

Transportation and Storm Water

Storm Water Standards Manual Construction BMP Requirements

**Public Outreach Meeting
September 27, 2018**

Agenda

- ❖ Overview/Timeline
- ❖ Enforcement/Inspections
- ❖ Pollution Control Plan Requirements
- ❖ Construction Best Management Practices (BMPs)



Storm Water Standards Overview

PART 1

BMP Design Manual For Permanent Site Design, Storm Water Treatment, and Hydromodification

Complies with the Regional MS4 Permit regulating post-construction storm water discharges onsite

PART 2

Construction BMP Standards

Complies with the Regional MS4 Permit and the CGP regulating construction-phase storm water discharges

PART 3

Offsite Storm Water Alternative Compliance Program

Complies with the Regional MS4 Permit regulating post-construction storm water discharges offsite

Part 2 Update Timeline

Date	Activity
December 13, 2017	First public meeting to present recommended updates to Part 2
December 13, 2017 To January 16, 2018	30-day public comment period
June 2018	AGC and BIA Review period
August 7, 2018 to September 10, 2018	Second 30-day public comment period
September 27, 2018	Public Outreach Meeting
October 1, 2018	Effective date of Part 2 update (i.e., to be posted on City website)

Enhanced Communication

❖ Part 2 Update has corresponded with:

➤ **Internal Trainings for City Staff**

- Storm Water Standards Trainings
- Wet Weather BMP Trainings

➤ **Increased Communication between City Departments**

- Coordination Meetings



Construction Site Guidance-Fact Sheet



The City of
SAN DIEGO



FACT SHEET

Construction Site Guidance

All projects that are authorized through the City of San Diego's (City) Development Services Department (DSD) and all projects that are authorized through the City's Capital Improvement Program (CIP) are required to comply with all storm water BMP requirements pursuant to the City of San Diego Municipal Code and Storm Water Standards Manual. The City has developed an applicability checklist (DS-560) to help project applicants determine which requirements apply to a project. Projects that have a total land disturbance of 1 acre or greater that does not qualify for the rainfall erosivity waiver or otherwise require coverage under the State Construction General Permit (CGP) will require preparation of a Storm Water Pollution Prevention Plan (SWPPP). Projects that are not subject to the CGP are required to prepare a Water Pollution Control Plan (WPCP).

Best Management Practices (BMPs)

BMPs are procedures and practices implemented to prevent, eliminate, or reduce pollution in storm water runoff from construction sites. The WPCP must identify project-specific BMPs and include details for implementation. A summary of common BMPs are provided below.

- **Material Management:** Store materials in a designated area, off the ground or within secondary containment.
- **Stockpile Management:** Stabilize and berm (i.e. perimeter control) stockpiles at the end of each day and prior to rain.
- **Waste Management:** Debris and non-hazardous waste must be collected, contained, and covered in designated areas at the end of each day and prior to rain.
- **Concrete Waste Management:** Place concrete washout on level ground within secondary containment.
- **Perimeter Controls:** Install along the edge of the project to prevent pollutants from leaving the site.
- **Erosion Controls:** Apply erosion controls as soon as grading and/or excavation are completed or inactive for 14-days.
- **Tracking Controls:** Install tracking controls at project entrance and exits, and remove tracked material deposited to adjacent streets.

Storm Water Requirements Applicability Checklist (Form DS-560) must be completed by all project applicants.

<https://www.sandiego.gov/sites/default/files/dsdds560.pdf>



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Page 2: Construction Site Guidance



Water Pollution Control Plan (WPCP)

The WPCP is a written plan submitted to the City for projects that do not require coverage under the State CGP. The WPCP documents the series of phases and activities that characterize the construction site and describes actions which will be implemented to reduce/eliminate discharges of pollutants to the storm drain conveyance system during construction. The WPCP:

- Must identify the **site priority** and **site features** (e.g., adjacent to sensitive habitat);
- Must identify the **Qualified Contact Person** that will be responsible for self-inspections;
- Must identify **Best Management Practices (BMPs)** that will be implemented;
- Must be **kept onsite**; and
- Must show the **work area**, **staging areas**, and **BMP locations**.



WPCPs for projects that meet the following criteria must be prepared by a **Qualified WPCP Preparer**:

- Is a **Priority Development Project** and
 - located within Los Peñasquitos Watershed, or
 - located within Tijuana River Watershed, or
 - adjacent to or directly discharges to an Environmentally Sensitive Area, or
 - discharges to Areas of Special Biological Significance (ASBS).

Hazardous Materials and Spill Clean-up procedures

- Drips and leaks from vehicles or equipment must be prevented or cleaned up immediately;
- Spill kits must be kept in staging areas or in construction vehicles;
- 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.



Self-Inspections Requirements

- At 24-hour intervals during extended rainfall events;
- Daily during all phases of construction during the wet season (October 1 to April 30); and
- Weekly during all phases of construction during the dry season (May 1 to September 30).

Reference

City of San Diego, Storm Water Standards Manual.

<https://www.sandiego.gov/planning/programs/landdevcode/landdevmanual>

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Questions and Answers

Part 2 Update Overview

Introduction

Best Management Practices, BMPs

- Pollution prevention controls implemented throughout the project site at various times during the project
- Specifically aimed to control pollution in storm water runoff during the construction phase of the project

ALL projects require Construction BMP's

- Unless work is exclusively interior, including all materials equipment storage

Illicit Discharges

- are a violation, must be documented and reported

Part 2 Update Overview

- ❖ No significant changes to structure.
- ❖ Changes to content within specific chapters, including BMPs to **improve clarity**.
- ❖ Goal is to provide **enhanced guidance to promote compliance** with City MS4 requirements.



Part 2 Significant Updates (*)

Chapter	Significant New Requirements
1 Introduction	
2 Storm Water Regulations	
3 Non-SW Regulations	
4 Pollution Control Plan Requirements (*)	SWPPP Submittal Checklist Weather Triggered Action Plan (WTAP)
5 BMPs (*)	Project planning and scheduling; Enhanced stockpile and erosion control requirements
6 Permanent BMP Inspections	
7 Compliance Verification and Enforcement	

Part 2 Significant Updates (*)

Appendix	Significant New Requirements
A ASBS Maps	
B BMPs (*)	Updated example BMPs to correspond with updated Chapter 5 BMPs.
C Municipal Inspector Checklist	
D Templates and Forms (*)	Added WTAP Template. Added SWPPP Submittal Checklist
E Construction BMP General Notes (*)	Updated required BMP general notes to correspond with Part 2 text.

Questions and Answers

Types of Projects

Public vs. Private

❖ Manual applies to 2 Types of Projects



Private Projects

- Residential Developments
- High Rise Commercial/Residential
- Over the Counter Permits



Public Projects

- Pipeline replacement projects
- Public Park and Building Projects
- Capital Improvement Projects

Roles and Responsibilities

Building Permits (DSD Inspectors)

- All construction work associated with a Building, Mechanical, Plumbing, Electrical, Fire and Demolition Permits.

Engineering Permits & Subdivisions (PW REs)

- All construction work associated with Engineering Permits and Subdivisions
- Grading and/or public improvements, in the right-of-way (ROW), and on private property and CIP projects.

Both Inspect:

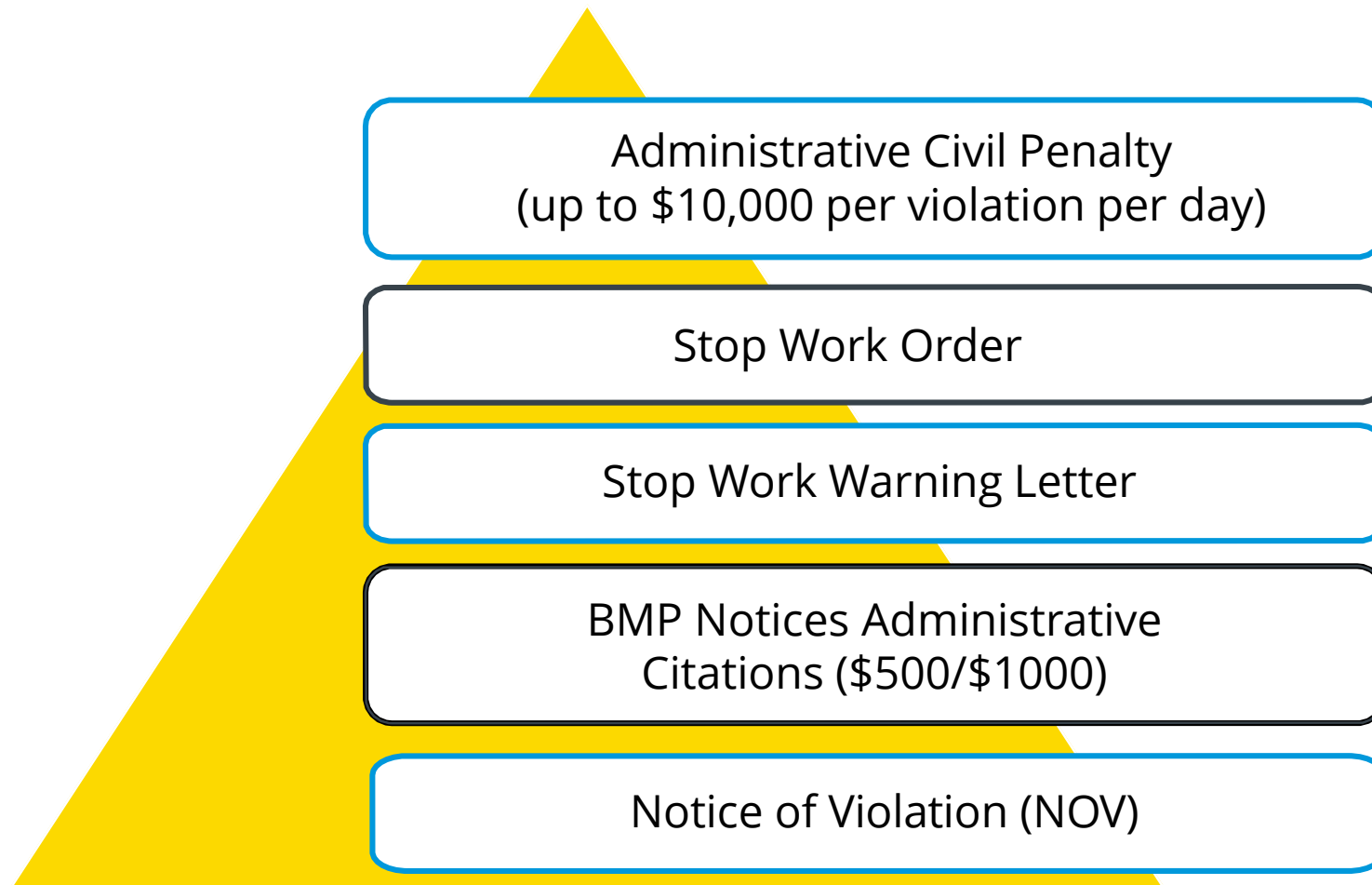
- Construction BMPs - erosion and sediment control, general housekeeping, materials handling and etc.

Enforcement

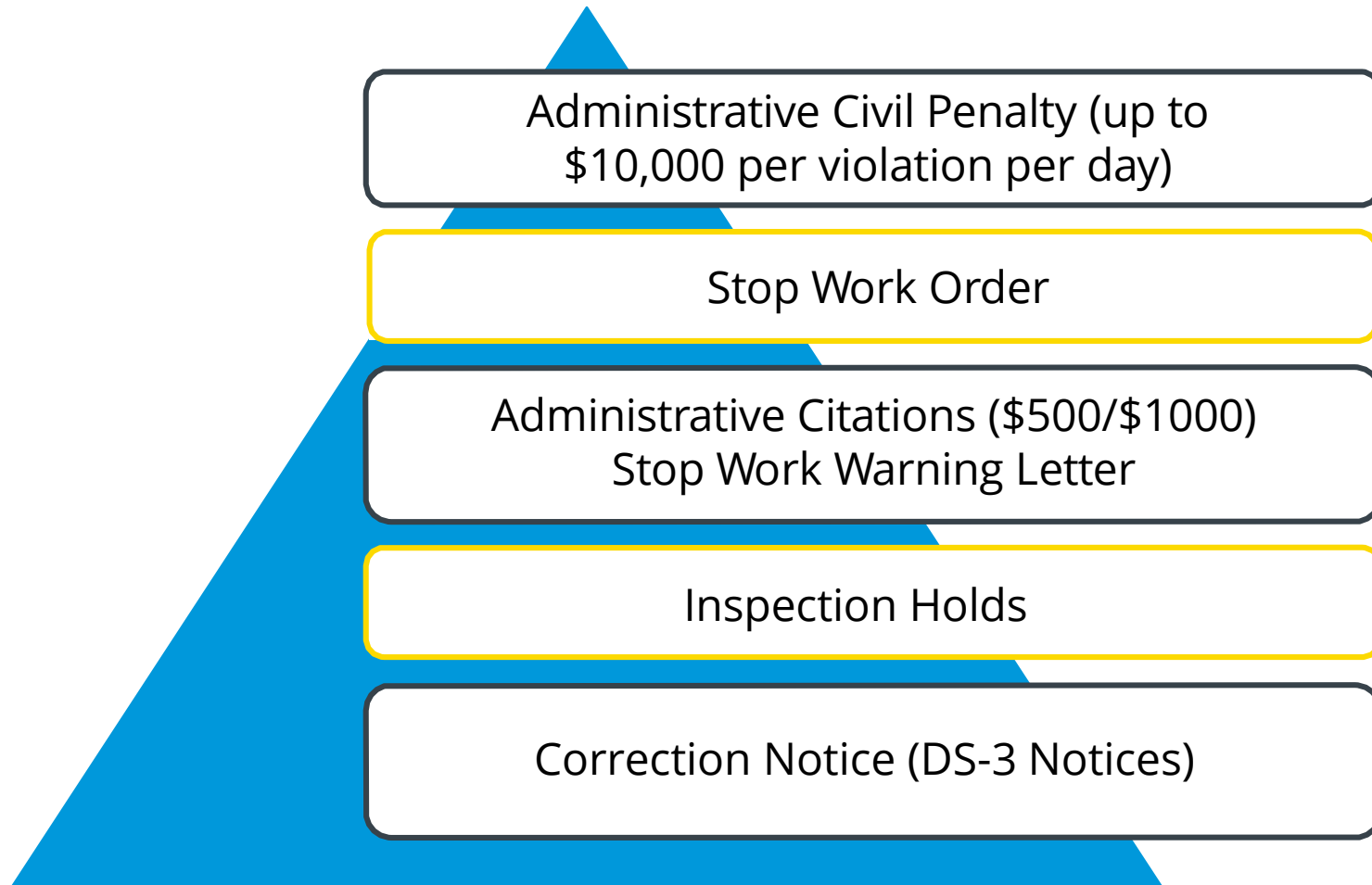
Escalated Enforcement

- ❖ Correction Notice or Notice of Violation (NOV)
 - Fix issues and re-inspect
- ❖ Repeat Violations or Major Violations:
 - Repeated NOVs for BMP issues
 - Violations due to lack of or improper implementation of BMPs during rain
- ❖ Enhanced WTAP Trigger (40% POP & WTAP implemented 24 hours before predicted rain).

Escalated Enforcement - PWD



Escalated Enforcement - DSD



Inspection Frequency

Self-Inspections

- ❖ Inspections help ensure proper BMP implementation & maintenance
 - **CGP Sites:** Inspector must be QSP (or QSP delegate).
 - **Non-CGP Sites:** Inspector must be Qualified Contact Person (QCP) (or directed by QCP).

Description	Frequency
During extended rainfall events	24-hour intervals
As grading operations are being conducted during the wet season	Daily ¹
In the dry season during grading operations	Weekly (every 7 days)

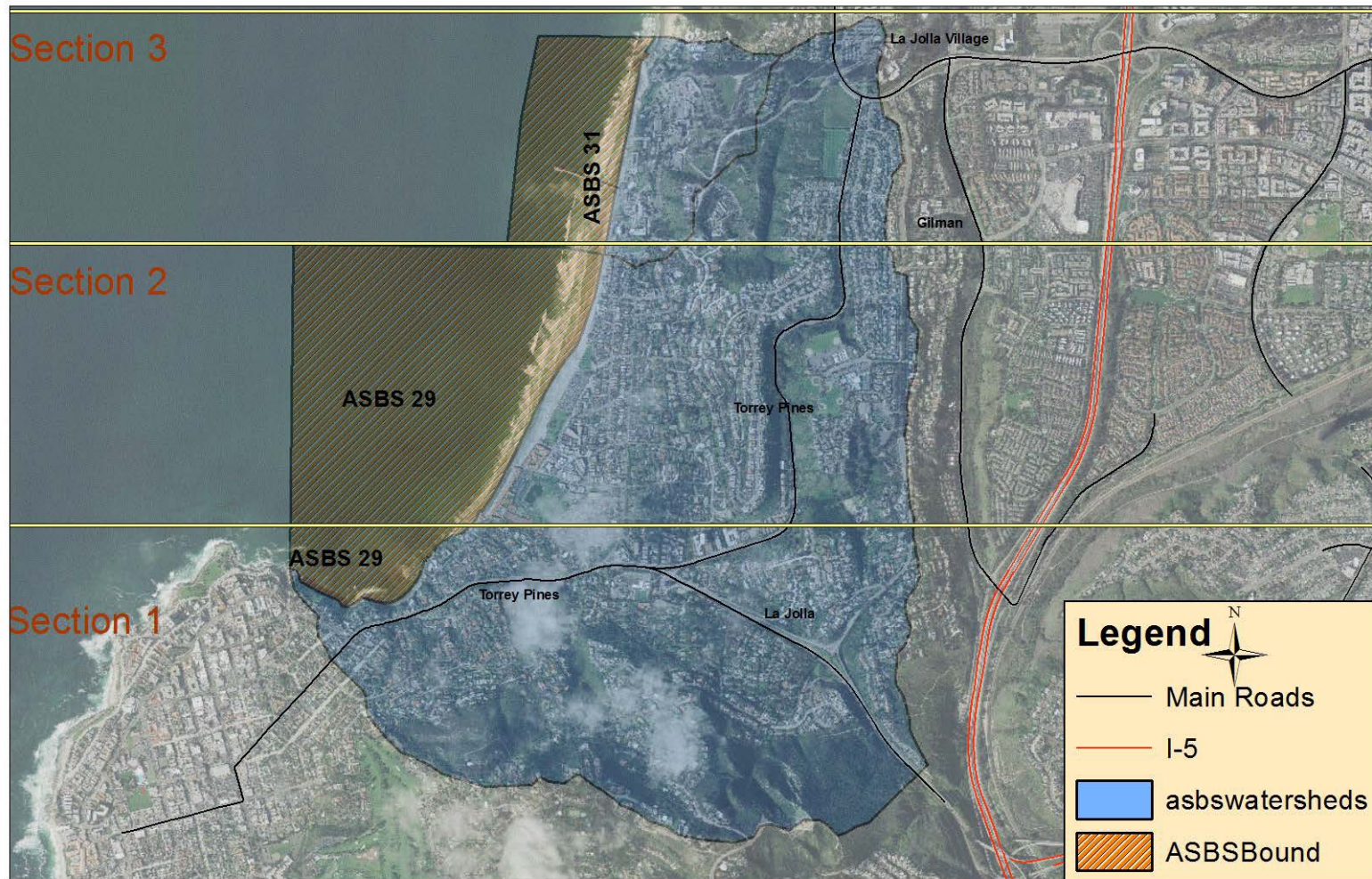
¹ Documentation of Daily inspections is at the discretion of the QCP.

Minimum Inspections based on Site Priority by City Staff

<u>ASBS</u>	<u>HIGH</u>	<u>MEDIUM</u>	<u>LOW</u>
<ul style="list-style-type: none">❖ Wet Season<ul style="list-style-type: none">➤ Weekly➤ (Every 7 Days)❖ Dry Season<ul style="list-style-type: none">➤ Quarterly➤ (Every 90 days)	<ul style="list-style-type: none">❖ Wet Season<ul style="list-style-type: none">➤ Bi-weekly➤ (Every 14 Days)❖ Dry Season<ul style="list-style-type: none">➤ Quarterly➤ (Every 90 days)	<ul style="list-style-type: none">❖ Wet Season<ul style="list-style-type: none">➤ Monthly➤ (Every 30 Days)❖ Dry Season<ul style="list-style-type: none">➤ Quarterly➤ (Every 90 days)	<ul style="list-style-type: none">❖ Wet Season<ul style="list-style-type: none">➤ Quarterly➤ (Every 90 Days)❖ Dry Season<ul style="list-style-type: none">➤ As-Needed

Wet Season: October 1 to April 30
Dry Season: May 1 to September 30

ASBS Watershed



Questions and Answers

Pollution Control Plan Requirements

Pollution Control Plan Requirements

SWPPP

- **Storm Water Pollution Prevention Plan**
- Project is covered under City MS4 Permit AND CA Construction General Permit (CGP)

WPCP

- **Water Pollution Control Plan**
- Project is covered under the City MS4 Permit

MWPCP (DS-570)

- **Minor Water Pollution Control Plan**
- Project is covered under the City MS4 Permit

CGP Projects: SWPPP Required

Total Land Disturbance (includes storage & laydown yard)	Plan Requirements
<p>1 acre or greater,</p> <p>Does not qualify for the Rainfall Erosivity Waiver, or</p> <p>Otherwise requires coverage (e.g. common plan of development, etc.)</p>	1. Develop CGP compliant SWPPP (using CASQA, Caltrans, or equivalent template)
	2. Obtain CGP coverage (WDID)
	3. Submit the City SWPPP Submittal Checklist (Appendix D)

SWPPP Submittal Checklist

- ❖ Projects requiring SWPPPs for CGP coverage must include a SWPPP Submittal Checklist.
- ❖ DSD and PWD to use checklist to verify that MS4-specific construction requirements described in Part 2 are included in SWPPP submittal.

SWPPP Submittal Checklist	
Project Name:	_____
SWPPP Date:	_____ WDD _____
Project Address:	_____
Total Disturbed Area:	_____
Project Owner: Address:	Qualified SWPPP Developer: Address:
Email:	Email:
Phone:	Phone:
<p>The following checklist is required to be completed by the Qualified SWPPP Developer (QSD) preparing the Storm Water Pollution Prevention Plan (SWPPP) for submittal to the City of San Diego prior to the issuance of applicable grading or building permits. It is the responsibility of the QSD to ensure that the SWPPP is prepared within the guidance set forth in the City of San Diego Storm Water Standards Part 2 Construction BMP Standards. This checklist does not alleviate the QSD's responsibility to determine the appropriate level of BMP planning and implementation to prevent pollutant discharges. The SWPPP must be prepared using California Stormwater Quality Association (CASQA) or Caltrans Template.</p> <p>Complete the checklist by identifying the applicable page or section in the SWPPP for each set of requirements below.</p>	
I. General Requirements	
Page or Section	
	Contact information, including phone number and email address, for Project Owner, QSD, and Qualified Contact Person.
	Project and site description including construction activities, existing site conditions, and relevant prior land use.
	Construction Schedule information including the anticipated start and end dates of construction, phases of significant grading activities, and work near drainages or receiving waters.
	City's Weather Triggered Action Plan (WTAP) Template (for all projects) that addresses the City's WTAP requirements.
	Risk Factors and back-up for site-specific factors (if required).
	Vicinity Maps showing surrounding area and major crossroads.
	SWPPP Maps which meet the requirements of the Construction General Permit and include an access route for the Resident Engineer.
II. BMP Phasing Plan	
Page or Section	
	Disturbed area is limited to 10 acres at any given time without approval of the Department of Development Services (DSD) (private projects) or the Public Works Department (PWD) (public projects). Refer to Table 5.1 in Part 2 of the Stormwater Standards Manual for instruction on obtaining approval of expanded grading limits.
	Phasing plan must address work activities and BMP sequencing for each phase (i.e., demolition, grading, streets and utilities, vertical construction, and landscaping). An example phasing plan is provided at the end of this checklist.
	Identify steps the project will implement to reduce the amount of soil exposed at any one time and during periods of high precipitation potential; maintain stabilized areas; and minimize work areas, staging areas, and construction roads.
Phasing Plan Approval	
Name (Resident Engineer)	Date

Non-CGP Projects: WPCP Required

Total Land Disturbance w/out Rainfall Erosivity Waiver	with Rainfall Erosivity Waiver	WPCP Type
Less than 1 acre or otherwise does not require coverage under the CGP (e.g., routine maintenance)	Less than 5 acres	WPCP Template , Appendix D
Group Job/Linear less than 1 acre or otherwise does not require coverage under the CGP (e.g., routine maintenance)	Less than 5 acres	Linear Utility (Group Job) WPCP Template , Appendix D
Less than 5,000 square feet ; and Less than 5-foot elevation change	NA	Minor WPCP (Form DS-570), Appendix D
Demolition only projects	NA	Demolition WPCP Checklist , Appendix D

Water Pollution Control Plan (WPCP)

- ❖ Documents the series of phases and activities that characterize the construction site and describes actions which will be implemented to reduce/eliminate discharges of pollutants to the storm drain conveyance system during construction. The WPCP:
 - Must identify the **site priority** and **site features** (e.g., adjacent to sensitive habitat);
 - Must identify the **Qualified Contact Person** that will be responsible for self-inspections;
 - Must identify **Best Management Practices** (BMPs) that will be implemented;
 - Must be **kept onsite**; and
 - Must show the **work area, staging areas, and BMP locations**.

WPCP Preparer

- ❖ WPCPs for projects that meet the following criteria must be prepared by a Qualified WPCP Preparer:
 - Is a Priority Development Project and
 - located within Los Peñasquitos Watershed, or
 - located within Tijuana River Watershed, or
 - adjacent to or directly discharges to an Environmentally Sensitive Area, or
 - discharges to Areas of Special Biological Significance (ASBS).

Qualified WPCP Preparer

- ❖ Must hold one of the following registrations or certifications:

California Registered, Civil Engineer	California Registered, Geologist
California Registered, Landscape Architect	Professional Hydrologist
Certified Professional Soil Scientist	CPESC
CPSWQ	CESSWI
CISEC	QSP/QSD

Weather Triggered Action Plan

- ❖ Added a Weather Triggered Action Plan (WTAP) requirement.
 - Projects that are exempt from WPCP preparation or require a Minor WPCP are exempt from WTAP requirements.
- ❖ Intent for this requirement is to be prepared for the rain.
 - 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.

WTAP Template

- ❖ WTAP Template included in Appendix D is similar to the CGP Rain Event Action Plan (REAP) template.
- ❖ Requires an exhibit that illustrates BMPs to be deployed prior to the rain.
- ❖ Must be kept onsite and made available for inspection upon request.



Weather Triggered Action Plan (WTAP) Exhibit

Instructions: A WTAP Exhibit identifying BMPs currently in place and BMPs which will be implemented prior to rain must be prepared with each WTAP. The WTAP Exhibit and WTAP Exhibit Legend shall be posted in the construction trailer (or otherwise available on-site if a trailer is not present). The QCP (or QSD/QSP if the project has a SWPPP) must update the current SWPPP/WPCP Site Map by hand or prepare current representative photographs (aerial or other) to depict BMPs. Contractor may develop their own WTAP Exhibit Legend under the following conditions:












- The exhibit must clearly depict installed BMPs;
- The exhibit must clearly depict BMPs to be installed prior to the rain event; and
- The legend must be posted with the WTAP Exhibit.

Example symbols for the WTAP Exhibit Legend are provided below.

Drainage Patterns and Monitoring (Show in Black or Blue on Exhibit)












Symbol	Description
	Flow Direction
	Discharge Locations

BMPs Currently Installed (Highlight BMPs on SWPPP / WPCP Site Map or Depict on Aerial Photo to create WTAP Exhibit)

Symbol	BMP	Installed	Condition*	Date Repairs Completed for BMPs in Poor Condition.
	Erosion Control	<input type="checkbox"/> Yes <input type="checkbox"/> NA	<input type="checkbox"/> Good <input type="checkbox"/> Poor	
	Sediment Basin/Traps	<input type="checkbox"/> Yes <input type="checkbox"/> NA	<input type="checkbox"/> Good <input type="checkbox"/> Poor	
	Perimeter/Linear Controls	<input type="checkbox"/> Yes <input type="checkbox"/> NA	<input type="checkbox"/> Good <input type="checkbox"/> Poor	
	Inlet Protection	<input type="checkbox"/> Yes <input type="checkbox"/> NA	<input type="checkbox"/> Good <input type="checkbox"/> Poor	
	Check Dams	<input type="checkbox"/> Yes <input type="checkbox"/> NA	<input type="checkbox"/> Good <input type="checkbox"/> Poor	
	Tracking Control	<input type="checkbox"/> Yes <input type="checkbox"/> NA	<input type="checkbox"/> Good <input type="checkbox"/> Poor	
	Dike, Swales, Slope Drains	<input type="checkbox"/> Yes <input type="checkbox"/> NA	<input type="checkbox"/> Good <input type="checkbox"/> Poor	
	Waste Management	<input type="checkbox"/> Yes <input type="checkbox"/> NA	<input type="checkbox"/> Good <input type="checkbox"/> Poor	
	Materials Management	<input type="checkbox"/> Yes <input type="checkbox"/> NA	<input type="checkbox"/> Good <input type="checkbox"/> Poor	
	Stockpile Management	<input type="checkbox"/> Yes <input type="checkbox"/> NA	<input type="checkbox"/> Good <input type="checkbox"/> Poor	
	Other	<input type="checkbox"/> Yes <input type="checkbox"/> NA	<input type="checkbox"/> Good <input type="checkbox"/> Poor	

* BMPs in poor conditions must be repaired at least 48 hour prior to a storm event.

BMPs to be Installed (Show in Red on Exhibit)

Symbol	BMP	Description/Type/Product	Installation Date (must be consistent with WTAP implementation schedule)
	Erosion Control		
	Sediment Basin/Traps		
	Perimeter/Linear Controls		
	Inlet Protection		
	Check Dams		
	Tracking Control		
	Dike, Swales, Slope Drains		
	Waste Management		
	Materials Management		
	Stockpile Management		
	Other		

WTAP Requirements

Trigger Level	Project Applicability	WTAP Implementation Trigger [Probability of Precipitation (POP)] ¹	WTAP prepared no later than # hours prior to predicted onset of rain	WTAP implementation completed no later than # hours prior to predicted onset of rain	Trigger Level Justification and Enforcement Status ⁴
A	All Projects²	50% POP	48 hours	Prior to Rain	Currently compliant based on City Inspection
Enhanced WTAP Trigger per City Inspection Results:					
B	All Projects²	40% POP	48 hours ³	24 hours	Escalating Enforcement for non-compliant erosion and sediment control BMPs

⁴Trigger Level selected by City Resident Engineer 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. The City may move a project back to Trigger A, if compliance is demonstrated for three successive inspections by City construction storm water inspectors.

Questions and Answers

Construction Best Management Practices (BMPs)

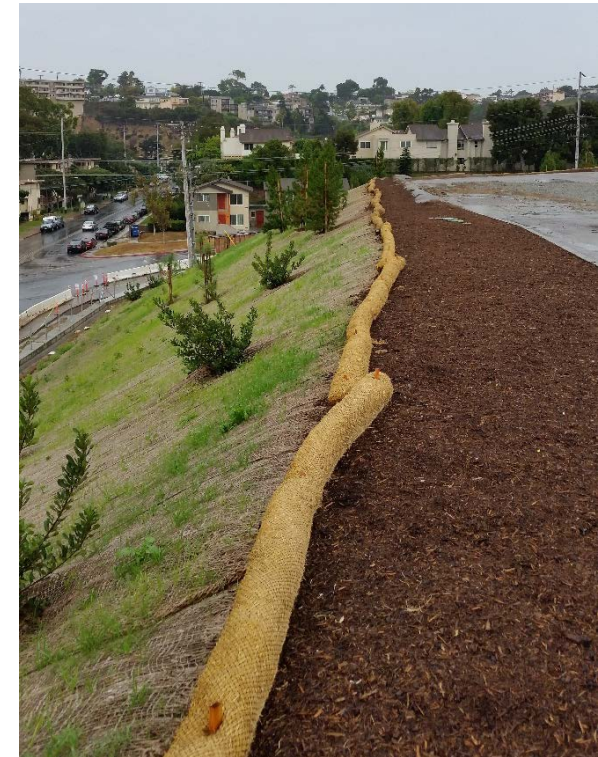
Construction Best Management Requirements (BMPs)



BMP Key Requirements

BMPs:

- ❖ Must be implemented, installed, and maintained per SWPPP/WPCP requirements.
- ❖ Must use CASQA/Caltrans BMP fact sheets as guidance where applicable.



Planning and Scheduling

❖ Active vs. Inactive Areas

- Active: Areas undergoing land disturbance such as grading, trenching, and landscaping.
- Inactive: Areas of construction activity that have been disturbed and are not re-disturbed for 14 days.

Track walking alone does not allow an area to be considered active.



Scheduling/Phasing Plan

❖ Required for all projects.

- Must demonstrate integration of work activities and BMP sequencing for each phase of construction.
 - Demolition, mass grading, rough grading, final grading, and stabilization
- Must include BMPs for active and inactive areas.
- Example in SWPPP Submittal Checklist.
- Must be kept onsite and made available for inspection upon request.

SWPPP Submittal Checklist

A Phasing Plan must be developed for each project to address the major construction phases and activities included in the project and the implementation of BMPs in relation to construction activities. It is the responsibility of the QSD to develop a project-specific Phasing Plan clearly denoting BMP installation activities. Activities must be presented in the order (sequence) they are expected to be completed, with BMP installation activities indicated *in italics*. Note: Construction activities and BMPs may occur or reoccur at different times throughout some projects. An example sequence of BMP installation activities for each phase is provided below for reference.

Example SWPPP Phase 1 - Mobilization and Grading

Activity	Start Date	End Date
1. Survey and flag construction and laydown area boundaries		
2. <i>Install perimeter control BMPs as shown on the SWPPP Map</i>		
3. <i>Install construction entrances (rock) as shown on SWPPP Map</i>		
4. Prepare temporary parking and staging areas		
5. <i>Install inlet protection as shown on SWPPP Map</i>		
6. <i>Begin clearing and grubbing</i>		
7. <i>Temporarily stabilize disturbed areas throughout construction</i>		
8. <i>Begin permanent stabilization as areas are brought to final grade</i>		

Example SWPPP Phase 2 - Foundations, Utilities, & Roadways Construction

Activity	Start Date	End Date
1. <i>Implement material management and waste management BMPs</i>		
2. <i>Inspect and maintain Phase 1 BMPs</i>		
3. <i>Stabilize disturbed areas that will be inactive for 14 days or more.</i>		
4. <i>Install concrete washout</i>		
5. <i>Begin excavations for utilities and foundations</i>		
6. <i>Install utilities and storm drains</i>		
7. <i>Install inlet protection devices as inlets are completed</i>		
8. <i>Start construction of foundations</i>		
9. <i>Stabilize access roadways with asphalt pavement</i>		

Example SWPPP Phase 3 - Vertical Construction and Final Stabilization

Activity	Start Date	End Date
1. <i>Inspect and maintain Phase 1 and Phase 2 BMPs</i>		
2. <i>Stabilize disturbed areas that will be inactive for 14 days</i>		
3. <i>Pave site</i>		
4. <i>Perform vertical construction activities</i>		
5. <i>Complete grading of site and install permanent stabilization at all disturbed areas</i>		

Scheduling/Phasing Plan

- ❖ Disturbed area >10 acres at any time requires the following additional information in the scheduling/phasing plan:
 - BMP contractor information;
 - Specific erosion and sediment control products;
 - Timing of BMP deployment related to phase transitions and prior to forecasted rain;
 - Resources for BMP deployment to demonstrate adequate planning (e.g., external BMP contractor vs. trained onsite crew); and
 - Location of BMP materials onsite or offsite (specific information is required if materials are located offsite).



Erosion Control: Stabilization

- ❖ Soil preparation is required prior to soil stabilization unless there is a conflict with specifications or otherwise not feasible.
- ❖ Temporary erosion control must be provided until permanent stabilization is achieved.
- ❖ Inactive areas must be stabilized.



Erosion Control: Stabilization

- ❖ Construction support areas must be stabilized and maintained by periodic re-application.
- ❖ Pre-rain stabilization is required for all areas per WTAP implementation criteria (Table 4-2).
- ❖ End-of-day stabilization required for work in the City ROW.



Sediment Control: Storm Drain Inlet Protection BMP

- ❖ **Dry Weather** – implement at all inlets receiving runoff from active construction areas.
- ❖ **City ROW** – remove prior to rain or during emergency water main breaks to prevent flooding. Remove prior to end of day or weekend if rain is in forecast and replace prior to restarting construction.



Sediment Control: Storm Drain Inlet Protection BMP



- ❖ **Interior to grading activities and draining to the MS4 –** protect at all times except where there is potential for by-pass impacting public inlets downstream.
- ❖ **Inspect all inlet protection daily and maintain per fact sheets.**

Sediment Control: Sediment Trap/Basin BMP

- ❖ Implement Sediment Traps/Basins when appropriate.
- ❖ Use in combination with other BMPs to protect site.
- ❖ Design and maintain function per CASQA Fact sheets SE-2 and SE-3 and dewater within 96 hours.
- ❖ SWPPP/WPCP must include site-specific dewatering protocols.



Sediment Control: Tracking Control/Street Sweeping BMP

- ❖ Stabilized entrances required at all projects.
- ❖ Rumble plates to be added for additional sediment removal.
- ❖ Sweeping and vacuuming must be implemented on all paved areas within and adjacent to construction sites.
- ❖ Use methods that collect and remove sediment instead of methods that spread sediment around.



Sediment Control: Tracking Control/Street Sweeping BMP

- ❖ Observable track out requires additional BMPs to control tracking (e.g., wheel wash, re-directing traffic).
- ❖ Tracking must be cleaned until sediment cannot be dislodged by brushing by hand.



- ❖ Inlets must be sealed and wash water collected immediately if hosing down or power washing streets to clean up tracking.
- ❖ Limit points of entrance/exit and speed to/from the site.

Non-Storm Water Management: Non-Storm Water Discharges BMP

- ❖ Non-storm water discharges are any discharge to the MS4 that is not composed entirely of storm water.
- ❖ Non-storm water discharges:
 - Must be eliminated or controlled immediately using appropriate BMPs.
 - If found to be leaving the site, must be stopped by the contractor and reported to the City Resident Engineer.
 - If conveying materials, sediment, or debris, those must be collected and disposed of properly.



Housekeeping: Stockpile Management BMP

- ❖ Applies to all stockpiled materials, not only soil.
- ❖ Must be protected to prevent discharge of pollutants beyond the immediate area of the stockpile and offsite either by transport via wind or water.
- ❖ Must be at least 50 feet from storm drain structures and greater than 18" from curb face. Stockpiles are prohibited where they obstruct flow.



Housekeeping: Stockpile Management BMP

- ❖ 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) 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.



Housekeeping: Stockpile Management BMP

- ❖ 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.
- ❖ When used to berm stockpiles, fiber rolls may be weighted down with gravel bags in lieu of trenching and staking. Gravel bags shall be spaced at 4 foot intervals or per manufacturer's recommendation.
- ❖ Perimeter controls around stockpiles must be inspected and maintained on a daily basis by the Contractor.

Questions and Answers

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