treatment Control BMPs to minimize impact to receiving waters.



### A-7.8.2 Record Keeping

Records of training provided to County staff are maintained to allow a determination of:

- Which staff require which training;
- When training sessions were conducted;
- Compliance with the permit requirements.

In addition to the Permittee-sponsored training, County staff also attend various other workshop or training events as they take place throughout the year. These types of events may include local or national organization sponsored training.

### **A-7.9 Program Effectiveness Assessment**

The County prepares an annual Program Effectiveness Assessment (see **DAMP Appendix C-7**). This report provides the basis for evaluating the County's efforts towards the reduction of pollutants from new development and significant redevelopment. The PEA demonstrates a commitment to pollution prevention and source reduction processes in new development / redevelopment projects in the County. The annual PEA includes:

- Changes made to the County's General Plan, CEQA and development review processes;
- Information on WQMPs approved and verified by the County;
- Documentation of training received by the County staff.