# **APPENDIX B**

# Water Pollution Control Plan Draft Guidance Document

# Municipal Waterways Maintenance Plan Water Pollution Control Plan

## **DRAFT GUIDANCE DOCUMENT**

for:

### Site Located at:

Address:

### WPCP Prepared by:

Company:

Individual:

Address:

### **Preparation Date:**

### **Prepared for:**

City of San Diego Storm Water Division Transportation & Storm Water Department Address: 2781 Caminito Chollas, MS 46, San Diego, California 92105



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### **1 WPCP Requirements**

### 1.1. Introduction

The San Diego Regional Water Quality Control Board (RWQCB) adopted Order No. R9-2013-0001 as amended by R9-2015-0001 and R9-2015-0100, *National Pollutant Discharge Elimination System (NPDES) Permit and Waste Discharge Requirements for Discharges from the Municipal Separate Storm Sewer Systems (MS4s) Draining the Watersheds within the San Diego Region* on November 18, 2015 (MS4 Permit). The MS4 Permit requires the City of San Diego (City) to implement effective best management practices (BMPs) to reduce discharges of pollutants in storm water from soil-disturbing activities originating from any maintenance or construction sites to the maximum extent practicable and effectively prohibit non-storm water discharges into the MS4.

As of October 2018, the City has updated the 2016 *Storm Water Standards Manual* (City of San Diego 2018) to comply with requirements under the MS4 and NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ as amended by 2010-0014-DWQ and 2012-006-DWQ, NPDES No. CAS000002) (CGP). The channel maintenance priority projects are not subject to the CGP and associated amendments because Section I.C.24 of the CGP states "routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of the facility" is considered an activity not covered under the CGP. The maintenance work to be performed at individual channels is subject to multiple permits. The permits and specific requirements are indicated within the unique Maintenance Plan (MP) once permits are issued.

A Water Pollution Control Plan (WPCP) must be developed and implemented to ensure BMPs and maintenance protocols are followed during maintenance activities, to avoid and/or reduce effects to environmental resources, and to incorporate the analysis of the operational and pollution prevention benefits of each proposed priority project and minor maintenance under the Municipal Waterways Maintenance Plan (MWMP; 2019). The City will utilize appropriate portions of the WPCP Guidance Document for minor maintenance activities. Selected BMPs must be site-specific, phase appropriate, and implemented at each site year-round. Dry season BMP implementation must plan for and address unseasonal rain events that may occur during the dry season (May 1 through September 30).

This guidance document has been prepared to comply with the City's 2018 Storm Water Standards and will be used as of January 2019 for the development of WPCP within the Storm Water Division of the Transportation & Storm Water Department (T&SW). Consultants/contractors tasked with developing WPCP for MWMP activities shall use this document to prepare site specific WPCPs. *The WPCP developer must complete the text and check boxes. Additional completion information is provided in red font.* 

### 1.2. Objectives

The main objectives of the WPCP are:

• To identify all pollutant sources which may affect the quality of storm water discharges from the site associated with maintenance activities;

<sup>1</sup> The City of San Diego | Storm Water Standards | November 2019 Edition Water Pollution Control Plan (WPCP)

- To identify non-storm water discharges and eliminate unauthorized non-storm water discharges, illicit connections, and dumping;
- To establish, implement, and maintain BMPs to reduce or eliminate pollutants in storm water discharges and authorized non-storm water discharges from the maintenance site; and
- To develop an inspection program to determine the effectiveness of site BMPs.

### **1.3.** Responsibility for WPCP Development and Implementation

This WPCP must be prepared, certified, and amended by a Qualified WPCP Preparer. The Qualified WPCP Preparer shall meet at least one of the following registrations or certifications:

- 1. A qualified Storm Water Pollution Prevention Plan (SWPPP) developer (QSD);
- 2. A qualified SWPPP practitioner (QSP);
- 3. A California registered civil engineer;
- 4. A California registered geologist;
- 5. A California registered landscape architect;
- 6. A professional hydrologist registered through the American Institute of Hydrology;
- 7. A certified professional soil scientist registered through the Soil Science Society of America;
- 8. A certified professional in erosion and sediment control registered through EnviroCert International, Inc.;
- 9. A certified professional in storm water quality registered through EnviroCert International, Inc.;
- 10. A certified erosion, sediment, and storm water inspector registered through EnviroCert International, Inc.;
- 11. A certified inspector of sediment and erosion control registered through Certified Inspector of Sediment and Erosion Control Inc.; or
- 12. A certified professional in erosion and sediment control registered through the National Institute for Certification in Engineering Technologies.

Any hydrology or hydraulic calculations, soils report or geotechnical reports prepared in support of this WPCP must be prepared by a professional engineer with appropriate registration qualifications issued by the State of California. A Qualified Contact Person (QCP) will be responsible for WPCP implementation and self-inspections (see Section 1.3.1 and 1.3.2).

### 1.3.1 Qualified Contact Person

A QCP, as per the City's *Storm Water Standards – Part 2* (2018) definition, must be assigned to the project. The QCP must be specifically-trained in storm water pollution prevention, including the installation and maintenance of sediment and erosion control measures. The QCP may designate

<sup>2</sup> The City of San Diego | Storm Water Standards | November 2019 Edition Water Pollution Control Plan (WPCP)

additional, trained persons to assist with QCP responsibilities. The specific duties of the QCP and persons delegated by the QCP are:

- Coordinating with the appropriate City representatives to ensure the project complies with the WPCP and approved plans at all times;
- Implementing all elements of the WPCP, including prompt and effective erosion, sediment, tracking, and wind erosion control measures and management of non-storm water discharges and construction materials and liquid, solid, and hazardous wastes;
- Assigning authority to mobilize crews in order to conduct immediate and complete BMP repairs and providing storm water pollution prevention training;
- Tracking weather conditions, as reported on the National Weather Service Forecast's website (<u>http://www.noaa.gov/wx.html</u>);
- Performing self-inspections;
- Informing the proper City representatives of non-compliance, such as unauthorized discharges, illicit connections or dumping activities, and immediately correcting the problems;
- Overseeing site stabilization;
- Ensuring that the WPCP is available on site at all times during business hours; and
- Ensuring that WPCP records are retained for a minimum of three years.

**Table 1** provides the name and contact information for the WPCP Preparer and QCP and any additional persons designated by the QCP.

# [Complete Table 1 with the name and contact information for the WPCP Preparer and QCP and any additional persons designated by the QCP.]

	· ·		U
	Name	Company/ Organization	Phone Number
Qualified WPCP Preparer			
Qualified Contact Person			
Additional Persons Designated by			
the Qualified Contact Person			

#### Table 1. Qualified WPCP Preparer and Contact Person and Designees

### 1.3.2 Self-Inspections

The QCP or designee is required to perform self-inspections, as per the City's *Storm Water Standards – Part 2* (2018). The objectives are to:

- Demonstrate the site is in compliance with the City's *Storm Water Standards Part 2* (2018) and San Diego Municipal Code Section 43.03;
- Ensure that storm water BMPs are properly documented, implemented, and are functioning effectively;
- Identify BMP maintenance (e.g., sediment removal) and repair needs;
- Ensure that the site-specific WPCP is fully implemented and updated; and
- Ensure final stabilization of the site before demobilization.

The City's *Storm Water Standards – Part 2* (2018) requires performing self-inspections throughout the life of the project (until final stabilization is achieved). Self-inspections are not required during dangerous weather conditions such as flooding and electrical storms or outside of scheduled site business hours. Self-inspections are to be performed:

- At 24-hour intervals during extended rainfall events;
- Daily during all phases of construction during the wet season; and
- Weekly during all phases of construction during the dry season.

Additionally, weather forecasting must be performed daily and a Weather Triggered Action Plan (WTAP) is required for every project. See **Section 4.3** for WTAP implementation requirements and timelines.

During self-inspections, the QCP or designee will identify and record BMPs that are in need of maintenance to operate effectively, have failed, or could fail to operate as intended and if additional BMPs are needed. If additional BMPs are necessary, the WPCP must be revised accordingly. Self-inspections must be documented using a checklist, documentation of daily inspections (non-rainfall inspections during the wet season) is at the discretion of the QCP. The self-inspection checklist must also note the date, time, and weather conditions during the inspection. Completed checklists must be kept in **Appendix D** and made available upon request. During self-inspections, storm water discharges must be monitored to determine the presence of pollutants. If any failures or deficiencies are identified, repairs or design changes must begin to be implemented within 72 hours and noted on the self-inspection checklist.

### 1.4. Availability

This WPCP must remain on site at all times during business hours and readily available for review by the U.S. Environmental Protection Agency (EPA), State Water Resources Control Board (SWRCB), San Diego RWQCB, City of San Diego representatives, and all operating personnel for the duration of the project. Authorized representatives from the U.S. EPA, SWRCB, San Diego RWQCB, City of San Diego, and any other regulatory agency shall be permitted entry to the site for review of this WPCP, inspecting the site, and/or collecting storm water samples.

<sup>4</sup> The City of San Diego | Storm Water Standards | November 2019 Edition Water Pollution Control Plan (WPCP)

### 1.5. Amendments

This WPCP shall be amended whenever there is a change in maintenance or operations which may affect the discharge of pollutants to surface waters, groundwater, or to the City's MS4, or which are deemed necessary by the Resident Engineer or Division Supervisor.

### **1.6.** Storm Water Discharges to the ASBS

According to the SWRCB ASBS Resolution No. 2012-0031, existing storm water discharges into an ASBS are allowed only under the following conditions:

- 1. The discharges are authorized by an NPDES permit issued by the SWRCB or RWQCB;
- 2. The discharges comply with all of the applicable terms, prohibitions, and special conditions contained in these Special Protections; and
- 3. The discharges:
  - a. Are essential for flood control or slope stability, including roof, landscape, road, and parking lot drainage;
  - b. Are designed to prevent soil erosion;
  - c. Occur only during wet weather; and
  - d. Are composed of only storm water runoff.

### **1.7.** Non-Storm Water Discharges

Discharging any material other than storm water to waters of the State or to the City's MS4 is prohibited. However, certain exceptions apply.

Per Attachment A of the MS4 Permit, the following non-storm water discharges are allowed, provided that the discharges are essential for emergency response purposes, structural stability, or slope stability, or occur naturally:

- 1. Discharges associated with emergency firefighting operations;
- 2. Foundation and footing drains;
- 3. Water from crawl space or basement pumps;
- 4. Hillside dewatering;
- 5. Naturally occurring groundwater seepage via a storm drain; and
- 6. Non-anthropogenic flows from a naturally occurring stream via a culvert or storm drain, as long as there are no contributions of anthropogenic runoff.

See the City's Storm Water Standards - Part 2 (2018) to determine applicable non-storm water regulations.

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<sup>6</sup> The City of San Diego | Storm Water Standards | November 2019 Edition Water Pollution Control Plan (WPCP)

### 2 **Project Information**

### 2.1. Project and Site Description

This section provides project information relevant to the development of this WPCP.

### 2.1.1 Project Location

The project location and identifying information are provided in **Table 2**.

[Complete Table 2.]

Con	tact Information			
<b>Applicant Name:</b> City of San Diego Transportation & Storm Water Department	Contact Name:			
<b>Mailing Address:</b> 2781 Caminito Chollas, MS 44	<b>City:</b> San Diego	<b>State:</b> Californi	a	<b>Zip Code:</b> 92105
Telephone No.:	Email address:			-
Pro	ject Information			
Address:	City:	State: Californ	ia	Zip Code:
Facility Group Name:	Segment Name:		Facil	ity No.:
Contractor Company Name:	-	Contact	Name	2:
Address:	City:	State: C.	A	Zip Code:
Telephone No.:	Email address:			
Qualified WPCP Preparer:				
Telephone No.:	Email address:			
Qualified Contact Person (QCP):				
Telephone No.:	Email address:			
City Enforce	ment Agency Info	rmation		
Telephone No.: (619				
Website: Storm Water Di	vision – Storm W	ater Servi	ce Req	luest

#### Table 2. Project Location and Contact Information

<sup>7</sup> The City of San Diego | Storm Water Standards | November 2019 Edition Water Pollution Control Plan (WPCP)

### 2.1.2 **Project Description**

The project description including the project maintenance area is described in **Table 3**.

[Complete Table 3.]

	Project Description Project Description
Project Name:	
Total Project Acreage, including maintenance and staging/access areas:	
Total Maintenance Area (in ft²):	(See FMP Method Table for authorized maintenance area).
Project Scope:	(See FMP Method Table for MWMP maintenance recommendation).
Estimated Sediment Removal (in ft <sup>3</sup> ):	(Determined at time of maintenance).
Estimated Concrete Repair (in ft²):	(Determined at time of maintenance).
Land Use Type (Existing/Proposed):	(See FMP Segment Detail Section).
Watershed Management Area	(See FMP Overview section).
Receiving Water Body:	(See FMP Water Quality Resources section and Segment Detail section).
303 (d) Listed Impairments:	(See FMP Water Quality Resources section).
Existing and Planned Storm Water Features:	(Determine and include on Maintenance Plan)
Sources of Run-on or Dry Weather Flows to the Site:	(Determine and include on Maintenance Plan)
Downstream Discharge Locations:	(Determine and include on Maintenance Plan)

#### Table 3. Project Description

<sup>8</sup> The City of San Diego | Storm Water Standards | November 2019 Edition Water Pollution Control Plan (WPCP)

	Project Description
Other Site Features:	(Determine and include on Maintenance Plan)

**Notes:**  $ft^2$  = square feet;  $ft^3$  = cubic feet

#### 2.1.3 Maintenance Schedule

The maintenance schedule is provided in the Maintenance Plan, including detail on the phases of maintenance (BMP installation, potential pre-maintenance dewatering, BMP removal, etc.). The wet season is October 1 through April 30 of each year. During this period, weather forecasts will be used to plan maintenance outside of predicted storm events to the extent feasible, unless emergency maintenance is required. The start of work is subject to the completion of the following additional City measures:

- Notification to the California Department of Fish and Wildlife (CDFW), in writing, at least 5 days prior to initiation/completion of maintenance activities.
- Biological evaluation of the maintenance project boundary to determine the absence/presence of nesting birds during the breeding season (January 15 and September 15), sensitive biological resources, and/or determination of the required noise attenuation measures.
- Installation of any biological measures such as fencing, flagging, signage, or other means to protect sensitive resources.
- Review of applicable resource agency permit language and addition of appropriate schedulerelated items.

The scheduled work may be extended with written permission from the Department of Development Services or T&SW.

### 2.1.4 Site Priority

#### [Select the appropriate text for the project. Note most areas are not located in an ASBS]

The project is anticipated to be a low priority per the City's Form DS-560 (see **Appendix C**). This project is not located in an Area of Special Biological Significance (ASBS) watershed.

#### [If the project is in ASBS watershed include the following in the WPCP:]

According to the SWRCB ASBS Resolution No. 2012-0031, existing storm water discharges into an ASBS are allowed only under the following conditions:

- 1. The discharges are authorized by an NPDES permit issued by the SWRCB or RWQCB;
- 2. The discharges comply with all of the applicable terms, prohibitions, and special conditions contained in these Special Protections; and
- 3. The discharges:
  - a. Are essential for flood control or slope stability, including roof, landscape, road, and parking lot drainage;
  - b. Are designed to prevent soil erosion;
  - c. Occur only during wet weather; and
  - d. Are composed of only storm water runoff.

#### 2.1.5 Site Features, Maintenance Activities, and Associated Potential Pollutants

Potential pollutant sources may stem from maintenance materials used on site that are not designed to be outdoors and exposed to environmental conditions (i.e., are used in the process of construction, but are not the final product). Maintenance materials have the potential to come into contact with storm water when stored or used outdoors on the site. **Table 4** presents a series of questions to help identify potential pollutants from specific maintenance activities.

[The questions in Table 4 are designed to assist with selecting appropriate BMPs for the site; please check "Yes" or "No" and provide additional information if needed.]

No.	Site Feature Question	No	Yes	If Yes, Select BMPs from Table:	Potential Pollutant Sources (add, if not listed)
1	Is the site adjacent to a waterway or sensitive habitat (e.g., wetland, vernal pool)? Note: Additional permitting may be required.			5	
2	Is the site likely to discharge to an ASBS? Note: additional permitting may be required.			5	
3	Will there be asphalt paving, cutting, and/or patching?			6	Asphalt, aggregate
4	Will there be on-site storage of construction materials such as mortar mix, raw landscaping and soil stabilization materials,			6	Construction materials, please specify:

#### Table 4. Determination of Site Features, Activities, and Potential Pollutants

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				If Yes, Select	Potential
				BMPs from	Pollutant Sources
No.	Site Feature Question	No	Yes	Table:	(add, if not listed)
	treated lumber, rebar, and plated-metal fencing materials?				
5	Will there be slurries from concrete or mortar mixing, coring, or saw cutting?			6, 7, and 9	Concrete materials, aggregate slurry water
6	Will wash water or liquid waste be generated from this project?			7, 9 and 10	Liquid waste, please specify:
7	Will there be stockpiling (e.g., soil, concrete, solid waste) for over 24 hours?			7 and 11	Stockpiled material, please specify:
8	Will trash or solid wastes (including landscaping wastes) be generated from this project?			7	Solid waste, please specify:
9	Will hazardous materials or wastes, including paint, be stored or handled onsite?			7 and 9	Hazardous material, please specify:
10	Are underlying soils potentially contaminated?			7	Contaminated soil
11	Will portable sanitary facilities ("Portable toilets") be used on the site?			7 and 9	Sanitary waste
12	Will construction equipment and/or vehicles be stored, fueled, maintained, or washed onsite?			8, 9 and 10	Engine fluids, fuels, oil, grease, wash water
13	Will there be dewatering operations?			10	Dewatering water, please specify:
14	Will the site have exposed/disturbed slopes greater than 5%?			11, 12, 13, 15, and 16	Sediment
15	Will dust (e.g., from grading, driving on unpaved roads) or particulates (e.g., from sandblasting, concrete cutting, painting) be generated from this project?			14	
16	Are storm drain inlets located within the project boundary and/or will the site discharge storm water to nearby storm drain inlets?			11, 16 and 18	
17	Is there run-on to the site from surrounding areas?			18	Sediment, other, please specify:
18	Will concentrated flows and/or large accumulations of water occur onsite?			18	Sediment
19	Other activities will be performed that are not described above?			Select applicable BMPs from Tables 5-18	Please specify:

No.	Site Feature Question	No		Potential Pollutant Sources (add, if not listed)
20	Final stabilization		NA	

### 2.2. Site Map Development

A site map has been developed as part of the maintenance plan process and included as **Appendix A** of this WPCP. The maintenance plan includes all of the following, where applicable:

- Legend, north arrow, and scale of the drawing
- The site boundary and limits of maintenance; including access points to the channel being maintained
- Maintenance area
- Access, staging, and/or stockpiling area
- Locations of all BMP implementation areas
- Storm water conveyance features and discharge points
- Utilities

### 3 Best Management Practices

The BMPs listed in this WPCP will be implemented on a year-round basis throughout the project duration, not solely during seasons in which the probability of a rain event is high. All areas not in use for 14 days will be stabilized (i.e., exposed soil will be covered). Sufficient BMP materials will be maintained on site to allow implementation with this WPCP and emergency installation in the event of a breach. Locations where BMPs will be implemented are to be shown on the Maintenance Plan in **Appendix A**.

BMPs must be implemented on maintenance sites to reduce pollution to the maximum extent practicable. The City's Storm Water Standards – Part 2 (2018) outlines the requirements for maintenance/construction storm water BMPs. The applicable BMP category table number in Storm Water Standards – Part 2 (2018) is also provided and shall be used as the primary reference for BMP implementation and maintenance.

- Project Planning, Storm Water Standards Part 2 (2018) Table 5-1
- Good Site Management "Housekeeping", Storm Water Standards Part 2 (2018) Table 5-2
- Non-Storm Water Management, Storm Water Standards Part 2 (2018) Table 5-3
- Erosion Control, Storm Water Standards Part 2 (2018) Table 5-4
- Sediment Control, Storm Water Standards Part 2 (2018) Table 5-5
- Run-on and Runoff Control, Storm Water Standards Part 2 (2018) Table 5-6

Note: Active/Passive Sediment Treatment is unlikely to apply to projects preparing WPCPs.

BMPs from each of the above categories must be used together as a system in order to prevent potential pollutant discharges. Each category is generally described and applicable BMPs are listed in the following sections. Projects containing site features identified with a "yes" answer in **Table 4** must utilize BMPs from the applicable BMP table(s). If no BMPs from a specific table are selected, an explanation must be provided. For BMP implementation details, refer to:

- California Stormwater Quality Association (CASQA) *Construction BMP Handbook Portal*, 2015, online at: https://www.casqa.org/resources/bmp-handbooks/construction, (subscription required); and
- California Department of Transportation (Caltrans) Construction Site BMP Handbook, 2017, online at: http://www.dot.ca.gov/hq/construc/stormwater/documents/CSBMP-May-2017-Final.pdf.

### 3.1. Project Planning

#### 3.1.1 Resource Protection

Year-round protection of waterways and sensitive areas is required. The City's *Storm Water Standards* – *Part 1* (2018) requires preserving natural hydraulic features and riparian area buffers where possible. Linear protection may be implemented using linear sediment controls such as silt fencing,

<sup>13</sup> The City of San Diego | Storm Water Standards | November 2019 Edition Water Pollution Control Plan (WPCP)

gravel bag barriers, fiber rolls, and/or compost socks/berms. Linear sediment controls must be installed between the maintenance area and the sensitive area. However, linear sediment controls must not be installed up and down a slope (i.e., perpendicular to contours), which can cause erosion. Additionally, BMPs must be implemented when performing demolition adjacent to a water body (such as installing turbidity curtains) and crossing waterways, dry conveyances, or areas where storm water flows.

[Select at least one BMP from Table 5 if resources, such as water bodies and sensitive areas, are located within or adjacent to the site.]

	Refere	ences	Check at
Best Management Practices	CASQA BMP	Caltrans BMP	least one BMP
Linear Sediment Controls	SE-1, SE-6,	SC-01,	
	SE-5, SE-8,	SC-05,	
	SE-12, SE-	SC-06,	
	13	SC-08	
Preserve Natural Hydraulic Features and Riparian Area Buffers	_	-	
Demolition Adjacent to Water	NS-15	NS-15	
Temporary Stream Crossing	NS-4	-	
If no BMPs were selected, explain the rationale:			
Describe any additional resource protection BMPs	to be impleme	ented:	
Describe where resource protection BMPs will be in	nstalled:		

#### **Table 5. Resource Protection BMPs**

### 3.2. Good Site Management "Housekeeping"

Materials and waste materials are not expected to be stored onsite. If this occurs, BMPs must be installed to control all maintenance and waste materials. Additionally, maintenance-related materials, spills, and residues must be prevented from entering the MS4. Good Site Management "Housekeeping" BMPs are provided in **Tables 6-9**. Keep an inventory of maintenance materials that will be used outdoors and exposed to precipitation, other than those designed for this purpose (e.g., poles, bricks). Designate materials loading, unloading, and storage areas. Do not perform activities during a rain event that may contribute to storm water pollution (e.g., loading/unloading) and minimize exposure of maintenance materials to precipitation.

#### 3.2.1 Material Storage and Handling

All material delivery and storage must occur in an area designated for the activity and at least 50 feet away from downstream storm drain facilities. On projects with limited space, material must be stored at least 5 feet away from downstream storm drain facilities. Material cannot be stored in the channel. All materials that may contribute pollutants to storm water runoff must be stored off the ground or stored within secondary containment. All materials must be covered at the end of every work day and prior to rain, in accordance with the WTAP implementation schedule applicable to the

<sup>14</sup> The City of San Diego | Storm Water Standards | November 2019 Edition Water Pollution Control Plan (WPCP)

project. Keeping materials in a storage container (i.e., Conex box) or indoors satisfies the coverage requirement. All hazardous materials and hazardous wastes (a waste with properties that make it potentially dangerous or harmful to human health or the environment) must be stored in watertight containers and labelled in accordance with all local, state, and federal regulations. The storage area for these materials and wastes must be enclosed with watertight secondary containment. Absorbent spill cleanup materials must be readily available on site in all material storage areas. Apply soil binders, pesticides, herbicides, and fertilizers only were designated without overspray to prevent potential discharge by storm water or non-storm water runoff.

[Select material storage and handling BMPs from Table 6.]

	Refer	ences	Check at
Best Management Practices	CASQA BMP	Caltrans BMP	least one BMP
Material Storage	WM-1	WM-01	
Material Handling and Use	WM-2	WM-02	
Paving and Grinding Operations	NS-3	NS-03	
Concrete Management	NS-12,	NS-12,	
	NS-13,	NS-14	
	NS-16		
Landscape Material Management	WM-1,	WM-03,	
	WM-2,	WM-05	
	WM-5		
If no BMPs were selected, explain the rationale:			
Describe any additional material storage and hand	ling BMPs to	be implemen	ted:
Describe where material storage and handling BMI	Ps will be imp	lemented/in	stalled:

Table 6. Material Storage and Handling BMPs
---

### 3.2.2 Waste Management

Wastes must be fully managed to prevent discharges to the MS4. Waste management areas must be designated using visible signage. Waste storage areas must be located at least 50 feet from drainage facilities and watercourses and must not be located in areas prone to flooding or ponding per site conditions and the Federal Emergency Management Agency flood map database (https://msc.fema.gov/portal). When infeasible, place waste storage areas as far away as possible from drainage facilities and watercourses. Waste containers are not allowed to leak and must be covered and secured at the end of every day and prior to rain. Waste disposal containers must be inspected for leaks on a weekly basis and must be emptied when they become 95% full. Washdown of waste containers is prohibited onsite.

Littering is prohibited in all areas of the project and must be collected at the end of every work day. Loose trash and waste within the project boundary or that originates from the project must be collected daily and disposed of properly. Litter and debris removal from drainage grates, trash areas, and ditches must be performed daily to prevent clogging of storm drainage systems.

<sup>15</sup> The City of San Diego | Storm Water Standards | November 2019 Edition Water Pollution Control Plan (WPCP)

Liquid waste management is applicable for all activities that generate any of the following nonhazardous liquid wastes: drilling slurries and fluids; grease and oil-free wastewater and rinse water; dredging; and other non-storm water liquid discharges not permitted by separate permits. Liquid waste discharges as a result of the creation, collection, and disposal of non-hazardous waste is prohibited. Liquid wastes must be contained in a structurally sound and leak-free container and stored in a controlled area with perimeter controls.

Hazardous liquid waste (e.g., used oils, solvents, and paints) and chemicals (e.g., acids, pesticides, additives, and curing compounds) must only be stored in watertight containers in designated hazardous waste storage areas with appropriate labelling, coverage, and watertight secondary containment. The waste storage area must be covered at the end of every work day, and prior to and during rain events. Disposal of these materials must be in accordance with local, state, and federal regulations.

Concrete waste management must occur at every area where concrete or slurries containing Portland cement concrete or asphalt cement is generated, placed, saw cut, cored, grinded, or demolished. Saw cutting slurry shall be vacuumed during the cutting operation and shall not be allowed to sheet-flow more than maximum 12 inches beyond either side of the saw cut line. The vacuum operator shall be within a maximum of five feet of the saw operator to vacuum the slurry. If the slurry was not fully removed from the vacuumed operation, the remainder shall be removed with an appropriate method until no slurry can be dislodged by manual brushing with a wire brush. Slurry/residue must be disposed of properly at the end of each day. Washout from concrete trucks and concrete waste must be collected in a designated concrete washout. Concrete washouts must be watertight and fitted with secondary containment to prevent any concrete waste from being able to discharge on to the ground or offsite. Concrete washout containers must be cleaned or exchanged when containment reaches 75% capacity. Concrete washout containers must be covered securely at the end of every work day. Wash out concrete equipment/trucks off site or in a contained area located a minimum of 50 feet from storm drain facilities and watercourses. For projects with limited space a distance less than 50 feet but greater than 5 feet may be allowed if additional BMPs are installed downstream of wash out area.

Install containment for portable restrooms and inspect regularly for leaks. Portable restrooms must be located 50 feet away from storm water conveyance features, watercourses, and traffic circulation. For projects with limited space a distance less than 50 feet but greater than 5 feet may be allowed if additional BMPs are installed downstream of the temporary sanitary facility.

[Select waste management BMPs from Table 7].

	References		Check at		
Best Management Practices	CASQA BMP	Caltrans BMP	least one BMP		
Solid Waste Management	WM-5	WM-05			
Liquid Waste Management	WM-10	WM-10			
Contaminated Soil Management	WM-7	WM-07			
Sanitary/Septic Waste Management	WM-9	WM-09			
Concrete Waste Management	WM-8	WM-08			
Hazardous Waste Management	WM-6	WM-06			
Stockpile Management	WM-3	WM-03			
If no BMPs were selected, explain the rationale:					
Describe any additional waste-management BMPs to be implemented:					
Describe where waste-management BMPs will be implemented installed:					

#### Table 7. Waste-Management BMPs

#### 3.2.3 Vehicle and Equipment Management

Vehicle and equipment management BMPs are implemented if vehicles and equipment will be used, fueled, maintained, and/or parked at the jobsite. Equipment is not permitted to leak. If equipment is found to be leaking it must immediately be repaired or removed. Drip pans must be placed underneath all equipment when not in use to detect leaks. Any visible leaks or accumulation in drip pans or containment must be cleaned daily and before rain. Inspections for equipment leaks must be performed daily by the Contractor. All cleaning, fueling, and maintenance performed on site must occur in an area designated for the activity which is fitted with appropriate secondary containment and is at least 50 feet away from downstream storm drain facilities. Fueling and maintenance must be performed using drip pans or secondary containment, such as plastic laid out on the ground using a perimeter berm created with gravel bags or fiber rolls under the edge of the plastic. Topping-off of fuel tanks is prohibited. Absorbent spill cleanup materials must be readily available wherever vehicle and equipment cleaning, fueling, and maintenance activities occur. Employees and subcontractors must be trained in proper spill prevention, control, and cleanup procedures. See Spill Prevention and Control BMP for documentation and reporting procedures. Oil, antifreeze, and other fluids shall be drained from inoperable vehicles intended for recycling or long-term outdoor storage. Drained fluids shall be disposed of in accordance with applicable hazardous materials regulations. Do not clean vehicles or equipment on site using soaps, solvents, degreasers, steam cleaning equipment, etc.

[Select vehicle and equipment management BMPs from Table 8.]

	References		Check at		
Best Management Practices	CASQA BMP	Caltrans BMP	least one BMP		
Vehicle and Equipment Cleaning	NS-9	NS-08			
Vehicle and Equipment Fueling	NS-9	NS-09			
Vehicle and Equipment Maintenance	NS-10	NS-10			
Stockpile Management	WM-3	WM-03			
If no BMPs were selected, explain the rationale:					
Describe any additional vehicle-and equipment-management BMPs to be implemented:					
Describe where vehicle-and equipment-management	ent BMPs wil	l be impleme	nted/installed:		

#### Table 8. Vehicle and Equipment Management BMPs

### 3.2.4 Spill Control

Spill prevention and control must occur at every area that uses petroleum products, asphalt, concrete, paints, solvents, soil stabilizers and binders, pesticides, herbicides, fertilizers, detergents, fuels, lubricants, or other products that could harm the environment. All employees and subcontractors must be trained in proper spill prevention, control, and cleanup procedures. Documentation of training must be per the project WPCP and kept at the site with the WPCP. Post procedures for storage, clean-up, and spill-reporting for hazardous materials and wastes in open, conspicuous, and accessible locations adjacent to storage areas. Ample spill controls materials should be stored onsite.

Spills must be contained and cleaned immediately in accordance with the applicable spill control plan, health and safety plan, and safety data sheets. If the spill occurs in dirt areas, immediately contain the spill by constructing an earthen dike. Dig up and properly dispose of contaminated soil according to all local, state, and federal regulations. Spills on asphalt or concrete must be contained and cleaned using adsorbent materials ("kitty litter").

Remove all spent spill cleanup materials and dispose of according to all local, state, and federal regulations. Notify the RE or City Inspector after the spill is contained; prior to resuming activities. Spills must be covered and protected from storm water run-on during rainfall. If the spill occurs during rain, cover the spill with tarps or other material to prevent contaminating runoff. Minor spillage or overflow of potable water must be contained and must not be allowed to discharge into watercourses or drainage facilities.

Any significant release or threatened release of a hazardous material requires immediate reporting by the responsible person to:

- The California Governor's Office of Emergency Services (Cal OES) State Warning Center at 800-852-7550;
- The San Diego County Hazardous Materials Division at 858-505-6880; and
- Emergency response at 9-1-1.

Significant spills must also be reported to the City's Solid Waste Local Enforcement Agency within 24 hours at 619-533-3688. Federal regulations require that discharges of oil or petroleum products into

<sup>18</sup> The City of San Diego | Storm Water Standards | November 2019 Edition Water Pollution Control Plan (WPCP)

or on any waters of the State be reported to the Cal OES State Warning Center at 800-852-7550 and the National Response Center at 800-424-8802 (24 hours). For more information on what is classified as a "significant or threatened release of hazardous material," visit the CAL OES website at www.caloes.ca.gov/FireRescueSite/Pages/Spill-Release-Reporting.aspx. Significant spills must be reported to the City Enforcement Agency within 24 hours.

#### [Select spill control BMPs from Table 9.]

	References		Check at	
Best Management Practices	CASQA BMP	Caltrans BMP	least one BMP	
Spill Prevention and Control	WM-4	WM-4		
Reporting Significant Spills	_	_		
If no BMPs were selected, explain the rationale:				
Describe any additional spill-control BMPs to be implemented:				
Describe where spill-control BMPs will be implemented/installed:				

#### Table 9. Spill-Control BMPs

### **3.3.** Non-Storm Water Management Controls

Illicit discharge and non-storm water discharges are defined as any discharge to the MS4 that is not composed entirely of storm water. The MS4 system includes all conveyances owned by the City designed to collect or convey storm water. Non-storm water discharges must be eliminated or controlled to the maximum extent practicable. Examples of non-storm water include but are not limited to runoff of potable (such as fire hydrant nuisance water) and non-potable water, irrigation runoff, and liquid waste or water from construction activities (such as trench nuisance water) discharging into a storm drain or offsite. See **Section 1.7** for a list of allowable discharges to the City's MS4. All non-storm water discharges shall be controlled by implementing water conservation practices, implementing good housekeeping techniques, and implementing a program to detect and eliminate illicit discharges. Non-storm water management BMPs are provided in **Table 10**.

The site should be inspected by the Contractor for illicit connections and discharges. If observed, action should be taken as soon as possible to halt the connection/discharge. Illicit discharges to the City's MS4 must be reported to the City's Solid Waste Local Enforcement Agency at 619-533-3688 within 24 hours. Overspray and overwatering of vegetation for erosion control and landscaping should be avoided. Water line breaks should be repaired as soon as possible. Ensure that construction-related materials, wastes, spills, or residues are prevented from discharging from the construction site to streets, drainage facilities, receiving waters, or adjacent properties by wind or runoff. Air conditioning condensate discharges shall be controlled to prevent them from reaching storm drains, curbs and gutters, or any other part of the MS4 system.

Dewatering of accumulated, uncontaminated storm water is allowable under the following conditions described in the Dewatering Operations BMP in the City's Storm Water Standards – Part 2 (2018):

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- a) The City must be notified (619-235-1000 or SWPPP@sandiego.gov) prior to discharging into the street, gutter, or storm drain. The gutter from the discharge point to the inlet must be swept clean prior to discharge.
- b) Water discharging from the site must be clear or field-tested and documented to be less than 20 Nephelometric Turbidity Units (NTU) or demonstrated through a drainage study that the project is not causing and/or contributing to exceedances in the receiving water.
- c) Discharges from dewatering operations must be directed through an appropriate pollution prevention or treatment system of control measures, such as a filter bag and sediment trap or sediment basin, prior to being discharged from the construction site.
- d) Ensure that dewatering discharges do not cause erosion at the discharge point by implementing the Temporary Energy Dissipation BMP.

Note that the Water Quality Control Plan for the San Diego Region requires that waters be free of changes in turbidity that cause nuisance or adversely affect beneficial uses.

The Water Quality Objective for inland surface waters is 20 NTU. The maximum increase in turbidity for lagoons and estuaries is specified in the Basin Plan and ranges from 10 – 20% over natural turbidity levels. Other Basin Plan requirements may apply.

#### [Select non-storm water management BMPs from Table 10.]

	vianagement	DIVIF 3	
	References		Check at
	CASQA	Caltrans	least one
Best Management Practices	BMP	BMP	BMP
Illicit Connection/Discharge Detection and	NS-6	NS-06	
Reporting			
Portable Water/Irrigation	NS-7	NS-07	
Vehicle and Equipment/Cleaning	NS-8	NS-08	
Water Conservation Practice	NS-1	NS-01	
Dewatering Operations	NS-2	NS-02	
Clear Water Diversion	NS-5	NS-05	
If no BMPs were selected, explain the rationale:			
Describe any additional non-storm water manager	ment BMPs to	be impleme	nted:
Describe where non-storm water management BM	IPs will be im	plemented/ir	istalled

#### Table 10. Non-Storm Water Management BMPs

### 3.4. Erosion Control

Erosion control, also referred to as soil stabilization, consists of source control measures that are designed to prevent soil particles from detaching and becoming transported in storm water runoff. Erosion-control BMPs protect the soil surface by covering and/or binding soil particles and many have the secondary effect of increasing water infiltration. Erosion controls are provided in **Tables 11–14**.

Erosion controls must be used in conjunction with sediment controls (see **Section 3.5**). Apply erosion controls as soon as grading and/or excavation are completed for any portion of the site, but no longer than 14 days after activity has ceased. At a minimum, erosion control is required on all

disturbed areas prior to a 50% probability of precipitation. Projects that are subject to an enhanced WTAP trigger are required to stabilize disturbed areas at a lower probability of precipitation (see **Section 4.3**).

All stockpiles must be stabilized at the end of each day. In addition, all stockpiles must be bermed (i.e., perimeter controls) at the end of each day. Stockpiles in the right-of-way must be stabilized with an erosion control product and bermed (i.e., perimeter control) at the end of each day. All stockpiles must be stabilized with an erosion control product and bermed (i.e., perimeter control) at the end of each day. All stockpiles must be stabilized with an erosion control product and bermed (i.e., perimeter control) prior to rain. Projects that are subject to an enhanced WTAP trigger are required to stabilize and berm all stockpiles at a lower probability of precipitation. For stockpiles where only a portion (or "face") is actively being used, the remaining inactive portion (or faces) must be designated on the site map and stabilized with an erosion control product and bermed at all times. Active faces must be bermed (i.e., perimeter control) and stabilized at the end of each day.

Support areas (e.g., parking, staging, material storage, fabrication areas) must be stabilized. Due to the nature of activities in these areas, periodic reapplication of temporary stabilization measures or redressing of gravel stabilization is required.

Scheduling/phasing of maintenance activities is required on all sites to minimize soil exposure and soil disturbance during the rainy season. When planning grading activities, minimize slope length and gradient to the greatest extent possible to avoid erosion and to promote vegetation establishment. Ensure slopes are set back from the property boundary whenever possible.

Prior to a rain event, active and inactive areas, including maintenance areas, are required to be stabilized in accordance with WTAP requirements in **Section 4.3**.

#### [Complete Table 11.]

	References		Check at		
Best Management Practices	CASQA BMP	Caltrans BMP	least one BMP		
Planning and Scheduling	EC-1	SS-01			
Stockpiles Management	WM-3	WM-3			
If no BMPs were selected, explain the rationale:					
Describe any additional erosion control BMPs to be	implemente	ed:			
Describe where erosion control BMPs will be imple	mented/inst	alled:			

#### Table 11. General Erosion-Control BMPs

#### 3.4.1 Non-Vegetative Stabilization

Non-vegetative stabilization consists of materials other than vegetation used to temporarily or permanently stabilize exposed areas. Materials used for non-vegetative stabilization should be determined based on site conditions. For example, geotextiles are generally installed where runoff is concentrated and are left in place long term. Jute erosion-control blankets, hydraulic mulch, and soil

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binders are usually installed as temporary BMPs. Permanent non-vegetative stabilization may be necessary where vegetation cannot be established, such as on steep slopes, where topsoil has been removed, or where there is lack of water. Projects likely to discharge to Environmentally Sensitive Areas shall use high performance erosion control methods, such as bonded fiber matrix or anchored erosion control blankets on all exposed slopes.

Erosion-control blankets, which can consist of jute, straw, coconut, and/or wood fiber, are common BMPs for stabilizing slopes. The type of blanket used usually depends on the longevity needed (see BMP references for details). Blankets need to be staked into the soil as specified by the manufacturer, keyed in on the top of the slope, and must have good soil contact to be effective (i.e., generally not suitable for rocky sites).

Hydraulic mulch usually consists of wood fiber mulch, water, and sometimes soil binder. Bondedfiber matrix is similar, but the mulch material is long-strand wood fibers that lock together with a bonding agent and is also applied hydraulically. Soil binders can consist of natural materials, such as guar, or man-made polymers (although some may not function well on sandy soils). The longevity varies with different products; see the BMP references for details. Hydraulic applications must be applied and re-applied as needed to maintain full coverage of soil in the area to be stabilized without shadowing or thin patches. Where necessary and as field conditions allow, apply mulch from multiple directions to provide full coverage. Hydraulic mulch shall not be oversprayed onto roadways, drainage channels, or existing vegetation.

Straw is generally the material used for mulch; it should be punched into soil or covered with soil binder so that it does not blow or wash away. Chipped brush and trees may also be used as mulch and usually doesn't required application of soil binder. Vegetation grubbed from the site, chipped, and reapplied to exposed soils may also provide a seed bank for vegetation establishment. Mulch used in conjunction with seeding may also enhance vegetation establishment.

A compost blanket (a layer of compost on the soil surface) may be used on rocky slopes. An added benefit of compost is that it can enhance vegetation establishment while protecting against erosion. The thickness of the compost layer needed is dependent upon the slope gradient (see BMP resources for details). Compost can be applied by hand, with a compost blower, or hydraulically (certain proprietary brands are designed to be applied with hydroseeding equipment).

Roughening a slope reduces the slope's erodibility. When used alone, soil roughening does not meet final stabilization requirements and, therefore, is generally used to prepare soil for seeding application, as it provides micro-sites for seed germination. This is performed by mechanical methods such as track-walking, sheep's foot rolling, scarifying, etc.

Reapplying topsoil consists of removing and stockpiling topsoil in areas to be graded or cut. Reapplying the topsoil after grading is completed can provide seed, organic matter, symbiotic fungi, and other elements beneficial to vegetation establishment. The topsoil stockpile must be covered or stabilized and bermed at the end of every day and prior to rain. Jute or straw erosion control blankets are recommended.

Permanent stabilization may consist of retaining walls, rock gabions (wire mesh blocks filled with rock that can be stacked), rock, etc. These features are used on or to support steep slopes or where water velocities/wave action is high (e.g., sea walls).

[Select non-vegetative stabilization BMPs from Table 12.]

<sup>22</sup> The City of San Diego | Storm Water Standards | November 2019 Edition Water Pollution Control Plan (WPCP)

	References		Check at	
Best Management Practices	CASQA BMP	Caltrans BMP	least one BMP	
Geotextiles and Mats	EC-7	SS-07		
Hydraulic Mulch and Bonded-Fiber Matrix <sup>1</sup>	EC-3	SS-03		
Soil Binders <sup>1</sup>	EC-5	SS-05		
Mulch <sup>1</sup>	EC-6,	SS-06,		
	EC-8,	SS-08		
	EC-14			
Compost Blankets <sup>1</sup>	EC-14	-		
Soil Preparation/Roughening (not a stand-alone BMP)	EC-15	-		
Topsoil Reapplication	_	_		
Permanent Stabilization (e.g., retaining walls, rock gabions, rock riprap, etc.)	-	-		
Other Material (to be approved by the City)	-	-		
If no BMPs were selected, explain the rationale:				
Describe any additional non-vegetative stabilization BMPs to be installed:				
Describe where non-vegetative stabilization BMPs will be installed:				
<sup>1</sup> BMP cannot be used in channel.				

#### **Table 12. Non-Vegetative Stabilization BMPs**

#### 3.4.2 Vegetative Stabilization

It is recommended that vegetation is installed, irrigated, and established (to uniform vegetative coverage with 70 percent coverage) prior to October 1. In the event that stabilizing vegetation has not been established by October 1, other forms of non-vegetative stabilization (see previous section) must be employed to prevent erosion until the vegetation is established.

Areas where vegetation is to be protected need to be clearly marked on the site to avoid accidental removal. Where preservation is not feasible, interim and permanent vegetation/landscaping can be established by seeding; hydroseeding; and installing plugs, sod, or container stock. Begin reestablishing permanent vegetation as early in the project as feasible. The soil should be prepared prior to seeding, and the use of compost blankets or straw mulch in conjunction with seeding is recommended. Streambank stabilization is often accomplished with willow staking and live brush mats (see BMP references for details).

[Select from the vegetation stabilization BMPs from Table 13.]

	References		Check at	
Best Management Practices	CASQA BMP	Caltrans BMP	least one BMP	
Preserve Existing Vegetation	EC-2	SS-02		
Establish Interim Vegetation	EC-4	SS-04		
Establish Permeant Landscaping	-	-		
Streambank Stabilization	EC-12	SS-12		
If no BMPs were selected, explain the rationale:	•			
Describe any additional vegetation stabilization BM	APs to be im	plemented:		
Describe where vegetation stabilization BMPs will be installed:				

#### Table 13. Vegetative Stabilization BMPs

### 3.4.3 Dust Control

Dust control BMPs are implemented to prevent the air deposition of site materials from site operations. Such particulates can include sediment, nutrients, trash, metals, bacteria, oil/grease, and organics. Dust generated by construction activities shall be controlled and is prohibited from leaving the site. Control dust using dust control practices appropriate for the site. Water-based dust suppression shall be applied in a way that avoids overwatering and oversaturation. If dust cannot be controlled, discontinue activities generating dust and evaluate the need for additional stabilization. Do not perform activities that may discharge particulates on windy days. Dust control BMPs are provided in **Table 14**.

#### [Select particulate and dust control BMPs from Table 14.]

	References		Check at	
Best Management Practices	CASQA BMP	Caltrans BMP	least one BMP	
Wind Erosion Control	WE-1	WE-1		
If no BMPs were selected, explain the rationale:				
Describe any additional particulate-and dust-control BMPs to be implemented:				
Describe where particulate and dust control BMPs will be implemented:				

### 3.5. Sediment Control

The goal of sediment control is to capture soil particles which have become detached from disturbed areas by water or wind. Sediment controls, consisting of perimeter control, resource protection, sediment capture, and off-site sediment tracking control (as described below) are required year-round and must be installed and maintained to comply with performance standards of the *Storm Water Standards – Part 2* (2018), Chapter 5. Sediment-control BMPs are provided in **Tables 15–17** and shall be used in conjunction with erosion controls.

<sup>24</sup> The City of San Diego | Storm Water Standards | November 2019 Edition Water Pollution Control Plan (WPCP)

### 3.5.1 Perimeter Control/Linear Sediment Controls

Perimeter control BMPs must be installed and maintained year-round to comply with performance standards from the City's Storm Water Standards - Part 2 (2018), Chapter 5. They may consist of silt fencing, gravel bag berms, fiber rolls (straw wattles), manufactured linear sediment controls, sand bag barriers, or compost socks/berm. Silt fencing, fiber rolls, and manufactured linear sediment controls must be trenched in and backfilled to be effective. Fiber rolls may also be used as a perimeter control on impervious surfaces only if they are properly secured at 4-ft intervals using gravel bags or an equivalent measure. Fiber roll perimeter control can be used at temporary perimeter control in active work areas on pervious surfaces where perimeter controls need to be removed during work hours and replaced at the end of the day. Gravel bags and fiber rolls shall be stacked if necessary so that storm water cannot flow over the top.

Perimeter controls must be inspected/maintained daily and as needed. BMPs must be maintained when there is visible damage (e.g., holes, slumping/sagging). Deteriorated BMPs must be removed from the perimeter and managed in accordance with applicable waste requirements. Accumulated sediment must be removed from perimeter controls when sediment reaches 1/3 of the BMP height. Areas where sediment has accumulated to a height of 1-inch or greater must be removed immediately. Sediment near and along gravel bags must be removed at the end of each day and prior to a rain event.

Linear sediment controls must be implemented at the boundaries of interior work areas (e.g., transitions from lots to interior or private streets). Prior to rain as part of the WTAP and when areas are inactive, linear sediment controls must be implemented on slopes, graded lots, dirt roads, and pads. Install linear sediment controls along the top and toe of the slope and at grade breaks of exposed slopes to comply with the sheet flow lengths provided in the Linear Sediment Controls BMP description in Chapter 5, Table 5-5 of the City's Storm Water Standards – Part 2 (2018). Linear sediment controls have a very limited sediment capture zone, which can be easily overwhelmed, and must be used in combination with other BMPs to prevent discharges.

#### [Select perimeter control and linear sediment control BMPs from Table 15.]

	Refe	References	
Best Management Practices	CASQA BMP	Caltrans BMP	Check at least one BMP
Silt Fencing	SE-1	SS-01	
Gravel Bag Berm	SE-6	SC-06	
Sand Bag Barrier	SE-8	SC-08	
Fiber Rolls or Straw Wattles	SE-5	SC-05	
Manufactured Linear Sediment Controls	SE-12	-	
Compost Socks and Berms	SE-13	-	
If no BMPs were selected, explain the rationale			
Describe any additional perimeter/linear control	ol BMPs to be in	plemented:	
Describe where perimeter/linear control BMPs	will be installed		

#### Table 15. Perimeter and Linear Sediment Control BMPs

<sup>25</sup> The City of San Diego | Storm Water Standards | November 2019 Edition Water Pollution Control Plan (WPCP)

### 3.5.2 Sediment Capture

Sediment in storm water is generally captured by gravity-based (e.g., sediment traps and basins) and passive filtration systems (e.g., silt fence, fiber rolls).

Storm drain inlet filters are considered "last resort" BMPs, which are designed to capture only small amounts of sediment. Controlling sediment should begin upstream of the storm drain inlet, via erosion and sediment controls installed at the source. Good housekeeping (i.e., street sweeping and maintaining stabilized entrances/exits) should be performed throughout the life of the project. Check dams may also be installed in the gutter upstream of the drain to slow the velocity of runoff and pre-filter before reaching the drain.

Storm drain inlet protection must be implemented during dry weather at every storm drain inlet that has the potential to receive construction related pollutants from active construction areas. Inlet protection within City streets must be removed prior to rain or during emergency water main breaks to ensure no flooding occurs. Remove inlet protection prior to the end of the day or weekend if rain is forecast during those periods. Inlet protection must be replaced prior to restarting construction. Storm drain inlet protection measures must be inspected/maintained daily and as needed. Maintaining storm drain inlet protection measures must include replacing damaged BMPs and removing and disposing of accumulated sediment, trash, and debris. Removal must occur when accumulation is 1/3 the height or depth of the BMP. Areas where sediment has accumulated to a height of 1-inch or greater must be removed immediately. Sediment near and along gravel bags must be removed at the end of each day and prior to a rain event.

#### [Select from the sediment capture BMPs from Table 16.]

	P			
	References		Check at	
Best Management Practices	CASQA BMP	Caltrans BMP	least one BMP	
Storm Drain Inlet Protection	SE-10	SC-10		
Sediment Trap	SE-3	SC-03		
Sedimentation Basins	SE-2	SC-02		
If no BMPs were selected, explain the rationale:				
Describe any additional sediment capture BMPs to be implemented:				
Describe where sediment capture BMPs will be implemented/installed:				
Describe procedures for dewatering to address vector control and for maintaining capacity of BMP:				

#### Table 16. Sediment Capture BMPs

#### 3.5.3 Off-site Sediment Tracking

Off-site sediment tracking BMPs must be installed and maintained year-round at entrances/exits to comply with performance standards from the *Storm Water Standards – Part 2 (2018)*. The site entrance/exit needs to be stabilized to control and prevent sediment tracking from the site. Site entrances/exits must be constructed with a length of 50 feet or as allowable by project site conditions and width of 10 feet or the minimum necessary to accommodate vehicles and constructed per material specifications in the corresponding CASQA or Caltrans Fact Sheet. A

tire wash may be installed, if necessary, but must be frequently inspected and maintained to ensure non-storm water discharges to not occur. The entrance/exit must be designed so that vehicles and equipment cannot be driven around the stabilization measures. Additional controls such as stabilized construction roads must be implemented if tracking cannot be controlled by other methods.

Roads adjacent to the site should be swept or vacuumed when sediment or construction debris has been deposited. Adjacent roads should be inspected daily to ensure tracking is not occurring. Stabilized construction entrances and exits must be removed post-construction.

[Select from the off-site sediment tracking BMPs from Table 17.]

	References		Check at		
	CASQA	Caltrans	least one		
Best Management Practices	BMP	BMP	BMP		
Stabilized Entrance/Exit	TC-1	TC-01			
Stabilized Roadway	TC-2	TC-02			
Tire Wash	TC-3	TC-03			
Street Sweeping and Vacuuming	SE-7	SC-07			
If no BMPs were selected, explain the rationale:					
Describe any additional sediment capture BMPs to be implemented:					
Describe where off-site sediment-tracking BMPs will be implemented/installed					

### 3.6. Run-On and Runoff Controls

All run-on, storm water conveyances through the site, and runoff that discharges off site must be managed to prevent erosive flows. Runoff from the site must be directed away from all disturbed areas. If runoff or dewatering operation discharges are concentrated, the velocity must be controlled using an energy dissipater. Discharge points and discharge flows must be free of pollutants, including sediment.

Run-on to the site should be diverted around the site if possible. Check dams are used to reduce velocity of concentrated flows, limit erosion in channels, and trap sediment. They can be installed in gutter to reduce sediment loading to storm drain inlets. Dikes, swales, and slope drains can be utilized to safely convey runoff down a slope, direct runoff to a stabilized channel, reduce potential for flooding, or direct runoff to sediment traps/basins. Vegetation, geotextiles, or mats must be used to stabilize swales and dikes. Slope drains and drainage swales should be used to convey runoff downslope to prevent erosion in this area. Swales and dikes shall be monitored for erosion and cleared of debris, silt, and mud after each rain event. If rilling greater than 1-inch deep occurs, the swale or dike shall be repaired within 72 hours or before the next forecasted rain event, whichever is sooner. Run-on and runoff BMPs are provided in **Table 18**.

[Select run-on and site storm water management BMPs from Table 18.]

	References		Check at	
	CASQA	Caltrans	least one	
Best Management Practices	BMP	BMP	BMP	
Check Dams	SE-4	SC-04		
Earthlike Dikes, Drainage Swales, and Slope	EC-9,	SS-09,		
Drains	EC-11	SS-11		
Temporary Energy Dissipation	EC-10	SS-10		
If no BMPs were selected, explain the rationale:				
Describe any additional run-on and runoff control BMPs to be implemented:				
Describe where run-on and runoff control BMPs will be implemented/installed:				

#### Table 18. Run-On and Runoff Control BMPs

### 3.7. Final Stabilization

Review site-specific Hydrology and Hydraulics Fact Sheet Post Maintenance Erosion Control Measures section for final stabilization measures. For the maintenance project to be considered complete, all of the following conditions must be met:

- The site will not pose any additional sediment discharge risk than it did prior to the commencement of maintenance activity.
- Final stabilization has been reached by one of the following:
  - For concrete channels, concrete damage related to maintenance activities is inspected and repaired as needed.
  - For earthen channels, maintenance is typically limited to the channel bottom and 2 feet up each side slope. Final stabilization not required within this area. If applicable, postmaintenance erosion control measures detailed in site-specific FMPs have been applied.
  - For earthen access/staging areas, erodible slopes are stabilized using appropriate BMPs. This includes attaining cover per the Land Development Code Revegetation and Erosion Control Guidelines or using equivalent stabilization measures such as erosion control blankets and geotextiles.
- Maintenance materials, temporary BMPs, and wastes have been removed from the site.

### **4 BMP Maintenance and Inspection**

Maintenance is a dynamic operation where changes are expected. Site activities can damage BMPs. Storm water BMPs for maintenance sites are typically temporary measures that require frequent maintenance to maintain effectiveness. BMPs facilities may require relocation, revision, and reinstallation, particularly as earthwork activity progresses.

### **4.1. BMP Maintenance**

BMP maintenance requirements are listed in **Table 19**. The following subsections describe the inspection program responsibilities and requirements. Review FMP and revise Table 19 as necessary.

Best Management Practices	Maintenance Requirements
Planning and Scheduling	Periodically review schedule to determine if activities are up to date and disturbed areas during periods of high precipitation potential can be minimized.
Resource Protection	Maintain fencing, flagging, or signage used to identify resource protection areas to ensure visibility throughout the life of the project, repair or replace damaged markers. Refer to specific BMP maintenance requirements for other resource protection BMPs.
Material Storage and Handling	Store ample supplies of spill cleanup materials onsite. Clean and organize storage areas. Stage materials on pallets and cover when not in use, at the end of every work day, during rain events, and at least 24 hours prior to rain, in accordance with the WTAP implementation schedule. Repair perimeter controls, containment structures, covers, and liners. Spot check materials use throughout the project period to ensure proper practices are utilized.
Paving and Grinding Operations	Arrange for regular collection of paving wastes. Inspect storm drains near paving to ensure effective cover. If saw cutting slurry is not fully removed from vacuumed operations, the remainder shall be removed with an appropriate method until no residue is visible.
Landscape Material Management	Stage materials on pallets and cover when not in use.
Solid Waste Management	Waste disposal containers must be inspected for leaks on a weekly basis and must be emptied when they become 95% full. Remove deposited solids in containment areas and collection devices. Inspect and repair containment areas and capturing devices on a weekly basis.
Liquid Waste Management	Arrange for waste collection as necessary. Remove liquid wastes in containment areas and collection devices. Inspect and repair containment areas and capturing devices. Store

 Table 19. BMP Maintenance Requirements

<sup>29</sup> The City of San Diego | Storm Water Standards | November 2019 Edition Water Pollution Control Plan (WPCP)

Best Management Practices	Maintenance Requirements
Flattices	liquid wastes in a structurally sound and leak-free container
	and stored in a controlled area with perimeter controls.
Contaminated Soil Management	Ensure that contaminated soil stored on site is covered and bermed at all times and does not have the potential to contact storm water or groundwater.
Sanitary/Septic Waste Management	Coordinate with a local contractor for routine maintenance. Ensure that sanitary/septic facilities are maintained in good working order by a licensed service.
Concrete Waste Management	Repair concrete washout when damaged. Ensure adequate freeboard prior to rain events. Remove and dispose of hardened concrete as needed. Concrete waste facilities must be cleaned, or new facilities must be constructed and ready for use once facilities are 75% full. Inspect concrete waste facilities for damage (e.g., torn liner, evidence of leaks, signage, etc.) on a weekly basis. Repair all identified damage.
Hazardous Waste Management	Store all hazardous waste in watertight containers in storage areas with watertight secondary containment. Keep storage areas clean and organized. Store ample spill cleanup supplies onsite. Control storage area perimeter. Repair containment
Stockpile Management	structures, covers, and liners as necessary. Cover and berm all stockpiles at the end of every day and prior to rain. Replace damaged covers and berms. Inspect perimeter controls for soil stockpiles on a daily basis for sediment accumulation and remove when sediment is accumulated to a
	1-inch or greater height. Ensure stockpiled material is within the bermed area. Store ample supplies of cover material and perimeter controls onsite.
Vehicle and Equipment Cleaning	Store ample spill clean up supplies onsite. Clean up spills and properly dispose of materials. Ensure as little water as possible is used.
Vehicle and Equipment Fueling	Store ample spill clean up supplies onsite. Clean up spills and properly dispose of materials. Ensure fueling is performed using drip pans or secondary containment.
Vehicle and Equipment Maintenance	Inspect vehicles and equipment for leaks on a daily basis. Ensure maintenance is performed using drip pans or secondary containment. Drain fluids from inoperable vehicles and equipment.
Spill Prevention and Control	Ensure that ample supplies of spill cleanup materials are available in work areas and at material staging yards.
Reporting Significant Spills	Ensure that on-site staff receives spill cleanup and reporting training. Significant spills shall be reported as described in Section 3.2.4
Illicit Connection/Discharge Detection and Reporting	Inspect site and notify owner/operator of illicit connections or discharge incidents immediately. Ensure construction-related materials and wastes are prevented from leaving the site.

<sup>30</sup> The City of San Diego | Storm Water Standards | November 2019 Edition Water Pollution Control Plan (WPCP)

Best Management Practices	Maintenance Requirements
Potable Water/Irrigation	Repair broken lines and correct irrigation overspray as soon as possible.
Water Conservation Practices	Repair water equipment as needed to prevent non-storm water discharges.
Dewatering Operations	Dewatering must be done in accordance with the Storm Water Standards – Part 2 (2018).
Geotextiles and Mats	Replace damaged blankets and mats. Ensure good soil contact.
Hydraulic Mulch and Bonded Fiber Matrix	Reapply if signs of erosion are observed.
Soil Binders	Reapply if signs of erosion are observed.
Straw and Wood Mulch	Reapply where soil is exposed.
Compost Blankets	Reapply where soil is exposed.
Soil	Repair and restore as applicable.
Preparation/Roughening	
Topsoil Reapplication	Repair and reapply as applicable.
Permanent Stabilization	Remove accumulated sediment and debris.
(e.g., retaining walls, rock gabions, rock	
riprap, etc.)	
Other Material – Non-	Remove accumulated sediment and debris.
Vegetative Stabilization (to be approved by the	
City)	
Preserve Existing	Ensure protected vegetation is clearly marked.
Vegetation	, i i i i i i i i i i i i i i i i i i i
Establish Interim Vegetation	Reapply seed or replant stock if vegetation does not establish.
(Hydroseeding) Establish Permanent Landscaping	Reapply seed or replant stock if vegetation does not establish.
Streambank Stabilization	Reinstall if stabilization does not establish.
Wind Erosion Control	Ensure dust control is applied over exposed soils and in a way that avoids overwatering and oversaturation.
Silt Fence	Replace damaged silt fence. Ensure fence is trenched and backfilled. Inspect daily and remove sediment accumulated to 1/3 the fence height. Areas where sediment has accumulated to a height of 1-inch or greater must be removed immediately.
Gravel Bag Berm	Replace as bags deteriorate. Inspect daily and remove sediment accumulated to 1/3 the bag height. Areas were sediment has accumulated to a height of 1-inch or greater must be removed immediately. Sediment near and along gravel bags must be removed at the end of each day and prior to a rain event.
Sand Bag Barrier	Replace as bags deteriorate. Inspect daily and remove sediment accumulated to 1/3 the bag height. Areas were sediment has

<sup>31</sup> The City of San Diego | Storm Water Standards | November 2019 Edition Water Pollution Control Plan (WPCP)

Best Management Practices	Maintenance Requirements
	accumulated to a height of 1-inch or greater must be removed immediately. Sediment near and along sand bags must be removed at the end of each day and prior to a rain event.
Fiber Rolls or Straw Wattles	Replace damaged fiber rolls. Ensure rolls are trenched in and backfilled in pervious areas. Inspect daily and remove sediment accumulated to 1/3 the roll height. Areas where sediment has accumulated to a height of 1-inch or greater must be removed immediately.
Manufactured Linear Sediment Controls	Inspect daily and maintain in accordance with manufacturer's recommendations.
Compost Socks and Berms	Replace damaged socks. Inspect daily and remove sediment accumulated to 1/3 the sock height. Areas where sediment has accumulated to a height of 1-inch or greater must be removed immediately
Storm Drain Inlet Protection	Inspect and maintain daily and as needed. Repair damaged inlet protection. Remove sediment and debris accumulated to 1/3 the height or depth of the BMP. Areas where sediment has accumulated to a height of 1-inch or greater must be removed immediately. Sediment near and along gravel bags must be removed at the end of each day and prior to a rain event.
Sediment Trap	Corrective measures must be taken if the BMP does not dewater completely in 96 hours or less to prevent vector production. Repair if trap is damaged or signs of erosion are noted at the outlet.
Sediment Basin	Corrective measures must be taken if the BMP does not dewater completely in 96 hours or less to prevent vector production. Repair if basin is damaged or signs of erosion are noted at the outlet.
Stabilized Entrance/Exit	Install prior to construction start. Replace gravel when surface voids are visible. Remove post-construction.
Stabilized Roadway	Install prior to construction start. Apply additional aggregate on gravel roads as-needed. Remove post-construction.
Tire Wash	Remove accumulated sediment to maintain system performance. Ensure non-storm water discharges are not occurring.
Street Sweeping and Vacuuming	Implement daily and as-needed.
Run-on Diversion	Ensure that diversions are effective.
Check Dams	Remove accumulated sediment and debris when it reaches 1/3 the height of the dam. Areas where sediment has accumulated to a height of 1-inch or greater must be removed immediately. Sediment near and along gravel bags must be removed at the end of each day and prior to a rain event.
Dikes, Swales, and Slope Drains	Monitor for erosion and clear of debris, silt, and mud after each rain event. If rilling greater than 1-inch deep occurs, the swale

<sup>32</sup> The City of San Diego | Storm Water Standards | November 2019 Edition Water Pollution Control Plan (WPCP)

Best Management Practices	Maintenance Requirements			
	or dike shall be repaired within 72 hours or before the next forecasted rain even, whichever is sooner.			
Temporary Energy Dissipation	Remove accumulated sediment and debris when observed in protection devices.			

# 4.2. BMP Inspections

Routine inspections are necessary to ensure the integrity and effectiveness of BMPs and help protect a site from unexpected weather events. Self-inspections are to be performed by a QCP. Refer to **Section 1.3.1 and 1.3.2**. Upon identifying failures or other maintenance items, repairs or design changes to BMPs must be completed as quickly as feasible.

# 4.3. Weather Triggered Action Plan

All projects that require development of a WPCP and have a maintenance area greater than 5,000 square feet or greater than a 5-foot elevation differential over the entire project area are required to develop a Weather Triggered Action Plan (WTAP).

A WTAP is a written document and corresponding site map designed to be used as a planning tool for the QCP to protect areas of exposed soils and materials prior to forecasted rain. The WTAP must be prepared in advance of rain events per the following table to allow for adequate time to implement BMPs. A WTAP template is provided in Appendix D of the City's *Storm Water Standards Part 2 – Construction BMP Standards* (2018). Completed WTAPs must be kept on site and made available for inspection upon request by a representative of the City, SDRWQCB, or the SWRCB.

Trigger Level	Project Applicability	WTAP Implementatio n Trigger [Probability of Precipitation (POP)] <sup>1</sup>	WTAP prepared no later than # hours prior to predicted onset of rain	WTAP Implementatio n completed no later than # hours prior to predicted onset of rain	Trigger Level Justificatio n and Enforceme nt Status <sup>4</sup>
A	All Projects <sup>2</sup>	50% POP	48 hours	Prior to Rain	Currently compliant based on City Inspection
	Enhanc	ed WTAP Trigger	per City Inspect	ion Results:	- 1.1
В	All Projects <sup>2</sup>	40% POP	48 hours³	24 hours	Escalating Enforcemen t for non- compliant erosion and sediment control BMPs

## Table 20. WTAP Implementation Requirements

<sup>1</sup> BMP deployment and active area stabilization timing is based on National Weather Service probability of precipitation (http://www.weather.gov/sgx/); Use project location and hourly forecast. POP shall be checked once per business day during business hours. If there is less than a 50% POP on Friday when the forecast is checked, a WTAP does not need to be prepared for the following Monday (assuming business hours are Mon-Fri). If the POP is greater than 50% on Monday when the forecast is checked, a WTAP shall be prepared.

<sup>2</sup> Projects that have a maintenance area less than 5,000 square feet and less than a 5-foot elevation differential over the entire project area are exempt from WTAP requirements.

<sup>3</sup> Sites must be checked at 24 hours prior to the rain event to ensure the WTAP is consistent with current maintenance conditions.

<sup>4</sup> Trigger Level selected by City RE or City Inspector based on non-compliant site conditions. The project will remain at the assigned Trigger Level until compliance is demonstrated to the satisfaction of the City RE or City Inspector. The City may move a project back to Trigger A, if compliance is demonstrated for three successive inspections by City construction storm water inspectors.

# 4.4. Recordkeeping and Reports

Records for the following items must be retained for a minimum of three years:

- Completed self-inspection forms;
- Completed WTAPs and exhibits;
- Training documentation (if any);
- Discharge reports (if any); and
- WPCP and amendments (if any).

<sup>36</sup> The City of San Diego | Storm Water Standards | November 2019 Edition Water Pollution Control Plan (WPCP)

# **5 References**

California Department of Transportation (Caltrans)

2011 Storm Water Quality Handbook SWPPP/WPCP Preparation Manual. June.

California Stormwater Quality Association (CASQA) 2015 *Construction Stormwater BMP Handbook*. January.

## City of San Diego

2018 *Storm Water Standards*. Available online at: https://www.sandiego.gov/planning/ programs/landdevcode/landdevmanual#SWstandards2018

## San Diego Regional Water Quality Control Board (RWQCB)

2015 Order No. R9-2013-0001, National Pollutant Discharge Elimination System (NPDES) Permit and Waste Discharge Requirements for Discharges from the Municipal Separate Storm Sewer Systems (MS4s) Draining the Watersheds within the San Diego Region, as amended by Order Nos. R9-2015-0001 and R9-2015-0100. Available online at: https://www.waterboards.ca.gov/ sandiego/water\_issues/programs/stormwater/docs/2015-1118\_AmendedOrder\_R9-2013-0001\_COMPLETE.pdf. November 18.

## State Water Resources Control Board (SWRCB)

2012 National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, Water Quality Order 2009-0009-DWQ as amended by Order Nos. 2010-0014-DWQ and 2012-0006-DWQ, General Permit No. CAS000002. Available online at: http://www.swrcb.ca.gov/water\_issues/ programs/stormwater/constpermits.shtml. July 17.

<sup>38</sup> The City of San Diego | Storm Water Standards | November 2019 Edition Water Pollution Control Plan (WPCP)

# **A.** Maintenance Plan

A-1 The City of San Diego | Storm Water Standards | November 2019 Edition Water Pollution Control Plan (WPCP)

A-2 The City of San Diego | Storm Water Standards | November 2019 Edition Water Pollution Control Plan (WPCP)

# **B.** Certification

B-1 The City of San Diego | Storm Water Standards | November 2019 Edition Water Pollution Control Plan (WPCP)

B-2 The City of San Diego | Storm Water Standards | November 2019 Edition Water Pollution Control Plan (WPCP)

This WPCP must be certified by the applicant.

[Please sign and date below.]

The Water Pollution certification.	The Water Pollution Control Plan Preparer must print and sign the following certification.						
managing urban run certify that the BMP negative impacts of i further agree to i effectiveness. I also	I have read and understand that the City of San Diego has adopted minimum requirements for managing urban runoff, including storm water from construction and land development activities. I certify that the BMPs selected on this form will be implemented to minimize the potentially negative impacts of this project's construction and land development activities on water quality. I further agree to install, monitor, maintain, or revise the selected BMPs to ensure their effectiveness. I also understand that non-compliance with the City's Storm Water Standards may result in enforcement by the City, including fines, cease and desist orders, or other actions.						
Applicant Date:							
Name and Title:		Tel. Number:					

The applicant must will be issued.	The applicant must print and sign the following certification before a permit will be issued.					
managing urban rund certify that the BMPs negative impacts of further agree to ins effectiveness. I also u	erstand that the City of San Diego ha off, including storm water from construc- selected on this form will be imple this project's construction and land dev stall, monitor, maintain, or revise t understand that non-compliance with t by the City, including fines, cease and	ection a emente velopm the se the Ci	nd land development activities. I ed to minimize the potentially nent activities on water quality. I lected BMPs to ensure their ity's Storm Water Standards may			
Applicant Signature:	Da	ate:				

B-4 The City of San Diego | Storm Water Standards | November 2019 Edition Water Pollution Control Plan (WPCP)

**C.** City of San Diego Form DS-560, Storm Water Requirements Applicability Checklist

C-1 The City of San Diego | Storm Water Standards | November 2019 Edition Water Pollution Control Plan (WPCP)

C-2 The City of San Diego | Storm Water Standards | November 2019 Edition Water Pollution Control Plan (WPCP)

# **D.** Inspection Form

PDF version includes sample inspection form. Review FMP and maintenance plans to determine if site-specific modification to inspection form required. Consult with City staff as applicable.

# STORMWATER MAINTENANCE SELF-INSPECTION FORM

## SITE INFORMATION

Γ

Project: Date & Time: The information contained in this inspection report was gathered and evaluated by qualified personnel before submittal. Based on my review of the information and inquiry of those who gathered and evaluated the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.						
Inspector Name:			_Inspector Signa	ature:		
GENERAL INSPEC		IATION				
Weather Condition:	□ Clear	□ Partly Cloudy	□ Cloudy			
Precipitation Condition	on: 🗆 None	□ Misty	Light Rain	□ Rain	Heavy Rain	
Wind Condition:	□ None	□ Less than 5mph	□ More th	an 5mph		
Is the project binder	· (ex. Permit, W	PCP, etc.) available o	onsite? □Yes	□No	(Notify Public Works Supervisor)	
Is work occurring or	n <b>site?</b> □Yes	(Skip to Active Worksi	te) □No (Ski	ip to BMP secti	on)	
ACTIVE WORKSITE Description of Work						

Select the	Select the Status of the Equipment Located Onsite					
Active	Idle/Down	Equipment Type	Additional Remarks (Ex. Equipment No.)			
		Vactor				
		Bob Cat				
		Excavator – CAT 349 or smaller				
		Front-End Loader – CAT 966 or smaller				
		Dump Truck – 804 series/12-yard equivalent				
		Pumps to Dewater – 6" or smaller				
		Hand tools				

Is material being removed/stockpiled onsite? □Yes (Fill out below table) □No

Type (Unit)	Quantity/Unit	Type (Unit)
<b>JF</b> = ( =	Channel Material Removed	Stockpile Area Material Removed
Sediment		
Debris		
Vegetation		
Other:		
Other:		

## **BMP** Inspection

#### Is the map reflecting the current condition of the site?

When the map was last updated? \_

The following areas reflect the project specific BMPs. Select if the BMPs is in good condition (P= Pass), deficient (F=Fail) or if it is not applicable (N/A). If deficiencies are identified explain the corrective actions performed.

### Access Roads (Insert Street names where applicable)

Р	F	N/A	BMP	Specific Name	Corrective Action
			SE-7	Street Sweeping and Vacuuming	
			SE-10	Storm Drain Inlet Protection	
			TC-1	Stabilized Construction Entrance/Exit	
			TC-2	Stabilized Construction Roadway	
			TC-3	Entrance/Outlet Tire Wash	

### In Channel Maintenance- Sediment Capture/ Run-On Storm Water Management

Ρ	F	N/A	BMP	Specific Name	Corrective Action
			SE-4	Check Dams	
			SE-5	Fiber Rolls or Straw Wattles	
			SE-6	Gravel Bag Barrier	
			SE-8	Sandbag Barrier	
			EC-7	Geotextiles and Mats	
			NS-1	Water Conservation Practice	
			NS-2	Dewatering Operations	
			NS-5	Clear Water Diversion	
			NS-6	Illicit Connection/Discharge Control	

## Loading & Staging Area

Ρ	F	N/A	BMP	Specific Name	Corrective Action
			EC-3	Hydraulic Mulch	
			EC-4	Hydroseeding	
			EC-5	Soil Binders	
			EC-6	Straw Mulch	
			EC-7	Geotextiles and Mats	
			EC-8	Wood Mulching	
			EC-9	Earth Dikes and Drainage Swales	
			EC-14	Compost Blanket	
			EC-15	Soil Preparation/Roughening	
			EC-16	Non-Vegetative Stabilization	
			WE-1	Wind Erosion Control	
			SE-7	Street Sweeping and Vacuuming	
			SE-8	Sand Bag Barrier	

□No

WM-5	Solid Waste Management
WM-6	Hazardous Waste Management
WM-7	Contaminated Soil Management
WM-8	Concrete Waste Management
WM-10	Liquid Waste Management
NS-8	Vehicle and Equipment Cleaning
NS-9*	Vehicle and Equipment Fueling
NS-10	Vehicle and Equipment Maintenance

\*To be performed 50 ft away from any waterway.

## Project Area

		1			
Р	F	N/A	BMP	Specific Name	Corrective Action
			NS-12	Concrete Curing	
			NS-13	Concrete Finishing	
			EC-2*	Preserve Existing Vegetation	

\*Use where applicable and protect areas identified as biologically sensitive vegetation

NOTE: If the onsite BMPs are not functioning and need to be modified notify the Qualified Contact Person.

# **APPENDIX C** *Environmental Protocols*

# APPENDIX C Environmental Protocols

EP Number	Environmental Protocol
	Biological Resources
EP-BIO-1	<b>FMP Preparation/Verification.</b> The Transportation & Storm Water Department (TSW) shall prepare a Facility Maintenance Plan (FMP) for new facilities or verify consistency of the FMPs in the approved <i>Municipal Waterways Maintenance Plan</i> (MWMP) Appendix A, which shall include written and graphic depiction of the facility-specific biological resources/impacts and avoidance areas, access/staging/loading routes, the equipment that will be used to complete the maintenance, and applicable mitigation measures. FMPs are designed to avoid and minimize impacts to biological resources to the maximum extent practicable while providing flood risk reductions and ensuring the ongoing functionality of existing infrastructure. If compensatory mitigation has been provided for previously permitted maintenance areas, proof of mitigation implementation/credit will be provided as part of the FMP.
EP-BIO-2	<b>Lighting Restrictions.</b> TSW shall ensure nighttime lighting required during emergency maintenance complies with the City of San Diego (City) Outdoor Lighting Regulations pursuant to Land Development Code (LDC) Section 142.0740 to the maximum extent practicable, and shall be low-pressure sodium illumination (or similar) and directed away from the Multiple Species Conservation Program preserve when the work site is adjacent to the Multi-Habitat Planning Area (MHPA) using appropriate placement and shielding.
EP-BIO-3a	<ul> <li>Qualified Biological Monitor. TSW shall ensure the following protocols are included in the FMP for each project within or adjacent to sensitive biological resources:</li> <li>Qualified Biologist. At least 3 days prior to the start of maintenance activities, the Project Biologist shall submit a letter to Mitigation Monitoring Coordination (MMC) that confirms a qualified monitoring biologist (QMB), as defined in the City of San Diego Biology Guidelines (SDBG), has been retained to implement required monitoring. This letter shall also include the names and resumes of all persons involved in the biological monitoring of the project, a schedule for the proposed work, and the facility's preapproved FMP.</li> </ul>
	<ol> <li>Documentation. Prior to the commencing maintenance on any storm water facility within, or immediately adjacent to, an MHPA, the</li> </ol>

EP Number	Environmental Protocol
	Environmental Designee (ED) shall verify that all MHPA boundaries and
	limits of work have been delineated on all maintenance documents.
	3. Biological Construction Mitigation/Monitoring Exhibit. The Qualified Biologist shall present a Biological Construction Mitigation/Monitoring Exhibit (BCME), which includes limits of work, proposed monitoring schedule, avian or other wildlife surveys/survey schedules (including general avian nesting and U.S. Fish and Wildlife Service [USFWS] protocol), timing of surveys, avian construction avoidance areas/noise buffers/barriers, other impact avoidance areas, and any subsequent requirements determined by the Qualified Biologist and the City ED/MMC. The BCME shall include the FMP site plan, written and graphic depiction of the project's biological mitigation/ monitoring program, and a schedule.
	Where the potential for impacts to biological resources is limited (e.g., removal of sediment or debris from an unvegetated concrete structure that flows into a closed storm drain system during the non-breeding season), the monitoring program may be limited to a pre- and post- maintenance verification inspections. For highly sensitive resource areas, full-time biological monitors may be required. The BCME shall be approved by the MMC prior to the start of maintenance.
	4. Resource Marking/Protection. Prior to maintenance activities, the Qualified Biologist shall supervise the placement of orange construction fencing or visible marker, staking, or flagging along the limits of the facility maintenance area adjacent to sensitive biological habitats, as shown on the BCME, to ensure crews remain in the approved maintenance areas. These demarcations will not be required for facilities with existing structures, such as chain-link fencing, along the limits or facilities that are adjacent to urban and non-sensitive habitat areas.
	This phase shall include flagging plant specimens and delineating buffers to protect sensitive biological resources (e.g., habitats, sensitive flora and fauna species, including nesting birds) during construction. Appropriate steps/care shall be taken to minimize attraction of nest predators to the site.
EP-BIO-3b	<b>Pre-Construction Meeting/Education.</b> Prior to the start of any activity where the FMP for the proposed maintenance area indicates that significant impacts to biological resources may occur, TSW shall arrange an on-site pre-maintenance meeting with the following in attendance: MMC representative, Project

EP Number	Environmental Protocol
	Consultant(s) (e.g., QMB), TSW, Construction Manager (CM) (if applicable), Resident Engineer (RE) (if applicable), and other parties of interest. At this meeting, the QMB shall identify and discuss the maintenance protocols that apply to the maintenance activities and the sensitive nature of the adjacent habitat with the crew and subcontractor.
	At the pre-maintenance meeting, the QMB shall submit to the MMC and CM a copy of the FMP and BCME that identifies areas to be protected, fenced, and monitored. This data shall include all planned locations and design of noise attenuation walls or other devices, if applicable.
	Prior to commencement of maintenance activities, the Qualified Biologist shall meet with the crew supervisor and the maintenance crew and conduct an on-site educational session regarding the need to avoid impacts outside of the approved maintenance area and to protect sensitive flora and fauna that may occur at the specific facility (e.g., explain the avian and wetland buffers, flag system for removal of invasive species or retention of sensitive plants, and clarify acceptable access routes/methods and staging areas).
EP-BIO-3c	<b>Biological Monitoring and Reporting.</b> The designated QMB shall inspect/monitor the project area in accordance with the approved BCME. This may be limited to pre- and post-maintenance inspections, weekly visits, or full-time monitoring, as determined by the Qualified Biologist and MMC.
	The QMB shall document monitoring events via a Consultant Site Visit Record. This record shall be sent to the TSW each month and the TSW shall forward copies to MMC. However, if weekly reports are submitted as part of a separate agency permit requirement, these reports may be forwarded to MMC in place of Consultant Site Visit Record submittals.
	If no deviations from the FMP occur during maintenance, no additional documentation is required. If deviations from the FMP occur, such as unanticipated impacts to sensitive vegetation communities or unanticipated discharge of pollutants, a Final Monitoring Report shall be prepared within 3 months following the completion of mitigation monitoring detailing maintenance and monitoring that occurred and any remedial or compensatory measures taken.

EP Number	Environmental Protocol
EP-BIO-4	Handling of Non-Native Invasive Plant Species. Where an FMP involves potential
	disturbance of non-native invasive plant species (as identified by the California
	Invasive Plant Council), TSW shall implement standard environmental hygiene
	practices and the following maintenance procedures, or current best practices, to
	ensure that dispersal of propagules (e.g., seeds, stems) are avoided or minimized:
	• When non-native invasive plants can be removed entirely (e.g., root and above-ground plant material), the removal shall be monitored by the QMB.
	• When removing the roots of non-native invasive plants is not feasible (e.g., when erosive flows are predicted), TSW shall determine if any above-ground plant material can be removed (e.g., cut/trimmed). The removal of any above-ground plant material shall be monitored by the QMB. If herbicides are used to treat roots or cut/trimmed plants, it shall be applied by a Licensed Pest Control Advisor using chemicals permitted as safe within aquatic environments.
	<ul> <li>When removing the roots and above-ground non-native invasive plants is not feasible (e.g., due to limited access), TSW shall coordinate with the QMB to determine if herbicides or other methods to treat plant material could be implemented. If herbicides are used to treat roots or cut/trimmed plants, it shall be applied by a Licensed Pest Control Advisor using chemicals permitted as safe within aquatic environments.</li> </ul>
	• TSW shall inspect and clean in place any equipment and tools used to handle, remove, and/or treat non-native invasive plants on a daily basis during active maintenance to limit the transfer of invasive rhizomes, seeds, and infectious agents to new off-site work areas.
EP-BIO-5	Sensitive Plant Species Protection. If maintenance activities will occur adjacent
	to areas suitable for listed and/or narrow endemic plants, and no direct impacts
	are proposed to occur, TSW shall ensure the boundaries of the plant populations
	designated sensitive by the resource agencies are clearly delineated with flagging
	or temporary fencing that must remain in place for the duration of the activity.
EP-BIO-6	Handling of Potential Shot Hole Borer Infestation. If maintenance within a
	particular facility will impact woody riparian vegetation within a watershed where
	shot-hole borer is known to occur, TSW shall ensure a biologist knowledgeable of
	shot-hole borer life history and behavior conducts an initial pre-maintenance

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	survey of the facility segments to determine if indicators of shot-hole borer		
	infestation are present within the maintenance area.		
	If no indicators of shot-hole borer are observed, removal and disposal of the vegetative material shall proceed as planned.		
	If signs of shot-hole borer are observed, the following procedures, or current best practices, shall be implemented to manage the infestation and prevent further spread of the pest:		
	• Disinfect all tools that come into contact with infected woody material using a 5% bleach solution, Lysol spray, 70% ethanol (or isopropyl).		
	• Either chip or incinerate all woody vegetative material removed as part of maintenance.		
	<ul> <li>If chipping method is used, all woody vegetative material removed as part of maintenance shall be chipped to less than 1 inch to dry the in- wood climate out and make it unsuitable for beetles or fungus.</li> </ul>		
	Following chipping, material shall be solarized in the facility staging or stockpile area on site using a clear plastic or visqueen covering. The solarizing period shall be a minimum of 2 weeks during summer months and 2 months (or longer depending on weather) during winter months. The goal is to maintain temperatures under the cover between 95°F and 105°F.		
	Geologic Conditions		
EP-GEO-1	<b>Preparation of Geotechnical Report.</b> Projects that involve earthen bank repair activities as described in the <i>Municipal Waterways Maintenance Plan</i> (MWMP) are subject to compliance with Land Development Code (LDC) Section 142.0131. When earthen bank repair is necessary for a specific project, City of San Diego (City) Transportation & Storm Water Department shall ensure a geotechnical report is prepared in accordance with the Guidelines for Geotechnical Reports in the City's Land Development Manual, and the earthen bank repair design incorporates the recommendations of the geotechnical report. The geotechnical report shall also be submitted for review during the subsequent review process.		

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	Health and Safety Hazards
EP-HAZ-1	<b>Hazardous Materials Monitoring (Known Hazards).</b> Hazardous materials monitoring shall be performed for all excavation activities within or surrounding <i>Municipal Waterways Maintenance Plan</i> (MWMP) facilities where the potential presence of hazardous materials has been previously identified within 100 feet of closed/inactive sites, or within 200 feet of open/active sites, as identified in Table 5.5-1, Hazardous Materials Sites: Summary of Open Sites Within 1,000 feet of MWMP Facilities, in Section 5.5, Health and Safety/Hazards, of the Environmental Impact Report (EIR) for currently identified Facility Maintenance Plans (FMPs), or based on a future regulatory database search for facilities without currently identified FMPs.
	The hazardous materials monitoring shall be conducted by a 40-hour HAZWOPER-trained environmental professional experienced in the identification, assessment, handling, and disposal of contaminated soils and groundwater. The environmental professional shall use visual and olfactory observations and a photo ionization detector to screen soil for potentially hazardous materials. The Hazardous Materials Contingency Plan describes soil screening methods and steps to implement if hazardous materials are determined to be likely present by the environmental professional.
EP-HAZ-2	Hazardous Materials Contingency Plan. A Hazardous Materials Contingency Plan (HMCP) has been prepared for the proposed MWMP. City of San Diego Transportation & Storm Water Department shall ensure activities proposed under the MWMP demonstrate consistency with the approved HMCP.
	The intent of the HMCP is to provide guidance to maintenance crews/contractors who may encounter known or previously unknown soil or groundwater contaminants during the course of their work. The plan includes a discussion of known contaminants and common contaminants that may be encountered during maintenance activities, field screening and monitoring procedures, procedures for managing contaminated or potentially contaminated soil stockpiles, waste characterization sampling procedures and a description of potential soil disposal options. The plan also includes protocols for reporting suspected contaminants to the appropriate regulatory agency, authority to stop work, and other necessary information.

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	The plan has been prepared under the direction of a licensed environmental professional experienced in the identification, assessment, handling, and disposal of contaminated soils and groundwater. Guidance and procedures presented in the plan conform with applicable federal, state, and local requirements.
EP-HAZ-3	<b>Facilities with Previously Unknown Hazards.</b> If maintenance personnel encounter soils, surface water, groundwater, or other materials that they suspect are hazardous, an on-call 40-hour HAZWOPER-trained environmental professional experienced in the identification, assessment, handling, and disposal of contaminated soils and groundwater shall be contacted to assess the suspect materials. The environmental professional shall use field screening techniques appropriate for the suspect media to determine if it is likely hazardous or if additional testing or assessment is required. If the environmental professional determines that the suspect media is likely hazardous, the material shall be managed in accordance with the approved HMCP.
	Hydrology
EP-HYD-1	<ul> <li>Post-Maintenance Erosion Control. For facility segments in which velocities in the recommended maintenance condition are greater than the pre-maintenance condition and greater than recommended permissible velocities, post-maintenance erosion control measures shall be implemented, including check dams or other similar velocity-reduction structures. The facilities identified to need potential post-maintenance erosion control measures include the following: <ul> <li>Los Peñasquitos Canyon Creek (Black Mountain 1 and 2)</li> <li>Soledad Canyon Creek (Dunhill 1)</li> <li>Tecolote Creek (Genesee 1)</li> <li>Alvarado Canyon Creek (Mission Gorge 3, Alvarado 1)</li> <li>Norfolk Canyon Creek (Baja 1)</li> <li>Washington Canyon Creek (Washington 1)</li> <li>Chollas Creek (Martin 1, Megan 2, Rolando 2)</li> <li>Auburn Creek (Wightman 1 and 2, Home 1)</li> <li>South Chollas Creek (Alpha 1)</li> </ul> </li> </ul>

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	If additional facilities are identified with a greater than recommended permissible	
	velocity due to maintenance, they will follow the same criteria outlined in the	
	approved Hydrology and Hydraulics Technical Report.	
	Prior to the start of maintenance activities within these facilities, the City of San Diego Transportation & Storm Water Department (TSW) shall prepare a site- specific maintenance plan prepared by a Professional Engineer that includes all information concerning the post-maintenance erosion-reduction goals and requirements, such as timing of installation, installation specifications, performance/assessment criteria, inspection schedule (by consultant or TSW staff), documentation of submittals, and reporting schedule. Post-maintenance erosion control measures assessment criteria include structural integrity and compliance with permit and site conditions. Additional criteria include appraisals of standing water, evidence of localized erosion, and/or sediment, trash and/or debris accumulation to assess whether the measures are functional and meet intended purpose. Post-maintenance erosion control measures shall be in conformance	
	with the Facility Maintenance Plans for post-maintenance erosion control included as Appendix A-4 of the <i>Municipal Waterways Maintenance Plan</i> .	
	At a minimum, an evaluation process shall be completed following the rainy season (i.e., November through April) to verify that the erosion control measures are effective and in serviceable condition. The evaluation process shall be conducted by qualified personnel and use observations of channel properties to allow comparison of facility conditions to site-specific performance/assessment criteria, erosion and sedimentation indicators (i.e., scour, sediment deposition, or bank erosion), and vegetation assessments. In the event that substantial erosion has occurred, erosion-impacted areas shall be identified for corrective action prior to the following rainy season. Monitoring, reporting, and repair work shall be approved and documented by TSW. Post-maintenance erosion control measures shall be evaluated for a minimum of 12 months and up to 24 months to ensure reduction in erosion risk to, at a minimum, pre-maintenance conditions.	
Land Use		
EP-LU-1	MSCP/MHPA – Land Use Adjacency Guidelines. The City of San Diego	
	Transportation & Storm Water Department (TSW) shall accurately represent the	
	project's design in or on the Maintenance Plans in conformance with the	
	associated discretionary permit conditions, Municipal Waterways Maintenance Plan	

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	(MWMP), and the City's Multiple Species Conservation Program (MSCP) Multi-		
	Habitat Planning Area (MHPA) Land Use Adjacency Guidelines. The Maintenance		
	Plans and subsequent review documents shall include the following:		
	A. <b>Drainage</b> – All new and proposed parking lots and developed areas in and adjacent to the preserve must not drain directly into the MHPA. All developed and paved areas must prevent the release of toxins, chemicals, petroleum products, exotic plant materials, and other elements that might degrade or harm the natural environment or ecosystem processes within the MHPA. This can be accomplished using a variety of methods including natural detention basins, grass swales or mechanical trapping devices. These systems should be maintained approximately once a year, or as often as needed, to ensure proper functioning. Maintenance should include dredging out sediments if needed, removing exotic plant materials, and adding chemical-neutralizing compounds (e.g., clay compounds) when necessary and appropriate.		
	Ground disturbance under the MWMP shall be limited to removal of accumulated material in storm water facilities and no paved lots or new development shall be installed. Measures would be taken to prevent runoff of hazardous materials from access, staging, and stockpile locations consistent with the City Storm Water Standards Manual, see EP-WQ-1 in Section 5.12, Water Quality.		
	B. <b>Toxics/Project Staging Areas/Equipment Storage</b> – Land uses, such as recreation and agriculture, that use chemicals or generate byproducts such as manure, that are potentially toxic or impactive to wildlife, sensitive species, habitat, or water quality need to incorporate measures to reduce impacts caused by the application and/or drainage of such materials into the MHPA. Such measures should include drainage/detention basins, swales, or holding areas with non-invasive grasses or wetland-type native vegetation to filter out the toxic materials. Regular maintenance should be provided. Where applicable, this requirement should be incorporated into leases on publicly-owned property as leases come up for renewal.		
	The use chemicals pesticides, herbicides, and other substances that are potentially toxic or impactive to native habitats/flora/fauna (including		

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	water) shall be accompanied by measures that reduce impacts caused by the application and/or drainage of such materials into the MHPA consistent with the City Storm Water Standards Manual (see EP-WQ-1 in Section 5.12, Water Quality).		
	C. Lighting – Lighting of all developed areas adjacent to the MHPA should be directed away from the MHPA. Where necessary, development should provide adequate shielding with non-invasive plant materials (preferably native), berming, and/or other methods to protect the MHPA and sensitive species from night lighting.		
	No permanent lighting or routine night work is proposed under the MWMP. See EP-BIO-2 in Section 5.3, Biological Resources.		
	D. Noise – Uses in or adjacent to the MHPA should be designed to minimize noise impacts. Berms or walls should be constructed adjacent to commercial areas, recreational areas, and any other use that may introduce noises that could impact or interfere with wildlife utilization of the MHPA. Excessively noisy uses or activities adjacent to breeding areas must incorporate noise reduction measures and be curtailed during the breeding season of sensitive species. Adequate noise reduction measures should also be incorporated for the remainder of the year.		
	See MM-BIO-4, MM-BIO-5, MM-BIO-6, and MM-BIO-7 in Section 5.3, Biological Resources.		
	E. <b>Barriers</b> – New development adjacent to the MHPA may be required to provide barriers (e.g., non-invasive vegetation, rocks/boulders, fences, walls, and/or signage) along the MHPA boundaries to direct public access to appropriate locations and reduce domestic animal predation.		
	Not applicable to MWMP maintenance activities because no developed land uses are proposed. Compensatory mitigation installed under the MWMP shall include appropriate barriers or directive fences to protect the MHPA.		

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	F. Invasives – No invasive non-native plant species shall be introduced into areas adjacent to the MHPA.
	Any plant species installed within 100 feet of the MHPA as part of revegetation work shall comply with the Landscape Regulations (LDC Section 142.0400 and Table 142-04F, Permanent Revegetation and Irrigation Requirements) and be non- invasive. Also, see EP-BIO-4 in Section 5.3, Biological Resources.
	G. <b>Brush Management</b> – New residential development located adjacent to and topographically above the MHPA (e.g., along canyon edges) must be set back from slope edges to incorporate Zone 1 brush management areas on the development pad and outside of the MHPA. Zones 2 and 3 will be combined into one zone (Zone 2) and may be located in the MHPA upon granting of an easement to the City (or other acceptable agency) except where narrow wildlife corridors require it to be located outside of the MHPA. Zone 2 will be increased by 30 feet, except in areas with a low fire hazard severity rating where no Zone 2 would be required. Brush management zones will not be greater in size that is currently required by the City's regulations. The amount of woody vegetation clearing shall not exceed 50% of the vegetation existing when the initial clearing is done. Vegetation clearing shall be done consistent with City standards and shall avoid/minimize impacts to covered species to the maximum extent possible. For all new development, regardless of the ownership, the brush management in the Zone 2 area will be the responsibility of a homeowners association or other private party.
	Not applicable to MWMP activities because no developed land uses or structures requiring fire protection are proposed.
	H. Grading/Land Development/MHPA Boundaries – Manufactured slopes associated with site development shall be included within the development footprint for projects within or adjacent to the MHPA.
	No manufactures slopes are proposed or associated with the MWMP.
EP-LU-2	<b>MSCP/MHPA – Boundary Line Adjustment.</b> Compensatory Mitigation Sites proposed to be added to the MHPA must result in an equivalent or higher

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	biological value for the following areas, based on findings prepared by the City and concurrence received from the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife:		
	Effects on significantly and sufficiently conserved habitats		
	Effects to covered species		
	Effects on habitat linkages and function of preserve areas		
	Effects on preserve configuration and management		
	Effects on ecotones or other conditions affecting species diversity		
	• Effects to species of concern not on the covered species list		
Paleontological Resources			
EP-PAL-1	<b>Paleontological Resource Compliance.</b> Pursuant to Land Development Code (LDC) Section 142.0151, the City of San Diego (City) Transportation & Storm Water Department (TSW) shall verify grading quantities and geologic formation sensitivity for all maintenance and repair activities and apply the appropriate requirements for paleontological monitoring in accordance with the General Grading Guidelines for Paleontological Resources in the City's Land Development Manual. Geologic formation sensitivity is provided in the Paleontological Review Matrix in Appendix C of the <i>Paleontological Resources Inventory Report</i> . Regulatory compliance for maintenance and repair activities would be ensured through notes on plans and/or substantial conformance review documentation.		
	Solid Waste		
EP-SW-1	<b>Waste Management Plan.</b> The City of San Diego (City) Transportation & Storm Water Department (TSW) has prepared a <i>Waste Management Plan</i> in accordance with the City's <i>California Environmental Quality Act Significance Determination</i> <i>Thresholds.</i> The <i>Waste Management Plan</i> adheres to the City's Guidelines for a Waste Management Plan. The <i>Waste Management Plan</i> includes a description of the project and overall timeline, and identifies the type and tonnage of waste that would be generated, identifies ways to manage or reduce the waste (e.g., source reduction, recycling, composting), summarizes and identifies the effectiveness of different measures used to reduce waste, and identifies a plan for implementation. The <i>Waste Management Plan</i> also identifies the name and location		

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	of recycling, reuse, and landfill facilities where recyclables and waste shall be taken if not reused on site.
	The <i>Waste Management Plan</i> shall be approved by the Environmental Services Department, and TSW shall ensure the approved <i>Waste Management Plan</i> is implemented prior to the start of any maintenance activity proposed under the <i>Municipal Waterways Maintenance Plan</i> .
EP-SW-2	<b>Reusable Materials.</b> Soil, sand, and silt shall be screened to remove waste debris and re-used as fill material, aggregate, or other raw material unless conditions specified in the <i>Waste Management Plan</i> make the use of screening equipment inappropriate or infeasible. For maintenance activities in concrete-lined or earthen- bottom storm water facilities that are not located in areas with known contamination or where unexpected contamination is encountered, a shaker or comparable equipment to separate and/or sort material shall be used, unless conditions specified in the <i>Waste Management Plan</i> make the use of this equipment in appropriate or infeasible, to separate reusable and recyclable materials from non- reusable materials. Once excavated material has been placed in stockpiles, it shall be screened and separated with the use of a shaker or comparable equipment unless this process is found to be infeasible, per the specifications in the <i>Waste Management Plan</i> . Reusable materials (e.g., soil, sand, or silt) that have been separated out shall be diverted to other sites within the City that are in need of fill, aggregate, or other raw materials unless specific conditions provided in the <i>Waste Management Plan</i> indicate that reuse is not appropriate or feasible.
EP-SW-3	<b>Suitable Reuse.</b> If not reused on site, excess fill dirt shall be beneficially reused by means of dirt brokers, or donated to another project, or advertised as available via print ad, online, or any other suitable means unless conditions specified in the <i>Waste Management Plan</i> make diversion of geologic materials infeasible.
EP-SW-4	<b>Green Waste.</b> Green waste material shall be diverted from disposal and put to the highest and best use (e.g., compost or landfill cover), unless conditions specified in the <i>Waste Management Plan</i> make diversion of green waste infeasible.
EP-SW-5	<b>Tire Disposal.</b> Waste tires shall be separated and transported to an appropriate recycling facility. If more than nine tires are in a vehicle or waste bin at any one

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	time, they shall be transported under a completed Comprehensive Trip Log to document that the tires were taken to an appropriate recycling facility.
EP-SW-6	<b>Material Diversion.</b> When removal of sediments and debris from channels and storm drains are required, a preliminary estimate of the materials that can be diverted to beneficial use shall be made. Receipts from disposal, re-use, and recycling options shall indicate that 50% of materials are diverted. These uses shall include (a) recycling; (b) composting; (c) use as a fill material; (d) alternative daily cover; (e) land application; (f) cement, brick, block, or asphalt constituent; (g) road bed; (h) beach replenishment; or (i) other non-disposal use.
EP-SW-7	<b>Landfill Notification.</b> Only facilities properly permitted by the state, County of San Diego, or local authorities, where applicable, shall be used. Notification shall be provided to the Miramar Landfill at least 24 hours in advance of bringing in 10 tons or more of waste in any 1 day, or 60 tons or more in any 1 month.
EP-SW-8	<b>Composting.</b> Compostable green waste shall be taken to an approved composting facility, if available, unless conditions specified in the <i>Waste Management Plan</i> make diversion of green waste infeasible.
	Water Quality
EP-WQ-1	<ul> <li>Water Pollution Control Plan. The City of San Diego (City) Storm Water Standards Manual require the development of a <i>Water Pollution Control Plan</i> (WPCP) that outlines the best management practices (BMPs) and pollution prevention measures that shall be implemented prior to and during maintenance activities (hereafter referred to as "facility water quality protection BMPs"). A <i>Municipal Waterways Maintenance Plan</i> (MWMP) facility-specific WPCP shall be developed prior to maintenance, using the WPCP Guidance Document specific to the MWMP. These facility-specific WPCPs shall be tailored to address facility-specific water quality conditions and BMP requirements based on the actual maintenance procedures that will be performed and the location of the Multi-Habitat Planning Area (MHPA) boundary. BMPs shall ensure no trash, oil, parking, or other maintenance-related material/activities adversely affect the MHPA preserve. The BMP categories that shall be addressed in each WPCP include the following:</li> <li>Project planning</li> <li>Good site management "housekeeping"</li> </ul>

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	Non-storm water management
	Erosion control
	Sediment control
	Run-on and run-off control
	Consistent with the City Storm Water Standards Manual and other regulatory requirements, each WPCP shall include objectives, responsibilities, and maintenance and inspection standards to ensure adherence to pollution prevention standards.