4.0 CONSTRUCTION COMPONENT

4.1 INTRODUCTION

The County of San Diego (County) has initiated a construction conditioning process to prevent discharges of pollutants and non-stormwater discharges from construction sites. Construction activities, such as mass grading, clearing, and grubbing, remove the vegetation and disrupt the soil surfaces. This disruption leaves the soil susceptible to erosion from rainfall, wind, or excessive or improper water use. Grading and clearing activities cause rain to run off a project site at higher velocities than a site with natural vegetation. This excess sediment is considered a pollutant because it is detrimental to aquatic life as it interferes with photosynthesis, respiration, growth and reproduction. The construction conditioning process requires that any person submitting a grading permit application must document that appropriate construction Best Management Practices (BMPs) will be used to prevent stormwater pollution from their project site. Depending upon the size of the proposed project, either of the following two documents must be submitted with the initial grading permit application: 1) Notice of Intent (NOI) for the California General Permit for Construction Activities (CGP) with erosion and sediment control plan; or 2) a Stormwater Quality Management Plan (SWQMP). The following sections provide a description of the County's processes for preventing construction associated discharges from entering into surface waters. In addition to the processes identified in this section, the watershed-based Water Quality Improvement Plans (WQIPs) may also include content to be considered in modifying or updating requirements or approaches for construction-related discharge within applicable Watershed Management Areas.

4.2 SITE INVENTORY

The County maintains multiple databases of construction sites within each department. When these inventories are combined, they represent all private and public construction projects that allow ground disturbance or soil-disturbing activities that can potentially generate pollutants in stormwater runoff. The following departments inventory construction projects:

- Planning & Development Services (PDS)-Building Division
- Department of Public Works (DPW)-Private Development Construction Inspection (PDCI)
- DPW-Capital Improvement Program (CIP)
- Department of Parks and Recreation (DPR)-CIP
- Department of General Services (DGS)-CIP

The inventories are watershed based and contain the following minimum information:

- The name, address, phone number and email for the owner and person performing the work;
- Basic site information including address, hydrologic subarea, Waste Discharge Identification (WDID) number (if applicable), size of the site, and approximate area of disturbance;
- Whether or not the site is considered a high Threat to Water Quality;
- Project start and completion dates;
- Required inspection frequency;

- Date the County accepted the plan describing the pollution control strategies
    - Private projects - Standard SWQMP or Priority Development Project (PDP) SWQMP, along with an erosion control plan
    - CIP projects – Stormwater Pollution Prevention Plan (SWPPP) or Water Pollution Control Plan (WPCP)
- Whether or not there are ongoing enforcement actions administered to the site

4.2.1 Private Development Projects and Capital Improvement Program Projects

Private construction inventories are maintained and managed in the Accela Automation™ management software system. CIP project inventories are maintained and managed in different departmental databases.

The inventory lists for private development projects and CIP projects include:

- Project name;
- Relevant contact information for each site;
- Basic site information including location (address and hydrologic subarea), WDID number (if applicable), size of the site, and approximate area of disturbance;
- Whether or not the site is considered a high Threat to Water Quality;
- Priority rating for each project;
- Project start and completion dates;
- The required inspection frequency;
- The date the County accepted the Pollution Control Plan, Construction BMP Plan, and/or Erosion and Sediment Control Plan; and
- Whether or not there are ongoing enforcement actions administered to the site.

It is important to note that site inventories are dynamic as projects are constantly opening and closing.

4.2.2 Exempt Projects

All project proponents are responsible for preventing construction-related materials, wastes, spills, or residues from entering stormwater conveyance systems.

However, the following project types are exempt from construction stormwater BMP implementation and documentation requirements if the project involves minimal or no soil disturbance, and is associated with:

- Interior remodeling;
- Mechanical permit work;
- Electrical permit work;

- Plumbing permit work;
- Tenant improvements;
- Sea cargo containers;
- Changes of use within an existing building;
- Temporary mobile home and trailer permits;
- Minor permits accessory to an existing building where monitoring of stormwater management will occur in conjunction with scheduled building inspections, including additions of 500 square feet or less, sheds, swimming pools, patio covers, decks, carports, retaining walls, signs, and solar photovoltaic; and
- Emergency construction activities required for immediate protection of public health and safety.

4.2.3 Inventory Updates

In accordance with the 2013 MS4 Permit Provision E.4.(b), all private construction project inventories must be updated at least quarterly. Private project databases are updated continuously as new permits are issued. Permits are assigned priorities and watershed designations at the time of issuance. These are entered into an Accela Automation™ database management software system, effectively adding each project to the stormwater inventory for its respective department.

CIP construction inventories are maintained and managed in databases within their respective departments. They are updated on a quarterly basis. At the time of project entry into the inventory, a site priority is assigned and a watershed designation is determined using the County's on-line GIS tool that is cross-referenced to the Accela Automation™ database management software system with parcel information.

4.2.4 Threat to Water Quality Prioritization

In order to prioritize construction site inspections, all sites that represent a high Threat to Water Quality (TTWQ) must be identified. A high TTWQ designation is determined based on the discretion of the County after consideration of a number of factors. These factors are:

- Sites located within a hydrologic subarea where sediment is known or suspected to contribute to the highest priority water quality conditions identified in the Water Quality Improvement Plan (WQIP). Mission Bay Watershed Management Area (WMA) and Tijuana River WMA are both currently considered to have hydrologic subareas in which sediment is among the highest priority pollutants;
- Sites located within the same hydrologic subarea and tributary to a waterbody segment listed as impaired for sediment on the Clean Water Act (CWA) section 303(d) list;

- Sites located within, or located within 200 feet or less of, or discharging directly to a receiving water within an environmentally sensitive area (ESA);
- Sites determined by the County of San Diego or Regional Water Quality Control Board (Regional Board) as a high TTWQ; and
- Any other factor, site characteristic, or aspect of the project scope pertinent to evaluating the project's sediment discharge risk or receiving water risk. These factors would typically include the project disturbance area, topography, soil characteristics, and seasonal rain potential (i.e., wet season, dry season), among others.

Table 4.1- Definitions of Prioritization Criteria

A project is:	If it meets these criteria:
Tributary to a sediment impaired CWA 303(d) Waterbody	The project is located within a watershed listed as 303(d) impaired for sediment ▪ Carlsbad Watershed, sub-basin 904.21; or ▪ Carlsbad Watershed, sub-basin 904.61; or ▪ Penasquitos Watershed, sub-basin 906.10; or ▪ Tijuana Watershed, sub-basin 911.11; or ▪ Other updated Watershed(s) on the EPA CWA 303(d) list. http://www.swrcb.ca.gov/sandiego/water_issues/programs/303d_list/index.shtml
In, or adjacent to, an Environmentally Sensitive Area (ESA)	The project is located within 200 feet of lands or receiving waters designated as any of the following: ▪ RARE beneficial use; or ▪ Areas of Significant Biological Significance (ASBS); or ▪ Multiple Species Conservation Program (MSCP) preserve elements
In a WQIP sediment is the Highest Priority Water Quality Condition(s)	The project is located within a hydrologic subarea where sediment is known or suspected to contribute to the Highest Priority Water Quality Condition(s) in the WQIP.

4.3 ORDINANCE UPDATES

4.3.1 Watershed Protection Ordinance

The *Watershed Protection, Stormwater Management and Discharge Control Ordinance* (commonly referred to as the Watershed Protection Ordinance (WPO)) was initially adopted on February 1, 2002 as Ordinance Number 9426 and amended on March 12, 2008, to reflect the requirements of the 2007 MS4 Permit. The WPO was amended on June 12, 2015 to reflect the new requirements of the 2013 MS4 Permit. The following are the major changes made in the 2015 amendment related to construction activities:

- Updated the list of construction BMPs that must be implemented on all construction sites.
- Refined the definition of pollutant control strategies to be implemented at construction sites consistent with the 2013 MS4 Permit.

4.3.2 Grading Ordinance

The *San Diego County Grading, Clearing and Watercourses Ordinance* (commonly referred to as the Grading Ordinance) was adopted on May 9, 2003 as Ordinance Number 9547. The Grading Ordinance requires the implementation of temporary and/or permanent erosion controls for both minor and major grading activities.

The County amended the Grading Ordinance on March 12, 2008, to reflect changes to the requirements specified in Section D.2.c.(1)(a)vi of the 2007 MS4 Permit. Section 87.414 of the Regulatory Code was amended to define what an "active disturbed soil area" is and prescribe the maximum area that can be active at one time.

Disturbed soil areas are considered "active" whenever soil disturbing activities have occurred, continue to occur, or will occur during the ensuing 14 days. Non-active areas must be protected within 14 days of the cessation of soil disturbing activities or prior to the onset of precipitation (50 percent chance of ½ inch or more of rain), whichever occurs first.

The active disturbed soil area of the project site may not be more than 50 acres for an individual grading permit or a combination of grading permits under the Tentative or Final Map. The County may approve, on a case-by-case basis, expansions of the active disturbed soil area limit. Soil stabilization and sediment control materials shall be maintained onsite sufficient (125 percent of those required) to protect the disturbed soil area.

4.4 BEST MANAGEMENT PRACTICE REQUIREMENTS

All construction sites determined to be a land disturbance activity, as defined in the WPO, are required to meet General BMP Requirements (see Attachment 2.2, Section 67.806) and the Additional BMP Requirements for Construction Projects (Section 67.809).

BMP requirements are applicable to both private and CIP construction projects. Specific BMPs are determined on a case-by-case basis considering applicable BMP performance standards, site constraints and characteristics, and stormwater control needs. Attachment 4.1 provides a matrix of the construction site BMPs that are accepted by the County for use during construction activities. These practices are consistent with the BMPs and control practices required under the CGP. Detailed descriptions and guidance regarding implementation of these BMPs are provided in the latest editions of the Caltrans Stormwater Quality Practice Guidelines, Construction Site BMPs Manual, and the California Stormwater Quality Association (CASQA) Construction Handbook. If particular BMPs are infeasible at any specific site, the County will implement, or require the implementation of, other equivalent BMPs. The County will also implement or require any additional site-specific BMPs as necessary to comply with the 2013 MS4 Permit, including BMPs which are more stringent than those required under the CGP.

4.4.1 Updated BMP Requirements

Section 67.806 (Attachment 2.2) of the WPO includes the list of general BMP requirements applicable to all dischargers. Section 67.809 (Attachment 2.2) of the WPO includes the list of additional BMPs to be implemented and maintained for construction projects.

4.4.1.1 Minimum BMP Requirements

Because of the ever-present threat of sediment discharge on active construction sites, certain pollution control practices must be implemented year-round. At a minimum, the County has determined the following pollution control practices be adequately implemented and maintained year-round on all non-exempt projects:

- Project Planning;
- Good Site Management "Housekeeping," including waste management;
- Non-stormwater Management;
- Erosion Control;
- Sediment Control;
- Run-on and Run-off Control;
- Active/Passive Sediment Treatment Systems, where applicable; and
- Any other construction BMPs suggested by the applicable WQIP and deemed to be effective at controlling erosion and sedimentation.

Disturbed soil areas shall be considered active whenever the soil disturbing activities have occurred, continue to occur, or will occur during the ensuing 14 days. Non-active areas shall be protected within 14 days of cessation of soil disturbing activities or prior to the onset of precipitation, whichever occurs first.

4.4.1.2 Dry Season BMP Implementation Option

During the non-rainy season from May 1 through September 30, the developer may opt to employ "weather triggered" action plans (a.k.a. Rain Event Action Plan or REAP) in lieu of fully deployed BMPs, although this does not relieve the Developer from this obligation to provide some year-round measures as required by the CGP. When the Developer opts to employ a "weather triggered" action plan, it must be approved by the inspector and have the ability to deploy standby BMPs as needed to completely protect the exposed portion of the project site within 48 hours of a predicted storm event. As required by the CGP, slope stabilization is required on all active slopes during rain events regardless of season. Grading must correlate to the dry weather season to the extent feasible. At a minimum, the "weather triggered" action plan must include water pollution control drawings (WPCDs) that illustrate the locations, applications, inspection frequency, staff availability, and deployment of the BMPs proposed.

If a "weather triggered" action plan is used, the developer is required to monitor the weather on a daily basis using the National Weather Service weather forecast. If precipitation is predicted (50 percent chance of ½ inch or more of rain), the necessary water pollution control practices must be deployed

within 48 hours and prior to the onset of the precipitation. A minimum of 125 percent of the material needed to install weather-triggered BMPs necessary to completely protect the exposed portions of the site from erosion, and to prevent sediment discharges, must be stored onsite. Areas that have already been protected from erosion using physical stabilization or established vegetation stabilization BMPs as determined by the County are not considered to be "exposed" for purposes of this requirement. Developers must ensure physical stabilization erosion control is implemented for all unplanted finished slopes.

4.4.1.3 Wet Season BMP Implementation Requirements

Implementation of required soil stabilization and sediment control practices for non-active disturbed soil areas must be fully deployed prior to the beginning of each rainy season. All exposed disturbed areas including all flat areas and slopes must have soil stabilization and sediment control practices properly installed during rain events regardless of the season. Construction activities beginning during the rainy season must implement applicable soil stabilization and sediment control practices.

As new technologies evolve, the County will consider the adoption of BMPs that are used by Caltrans or other agencies and those that have been proven to meet industry standards. Project and site conditions may allow implementation of enhanced temporary construction pollution management practices that go beyond those set forth in Attachment 4.2. The County will accept the temporary use of these BMPs as long as it is approved by the DPW Watershed Protection Program. The County expects that the temporary construction management practices identified herein will continue to evolve and improve in their effectiveness in managing the quality of stormwater discharges.

4.4.2 Maximum Disturbed Area for Erosion Controls

The County has defined in Section 87.414 of the Grading Ordinance that the active disturbed soil area of a project site shall be no more than 50 acres for individual grading permits, improvement plans, or combinations of grading permits under associated Tentative or Final Maps, unless otherwise approved by the County. A minimum of 125 percent of the required stormwater BMP materials shall be maintained onsite to protect the disturbed soil area.

4.5 PROGRAM IMPLEMENTATION

4.5.1 Private Development

WPO and 2013 MS4 Permit compliance for private construction are accomplished through a series of review processes throughout the County's Land Use Environmental Group (LUEG) Departments and Divisions. The following section provides a description of County staff and their associated responsibility for ensuring implementation of a successful stormwater program.

4.5.1.1 Program Planning and Administration

To ensure compliance with the 2013 MS4 Permit, WPO, and implementation plans, County staff routinely reviews project inventories, BMP requirements, and implementation strategies associated with

the plan. The Watershed Protection Program may assist in coordinating meetings with other County staff in PDS and DPW to update and administrate these plans when necessary.

4.5.1.1.1 Staff training

Designated County staff with implementation responsibilities must be trained in accordance with JRMP Section 7.2.

4.5.1.2 Facilitation Activities

The following sections describe the different activities associated with the facilitation of the project review process, education of stormwater requirements, and BMP implementation.

4.5.1.2.1 Private Construction and Grading Permit Approval Process

PDS Building Division

The PDS Building Division is responsible for the issuance of permits for structural construction and minor grading permits with earthwork of less than 2,500 cubic yards and meeting other criteria specified in the Grading Ordinance. For all projects, applicants are required to submit a SWQMP. Permits for track housing and commercial developments are all subject to the BMP Design Manual process described in the Land Use Planning Component. Construction BMPs for these permit types are discretionary. All other permit types are ministerial and thus the project must comply with the Standard SWQMP. The construction BMPs are selected as part of the Standard SWQMP. A permit is not approved without an approved Standard SWQMP.

PDS Land Development Division

The PDS Land Development Division is responsible for issuance of major and minor grading permits not meeting the criteria for issuance by the PDS Building Division. These grading permits must comply with the BMP Design Manual and WPO requirements. The grading plan usually shows all construction BMPs.

All Grading Permit applications require a SWQMP. Plan check staff review the construction BMPs using all applicable guidance documents. When applicable, staff requires proof of an NOI to comply with the CGP.

Grading Permits are issued once the plans and/or conditions are satisfied. Permits are usually processed by the PDS Customer Service Counter and approved by the PDS Project Manager.

Statewide Construction General Permit (CGP)

Construction activities which disturb one or more acres of soil or projects that disturb less than 1 acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the CGP. The CGP requires the development and implementation of a SWPPP. The SWPPP should contain a site map(s) which shows the construction site perimeter, existing and proposed buildings, lots, roadways, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns across the project. The SWPPP must list the BMPs the discharger will use to protect stormwater runoff and the placement of those BMPs. Additionally, the SWPPP must contain a visual monitoring program; a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs; and a sediment monitoring plan if the site

discharges directly to a waterbody listed on the 303(d) list for sediment. The SWPPP must include documentation of training for field implementation personnel, sampling protocol (if applicable), and Rain Event Action Plans (REAPs) (if applicable).

The County's operational processes are intended to generally relate to the CGP in 2 ways:

1. For DPW Projects – achieve compliance for applicable projects through submittal of project registration documents, creation and implementation of a project SWPPP, and through implementation of construction site monitoring.
2. For private projects – screen projects through the plan-check and inspection processes to identify projects potentially subject to CGP requirements, and confirm, when applicable, that CGP coverage has been obtained.

4.5.1.2.2 Inspection of Construction Sites - Overview

The County inspection program for private development sites reviews projects for compliance with applicable ordinances, permits (building, grading, stormwater, etc.) and the 2013 MS4 Permit by assuring that all conditions related to grading, erosion control, stormwater BMPs, and discharges from the site are met. Inspections are conducted to ensure that property owners and developers implement an effective combination of BMPs to meet minimum requirements based upon the site's TTWQ prioritization.

Stormwater management and inspection requirements specific to developer and single-family grading permits and other construction activities under the oversight of the DPW are detailed in a Director's Letter of Instruction: Stormwater Management and Requirements on Developer and Single Family Grading Permits – Construction Best Management Practices (DLI-LD-I).

In general, private construction projects are regularly inspected by the Supervising Engineer, County inspectors, or other County contract staff with enforcement authority to verify that the construction activities are being performed in accordance with the project plans, building and grading permits, and applicable codes, special provisions, regulations, and ordinances. If the inspected site does not meet minimum requirements or there is a discharge related to construction activities, County inspectors will require compliance and conduct follow-up inspections as necessary to confirm that compliance is attained. Additional inspections will be conducted as project scope dictates the need for modified or additional BMPs. For each inspection, the inspector utilizes the following framework when conducting an inspection:

a. Review the applicable BMP plan (either a SWPPP, Standard SWQMP, or PDP SWQMP);
b. Determine if BMPs are being deployed in accordance with manufacturers' recommendations, industry recommended standards, and approved plans;
c. Determine whether BMPs are being effectively implemented and properly maintained;
d. Document any non-stormwater discharges or potential illicit connections;
e. Document any discharge of sediment or construction-related materials from the site;

f. Determine whether the responsible party is making appropriate adjustments when ineffective BMPs are found; and

g. If BMPs are either lacking or being implemented improperly, require remediation within a reasonable time frame and implementation of corrective actions if necessary in accordance with the Enforcement Response Plan (ERP).

For projects subject to the CGP, the Regional Board is responsible for verifying and enforcing requirements of the CGP. When County inspections are conducted at sites covered by the CGP, the inspector will document the presence of a SWPPP, review required documentation, note any observations of potential violations, and require appropriate remedial actions as necessary to ensure compliance with the 2013 MS4 Permit. The County will notify the Regional Board of the noncompliance in accordance with the 2013 MS4 Permit Provision E.6.d. and Attachment B if the noncompliance poses a significant threat to water quality or may endanger health or the environment. Procedures for escalated enforcement of construction site discharge standards found within the County's ERP provide examples of non-compliant conditions that constitute such a threat.

PDCI Inspection Process

The inspection process is broken into three distinct phases of BMP verification and implementation:

1. Initial inspection prior to grading;
2. Inspections during ongoing and rough grading; and
3. Inspection at the completion of grading activity.

Each of these phases ensures that proper BMPs are implemented on the project site prior to allowing the construction activity to proceed or to verify completion.

The initial stormwater BMP inspection occurs after the area to be graded is brushed or cleared, but prior to the start of grading operations. During this inspection, each inspector verifies that the BMPs previously designated during the design phase are being implemented appropriately. At a minimum, each site must have perimeter sediment controls and offsite/onsite sediment controls, all needed BMP materials onsite if utilizing a weather-triggered action plan, and fencing installed along or around any environmentally sensitive areas, if required.

During the ongoing and rough grading inspections, inspectors review and verify that all items from the initial BMP inspection are still in place, that erosion control BMPs are installed as soon as the finished slopes and flat areas are complete, that all deployed BMPs are maintained in proper working condition, and no construction runoff other than stormwater will discharge into a stormwater conveyance or receiving waterbody. Below is a description of the required inspection steps.

a. Determine if BMPs are being deployed in accordance with manufacturers' recommendations, industry recommended standards, and approved plans;

b. Visually determine whether BMPs are being effectively implemented and properly maintained;

c. Document any non-stormwater discharges or potential illicit connections;

d. Document any discharge for sediment or construction-related materials from the site;

e. Determine whether the responsible party is making appropriate adjustments when ineffective BMPs are found; and

f. If BMPs are either lacking or being implemented improperly, require remediation within a reasonable time frame and implementation of corrective actions if necessary in accordance with the ERP.

The final stormwater inspection for grading or building activities verifies that all permanent BMPs specified in the applicable construction BMP Plan (Standard SWQMP, PDP SWQMP, or SWPPP) are in place and in proper working condition. For grading activities, inspectors verify that the site matches the approved grading plan, there are no rills or gullies larger than 3 inches wide or deep, that all manufactured slopes or flat areas are protected through either vegetation or other approved BMP unless site discharges through a properly designed desiltation basin(s), and that there is no construction runoff that will discharge into a stormwater conveyance or receiving waterbody. For some PDPs, appropriate steps must be taken to transfer permanent maintenance of structural BMPs from the developer to either the San Diego County Flood Control District or the Watershed Protection Program. Applicability and detailed guidance for both scenarios can be found in the Director's Letter of Instruction (DLI) LD-S and LD-W.

Inspection Frequencies

PDCI Inspection Frequency

Because of the dynamic nature of construction activities, the County evaluates each site inspection frequency on a regular basis, particularly when grading activities are being conducted during the State's official wet (rainy) season (October 1 through April 30). The need for additional inspections may vary depending upon several factors including:

- Active construction activity;
- Site conditions;
- Previous violations;
- History of contractor's performance;
- Weather patterns; and
- Priority of construction site.

Requirements for inspection frequency are intended to be "site-based," as opposed to "permit-based," to avoid needless duplication of effort among County staff. During phase(s) of the project in which there is no potential for stormwater, non-stormwater, or sediment discharge from the development area, the County may choose to reduce or completely suspend site inspections.

If the project grading permit has been issued but grading activities have not yet begun or active grading is completed and project is waiting for the final inspection to close the grading permit ("As-Built" inspection), then the project will be inspected at a minimum of twice during the wet season.

Disturbed soil areas will be considered active whenever the soil disturbing activities have occurred, continue to occur, or will occur during the ensuing 14 days. Non-active areas must be protected within 14 days of cessation of soil disturbing activities or prior to the onset of precipitation, whichever occurs first.

Table 4.2 - Department of Public Works, PDCI Inspection Frequencies

Project Priority	Minimum Inspection Frequency	Inspection Prioritization Criteria
Low	Twice during wet season	▪ Inactive Grading Permits ▪ The project disturbed area boundary is less than one acre.
Medium	Monthly	▪ The project disturbed area boundary is (1) greater than or equal to 50 acres, but (2) wet season grading will not occur; or ▪ Project disturbed area boundary is (1) greater than or equal to one acre, but is not (2) a high TTWQ as defined by Table 4.1.
High	Bi-Weekly	▪ The project disturbed area boundary is (1) greater than or equal to 50 acres, and (2) wet season grading will occur; or ▪ The project disturbed area boundary is (1) greater than or equal to one acre, and (2) is a high TTWQ as defined by Table 4.1.

PDS Building Inspection Frequency

Projects with building permits are prioritized based on TTWQ as defined by Section 4.2.4 and Table 4.1, size of the project disturbed area boundary, requirement for PDS Minor Grading permit, and track model and production unit construction. Table 4.3 summarizes the minimum regular inspection frequencies for private construction. Additional inspections will be conducted as necessary to confirm that the site reduces the discharge of pollutants to the MEP and effectively prohibits non-stormwater discharges. In some instances, a private construction site may hold several open permits (i.e., a grading permit and a building permit). Requirements for inspection frequency are intended to be "site-based," as opposed to "permit-based," to avoid needless duplication of effort among County staff. During phase(s) of the project in which there is no potential for stormwater, non-stormwater, or sediment discharge from the development area, the County may choose to reduce or completely suspend site inspections.

Table 4.3 - PDS Building Inspection Frequencies

Project Priority	Minimum Inspection Frequency	Inspection Prioritization Criteria
Low	Twice during wet season	▪ The project disturbed area boundary is less than one acre, the project is not exempt per section 4.2.2, and the project does not meet the criteria for a high- or medium-priority project as specified below.
Medium	Monthly during wet season	▪ The project requires a PDS Minor Grading permit as specified in the County of San Diego Grading Ordinance; or ▪ The project disturbed area boundary is (1) greater than or equal to one acre, but is not (2) a high TTWQ as defined by Table 4.1.
High	Every two weeks during wet season	▪ The project is a single-family dwelling constructed under a PDS residential model or production phase building permit; or ▪ The project disturbed area boundary is (1) greater than or equal to one acre, and (2) is a high TTWQ as defined by Table 4.1.

4.5.2 Capital Improvement Program (CIP)

WPO and 2013 MS4 Permit compliance for CIP projects are accomplished through three main County departments: the Department of General Services (DGS), Department of Public Works (DPW), and the Department of Parks and Recreation (DPR). Requirements for CIP maintenance projects are included in the Municipal section of the Existing Development Component.

In DPW CIP, MS4 and CGP program implementation roles and responsibilities are primarily spelled out in DLI ES-N. Implementation of 2013 MS4 Permit and CGP requirements begins in the early phases of project development and continues throughout the life of the project. The roles and responsibilities are identified in an implementation matrix attached to DLI ES-N. DPW staff involved with development and construction administration of DPW CIP projects are responsible for compliance with the various permit requirements and must attend stormwater training classes provided by DPW. Additionally, DPW staff responsible for implementation of the CGP requirements must become a Qualified SWPPP Developer (QSD) and/or Qualified SWPPP Practitioner (QSP). All DPW CIP projects fill out a Standard or Priority Development Project SWQMP, with larger projects requiring preparation of hydrology/drainage studies.

4.5.2.1 Program Planning and Administration

To ensure compliance with the 2013 MS4 Permit, WPO, and implementation plans, County staff routinely reviews project inventories, BMP requirements, and implementation strategies. The DPW Watershed Protection Program may assist in coordinating meetings with other County staff in PDS and DPW to update and administrate these implementation plans (including the JRMP) when necessary.

4.5.2.1.1 Staff training

Designated County staff with implementation responsibilities must be trained in accordance with JRMP Section 7.2.

The following sections describe the different activities associated with the facilitation of the project review process, education on stormwater requirements, and BMP implementation.

4.5.2.1.2 Construction Planning Process and Contract Specifications

Department of Public Works CIP

The Engineering Services Division is responsible for the implementation of policies, procedures, and activities for CIP projects. This includes ensuring compliance with all applicable elements of the 2013 MS4 Permit. The CIP process consists of three distinct implementation phases:

1. Project planning and design;
2. Contract development and contractor selection; and
3. Contract management of the construction project.

DPW CIP Project Planning and Design

Project planning is initiated for projects that are part of a five-year plan or that are identified as necessary to protect public health and safety. Engineering Services Project Managers develop the project plan and

design and evaluate it against the BMP Design Manual criteria and the WPO as detailed in the Land Use Planning Component (Section 3). A scope of work is then completed to include the required post-construction BMPs. After this, a conceptual Water Pollution Control Plan (WPCP) is created by a CIP Design Unit to provide initial construction BMP guidance for inclusion in the necessary contract scope of work. The contractor develops the SWPPP or WPCP depending on the area of soil disturbance.

DPW CIP Contract Development and Contractor Selection

Project contract documents are developed by design engineers using established standard plans and specifications. Within each contract document, special provisions and conditions are defined for the project. Water Pollution Control Specifications and Erosion Control Specifications are developed to augment specifications in the Caltrans Standards. Once the contract document is completed, a notice to invite bids for the contract is sent to prospective contractors and posted on County websites. The bid proposals are reviewed and the contract is awarded to the lowest responsible bidder. Pre-Advertise and Pre-Award checklists are available and should be completed as part of the contract development and contractor selection process.

DPW CIP Contract Management and Inspection of Construction Projects

Contract administration and monitoring is conducted by Construction Engineering staff (Resident Engineers). The Resident Engineer makes decisions regarding the acceptability of material furnished and work performed and exercises contractual authority to direct the contractor. The Resident Engineer may impose sanctions if the contractor fails to take appropriate actions specified in the contract to correct deficiencies.

Construction BMPs and self-monitoring are part of every contract requirement. The contractor must develop a WPCP for projects that are less than one acre or a SWPPP for projects greater than one acre. The Resident Engineer reviews and accepts the WPCP or SWPPP prior to the commencement of construction activities. If amendments are needed, the Resident Engineer will review and accept them. The SWPPP and amendments are submitted into the State Water Resource Control Board's Stormwater Multiple Application and Report Tracking System (SMARTS) Database after acceptance. Roles and responsibilities for implementation of CGP and construction-related MS4 permit requirements to CIP projects are described further within DLI-ES-N, *Implementation of Stormwater Construction Permit and Municipal Separate Storm Sewer Permit Requirements on Capital Improvement Program Projects.* DLI-ES-N addresses various implementation tasks before and after the Notice to Proceed through the end of construction, acceptance of the Notice of Termination, post-project bioassessment monitoring, and final project acceptance. DLI-ES-N also addresses roles and responsibilities associated with reporting NPDES violations associated with CIP projects.

Department of Parks and Recreation CIP

Project Managers develop the project scope of work based on needs identified as part of the five-year plan. Depending on the scope of work and the project needs, construction project management may occur directly in the DPR, or by DGS or DPW. Project contract documents are prepared to include Stormwater Specifications to ensure that project implementation includes the necessary construction BMPs and is

compliant with the CGP, if applicable. Once the plans, specifications, and contract documents are completed, a notice to invite bids or proposals for the project is sent to prospective contractors, trade newspapers, and newspapers for general circulation and is posted on the County website. Project contractors are selected according to purchasing and contracting procedures.

Contract administration and monitoring is conducted by the staff of the implementing department. For projects managed by DGS or DPW, the DPR Project Manager provides additional project oversight, inspects the project, and makes decisions regarding the acceptability of material furnished and work performed. The Construction Project Manager administering the contract may impose sanctions if the contractor fails to take appropriate actions specified in the contract to correct deficiencies.

Construction BMPs and self-monitoring are part of every contract requirement. For projects that are one acre in size, a WPCP is developed and projects greater than one acre, a SWPPP is developed. The Construction Project Manager ensures that a SWPPP (or WPCP) is developed and in place prior to the commencement of construction activities.

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Project Contract Managers develop the project scope of work based on needs identified as part of the five-year plan. Construction project contract management is conducted by a Project Manager in the Facilities Management Division. Project contract documents are prepared to include Stormwater Specifications to ensure that project implementation includes the necessary construction BMPs and is compliant with the CGP, if applicable. Once the contract document is completed, a notice to invite bids or proposal for the contract is sent to prospective contractors and posted on the County website. Project contractors are selected according to purchasing and contracting procedures.

Contract administration and monitoring is conducted by the Stormwater Inspector. If a deficiency is observed, the Stormwater Inspector will provide a written warning to the contractor, the construction supervisor, and the project manager. The Construction Project Manager administering the contract may impose sanctions if the contractor fails to take appropriate actions specified in the contract to correct deficiencies.

Construction BMPs and self-monitoring are part of every contract requirement. For projects that are one acre in size, a WPCP is developed and projects greater than one acre, a SWPPP is developed. The Construction Project Manager ensures that a SWPPP (or WPCP) is developed prior to the commencement of construction activities.

4.5.2.2 Feedback and Verification

The following sections describe the different activities associated with the municipal feedback and verification processes including inspections and enforcement.

4.5.2.2.1 Inspection Process

DPW CIP Inspections

Prior to the start of the construction project, the Resident Engineer conducts a site visit to verify that the contractor has BMPs in place per the approved WPCP or SWPPP and the BMP material necessary for a

weather triggered action plan. The Resident Engineer conducts Quality Assurance (QA) inspections to ensure proper installation and maintenance of BMPs, overall implementation of the approved WPCP or SWPPP, and to determine if the contractor is practicing self-monitoring inspections as required in the contract. As part of the QA inspection, the Resident Engineer is inspecting for, reporting, and, under certain circumstances, directing the cleanup or removal of illegally dumped material or spills or discharges through illicit connections within the limits of the construction site, and forwarding inspection reports on a weekly or monthly basis to the Construction Stormwater Coordinator. All issues of non-compliance are identified via the QA inspection reports and summary of findings. Reports are forwarded to the DPW-CIP Construction Engineering office and compiled in a summary with a compliance code assigned (1 = In Compliance, 2 = Substantial Compliance-Minor Deficiencies Noted, 3 = Non-Compliance-Major Deficiencies or Discharge(s) Noted). This QA inspection summary is then forwarded to office staff and other relevant departments (e.g., Watershed Protection Program). The Resident Engineer tracks open items and provides the status of corrections on subsequent QA inspection reports. In addition, the Resident Engineer is responsible for ensuring annual certification of compliance for projects that require a SWPPP. The annual report is submitted into SMARTS upon acceptance. Upon completion of the project, the Resident Engineer will verify that all contract requirements have been met and that all post-construction BMPs are in place and in proper working condition. For some DPW Priority Development Projects (PDPs), appropriate steps must be taken to transfer permanent maintenance of structural BMPs to the appropriate section: Transportation (Field Operations), the Flood Control District (FCD), Wastewater, or Airports. Applicability and detailed guidance can be found in the Director's Letter of Instruction (DLI) ES-G.

DPR CIP Inspections

Project Managers make sure that the BMPs are in place before the start of construction and make routine inspections until project completion. Records of inspections are kept in each project file. If a Project Manager finds deficiencies, he/she immediately notifies the contractor and instructs them that compliance is required, and a follow up inspection is scheduled to ensure all issues of non-compliance have been corrected. All issues of non-compliance are tracked using field inspection reports.

DGS CIP Inspections

DGS staff conducts stormwater inspections. If any issues of noncompliance are observed, DGS staff is required to inspect the site within 10 days after a correction notice has been issued or at the next scheduled site meeting. If a Notice of Violation is issued, then the correction is required to be completed within 24 hours. These reports are issued via email to the contractor, Project Manager, and site stormwater officer (if the site has one). The reports are then filed in the project folder and electronically saved in a stormwater folder located on the DGS internal drive. For some DGS PDPs, appropriate steps must be taken to transfer permanent maintenance of structural BMPs to the Facilities Operation Group. Applicability and detailed guidance for both scenarios can be found within separate DGS written procedures that are available for review.

4.5.2.2.2 Inspection Frequencies

DPW CIP Inspection Frequency

Table 4.4 lists the minimum inspection frequencies for DPW CIP projects. The inspection frequency should be increased, if necessary, as dictated by CGP requirements. Additional inspections should also be conducted, as necessary, to confirm that the site reduces the discharge of pollutants to the maximum extent practicable (MEP) and effectively prohibits non-stormwater discharges. During phase(s) of the project in which there is no potential for stormwater, non-stormwater, or sediment discharge from the development area, the County may choose to reduce or completely suspend site inspections.

Table 4.4 - Department of Public Works, Capital Improvement Program Projects, Construction Inspection Frequencies

Project Priority	Minimum Inspection Frequency	Inspection Prioritization Criteria
Medium	Monthly	▪ Project boundary is less than one acre (WPCP projects).
High	Weekly	▪ Project boundary greater than or equal to one acre (SWPPP projects); or ▪ Project presents a high Threat to Water Quality*.
* The determination of the TTWQ is described in Section 4.2.4.		

DPR CIP Inspection Frequency

Most DPR CIP projects are small projects restricted to very small areas such as playgrounds. Project Managers make every effort to inspect active construction sites prior to rain events, and after rain events all active projects are inspected to ensure adequate BMP implementation. For projects of short duration, less than a week, projects are inspected at the beginning and end of the project. Table 4.5 lists the minimum inspection frequency for these projects. The inspection frequency may be increased, if necessary, as dictated by CGP requirements. Additional inspections may also be conducted, as necessary, to confirm that the site reduces the discharge of pollutants to the MEP and effectively prohibits non-stormwater discharges. During phase(s) of the project in which there is no potential for stormwater, non-stormwater, or sediment discharge from the development area, the County may choose to reduce or completely suspend site inspections.

Table 4.5 - Department of Parks and Recreation, Capital Improvement Program Projects, Construction Inspection Frequencies

Project Priority	Minimum Inspection Frequency	Inspection Prioritization Criteria
Low	As needed	▪ Project boundary is less than one acre
Medium	Monthly	▪ Project boundary is greater than or equal to one acre and is not tributary to an environmentally sensitive area
High	Weekly	▪ Project boundary with active grading and planned grading greater than 5,000 cubic yards; or ▪ Project presents a high TTWQ.

DGS CIP Inspection Frequency

The Department of General Services CIP projects are categorized as high, medium, or low priority. Projects that are less than one acre are either classified as low or medium priority depending on the scale

of construction activity and soil disturbance occurring onsite. Table 4.6 below lists the minimum inspection frequency for these projects. The inspection frequency may be increased, if necessary, as dictated by CGP requirements. Additional inspections may also be conducted, as necessary, to confirm that the site reduces the discharge of pollutants to the MEP and effectively prohibits non-stormwater discharges. During phase(s) of the project in which there is no potential for stormwater, non-stormwater, or sediment discharge from the development area, the County may choose to reduce or completely suspend site inspections.

Table 4.6 - Department of General Services, Capital Improvement Program Projects, Construction Inspection Frequencies

Project Priority	Minimum Inspection Frequency	Inspection Prioritization Criteria
Low	As Needed	▪ Project boundary is less than one acre in size and short duration or minimum soil disturbance. ▪ Project site is inactive
Medium	Monthly	▪ Project boundary is less than one acre (WPCP projects).
High	Weekly	▪ Project boundary greater than or equal to one acre (SWPPP projects); or ▪ Project presents a high TTWQ.

Section 4 Attachments

Attachment 4.1: Construction Site BMPs for Typical Construction Activities

Attachment 4.1 – Typical Construction Site BMPs

CONSTRUCTION SITE BMPS FOR TYPICAL CONSTRUCTION ACTIVITIES

	Typical Construction Activities																											
Best Management Practices	Demolish Pavement/Structures	Clear and Grub	Construct Access Roads	Grading (inc. cut and fill slopes)	Channel Excavation	Channel Paving	Trenching/ Underground Drainage	Underground Drainage Facility Installation	Drainage Inlet Modification	Utility Trenching	Utility Installation	Subgrade Preparation	Base Paving	AC Paving	Concrete Paving	Saw Cutting	Joint Sealing	Grind/Groove	Structure Excavation	Erect Falsework	Bridge/Structure Construction	Remove Falsework	Striping	Miscellaneous Concrete Work	Sound Walls/Retaining Walls	Planting and Irrigation	Contractor Activities	Treatment BMP Construction
Temporary Sediment Control																												
Silt Fence	X	X	X	X	X		X			X		X							X		X					X		X
Sandbag Barrier	X	X	X	X	X		X			X		X							X		X					X		X
Straw Bale Barrier	X	X	X	X	X		X			X		X							X		X					X		X
Fiber Rolls	X	X	X	X	X		X			X											X					X		X
Gravel Bag Berm	X	X	X	X	X		X			X											X					X		X
Check Dam	X	X		X	X		X																					X
Desilting Basin	X	X	X	X	X																X					X		X
Sediment Trap	X	X	X	X	X		X			X		X							X		X					X		X
Sediment Basin		X		X	X																X					X		X
Temporary Soil Stabilization																												
Hydraulic Mulch	X	X		X	X																X					X		X
Hydroseeding	X	X		X	X																X					X		X
Soil Binders	X	X		X	X														X		X					X		X
Straw Mulch	X	X	X	X	X		X	X		X		X							X		X					X		X
Geotextiles, Mats/Plastic Covers and Erosion Control Blankets	X	X	X	X	X		X	X		X		X							X		X					X		X
Scheduling	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X	X	X	X	X	X
Preservation of Existing Vegetation		X		X			X	X		X									X	X		X			X			
Temporary Concentrated Flow Conveyance Controls																												
Earth Dikes/Drainage Swales & Lined Ditches		X	X	X																	X							
Outlet Protection/Velocity Dissipation Devices		X	X	X																	X							
Slope Drains				X																	X							
Temporary Stream Crossing			X				X	X		X	X									X	X	X		X				
Clear Water Diversion	X		X		X	X														X	X	X			X			X
Wind Erosion Control		X	X	X	X		X			X		X	X	X	X											X		X
Sediment Tracking Control	X	X	X	X	X		X	X		X	X	X	X	X	X	X		X	X		X				X	X	X	X
Street Sweeping and Vacuuming	X	X	X	X	X		X	X		X	X	X	X	X	X	X		X	X		X				X	X	X	X
Stabilized Construction Roadway		X	X	X																								
Entrance/Outlet Tire Wash		X	X	X																						X	X	

X=BMP may be applicable to activity

CONSTRUCTION SITE BMPS FOR TYPICAL CONSTRUCTION ACTIVITIES

	Typical Construction Activities																											
Best Management Practices	Demolish Pavement/Structures	Clear and Grub	Construct Access Roads	Grading (inc. cut and fill slopes)	Channel Excavation	Channel Paving	Trenching/ Underground Drainage	Underground Drainage Facility Installation	Drainage Inlet Modification	Utility Trenching	Utility Installation	Subgrade Preparation	Base Paving	AC Paving	Concrete Paving	Saw Cutting	Joint Sealing	Grind/Groove	Structure Excavation	Erect Falsework	Bridge/Structure Construction	Remove Falsework	Striping	Miscellaneous Concrete Work	Sound Walls/Retaining Walls	Planting and Irrigation	Contractor Activities	Treatment BMP Construction
Waste Management																												
Spill Prevention and Control	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Solid Waste Management	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Hazardous Waste Management	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Contaminated Soil Management	X	X		X			X	X		X	X									X								
Concrete Waste Management	X		X			X		X			X		X		X	X		X	X		X			X	X	X	X	X
Sanitary/Septic Waste Management	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Liquid Waste Management														X		X	X		X		X		X				X	X
Materials Handling																												
Material Delivery, and Storage	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Material Use	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Vehicle and Equipment Operations																												
Vehicle and Equipment Cleaning	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Vehicle and Equipment Fueling	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Vehicle and Equipment Maintenance	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Paving Operations			X			X			X				X	X	X	X	X	X			X							
Stockpile Management	X		X					X		X	X		X	X	X			X										
Water Conservation Practices	X	X	X	X	X	X	X	X	X	X		X				X	X	X	X		X			X		X	X	X
Potable Water/Irrigation																												
Dewatering Operations	X			X	X	X	X	X	X	X	X								X		X			X	X	X		X
Illicit Connection/Illegal Discharge Detection and Reporting	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Non-storm Water Management	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Active/Passive Sediment Treatment Systems, where applicable	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Storm Drain Inlet Protection	X	X	X	X	X		X	X	X	X		X	X			X	X	X	X								X	X
Stabilized Construction Entrance/Exit		X	X	X																						X		X

X=BMP may be applicable to activity