

Water Quality Management Plan

FAQ's

10-10-2006

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Q.1--What is a project-specific WQMP and why would I need one?

WQMP is the acronym for Water Quality Management Plan. A project-specific WQMP is a plan for managing the quality of stormwater or urban runoff that flows from a developed site after construction is completed and the facilities or structures are occupied and/or operational. A Project-Specific WQMP describes the Site Design, Source Control and Treatment Control Best Management Practices (BMPs) that will be implemented and maintained throughout the life of a project and is used by property owners, facility operators, tenants, facility employees, maintenance contractors, etc. to prevent and minimize water pollution that can be caused by stormwater or urban runoff. Municipalities in Riverside County require new developments and significant development projects to prepare and implement Project-Specific WQMPs as part of a federal and state regulatory program to reduce or eliminate water pollution caused by runoff flowing from storm water drainage systems into receiving waters. Note that project-specific WQMPs are required only in the Santa Ana and Santa Margarita Watersheds. Projects in the Whitewater Watershed are currently not subjected to WQMP requirements, but instead use Supplement A to the 1993 Drainage Area Management Plan (DAMP). A Project-Specific WQMP must be based upon the Riverside County Model WQMP, which can be found at

<http://www.floodcontrol.co.riverside.ca.us/districtsite/downloads/NPDES/WQMP%20complete.pdf>.

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Q.2--When is a preliminary Project-Specific WQMP required?

A preliminary Project-Specific WQMP maybe required as part of the project application for discretionary project approval. Developers should check with the local Permittee to determine when the Preliminary Project-Specific WQMP is required. Final Project-Specific WQMPs must be approved prior to issuance of building and grading permits.

Section 1 of the WQMP states that Project-Specific WQMPs are required prior to the first discretionary project approval or permit. Section 1 of the WQMP allows the Permittees to require a preliminary Project-Specific WQMP prior to discretionary approval and a final project-specific WQMP, in substantial conformance with the preliminary Project-Specific WQMP, prior to the issuance of building or grading permits.

Due to the interrelationship between project layout and lot layouts with site, source and treatment control BMPs, many Permittees require a preliminary Project-Specific WQMP as part of the initial project application package for a development proposal and consider project applications incomplete until a preliminary Project-Specific WQMP is submitted.

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Q.3--How does a WQMP differ from a SWPPP?

SWPPP is the acronym for Stormwater Pollution Prevention Plan. For construction that will disturb one acre or more, a SWPPP is required for compliance with the California General Permit for Stormwater Discharges Associated with Construction Activity. The focus of a construction SWPPP is to manage soil disturbance, non-stormwater discharges, construction materials, and construction

wastes during the construction phase of a project. The focus of a WQMP is to manage the quality of urban runoff after construction is completed.

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Q.4--What are Best Management Practices (BMPs)?

For purposes of a Project-Specific WQMP, there are three types of BMPs:

- (1) **Site Design BMPs** – Project features that are designed or incorporated into a project to minimize the increase in stormwater runoff from the developed project site. Examples of Site Design BMPs include the use of porous asphalt or pavers, minimizing the use of decorative concrete, and directing roof drains to landscaped areas.
- (2) **Source Control BMPs** – Activities or structures aimed at eliminating or minimizing contact between pollutant sources and rainfall or stormwater/urban runoff. Examples of Source Control BMPs include education, sweeping, litter collection, canopies over fueling islands, awnings or tarps to cover materials stored outdoors.
- (3) **Treatment Control BMPs** – Engineered devices or systems incorporated into the project's drainage system to remove pollutants from runoff before the runoff leaves the project site. Examples of Treatment Control BMPs include vegetated swales, infiltration trenches, detention/retention basins, catch basin filters, and vortex separators.

More information about BMPs can be found at: www.cabmphandbooks.com.

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Q.5--What projects require a Project-Specific WQMP?

All projects that require discretionary approval and that are considered Significant Redevelopments or New Developments require a Project-Specific WQMP. Preliminary Project-Specific WQMPs must be approved prior to tentative use/map approvals by the appropriate administrative or legislative body. Siting, maintenance and funding commitments made in the Preliminary Project-Specific WQMP must be recognized by the site owner prior to this approval.

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Q.6--My project is in the Santa Margarita Region¹, does it require a Project-Specific WQMP?

<p>Mark <u>yes</u> in the checklist if projects is a new development that meets the project categories or locations in question, or Mark <u>yes</u> in the checklist if your redevelopment* projects creates, adds or replaces** at least 5,000 square feet of impervious surfaces on an already developed site for the project categories or locations in question</p> <p>If <u>any</u> question is answered "Yes," your project requires a Project-Specific WQMP. If <u>all</u> questions are answered "No," your project does NOT require a Project-Specific WQMP.</p>		
Does your proposed project include:	Yes	No
1. Housing subdivisions of 10 or more dwelling units. This category includes single-family homes, multi-family homes, condominiums, and apartments.		
2. Commercial developments greater than 100,000 square feet. This category is defined as any development on private land that is not for heavy industrial or residential uses where the land area for development is greater than 100,000 square feet. The category includes, but is not limited to: hospitals; laboratories and other medical facilities; educational institutions; recreational facilities; municipal facilities; commercial nurseries; multi-apartment buildings; car wash facilities; mini-malls and other business complexes; shopping malls; hotels; office buildings; public warehouses; automotive dealerships; airfields; and other light industrial facilities		
3. Automotive repair shops (SIC codes ² 5013, 5014, 5541, 7532-7534, or 7536-7539.)		
4. Restaurants (SIC code 5812), where the land area for development is greater than 5,000 square feet. Restaurants where land development is less than 5,000 square feet shall meet all SUSMP requirements except for structural treatment BMP and WQMP volume sizing and flow rate requirements		
5. Hillside developments that creates 10,000 square feet or more of impervious area including developments in areas with known erosive soil conditions or where natural slope is 25 % or more		
6. Parking Lots 5,000 square feet or more of impervious area		
7. Retail gasoline outlets of 5,000 square feet or more with projected average daily traffic of 100 or more vehicles per day.		
8. Street, roads, highways, and freeways, which include any paved surface that is 5,000 square feet or greater used for the transportation of automobiles, trucks, motorcycles, and other vehicles.		
9. Environmentally Sensitive Areas (ESAs). All development located within or directly adjacent to or discharging directly to an ESA (where discharges from the development or redevelopment will enter receiving waters within the ESA), which either creates 2,500 square feet of impervious surface on a proposed project site or increases the area of imperviousness of a proposed project site to 10% or more of its naturally occurring condition. "Directly adjacent" means situated within 200 feet of the ESA. "Discharging directly to" means outflow from a drainage conveyance system that is composed entirely of flows from the subject development or redevelopment site, and not commingled with flows from adjacent lands.		

* Significant Redevelopment includes, but is not limited to:

- the expansion of a building footprint or addition or replacement of a structure;
- structural development including an increase in gross floor area and/or exterior construction or remodeling;
- replacement of impervious surface that is not part of a routine maintenance activity;
- land disturbing activities related with structural or impervious surfaces.
- Where Significant Redevelopment results in an increase of less than 50 percent of the existing impervious surfaces of an existing developed site, and the existing developed site received its discretionary land use approvals prior to the adoption of the WQMP (7/13/05 in Santa Margarita Region), the WQMP would apply only to the addition, and not the existing development.

** Replacement not part of routine maintenance activity is considered a significant development.

¹ Projects in the Santa Ana Watershed have different requirements see question 7. Projects in the Whitewater Watershed are not subjected to WQMP requirements, but instead use Supplement A to the 1993 Drainage Area Management Plan (DAMP).

² Information regarding SIC codes can be found at <http://www.osha.gov/pls/imis/sicsearch.html>

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Q.7-- My project is in the Santa Ana Region¹, does it require a Project-Specific WQMP?

<p>If <u>any</u> question is answered "Yes," your project requires a Project-Specific WQMP. If <u>all</u> questions are answered "No," your project is does NOT require a Project-Specific WQMP.</p>		
Does your proposed project include:	Yes	No
<p>1. All Significant Redevelopment projects; defined as the addition or creation of 5,000 or more square feet of impervious surface on an existing developed site. This includes, but is not limited to:</p> <ul style="list-style-type: none"> • construction of additional buildings and/or structures, • extension of the existing footprint of a building, • construction of impervious or compacted soil parking lots. • Where Significant Redevelopment results in an increase of less than fifty percent of the existing impervious surfaces of an existing developed site, and the existing developed site received its discretionary land use approvals prior to the adoption of the WQMP (12/31/2004 in Santa Ana Region; 7/13/05 in Santa Margarita Region), the WQMP would apply only to the addition, and not the existing development. <p>Significant Redevelopment does not include routine maintenance activities that are conducted to maintain original line and grade, hydraulic capacity, the original purpose of the constructed facility or emergency actions required to protect public health and safety;</p>		
2. Residential development of 10 units or more, including Single Family and Multi-Family Dwelling Units, Condominiums, or Apartments		
3. Industrial and commercial development where the land area represented by the proposed map or permit is 100,000 square feet, or more, including, but not limited to, non-residential developments such as hospitals, educational institutions, recreational facilities, mini-malls, hotels, office buildings, warehouses, light industrial, and heavy industrial facilities;		
4. Automotive repair shops (with standard industrial classification ("SIC") codes ² 5013, 7532, 7533, 7534, 7537, 7538, and 7539).		
5. Restaurants (SIC Code 5812) where the project site is 5,000 square feet, or more.		
6. Hillside developments that creates 10,000 square feet or more of impervious area including developments in areas with known erosive soil conditions or where natural slope is 25 % or more		
7. Parking lots of 5,000 square feet or more of impervious surface exposed to storm water. Parking lot is defined as a site or facility for the temporary storage of motor vehicles.		
8. Developments creating 2,500 square feet, or more, of impervious surface that is adjacent to (within 200 feet) or discharging directly into areas designated in the Basin Plan as waters supporting habitats necessary for the survival and successful maintenance of plant or animal species designated under state or federal law as rare, threatened, or endangered species (defined in the Basin Plan as "RARE") or waterbodies listed on the CWA Section 303(d) list of Impaired Waterbodies within the Permit Area.		

¹ For projects in the Santa Ana Watershed; additional requirement exist for the San Diego (a.k.a. Santa Margarita) watershed, see question 6. Projects in the Colorado River (a.k.a. Whitewater River) Watershed are not subjected to WQMP requirements, but instead use Supplement A to the 1993 Drainage Area Management Plan (DAMP).

² Information regarding SIC codes can be found at <http://www.osha.gov/pls/imis/sicsearch.html>

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Q.8--Where can I find additional information on preparing my Project-Specific WQMP?

Information packets are generally available upon request at most municipal Planning or Public Works Departments. Guidance documents and a template can also be downloaded from the Riverside County Flood Control website, <http://www.floodcontrol.co.riverside.ca.us/districtsite/default.asp>. Follow the links to the Stormwater Program. Additional information can be found on the applicable City's website.

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Q.9--What is an Environmentally Sensitive Area?

Generally, these are areas “in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which would easily be disturbed or degraded by human activities and developments” (California Public Resources Code §30107.5). Examples are Areas of Special Biological Significance as designated by the State Water Resources Control Board, areas identified in Habitat Conservation Plans as supporting endangered or threatened species, and receiving waters that are designated as being impaired. More information about Environmentally Sensitive Areas can be found at <http://www.rcip.org/conservation.htm>

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Q.10--What are Pollutants of Concern?

Pollutants of Concern are potential pollutants associated with Urban Runoff that are related with the type of development (land use) and legacy pollutants such as pesticides, nutrients, or hazardous substances in the site's soils as a result of past uses. See Exhibit B of the WQMP a more detailed description of pollutant and their sources.

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Q.11--How do you address Pollutants of Concern?

If the development/project includes pollutants of concerns not associated with a 303(d) listing for proximate receiving waters, then a combination of Site Design, Source Control and Treatment Control BMP would be used to address Pollutants of Concern.

If the development/project includes pollutants of concern associated with a 303(d) listing for proximate receiving waters, then Treatment Control BMPs must be of HIGH or MEDIUM effectiveness as stated on Table 3 of the Riverside County WQMP manual or any other reasonable source approved by the Permittee.

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Q.12--What is a Receiving Water?

Generally, a receiving water is a surface waterbody or watercourse such as a canyon drainage, spring, creek, river, lake, estuary, lagoon, bay, surface reservoir, or ocean. A receiving water can be ephemeral, perennial, or intermittent in nature. Waters of the U.S. are always Receiving Waters. Developments must address water quality impacts to proximate receiving waters.

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Q.13--Where can the latest 303(d) List of Impaired Waters be found?

The most recent 303(d) list can be downloaded at

http://www.waterboards.ca.gov/tmdl/303d_lists.html?counter=2723

The table below contains the 303(d) listed waterbodies, impairing pollutants, and tributary Hydrologic Units as proposed on the 2006 – 303(d) list. This list should remain in effect until 2008. Project pollutants of concern should be compared to impaired waterbody/pollutant tables below to determine if the proposed project impacts impaired waterbodies.

SAR & SMR - 303(d) listed Waterbodies with Tributary Hydrologic Units

Based on the 2006 - 303(d) list of waterbody impairments

Region	Impaired Waterbody	Hydrologic Sub Area Name	Hydrologic Unit No.	Impairment	Tributary Hydrologic Unit Numbers
8	Canyon Lake (Railroad Cyn Reservoir)	Perris Valley	802.11	<i>Nutrients*</i> , Bacteria & Viruses (Pathogens)	802.11-15, 802.21-23
8	Chino Creek Reach 1	Chino Split	801.21	Nutrients	801.21
8	Elsinore, Lake	Elsinore	802.31	<i>Nutrients*</i> , PCBs, Unknown Toxicity	802.11-15, 21-23, 31-32
8	Fulmor Lake	Gilman Hot Springs	802.21	Bacteria & Viruses (Pathogens)	802.21-23
8	Mill Creek (Prado Area)	Chino Split	801.21	Nutrients, Turbidity (Total Suspended Solids)	801.21
8	Prado Park Lake	Chino Split	801.21	Nutrients	801.21, 27
8	Santa Ana River, Reach 3	Chino Split	801.21	Bacteria & Viruses (Pathogens)	801.21, 25-27, 31-35
8	Santa Ana River, Reach 4	Riverside	801.27	Bacteria & Viruses (Pathogens)	801.27
9	Santa Margarita Lagoon	Lower Ysidora	902.11	Nutrients (Eutrophic)	902.11-13, 21-22, 31-35, 41-44, 51-52, 61-63, 81-84, 71-74, 91
9	De Luz Creek	De Luz Creek	902.21	Metals (Iron & Manganese)	902.21
9	Long Canyon	Redec	902.83	Turbidity (Total dissolved solids)	902.83, 84, 91

9	Murrieta Creek	Wolf Creek	902.52	Metals (Iron, Manganese), Nutrients (Nitrogen, Phosphorus)	902.31-35, 41-44, 51-52, 61-63, 71-74, 81-84, 91
9	Rainbow Creek	Gavilan	902.22	Metal (Iron) Nutrient (Sulfates), Turbidity (Total Dissolved Solids)	902.23
9	Sandia Creek	Gavilan	902.22	Metal (Iron, Manganese), Nutrients (Nitrogen, Sulfates), Turbidity (Total Dissolved Solids)	902.22
9	Santa Margarita River (upper)	Gavilan	902.22	Nutrients (Phosphorus)	902.22, 31-35, 41-44, 51-52, 61- 63, 71-74, 81-84, 91
9	Temecula Creek	Pauba	902.51	Nutrients (Nitrogen, Phosphorus), Turbidity (Total Dissolved Solids)	902.51, 61-63, 71-74, 81-84, 91

*TMDL's have been established that remove these constituents from the 303(d) list, but these constituents must be mitigated to meet the objectives of the TMDL.

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Q.14--What are "proximate Receiving Waters" for Pollutant of Concern?

TMDL's typically require regulation of impairing pollutants, for 303 (d) listed waterbodies, through all hydrologic conditions. Therefore, Proximate Receiving Waters for Pollutant of Concern analysis are all receiving waters between the project and either the ocean or natural/engineered hydrologic barriers that prevent pollutant transport for events up to 100 year flood conditions. Terminus proximate Receiving Waters in the Santa Ana and Santa Margarita 100-year Watersheds are listed below:

Santa Margarita Watershed: All downstream receiving waters to the Ocean. These potentially include Murrieta Creek, Temecula Creek, Long Canyon Creek and the Santa Margarita Lagoon

San Jacinto Watershed: All downstream receiving waters to Lake Elsinore, potentially including the San Jacinto River and Canyon Lake

Santa Ana Watershed (excluding the San Jacinto Watershed): All downstream waters to Prado Dam, potentially including the Santa Ana River, Reach 3.

Whitewater Watershed: All downstream receiving waters to the Salton Sea, potentially including the Coachella Valley Stormwater Channel and the Whitewater River.

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Q. 15--Where can you find Hydrologic Unit Basin Numbers?

The most recent Basin Plan Maps identifying Hydrologic Unit Basin Numbers may be downloaded at:

Santa Ana Watershed: <http://www.waterboards.ca.gov/santaana/>

Santa Margarita Watershed: <http://www.waterboards.ca.gov/sandiego/>

Whitewater Watershed: <http://www.waterboards.ca.gov/coloradoriver/>

Santa Ana Region Hydrologic Numbers		Santa Margarita Region Hydrologic Numbers		White Water Region Hydrologic Numbers	
801.13	Santa Ana Narrows	901.25	Upper San Juan	708.10	Warren
801.21	Chino Split	901.40	San Mateo Canyon	709.10	Copper Mountain
801.25	Temescal	902.21	DeLuz Creek	709.20	Dale Valley
801.26	Arlington	902.22	Gavilan	711.00	Cadiz
801.27	Riverside	902.23	Vallecitos	712.00	Ward
801.31	Coldwater	902.31	Wildomar	715.10	Vidal
801.32	Bedford	902.32	Murrieta	715.20	Big Wash
801.33	Cajalco	902.33	French	715.30	Quien Sabe
801.34	Lee Lake	902.34	Lower Domenigoni	715.40	Palo Verde
801.35	Terra Colta	902.35	Domenigoni	715.50	Midway Well
801.45	Reche	902.36	Diamond	716.00	Rice
801.62	Beaumont	902.41	Bachelor Mountain	717.10	Ford
801.63	Cherry Valley	902.42	Gertrudis	717.20	Palen
801.69	Nobie Creek	902.43	Low Tualota	717.30	Pinto
802.11	Perris Valley	902.44	Tualota	717.40	Pleasant
802.12	Menifee	902.51	Pauba	718.00	Hayfield
802.13	Winchester	902.52	Wolf	719.10	Morongo
802.14	Lakeview	902.61	Lancaster Valley	719.20	Shavers
802.15	Hemet	902.62	Lewis	719.31	Banning
802.21	Gilman Hot Springs	902.63	Reed Valley	719.32	Cabazon
802.22	Hemet Lake	902.71	Lower Coahuila	719.41	Garent Hill
802.23	Bautista	902.72	Upper Coahuila	719.42	Mission Creek
802.31	Elsinore	902.73	Anza	719.43	Miracle Hill
802.32	Railroad	902.74	Burnt	719.44	Sky Valley
		902.81	Vail	719.45	Fargo Canyon
		902.82	Devils Hole	719.46	Thousands Palms
		902.83	Redec	719.47	Indio
		902.84	Tule Creek	720.00	Clark
		902.91	Lower Culp	722.11	Terwilliger
		902.92	Previtt Canyon	722.12	Collins
		903.21	Pala	723.10	Brawley
				725.00	East Salton

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Q.16--When are Hydrologic Conditions of Concern addressed?

Section 4.4 of the WQMP identifies three conditions under which hydrologic condition of concern would not need to be addressed. Conditions A and B exempt projects discharging to publicly maintained MS4 systems and projects less than one acre in size. Condition C exempts projects with runoff flow rates, volumes, velocity and durations less than the pre-development condition for 2-year and 10-year 24 hour rainfall events.

Note that Hydrologic Conditions of Concern address impacts runoff events from de minimus runoff events through the 10-year 24-hour rainfall event. Therefore, proximate Receiving Waters for Hydrologic Conditions of Concern are the waterbodies that may be impacted under these conditions. Generally, stream systems with 20 square miles or greater tributary area can be considered a final terminus for HCOC analysis.

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Q.17--What are “animal wastes” as defined in Footnote 3 of WQMP Exhibit B?

Facilities with animal wastes include pet stores, veterinary clinics, animal shelters, zoos, and other facilities handling live animals. Facilities processing animal bi-products are also included such as restaurants, meat packing facilities, grocery stores, etc.

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Q.18--What is meant by “the handling and placement of any wastes” in Section 4.6 of the WQMP?

Certain source control and treatment control BMPs may collect waste that is classified as hazardous, or whose transport and disposal is otherwise limited by state or federal law. Two examples are: (1) depending upon the land uses in the drainage area of a detention or retention basin, the accumulated sediment may have characteristics that restrict its disposal; (2) in some applications, catch basin filter inserts may accumulate enough pollutants (e.g., metals, petroleum hydrocarbons) to warrant restricted disposal. Operation and Maintenance procedures should address how these wastes will be collected, stored, transported and disposed.

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Q.19--What is meant by “BMP start-up dates” in Section 4.6 of the WQMP?

Section 4.6 of the WQMP requires the project proponent to address “BMP start-up dates”, or dates when BMPs are expected to become functional, to assist with determining compliance with Section 2.2 of the WQMP. Section 2.2 of the WQMP states that Permittee conditions of approval must require the project proponent describe the mechanism for funding the long-term operation and maintenance of the BMPs requiring long-term maintenance prior to the issuance of building or grading permits. In addition conditions of approval must require guarantee of BMP construction and installation prior to building or grading permit close-out or issuance of certificate of occupancy or certificate of use, as applicable. The Permittees must verify that maintenance and operations

entities are aware of when their obligations begin and to ensure that BMPs are effectively functioning prior to closing out a development project.

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Q.20--What are options for "High/Medium" effectiveness BMPs for bacteria/pathogen indicators necessary to address 303(d) listings and TMDLs in the Santa Ana and San Jacinto Watersheds? (4.5.3 page 25)

Section 4.5.3 of the WQMP requires that sites that are tributary to 303(d) listed waterbodies require Post Construction BMPs capable of reducing 303(d) listed pollutants of concern with at least a “Medium” removal efficiency per Table 3 of the WQMP. The San Jacinto River watershed tributary to Canyon Lake and the Santa Ana River watershed are 303(d) listed for bacteria/pathogen indicators and will require BMPs that are rated at least “Medium” removal efficiency for bacteria.

The Riverside County WQMP Table 3 - Treatment Control BMP Selection Matrix designates Infiltration BMPs and Filtration Systems, including sand and media filters, as High or Medium pollutant removal efficiency for bacteria.

Additional BMPs with high and/or medium bacteria reduction effectiveness, such as extended detention basins, are cited in CASQA (2003 Stormwater Best Management Practices Handbook for New Development and Redevelopment) and Caltrans studies (April 2006). These studies identify acceptable alternative BMPs. Underground filtration systems may also be an option given sufficient support for removal efficiency from manufacturers.

Based on Caltrans’ 2006 Treatment BMP Technology Report, the most effective BMPs (based on pathogen removal and cost) are Biofiltration strips, followed by Infiltration Basins, then Dry Weather Flow Diversions. These BMPs are all approved by Caltrans.

BMP Type	Pathogen Removal	Confidence	Benefit	Cost	Confidence
Biofiltration Strips	High	High	High	Low	High
Infiltration Basin	High	Med	High	Low	High
Dry Weather Flow Diversions	High	Med	High	Low	Low

Caltrans cites other BMPs that were costly but had a high-medium pathogen removal with high-medium confidence, which include:

1. Infiltration Trenches*
2. Wet Basin*
3. Dual Media Austin Filter
4. Wetland Systems
5. Disinfection – Ozone
6. Several below Grade Infiltration products
7. Porous Asphalt Pavement
8. Austin Sand Filter*
9. Delaware Sand Filter*
10. Filtration Bed

*Caltrans approved BMPs

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Q.21--Does a Commercial/Industrial or Residential Development with parking lots and/or streets incorporated into the development need to address all pollutants associated with each of the aforementioned development categories identified in WQMP Exhibit B?

No. Most commercial and residential developments incorporate parking lots and roads, streets and highways. WQMP Exhibit B identifies various Types of Developments or Land Uses as separate development categories with unique Pollutants of Concern. The Pollutants of Concern for parking lots and roads, streets and highways are not necessarily subsets of other types of development types or land uses. For example, WQMP Exhibit B indicates that Commercial/Industrial Development potentially have organic compounds in runoff IF solvents will be used or stored by the project in a way that exposes solvents to precipitation or runoff. However, parking lots are identified as ALWAYS having organic compounds as a potential pollutant of concern (in the form of petroleum hydrocarbons).

The studies used to identify pollutants in runoff for the Type of Development (Land Use) identified in WQMP Exhibit "B" considered all aspects of the typical land use (including parking lots and roads) when defining the pollutants associated with that type of development or land use category. Therefore, if construction of parking lots and/or roads are a condition of approval for the map or permit for which discretionary approval is sought and are hydrologically interconnected, the encompassing development category (i.e. Commercial/Industrial development type or land use) would define the Pollutants of Concern. Hydrologically independent development categories for that same map or permit should address all Pollutants of Concern associated with the hydrologically independent development type or land use category in Model WQMP Exhibit B. As always, there are exceptions to every rule, and project applicant should consider and describe in the Project-Specific WQMP the unique circumstances that may influence the Pollutant of Concern identified for a specific project based upon the development category or combination of categories that are appropriate. For example, a Permittee may require that a commercial automobile parts store shall address petroleum hydrocarbons (organic compounds), which are not associated with the commercial/industrial development category in the Exhibit B of the WQMP, but are associated with parking lots, due to the increased likelihood of automotive repair activities occurring in the customer parking areas and automobiles in need of maintenance utilizing the customer parking area.

For other development type or land use mixes of a map or permit for which discretionary approval is sought, such as commercial shopping center with satellite restaurants and/or automotive repair shop pads, the project-specific WQMP should specifically consider Potential Pollutants associated with each separate development type or land use.

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Q.22--If a development includes multiple WQMP development types or land uses such as a Commercial Shopping Center with one or more satellite restaurants, does the entire development have to address the combined Pollutants of Concern identified for both development categories in WQMP Exhibit B?

Yes. Those portions of the commercial development containing hydrologically interconnected development categories must address all pollutants of concern associated with the hydrologically interconnected development categories. Where it is feasible to address certain pollutants, such as pathogens, at the source with a proactive site and source control prospective, the need to address

pathogens in downstream treatment control BMPs would not be required. In other cases, it may be feasible to grade the overall site in such a manner to allow localized treatment of specific Pollutants of Concern can be addressed.

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Q.23--Is a Registered Engineer's stamp required on the preliminary project-specific WQMP?

Yes, however this requirement can be waived for preliminary WQMPs at the discretion of the Permittee. Preliminary project-specific WQMPs contain details such as lot layout, drainage control, site grading, and BMP footprint. These project features are integral to final lot layout and must necessarily be determined with some level of confidence prior to discretionary approval for the map or permit by the appropriate legislative or administrative body. Therefore, a Registered Engineer shall stamp and sign the preliminary project-specific WQMP as well as the final project-specific WQMP to ensure accuracy of calculations. A Registered Engineer's stamp is always required on the final project-specific WQMP.

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Q.24--Is an owner's certification be required on a preliminary project-specific WQMP?

Yes, however this requirement can be waived for preliminary WQMPs at the discretion of the Permittee. The owner's certification page is located in the WQMP Exhibit A, Project-Specific WQMP template. Preliminary WQMPs contain design details and developer commitments regarding operation, maintenance and funding of post-construction BMPs. Preliminary project-specific WQMPs must be approved prior to discretionary approval for the map or permit by the appropriate administrative or legislative body. Siting, maintenance and funding commitments made in the Preliminary project-specific WQMP should be recognized by the site owner prior to this approval. Consequently, the owner should be required to sign the preliminary and final project-specific WQMP. An owner's certification is always required on a final project-specific WQMP.

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Q.25--What elements should be included in a project specific WQMP submittal?

Page 8 of the Model WQMP specifies the main elements of a preliminary project specific WQMP:

- 1) Project description and site characterization
- 2) Identification of Pollutants and Hydrologic Conditions of Concern
- 3) Identification of Site Design BMPs to be incorporated
- 4) Identification of Source Control BMPs to be incorporated
- 5) Selection, preliminary sizing and siting of applicable post-construction BMPs
- 6) Preliminary Operation and Maintenance Program, including responsible parties
- 7) Proposed funding source for O&M

The level of detail in a preliminary project-specific WQMP will depend on the level of detail known about the overall project design the time project approval is sought. The level of detail associated with a Preliminary project-specific WQMP should be sufficient to:

- Identify the major features of the development, including the location of activities, storage areas, or other features that could expose Urban Runoff to pollutants.
- Identify impacts of developments
- Ensure that applicable BMPs are reasonably incorporated into site layout and appropriately sized.
- Ensure that a reasonable and feasible operations and maintenance mechanism is proposed and that identified maintenance parties are committed to participation (for example, if public maintenance is proposed, ensure that public maintenance agencies have committed to the proposal)
- Ensure that a feasible and acceptable funding mechanism has been proposed.

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Q.26--Can pollutants associated with development categories in WQMP Exhibit B be addressed solely through site design and/or source control BMPs?

Yes. Section 7 of the WQMP, under Condition A, indicates that Treatment Control BMP requirements may be eliminated, with the approval of the local jurisdiction, if Site Design and Source Control BMPs are demonstrated to effectively eliminate discharges of Pollutants of Concern for the Flow Based Design or Volume Based Design criteria. Equivalency can be demonstrated for all pollutants associated with a site, or specific individual pollutants associated with a site.

For example, parking lots are identified as expected sources of pathogens (non-human sources would be considered natural background). However, the source of pathogens may vary with the land use associated with the parking lot. If a parking lot is associated with a real estate office, the only urban source of pathogens is likely to be trash dumpsters. If those trash dumpsters were covered, maintained in enclosed areas that divert stormwater around the dumpster enclosure, and had non-stormwater flows diverted to sewer, then pathogens could be considered addressed for that parking lot. Other pollutants, such as trash, nutrients and oil and grease may still need to be addressed would still need to be addressed with other site, source or treatment control BMPs.

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Q.27--Issue: Is roof runoff a pollutant? Does it need to be treated?

Yes. Roof runoff is a part of the encompassing Development Type or Land Use (i.e. Commercial/Industrial) in WQMP Exhibit "B". Roof runoff has been found to contain pollutants associated with aerial deposition and various materials used to construct roofs and appurtenant roof infrastructure (air conditioners, vents, roofing material). Roof runoff, particularly from commercial and industrial buildings, has been demonstrated to significantly exceed zinc and copper water quality objectives in certain circumstances. This is of particular concern as zinc and copper have been identified on the draft 2004 303(d) list as impairing Beneficial Uses for

Murrieta Creek. By architectural design, roofs may be either hydrologically independent to the encompassing Development Type or Land Use or hydrologically interconnected to the same.

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Q.28--What controls on property or titles are necessary to ensure that site design BMPs are not abandoned or destroyed by future property owners?

Site Design BMPs may need to be recorded on final maps as easements to ensure that their functionality is not hindered by future property owners. For example, an easement could be in place to protect a gravel-lined water quality swale along a driveway, a setback from a natural watercourse or a water quality pond that is integrated in to the site design of a project.

Covenants, HOAs, POAs, CC&Rs may also be used to describe locations of site design BMPs and limitations on the use of areas incorporating site design BMPs (e.g., areas utilizing open-jointed paving materials or permeable surfaces, such as pervious concrete, porous asphalt, unit pavers, and granular materials or landscaped buffer areas between sidewalks and streets).

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