

Jurisdictional Urban Runoff Management Plan

5.0	CONSTRUCTION COMPONENT	1
5.1	Introduction.....	1
5.2	Source Characterization.....	1
5.2.1	Site Inventory	3
5.2.2	Inventory Updates	4
5.2.3	Threat-to-Water Quality Prioritization	4
5.3	Ordinance Updates.....	6
5.3.1	Watershed Protection Ordinance	6
5.3.2	Grading Ordinance	6
5.4	Best Management Practice Requirements	7
5.4.1	Updated BMP Requirements	7
5.4.2	Additional Controls for Construction Sites	9
5.4.3	Maximum Disturbed Area for Erosion Controls	10
5.4.4	Advanced Treatment Methods	10
5.5	Program Implementation	10
5.5.1	Private Development	10
5.5.2	Municipal Construction – Capital Improvement Projects (CIP).....	21
5.6	Construction Activities Effectiveness Assessment.....	33
5.7	Program Review and Modification.....	34
	Table 5.1 - Potential Pollutants Associated with Construction Activities.....	2
	Table 5.2 - Criteria for the Prioritization of County Construction Projects.....	5
	Table 5.3 - Definitions of Water Quality Criteria.....	5
	Table 5.4 - Environmentally Sensitive Criteria.....	9
	Table 5.5 - Private Construction Inspection Prioritization and Minimum Inspection Frequencies for Wet Season.....	18
	Table 5.6 - Program Implementation Roles and Responsibilities for Municipal Construction Element	25
	Table 5.7 - Department of Public Works, Capital Improvement Project Construction Inspection Frequencies.....	31
	Table 5.8 - Department of Parks and Recreation, Capital Improvement Projects Construction Inspection Frequencies	31
	Table 5.9 - Department of General Services, Capital Improvement Project Construction Inspection Frequencies.....	32
	Table 5.10 - Outcomes and Measures for Construction Activities	33
	Table 5.11 - Modifications to the Construction Component.....	34
	Figure 5.1 – Implementation and Assessment Strategy for the Private Construction Element	12
	Figure 5.2 - DPLU Building Division Organizational Structure for Oversight of Private Projects.....	13
	Figure 5.3 - DPW Land Development Division Organizational Structure for Oversight of Private Projects	14
	Figure 5.4 – Implementation and Assessment Strategy for the Municipal Construction Element	23
	Figure 5.5 - DPW Organizational Structure Organizational Structure for Oversight of Capital Improvement Projects	27
	Figure 5.6 - DPR Organizational Structure for Oversight of Capital Improvement Projects.....	27
	Figure 5.7 - DGS Organizational Structure for Oversight of Capital Improvement Projects.....	28

Jurisdictional Urban Runoff Management Plan

Attachment 5.1: Updated Construction Site Inventories

Attachment 5.2: Construction Site BMPs for Typical Construction Activities

5.0 CONSTRUCTION COMPONENT

5.1 Introduction

The County of San Diego has initiated a construction conditioning process to prevent discharges of pollutants 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 runoff 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 (BMP) 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) Certification of Compliance with the California General Permit for Construction Activities; or 2) a Stormwater Management Plan (SWMP). The following sections provide a description of the County's processes for preventing construction associated discharges from entering into surface waters.

5.2 Source Characterization

The impacts of stormwater runoff from construction sites can be placed in three categories:

- Erosion of land and sedimentation within drainages, storm drains, and waterways;
- Pollutant transport; and
- Degradation of aquatic and riparian ecosystems.

Excessive erosion and sedimentation are perhaps the most visible water quality impacts from construction activities. Soil erosion is the process by which soil particles are removed from the land surface by wind, water, or gravity, whereas sedimentation is defined as the settling out of particles transported by water. Sedimentation occurs when the velocity of water is slowed sufficiently allowing suspended soil particles to settle. Most natural erosion occurs at slow rates; however, the rate of erosion increases when land is cleared or altered and left unprotected. Construction sites, if unprotected, can erode at rates in excess of one hundred times the natural background rate of erosion. Some construction activity will increase impervious area and/or change drainage patterns, resulting in increased runoff volumes and rates, which have the potential to erode downstream watercourses. Other construction activities such as grading may increase erosion from the construction site by disturbing and exposing the soil. The eroded soil particles from the construction site may flow downstream and fill drainage systems, reservoirs, and harbors. Effective sediment control begins with proper erosion control, which minimizes the availability of particles for settling downstream.

Jurisdictional Urban Runoff Management Plan

In addition to impacts directly associated with sedimentation, various pollutants can also be transported along with sediment particles leaving construction sites. Sediment particles commonly attach to other pollutants such as nutrients, trace metals, hydrocarbons, conventional pollutants, pesticides, and coliform. Other pollutants often originate from organic components, plant residues, and nutrient elements within soils on the construction site, and are thus mobilized by erosion and later deposited downstream during sedimentation. Alternatively, pollutants such as soil additives, construction chemicals, and other construction wastes, may be generated independent of erosion and because of their nature can have significant detrimental affects to receiving waters. The magnitude of stormwater impacts depends on construction activities, climatic conditions, and site conditions. Potential construction activity pollutants are described in Table 5.1.

Table 5.1 - Potential Pollutants Associated with Construction Activities

Construction Activities	Pollutants						
	Sediment	Nutrients	Trace Metals	Pesticides	Oil, Grease, Fuels	Other Toxic Chemicals	Miscellaneous Waste
Construction Practices							
Dewatering Operations	⊙					⊙	
Paving Operations	⊙			⊙	⊙	⊙	⊙
Structure Construction/Painting			⊙			⊙	⊙
Materials Management							
Material Delivery and Storage	⊙	⊙	⊙	⊙	⊙	⊙	
Material Use		⊙	⊙	⊙	⊙	⊙	
Waste Management							
Solid Waste	⊙	⊙					⊙
Hazardous Waste						⊙	
Contaminated Waste	⊙					⊙	
Concrete Waste							⊙
Sanitary/Septic Waste							⊙
Vehicle/Equipment Management						⊙	⊙
Vehicle/Equipment Fueling						⊙	⊙
Vehicle/Equipment Maintenance						⊙	⊙

San Diego County's water resources consist of river systems, coastal lagoons, natural and constructed water bodies, and both shallow and deep groundwater from the desert to the Pacific Ocean. The County appreciates that all these water resources are connected within our watersheds and that clean water is essential for every aspect of life. Improper construction practices can be detrimental to these water resources by increasing site erosion and sedimentation, increasing streambed erosion (through increased stormwater velocity and volume), changing creek morphology, altering drainage and stream bed vegetation, impacting aquatic organisms, and by

causing pollutant loading. Responsible management of our water resources is therefore required through the implementation of the County's stormwater pollution prevention program. Development of a comprehensive a SWMP or a Stormwater Pollution Protection Plan (SWPPP) requires a basic understanding of these impacts, pollutant sources and other contributing factors, as well as BMPs to eliminate or reduce these impacts on our water resources.

5.2.1 Site Inventory

The County maintains multiple databases of construction sites within each department. The following resources inventory construction projects:

- County-issued Building Permits;
- County-issued Grading Permits; and
- Capital Improvement Projects.

5.2.1.1 Private Development Projects

Private construction inventories are maintained and managed in KIVA™ database management software system. Currently, these databases are inaccessible through a Geographical Information system (GIS). However, the current project database in the KIVA™ database management software system has geocoded references for all records, thus providing the County with a watershed-based inventory, which includes priority ratings. Included in Attachment 5.1, is the latest inventory obtained through KIVA™. The list includes the project name, address or identification number, numeric watershed designations, and priority rating for each project. It is important to note that the site inventory is dynamic as projects are constantly opening and closing. Therefore, this inventory reflects the current projects as of March 2008.

5.2.1.2 Municipal Projects

Included in Attachment 5.1, is the latest Municipal inventory obtained through different departmental databases. The list includes the project name, address or identification number, numeric watershed designations, and priority rating for each project. It is important to note that the site inventory is dynamic as projects are constantly opening and closing. Therefore, this inventory reflects the current projects as of March 2008.

5.2.1.3 Exempt Projects

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

Jurisdictional Urban Runoff Management Plan

However, the following project types are excluded from stormwater BMP implementation and documentation requirements if all activities associated with the project will be completely enclosed:

If the project does not disturb soil, or

- 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 such as patio covers, decks, carports, signs, and solar photovoltaic; and
- Emergency construction activities required for immediate protection of public health and safety.

5.2.2 Inventory Updates

In accordance with Permit sections D.2.b and J.1.a. (1)(d)v, all private construction project inventories are updated at least monthly. Private project databases are updated continuously as new permits are issued. Permits are assigned priorities and assigned watershed designations at the time of issuance. These are entered into a KIVA™ database management software system, effectively adding each project to the stormwater inventory for its respective department.

Municipal construction inventories are maintained and managed in Excel™ databases within their respective departments. Because these inventories are comparatively small and do not change frequently, they are updated on an as-needed 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 KIVA™ database with Parcel information.

5.2.3 Threat-to-Water Quality Prioritization

To establish priorities for project oversight, a High, Medium, or Low Threat-to-Water Quality (TTWQ) is initially assigned using three primary factors:

- The area of the project disturbed area boundary;
- The proximity of the project to 303(d)-listed water bodies and ESAs; and
- Whether or not wet season grading will occur.

Jurisdictional Urban Runoff Management Plan

Consideration of these factors enables the provisional establishment of TTWQ priorities for each project which can be further modified if other site-specific considerations indicate that a project should be prioritized as either a significant or exceptional threat to water quality. The minimum criteria for prioritization of all municipal and private projects are presented in Table 5.2. Table 5.3 contains the definitions of water quality criteria used for determining prioritization.

Table 5.2 - Criteria for the Prioritization of County Construction Projects

Project Priority	County Criteria
High	<ul style="list-style-type: none"> ▪ The project disturbed area boundary is (1) greater than or equal to 50 acres, <u>and</u> (2) wet season grading will occur; or ▪ The project disturbed area boundary is (1) greater than or equal to one acre, <u>and</u> (2) tributary to a CWA 303(d) Water Body or directly adjacent to an Environmentally Sensitive Area; or ▪ Project presents a Significant or Exceptional Threat to Water Quality.
Medium	<ul style="list-style-type: none"> ▪ The project disturbed area boundary is (1) greater than or equal to 50 acres, <u>but</u> (2) wet season grading will <u>not</u> occur; or ▪ Project disturbed area boundary is (1) greater than or equal to one acre, <u>but is not</u> (2) tributary to a CWA 303(d) Water Body or directly adjacent to an Environmentally Sensitive Area.
Low	The project disturbed area boundary is less than one acre.

Table 5.3 - Definitions of Water Quality Criteria

A project is:	If it meets these criteria:
Tributary to a CWA 303(d) Water Body	<p>The project is located within a watershed listed as 303(d) impaired for sediment</p> <ul style="list-style-type: none"> ▪ Carlsbad Watershed, sub-basin 904.21; or ▪ Carlsbad Watershed, sub-basin 904.31; or ▪ Carlsbad Watershed, sub-basin 904.61; or ▪ Penasquitos Watershed, sub-basin 906.10; or ▪ Other updated Watershed(s) on the EPA CWA 303(d) list.
Environmentally Sensitive Area (ESA)	<p>The project is located within 200 feet of lands or receiving waters designated as any of the following:</p> <ul style="list-style-type: none"> ▪ RARE beneficial use; or ▪ Areas of Significant Biological Significance (ASBS); or ▪ Multiple Species Conservation Program (MSCP).

Jurisdictional Urban Runoff Management Plan

A project is:	If it meets these criteria:
Significant Threat to Water Quality	<p>The project meets one of the following criteria:</p> <ul style="list-style-type: none"> ▪ The disturbed slopes are steeper than 4:1 with at least 10 feet of relief; or ▪ The site contains a predominance of soils with USDA-NRCS Erosion factors kf greater than or equal to 0.4.
Exceptional Threat to Water Quality	<p>The project meets <u>all</u> the following criteria:</p> <ul style="list-style-type: none"> ▪ All or part of the site is within 200 feet of waters named on the CWA Section 303(d) list of Water Quality Limited Segments as impaired for sedimentation and/or turbidity; and ▪ The disturbed area is greater than five acres, including all phases of the development; and ▪ The disturbed slopes are steeper than 4:1 with at least 10 feet of relief, and drain toward a receiving water that is Section 303(d)-listed for sedimentation or turbidity; and ▪ The site contains a predominance of soils with USDA-NRCS Erosion factors kf greater than or equal to 0.4.

5.3 Ordinance Updates

5.3.1 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. The County amended the WPO on March 12, 2008, to reflect the new requirements of the Permit (Attachment 2.2). The following are the major changes related to construction activities:

- Incorporation of the “Advance Treatment” Requirement in Section 67.811 “Additional Requirements for Land Disturbance Activities” of the WPO; and
- Incorporation of the “Exceptional Threat to Water Quality” requirements in Section 67.811 “Additional Requirements for Land Disturbance Activities” of the WPO.

5.3.2 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, in compliance with the WPO and the Permit.

The County amended the Grading Ordinance on March 12, 2008, to reflect changes the requirements specified in Section D.2.c.(1)(a)vi of the Permit. Section 87.414 of the Regulatory

Jurisdictional Urban Runoff Management Plan

Code was amended to define what an “active disturbed soil area” is and prescribes 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 10 days. Non-active areas must be protected within 10 days of the cessation of soil disturbing activities or prior to the onset of precipitation (50% chance of ½ inch or more of rain), whichever occurs first, as required by Section 67.817.

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 Land Development DPW Manager 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 on site sufficient (125% of those required) to protect the disturbed soil area.

5.4 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 Land Disturbance Activities (Section 67.811).

BMP requirements are applicable to private and municipal construction projects in the unincorporated County. Specific BMPs are determined on a case-by-case basis using the County’s BMP performance standards, the site constraints/characteristics, and the stormwater control needs. Attachment 5.2 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 State of California NPDES General Permit for Storm Water Discharges Associated with Construction Activity. Detailed descriptions and guidance regarding implementation of these BMPs are provided in the Caltrans Storm Water Quality Practice Guidelines, Construction Site BMPs (May 2007) and the California Stormwater Quality Association (CASQA) Construction Handbook (September 2004). 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 Permit, including BMPs which are more stringent than those required under the statewide General Construction Permit.

5.4.1 Updated BMP Requirements

Section 67.806 (Attachment 2.2) of the WPO includes the list of General BMP requirements applicable to all dischargers. Section 67.811 (Attachment 2.2) of the WPO includes the list of additional BMPs to be implemented and maintained for land disturbance activities.

5.4.1.1 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 open permitted projects:

- Perimeter control;
- Wind erosion control;
- Tracking control;
- Non-storm water control;
- Stockpile management;
- Waste management; and
- Materials pollution control.

Disturbed soil areas shall be considered active whenever the soil disturbing activities have occurred, continues to occur or will occur during the ensuing 10 days. Non-active areas shall be protected within 10 days of cessation of soil disturbing activities or prior to the onset of precipitation, whichever occurs first.

5.4.1.2 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 in lieu of fully deployed BMPs. 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 Permit, slope stabilization is required on all active slopes during rain events regardless of season. Grading shall correlate to the dry weather season to the extent feasible. At a minimum, the weather triggered action plan shall 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% chance of ½ inch or more of rain), the necessary water pollution control practices shall be deployed within 48 hours and prior to the onset of the precipitation. A minimum of 125% 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 on site. 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.

Jurisdictional Urban Runoff Management Plan

5.4.1.3 Wet Season BMP Implementation Requirements

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

As new BMP 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 5.2. The County will accept the temporary use of these BMP as long as it is approved by the DPW Stormwater Program Manager. 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.

5.4.2 Additional Controls for Construction Sites

Additional controls have been established for private and municipal construction projects that are tributary to 303(d) listed water bodies impaired for sediment, and for sites within, adjacent to, or discharging directly to receiving waters within Environmentally Sensitive Areas (ESA). Table 5.4 provides the County's definition of projects that have environmentally sensitive attributes.

Table 5.4 - Environmentally Sensitive Criteria

A project is:	If it meets these criteria:
Tributary to a CWA 303(d) Water Body	The project is located within a watershed listed as 303(d) impaired for sediment Carlsbad Watershed, sub-basin 904.21; or <ul style="list-style-type: none">▪ Carlsbad Watershed, sub-basin 904.31; or▪ Carlsbad Watershed, sub-basin 904.61; or▪ Penasquitos Watershed, sub-basin 906.10; or▪ Other updated Watershed(s) on the EPA CWA 303(d) list.
Environmentally Sensitive Area (ESA)	The project is located within 200 feet of lands or receiving waters designated as <u>any</u> of the following: <ul style="list-style-type: none">▪ RARE beneficial use; or▪ Areas of Significant Biological Significance (ASBS); or▪ Multiple Species Conservation Program (MSCP).

If DPW determines that a grading project meets one of the environmentally sensitive criteria above, the project will be increased to a high frequency inspection schedule. If DPLU determines that a

Jurisdictional Urban Runoff Management Plan

minor grading project or building construction project meets one of the environmentally sensitive criteria above, the department will conduct additional education by providing applicants with a “303(d)/ESA package” during the permit issuance process.

5.4.3 Maximum Disturbed Area for Erosion Controls

The County has defined in Section 87.414 and Section 67.811 of the Regulatory Code that the active disturbed soil area of a project site shall be no more than 50 acres for an individual grading permit/improvement plan or combination of grading permits under associated Tentative or Final Map, unless otherwise approved by the County Official. 125% of the required Stormwater BMP materials shall be maintained on site to protect the disturbed soil area.

5.4.4 Advanced Treatment Methods

Advanced treatment is required for sites meeting all four criteria for the Exceptional Threat to Water Quality (see Table 5.3). In addition, advance treatment may be required on sites that do not meet all four of the criteria for Exceptional Threat to Water Quality listed above at the discretion of the Director of DPW based on a record on non-compliance.

As an alternative to advanced treatment, an applicant may perform a MUSLE, RUSLE2, or similar analysis to establish that advanced treatment is not necessary at the proposed project site and submit it to the Director of DPW, whose sole discretion, may determine that advanced treatment is not necessary.

Treatment effluent water quality shall meet or not cause an exceedance of water quality objectives for sediment, turbidity, pH, and toxicity as listed in the Water Quality Control Plan for the San Diego Basin (9) for inland surface waters and lagoons and estuaries for the appropriate hydrologic unit.

Prior to obtaining a grading permit, the applicant shall submit, to the satisfaction of the Director of the Department of Public Works, the following:

- An operations and maintenance schedule for all proposed work deemed necessary to achieve project water quality goals;
- A monitoring plan for all required BMPs and water quality for all proposed work deemed necessary to achieve project water quality goals; and
- A written training plan for certification and documentation of necessary training and refreshers of staff.

5.5 Program Implementation

5.5.1 Private Development

WPO and Permit Compliance for private construction are accomplished through a series of review processes throughout the County’s Land Use Environmental Group (LUEG) Departments and

Jurisdictional Urban Runoff Management Plan

Divisions. The following section provides a description of County staff and their associated responsibility for ensuring implementation of a successful stormwater program. County department organizational charts are provided for the Department of Planning and Land Use (Figure 5.2) and for the Department of Public Works (Figure 5.3) who have stormwater implementation responsibilities.

5.5.1.1 Program Planning and Administration

To ensure compliance with the Permit, WPO, and implementation plans (JURMP), 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 DPLU and DPW to update and administrate these plans when necessary.

5.5.1.1.1 Staff training

Designated County staff with implementation responsibilities must be trained in accordance of JURMP Section 10.2.

5.5.1.2 Facilitation Activities

Figure 5.1 provides an overview of the major elements of the County's implementation and assessment strategy for conducting private construction activities.

Jurisdictional Urban Runoff Management Plan




Private Construction Element			
Program Implementation  <ul style="list-style-type: none"> - DPLU Building Division - DPW Private Development & Construction Inspection - DPW Watershed Protection 	Target Audiences  <ul style="list-style-type: none"> - Developers, Project Proponents - Contractors, Sub-contractors, Workers 		Sources  <ul style="list-style-type: none"> - Construction and Grading Sites / Activities
OUTCOME LEVEL 1 Stormwater Program Activities	OUTCOME LEVEL 2 Knowledge & Awareness	OUTCOME LEVEL 3 Behaviors	OUTCOME LEVEL 4 Source Reductions
<u>Program Administration</u> <input checked="" type="checkbox"/> Program reviews & updates <input checked="" type="checkbox"/> Source inventory updates <u>Facilitation Activities</u> <input checked="" type="checkbox"/> Staff training <input checked="" type="checkbox"/> Education & outreach <input checked="" type="checkbox"/> Permit review & approval <input checked="" type="checkbox"/> Enforcement / return to compliance <u>Feedback Activities</u> <input checked="" type="checkbox"/> Site investigations	<input checked="" type="checkbox"/> Not Targeted or Assessed <input checked="" type="checkbox"/> Regulatory compliance		<input checked="" type="checkbox"/> Not Targeted or Assessed

Figure 5.1 – Implementation and Assessment Strategy for the Private Construction Element

Jurisdictional Urban Runoff Management Plan

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

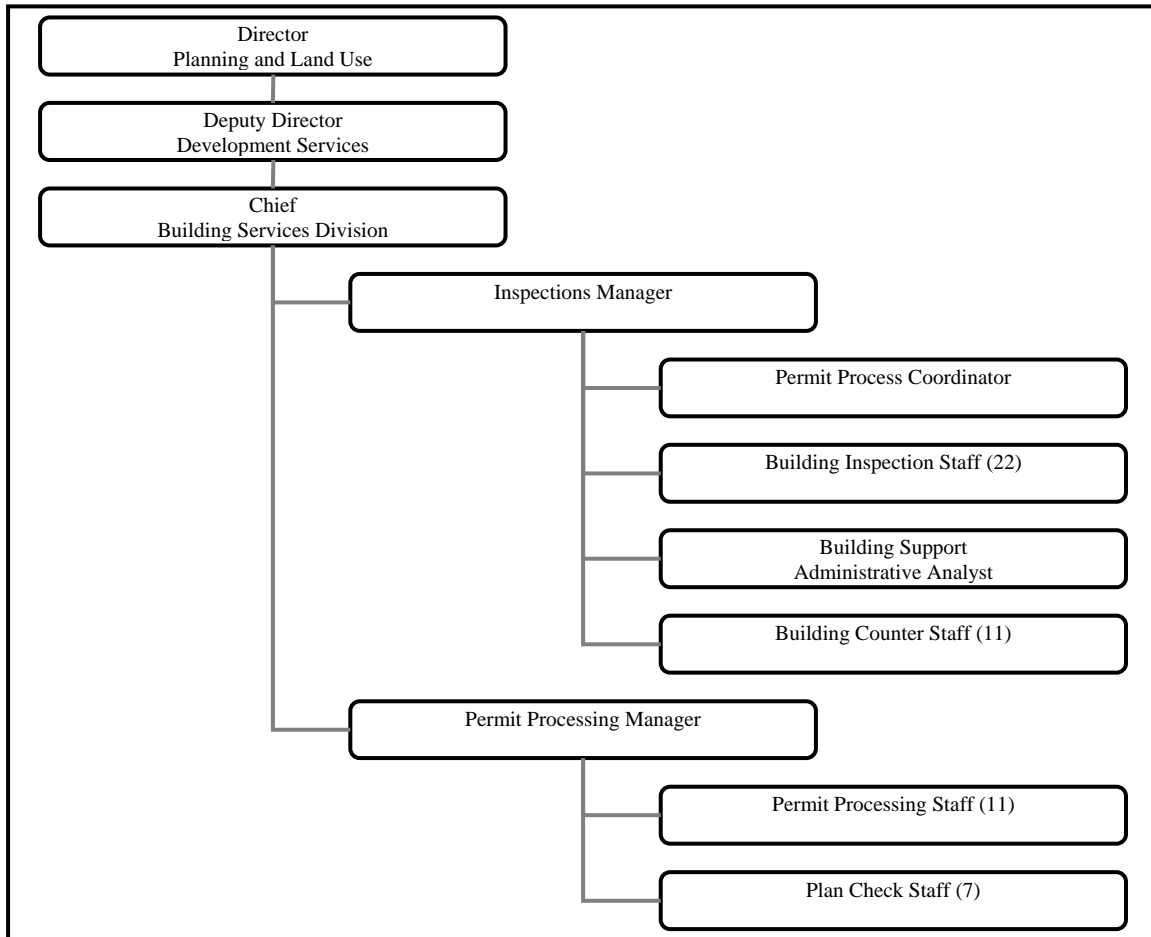


Figure 5.2 - DPLU Building Division Organizational Structure for Oversight of Private Projects

5.5.1.2.1 Private Construction and Grading Permit Approval Process

Department of Planning and Land Use – Building Division

The Department of Planning and Land Use, Building Division is responsible for the issuance of permits for structural construction and minor grading permits of disturbed areas less than 2,500 cubic yards. For all projects, applicants are required to submit a Stormwater Management Plan (SWMP). Permits for track housing and commercial developments are all subject to the SUSMP 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 Minor SWMP. The construction BMPs are selected as part of the Minor SWMP and are limited to five BMP categories with several choices for implementation. A permit is not approved without an approved Minor SWMP.

Jurisdictional Urban Runoff Management Plan

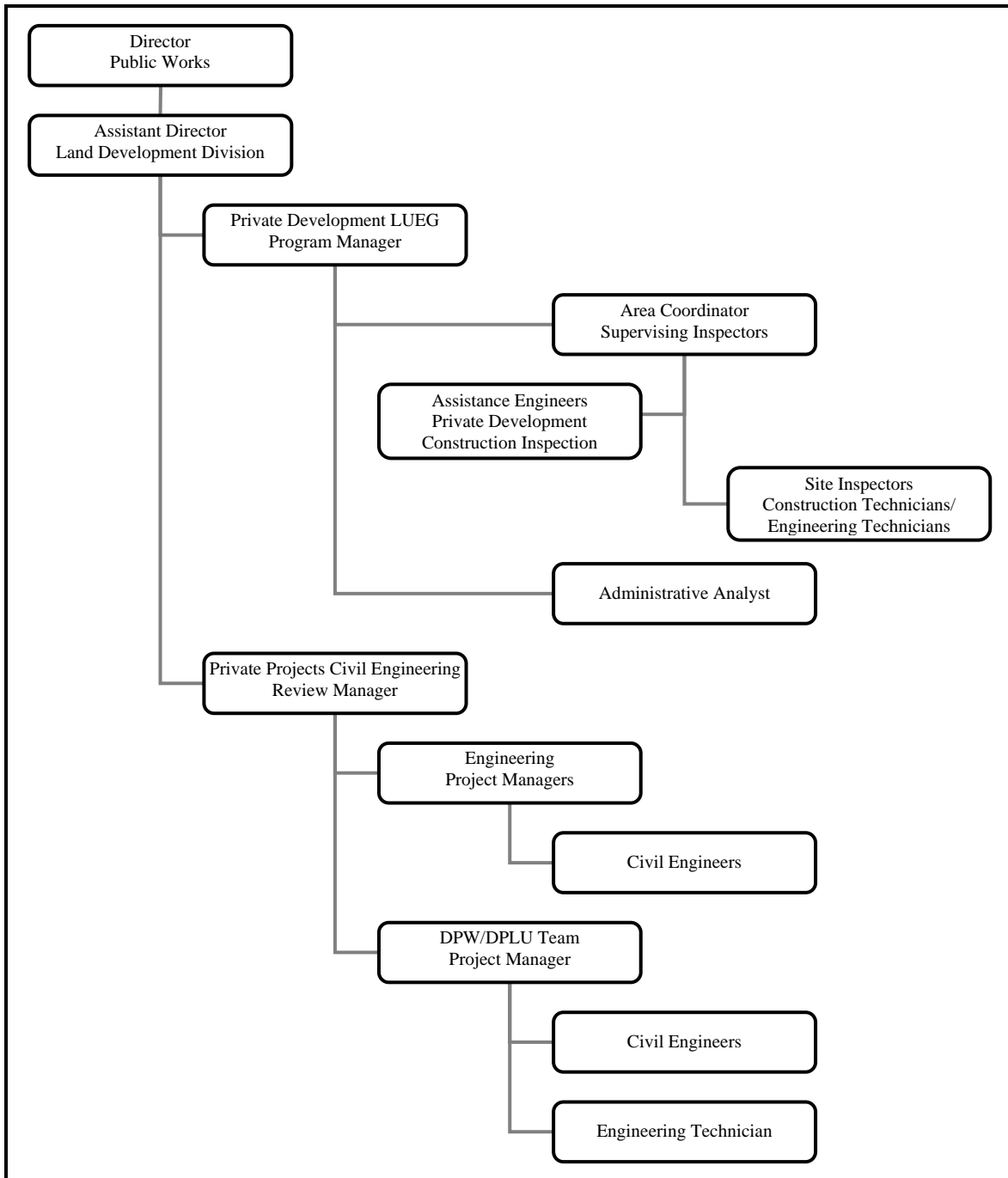


Figure 5.3 - DPW Land Development Division Organizational Structure for Oversight of Private Projects

DPW Grading Permit

The DPW, Land Development Division is responsible for issuance of the major and minor (>2,500 cubic yards) Grading Permits. These grading permits must comply with SUSMP and WPO requirements. The grading plan usually shows all construction BMPs.

Jurisdictional Urban Runoff Management Plan

All Grading Permit applications require a SWMP. Plan check staff review the construction BMPs using all applicable guidance documents. When applicable, staff requires proof of NOI and SWPPP.

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

Statewide Stormwater (General) Permit

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 General Permit for Discharges of Stormwater Associated with Construction Activity. The Construction General Permit 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.

5.5.1.3 Feedback and Verification

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

5.5.1.3.1 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 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 the minimum water quality protection requirements based upon the sites threat to water quality prioritization.

Stormwater Management and requirements specific to the smaller minor grading permits (<2,500 cubic yards) and ministerial permits are under the oversight of the Department of Planning and Land Use are detailed in Building Inspection Procedure Manual. Stormwater management and requirements specific to developer and single family grading permits for soil disturbance greater than 2,500 cubic yards under the oversight of the DPW are detailed in a Director's Letter of Instruction (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

Jurisdictional Urban Runoff Management Plan

grading permits, and applicable codes, special provisions, regulations and ordinances. If the inspected site does not meet the County minimum water quality protection requirements or there is a discharge related to construction activities, County inspectors will direct 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 and/or additional BMPs. For each inspection, the inspector utilizes the following framework when conducting an inspection:

- a. Review project proponents applicable BMP plan; either a SWPPP or a Minor SWMP;
- b. Determine if BMPs are being used in accordance with manufactures' recommendations, industry recommended standards and approved plans;
- c. Determine whether BMPs are effectively being implemented and maintained properly;
- d. Determine whether owner/developer / contractor are making appropriate adjustments when ineffective BMPs are found; and
- e. If BMPs are either lacking or being implemented improperly, require remediation within a reasonable time frame and implement the County Administrative Citation process or other corrective action if necessary.

For projects subject to the State General Construction Permit, the Regional Water Quality Control Board (RWQCB) is responsible for verifying and enforcing requirements of the General Construction Permit. When County inspections are conducted at sites covered by the General Construction Permit, the inspector will document the presence of a SWPPP, review required documentation, and note any observations of potential violations and require appropriate remedial actions. The County will notify the Regional Board of the noncompliance in accordance with Permit Section D.2.f and Attachment B section 5(e) if the noncompliance meets the County's criteria of posing a threat to human or environmental health.

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 planned BMPs 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

Jurisdictional Urban Runoff Management Plan

finished slopes and flat areas are complete, that all deployed BMPs shall be maintained in proper working condition, and no construction runoff other than stormwater will discharge into a stormwater conveyance or receiving water body. Below is a description of the required inspection steps.

- a. Determine if BMPs are being used in accordance with industry standards and approved plans;
- b. Visually determine whether BMPs are effectively being implemented and maintained properly; and
- c. Determine whether the Developer is making appropriate adjustment when ineffective BMPs are found.
- d. If BMPs are either lacking or being implemented improperly, the inspector will require remediation within a reasonable time frame and may implement the County Administrative Citation process or other corrective process.

The final stormwater inspection for grading or building activities verifies that all permanent BMPs specified in the applicable construction BMP Plan (SWMP 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 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.

Inspection Frequencies

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.

Grading projects that are active, and moving 5,000 cubic yards or greater, are inspected as high priority projects. 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

Jurisdictional Urban Runoff Management Plan

grading permit (“As-Built” inspection), then the project will be inspected at a minimum of twice during the wet season.

Disturbed soil areas shall be considered active whenever the soil disturbing activities have occurred, continues to occur or will occur during the ensuing 10 days. Non-active areas shall be protected within 10 days of cessation of soil disturbing activities or prior to the onset of precipitation, whichever occurs first.

For building permits, those projects that have gone through the discretionary permit process are considered high priority regardless of project size. All other permit types are prioritized based on project size, proximity to an environmentally sensitive area and threat to water quality. Table 5.5 summarizes the minimum criteria for private construction inspection and the associated frequencies.

Table 5.5 - Private Construction Inspection Prioritization and Minimum Inspection Frequencies for Wet Season

Project Priority	Inspection Frequency
Low	Twice during wet season
Medium	Monthly
High	Bi-weekly

Enforcement Measures for Private Construction Sites

For County permitted construction projects, the County’s inspectors will conduct enforcement of stormwater pollution prevention requirements. The inspectors, in accordance with the County’s procedures for recording violations, will document violations observed. [s1] If a County inspector observes non-compliance at a project, they will take immediate action. Cases of minor deficiencies in BMP installation or operation will be documented with an Administrative Warning/Citation along with a reasonable compliance date as determined by the inspector. Serious BMP deficiencies, discharges and failure to correct minor BMP deficiencies will be documented with an Administrative Warning/Citation and if appropriate, a Notice to Stop Work may be issued. The inspector is encouraged to contact his or her supervisor by telephone if there are questions as to whether to issue an Administration Warning/Citation. The inspector will notify their supervisor immediately of any documented discharges or serious erosion problems. Copies of the Administrative Warning/Citation will be provided to the person in charge of the site. The inspector will complete a written inspection report within 2 working days of the incidence of noncompliance, and shall include evidence such as notes, photographs, and log sheets for use in any enforcement action. The inspector will conduct follow-up inspections to ensure that the deviations are either corrected or additional compliance actions are taken. Continued non-compliance could lead to permit termination and/or a civil penalty action that has substantially larger monetary fines. Site specific non-compliance issues are inputted into KIVA™ for tracking purposes. Depending on the

Jurisdictional Urban Runoff Management Plan

severity of the violation, enforcement can range from a written warning to large fines and stop work notices. The County's enforcement program is designed to accomplish the following goals:

- To educate the regulated community;
- To promote compliance of the laws and regulations within the regulated community;
- To return violators to compliance in a timely manner;
- To initiate and conclude enforcement activities in a timely manner;
- To penalize violators, as appropriate, and to deprive violators of any significant benefit gained from violations;
- To prevent any business from having an unfair business advantage through non-compliance; and
- To treat similar facility owners and operators equally and consistently with regard to the same types of violations.

In general, County inspectors will conduct follow-up inspections to determine if corrective actions have been taken in accordance with the County's ordinances and minimum BMP requirements. Escalating enforcement steps, leading up to the issuance of stop work orders and providing flexibility for the inspectors to establish appropriate compliance time frames on a case-by-case basis, will be used as needed to ensure compliance.

If a County inspector observes a significant and/or immediate threat to water quality, action will be taken to require the developer/contractor to immediately cease the discharge. The threat to water quality is determined when an inspector assesses that the runoff from a construction site is not be reasonably controlled by the protective measures in place or that BMPs have failed resulting in the release of sediments or other pollutants to a degree that may be substantially degrading to water quality.

The typical progressive enforcement steps that apply to the inspection enforcement program are:

- Written warnings; Notice of Violations with financial penalties as appropriate;
- Enforcement of contracts (Municipal projects);
- Stop work orders;
- Denial or revocation of permits (private construction projects); and/or
- Civil or criminal court actions.

A discussion of these measures is provided below. These are just some of the tools that may be used to enforce the County's permit and ordinance requirements.

Written Warnings. A common initial method of requesting corrective action and enforcing compliance is a written warning from the County's inspector to the contractor. Written warnings are often sufficient to achieve correction of the violation, often while the inspector is present at the

Jurisdictional Urban Runoff Management Plan

construction site. The inspector will notify the contractor of the violation, and document the violation and the notification in the inspection file. A specific time frame for correcting the problem and a follow-up inspection date will be documented by the inspector. In judging the degree of severity, the inspector will also take into account any history of similar or repeated violations by the same contractor at this or other sites.

Notice of Violation. If the deficiency noted in a written warning is not corrected by the next inspection or the severity of the violation is such, that an additional written warning is not strong enough, a written Notice of Violation and/or Administrative Citations will be issued describing the infraction that is to be corrected and the time frame for correction and for a follow-up inspection. A copy of the notice will be given to the owner or developer and placed in the active inspection file. If the violation has been corrected to the satisfaction of the inspector, the inspector will document compliance in the inspection file.

Administrative Citations. Administrative Citations may be imposed. A warning precedes administrative penalties. Repeat offenses are then subject to fines that can range from \$100 up to \$1000 per violation. These fines increase in accordance with the repeat offense or severity of the non-compliance.

Stop Work Orders. If a notice of violation has not been addressed by the next inspection, or if the developer has not complied with their permit requirements, or if a significant threat to water quality is observed (such as a failure of BMPs resulting in a significant release of sediment or other pollutants off site), a stop work order may be issued by the appropriate municipal official. Stop work orders prohibit further construction activity until the problem is resolved and provides a time frame for correcting the problem. The stop work order describes the infraction and specifies what corrective action must be taken. A copy of the stop work order is provided to the owner, developer or contractor and placed in the active inspection file. To restart work once a stop work order has been issued, the project supervisor must request the inspector to re-inspect the project and verify that the deficiencies have been satisfactorily corrected. If the inspector is satisfied with the corrections, the inspector will sign off on that phase of the project, and work may proceed.

Denial or Revocation of Permits. In severe cases of non-compliance or significant discharges, it may be appropriate to revoke the building or grading permits that a contractor or developer is working under or deny future permits on the project. The project proponents would then have to re-apply for permits and meet any requirements that the County may place on the project.

Civil and Criminal Court Actions. As a final resort, the County may use Civil and or Criminal court actions under the State Porter Cologne Water Quality Act or the Federal Clean Water Act, which may result in significant fines levied upon the non-compliant responsible parties.

Reporting of Non-compliant Sites

Section D.2.f of the Permit requires the County to provide oral notification to the San Diego Regional Water Quality Control Board of issuance of stop work orders or other high level enforcement to a construction site as a result of stormwater violations. A high level enforcement

Jurisdictional Urban Runoff Management Plan

action for a construction site is considered a stop work order or corrective action/assessment of liquidated damages for a discharge. Non-compliant sites that are determined to pose a threat to human or environmental health must be reporting within 24 hours of the County becoming aware of circumstances. Such oral notification shall be followed up by a written report and submitted to the Regional Board within 5 days of the incidence of non-compliance as required as part of Attachment B section 5(e) of the Permit. The following reporting protocol addresses the Permit requirements for Private and Municipal construction activities. The County DPW Watershed Protection Program (WPP) will make non-compliance reports to the Regional Board Executive Officer or designee.

Conditions:

- Discharges of permitted storm and non-storm water that violate or threaten to violate prohibitions, limitations and conditions of the Permit and which may endanger health or the environment;
- Discharges of treated or untreated wastewater not authorized by the Permit or resulting from pipeline breaks, obstruction, surcharge or any other circumstances;
- Discharge of prohibited non-storm water discharges that may endanger health or the environment; and
- Failure or serious damage to BMP control facilities that result in discharges that may endanger health or the environment.

County Action:

- Department Point of Contact (POC) shall notify the WPP POC immediately.
- WPP POC shall notify the appropriate Regional Board staff within 24 hours of the enforcement action.
- Department POC shall submit the Notice of High-Level Non-Compliance form to WPP POC as soon as possible, but no later than 5 days after the enforcement was taken.
- WPP POC shall provide the Notice of High-Level Non-Compliance form to the Regional Board staff within 5 days of the enforcement.
- Re-inspect if needed as stipulated in the report;
- Perform follow-up monitoring of major spills and/or perform confirmation sampling to ensure that threats to waters have been eliminated as determined by the RWQCB; and
- The County will retain records for three years.

5.5.2 Municipal Construction – Capital Improvement Projects (CIP)

WPO and Permit Compliance for Municipal construction are accomplished through main County departments: Department of General Services (DGS), DPW, and the Department of Parks and Recreation (DPR). The following section provides a description of County staff and their associated responsibility for ensuring implementation of a successful stormwater program. Table

5.6 lists County staff and their associated responsibilities for ensuring successful program implementation. Staff with implementation responsibilities is also shown in the following organizational charts: (DPW), **Error! Reference source not found.** (DPR), and **Error! Reference source not found.** (DGS).

5.5.1.1 Program Planning and Administration

To ensure compliance with the Permit, WPO, and implementation plans (JURMP), 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 DPLU and DPW to update and administrate these plans when necessary.

5.5.1.1.1 *Staff training*

Designated County staff with implementation responsibilities must be trained in accordance with JURMP section 10.2.

5.5.1.2 Facilitation Activities

Figure 5.4 provides an overview of the major elements of the County's implementation and assessment strategy for conducting municipal construction activities.

Jurisdictional Urban Runoff Management Plan




Municipal Construction Element			
Program Implementation  <ul style="list-style-type: none"> - DPW Capital Improvement - DPR Capital Improvement - DGS Capital Improvement - DPW Watershed Protection 	Target Audiences  <ul style="list-style-type: none"> - Contractors, Sub-contractors, Workers 		Sources  <ul style="list-style-type: none"> - Construction and Grading Sites / Activities
OUTCOME LEVEL 1	OUTCOME LEVEL 2	OUTCOME LEVEL 3	OUTCOME LEVEL 4
Stormwater Program Activities	Knowledge & Awareness	Behaviors	Source Reductions
<u>Program Administration</u> <input checked="" type="checkbox"/> Program reviews & updates <input checked="" type="checkbox"/> Source inventory updates <u>Facilitation Activities</u> <input checked="" type="checkbox"/> Staff training <input checked="" type="checkbox"/> Project review & approval <input checked="" type="checkbox"/> Enforcement / return to compliance <u>Feedback Activities</u> <input checked="" type="checkbox"/> Site investigations	<input checked="" type="checkbox"/> Not Targeted or Assessed <input checked="" type="checkbox"/> Regulatory compliance	<input checked="" type="checkbox"/> Not Targeted or Assessed	<input checked="" type="checkbox"/> Not Targeted or Assessed

Figure 5.4 – Implementation and Assessment Strategy for the Municipal Construction Element

Jurisdictional Urban Runoff Management Plan

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

5.5.1.2.1 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 the CIP projects. This includes ensuring compliance with all elements of the Permit required to be implemented by the Construction Engineering Unit. 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 for DPW CIP projects is initiated for projects that are part of a five year plan or 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 Standard Urban Stormwater Mitigation Plan (SUSMP) criteria and the Watershed Protection Ordinance as detailed in the Land Use Planning Component (section 4). From this determination, the scope of work is completed to include the required post-construction BMPs. A Conceptual Water Pollution Control Plan is then created by a CIP Design Unit to provide initial construction BMP guidance for inclusion in the necessary contract scope of work.

Jurisdictional Urban Runoff Management Plan

Table 5.6 - Program Implementation Roles and Responsibilities for Municipal Construction Element

Program Activity	Responsible Staff			Minimum Frequency
	DPW	DPR	DGS	
A. Program Planning and Administration				
Review of CIP inventories	▪ LUEG Program Manager	▪ Development Chief	▪ Project Manager Division Chief	Annual
Review of BMP requirements	▪ LUEG Program Manager	▪ Development Chief	▪ Project Manager Division Chief	Annual
Review of implementation strategies and tools	▪ LUEG Program Manager	▪ Development Chief	▪ Project Manager Division Chief	Annual
B. Facilitation Activities				
Design Engineering	▪ CIP Design Engineers	▪ Consultant	▪ Project Managers	As needed
Contract development (including WPCS and ECS specifications / requirements)	▪ CIP Design Engineers	▪ Contract Project Manager	▪ Project Managers	As needed
Contract administration	▪ CIP Construction Engineering	▪ Contract Project Manager	▪ Project Managers	As needed
Stormwater Pollution Prevention Plan (SWPPP) or Water Pollution Control Plan (WPCP)	▪ Contractor	▪ Contractor	▪ Contractor	As needed
Stormwater Pollution Prevention Plan (SWPPP) or Water Pollution Control Plan (WPCP) approval	▪ CIP Construction Engineering/ Resident Engineer	▪ Contract Project Manager	▪ Construction/ Stormwater Inspector	As needed
Municipal staff training	▪ Training Coordinator	▪ Development Chief	▪ Project Manager Division Chief	Annual
Contractor training	▪ Contractor	▪ Contractor	▪ Contractor	As needed
SWPP or WPP BMP Implementation	▪ Contractor/CIP Construction	▪ Contractor	▪ Contractor	As needed

Jurisdictional Urban Runoff Management Plan

Program Activity	Responsible Staff			Minimum Frequency
	DPW	DPR	DGS	
	Engineering			
C. Feedback & Verification				
Site inspections	▪ Resident Engineer	▪ Contract Project Manager	▪ Construction/ Stormwater Inspector	Daily/Weekly/ Monthly
Self-Inspection	▪ Contractor	▪ Contractor	▪ Contractor	Daily/Weekly/ Monthly
Compliance documentation and reporting	▪ Resident Engineer/ Contractor	▪ Contract Project Manager/ Contractor	▪ Construction/ Stormwater Inspector / Contractor	Weekly/Monthly

Jurisdictional Urban Runoff Management Plan

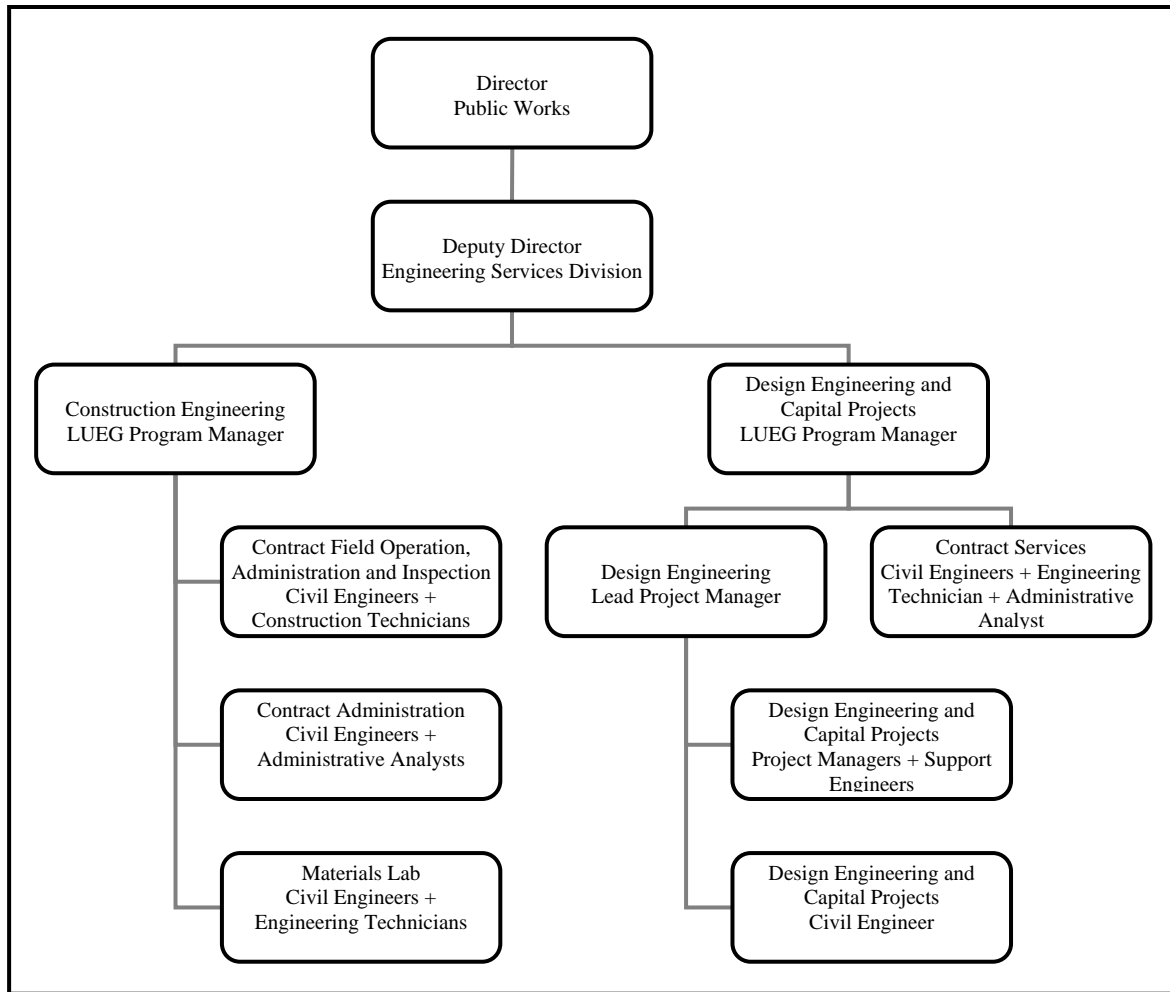


Figure 5.5 - DPW Organizational Structure Organizational Structure for Oversight of Capital Improvement Projects

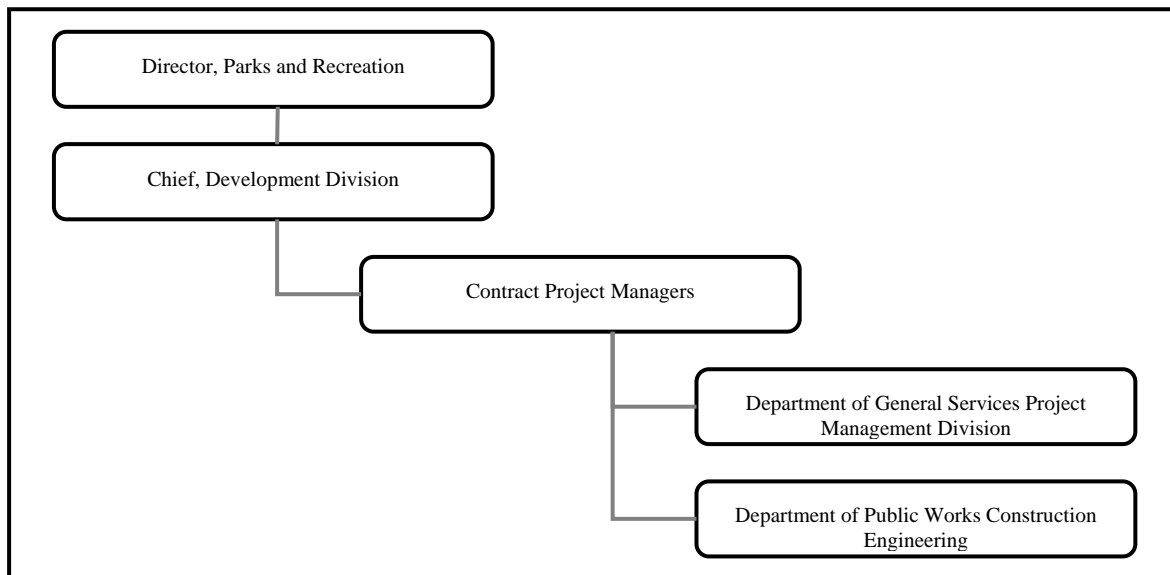


Figure 5.6 - DPR Organizational Structure for Oversight of Capital Improvement Projects

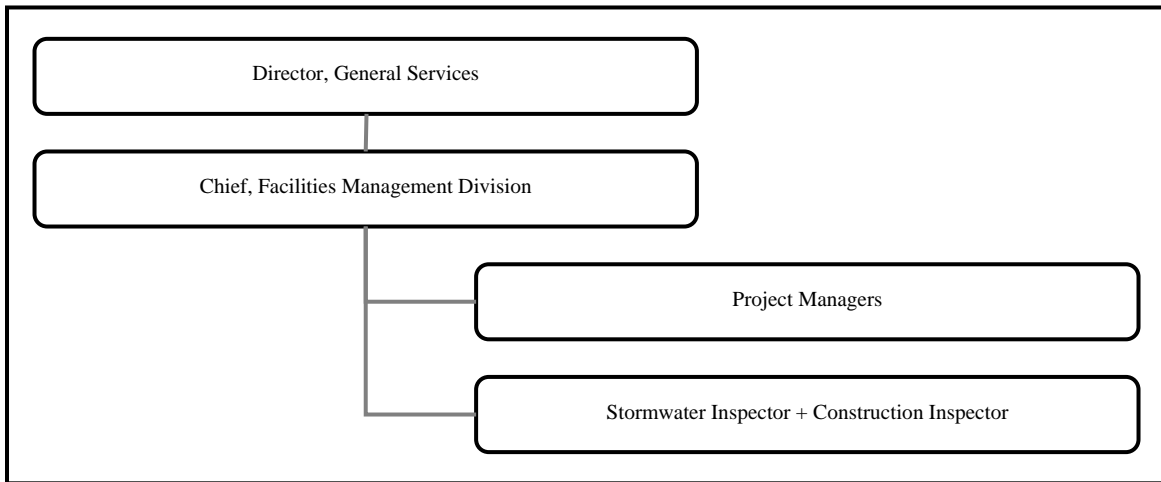


Figure 5.7 - DGS Organizational Structure for Oversight of Capital Improvement Projects

DPW CIP Contract Development and Contractor Selection

Project contract documents are developed by Design Engineers using Standard Specifications established by the State of California, Department of Transportation (Caltrans) as a guideline document. Within the contract document, special provision and special conditions are defined for each individual project. The County uses Water Pollution Control Specifications and Erosion Control Specifications developed to augment specification 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.

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. For projects that are one acre in size, a Water Pollution Control Program (WPCP) is developed and submitted by the contractor. For projects greater than one acre, a Storm Water Pollution Control Plan (SWPPP) is developed and submitted by the contractor. The Resident Engineer reviews and approves the WPCP or SWPPP prior to the commencement of construction activities. If any amendments are needed to these plans then the Resident Engineer will review and approve them.

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, in the DGS, or in the DPW. Project contract documents are

Jurisdictional Urban Runoff Management Plan

prepared to include Stormwater Specifications to ensure that project implementation includes the necessary construction BMPs and is compliant with the State General Storm Water Permit, 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 County websites. Project contractor is selected according to purchasing and contracting procedures.

Contract administration and monitoring is conducted by the staff of the implementing department. The DPR Project Manager adds 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 Water Pollution Control Plan (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.

Department of General Services CIP

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 done 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 State General Stormwater Permit, 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 County websites. Project contractor is 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 manger. 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.

5.5.1.3 Feedback and Verification

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

5.5.1.3.1 *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 in place the BMPs in place per the approved WPCP or SWPPP and the BMP material necessary for a weather triggered action plan. The Resident Engineer conducts weekly/monthly Quality Assurance (Q/A) inspections to ensure proper installation and maintenance of BMPs, overall implementation of the approved WPCP or SWPPP, and to determine if contractor is practicing self-monitoring inspections as required in the contract. As part of the Q/A inspection, the Resident Engineer is inspecting for, reporting, and, under certain circumstances, directing the cleanup and/or removal of illegally dumped material, spills or discharges through illicit connections within the limits of the construction site and forwarding inspection reports on a weekly/monthly basis to the Construction Stormwater Coordinator. All issues of non-compliance are identified via the Q/A inspection reports and summary of findings. Reports are forwarded to the DPW-CIP Construction Engineering office and compiled in a summary with an compliance code is assigned ((1 = In Compliance, 2 = Substantial Compliance-Minor Deficiencies Noted, 3 = Non-Compliance-Major Deficiencies or Discharge(s) Noted). This Q/A 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 Q/A inspection reports. In addition, the Resident Engineer is responsible for ensuring annual certification of compliance for projects that require a SWPPP. 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.

DPR CIP Inspections

Project Managers make sure that the BMPs are in place before the start of construction. Inspections are conducted on at a minimum of once a week. Inspections are conducted more often during rainy season or on projects requiring more inspections. Project Managers inspect construction BMPs every time they go on site. 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 on a weekly basis which generally occur during the weekly construction meetings. 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 done 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.

Jurisdictional Urban Runoff Management Plan

5.5.1.3.2 Inspection Frequencies

DPW CIP Inspection Frequency

DPW CIP projects are categorized as high or medium priority. Table 5.7 lists the inspection prioritization criteria for these projects.

DPR CIP Inspection Frequency

The DPR CIP projects are categorized as high, medium or low priority. Most 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 5.8 lists the inspection prioritization criteria for these projects.

Table 5.7 - Department of Public Works, Capital Improvement Project Construction Inspection Frequencies

Project Priority	Minimum Inspection Frequency	Inspection Prioritization Criteria
Medium	Monthly	Project Boundary is less than one acre (WPCP projects).
High	Weekly	<ul style="list-style-type: none">Project Boundary greater than or equal to one acre (SWPPP projects); orAny project that meets the criteria for Significant Threat to Water Quality¹; orAny project that meets the criteria for Exceptional Threat to Water Quality.

Table 5.8 - Department of Parks and Recreation, Capital Improvement 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	<ul style="list-style-type: none">Project Boundary with Active² grading and planned grading greater than 5,000 cubic yards; or

¹ The determination of the Threat to Water Quality is described in Section 5.2.4

² Active grading is when 200 cubic yards or more of soil is disturbed per week.

Jurisdictional Urban Runoff Management Plan

		<ul style="list-style-type: none"> ▪ Project Boundary greater than or equal to one acre and tributary to environmentally sensitive area; or ▪ Any project that meets the criteria for Significant Threat to Water Quality³; or ▪ Any project that meets the criteria for Exceptional Threat to Water Quality.
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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 on site. Table 5.9 below lists the inspection prioritization criteria for these projects.

5.5.1.3.3 Enforcement Measures for Municipal Construction Sites

The following measures are utilized by the County to enforce stormwater pollution prevention requirements on CIP and other County administered projects:

Written Warnings. A common initial method of requesting corrective action and enforcing compliance is a written warning from the County's inspector to the contractor. Written warnings are often sufficient to achieve correction of the violation, often while the inspector is present at the construction site. The inspector will notify the contractor of the violation, and document the violation and the notification in the inspection file. A specific time frame for correcting the problem and a follow-up inspection date will be documented by the inspector. In judging the degree of severity, the inspector will also take into account any history of similar or repeated violations by the same contractor at this or other sites.

Table 5.9 - Department of General Services, Capital Improvement Project Construction Inspection Frequencies

Project Priority	Minimum Inspection Frequency	Inspection Prioritization Criteria
Low	As Needed	<ul style="list-style-type: none"> ▪ 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	<ul style="list-style-type: none"> ▪ Project Boundary greater than or equal to one acre(SWPPP projects); or ▪ Any project that meets the criteria for Significant

³ The determination of the Threat to Water Quality is described in Section 5.2.4.

Jurisdictional Urban Runoff Management Plan

		Threat to Water Quality ⁴ ; or <ul style="list-style-type: none"> ▪ Any project that meets the criteria for Exceptional Threat to Water Quality.
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Enforcement of Contracts. If a contractor or developer is performing construction work for the County, then the County can use the provisions within the contract for enforcement of non-compliance. Special provisions within the construction contracts gives the County the right to refuse payment, stop work (without time penalties) or revocation of contracts if the contractors performing the construction activities do not comply with appropriate Permits, laws, regulations and ordinances.

Civil and Criminal Court Actions. As a final resort, the County may use Civil and or Criminal court actions under the State Porter Cologne Water Quality Act or the Federal Clean Water Act, which may result in significant fines levied upon the non-compliant responsible parties.

5.6 **Construction Activities Effectiveness Assessment**

The County's effectiveness assessment approach utilizes a variety of outcomes and measures to determine the success of implementation of each JURMP element or component. As appropriate for each, a suite of measures are tracked across the following outcome levels:

- Level 1: Compliance with Activity-based Permit Requirements
- Level 2: Changes in Attitudes, Knowledge, & Awareness
- Level 3: Behavioral Change & BMP Implementation
- Level 4: Source Load Reductions

Table 5.10 below summarizes the Level 1 outcomes and measures provisionally established for the Construction Component. Additional detail on the County's approach, including the assessment of Level 2 and 3 measures, is provided in section 13.0.

Table 5.10 - Outcomes and Measures for Construction Activities

Program Activity	Measures of Success	
	Targeted Outcome	Measure of Success
Annual program review	Task completion	Completion (Y/N)
Update Inventories	Task completion	Completion (Y/N)
Construction Inspections - DPLU	Meet all inspection frequencies	% success

⁴ The determination of the Threat to Water Quality is described in Section 5.2.4.

Jurisdictional Urban Runoff Management Plan

Program Activity	Measures of Success	
	Targeted Outcome	Measure of Success
Construction Inspections - DPW	Meet all inspection frequencies	% success
Construction Inspections - CIP	Meet all inspection frequencies	% success
Construction Outreach	Conduct Outreach to construction	% success

5.7 Program Review and Modification

Table 5.11 identifies modifications made to the Construction Component since its March 24, 2008 submittal.

Table 5.11 - Modifications to the Construction Component

Date	Section(s)	Modification(s)
5-20-08	Multiple	Various non-substantive corrections including: formatting, punctuation, and grammar; insertion of textual references to tables and figures; re-titling of figures and tables for consistency; insertion, re-numbering, and re-titling of headings for consistency; and corrections to figures and organizational charts.
5-20-08	5.7	Addition of Section 5.7 for tracking JURMP modifications.
06-30-10	5.5.1, 5.5.2	Modify the JURMP to (1) incorporate the implementation strategy figures contained in this JURMP Annual Report, (2) to add and explain specific targeted, measurable outcomes, and (3) to identify specific roles and responsibilities for meeting identified outcomes.
06-30-10	5.2.3	Clarify Threat to Water Quality Tables (5.2 and 5.3) and incorporate Exception Threat to Water Quality into the High Priority criteria.
06-30-10	5.5.2	Incorporate process for tracking and recording site by site noncompliance at municipal construction sites.
06-30-10	5.5.1	Incorporate process for tracking and recording site by site noncompliance at private construction sites.
06-30-10	5.5.1.2.1	Incorporate verification of required inspection steps for private construction.
06-30-10	5.4.1.2, 5.5.1.3.1	Update the beginning of the rainy season to October 1.
06-30-10	5.5.1.3.1	Update reporting of stop work orders or other high level enforcement to RWQCB
06-30-10	5.5.1.3.1	Further define the term “Active” to reflect the actual time the site is active.
06-30-10	5.5.1.3.1	Add section on civil penalties