

Appendix K: Construction BMP Standards

- K.1 Introduction/Purpose
 - K.2 Determining Applicable Storm Water Regulations
 - K.3 Determining Applicable Non-Storm Water Regulations
 - K.4 Construction Site Prioritization
 - K.5 Pollution Control Plan Requirements
 - K.6 Required Best Management Practices
 - K.7 Permanent BMP Inspections during Construction
 - K.8 Compliance Verification and Enforcement
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- Attachment 1: Storm Water Construction BMP Certification Statement
 - Attachment 2: Construction Storm Water Pollution Control Plan (CSWPCP)
 - Attachment 3: Storm Water Inspection for Construction Activities Form

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K.1 Introduction/Purpose

This section addresses the storm water impacts and required controls associated with construction activities in the City of Chula Vista (City). The purpose of these standards is to provide guidance to prevent construction activities from adversely impacting downstream and on-site resources. The protection of water quality from on-site pollutant sources is easily attainable when suitable Best Management Practices (BMPs) are planned, installed and correctly maintained.

All construction sites are required to implement construction BMPs in accordance with the performance standards in this manual and Chula Vista Municipal Code Chapter 14.20. Every construction site within the City's jurisdiction is required to select, install, and maintain BMPs that address project planning, erosion control, sediment control, and waste management and good housekeeping to reduce, retain, and manage pollutant discharges to the MEP. BMPs must be implemented at each construction site year round. Non-storm water discharges from construction sites into the City's storm drain system are prohibited year-round. City inspectors have the authority to require additional BMPs to prevent discharges of pollutants and to prevent non-storm water discharges to the City's storm drain system from construction sites year round.

K.2 Determining Applicable Storm Water Regulations

Storm water and non-storm water runoff generated by construction activities in the City Chula Vista are subject to regulation by the State Water Resources Control Board (SWRCB) and the San Diego Regional Water Quality Control Board (SDRWQCB). The SDRWQCB is responsible for implementing statewide water quality regulations in the San Diego region including state programs implemented as delegated under the Federal Clean Water Act and the California Porter-Cologne Water Quality Act. Under these provisions, the SWRCB and SDRWQCB have adopted several permits that impact construction activities. Applicable storm water regulations include the California Construction General Permit (CGP) and the Municipal Separate Storm Sewer System (MS4) Permit.

All construction sites are required to implement construction BMPs in accordance with the performance standards in this manual. Some sites are additionally required to obtain coverage under the CGP, which is administered by the SWRCB. Generally all sites with soil disturbance of one acre or more are subject to the CGP. The project owner (or owner's representative) is responsible for determining applicability to CGP requirements. The City requirements have been aligned to requirements under the CGP where possible; where the requirements differ, the project owner must comply with both requirements.

In general, for projects disturbing one (1) acre or more that require coverage under and compliance with the CGP, the construction BMPs must be identified in a Storm Water Pollution Prevention Plan (SWPPP). For projects disturbing less than one (1) acre, a Water Pollution Control Plan (WPCP) is required that identifies the pollution prevention measures that will be taken to comply with local City standards. If the project qualifies for an Erosivity Waiver under the CGP, a WPCP may be submitted in lieu of a SWPPP. However, if the Erosivity Waiver expires prior to project completion, the project applicant shall obtain a new Waste Discharge Identification number and submit a SWPPP.

It is the responsibility of the property owner or his/her designee (contractor) to select, install, and maintain appropriate BMPs. The Storm Water Requirements Applicability Checklist (Intake Form) shall be completed to determine a project's permanent and construction storm water BMP

requirements. A list of construction BMPs is provided for reference in section K.5. BMPs must be installed in accordance with an industry recommended standard or in accordance with the requirements of the CGP. More information about BMPs is provided in statewide storm water BMP manuals (e.g., the California Storm Water Quality Association [CASQA] Construction BMP Online Handbook, and the Caltrans Construction Site BMP Manual).

Construction projects have differing requirements based on the degree of threat to receiving waters. Projects subject to the CGP must calculate the Risk Level (or Linear Underground/Overhead Type) and implement the CGP requirements for that Risk Level (or Linear Underground/Overhead Type).

K.3 Determining Applicable Non-Storm Water Regulations

Most non-storm water discharges are prohibited, but exceptions apply (see Municipal Code Section 14.20.110). Additionally, the project owner is responsible for knowing if coverage under additional National Pollutant Discharge Elimination System (NPDES) permits is required.

Table 3–1 identifies NPDES General Permits that may require enrollment for certain types of discharges. Unique sources of non-storm water discharges, such as discharge of contaminated water that has been treated, may require an individual NPDES permit and the SDRWQCB should be consulted for determination of permit requirements.

Table 3-1. General NPDES Permits That Typically Apply to Non-Storm Water Discharges from Construction Sites

Abbreviation	Permit Name / Order Number	Description	Applicability
Discharge To Land	Conditional Waiver of Waste Discharge Requirements for Low Threat Discharges in the San Diego Region SWRCB Order No. R-2014-0041	Order is intended to cover temporary discharges of low threat waters to land.	Small or temporary dewatering projects, such as excavation during construction, flushing water lines, discharging recycled water which are discharge to land for infiltration
Groundwater Dewatering Discharges – San Diego Region except to San Diego Bay	General Waste Discharge Requirements for Discharges from Groundwater Extraction and Similar Discharges to Surface Waters within the San Diego Region Except for San Diego Bay; Order No. R9-2008-0002 NPDES No. CAG919002	Order is intended to cover all discharges of groundwater extraction wastes to surface waters within the San Diego Region except the San Diego Bay. Emphasis is placed on groundwater extraction due to construction and other groundwater extraction activities regardless of volume, including discharges less than 100,000 gallons per day.	Projects discharging any temporary flow or volume of extracted groundwater into surface waters, except San Diego Bay.

**Appendix K:
Construction BMP Standards**

Abbreviation	Permit Name / Order Number	Description	Applicability
Groundwater Dewatering Discharges – San Diego Bay	General Waste Discharge Requirements for Discharges from Temporary Groundwater Extraction and Similar Waste Discharges to San Diego Bay, Tributaries thereto under Tidal Influence, and Storm Drains or Other Conveyance Systems Tributary thereto; Order No. R9-2007-0034 NPDES No. CAG919001	Order is intended to cover temporary discharges of groundwater extraction wastes to San Diego Bay, and its tributaries under tidal influence, from groundwater extraction due to construction and other groundwater extraction activities.	Projects discharging any temporary flow or volume of extracted groundwater into the San Diego Bay.
Hydrostatic Water and Potable Water Discharges	General Waste Discharge Requirements for Discharges of Hydrostatic Test Water and Potable Water to Surface Waters and Storm Drains or Other Conveyance Systems within the San Diego Region; Order No. R9-2010-0003 NPDES No. CAG679001	Order is intended to cover discharges of hydrostatic test water and potable water to various receiving surface waters within the San Diego Region.	Include, but are not limited to, potable and hydrostatic test discharges resulting from testing, repair, and maintenance of pipelines, tanks, and vessels dedicated to drinking water purveyance.
Utility Vaults and Structures	General NPDES Permit for Discharges from Utility Vaults and Underground Structures to Waters of the United States; Order WQ 2014-0174-DWQ NPDES No. CAG990002	Order is intended to cover short-term intermittent discharges of pollutants to surface waters from utility vaults and underground structures.	Include, but are not limited to, suppliers of natural gas, electricity, internet, cable television, and telephone services.

Discharges to surface waters within the San Diego region from foundation drain or footing drain systems designed to be located at or below the groundwater table to actively or passively extract groundwater during any part of the year are prohibited unless the discharge has coverage under NPDES Permit No. CAG919001 or NPDES Permit No. CAG919002.

Discharges to surface waters within the San Diego region from foundation drain or footing drain systems designed to be located above the groundwater table at all times of the year, and only expected to discharge non-storm water under unusual circumstances may be prohibited if the City of Chula Vista or SDRWQCB identifies the discharge as a source of pollutants to receiving waters.

K.4 Construction Site Prioritization

The Municipal Permit requires the following factors to be considered when determining threat to water quality:

- Sites located within a hydrologic subarea where sediment is known or suspected to contribute to the highest priority water quality conditions identified in the San Diego Bay Water Quality Improvement Plan (WQIP),
- Sites located within the same hydrologic subarea and tributary to a water body segment listed as impaired for sediment on the CWA section 303(d) List;
- Sites located within, directly adjacent to, or discharging directly to a receiving water within an ESA; and
- Other sites determined by the Copermittee or the San Diego Water Board as a high threat to water quality.

The WQIP does not identify hydrologic subareas where sediment is known or suspected to contribute to the highest priority water quality conditions in the City of Chula Vista. Also, the City does not discharge to a CWA section 303(d) listed water body impaired for sediment. Therefore, the first two factors do not apply to Chula Vista. There are significant areas of land within the City which are considered Environmentally Sensitive Areas (ESAs). These ESAs are shown on Map 3 included in Appendix E of this JRMP. Also, there are other factors that the City considers to affect a construction site's threat to water quality as discussed below. Therefore, the City has developed the following criteria for designating a site as a high threat to water quality.

- A site 50 acres or more in size where grading will occur during the rainy season.
- A site within, directly adjacent to, or discharging directly to a receiving water body within an ESA.
- Any other site that has been determined by the City to pose a significant Threat to Water Quality (TTWQ). The City will consider the following factors when evaluating TTWQ:
 - Soil erosion potential
 - Site slope
 - Project type
 - Sensitivity of receiving water bodies
 - Proximity to receiving water bodies
 - Non-storm water discharge potential
 - Past record of non-compliance at the site
 - Other site specific factors

K.4.1 Low Threat to Water Quality Sites

Construction sites that are not classified as high TTWQ are considered low TTWQ. These sites are generally less than one acre and have not otherwise been determined to be a significant threat to water quality. The City recognizes that there are other factors besides those discussed above that can influence a construction site's TTWQ. The City maintains the right to re-prioritize a construction site's assigned TTWQ during the course of construction based on compliance history or if any of the prioritization factors change.

K.5 Pollution Control Plan Requirements

In accordance with the MS4 Permit (E.4.a), a pollution control plan, construction BMP plan, and/or an erosion and sediment control plan is required to be developed and submitted by the project applicant prior to issuance of any permit(s) that allows the commencement of construction projects that involve ground disturbance or soil disturbing activities that can potentially generate pollutants in storm water runoff. The City requires a Minor Water Pollution Control Plan (MWPCP), a Water Pollution Control Plan (WPCP), or a Storm Water Pollution Prevention Plan (SWPPP), for all projects. Some project types, such as interior plumbing, electrical and mechanical work, may be considered exempt. Requirements for each document are further summarized in subsections below.

K.5.1 SWPPP Requirements

Project disturbing one acre or greater is subject to coverage and compliance under the CGP (which is administered by the SWRCB). The applicant must provide a SWPPP, using either the CASQA or Caltrans template, which identifies all construction BMP requirements, in accordance with the CGP. A Waste Discharge Identification number is required prior to issuance of a permit and start of construction. The SWPPP must be kept on site and made available upon request of a representative of the City, SDRWQCB, or the SWRCB. Additionally, the CGP has requirements for preparing Site Maps, BMP inspection, discharge monitoring, and reporting that all must be implemented in accordance with CGP requirements. Projects that are required to obtain coverage under the CGP are encouraged to visit the SWRCB's website for permit application instructions.

Project disturbing one acre or greater and qualifies for an Erosivity Waiver under the CGP, may be allowed to submit a WPCP in lieu of a SWPPP. However, if the Erosivity Waiver expires prior to project completion, the project applicant shall obtain a new Waste Discharge Identification number and submit a SWPPP.

K.5.1.1 Maximum Disturbed Area for Erosion Controls

The City requires that temporary or permanent erosion controls be implemented before a construction site has disturbed a total of 100 acres. If the site is in compliance with applicable stormwater regulations and has adequate control practices implemented to prevent stormwater pollution, the City has the option to give the site written authorization to disturb beyond the maximum disturbed area allowed. The City will require, as necessary, additional controls for construction sites allowed to disturb more than 100 acres, which could include additional BMPs, increased inspection frequency, and/or stronger penalties for non-compliance.

K.5.2 WPCP Requirements

A Water Pollution Control Plan (WPCP) must be developed and implemented for construction projects that:

- Result in disturbance of less than one acre of total land area and are not part of a larger common plan of development or sale; and
- Have Grading, Construction, and Demolition/Removal approval types or require submittal of grading plans for review and approval.

The WPCP is a report and shall depict the BMPs to be implemented during construction to

reduce/eliminate discharges of pollutants to the storm drain conveyance system. The WPCP and Site Map shall be updated with each phase of construction activity. The WPCP must be kept on site and made available upon request of a representative of the City, SDRWQCB, or the SWRCB (refer to Attachment 2 for WPCP template).

Any hydrology or hydraulic calculations, soils reports or geotechnical reports prepared in support of a WPCP must be prepared by a professional engineer with appropriate registration qualifications issued by the State of California.

K.5.2.1 Basic Elements to a WPCP

The following steps are to be used to aid in the design and development of erosion and sedimentation control measures to be included in the WPCP.

1. Project planning (establish construction schedule, disturbed area phasing, BMP materials storage)
2. Preserve existing vegetation and delineate clearing limits (orange construction fence, staking with ribbon).
3. Establish construction access points (gravel entrance, shaker plates, tire wash area).
4. Control run-on and run-off flow (using pipe, drainage swales, berms).
5. Install sediment controls (silt fence, sediment traps, etc.).
6. Stabilize soils (erosion controls including but not limited to mulch, hydroseed, straw).
7. Protect slopes (divert water from top of slope, cover with plastic or erosion control blanket).
8. Protect drain inlets (catch basin inserts).
9. Stabilize channels and outlets (cover with grass, riprap).
10. Control pollutants (maintain equipment to prevent leaks, drip pans, covered trash bins).
11. Control dewatering (pump to sediment trap).
12. Maintain BMPs (weekly maintenance/replacement, preparation for storm events).
13. Manage the project (re-assess construction schedule, phasing, contact numbers).
14. Document BMP education of contractor/subcontractor employees
15. Retain Inspection Notices and Self-Inspection Worksheets

K.5.3 Linear underground projects (Capital Improvement Projects)

A Water Pollution Control Plan (WPCP) must be developed and implemented for all linear utility projects that:

- Result in disturbance of less than one acre of total land area, or are considered maintenance projects and are not part of a larger common plan of development or sale, or
- Result in disturbance of an acre or more of total land area and are considered regular maintenance projects performed to restore the original line, grade, or capacity of the facility, or

- Result in disturbance of one to five acres of total land area and can demonstrate that there will be no adverse water quality impacts by applying for a Construction Rainfall Erosivity Waiver.

Linear underground projects involve the replacement and/or rehabilitation of sewer and/or storm drains along with their associated appurtenances in the public Right of Way. Linear Utility projects may also include ADA improvements to curb ramps and sidewalk, street repair from full width to trench limits, and traffic improvements (does not include street resurfacing). For Linear underground projects, the applicant must provide a WPCP (refer to Attachment 1 for WPCP template).

K.5.4 Minor WPCP Requirements

A Minor Water Pollution Control Plan (MWPCP) (refer to Attachment 1) may be developed and implemented for projects that:

- Have Building permits for interior remodels within existing enclosed structures, roof or exterior structure surface replacement, without expanding the impervious footprint. Some construction project types, such as interior plumbing, electrical and mechanical work, may be considered exempt, or
- Have Individual Construction permit that exclusively include one of the following activities associated with curb/sidewalk repair, water lateral, sewer lateral, storm drain lateral, or utility service, or
- Have Grading/Construction permit with a project footprint less than 150 linear feet that exclusively include only one of the following activities: curb ramp, sidewalk and driveway apron replacement, pot holing, geotechnical borings, curb & gutter replacement, and retaining walls, or
- Have Building/Grading/Construction permit for project proposing less than 5,000 square feet of ground disturbance and has less than 5-foot elevation change over the entire project area.

The CASQA Construction BMP Online Handbook and Caltrans Construction Site BMP Fact Sheets serve as a reference to develop a construction BMP plan. If in the opinion of the City Engineer, the project potentially could pose a threat to storm water quality, the City Engineer may require preparation and implementation of a WPCP commensurate with the storm water threat.

It is the responsibility of the property owner or his/her designee (contractor) to determine the types of BMPs that will be used, as well as the levels of application necessary to comply with the City's Storm Water and Grading Ordinances. Failure to prevent soil erosion and discharges of sediment and other pollutants from construction sites is subject to enforcement by the City and others.

K.6 Required Best Management Practices

K.6.1 Minimum BMP Requirements

BMPs collectively refer to a variety of pollution prevention controls implemented throughout the project site at various times during the project. BMPs discussed herein are specifically aimed to control

pollution in storm water runoff during the construction phase of the project. The major construction BMP categories as identified in the MS4 Permit (E.4.c) are:

1. Project Planning;
2. Good Site Management “Housekeeping”, including Waste Management;
3. Non Storm Water Management;
4. Erosion Control;
5. Sediment Control;
6. Run-on and Run-off Control; and
7. Active/Passive Sediment Treatment Systems, where applicable

Construction sites are required to implement minimum construction BMPs outlined in Table 5-1 below as applicable to prevent pollution discharges to the MEP regardless of the season. The City also requires additional or enhanced BMPs for specific site conditions that may be different for the rainy season (October 1st – April 30th) than they are for the dry season (May 1st – September 30th). Sites are also required to retain enough materials on site to protect all disturbed areas if a rain event were to occur.

Table 5-1: Minimum Best Management Practices (BMPs) for Construction Sites¹

BMP Type	Minimum Required BMPs	CASQA Factsheet	Caltrans Factsheet ¹
Project Planning	Preservation of natural hydrologic features where feasible		-
	Preservation of riparian buffers and corridors where feasible		-
	Preservation of existing vegetation	EC-2	SS-2
	Minimization of areas that are cleared and graded to only the portion of the site that is necessary for construction		-
	Minimization of exposure time of disturbed soil areas	EC-1	SS-1
	Minimization of grading during the wet season and correlation of grading with seasonal dry weather periods to the extent feasible	EC-1	SS-1
	Employee and Subcontractor Training, as applicable		-

¹ Construction sites that are subject to the State Water Resources Control Board’s (SWRCB) Construction General Permit (Order No. 2012-0006-DWQ) (CGP) must also adhere to the BMP requirements of the CGP. The minimum BMPs listed within this section are required for all construction sites within the City’s jurisdiction, unless otherwise stated. Some requirements may only apply to sites required to obtain a City grading permit.

² Desilting basins must be designed in accordance with Caltrans or CASQA standards, or other recognized standard approved by the City. If the project is one acre or greater, the de-silting basin must be designed in accordance with the current CGP.

Table 5-1: Minimum Best Management Practices (BMPs) for Construction Sites¹

BMP Type	Minimum Required BMPs	CASQA Factsheet	Caltrans Factsheet ¹
Erosion Control	Temporary stabilization and permanent re-vegetation or landscaping as early as feasible	EC-1	SS-1
	Preservation of existing vegetation	EC-2	SS-2
	Physical Stabilization of exposed soil		
	<ul style="list-style-type: none"> • Hydraulic Mulch 	EC-3	SS-3
	<ul style="list-style-type: none"> • Hydroseeding 	EC-4	SS-4
	<ul style="list-style-type: none"> • Soil Binders 	EC-5	SS-5
	<ul style="list-style-type: none"> • Straw Mulch 	EC-6	SS-6
	<ul style="list-style-type: none"> • Geotextiles, Plastic Covers, and Erosion Control Blankets/Mats 	EC-7 EC-8	SS-7 SS-8
	Site Drainage		
	<ul style="list-style-type: none"> • Earth Dikes/Drainage Swales • Energy Dissipater/Outlet Protection • Slope Drains 	EC-9 EC-10 EC-11	SS-9 SS-10 SS-11
	Sediment Control	Perimeter Protection (one or more must be implemented)	
<ul style="list-style-type: none"> • Silt Fence 		SE-1	SC-1
<ul style="list-style-type: none"> • Gravel Bag Berm 		SE-6	SC-6
<ul style="list-style-type: none"> • Fiber Rolls 		SE-5	SC-5
Sediment Capture (one or more must be implemented)			
<ul style="list-style-type: none"> • Sediment/Desilting Basin² 		SE-2	SC-2
<ul style="list-style-type: none"> • Storm Drain Inlet Protection 		SE-10	SC-10
<ul style="list-style-type: none"> • Sediment Trap 		SE-3	SC-3
<ul style="list-style-type: none"> • Gravel Bag Barrier 		SE-8	SC-8
<ul style="list-style-type: none"> • Straw Barrier 		SE-9	SC-9
Good Site Management, “Housekeeping”	Sediment Tracking		
	<ul style="list-style-type: none"> • Stabilized Construction Entrance/Exit 	TC-1	TC-1
	<ul style="list-style-type: none"> • Construction Road Stabilization 	TC-2	TC-2
	<ul style="list-style-type: none"> • Entrance/Exit Tire Wash 	TC-3	TC-3
	<ul style="list-style-type: none"> • Street Sweeping 	SC-7	SC-7
	Vehicle and Equipment Management		
	<ul style="list-style-type: none"> • Cleaning • Fueling • Maintenance 	NS-8 NS-9 NS-10	NS-8 NS-9 NS-10
Materials Management	Materials Management		
	<ul style="list-style-type: none"> • Material Delivery and Storage 	WM-1	WM-1
	<ul style="list-style-type: none"> • Material Use 	WM-2	WM-2
	<ul style="list-style-type: none"> • Stockpile Management 	WM-3	WM-3
	<ul style="list-style-type: none"> • Spill Prevention and Control 	WM-4	WM-4

Table 5-1: Minimum Best Management Practices (BMPs) for Construction Sites¹

BMP Type	Minimum Required BMPs	CASQA Factsheet	Caltrans Factsheet ¹
	Waste Management (where applicable)		
	<ul style="list-style-type: none"> • Solid Waste • Hazardous Waste • Contaminated Soil • Concrete • Sanitary Waste • Liquid 	<p>WM-5</p> <p>WM-6</p> <p>WM-7</p> <p>WM-8</p> <p>WM-9</p> <p>WM-10</p>	<p>WM-5</p> <p>WM-6</p> <p>WM-7</p> <p>WM-8</p> <p>WM-9</p> <p>WM-10</p>
Non-Stormwater Management	<ul style="list-style-type: none"> • Water Conservation Practices • Dewatering Operations • Paving and Grinding • Potable Water/Irrigation and Flushing 	<p>NS-1</p> <p>NS-2</p> <p>NS-3</p> <p>NS-7</p>	<p>NS-1</p> <p>NS-2</p> <p>NS-3</p> <p>NS-7</p>

K.6.2 Additional Erosion and Sediment Control Requirements

In addition to the minimum BMPs listed in the table above, construction projects are also required to comply with the following requirements:

1. The faces of cut-and-fill slopes and the project site shall be prepared and maintained to control against erosion. All exposed disturbed areas must have erosion prevention controls properly installed including building pads, unfinished roads and slopes. Slopes greater than 33.3% or 1:3 (vertical vs. horizontal) may use properly designed and installed de-silting basins at all discharge points in lieu of this requirement.
2. Where necessary, temporary and/or permanent erosion control devices such as desilting basins, check dams, cribbing, riprap, or other devices or methods as approved by the City Engineer shall be employed to control erosion, prevent discharge of sediment, and provide safety.
3. Temporary desilting basins constructed of compacted earth shall be compacted to a relative compaction of 90 percent of maximum density. A gravel bag or plastic spillway must be installed for overflow, as designed by the engineer of work, to avoid failure of the earthen dam. A soils engineering report prepared by the soils engineer, including the type of field testing performed, location and results of testing shall be submitted to the City Engineer for approval upon completion of the desilting basins.
4. Desilting facilities shall be provided at drainage outlets from the graded site, and shall be designed to provide a desilting capacity capable of containing the anticipated runoff for a period of time adequate to allow reasonable settlement of suspended particles.
5. Desilting basins shall be constructed around the perimeter of projects, whenever feasible, and shall provide improved maintenance access from paved roads during wet weather. Grading cost estimates must include maintenance and ultimate removal costs for temporary desilting basins.
6. The erosion control provisions shall take into account drainage patterns during the current and future phases of grading.

7. Erosion protection may include effective planting of all slopes unless otherwise approved by the City Engineer. Planting of the slopes shall be done as soon as practicable, and prior to rough grade approval. If this is not accomplished, the slope shall be treated with punched cereal straw, broadcast on the soil surface at 4,000 pounds per acre and held with a tackifier, fiber or net, or an equal system approved by the City Engineer. Planting shall be installed, fully germinated, and effectively cover the required slopes prior to finished grade approval.
8. The permittee or owner shall be responsible for control of erosion on all areas of grading until acceptance of the completed grading by the City Council. This responsibility extends to completed and occupied lots.
9. Equipment and workers for emergency work shall be made available at all times. One hundred twenty-five percent of all necessary materials shall be available on site and stockpiled at convenient locations to facilitate rapid construction of temporary devices at all times.
10. All removable protective devices shown shall be in place at the end of each working day when there is a 50 percent chance of rain within a 48-hour period. If the developer does not provide the required installation or maintenance of erosion control structures within two hours of notification at the 24-hour number on the plans, the City Engineer may order City crews or the City's Contractor to do the work or may issue contracts for such work and charge the cost of this work along with reasonable overhead charges to the cash deposits or other instruments implemented for this work without further notification to the owner. No additional work on the project, except erosion control work, may be performed until the full amount drawn from the deposit is restored by the developer.
11. At any time of year, an inactive site shall be fully protected from erosion and discharges of sediment. Flat areas with less than five percent grade shall be fully covered unless sediment control is provided through desilting basins at all project discharge points. A site is considered inactive if construction activities have ceased for a period of 14 or more consecutive days.

K.6.3 ADVANCED TREATMENT METHODS

For the majority of the construction sites within the City's jurisdiction, the minimum required BMPs, if correctly installed and maintained, should adequately control sediment discharges from the site. However, if it is determined that a site possesses characteristics that could result in standard construction BMPs being ineffective in the treatment of sediment, thus resulting in an exceptional threat to water quality, advanced treatment will be required. The term "advanced treatment," as used in this section, includes both active and passive sediment treatment systems. These systems usually involve adding a coagulant to construction site discharge to facilitate sediment removal; see the BMP Design Manual for additional details.

A site is considered to pose an exceptional threat to water quality if it meets all of the following criteria:

- Is located within, adjacent to, or a portion of the site is within 200 feet of waters listed on the 303(d) List for sedimentation or turbidity impairments;
- Disturbance is greater than five acres, including all phases of the development;
- Disturbed slopes are steeper than 4:1 (horizontal: vertical) and higher than 10 feet that drain toward the 303(d) Listed receiving water;

Contains a predominance of soils with U.S. Department of Agriculture – National Resources Conservation Service Erosion factor K greater than or equal to 0.4. Alternatively, applicants may perform a Revised Universal Soil Loss Equation or Modified Universal Soil Loss Equation analysis to prove to the City Engineer’s satisfaction that advanced treatment is not required.

Treatment effluent water quality shall meet or exceed the water quality objectives for turbidity, and any other parameter deemed necessary by the City Engineer as listed in the Water Quality Control Plan for the San Diego Basin for Inland Surface Waters and Lagoons and Estuaries (Basin Plan) for the appropriate hydrologic unit.

Additionally, the City may require advanced treatment for sites that have a record of noncompliance with the City’s construction BMP requirements, regardless of whether they meet the above criteria. For projects where advanced treatment is required, the applicant must submit the design, operations and maintenance schedule, monitoring plan, and certification of training of staff to the satisfaction of the City.

K.6.4 ADDITIONAL CONTROLS FOR CONSTRUCTION SITES

Depending on specific site conditions and where a threat to water quality is anticipated, the City may require a construction site to implement BMPs in addition to the minimum and seasonal BMPs describe above. Such additional BMPs will be determined by the City on a site-by-site basis. Additional controls may include required de-silting basins, increased inspection frequency, and/or stronger penalties for non-compliance. Currently, there are no water bodies that are 303(d) Listed for sediment in or downstream of the City.

K.6.5 BMP Implementation

BMPs shall be selected, designed, installed, and maintained properly throughout the duration of construction projects to control off-site discharges and prevent sediment-laden water and other pollutants from impacting adjacent properties or entering the City's public storm system and/or adjacent or downstream rivers, streams, and sensitive areas. BMPs must be discussed with all project contractors, subcontractors, and any party involved, because education is essential to good BMP implementation and maintenance and overall site compliance.

K.6.6 BMP Effectiveness

BMPs shall be routinely evaluated for their effectiveness. Additional BMPs shall be implemented as dictated by site conditions throughout all phases of the project. The contractor shall contact the SWPPP developer or WPCP preparer as applicable if BMPs are found to be ineffective. As described in Section K.8, The City Inspector may require additional measures depending on individual site conditions.

K.6.7 BMP Maintenance

BMP measures stated in the SWPPP or WPCP, as applicable, shall be maintained in fully functional condition until no longer required for a completed phase of work or final stabilization has been achieved.

K.6.8 Project Close-Out

For projects with coverage under the CGP, projects must be closed in accordance with termination requirements in the CGP. The Engineer of Record shall submit a completed Permanent BMP Construction Self-Certification Form to the City prior to close-out. For capital improvement projects, the form is filled out as part of the as-built process. Permanent BMP Construction Self-Certification Form can be found in Appendix I.

For all other projects, the project owner must verify the following:

1. All disturbed areas have been stabilized in accordance with the project's landscaping and paving plan.
2. All BMPs, construction materials, and construction wastes have been removed from the site.

K.7 Permanent BMP Inspections during Construction

For Priority Development Projects, a City inspection is required to verify permanent BMPs have been installed in accordance with the Storm Water Quality Management Plan. A copy of the Permanent Construction BMP Self Certification Form is provided in Appendix I.

The contractor is prohibited from making modifications to the permanent BMPs shown on the plans. To propose modifications:

- For private permit projects, the engineer of record is required to submit a revised SWQMP to the Development Services Department for approval, prior to installation.
- For capital improvement projects, the contractor is required to obtain approval from the city engineer responsible for the design of the plans.

K.8 Compliance Verification and Enforcement

K.8.1 Construction Site Inspections

It is the responsibility of the site owners or contractors to abide by inspection requirements. Regardless of any inspections conducted by the City, property owners or contractors are required to prevent any construction-related materials, trash, wastes, spills or residues from entering a storm water conveyance system.

The City is responsible for performing periodic storm water compliance inspections of construction sites within its boundaries, and all project owners must allow City Inspectors onto the project site for these inspections. All construction sites are subject to site inspection by City staff in accordance with the City's Municipal Code, the Municipal Permit, City's policies and procedures and these standards.

City inspectors have the authority at any phase of construction to require additional BMPs if the SWPPP/WPCP is not protective of water quality.

Note: projects may also be subject to inspection by staff of the SWRCB, SDRWQCB, or U.S. EPA. Inspection procedures for those agencies are separate and carry different enforcement actions/mechanisms.

K.8.2 Inspection Frequency

Each construction site shall be inspected by City staff for compliance with storm water standards at the minimum frequencies shown in Table 8–1. Site-specific inspection frequencies are re-assessed periodically, especially when grading activities are planned during the rainy season. City staff may conduct additional inspections and modify site priority based on several factors including, but not limited to:

- Site conditions;
- Developer/Contractor previous violations and past performance;
- Rain events during the dry season
- Grading during rainy season; and
- Proximity to water bodies

Table 8-1 Construction Inspection Frequencies

Site Prioritization	Inspection Frequency	
	Rainy Season	Dry Season
High	2x per Month	Monthly
Low	Monthly	As needed
Inactive	Monthly	As needed

K.8.3 Inspection Content

Construction site inspections will include the following:

- a. Where applicable, a check for proof of coverage under the Construction General Permit. This may include checking the SWPPP for a copy of the Notice of Intent and/or the WDID number. This proof can also be obtained from the State Water Resources Control Board SMARTS website. Once coverage has been confirmed, this information is not checked during subsequent inspections.
- b. Assessment of the implementation of all required BMPs, including the minimum and any additional controls required by the City in the SWPPP or the CSWMP.
- c. Assessment of BMP adequacy and effectiveness. The inspector can issue orders for additional BMPs if it is determined that previously approved BMPs are not adequate or effective.
- d. Visual observations of actual non-storm water discharges, actual or potential illicit connections, and potential discharge of pollutants in storm water runoff.
- e. Visual observations for actual or potential discharge of sediment and/or construction related materials from the site.
- f. A check for proper maintenance of the applicable BMPs.
- g. Education of responsible person at the construction site on storm water pollution prevention as needed. A responsible person, preferably the Qualified SWPPP Developer (QSD), Qualified SWPPP Practitioner (QSP), or the site superintendent, should accompany the inspector and receive instructions on BMP deficiencies and corrective actions.

- h. Photographs to document BMP implementation and potential violations. This photo documentation will be required in the event that enforcement actions become necessary.

The inspection form titled “Storm Water Quality Inspection for Construction Activities”, refer to Attachment 3, will be used during all construction site BMP inspections. The inspection form contains questions to ensure all the previously mentioned inspection components are addressed. The form lists the construction BMPs required by the City and includes boxes to document if BMPs need to be implemented or if they require maintenance. If required BMPs are missing or found to be improperly implemented, appropriate enforcement actions, as described in Section below, will be taken.

K.8.4 Construction Site Enforcement

The City is responsible for enforcement of local ordinances and applicable local permits at all construction sites in its jurisdiction. Enforcement for construction projects will be administered by City inspectors and/or other staff with inspection and enforcement authority.

When violations are observed and documented during a site inspection, the City will utilize appropriate enforcement measures based on the severity of the violation. Enforcement can range from verbal warnings to more severe enforcement such as Stop Work Notices. Escalating enforcement measures will be used as necessary if proper corrective actions are not implemented during the allotted time frame or if the severity of the violation warrants stricter enforcement.

The typical progressive enforcement steps that the City will implement for construction sites include the following:

- Verbal warnings
- Written warnings
- Enforcement of contracts (municipal projects)
- Stop Work Notices and Orders
- Denial or revocation of permits
- Administrative, Civil, and criminal actions

As required by the Municipal Permit, City inspectors will seek to resolve incidents of observed noncompliance within 30 calendar days, or before the next rain event, whichever is sooner. In cases where the violation cannot be resolved within the appropriate timeframe, the reason additional time was needed for case resolution will be documented and kept in the project’s file.

K.8.5 RWQCB Notification

In accordance with the Municipal Permit, the City will report any non-compliance associated with construction activity that may endanger human or environmental health. All information will be reported to the RWQCB verbally within 24 hours of the City becoming aware of the circumstances. Within 5 days of the City first becoming aware of the circumstances, a written submission including the following information will be provided to the RWQCB:

- Description of the non-compliance and its cause
- Exact dates and times of non-compliance, or if the non-compliance has not been corrected by the time of the written submission, the anticipated time it is expected to continue

- Description of the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the non-compliance

Criteria listed below will be used to determine the human or environmental health threats of a non-compliance event, whether from storm water or non-storm water discharges, where applicable:

- Estimated area of erosion caused by discharge
- Estimated pollutant load discharged from site
- Estimated volume of discharge
- Types of pollutants discharged, including if toxic materials were discharged
- Total suspended solids (TSS) concentration and turbidity of discharge
- Other materials discharged that pose a threat (concrete washout, sanitary washes, etc.)
- Sensitivity of the receiving water body, including if it is 303(d) Listed for any of the pollutants in the discharge
- Proximity of site to sensitive habitat/endangered species
- Proximity of site to public water supply (well head, monitoring wells)
- How much, if any, of the discharge reached the receiving water body
- Beneficial uses for affected water bodies
- In addition to notifying the RWQCB about threats to human health or the environment, the City copies the RWQCB on NOV's, Stop Work Notices, or any other high level enforcement measures whenever they are issued to construction sites in the City's jurisdiction.

Attachment 1

Construction Storm Water BMP Certification Statement

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Attachment 2

Construction Storm Water Pollution Control Plan (CSWPCP)

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Attachment 3

Storm Water Quality Inspection for Construction Activities Form

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