Appendix B

Minimum BMPs

1. CITY OF ESCONDIDO

1.1 CONTRIBUTIONS OF IDDE, CONSTRUCTION MANAGEMENT, AND DEVELOPMENT PLANNING ACTIVITIES TO ADDRESSING HIGHEST PRIORITY WATER QUALITY CONDITIONS AND ASSOCIATED SOURCES FOR THE CITY'S JURISDICTIONAL AREAS WITHIN THE ESCONDIDO CREEK HYDROLOGIC AREA

The following program descriptions supplement information provided in the main strategies table within the Water Quality Improvement Plan (WQIP). Note that the WQIP strategies table is formatted with headers that identify which provision of the Permit the strategies below each header correspond to. References to "Provision E.X strategies" direct the reader to the appropriate part of the strategies table.

1.1.1 Illicit Discharge Detection and Elimination (IDDE)

The City's Municipal Code prohibits illicit discharges and illicit connections (IC/ID). All IC/IDs are sources of non-storm water flow and can serve as transport mechanisms for pollutants. IC/IDs can also be direct sources of pollutants. Examples of IC/IDs include the following types of discharges to the MS4: irrigation runoff, power washing, commercial vehicle washing, mop water, wet cleaning of trash enclosures or dumpsters, washing activities at animal facilities, washing of construction equipment, and indoor drains connected to the storm drain system. To identify IC/IDs the City operates a public hotline to receive reports from the public, City staff, and contractors, and inspects at least 80% of its major MS4 outfalls each year. The inspected outfalls are selected from the City's inventory of major MS4 outfalls. The City also identifies IC/IDs during its inspections of existing development (see Provision E.5 strategies) and construction sites (see Provision E.4 strategies). IC/IDs identified through any of these pathways are required to be eliminated per the City's Enforcement Response Plan (see Provision E.6 strategies). BMPs 1-13 in Table 1 provide more details about pollutants associated with IC/IDs. Refer to JRMP Chapter 3 for additional information about the City's IDDE program.

1.1.1 Construction Management

Prior to beginning work, projects are required to document proposed BMPs through erosion control plans. Grading permits are not issued and work cannot begin until the submitted grading plan, which includes the erosion control plan, is approved. The City inventories approved projects and inspects them during construction to verify that each site is in conformance with the Construction Storm Water BMP Performance Standards in the Storm Water Standards Manual and the BMPs included on the project's approved plans. Where deficiencies are noted, the City requires corrections in accordance with its Enforcement Response Plan (See Provision E.6 strategies). Inspections are tracked to ensure that they meet the minimum inspection frequencies. High priority active and inactive sites are inspected bi-weekly during the rainy season, while medium and low priority sites are inspected monthly. During the dry season, high priority sites are inspected monthly, while medium and low priority sites are inspected as needed. All construction sites are required to implement erosion control and sediment control BMPs, which reduce discharges of sediment. Construction sites are also required to properly dispose of trash and debris daily, which reduces discharges of trash and bacteria, and to maintain secondary containment for portable toilets, which reduces discharges of bacteria. Refer to JRMP Chapter 5 and the Storm Water Standards Manual for additional information about the City's construction management program.

1.1.2 Development Planning Requirements for Priority Development Projects (PDPs)

PDPs are required to implement structural BMPs that reduce pollutant discharges and manage hydromodification. Structural BMPs are required to be documented on project plans and in a Water Quality

Technical Report before permits are issued. BMP installation is then verified by City inspectors prior to project finalization. Required structural BMPs, such as bioretention areas and media filtration systems, remove all categories of pollutants. The revised BMP Design Manual, which is scheduled to go into effect in FY 15-16, will require projects to achieve an even more stringent level of water quality treatment using LID techniques like bioretention, infiltration, or rainwater harvesting. More detailed standards for certain types of projects, such as animal facilities and nurseries, are described in other Provision E.3 strategies. Refer to JRMP Chapter 4 and the Storm Water Standards Manual for additional information about the City's requirements for PDPs.

Table 1. City of Escondido Minimum BMPs for Residential, Industrial, Commercial, and Municipal Sites/Sources for the Escondido Creek HA

		Pollutant or Condition Addressed *Riparian habitat degradation is the HPWQC identified for Escondido Creek HA, and all pollutants or conditions listed below have the potential to degrade riparian habitat*							
No. *	**BMP Title****	**Bacteria**	**Nutrients**	**Metals**	**Trash**	**Sediment**	**Dry Weather Flow**	**Oil & Grease**	**Organics**
1	Eliminate illicit connections to the municipal separate storm sewer system (MS4; Hereafter, "storm drain system").	x	x	x		x	x	x	x
2	Eliminate illicit non-storm water discharges.	x	x	x		x	x	x	x
3	Properly dispose of process and wash water.	x	x	x	x	x	x	x	x
4	Eliminate the discharge of vehicle and equipment wash water.			x		x	x	x	x
5	Properly dispose of water from fire sprinkler maintenance activities.			x		x	x		x
6	Eliminate irrigation runoff.	x	x				x		
7	Properly dispose of discharges from swimming pools, spas, fountains, reflective pools, and filter backwash.						x		
8	Eliminate or control air conditioning condensation discharges.			x			x		
9	Eliminate floor mat cleaning discharges to the MS4.			x		x	x	x	x
10	Eliminate pumped groundwater, foundation, and footing drain discharges.						x		

		Pollutant or Condition Addressed *Riparian habitat degradation is the HPWQC identified for Escondido Creek HA, and all pollutants or conditions listed below have the potential to degrade riparian habitat*							
No. *	**BMP Title****	**Bacteria**	**Nutrients**	**Metals**	**Trash**	**Sediment**	**Dry Weather Flow**	**Oil & Grease**	**Organics**
11	Minimize rising groundwater, diverted stream flows, uncontaminated groundwater infiltration, springs, riparian habitat/wetland flows, potable water sources, and foundation/ footing drain discharges.						x		
12	Direct runoff from pavement, rooftops, and other impervious surfaces to landscaped areas.	x		x	x	x		x	
13	Regularly clean and maintain structural BMPs and LID installations to ensure proper performance.	x	x	x	x	x		x	x
EROSION AND SEDIMENT CONTROL									
14	Protect unpaved areas, including landscaping, from erosion using vegetation or physical stabilization.	x	x			x			
GOOD HOUSEKEEPING									
15	Regularly clean onsite paved parking areas, roads, and driveways.			x	x	x		x	x
16	Implement good housekeeping to keep site free of trash and debris.	x		x	x	x			
17	Keep storm drain inlets and under drains free of sediment, trash, and debris.	x	x	x	x	x		x	x
MATERIAL STORAGE AND HANDLING									
18	Provide and maintain secondary containment to catch spills if storing potential liquid pollutants.			x				x	x
19	Cover, contain, and/or elevate materials stored outside that may become a source of pollutants in storm water or non-storm water.		x	x	x	x		x	x
20	Properly store and dispose of hazardous substances.			x					x

		Pollutant or Condition Addressed *Riparian habitat degradation is the HPWQC identified for Escondido Creek HA, and all pollutants or conditions listed below have the potential to degrade riparian habitat*							
No. *	**BMP Title****	**Bacteria**	**Nutrients**	**Metals**	**Trash**	**Sediment**	**Dry Weather Flow**	**Oil & Grease**	**Organics**
21	Label containers to prevent mishandling of hazardous materials and other potential pollutants.							x	x
PESTICIDE AND FERTILIZER MANAGEMENT									
22	Properly manage pesticides and fertilizers.		x						x
PLANNING									
23	When required, develop a written plan that identifies appropriate BMPs, including spill response, and includes procedures for proper implementation.	x	x	x	x	x	x	x	x
OUTDOOR WORK AREAS									
24	Implement controls to minimize pollution from exposed outdoor work areas.		x	x	x	x		x	x
SPILL PREVENTION AND RESPONSE									
25	Prevent or capture liquid leaks from vehicles and equipment.			x				x	x
26	Immediately clean up spills.	x		x				x	x
27	Maintain a readily accessible spill cleanup kit that is appropriate for the type of material stored.	x		x				x	x
28	Drain fluids from inoperable vehicles and store or dispose of appropriately.			x				x	x
29	Temporarily protect storm drains from non-storm water discharges while conducting activities that have the potential to result in a discharge.	x		x		x		x	x
TRAINING AND EDUCATION									

		Pollutant or Condition Addressed *Riparian habitat degradation is the HPWQC identified for Escondido Creek HA, and all pollutants or conditions listed below have the potential to degrade riparian habitat*							
No. *	**BMP Title****	**Bacteria**	**Nutrients**	**Metals**	**Trash**	**Sediment**	**Dry Weather Flow**	**Oil & Grease**	**Organics**
30	When possible, provide pollution prevention signage for storm drains.	x	x	x	x	x	x	x	x
31	Provide pollution prevention signage for uncovered outdoor sources of pollutants.	x	x	x	x	x		x	x
32	Train appropriate employees on storm water pollution prevention.	x	x	x	x	x	x	x	x
WASTE MANAGEMENT									
33	Keep trash/waste storage areas free of exposed trash, sediment, and debris.	x			x	x			
34	Protect waste storage areas from contact with storm water and non-storm water flows on to the property.	x			x				
35	Cooking oil waste shall be managed to prevent illicit discharges.	x						x	
36	Properly store and dispose of green waste.	x	x			x			
37	Manage animal waste and animal washing in a manner that prevents transport of wastes and wash water off-site.	x	x			x			

*BMP numbers in this table are consistent with the City of Escondido BMP Manual for Industrial, Commercial, and Municipal Properties. The required Residential BMPs, included here and also listed in JRMP Chapter 8, Table 8-1, have a different numbering system; in practice the City references the Municipal Code when needed to communicate with residential sources.

**These BMPs may be applicable to residential, industrial, commercial, and municipal properties and activities, regardless of whether the activity is conducted by the property owner, lessee, contractor, or other persons. For more detailed descriptions of each BMP see Appendix B of the City's JRMP, available online via https://www.escondido.org/water-quality-improvement-planning.aspx

2. COUNTY OF SAN DIEGO

HIGHEST PRIORITY WATER QUALITY CONDITIONS AND ASSOCIATED MINIMUM BMPS FOR THE COUNTY'S JURISDICTIONAL AREAS WITHIN SAN MARCOS HYDROLOGIC AREA

The following program descriptions supplement information provided in the main strategies table within the Water Quality Improvement Plan (WQIP).

Table 2. San Marcos (SM) and Escondido Creek (EC), County Minimum BMPs to address Highest Priority Water Quality Conditions and Priority Water Quality Conditions

		Pollutant or Condition Addressed				
No.	**BMP Title**	**Bacteria**	**Nutrients (SM)**	**Sediment**	**Toxicity**	**Dry Weather Flow**
ALL DISCHARGERS						
1	Eliminate illicit connections to the municipal separate storm sewer system (MS4; Hereafter, "storm drain system").	x	x	x	x	x
2	Eliminate illicit non-storm water discharges.	x	x	x	x	x
3	Properly dispose of process and wash water.	x	x		x	x
4	Properly dispose of vehicle and equipment wash water/Eliminate the discharge of vehicle and equipment wash water.				x	x
5	Properly dispose of water from fire sprinkler maintenance activities.			x	x	x
6	Eliminate pumped groundwater, foundation and footing drain discharges.					x
7	Minimize rising groundwater, diverted stream flows, uncontaminated groundwater infiltration, springs, riparian habitat/wetland flows, potable water sources, and foundation/ footing drain discharges.					x
8	Protect unpaved areas, including landscaping, from erosion using vegetation or physical stabilization.	x	x	x		
9	Regularly clean parking lots.			x	x	
10	Implement good housekeeping to keep site free of trash and debris.	x		x	x	
11	Provide and maintain secondary containment to catch spills when storing potential liquid pollutants in outdoor areas.				x	
12	Properly store and dispose of hazardous substances.				x	

		Pollutant or Condition Addressed				
No.	**BMP Title**	**Bacteria**	**Nutrients (SM)**	**Sediment**	**Toxicity**	**Dry Weather Flow**
13	Cover, contain, and/or elevate materials stored outside that may become a source of pollutants in storm water or non-storm water.		x		x	
14	Label containers to prevent mishandling of hazardous materials and other potential pollutants.				x	
15	Develop a written plan that identifies appropriate BMPs, including spill response, and includes procedures for proper implementation.	x	x	x	x	x
16	Prevent or capture liquid leaks from vehicles and equipment.				x	
17	Maintain a readily accessible spill cleanup kit that is appropriate for the type of material stored.	x			x	
18	Immediately clean up spills.	x				
19	Temporarily protect storm drains from non-storm water discharges while conducting activities that have the potential to result in a discharge.	x		x	x	
20	Implement a pollution prevention system for uncovered outdoor sources of pollutants.		x	x	x	
21	Train appropriate employees on storm water pollution prevention.	x	x	x	x	x
22	Keep trash/waste storage areas free of exposed trash, sediment, and debris.	x		x		
23	Protect waste storage areas from contact with storm water and non-storm water flows on to the property.	x			x	
RESIDENTIAL, COMMERCIAL AND INDUSTRIAL DISCHARGERS						
24	Eliminate irrigation runoff.	x	x			x
25	Eliminate nursery irrigation discharges.	x	x	x		x
26	Properly dispose of discharges from swimming pools, spas, fountains, reflective pools, ponds, and filter backwash.					x
27	Control air conditioning condensation discharges.					x
28	Eliminate floor mat cleaning discharges.			x	x	x
29	Regularly clean and maintain structural BMPs and LID installations to ensure proper performance.	x	x	x	x	

		Pollutant or Condition Addressed				
No.	**BMP Title**	**Bacteria**	**Nutrients (SM)**	**Sediment**	**Toxicity**	**Dry Weather Flow**
30	Keep storm drain inlets and under drains free of sediment, trash, and debris.	x	x	x	x	
31	Properly manage pesticides and fertilizers.	x	x		x	
32	Implement controls to prevent pollution from exposed outdoor work areas.		x	x	x	
33	Drain fluids from inoperable vehicles and store or dispose of appropriately.				x	
34	Provide pollution prevention signage for storm drains.	x	x	x	x	
35	Properly store and dispose of green waste.	x	x	x		
36	Manage animal waste and animal washing in a manner that prevents transport of wastes and wash water off-site.	x	x	x		

3. CITY OF ENCINITAS

HIGHEST PRIORITY WATER QUALITY CONDITIONS AND ASSOCIATED MINIMUM BMPS FOR THE CITY OF ENCINITAS JURISDICTIONAL AREAS IN THE SAN MARCOS HYDROLOGIC AREA

The following program descriptions supplement information provided in the main strategies table within the Water Quality Improvement Plan (WQIP).

Table 3. City of Encinitas Minimum BMPs to address Highest Priority Water Quality Conditions and Priority Water Quality Conditions for Industrial, Commercial, Municipal, and Residential Sites/Sources

		Pollutant or Condition Addressed							
No.	BMP Title	Bacteria	Nutrients	Metals	Trash	Sediment	Dry Weather Flow	Oil & Grease	Organics
DISCHARGE CONTROL									
1	Eliminate illegal connections to the storm drain system.	x	x	x		x	x	x	x
2	Eliminate illegal discharges.	x	x	x		x	x	x	x
3	Properly dispose of process and wash water.	x	x	x	x	x	x	x	x
4	Eliminate the discharge of vehicle and equipment wash water.		x	x		x	x	x	x
5	Properly dispose of water from fire sprinkler maintenance activities.			x		x	x	x	x
6	Eliminate irrigation runoff.	x	x				x		
7	Properly dispose of discharges from swimming pools and spas.						x		
8	Control air conditioning condensation discharges.			x			x		
9	Eliminate floor mat cleaning discharges.	x					x	x	x
10	Eliminate pumped groundwater, foundation, and footing drain discharges.						x		
11	Regularly clean and maintain structural BMPs, including LID installations, to ensure proper performance.	x	x	x	x	x		x	x
GOOD HOUSEKEEPING									
12	Regularly clean facility parking areas.			x	x	x		x	x
13	Implement good housekeeping to keep site free of trash and debris.	x	x			x	x		

Table 3. City of Encinitas Minimum BMPs to address Highest Priority Water Quality Conditions and Priority Water Quality Conditions for Industrial, Commercial, Municipal, and Residential Sites/Sources

		Pollutant or Condition Addressed							
No.	**BMP Title**	**Bacteria**	**Nutrients**	**Metals**	**Trash**	**Sediment**	**Dry Weather Flow**	**Oil & Grease**	**Organics**
14	Keep storm drain inlets free of sediment, trash, and debris.	x	x	x	x	x		x	x
15	Implement controls to minimize pollution from exposed outdoor work areas.		x	x	x	x		x	x
MATERIAL STORAGE AND HANDLING									
16	Provide and maintain secondary containment to catch spills if storing potential liquid pollutants in outdoor areas.			x				x	x
17	Cover, contain, and/or elevate materials stored outside that may become a source of pollutants in stormwater or non-stormwater.		x	x	x	x		x	x
18	Properly store and dispose of hazardous materials.			x					x
PESTICIDE AND FERTILIZER MANAGEMENT									
19	Properly manage pesticides and fertilizers.		x						x
SPILL PREVENTION AND RESPONSE									
20	Prevent or capture liquid leaks from vehicles or equipment.			x				x	x
21	Immediately clean up spills.	x		x				x	x
22	Maintain a readily accessible spill cleanup kit that is appropriate for the type of materials stored onsite.	x		x				x	x
WASTE MANAGEMENT									
23	Keep trash/waste storage areas free of exposed trash, sediment, and debris.	x			x	x			
24	Protect waste storage areas from contact with stormwater and non-stormwater flows onto the property.	x			x				
25	Cooking oil waste shall be managed to prevent illegal discharges.	x						x	
26	Manage animal waste and animal washing in a manner that prevents transport of wastes and wash water off-site.	x	x			x			

Note: Bacteria, the highest priority water quality condition, is highlighted in the above table.

Table 3A. City of Encinitas Minimum BMPs to address Highest Priority Water Quality Conditions and Priority Water Quality Conditions for Construction Sites/Sources

CASQA BMP Factsheet No.	CASQA BMP Factsheet Name	Pollutant or Condition Addressed							
		Bacteria	Nutrients	Metals	Trash	Sediment	Dry Weather Flow	Oil & Grease	Organics
EC-1	Scheduling				x	x			
EC-3	Hydraulic Mulch					x			
EC-6	Straw Mulch					x			
EC-8	Wood Mulching					x			
EC-4	Hydroseeding					x			
EC-2	Preservation of Existing Vegetation					x			
EC-7	Geotextiles and Mats					x			
EC-14	Compost Blankets					x			
EC-5	Soil Binders					x			
EC-9	Earth Dikes and Drainage Swales					x			
EC-10	Velocity Dissipation Devices					x			
EC-11	Slope Drains					x			
EC-12	Stream Bank Stabilization					x			
EC-15	Soil Preparation Roughening					x			
EC-16	Non-Vegetative Stabilization					x			
SE-1	Silt Fence					x			
SE-2	Sediment Basin				x	x			
SE-3	Sediment Traps				x	x			
SE-6	Gravel Bag Berm					x			
SE-4	Check Dam					x			
SE-5	Fiber Rolls					x			
TC-1	Stabilized Construction Entrance/Exit					x			
TC-2	Stabilized Construction Roadway					x			
TC-3	Tire Wash					x			
SE-10	Storm Drain Inlet Protection	x			x	x		x	
SE-12	Manufactured Linear Sediment Controls				x	x			
SE-13	Compost Socks and Berms	x		x		x		x	

Table 3A. City of Encinitas Minimum BMPs to address Highest Priority Water Quality Conditions and Priority Water Quality Conditions for Construction Sites/Sources

CASQA BMP Factsheet No.	CASQA BMP Factsheet Name	Pollutant or Condition Addressed							
		Bacteria	Nutrients	Metals	Trash	Sediment	Dry Weather Flow	Oil & Grease	Organics
SE-14	Biofilter Bags					x			
WE-1	Wind Erosion Control					x			
SE-11	Active Treatment Systems					x			
WM-3	Stockpile Management		x	x	x	x		x	x
WM-8	Concrete Waste Management			x	x	x			
NS-8	Vehicle and Equipment Cleaning		x				x	x	x
NS-10	Vehicle and Equipment Maintenance		x		x			x	x
WM-5	Solid Waste Management								
SE-7	Street Sweeping and Vacuuming	x			x	x		x	
WM-1	Material Delivery & Storage		x	x	x	x		x	x
WM-4	Spill Prevention & Control		x	x	x	x		x	x
WM-6	Hazardous Waste Management	x	x	x	x			x	x
WM-10	Liquid Waste Management		x	x	x	x		x	
NS-9	Vehicle and Equipment Fueling							x	
WM-9	Sanitary/Septic Waste Management	x	x		x				x
NS-1	Water Conservation Practices	x		x		x	x		
NS-2	Dewatering Operations					x	x	x	
NS-3	Paving and Grinding Operations					x	x	x	
NS-4	Temporary Stream Crossing					x			
NS-5	Clear Water Diversion					x			
NS-6	Illicit Connection/Discharge	x	x	x	x	x	x	x	x
NS-7	Potable Water/Irrigation	x	x	x		x	x	x	
NS-11	Pile Driving Operations					x	x	x	
NS-12	Concrete Curing			x		x	x	x	
NS-13	Concrete Finishing			x		x	x	x	
NS-14	Material Over Water	x	x	x	x	x		x	x

Table 3A. City of Encinitas Minimum BMPs to address Highest Priority Water Quality Conditions and Priority Water Quality Conditions for Construction Sites/Sources

CASQA BMP Factsheet No.	CASQA BMP Factsheet Name	Pollutant or Condition Addressed							
		Bacteria	Nutrients	Metals	Trash	Sediment	Dry Weather Flow	Oil & Grease	Organics
NS-15	Demolition Adjacent to Water	x	x	x	x	x		x	x
NS-16	Temporary Batch Plants			x	x	x	x		
WM-2	Material Use		x	x	x	x		x	x
WM-7	Contaminated Soil Management		x	x	x			x	x

Note: Bacteria, the highest priority water quality condition, is highlighted in the above table.

4. CITY OF CARLSBAD

HIGHEST PRIORITY WATER QUALITY CONDITIONS AND ASSOCIATED MINIMUM BMPS FOR THE CITY OF CARLSBAD'S JURISDICTIONAL AREAS WITHIN THE AGUA HEDIONDA HYDROLOGIC AREA.

The following program descriptions supplement information provided in the main strategies table within the Water Quality Improvement Plan (WQIP).

Table 4. City of Carlsbad Minimum BMPs for Residential, Industrial, Commercial, and Municipal Sites/Sources

		Pollutant or Condition Addressed *Riparian habitat degradation is the HPWQC identified for Agua Hedionda HA, and all pollutants or conditions listed below have the potential to degrade riparian habitat*							
No.	**BMP Title***	**Bacteria**	**Nutrients**	**Metals**	**Trash**	**Sediment**	**Dry Weather Flow**	**Oil & Grease**	**Organics**
CONSTRUCTION									
1	Project Planning	x	x	x		x	x	x	x
2	Good site management "Housekeeping", including waste management	x	x				x		
3	Non-storm water management	x	x	x	x	x	x	x	x
4	Erosion Control	x	x	x	x	x		x	x
5	Sediment Control	x				x			
6	Run-on and Run-off control	x				x	x		
7	Active/Passive Sediment Treatment Systems, where applicable	x				x	x		
8	Adequate sediment control BMPs must be installed and maintained	x	x			x			x
9	Adequate BMPs to control offsite sediment tracking must be installed and maintained	x	x			x			x

		Pollutant or Condition Addressed *Riparian habitat degradation is the HPWQC identified for Agua Hedionda HA, and all pollutants or conditions listed below have the potential to degrade riparian habitat*							
No.	**BMP Title***	**Bacteria**	**Nutrients**	**Metals**	**Trash**	**Sediment**	**Dry Weather Flow**	**Oil & Grease**	**Organics**
10	A minimum of 125% of the material needed to install standby BMPs to protect the exposed areas from erosion and prevent sediment discharges, must be stored onsite. Areas already protected from erosion using physical stabilization or established vegetation stabilization BMPs are not considered to be "exposed" for purposes of this requirement	x	x			x			x
11	Deployment of physical or vegetation erosion control BMPs must commence as soon as slopes are completed. The project proponent may not continue to rely on the ability to deploy standby BMP materials to prevent erosion of slopes that have been completed	x	x			x			x
12	The area that can be cleared, graded, and left exposed at one time is limited to the amount of acreage that the contractor can adequately protect prior to a predicted rain event. For larger sites grading should be phased. It may be necessary to deploy erosion and sediment control BMPs in areas that are not completed, but are not actively being worked before additional grading is completed.	x				x			
13	All exposed disturbed areas must have erosion protection BMPs properly installed. This includes all building pads, unfinished roads, and slopes	x				x			
14	All disturbed areas that are not completed and/or not being actively graded must be fully protected from erosion if left for 10 or more days	x				x			

		Pollutant or Condition Addressed *Riparian habitat degradation is the HPWQC identified for Agua Hedionda HA, and all pollutants or conditions listed below have the potential to degrade riparian habitat*							
No.	**BMP Title***	**Bacteria**	**Nutrients**	**Metals**	**Trash**	**Sediment**	**Dry Weather Flow**	**Oil & Grease**	**Organics**
15	All construction and grading projects are required to emphasize erosion prevention as the most important measure for keeping sediment on-site during construction. Sediment controls are to be used as a supplement to erosion prevention never as the single or primary method.	x				x			
COMMERCIAL AND INDUSTRIAL FACILITIES/AREAS									
16	Good Housekeeping	x	x	x	x	x	x	x	x
17	Preventative Maintenance	x	x	x	x	x	x	x	x
18	Material storage, handling and application	x	x	x	x	x	x	x	x
19	Employee Training	x	x	x	x	x	x	x	x
20	Solid waste (non-hazardous) handling and recycling		x	x	x	x		x	x
21	Spill Response	x	x	x	x	x	x	x	x
22	Record Keeping	x	x	x	x	x	x	x	x
23	Self-inspection/quality assurance	x	x	x	x	x	x	x	x
MUNICIPAL FACILITIES/AREAS									
24	Employee Training	x	x	x	x	x	x	x	x
25	Pollution Prevention	x	x	x	x	x	x	x	x
26	Good Housekeeping	x	x	x	x	x	x	x	x
27	Spill response and prevention	x	x	x	x	x	x	x	x
RESIDENTIAL AREAS									
28	Move or cover potential pollution sources from storm water contact	x	x	x	x	x		x	x

		Pollutant or Condition Addressed *Riparian habitat degradation is the HPWQC identified for Agua Hedionda HA, and all pollutants or conditions listed below have the potential to degrade riparian habitat*							
No.	**BMP Title***	**Bacteria**	**Nutrients**	**Metals**	**Trash**	**Sediment**	**Dry Weather Flow**	**Oil & Grease**	**Organics**
29	Use dry cleanup methods	x	x		x	x	x	x	x
30	Residential car washing			x	x		x	x	
31	Pet waste cleanup methods	x			x				
32	Trash management				x				
33	Recycle, reduce, and reuse				x				
34	Reduce the use of landscape chemicals		x						x
* For more detailed descriptions of each BMP see the City of Carlsbad's JRMP http://www.carlsbadca.gov/services/depts/pw/environment/storm/reports.asp and Municipal Code http://www.qcode.us/codes/carlsbad/									

5. CITY OF SAN MARCOS

HIGHEST PRIORITY WATER QUALITY CONDITIONS AND ASSOCIATED MINIMUM BMPS FOR THE CITY OF SAN MARCOS'S JURISDICTIONAL AREAS WITHIN THE SAN MARCOS HYDROLOGIC AREA.

The following program descriptions supplement information provided in the main strategies table within the Water Quality Improvement Plan (WQIP).

Table 5. City of San Marcos Minimum BMPs for Residential, Industrial, Commercial, and Municipal Sites/Sources

		Pollutant or Condition Addressed							
No.	**Minimum BMPs***	**Bacteria**	**Nutrients**	**Metals**	**Trash**	**Sediment**	**Dry Weather Flow**	**Oil & Grease**	**Organics**
ALL DISCHARGERS									
1	Prevention of illicit discharges and connections	X	X	X	X	X	X	X	X
2	Prohibit all non-stormwater discharges unless a discharge is authorized by a separate NPDES permit or qualifies as a conditional discharge	X	X	X	X	X	X	X	X
3	Implement all pollution prevention practices that are generally recognized for that source, industry, or activity	X	X	X	X	X	X	X	X
4	Proper storage and use of materials and waste	X	X	X	X	X	X	X	X
5	Implement general erosion and sediment control practices	X	X	X	X	X	X	X	X
RESIDENTIAL									
6	Conduct annual review of residences and activities	X	X	X	X	X	X	X	X
7	Proper storage, management, and disposal of materials and waste	X	X	X	X	X		X	X

		Pollutant or Condition Addressed							
No.	**Minimum BMPs***	**Bacteria**	**Nutrients**	**Metals**	**Trash**	**Sediment**	**Dry Weather Flow**	**Oil & Grease**	**Organics**
8	Proper storage, management, and maintenance of vehicles and equipment			X				X	
COMMERCIAL									
9	Conduct and implement employee training	X	X	X	X	X	X	X	X
10	Development and implementation of Stormwater Management Plan (SWMPs) and Stormwater Pollution Prevention Plans (SWPPPs)	X	X	X	X	X	X	X	X
11	Implement storm drain tileage and signing	X	X	X	X	X	X	X	X
12	Perform an annual review of commercial facilities and activities	X	X	X	X	X	X	X	X
13	Proper storage, management, and disposal of materials and waste	X	X	X	X	X		X	X
14	Proper storage, management, and maintenance of vehicles and equipment			X				X	
15	Implement controls to prevent pollution from exposed outdoor work areas	X	X	X	X	X		X	X
16	Implement good housekeeping practices	X	X	X	X	X	X	X	X
17	Perform preventative maintenance processes	X	X	X	X	X	X	X	X
18	Implement spill prevention and response practices	X	X	X	X	X		X	X
INDUSTRIAL									
19	Conduct and implement employee training	X	X	X	X	X	X	X	X
20	Development and implementation of Stormwater Management Plan (SWMPs) and Stormwater Pollution Prevention Plans (SWPPPs)	X	X	X	X	X	X	X	X
21	Implement storm drain tileage and signing	X	X	X	X	X	X	X	X

		Pollutant or Condition Addressed							
No.	**Minimum BMPs***	**Bacteria**	**Nutrients**	**Metals**	**Trash**	**Sediment**	**Dry Weather Flow**	**Oil & Grease**	**Organics**
22	Perform an annual review of industrial facilities and activities	X	X	X	X	X	X	X	X
23	Proper storage, management, and disposal of materials and waste	X	X	X	X	X		X	X
24	Proper storage, management, and maintenance of vehicles and equipment			X				X	
25	Implement controls to prevent pollution from exposed outdoor work areas	X	X	X	X	X		X	X
26	Implement good housekeeping practices	X	X	X	X	X	X	X	X
27	Perform preventative maintenance processes	X	X	X	X	X	X	X	X
28	Implement spill prevention and response practices	X	X	X	X	X		X	X
CONSTRUCTION									
29	Adequate perimeter protection BMPs must be installed and maintained					X			
30	Adequate sediment control BMPs must be installed and maintained					X			
31	All exposed disturbed areas must have erosion control controls properly installed including building pads, unfinished roads, and slopes					X			
32	A washout area shall be designated and maintained for materials such as concrete, stucco, paint, caulking, sealants, drywall plaster, etc.		X	X		X		X	
33	Properly protected, designated storage areas are required for materials and wastes	X	X	X	X	X		X	X
34	All stockpiles of materials and wastes should be covered and adequately contained	X	X	X	X	X		X	X

		Pollutant or Condition Addressed							
No.	**Minimum BMPs***	**Bacteria**	**Nutrients**	**Metals**	**Trash**	**Sediment**	**Dry Weather Flow**	**Oil & Grease**	**Organics**
35	Storm drain inlets must be protected at all times	X	X	X	X	X		X	X
MUNICIPAL									
36	Conduct and implement employee training	X	X	X	X	X	X	X	X
37	Development and implementation of Stormwater Management Plan (SWMPs) and Stormwater Pollution Prevention Plans (SWPPPs)	X	X	X	X	X	X	X	X
38	Implement storm drain tileage and signing	X	X	X	X	X	X	X	X
39	Perform an annual review of municipal facilities and activities	X	X	X	X	X	X	X	X
40	Proper storage, management, and disposal of materials and waste	X	X	X	X	X		X	X
41	Proper storage, management, and maintenance of vehicles and equipment			X				X	
42	Implement controls to prevent pollution from exposed outdoor work areas	X	X	X	X	X		X	X
43	Implement good housekeeping practices	X	X	X	X	X	X	X	X
44	Perform preventative maintenance processes	X	X	X	X	X	X	X	X
45	Implement spill prevention and response practices	X	X	X	X	X		X	X

*For more detailed descriptions of each BMP, see City of San Marcos JRMP at http://www.san-marcos.net/index.aspx?page=704.

6. CITY OF SOLANA BEACH

PRIORITY WATER QUALITY CONDITIONS AND ASSOCIATED MINIMUM BMPS FOR THE CITY OF SOLANA BEACH'S JURISDICTIONAL AREAS IN THE ESCONDIDO CREEK HYDROLOGIC AREA.

The following program descriptions supplement information provided in the main strategies table within the Water Quality Improvement Plan (WQIP).

Table 6. City of Solana Beach Minimum BMPs for Residential, Industrial, Commercial, and Municipal Sites/Sources

		Pollutant or Condition Addressed							
No.	**Minimum BMPs***	**Bacteria**	**Nutrients**	**Metals**	**Trash**	**Sediment**	**Dry Weather Flow**	**Oil & Grease**	**Organics**
ALL DISCHARGERS									
1	**Eroded Soils -** Prior to the rainy season, dischargers must remove or secure any significant accumulations of eroded soils from slopes previously disturbed by clearing or grading, if those eroded soils could otherwise enter the Storm Water Conveyance System or Receiving Waters during the rainy season.	x				x			
2	**Pollution Prevention -** Dischargers employing ten or more persons on a full-time basis shall implement those storm water pollution prevention practices that are generally recognized in that discharger's industry or business as being effective and economically advantageous.	x	x	x	x	x	x	x	x
3	**Prevention of Illegal Discharges -** Illicit connections must be eliminated (even if the connection was established pursuant to a valid permit and was legal at the time it was constructed), and illegal discharge practices eliminated.	x	x	x	x	x	x	x	x
4	**Slopes -** Completed slopes that are more than five feet in height, more than 250 square feet in total area, and steeper than 3:1 (run-to-rise) that have been disturbed at any time by clearing, grading, or	x				x			

		Pollutant or Condition Addressed							
No.	**Minimum BMPs***	**Bacteria**	**Nutrients**	**Metals**	**Trash**	**Sediment**	**Dry Weather Flow**	**Oil & Grease**	**Organics**
	landscaping, shall be protected from erosion prior to the first rainy season following completion of the slope, and continuously thereafter.								
5	**Storage of Materials and Wastes -** All materials and wastes with the potential to pollute urban runoff shall be stored in a manner that either prevents contact with rainfall and storm water, or contains contaminated runoff for treatment and disposal.	x	x	x	x	x		x	x
6	**Use of Materials -** All materials with the potential to pollute urban runoff (including but not limited to cleaning and maintenance products used outdoors, fertilizers, pesticides and herbicides, etc.) shall be used in accordance with label directions. No such material may be disposed of or rinsed into Receiving Waters or the Storm Water Conveyance System.	x	x	x	x	x	x	x	x
RESIDENTIAL									
7	Motor Vehicle or Boat Repair and Maintenance			x			x	x	
8	Motor Vehicle and Equipment Washing			x			x	x	
9	Motor Vehicle Parking.			x			x	x	
10	Home and Garden Care Activities and Product Use	x	x			x	x		x
11	Home Care and Housekeeping	x	x	x	x	x	x	x	x
12	Home Care and Maintenance.			x					
13	Manure and Pet Waste Management.	x							
15	Private Sewer Laterals and On-Site Wastewater Systems	x				x			

		Pollutant or Condition Addressed							
No.	**Minimum BMPs***	**Bacteria**	**Nutrients**	**Metals**	**Trash**	**Sediment**	**Dry Weather Flow**	**Oil & Grease**	**Organics**
COMMERCIAL									
16	Employee Training	x	x	x	x	x	x	x	x
17	Storm Water Management Plans (SWMPs) and Storm Water Pollution Prevention Plans (SWPPPs)	x	x	x	x	x	x	x	x
18	Storm Drain Tileage and Signing	x	x	x	x	x	x	x	x
19	Annual Review of Facilities and Activities	x	x	x	x	x	x	x	x
20	Pollution Prevention	x	x	x	x	x	x	x	x
21	Materials and Waste Management	x	x	x	x	x		x	x
22	Vehicles and Equipment			x	x			x	
23	Outdoor Areas	x	x	x	x	x	x	x	x
INDUSTRIAL									
24	Notice Of Intent								
25	Storm Water Pollution Prevention Plan	x	x	x	x	x	x	x	x
26	Pollution Prevention Practices	x	x	x	x	x	x	x	x
27	Non-structural BMPs	x	x	x	x	x	x	x	x
28	BMPs for specific activities	x	x	x	x	x	x	x	x
CONSTRUCTION									
29	Storm Water Management Plan	x	x	x	x	x	x	x	x
30	Erosion Control on Slopes	x				x			
31	Erosion control on flat areas; or BMPs to desilt runoff from flat areas	x				x			
32	Runoff velocity reduction	x				x	x		
33	Sediment Control	x				x			
34	Offsite sediment tracking control	x				x			
35	Materials Management	x			x	x			

		Pollutant or Condition Addressed							
No.	**Minimum BMPs***	**Bacteria**	**Nutrients**	**Metals**	**Trash**	**Sediment**	**Dry Weather Flow**	**Oil & Grease**	**Organics**
36	Waste Management	x			x				
37	Vehicle and equipment management	x		x			x		
38	Water Conservation	x	x	x	x	x	x	x	x
39	Downstream erosion control	x				x			
40	Prevention of non-stormwater discharges	x	x	x	x	x	x	x	x

*For more detailed descriptions of each BMP, see Appendix A of the City of Solana Beach's JRMP, available online at http://www.ci.solana-beach.ca.us

7. CITY OF OCEANSIDE

HIGHEST PRIORITY WATER QUALITY CONDITIONS AND ASSOCIATED MINIMUM BMPS FOR THE CITY OF OCEANSIDE'S JURISDICTIONAL AREAS WITHIN THE LOMA ALTA HYDROLOGIC AREA.

The following program descriptions supplement information provided in the main strategies table within the Water Quality Improvement Plan (WQIP).

Table 7. Loma Alta Minimum BMPs

		Pollutant or Condition Addressed							
No.	**Minimum BMPs***	**Bacteria**	**Nutrients**	**Metals**	**Trash**	**Sediment**	**Dry Weather Flow**	**Oil & Grease**	**Organics**
ALL DISCHARGERS									
1	Utilize municipal personnel to identify and report illicit discharges and connections.	X	X	X	X	X	X	X	X
2	Utilize municipal personnel and contractors to monitor stormwater outfalls for discharges of potential illicit discharges and connections.	X	X	X	X	X	X	X	X
3	Utilize water department meter readers to document irrigation runoff, with a focus on residential areas.	X	X	X	X	X	X	X	X
4	Facilitate public reporting of illicit discharges and connections via telephone and email.	X	X	X	X	X	X	X	X
5	Educate the public regarding illegal discharges/ dumping.	X	X	X	X	X	X	X	X
6	Coordinate with upstream entities to prevent illicit discharges from upstream sources from entering the MS4.	X	X	X	X	X	X	X	X
7	Investigate and eliminate illicit discharges and connections.	X	X	X	X	X	X	X	X
8	Enforce legal authority to ensure all illicit discharges and connections identified are eliminated within timeframes established in the MS4 Permit.	X	X	X	X	X	X	X	X
SPILL PREVENTION AND RESPONSE									

		Pollutant or Condition Addressed							
No.	**Minimum BMPs***	**Bacteria**	**Nutrients**	**Metals**	**Trash**	**Sediment**	**Dry Weather Flow**	**Oil & Grease**	**Organics**
1	Implement practices and procedures to prevent and address spills with the potential to enter the MS4.	X	X	X	X	X	X	X	X
2	Slip line sewer pipes to prevent exfiltration from sanitary sewers to the MS4.	X							
3	CCTV 100% of City VCP sewer lines to identify infiltration, exfiltration, and needed pipe repair or replacement.	X							
RESIDENTIAL									
1	Promote rain barrel incentive programs.	X	X	X	X	X	X	X	X
2	Relay information to residents, businesses and municipal staff regarding water agency-sponsored turf replacement programs	X	X	X	X	X	X	X	X
3	Continued enforcement of drought-related restrictions on landscape irrigation frequency	X	X	X	X	X	X	X	X
4	Coordinate Trash Collection Events (public outreach/ participation).	X			X				
5	Conduct educational Workshops (e.g., landscape irrigation and maintenance)	X	X	X	X	X	X	X	X
6	Provide pollution prevention and water conservation presentations at elementary schools.	X	X	X	X	X	X	X	X
7	Conduct inspections of inventoried existing development including residential areas to ensure compliance. Each area/site is inspected once every five years (minimum) and 20% of all industrial, commercial, and municipal sites are inspected on-site annually.	X	X	X	X	X	X	X	X
COMMERCIAL									
1	Relay information to businesses regarding incentive and rebate turf programs for water saving devices and programs	X	X	X	X	X	X	X	X

		Pollutant or Condition Addressed							
No.	**Minimum BMPs***	**Bacteria**	**Nutrients**	**Metals**	**Trash**	**Sediment**	**Dry Weather Flow**	**Oil & Grease**	**Organics**
2	Continued enforcement of drought-related restrictions on landscape irrigation frequency	X	X	X	X	X	X	X	X
3	Require implementation of BMPs to address application, storage, and disposal of pesticides, herbicides, and fertilizers on commercial, industrial, and municipal properties.		X	X	X	X	X	X	X
INDUSTRIAL									
1	Require implementation of BMPs to address application, storage, and disposal of pesticides, herbicides, and fertilizers on commercial, industrial, and municipal properties.		X	X	X	X	X	X	X
2	Relay information to industrial businesses regarding incentive and rebate turf programs for water saving devices and programs	X	X	X	X	X	X	X	X
MUNICIPAL									
1	Require implementation of BMPs to address application, storage, and disposal of pesticides, herbicides, and fertilizers on commercial, industrial, and municipal properties.		X	X	X	X	X	X	X
2	Relay information to municipal staff regarding incentive and rebate turf programs for water saving devices and programs	X	X	X	X	X	X	X	X
3	Annually inspect and clean publicly owned catch basin inserts	X	X	X	X	X	X	X	X
CONSTRUCTION AND DEVELOPMENT PLANNING									
1	Implement a program that ensures that all structural BMPs are designed, constructed, and maintained on PDPs.	X	X	X	X	X	X	X	X
2	Inspect all high priority structural BMPs annually (prior to the rainy season)	X	X	X	X	X	X	X	X

*For more detailed descriptions of each BMP, see Oceanside's JRMP

8. CITY OF VISTA

HIGHEST PRIORITY WATER QUALITY CONDITIONS AND ASSOCIATED MINIMUM BMPS FOR THE CITY OF VISTA'S JURISDICTIONAL AREAS WITHIN THE AGUA HEDIONDA HYDROLOGIC AREA.

The program descriptions included in Appendix B.1. supplement information provided in the main strategies table within the Water Quality Improvement Plan (WQIP). See Appendix B.1 for the minimum BMP table for the City of Vista.

The City of Vista's HPWQC is hydromodification impacts in the Agua Hedionda HA. The minimum BMP tables in Appendix B.1. include sediment and dry weather flow which impact hydromodification within the HA.

Appendix B.1

Minimum BMPs for the City of Vista

City of Vista

Stormwater Standards Manual

June 2015

CITY OF VISTA
CALIFORNIA

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Table of Contents

Tables

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1 Introduction

1.1 Stormwater Standards Manual

This Stormwater Standards Manual (hereafter, "Manual") supports the City of Vista's (City) Stormwater Management and Discharge Control Program Ordinance (Stormwater Ordinance), codified as Vista Municipal Code (VMC) Chapter 13.18. The Manual also supports the water quality protection provisions of the Grading and Erosion Control Ordinance, codified as VMC Chapter 17.56. Moreover, the Manual is not a stand-alone document but must be read with applicable parts of the Stormwater Ordinance and the Grading and Erosion Control Ordinance (collectively, "Ordinances"). In general, this Manual categorically and explicitly establishes what Dischargers must do to comply with the Ordinances and to receive permits for projects and activities that are subject to them. The Manual and the Ordinances have been prepared to provide the City with the respective legal authority and administrative actions necessary to comply with the requirements of California Regional Water Quality Control Board, San Diego Region (RWQCB) Order No. R9-2013-0001, as amended by Order No. R9-2015-0001 (MS4 Permit).

1.2 Purposes and Use

The Manual establishes minimum stormwater management requirements and controls to address the highest priority water quality conditions in the Water Quality Improvement Plans (WQIPs) for the San Luis Rey and Carlsbad Watershed Management Areas (WMAs). Further, the Manual supports the following objectives stated in Section 13.18.020 of the Stormwater Ordinance:

- To establish requirements for discharges into the Municipal Separate Storm Sewer System (MS4), receiving waters, and the environment;
- To protect, to the maximum extent practicable (MEP), life, property, receiving waters, aquatic life, and the environment from loss, injury, degradation, or damage by discharges from within the City's jurisdiction;
- To protect the MS4 from damage; and
- To meet the requirements of state and federal law.

In both the San Luis Rey and Carlsbad WMAs, bacteria has been identified as the highest priority water quality condition. During dry weather conditions, non-stormwater flows transport bacteria and other pollutants. For this reason, the City has minimum requirements to effectively prohibit non-stormwater discharges and will implement activities to reduce them. Because sediment transports bacteria, the City has also designed program activities to reduce discharges of sediment, primarily during wet weather conditions. Efforts to reduce sediment discharges are intended to reduce bacteria levels in stormwater discharges. These efforts are anticipated to reduce sediment loading in nearby receiving waters.

The Manual describes best management practices (BMPs), which are required activities to be implemented to reduce the amount of pollutants discharged to the City's MS4 (hereafter, "storm drain system"[1]). The Manual informs residents, businesses, contractors, developers, and City staff about what is necessary to meet the City's stormwater requirements. All terms used in the Manual have the same meaning as defined in VMC Chapter 13.18, unless otherwise noted.

[1] Throughout the Manual, the term "storm drain system" is typically used in place of "MS4.".

2 Other Potentially Applicable Regulations

The Manual describes stormwater BMPs required by the City of Vista. Some actions and activities associated with stormwater BMP requirements may be subject to additional requirements or approvals, such as other City departments or non-municipal agencies. The legally responsible person must identify all other applicable requirements and obtain the necessary permits or approvals. Some of the more common regulations to consider are discussed in this section; however, this discussion is not meant to be exhaustive.

2.1 Other City of Vista Requirements

Discharges to the sanitary sewer system may require approval from the City's Engineering Department. Call (760) 639-6111 for more information.

Structural improvements to properties, such as building an overhead canopy, may require City permits. Contact Development Services at (760) 639-6108 for more information.

2.2 Requirements of Other Agencies

Work in and around natural drainages, wetlands, and other water resources may require permits from multiple agencies, including the following:

- US Army Corps of Engineers (USACE)
- California Department of Fish and Wildlife
- US Fish and Wildlife Service
- RWQCB

The RWQCB and State Water Resources Control Board (SWRCB) issue permits and conditional waivers for a number of activities that have potential to impact stormwater discharges. Consideration may be given to the following permits and waivers:

- State of California Industrial General Permit, SWRCB Order No. 2014-0057-DWQ
- State of California Construction General Permit, SWRCB Order No. 2009-0009-DWQ
- Groundwater Dewatering Permit, RWQCB Order No. R9-2010-003[2]
- Permit for Discharges of Hydrostatic Test Water or Potable Water, RWQCB Order No. R9-2010-003
- Utility Vault Dewatering Permit, SWRCB Order No. 2014-0174-DWQ
- Conditional Waiver No. 1, Discharges from On-site Disposal Systems
- Conditional Waiver No. 2, "Low Threat" Discharges to Land

[2] This order is expected to be replaced by a new order in 2015. The most recent version is Tentative Order No. R9-2015-0013. The RWQCB's proposed schedule would result in the new order going into effect on October 1, 2015.

- Conditional Waiver No. 3, Discharges from Animal Operations
- Conditional Waiver No. 4, Discharges from Agricultural and Nursery Operations
- Conditional Waiver No. 5, Discharges from Silvicultural Operations
- Conditional Waiver No. 6, Discharges of Dredged or Fill Materials Nearby or Within Surface Waters
- Conditional Waiver No. 7, Discharges of Solid Wastes to Land
- Conditional Waiver No. 8, Discharges of Solid Wastes to Land
- Conditional Waiver No. 9, Discharges of Slurries to Land
- Conditional Waiver No. 10, Discharges of Emergency/Disaster Related Wastes
- Conditional Waiver No. 11, Aerially Discharged Wastes Over Land

Information on the most current requirements for RWQCB and SWRCB permitting and waivers can be obtained from the following website: http://www.waterboards.ca.gov/sandiego/

3 Minimum BMP Requirements

This section presents minimum BMP requirements for the following land uses, activities, and projects within the City:

- Industrial, commercial and municipal facilities or areas
- Residential properties
- Construction sites
- Development projects (post-construction BMPs)

These are the minimum BMP requirements that must be implemented for applicable activities. However, additional consideration should be given to the following:

- Due to site-specific conditions, some BMP requirements reference terms such as "where applicable" or "where feasible." These terms require that BMPs be implemented at the discretion and with the final determination made by Authorized Enforcement Staff. Vista Municipal Code Chapter 13.18 defines "Authorized Enforcement Staff" as follows: "any City employee or contractor hired by the City who is assigned to duties involving permits and other City approvals, inspections, or enforcement related to this chapter."
- Authorized Enforcement Staff also have the authority to require additional BMPs, if necessary, to comply with the Stormwater Ordinance and/or the MS4 Permit.
- References to "CASQA Factsheets" refer to factsheets in manuals prepared by the California Stormwater Quality Association (CASQA). CASQA materials can be accessed at www.casqa.org. Some materials may not be viewable without a paid subscription.

3.1 Industrial, Commercial, and Municipal

Minimum BMP requirements for industrial, commercial and municipal sites and activities are provided in Table 1. These BMPs have been developed, and are supported by, factsheets adopted by the California Stormwater Quality Association (CASQA)[3]. City exceptions to the procedures described in the CASQA factsheets are identified in footnotes. Where any conflict may exist between CASQA factsheets and requirements in the Manual or the Municipal Code, the requirements of the Manual and the Municipal Code shall prevail. Complying with the BMPs described in the Manual does not ensure compliance with all other regulatory requirements, including requirements of other agencies. See Section 2 for more information about other potentially applicable requirements.

[3] CASQA (2015). *Stormwater Best Management Practice Portal: Industrial and Commercial*. www.casqa.org.

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Table 1. Minimum BMPs for Industrial, Commercial and Municipal Sites/Sources

BMP No.	Requirement	Description	Applicable CASQA BMP Factsheet(s)	Pollutants or Conditions Targeted							
				Bacteria	Sediment	Dry Weather Flow	Nutrients	Trash	Metals	Oil & Grease	Organics
Discharge Control											
1	Eliminate illicit discharges to the storm drain system.	Do not allow any material (solid or liquid) or pollutant, except uncontaminated stormwater, to enter the City's storm drain system. Conditional exceptions apply, as described in Vista Municipal Code Chapter 13.18. Additional activity-specific BMPs related to illicit discharges are described in BMP No.'s 3 through 10 (below). Report any suspected or active illicit discharges to the City's Stormwater Hotline at (760) 643-2804.	SC-10, SC-11, SC-44	x	x	x	x		x	x	x
2	Eliminate illicit connections to the storm drain system.	Illicit connections are any drain or connection that allows for an illegal discharge to enter the storm drain system. Find and abate all illicit connections to the storm drain system through properly approved procedures, permits, and protocols. Report any suspected or active illicit connections to the City's Stormwater Hotline at (760) 643-2804.	SC-10, SC-44	x	x	x	x		x	x	x
3	Properly dispose of water used to clean outdoor areas.	All water used to clean outdoor areas (e.g., power washing) shall be contained, captured, and reused, or properly disposed of to the sanitary sewer, an appropriate waste hauler, or to landscaping or other pervious surfaces.	SC-10, SC-41[4], BG-62	x	x	x	x	x	x	x	x

[4] Exception to guidance in factsheet: Factsheet SC-41, Building & Grounds Maintenance, states (in regards to pressure washing), "If soaps or detergents are not used, and the surrounding area is paved, wash runoff does not have to be collected but must be screened. Pressure washers must use filter fabric or some other type of screen on the ground and/or in the catch basin to trap the particles in wash water runoff." However, non-stormwater discharges of this nature, even if filtered, are not allowed to enter the City's storm drain system. Wash water must be contained, collected, and disposed of properly.

Table 1. Minimum BMPs for Industrial, Commercial and Municipal Sites/Sources (Continued)

BMP No.	Requirement	Description	Applicable CASQA BMP Factsheet(s)	Pollutants or Conditions Targeted							
				Bacteria	Sediment	Dry Weather Flow	Nutrients	Trash	Metals	Oil & Grease	Organics
4	Eliminate the discharge of vehicle and equipment wash water.	Water associated with vehicle or equipment-washing activities shall not be allowed to enter the storm drain system. Uncovered designated wash areas must either drain to the sanitary sewer, or all wash water must be contained, captured, and disposed of appropriately. Wash water containing pollutants such as oil, grease, paint, or other hazardous waste must be disposed in accordance with applicable regulations. If approved by the City, drains located in vehicle or equipment washing areas may be connected to the sanitary sewer system. Contact the Engineering Department at (760) 639-6111 for approval.	SC-10, SC-21, BG-64[5]		x	x			x	x	x
5	Properly dispose of water from fire sprinkler maintenance activities.	Fire sprinkler system discharges shall be discharged to the sanitary sewer system when permitted by the City. For approval, contact the Engineering Department at (760) 639-6111. When not practicable or allowed to discharge to the sanitary sewer system due to the presence of prohibited contaminants, the water shall be collected and disposed of by an appropriately certified party. Fire sprinkler system discharges without corrosion inhibitors, fire suppressants, or antifreeze may be discharged to landscaping or other pervious surfaces. Fire sprinkler system discharges may be directed to the storm drain system if the following are implemented: (1) prior to entering the storm drain system, the discharge must be clear, odorless, and pH neutral, and (2) the flow path must be cleaned to ensure that pollutants such as trash and debris are not conveyed to the storm drain system. Discharges shall not result in erosion or in runoff to any adjacent property.	SC-10, SC-41		x	x			x		x

[5] Exception to guidance in factsheet: Factsheet BG-64, Mobile Cleaning – Vehicle and Equipment Washing, states that water used to rinse new cars "May discharge to storm drain." However, water used to rinse new cars is not allowed to be discharged to the City's storm drain system.

Table 1. Minimum BMPs for Industrial, Commercial and Municipal Sites/Sources (Continued)

BMP No.	Requirement	Description	Applicable CASQA BMP Factsheet(s)	Pollutants or Conditions Targeted							
				Bacteria	Sediment	Dry Weather Flow	Nutrients	Trash	Metals	Oil & Grease	Organics
6	Eliminate irrigation runoff.	Irrigation runoff to the storm drain system shall be eliminated. For example, irrigation water and associated pollutants (e.g., sediment, fertilizer, pesticides) from businesses and facilities such as landscape areas, nurseries, and garden centers, shall be prevented from reaching the storm drain system.	SC-10[6], SC-41	x		x	x				
7	Properly dispose of discharges from swimming pools, spas, or water features.	Water from swimming pools, spas, and water features shall be properly disposed of to prevent pollutants from entering the storm drain system. Such discharges to the storm drain system are allowed only if the water is: 1) dechlorinated, 2) has a pH level in the 7-8 range, 3) is near or at ambient temperature, 4) does not have algae or suspended solids, and 5) is not saline. Other related discharges, such as from filter backwash or saline pools, are prohibited from entering the storm drain system. At the discretion of the City, discharges of saline water to the sanitary sewer system may be allowed. Contact the Engineering Department at (760) 639-6111 for approval.	SC-10, BG-63[7]			x					
8	Control air conditioning condensation discharges.	Air conditioning condensation shall be directed to landscaped areas or other pervious surfaces where feasible.	SC-10, SC-42			x			x		

[6] Exception to guidance in factsheet: Factsheet SC-10, Non-Stormwater Discharges, states that "landscape irrigation drainage and landscape watering" may be discharged to the storm drain with conditions; however, in accordance with the MS4 Permit and the City's Stormwater Ordinance, no irrigation runoff may be discharged to the City's storm drain system.

[7] Exception to guidance in factsheet: Factsheet BG-63, Mobile Cleaning – Swimming Pools & Spas, states that discharges from swimming pools and spas to the storm drain system are not permitted; however, discharges of this nature are permitted if the conditions described in BMP 7 are met.

Table 1. Minimum BMPs for Industrial, Commercial and Municipal Sites/Sources (Continued)

BMP No.	Requirement	Description	Applicable CASQA BMP Factsheet(s)	Pollutants or Conditions Targeted							
				Bacteria	Sediment	Dry Weather Flow	Nutrients	Trash	Metals	Oil & Grease	Organics
9	Eliminate discharges from cleaning indoor areas.	Water used to clean indoor areas, such as during floor mopping or mat washing, shall not be discharged to the storm drain system. Indoor wash areas, mop sinks, or indoor floor drains may be utilized if they drain to the sanitary sewer system. Alternatively, such waste water may be suitable for collection, recovery, and discharge to landscape.	SC-10, SC-21, BG-30	x		x				x	x
10	Eliminate pumped groundwater, foundation, and footing drain discharges.	Unless approved by a National Pollutant Discharge Elimination System (NPDES) permit, or the RWQCB has determined in writing that no permit is needed, the following discharges are not allowed: 1) pumped groundwater, such as water from crawl space or sump pumps, 2) discharges from foundation and footing drains that are at or below groundwater elevation.	SC-10			x					
BMP and Storm Drain Conveyance and Structure Maintenance											
11	Regularly inspect and maintain storm drain structures to retain designed functionality.	Storm drain conveyances and structures for which the property owner is responsible for maintenance shall be inspected, maintained, and cleaned to maintain design functionality. All structural BMPs (e.g., treatment and flow control facilities) shall be maintained in accordance with recorded maintenance agreements, and where applicable, structural BMPs shall demonstrate compliance with the City's certification program.	SC-44	x	x		x	x	x	x	x
Erosion and Sediment Control											
12	Protect unpaved and landscaped areas from erosion.	Exposed soils that are eroding or are likely to erode shall be stabilized to prevent sediment from mobilizing in stormwater and entering the storm drain system. Mulch, vegetation, and other stabilization techniques for erosion and sediment control may be implemented. Significant accumulations of eroded soil shall be removed or contained to prevent discharge to the storm drain system.	SC-40, SC-42	x	x		x				

Table 1. Minimum BMPs for Industrial, Commercial and Municipal Sites/Sources (Continued)

BMP No.	Requirement	Description	Applicable CASQA BMP Factsheet(s)	Pollutants or Conditions Targeted							
				Bacteria	Sediment	Dry Weather Flow	Nutrients	Trash	Metals	Oil & Grease	Organics
Good Housekeeping											
13	Regularly clean parking areas, driveways, and hardscape.	Paved parking lots, private roads, and other hardscape, shall be inspected and cleaned as necessary to remove trash, debris, and pollutants that may enter the storm drain system. Sweeping is the preferred method of cleaning. Wet-cleaning methods, such as mopping or power washing, may be conducted if all wash water is contained, captured, and disposed of appropriately.	SC-41, SC-43, BG-62[8]		x			x	x	x	x
14	Implement good housekeeping in outdoor areas.	Outdoor areas shall be inspected and cleaned as necessary to keep them free of trash, sediment, litter, and other debris. Additional attention shall be given to areas such as trash enclosures, loading docks, compactors, and material storage locations.	SC-41	x	x			x	x		

[8] Exception to guidance in factsheet: Factsheet BG-62, Mobile Cleaning – Surface Cleaning, states (in regards to pressure washing) that screened, or filtered, wash water can be discharged to a gutter, street, or storm drain. Non-stormwater discharges of this nature, even if filtered, are not allowed to enter the storm drain system, which includes the streets and gutters. Wash water must be contained, collected, and disposed of properly.

Table 1. Minimum BMPs for Industrial, Commercial and Municipal Sites/Sources (Continued)

BMP No.	Requirement	Description	Applicable CASQA BMP Factsheet(s)	Pollutants or Conditions Targeted							
				Bacteria	Sediment	Dry Weather Flow	Nutrients	Trash	Metals	Oil & Grease	Organics
Material Storage and Handling											
15	Provide and maintain secondary containment to catch spills if storing potential stormwater pollutants.	To prevent leaks and spills from discharging to the storm drain system, effective secondary containment shall be provided and maintained for all containers of material (liquid or solid) with the potential to discharge onto outdoor areas. Drums and other containers shall be kept in good condition and securely closed when not in use. Secondary containment shall also be provided for all liquids during transport to prevent spills due to leaks or punctures. Spills, liquids, and precipitation that accumulates within secondary containment devices shall be regularly removed and disposed of appropriately. Other applicable regulations will apply to the use of secondary containment, as appropriate, especially for hazardous materials, which are regulated by the County of San Diego Department of Environmental Health.	SC-20, SC-31						x	x	x
16	Cover, contain, and/or elevate materials stored outside that may become a source of pollutants in stormwater or non-stormwater.	Materials stored outdoors shall be covered, contained, and/or elevated to prevent stormwater and non-stormwater from contacting and/or transporting materials to the storm drain system. Cover types may include roofs, awnings, and the use of tarps. Where coverage is not feasible or is cost-prohibitive, alternative approaches to pollution prevention may be allowed, such as installing berms around the stored materials, directing runoff to pervious areas, or installing treatment devices. The installation of structural overhead cover may require obtaining City-issued permits. Contact Development Services at (760) 639-6108 for information.	SC-20, SC-33		x		x	x	x	x	x

Table 1. Minimum BMPs for Industrial, Commercial and Municipal Sites/Sources (Continued)

BMP No.	Requirement	Description	Applicable CASQA BMP Factsheet(s)	Pollutants or Conditions Targeted							
				Bacteria	Sediment	Dry Weather Flow	Nutrients	Trash	Metals	Oil & Grease	Organics
17	Properly store and dispose of hazardous materials.	Hazardous materials and wastes shall be stored, managed, and disposed in accordance with federal, state, and local laws and regulations—notably, but not limited to, County of San Diego Department of Environmental Health regulations. Hazardous materials and their primary storage containers shall be stored such that they will not come into contact with stormwater, even if leaks or spills occur (e.g., secondary containment and appropriately covered). Disposal of hazardous wastes requires the use of authorized hazardous waste collection services. See BMPs 16 and 17 for additional details regarding storage.	SC-20, SC-31, SC-33						x		x
Pesticide and Fertilizer Management											
18	Properly manage pesticides and fertilizers.	Pesticides and fertilizers shall be used in strict accordance with manufacturer's labels, as authorized by the U.S. Environmental Protection Agency. See BMPs No.'s 15 and 16 for secondary containment and cover requirements. Waste products shall be disposed in accordance with the manufacturer's label and applicable hazardous waste regulations. The use of integrated pest management (IPM) principles is encouraged to reduce or eliminate use of chemicals. For more information about integrated pest management, see the University of California Statewide IPM Program at: http://www.ipm.ucdavis.edu	SC-35, SC-41, BG-40				x				x

Table 1. Minimum BMPs for Industrial, Commercial and Municipal Sites/Sources (Continued)

BMP No.	Requirement	Description	Applicable CASQA BMP Factsheet(s)	Pollutants or Conditions Targeted							
				Bacteria	Sediment	Dry Weather Flow	Nutrients	Trash	Metals	Oil & Grease	Organics
Outdoor Work Areas											
19	Implement controls to minimize pollution from exposed outdoor work areas.	Activities that may generate pollutants shall be conducted in covered, contained areas; alternatively, adequate measures shall be implemented to prevent the discharge of activity-sourced pollutants. Outdoor work areas shall consider and implement the following, as appropriate: (1) conduct activities indoors; (2) when it is raining, do not conduct outdoor activities that may generate pollutants; (3) prevent runoff from upstream areas from flowing through the work area ; (4) contain the work area to prevent spills or by-products from escaping; (5) install cover or use canopies in areas where outdoor activities are performed; (6) protect storm drain inlets and ensure adequate spill response materials are readily available; and, (7) regularly clean outdoor work areas to remove accumulated debris, materials, and pollutants. Structural BMPs (stormwater treatment devices) may be prescribed if these measures are determined to be ineffective at preventing stormwater pollution from outdoor work activities.	SC-20, SC-30, SC-32, SC-34, SC-42		x		x	x	x	x	x
Spill Prevention and Response											
20	Prevent or capture liquid leaks from vehicles or equipment.	Leaking vehicles or equipment shall be repaired promptly. Drip pans or other equivalent means shall be used to capture spills or leaks from vehicles and equipment. Captured fluids shall be disposed of in accordance with applicable hazardous materials regulations.	SC-11, SC-22						x	x	x
21	Immediately clean up spills.	Spills shall be cleaned up immediately and prevented from entering the storm drain system. Dry-cleaning methods of cleanup are recommended, such as the use of a broom, absorbent, or shop-vac. Consistent with BMP No. 1, uncontained spills must be reported to the City's Stormwater Hotline at (760) 643-2804.	SC-11						x	x	x

Table 1. Minimum BMPs for Industrial, Commercial and Municipal Sites/Sources (Continued)

BMP No.	Requirement	Description	Applicable CASQA BMP Factsheet(s)	Pollutants or Conditions Targeted							
				Bacteria	Sediment	Dry Weather Flow	Nutrients	Trash	Metals	Oil & Grease	Organics
22	Maintain readily accessible and appropriately supplied spill cleanup materials (or kit).	Spill cleanup materials and equipment shall be kept on-site and, appropriately supplied for the type and quantity of spills that may occur. One or more designated 'spill cleanup kits' are recommended. Spill cleanup materials shall be stored in close proximity to where a spill may occur.	SC-11, SC-22						x	x	x
Waste Management											
23	Keep waste storage and dumpster areas free of exposed trash, sediment, and debris.	Waste storage and dumpster areas shall be cleaned to keep them free of uncontained trash, debris, or other potential pollutants. Liquid waste, hazardous waste, medical waste, universal waste, and other items prohibited by current regulations shall not be placed in solid waste dumpsters. Dry-cleaning methods such as sweeping are preferred. If wet cleaning methods are used, all wash water must be contained, captured, and disposed of appropriately. See BMP 3 for information on appropriate wet cleaning practices.	SC-34, SC-41, BG-30	x	x			x			
24	Protect waste storage and dumpster areas from contact with stormwater and non-stormwater flows onto the property.	Waste storage and dumpster areas shall be protected from contact with stormwater and non-stormwater flows. Waste storage lids shall be closed at all times. Dumpsters, compactors, or storage containers that leak shall be promptly repaired or replaced. Overhead structural cover of waste storage areas is recommended.	SC-34	x				x			

Table 1. Minimum BMPs for Industrial, Commercial and Municipal Sites/Sources (Continued)

BMP No.	Requirement	Description	Applicable CASQA BMP Factsheet(s)	Pollutants or Conditions Targeted							
				Bacteria	Sediment	Dry Weather Flow	Nutrients	Trash	Metals	Oil & Grease	Organics
25	Cooking oil waste shall be managed to prevent illicit discharges.	Waste containers for fats, oils, and grease (FOG) shall be kept indoors where feasible. Where not feasible, the waste containers shall be kept in an area with secondary containment. FOG waste containers shall be maintained to prevent spills and discharges to the storm drain system. Documentation of this maintenance shall be available to City inspectors upon request.	SC-34, BG-30	x						x	
26	Manage animal waste and animal washing in a manner that prevents transport of pollutants.	Animals and animal waste shall be managed and stored in a manner that prevents waste and wash water from entering the storm drain system. Collect animal waste and dispose of it to the trash or sanitary sewer, as approved and appropriate.	SC-34, BG-10	x	x		x				

3.2 Residential

Table 2 below presents the minimum required BMPs for residential sites and sources. The City's BMP standards are based on the California Stormwater Quality Association (CASQA) BMP factsheets. City exceptions to the procedures described in the factsheets are identified in footnotes. Where any conflict may exist between CASQA factsheets and requirements in the Manual or the Municipal Code, the requirements of the Manual and the Municipal Code shall prevail. Complying with the BMPs described in the Manual does not ensure compliance with all other regulatory requirements, including requirements of other agencies. See Section 2 for more information about other potentially applicable requirements.

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Table 2. Minimum BMPs for Residential Sites/Sources[9]

No.	BMP Title	BMP Description	CASQA BMP Factsheet Reference[10]	Pollutants or Conditions Targeted							
				Bacteria	Sediment	Dry Weather Flow	Nutrients	Trash	Metals	Oil & Grease	Organics
Discharge Control											
1	Eliminate illicit discharges to the storm drain system.	Do not allow any material (solid or liquid) or pollutant, except uncontaminated stormwater, to enter the City's storm drain system. Conditional exceptions apply, as described in Vista Municipal Code Chapter 13.18. Additional activity-specific BMPs related to illicit discharges are described in BMP No.'s 3 through 10 (below). Report any suspected or active illicit discharges to the City's Stormwater Hotline at (760) 643-2804.	SC-10, SC-11, SC-44	x	x	x	x		x	x	x
2	Eliminate illicit connections to the storm drain system.	Illicit connections are any drain or connection that allows for an illegal discharge to enter the storm drain system. Find and abate all illicit connections to the storm drain system through properly approved procedures, permits, and protocols. Report any suspected or active illicit connections to the City's Stormwater Hotline at (760) 643-2804.	SC-10, SC-11, SC-44	x	x	x	x		x	x	x

[9] To the extent practicable, the City's established minimum BMPs for industrial, commercial, municipal sites/sources shall also be implemented for any industrial/commercial type of activities conducted at a residence where appropriate.

[10] CASQA BMP factsheet references refer to factsheets included in the *Stormwater Best Management Practice Portal: Industrial and Commercial* (2015) since CASQA has not produced a residential BMP manual. BMPs for businesses are generally applicable to residential activities as well.

Table 2. Minimum BMPs for Residential Sites/Sources (Continued)

				Pollutants or Conditions Targeted							
No.	**BMP Title**	**BMP Description**	**CASQA BMP Factsheet Reference[10]**	**Bacteria**	**Sediment**	**Dry Weather Flow**	**Nutrients**	**Trash**	**Metals**	**Oil & Grease**	**Organics**
3	Properly dispose of water used to clean outdoor areas.	All water used to clean outdoor areas (e.g., power washing) shall be contained, captured, and reused, or properly disposed of to the sanitary sewer, an appropriate waste hauler, or to landscaping or other pervious surfaces.	SC-10, SC-41[11], BG-62	x	x	x	x	x	x	x	x
4	Properly dispose of vehicle and equipment wash water.	Wash water from individual residential vehicle washing shall be prevented from discharging to the City's storm drain system, e.g., by directing wash water to landscaped areas or other pervious surfaces, where feasible. Where it is not feasible to prevent discharges to the City's storm drain system, use of water and detergents and other vehicle wash products must be minimized. Discharges to the City's storm drain system from non-commercial car washes, such as fundraisers and other similar activities, are prohibited. For questions, contact the Stormwater Division at (760) 643-2804.	SC-10, SC-21		x	x			x	x	x

[11] Factsheet SC-41 - Building & Grounds Maintenance, states (in regards to pressure washing), "If soaps or detergents are not used, and the surrounding area is paved, wash runoff does not have to be collected but must be screened. Pressure washers must use filter fabric or some other type of screen on the ground and/or in the catch basin to trap the particles in wash water runoff." Non-stormwater discharges of this nature, even if filtered, are not allowed to enter the storm drain system. Wash water must be contained, collected, and disposed of properly.

Table 2. Minimum BMPs for Residential Sites/Sources (Continued)

				Pollutants or Conditions Targeted							
No.	**BMP Title**	**BMP Description**	**CASQA BMP Factsheet Reference[10]**	**Bacteria**	**Sediment**	**Dry Weather Flow**	**Nutrients**	**Trash**	**Metals**	**Oil & Grease**	**Organics**
5	Properly dispose of water from fire sprinkler maintenance activities.	Fire sprinkler system discharges shall be discharged to the sanitary sewer system when permitted by the City. For approval, contact the Engineering Department at (760) 639-6111. When not practicable or allowed to discharge to the sanitary sewer system due to the presence of prohibited contaminants, the water shall be collected and disposed of by an appropriately certified party. Fire sprinkler system discharges without corrosion inhibitors, fire suppressants, or antifreeze may be discharged to landscaping or other pervious surfaces. Fire sprinkler system discharges may be directed to the storm drain system if the following are implemented: (1) prior to entering the storm drain system, the discharge must be clear, odorless, and pH neutral, and (2) the flow path must be cleaned to ensure that pollutants such as trash and debris are not conveyed to the storm drain system. Discharges shall not result in erosion or in runoff to any adjacent property.	SC-10, SC-41		x	x			x		x
6	Eliminate irrigation runoff.	Irrigation runoff to the storm drain system shall be eliminated. For example, irrigation water and associated pollutants (e.g., sediment, fertilizer, pesticides) from landscape areas and gardens shall be prevented from reaching the storm drain system.	SC-10[12], SC-41	x		x	x				

[12] Factsheet SC-10 – Non-Stormwater Discharges states that "landscape irrigation drainage and landscape watering" may be discharged to the storm drain with conditions; however, in accordance with the MS4 Permit and the City's Stormwater Ordinance, no irrigation runoff may be discharged to the City's storm drain system.

Table 2. Minimum BMPs for Residential Sites/Sources (Continued)

				Pollutants or Conditions Targeted							
No.	**BMP Title**	**BMP Description**	**CASQA BMP Factsheet Reference[10]**	**Bacteria**	**Sediment**	**Dry Weather Flow**	**Nutrients**	**Trash**	**Metals**	**Oil & Grease**	**Organics**
7	Properly dispose of discharges from swimming pools, spas, or water features.	Water from swimming pools, spas, and water features shall be properly disposed of to prevent pollutants from entering the storm drain system. Such discharges to the storm drain system are allowed only if the water is: 1) dechlorinated, 2) has a pH level in the 7-8 range, 3) is near or at ambient temperature, 4) does not have algae or suspended solids, and 5) is not saline. Other related discharges, such as from filter backwash or saline pools, are prohibited from entering the storm drain system. At the discretion of the City, discharges of saline water to the sanitary sewer system may be allowed. Contact the Engineering Department at (760) 639-6111 for approval.	SC-10, BG-63[13]			x					
8	Control air conditioning condensation discharges.	Air conditioning condensation shall be directed to landscaped areas or other pervious surfaces where feasible.	SC-10, SC-42			x			x		
9	Eliminate discharges from cleaning indoor areas.	Water used to clean indoor areas, such as during floor mopping or mat washing, shall not be discharged to the storm drain system. Indoor sinks or indoor floor drains may be utilized if they drain to the sanitary sewer system. Alternatively, such waste water may be suitable for collection, recovery, and discharge to landscape.	SC-10, SC-21, BG-30	x		x				x	x

[13] Exception to guidance in factsheet: Factsheet BG-63, Mobile Cleaning – Swimming Pools & Spas, states that discharges from swimming pools and spas to the storm drain system are not permitted; however, discharges of this nature are permitted if the conditions described in BMP 7 are met.

Table 2. Minimum BMPs for Residential Sites/Sources (Continued)

No.	BMP Title	BMP Description	CASQA BMP Factsheet Reference[10]	Pollutants or Conditions Targeted							
				Bacteria	Sediment	Dry Weather Flow	Nutrients	Trash	Metals	Oil & Grease	Organics
10	Eliminate pumped groundwater, foundation, and footing drain discharges.	Unless approved by a National Pollutant Discharge Elimination System (NPDES) permit, or the RWQCB has determined in writing that no permit is needed, the following discharges are not allowed: 1) pumped groundwater, such as water from crawl space or sump pumps, 2) discharges from foundation and footing drains that are at or below groundwater elevation.	SC-10			x					
BMP and Storm Drain Conveyance and Structure Maintenance											
11	Regularly inspect and maintain storm drain structures to retain designed functionality.	Storm drain conveyances and structures for which the property owner is responsible for maintenance shall be inspected, maintained, and cleaned to maintain design functionality. All structural BMPs (e.g., treatment and flow control facilities) shall be maintained in accordance with recorded maintenance agreements, and where applicable, structural BMPs shall demonstrate compliance with the City's certification program.	SC-44	x	x		x	x	x	x	x
Erosion and Sediment Control											
12	Protect unpaved and landscaped areas from erosion.	Exposed soils that are eroding or are likely to erode shall be stabilized to prevent sediment from mobilizing in stormwater and entering the storm drain system. Mulch, vegetation, and other stabilization techniques for erosion and sediment control may be implemented. Significant accumulations of eroded soil shall be removed or contained to prevent discharge to the storm drain system.	SC-40, SC-42	x	x		x				
Good Housekeeping											
13	Implement good housekeeping in outdoor areas.	Outdoor areas shall be inspected and cleaned as necessary to keep them free of trash, sediment, litter, and other debris. Additional attention shall be given to outdoor trash storage areas and and material storage locations.	SC-41	x	x			x			

Table 2. Minimum BMPs for Residential Sites/Sources (Continued)

No.	BMP Title	BMP Description	CASQA BMP Factsheet Reference[10]	Pollutants or Conditions Targeted							
				Bacteria	Sediment	Dry Weather Flow	Nutrients	Trash	Metals	Oil & Grease	Organics
Pesticide and Fertilizer Management											
14	Properly manage pesticides and fertilizers.	Pesticides and fertilizers shall be used in strict accordance with manufacturer's labels, as authorized by the U.S. Environmental Protection Agency. See BMPs No.'s 16 and 17 for secondary containment and cover requirements. Waste products shall be disposed in accordance with the manufacturer's label and applicable hazardous waste regulations. The use of integrated pest management (IPM) principles is encouraged to reduce or eliminate use of chemicals. For more information about integrated pest management, see the University of California Statewide IPM Program at: http://www.ipm.ucdavis.edu	SC-35, SC-41, BG-40				x				x
Spill Prevention and Response											
15	Prevent or capture liquid leaks from vehicles or equipment.	Leaking vehicles or equipment shall be repaired promptly. Drip pans or other equivalent means shall be used to capture spills or leaks from vehicles and equipment. Captured fluids shall be disposed of in accordance with applicable hazardous materials regulations.	SC-11, SC-22						x	x	x
16	Immediately clean up spills.	Spills shall be cleaned up immediately and prevented from entering the storm drain system. Dry-cleaning methods of cleanup are recommended, such as the use of a broom, absorbent, or shop-vac. Consistent with BMP No. 1, uncontained spills must be reported to the City's Stormwater Hotline at (760) 643-2804.	SC-11						x	x	x

Table 2. Minimum BMPs for Residential Sites/Sources (Continued)

No.	BMP Title	BMP Description	CASQA BMP Factsheet Reference[10]	Pollutants or Conditions Targeted							
				Bacteria	Sediment	Dry Weather Flow	Nutrients	Trash	Metals	Oil & Grease	Organics
17	Maintain readily accessible and appropriately supplied spill cleanup materials (or kit).	Spill cleanup materials and equipment shall be kept on-site and, appropriately supplied for the type and quantity of spills that may occur. One or more designated 'spill cleanup kits' are recommended. Spill cleanup materials shall be stored in close proximity to where a spill may occur.	SC-11, SC-22						x	x	x
Waste Management											
18	Keep waste storage and dumpster areas free of exposed trash, sediment, and debris.	Waste storage and dumpster areas shall be cleaned to keep them free of uncontained trash, debris, or other potential pollutants. Liquid waste, hazardous waste, medical waste, universal waste, and other items prohibited by current regulations shall not be placed in solid waste dumpsters. Dry-cleaning methods such as sweeping are preferred. If wet cleaning methods are used, all wash water must be contained, captured, and disposed of appropriately. See BMP 3 for information on appropriate wet cleaning practices.	SC-34, SC-41, BG-30	x	x			x			
19	Protect waste storage and dumpster areas from contact with stormwater and non-stormwater flows onto the property.	Waste storage and dumpster areas shall be protected from contact with stormwater and non-stormwater flows. Waste storage lids shall be closed at all times. Dumpsters, compactors, or storage containers that leak shall be promptly repaired or replaced. Overhead structural cover of waste storage areas is recommended.	SC-34	x				x			

Table 2. Minimum BMPs for Residential Sites/Sources (Continued)

No.	BMP Title	BMP Description	CASQA BMP Factsheet Reference[10]	Pollutants or Conditions Targeted							
				Bacteria	Sediment	Dry Weather Flow	Nutrients	Trash	Metals	Oil & Grease	Organics
20	Manage animal waste and animal washing in a manner that prevents transport of pollutants.	Animals and animal waste shall be managed and stored in a manner that prevents waste and wash water from entering the storm drain system. Collect animal waste and dispose of it to the trash or sanitary sewer, as approved and appropriate.	SC-34, BG-10	x	x		x				

3.3 Construction

Table 3 below presents the minimum BMPs required for construction sites within the City's jurisdiction. The City's BMP standards are based on the California Stormwater Quality Association (CASQA) BMP factsheets. Where any conflict may exist between CASQA factsheets and requirements in the Manual or the Municipal Code, the requirements of the Manual and the Municipal Code shall prevail. Complying with the BMPs described in the Manual does not ensure compliance with all other regulatory requirements, including requirements of other agencies. See Section 2 for more information about other potentially applicable requirements. Note that Table 3 must be used as directed in Section 3.3.1, which provides direction on the interpretation and use of Table 3.

Construction site BMPs are required to be implemented in an effective combination of BMPs that are site specific, construction phase appropriate, and seasonally appropriate. Dry Season (May 1 through September 30) BMP implementation must plan for and address rain events that may occur in the Dry Season. Non-stormwater discharges from construction sites into the City's storm drain system are prohibited year-round. City inspectors have the authority to require additional BMPs to prevent discharges of pollutants and to prevent non-stormwater discharges to the City's storm drain system from construction sites year round. Construction sites also must adhere to the requirements of all applicable additional SWRCB or RWQCB general or site specific NPDES permits for construction activities (see Section 2) at the time of construction.

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Table 3. Minimum BMPs for Construction Sites

THIS MATRIX IS A GENERAL GUIDANCE DOCUMENT AND IS NOT A SUBSTITUTION FOR SITE SPECIFIC BMP REQUIREMENTS.
Construction sites that are subject to other SWRCB or RWQCB permits must also adhere to the BMP Requirements of the additional permits
Refer to the notes at the end of this table for acronyms, reference documents, footnotes, and permit definitions

A	B	C	D	E	F	G	H					
Required BMPs	**Other Permits Potentially Required**	**CASQA BMP Factsheet No.**	**CASQA BMP Factsheet Name**	**MS4 Permit Compliance Category**	**CASQA BMP Factsheet No. Targeted Pollutants**	**On-Site or Off-site Work: Construction Phase**	**CASQA BMP Factsheet No. Categories & Objectives (P = Primary S= Secondary)[1]**					
							Effective Combination Required		**TC**	**WE**	**NS**	**WM**
							EC	**SE**				
X	n/a	n/a	Training	PP,SMWM EC,SE	n/a	G, V, F						
X	✓	EC-1	Scheduling	PP, EC,SE,SMWM	Sediment, Trash	G, V, F	P	S	S	S		
X[a]	✓	EC-2	Preservation of Existing Vegetation	PP,EC	Sediment	G, V, F	P					
X[a]	n/a	EC-3	Hydraulic Mulch	PP,EC, SMWM	Sediment	G, V	P			S		
X[a]	✓	EC-4	Hydroseeding	PP,EC	Sediment	G, V	P			S		
X[a]	n/a	EC-5	Soil Binders	PP,EC	Sediment	G, V	P			S		
X[a]	n/a	EC-6	Straw Mulch	PP,EC	Sediment	G, V	P			S		
X[a]	n/a	EC-7	Geotextiles and Mats	PP,EC	Sediment	G, V, F	P			S		
X[a]	n/a	EC-8	Wood Mulching	PP,EC	Sediment	G, V, F	P			S		
X[a]	✓	EC-9	Earth Dikes and Drainage Swales	PP,EC,RUROC	Sediment	G, V	P					
X[a]	✓	EC-10	Velocity Dissipation Devices	PP,EC,RUROC	Sediment	G, V, F	P					
X[a]	✓	EC-11	Slope Drains	PP,EC,RUROC	Sediment	G, V, F	P					
X[a]	✓	EC-12	Stream Bank Stabilization	PP,EC,SE,NS	Sediment	G, V, F	P	S			S	
X[a]	n/a	EC-14	Compost Blankets	PP,EC	Sediment	G, V, F	P					
X[a]	n/a	EC-15	Soil Preparation Roughening	PP, EC, SE	Sediment	G	P	S				

Table 3. Minimum BMPs for Construction Sites (Continued)

THIS MATRIX IS A GENERAL GUIDANCE DOCUMENT AND IS NOT A SUBSTITUTION FOR SITE SPECIFIC BMP REQUIREMENTS.
Construction sites that are subject to other SWRCB or RWQCB permits must also adhere to the BMP Requirements of the additional permits
Refer to the notes at the end of this table for acronyms, reference documents, footnotes, and permit definitions

A	B	C	D	E	F	G	H					
Required BMPs	Other Permits Potentially Required	CASQA BMP Factsheet No.	CASQA BMP Factsheet Name	MS4 Permit Compliance Category	CASQA BMP Factsheet No. Targeted Pollutants	On-Site or Off-site Work: Construction Phase	CASQA BMP Factsheet No. Categories & Objectives (P = Primary S= Secondary)[1]					
							Effective Combination Required		TC	WE	NS	WM
							EC	SE				
X[a]	n/a	EC-16	Non-Vegetative Stabilization	PP, EC, SE, RUROC	Sediment	G, V, F	P	S			S	
X[b]	n/a	SE-1	Silt Fence	PP, SE, RUROC	Sediment (coarse)	G, V, F		P				
X[b, c]	✓	SE-2	Sediment Basin	PP, SE, RUROC, APS	Sediment, Trash	G, V		P				
X[b, c]	✓	SE-3	Sediment Traps	PP, EC, RUROC, APS	Sediment, Trash	G, V		P				
X[b]	n/a	SE-4	Check Dam	PP, EC, RUROC	Sediment	G, V	S	P				
X[b]	n/a	SE-5	Fiber Rolls	PP, EC, SE, RUROC	Sediment	G, V	S	P				
X[b]	n/a	SE-6	Gravel Bag Berm	PP, EC, SE, RUROC	Sediment	G, V, F	S	P				
X[b]	n/a	SE-7	Street Sweeping and Vacuuming	PP, SE	Sediment, Trash, Oil & Grease, Bacteria	G, V		S	P			
X[b]	n/a	SE-8	Sandbag Barrier (note: gravel to be used)	PP, EC, RUROC	Sediment	G, V, F	S	P				
X[b]	n/a	SE-10	Storm Drain Inlet Protection	PP, SE, RUROC	Sediment, Trash, Oil And Grease, Bacteria	G, V, F		P				
d	✓	SE-11	Active Treatment Systems	PP, APS	Sediment	G	P					

Table 3. Minimum BMPs for Construction Sites (Continued)

THIS MATRIX IS A GENERAL GUIDANCE DOCUMENT AND IS NOT A SUBSTITUTION FOR SITE SPECIFIC BMP REQUIREMENTS.
Construction sites that are subject to other SWRCB or RWQCB permits must also adhere to the BMP Requirements of the additional permits
Refer to the notes at the end of this table for acronyms, reference documents, footnotes, and permit definitions

A	B	C	D	E	F	G	H					
Required BMPs	Other Permits Potentially Required	CASQA BMP Factsheet No.	CASQA BMP Factsheet Name	MS4 Permit Compliance Category	CASQA BMP Factsheet No. Targeted Pollutants	On-Site or Off-site Work: Construction Phase	CASQA BMP Factsheet No. Categories & Objectives (P = Primary S= Secondary)[1]					
							Effective Combination Required		TC	WE	NS	WM
							EC	SE				
e	n/a	SE-12	Manufactured Linear Sediment Controls	PP, SE, RUROC	Sediment, Trash	G, V	S	P				P
e	n/a	SE-13	Compost Socks and Berms	PP, EC, SE, RUROC	Sediment, Metals, Bacteria, Oil & Grease	G, V	S	P				
e	n/a	SE-14	Bio Filter Bags	PP, SE, RUROC	Sediment	G, V, F		P				
X	n/a	WE-1	Wind Erosion Control	PP, SMWM, SE	Sediment	G, V		S		P		
X	n/a	TC-1	Stabilized Construction Entrance/Exit	PP, SMWM, EC, SE, RUROC	Sediment	G, V	S	S	P			
X	n/a	TC-2	Stabilized Construction Roadway	PP, SMWM, EC, SE, RUROC	Sediment	G, V	S	S	P			
X	n/a	TC-3	Tire Wash	PP, SMWM, SE	Sediment	G, V		S	P			
X	✓	NS-1	Water Conservation Practices	PP, SMWM, SE, NS	Sediment, Nutrients, Bacteria	G, V, F	S	S			P	
f	✓	NS-2	Dewatering Operations	PP, SMWM, SE, NS	Sediment, Oil & Grease	G		S			P	
X	n/a	NS-3	Paving and Grinding Operations	PP, SMWM, NS	Sediment, Oil & Grease	G, V, F					P	S

Table 3. Minimum BMPs for Construction Sites (Continued)

THIS MATRIX IS A GENERAL GUIDANCE DOCUMENT AND IS NOT A SUBSTITUTION FOR SITE SPECIFIC BMP REQUIREMENTS.
Construction sites that are subject to other SWRCB or RWQCB permits must also adhere to the BMP Requirements of the additional permits
Refer to the notes at the end of this table for acronyms, reference documents, footnotes, and permit definitions

A	B	C	D	E	F	G	H					
Required BMPs	**Other Permits Potentially Required**	**CASQA BMP Factsheet No.**	**CASQA BMP Factsheet Name**	**MS4 Permit Compliance Category**	**CASQA BMP Factsheet No. Targeted Pollutants**	**On-Site or Off-site Work: Construction Phase**	**CASQA BMP Factsheet No. Categories & Objectives (P = Primary S= Secondary)[1]**					
							Effective Combination Required		**TC**	**WE**	**NS**	**WM**
							EC	**SE**				
f	✓	NS-4	Temporary Stream Crossing	PP, EC, SE NS	Sediment	G, V	S	S	S		P	
f	✓	NS-5	Clear Water Diversion	PP, NS	Sediment	G					P	
X	✓	NS-6	Illicit Connection/ Discharge	SMWM, NS	Sediment, Nutrients, Trash, Metals, Bacteria, Oil & Grease, Organics	G, V, F					P	
X	✓	NS-7	Potable Water/Irrigation	SMWM, NS	Sediment, Nutrients, Metals, Organics,Bacteria	G, V, F					P	
X	n/a	NS-8	Vehicle and Equipment Cleaning	PP, SMWM, NS	Sediment, Nutrients, Oil & Grease, Organics	G, V, F					P	
X	n/a	NS-9	Vehicle and Equipment Fueling	PP, SMWM, NS	Oil & Grease	G, V, F					P	
X	n/a	NS-10	Vehicle and Equipment Maintenance	PP, SMWM, NS	Nutrients, Trash Oil & Grease, Organics	G, V, F					P	
f	n/a	NS-11	Pile Driving Operations	PP, SMWM, NS	Sediment, Oil & Grease	G, V					P	

Table 3. Minimum BMPs for Construction Sites (Continued)

THIS MATRIX IS A GENERAL GUIDANCE DOCUMENT AND IS NOT A SUBSTITUTION FOR SITE SPECIFIC BMP REQUIREMENTS.
Construction sites that are subject to other SWRCB or RWQCB permits must also adhere to the BMP Requirements of the additional permits
Refer to the notes at the end of this table for acronyms, reference documents, footnotes, and permit definitions

A	B	C	D	E	F	G	H					
Required BMPs	Other Permits Potentially Required	CASQA BMP Factsheet No.	CASQA BMP Factsheet Name	MS4 Permit Compliance Category	CASQA BMP Factsheet No. Targeted Pollutants	On-Site or Off-site Work: Construction Phase	CASQA BMP Factsheet No. Categories & Objectives (P = Primary S= Secondary)[1]					
							Effective Combination Required		TC	WE	NS	WM
							EC	SE				
X	n/a	NS-12	Concrete Curing	PP, SMWM, NS	Sediment, Metals, Oil & Grease	G, V, F					P	P
X	n/a	NS-13	Concrete Finishing	PP, SMWM, NS	Sediment, Metals, Oil & Grease	G, V, F					P	P
f	✓	NS-14	Material Over Water	PP, SMWM, NS	Sediment, Nutrients, Trash, Metals, Bacteria, Oil & Grease, Organics	G, V, F					P	P
f	✓	NS-15	Demolition Adjacent to Water	PP, SMWM, NS	Sediment, Nutrients, Trash, Metals, Bacteria, Oil & Grease, Organics	G, V						P
f	✓	NS-16	Temporary Batch Plants	PP, SMWM, NS	Sediment, Trash, Metals	G						P
X	n/a	WM-1	Material Delivery & Storage	PP, SMWM, NS	Sediment, Nutrients, Trash, Metals, Oil & Grease, Organics	G, V, F						P
X	n/a	WM-2	Material Use	PP, SMWM, NS	Sediment, Nutrients, Trash, Metals, Oil & Grease, Organics	G, V, F						P

Table 3. Minimum BMPs for Construction Sites (Continued)

THIS MATRIX IS A GENERAL GUIDANCE DOCUMENT AND IS NOT A SUBSTITUTION FOR SITE SPECIFIC BMP REQUIREMENTS.
Construction sites that are subject to other SWRCB or RWQCB permits must also adhere to the BMP Requirements of the additional permits
Refer to the notes at the end of this table for acronyms, reference documents, footnotes, and permit definitions

A	B	C	D	E	F	G	H					
Required BMPs	Other Permits Potentially Required	CASQA BMP Factsheet No.	CASQA BMP Factsheet Name	MS4 Permit Compliance Category	CASQA BMP Factsheet No. Targeted Pollutants	On-Site or Off-site Work: Construction Phase	CASQA BMP Factsheet No. Categories & Objectives (P = Primary S= Secondary)[1]					
							Effective Combination Required		TC	WE	NS	WM
							EC	SE				
X	n/a	WM-3	Stockpile Management	PP, SMWM, NS	Sediment, Nutrients, Trash, Metals, Oil & Grease, Organics	G, V, F	S	S				P
X	n/a	WM-4	Spill Prevention & Control	PP, SMWM, NS	Sediment, Nutrients, Trash, Metals, Oil & Grease, Organics	G, V, F						P
X	n/a	WM-5	Solid Waste Management	PP, SMWM, NS	Sediment, Nutrients, Trash, Metals, Oil & Grease, Organics	G, V, F						P
X	✓	WM-6	Hazardous Waste Management	PP, SMWM, NS	Nutrients, Trash, Metals, Bacteria, Oil & Grease, Organics	G, V, F						P
f	✓	WM-7	Contaminated Soil Management	PP, SMWM, NS	Nutrients, Trash, Metals, Oil & Grease, Organics	G						P
X	n/a	WM-8	Concrete Waste Management	PP, SMWM, NS	Sediment, Metals, Trash	G, V, F					S	P

Table 3. Minimum BMPs for Construction Sites (Continued)

THIS MATRIX IS A GENERAL GUIDANCE DOCUMENT AND IS NOT A SUBSTITUTION FOR SITE SPECIFIC BMP REQUIREMENTS.
Construction sites that are subject to other SWRCB or RWQCB permits must also adhere to the BMP Requirements of the additional permits
Refer to the notes at the end of this table for acronyms, reference documents, footnotes, and permit definitions

A	B	C	D	E	F	G	H					
Required BMPs	**Other Permits Potentially Required**	**CASQA BMP Factsheet No.**	**CASQA BMP Factsheet Name**	**MS4 Permit Compliance Category**	**CASQA BMP Factsheet No. Targeted Pollutants**	**On-Site or Off-site Work: Construction Phase**	**CASQA BMP Factsheet No. Categories & Objectives (P = Primary S= Secondary)[1]**					
							Effective Combination Required		**TC**	**WE**	**NS**	**WM**
							EC	**SE**				
X	✓	WM-9	Sanitary/ Septic Waste Management	PP, SMWM, NS	Nutrients, Trash, Bacteria, Organics	G, V, F						P
X	✓	WM-10	Liquid Waste Management	PP, SMWM, NS	Sediment, Metals, Nutrients, Trash, Metals, Oil & Grease	G, V						P

Note: Table 3 must be used as directed in Section 3.3.1, Use and Guidance for Table 3.

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3.3.1 Use and Guidance for Table 3

The following discussion provides additional guidance on the application of Table 3 to construction projects, including definitions of acronyms and abbreviations used. The guidance below is organized by table column, beginning with Column A.

Column A:

This column identifies required BMPs. BMPs with an "X" are required when applicable. BMPs are required for each phase of construction on site or offsite regardless of size. Projects are required to schedule in advance which BMPs may be applicable to each phase of construction (construction phases are defined in the notes on Column G below). Footnotes "a" and "b", which are included for some required BMPs, are defined below.

a. An appropriate BMP, or combination of BMPs, by construction phase for erosion control must be selected. Typically not every erosion control BMP listed in Table 3 will be required to meet this standard. The appropriate and effective BMP selection is based on site specific characteristics, construction phase, and as listed factsheet constraints such as slope, site size or drainage area, and soils. All applicable design requirements must be met. Project owners/operators are required to adjust the BMP selection by scheduling necessary BMPs onsite for each construction phase and season to prevent pollutant discharge to the Storm Drain System. The City may require additional submittals of BMP plans prior to releasing permits for additional construction phases.
b. An appropriate BMP, or combination of BMPs, by construction phase for sediment control must be selected. Typically not every sediment control BMP listed in Table 3 will be required to meet this standard. The appropriate and effective BMP selection is based on site specific characteristics, construction phase, and as listed factsheet constraints such as slope, site size or drainage area, and soils. All applicable design requirements must be met. Project owners/operators are required to adjust the BMP selection by scheduling necessary BMPs onsite for each construction phase and season to prevent pollutant discharge to the Storm Drain System. The City may require additional submittals of BMP plans prior to releasing permits for additional construction phases.
c. Sediment Basins and Sediment Traps must be designed in accordance with the most current CASQA and City design requirements. Design must be conducted by a licensed CA professional engineer (PE). Maintenance, stabilization of slopes during construction, safety requirements, and Vector Control must be addressed in the design. Planned or future discharge or outlets must be approved by the City prior to installation.

Other BMPs that may also be required in some cases are identified using the following identifiers in column A.

d. Active Treatment Systems (ATS) may be required for Risk Level 3 Construction General Permit projects, as necessary to meet Construction General Permit requirements. The City at its discretion and based on project location, violation history, or other criteria may require ATS for projects of any Risk Level or for projects under 1 acre.
e. These BMPs may be used as part of the project's system of sediment control BMPs (described in note "b" above) if approved by City staff.
f. This BMP may require securing additional regulatory permits prior to implementing. Permits must be on site prior to implementing these BMPs, including work in drainage channels.

Column B:

This column identifies BMPs that address situations that may also require permits or approvals from other agencies or other departments or divisions within the City (see Section 2). The project owner is responsible for determining which, if any, additional permit are necessary and securing the required permits prior to starting work. Acquisition of these permits may require additional time and engineering reports or submittals. The project owner is also responsible for maintaining compliance with the permits over the duration of the project, including completing any required monitoring and reporting.

A check mark (✓) in column B indicates that a permit or approval from another agency or another department or division within the City may be required. An "n/a" means that additional permits or approvals are typically not required. However, it is possible that in specific circumstances additional permits could also be required even for the BMPs marked as "n/a." An "n/a" does not guarantee that no other permit or approval is required.

Columns C and D:

These columns present the California Stormwater Quality Association (CASQA) identification code and title for each factsheet. Unless specified differently in the Manual or the Municipal Code, the City of Vista standard for BMP installation, use, location, and maintenance schedule is CASQA. BMP codes incorporate two letter abbreviations by BMP type, as follows: EC = Erosion Control; SE = Sediment Control; TC = Tracking Control; WE= Wind Erosion; NS = Non Stormwater Controls; WM = Waste Management. For more information see the CASQA website, www.casqa.org. Note that a subscription is required to view the CASQA factsheets, and the City of Vista does not provide subscription access.

Column E:

This column identifies which of the construction BMP categories listed in MS4 Permit Section E.4 are addressed by each CASQA factsheet. The MS4 Permit BMP categories are abbreviated as follows: PP = Project Planning; SMWM = Site Management, Housekeeping, Waste Management; NS = Non-Stormwater Management; EC= Erosion Control; SE = Sediment Control; RUROC: Run-on and Runoff Control; APS = Active/Passive Sediment Treatment Systems.

Column F:

This column identifies the pollutant(s) likely to be reduced by implementing each BMP. Pollutants addressed are a combination of designations by the CASQA factsheets and other studies identifying the effect of BMPs.

Column G:

This column identifies the construction phases during which a BMP is most likely to be applicable. Construction phases are defined as follows:

- **Grading ("G")**: Demolition, ROW Work, Site Preparation and Earthmoving, Earthwork, Construction or Relocation of Above Ground and Below Ground Structures and Utilities, channels, dewatering, hydrostatic testing of utilities and fire systems
- **Vertical ("V"):** Construction of Above Ground Structures to area 5 feet from Structures, Stucco, Framing, Mechanical, Roof, Painting, drain flushing, fire system testing (hydrants, sprinklers)
- **Finish ("F"):** Roadways, Slurry Seal, Asphalt, Concrete, Walkways, Parking Lots, Landscaping, Painting, Striping, Traffic/Lighting Facilities, Architectural

Column H:

This column identifies the objectives CASQA has defined for each BMP. While the primary objective is typically identified by the two digit letter code at the beginning of the BMP factsheet number (see notes on Column E above), many BMPs also provide additional secondary benefits. A "P" indicates a primary objective, and an "S" indicates a secondary objective. The CASQA objective abbreviations and their definitions are as follows: EC = Erosion Control; SE = Sediment Control; TC = Tracking Control; WE= Wind Erosion; NS = Non Stormwater Controls; WM = Waste Management.

3.4 BMP Requirements for Development Projects

The City's BMP requirements for new and re-development projects are presented in the Standard Urban Stormwater Mitigation Plan (SUSMP), which is included as Attachment A. These BMPs include, but are not limited to, site design, source control, and post-construction structural BMPs (e.g., flow control or treatment control devices).

3.4.1 Notice of Upcoming Changes to Requirements

By 2016, the City anticipates adopting updated BMP requirements for new and re-development projects that will be consistent with the MS4 Permit adopted in 2013. The updated requirements and associated guidance document (referred to as the "BMP Design Manual" in the MS4 Permit) are being prepared cooperatively with staff from multiple San Diego County municipalities and other interested parties. The City will be publishing notices and informing the development community of these new requirements as they near coming into effect. Project proponents that anticipate acquiring City approvals for construction toward the end of 2015, or initiating construction near then, are advised to contact the City Engineering Department to evaluate applicability of the new requirements.

Attachment A
Standard Urban Stormwater Mitigation Plan

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