

**City of Vista**

**Stormwater Standards Manual**

June 2015



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## Attachment

Attachment A. Standard Urban Stormwater Mitigation Plan

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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"<sup>1</sup>). 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.

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<sup>1</sup> 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<sup>2</sup>
- 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

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<sup>2</sup> 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](http://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)<sup>3</sup>. 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.

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<sup>3</sup> CASQA (2015). *Stormwater Best Management Practice Portal: Industrial and Commercial*. [www.casqa.org](http://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
<b>Discharge Control</b>											
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 <sup>4</sup> , BG-62	x	x	x	x	x	x	x	x

<sup>4</sup> 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 <sup>5</sup>		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

<sup>5</sup> 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 <sup>6</sup> , 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 <sup>7</sup>			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			

<sup>6</sup> 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.

<sup>7</sup> 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						
<b>BMP and Storm Drain Conveyance and Structure Maintenance</b>												
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	x
<b>Erosion and Sediment Control</b>												
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
<b>Good Housekeeping</b>											
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 <sup>8</sup>		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		

<sup>8</sup> 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
<b>Material Storage and Handling</b>											
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	
<b>Pesticide and Fertilizer Management</b>												
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: <a href="http://www.ipm.ucdavis.edu">http://www.ipm.ucdavis.edu</a>	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
<b>Outdoor Work Areas</b>											
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
<b>Spill Prevention and Response</b>											
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
<b>Waste Management</b>											
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<sup>9</sup>**

No.	BMP Title	BMP Description	CASQA BMP Factsheet Reference <sup>10</sup>	Pollutants or Conditions Targeted							
				Bacteria	Sediment	Dry Weather Flow	Nutrients	Trash	Metals	Oil & Grease	Organics
<b>Discharge Control</b>											
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

<sup>9</sup> 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.

<sup>10</sup> 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)**

No.	BMP Title	BMP Description	CASQA BMP Factsheet Reference <sup>10</sup>	Pollutants or Conditions Targeted							
				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 <sup>11</sup> , 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

<sup>11</sup> 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)**

No.	BMP Title	BMP Description	CASQA BMP Factsheet Reference <sup>10</sup>	Pollutants or Conditions Targeted								
				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 <sup>12</sup> , SC-41	x		x	x					

<sup>12</sup> 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)**

No.	BMP Title	BMP Description	CASQA BMP Factsheet Reference <sup>10</sup>	Pollutants or Conditions Targeted							
				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 <sup>13</sup>			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

<sup>13</sup> 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 <sup>10</sup>	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						
<b>BMP and Storm Drain Conveyance and Structure Maintenance</b>												
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
<b>Erosion and Sediment Control</b>												
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					
<b>Good Housekeeping</b>												
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 <sup>10</sup>	Pollutants or Conditions Targeted							
				Bacteria	Sediment	Dry Weather Flow	Nutrients	Trash	Metals	Oil & Grease	Organics
<b>Pesticide and Fertilizer Management</b>											
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: <a href="http://www.ipm.ucdavis.edu">http://www.ipm.ucdavis.edu</a>	SC-35, SC-41, BG-40				x				x
<b>Spill Prevention and Response</b>											
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 <sup>10</sup>	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
<b>Waste Management</b>											
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 <sup>10</sup>	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 <u>GENERAL</u> GUIDANCE DOCUMENT AND IS <u>NOT</u> A SUBSTITUTION FOR SITE SPECIFIC BMP REQUIREMENTS. Construction sites that are subject to other SWRCB or RWQCB permits <u>must also</u> adhere to the BMP Requirements of the additional permits <i>Refer to the notes at the end of this table for acronyms, reference documents, footnotes, and permit definitions</i>												
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) <sup>1</sup>					
							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 <sup>a</sup>	✓	EC-2	Preservation of Existing Vegetation	PP,EC	Sediment	G, V, F	P					
X <sup>a</sup>	n/a	EC-3	Hydraulic Mulch	PP,EC, SMWM	Sediment	G, V	P			S		
X <sup>a</sup>	✓	EC-4	Hydroseeding	PP,EC	Sediment	G, V	P			S		
X <sup>a</sup>	n/a	EC-5	Soil Binders	PP,EC	Sediment	G, V	P			S		
X <sup>a</sup>	n/a	EC-6	Straw Mulch	PP,EC	Sediment	G, V	P			S		
X <sup>a</sup>	n/a	EC-7	Geotextiles and Mats	PP,EC	Sediment	G, V, F	P			S		
X <sup>a</sup>	n/a	EC-8	Wood Mulching	PP,EC	Sediment	G, V, F	P			S		
X <sup>a</sup>	✓	EC-9	Earth Dikes and Drainage Swales	PP,EC,RUROC	Sediment	G, V	P					
X <sup>a</sup>	✓	EC-10	Velocity Dissipation Devices	PP,EC,RUROC	Sediment	G, V, F	P					
X <sup>a</sup>	✓	EC-11	Slope Drains	PP,EC,RUROC	Sediment	G, V, F	P					
X <sup>a</sup>	✓	EC-12	Stream Bank Stabilization	PP,EC,SE,NS	Sediment	G, V, F	P	S			S	
X <sup>a</sup>	n/a	EC-14	Compost Blankets	PP,EC	Sediment	G, V, F	P					
X <sup>a</sup>	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 <u>GENERAL</u> GUIDANCE DOCUMENT AND IS <u>NOT</u> A SUBSTITUTION FOR SITE SPECIFIC BMP REQUIREMENTS. Construction sites that are subject to other SWRCB or RWQCB permits <u>must also</u> adhere to the BMP Requirements of the additional permits <i>Refer to the notes at the end of this table for acronyms, reference documents, footnotes, and permit definitions</i>												
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) <sup>1</sup>					
							Effective Combination Required		TC	WE	NS	WM
							EC	SE				
X <sup>a</sup>	n/a	EC-16	Non-Vegetative Stabilization	PP, EC, SE, RUROC	Sediment	G, V, F	P	S			S	
X <sup>b</sup>	n/a	SE-1	Silt Fence	PP, SE, RUROC	Sediment (coarse)	G, V, F		P				
X <sup>b, c</sup>	✓	SE-2	Sediment Basin	PP, SE, RUROC, APS	Sediment, Trash	G, V		P				
X <sup>b, c</sup>	✓	SE-3	Sediment Traps	PP, EC, RUROC, APS	Sediment, Trash	G, V		P				
X <sup>b</sup>	n/a	SE-4	Check Dam	PP, EC, RUROC	Sediment	G, V	S	P				
X <sup>b</sup>	n/a	SE-5	Fiber Rolls	PP, EC, SE, RUROC	Sediment	G, V	S	P				
X <sup>b</sup>	n/a	SE-6	Gravel Bag Berm	PP, EC, SE, RUROC	Sediment	G, V, F	S	P				
X <sup>b</sup>	n/a	SE-7	Street Sweeping and Vacuuming	PP, SE	Sediment, Trash, Oil & Grease, Bacteria	G, V		S	P			
X <sup>b</sup>	n/a	SE-8	Sandbag Barrier (note: gravel to be used)	PP, EC, RUROC	Sediment	G, V, F	S	P				
X <sup>b</sup>	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 <u>GENERAL</u> GUIDANCE DOCUMENT AND IS <u>NOT</u> A SUBSTITUTION FOR SITE SPECIFIC BMP REQUIREMENTS. Construction sites that are subject to other SWRCB or RWQCB permits <u>must also</u> adhere to the BMP Requirements of the additional permits <i>Refer to the notes at the end of this table for acronyms, reference documents, footnotes, and permit definitions</i>												
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) <sup>1</sup>					
							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 <u>GENERAL</u> GUIDANCE DOCUMENT AND IS <u>NOT</u> A SUBSTITUTION FOR SITE SPECIFIC BMP REQUIREMENTS. Construction sites that are subject to other SWRCB or RWQCB permits <u>must also</u> adhere to the BMP Requirements of the additional permits <i>Refer to the notes at the end of this table for acronyms, reference documents, footnotes, and permit definitions</i>													
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) <sup>1</sup>						
							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 <u>GENERAL</u> GUIDANCE DOCUMENT AND IS <u>NOT</u> A SUBSTITUTION FOR SITE SPECIFIC BMP REQUIREMENTS. Construction sites that are subject to other SWRCB or RWQCB permits <u>must also</u> adhere to the BMP Requirements of the additional permits <i>Refer to the notes at the end of this table for acronyms, reference documents, footnotes, and permit definitions</i>												
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) <sup>1</sup>					
							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 <u>GENERAL</u> GUIDANCE DOCUMENT AND IS <u>NOT</u> A SUBSTITUTION FOR SITE SPECIFIC BMP REQUIREMENTS. Construction sites that are subject to other SWRCB or RWQCB permits <u>must also</u> adhere to the BMP Requirements of the additional permits <i>Refer to the notes at the end of this table for acronyms, reference documents, footnotes, and permit definitions</i>												
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) <sup>1</sup>					
							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 <u>GENERAL</u> GUIDANCE DOCUMENT AND IS <u>NOT</u> A SUBSTITUTION FOR SITE SPECIFIC BMP REQUIREMENTS. Construction sites that are subject to other SWRCB or RWQCB permits <u>must also</u> adhere to the BMP Requirements of the additional permits <i>Refer to the notes at the end of this table for acronyms, reference documents, footnotes, and permit definitions</i>												
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) <sup>1</sup>					
							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](http://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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