

## **4.0 DEVELOPMENT PLANNING**

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### **4.1 INTRODUCTION**

This component describes the City's land use policies and procedures which aim to reduce the water quality impacts of development and redevelopment. Being a coastal community, environmental protection and water quality has been of utmost importance since the City was incorporated in 1986. The City of Encinitas has strong water quality protection policies reflected in its General Plan, environmental review process, Municipal Ordinance, development project approval process, and BMP inspection and enforcement program.

To accommodate the City of Encinitas' growth and provide opportunities for new businesses, development projects are continually being proposed and built within the City. However, the development of urban areas also has the potential to negatively impact the surrounding environment. The addition of impervious surfaces can alter the natural drainage patterns of the area, and urban development can facilitate the introduction of pollutants to the environment.

Accordingly, the City has established measures which limit the potential for urban development to negatively impact the environment through careful land use planning and thoughtful design of proposed projects. Development projects are defined by the Municipal Permit as new development or redevelopment with land disturbing activities, structural development, including construction or installation of a building or structure, the creation of impervious surfaces, public agency projects, and land subdivision. Through the implementation of the Development Planning component of the City's JURMP, the City will reduce the discharge of pollutants from development projects to the MEP to protect receiving water bodies, and manage increases in runoff from development projects that have the potential to increase erosion in streams or rivers.

This component contains a review of the City's General Plan and the environmental review process as it relates to water quality and environmental protection. It also describes how development and redevelopment projects are reviewed by the City to ensure that the established Standard Urban Stormwater Mitigation Plan (SUSMP), the Municipal Permit, and other storm water policies and regulations are followed.

### **4.2 LAND USE PLANNING**

The City's land use planning process facilitates (1) the reduction of development project discharges of pollutants from the MS4 to the MEP, (2) the prevention of development project discharges from the MS4 from causing or contributing to a violation of water quality standards, and (3) management of increases in runoff discharge rates and durations from development projects that are likely to cause

increased erosion of stream beds and banks, silt pollutant generation, or other impacts to beneficial uses and stream habitat due to increased erosive force.

The City's land use planning process consists of development and implementation of the following documents:

- General Plan
- Jurisdictional Urban Runoff Management Plan
- Watercourse Protection, Storm Water Management and Discharge Control Ordinance (Chapter 20.08)
- Storm Water Best Management Practices Manual II

The General Plan is the City's primary land use planning document and contains the adopted policies designed to guide City processes and decision making. The Jurisdictional Urban Runoff Management Plan serves as the City's stormwater management guidance document. Any City department or staff member involved in any aspect of stormwater regulation should refer to the JURMP for direction. The City's Municipal Ordinance supports the policies founded in the General Plan and the JURMP and establishes the legal framework by which these policies are enforceable. Finally, Storm Water BMP Manual II serves as the City's local SUSMP and guidance document for the general public. The manual outlines specific storm water BMPs that are required to be implemented at new development and redevelopment projects, where applicable. The utilization and regular update of each of these documents enables the City to successfully conform to the requirements of section D.1 of the Municipal Permit.

The following sections will describe the City's land use planning process and the four planning documents in more detail.

#### **4.2.1 BACKGROUND**

The City of Encinitas was incorporated in 1986, drawing together the towns of Cardiff-By-The-Sea, Leucadia, Olivenhain, and old and new Encinitas. The City's General Plan was adopted in 1989 and is amended on a limited, as needed basis. The City's JURMP, the Storm Water Ordinance, and the Storm Water BMP Manual II were each originally developed in 2002 as required by Order 2001-01. These documents have been updated as a part of the JURMP update process and as required by the new Municipal Permit.

#### **4.2.2 SOURCE CHARACTERIZATION**

The City addresses seven major land use categories in its General Plan: residential, office professional, commercial, industrial, public/semi-public, transportation, and ecological/open space/parks. Each of these land uses is associated with different combinations of pollutants and activities that have the potential to negatively affect the surrounding environment. A detailed discussion of the potential threats to water quality associated with existing residential, commercial, industrial, and

municipal land uses can be found in their designated sections within this JURMP document.

Through the implementation of the land use planning policies, procedures, and requirements established in the General Plan, JURMP, Storm Water Ordinance, Grading Ordinance, and BMP Manual II, the City aims to reduce the potential for pollutant discharges from all planned development and redevelopment land use sources.

### **4.2.3 BEST MANAGEMENT PRACTICE REQUIREMENTS**

The City of Encinitas General Plan currently addresses multiple water quality and watershed protection principles. Included within the General Plan are a number of proactive policies that pertain to water pollution and land use decisions. Many of the policies directly specify preservation and acquisition of riparian corridors, wetlands, and buffer zones providing important water quality benefits. The policies place limits on disturbances to natural bodies of water and drainage systems caused by developments and even strive to avoid developing in areas susceptible to erosion and sediment loss. The General Plan also discourages the use of large amounts of impervious surfaces in new development areas, minimizing the transport of urban runoff and pollutants.

The breadth of the City's General Plan polices are such that they cross reference each other and comprehensively comply with the required Municipal Permit. For example, the Resources Management Element of the General Plan includes a number of water quality and watershed protection principles. One of the major objectives within the Resources Management Element of the City's General Plan is to "minimize harmful pollutants from entering the ocean environment from lagoons, streams, storm drains and other waterways containing potential contaminants." Appendix D provides a complete description of each of the City of Encinitas' General Plan policies that directly address water quality and watershed protection.

### **4.2.4 PROGRAM IMPLEMENTATION**

#### **4.2.4.1 GENERAL PLAN**

The City's General Plan document serves as the blueprint for the long-range, orderly, physical development of the City and contains stated community goals and policies designed to protect its environmental, social, cultural and economic resources as the City develops. The General Plan consists of an integrated and internally-consistent set of goals, policies and standards that address a number of issue areas which include land use, circulation, housing, noise, safety, recreation, conservation and open space. These issues are discussed in the seven chapters called "elements" which correspond with State requirements. These elements

include Land Use, Housing, Circulation, Public Safety, Resource Management (Open Space and Conservation), Recreation and Noise.

Portions of the General Plan also encompass the City's Local Coastal Program (LCP) Land Use Plan, which guides development in the City's Coastal Zone pursuant to the Coastal Act. As a result, the City's General Plan and LCP are a combined single document.

The General Plan is a legally binding document that has been adopted by the City Council, and the City is required to abide by its policies. The General Plan includes a number of water quality and watershed protection principles and policies which direct land use decisions and require implementation of consistent water quality protection measures for development projects.

As a component of the JURMP update, an assessment of the City of Encinitas General Plan was conducted to determine the City's consistency with the watershed protection policies and principles found in the Municipal Permit. The analysis found that the City's General Plan goals and policies are consistent with the Municipal Permit, and no amendments to the General Plan are required at this time (see Appendix D).

The City implements the policies in the General Plan using a variety of resources; including the JURMP, City's Municipal Code, the Storm Water BMP Manual II, Development Agreements, and other various land use plans and permits. Section 4.4 of this document describes how the water quality and watershed policies are implemented through the City's development planning process the City.

The General Plan will be periodically reviewed by City staff to ensure that water quality and watershed principles are maintained and updated as needed to comply with local storm water regulations.

#### **4.2.4.2 JURMP**

This JURMP document serves as the City's foundational storm water program management tool, capturing the developed process, procedure, and implementation strategies for described elements. The purpose of this document is to present an integrated approach to reducing the discharge of pollutants from the MS4 to the maximum extent practicable (MEP), and to protect and improve the quality of water bodies in Encinitas. The following objectives were established in the Introduction section of the JURMP to set baseline guidance for overall program success:

- Develop programmatic elements to ensure compliance with regulatory standards and provisions mandated in Order No. R9-2007-001.
- Establish management processes and procedures to ensure accountability for program actions and activities.

- Establish and support a set of effective and efficient strategies to address Encinitas water quality concerns.
- Build program elements around integrated assessment approaches in order to evaluate overall performance and effectiveness of program components.

The JURMP is comprehensively reviewed every five years as required by the Regional Board. In addition, the City reviews and updates the JURMP, as needed on an annual basis. Annual updates are presented in the City's JURMP Annual Report.

#### **4.2.4.3 WATERCOURSE PROTECTION, STORM WATER MANAGEMENT AND DISCHARGE CONTROL ORDINANCE (STORM WATER ORDINANCE)**

As required by section J.a.(3)(b)iii of the Municipal Permit, the City's Watercourse Protection, Stormwater Management and Discharge Control Ordinance (*EMC Chapter 20.08*) has been updated to comply with the Municipal Permit. The Storm Water Ordinance sets up the legal framework which enables the City to enforce the water quality and watershed protection principles established in the General Plan and the JURMP. The Storm Water Ordinance also references the City's Storm Water BMP Manual II and enables the City to enforce the minimum BMPs and SUSMP requirements that are outlined in the manual. The ordinance is periodically reviewed and updated on an as need basis to ensure that potential discharges of pollutants may be addressed appropriately.

Notably, as a part of the JURMP update and Stormwater Ordinance update processes, the City has endeavored upon a comprehensive update of the Grading, Erosion and Sediment Control Ordinance (*EMC Chapter 23.24*). The Grading Ordinance update further establishes the City's legal authority in meeting the provisions of the Municipal Permit.

#### **4.2.4.4 STORM WATER BMP MANUAL II**

The City created the Storm Water BMP Manual II in 2002 to be used by individuals involved with development projects within the City. The Storm Water BMP Manual II is a compilation of all requirements related to water quality with respect to development projects, including the City's SUSMP requirements, permanent BMP requirements, construction BMP requirements (which are further discussed in Section 5), implementation requirements, and maintenance requirements. The Storm Water BMP Manual II also includes various tables to help identify which requirements are applicable to each unique development project.

As part of the JURMP development process, the Storm Water BMP Manual II has been updated, and the City's updated SUSMP and Interim Hydromodification Criteria have been incorporated into the Storm Water BMP Manual II. The City has

integrated new SUSMP provisions into local land use planning and development process and procedure as outlined in the updated BMP Manual II (Appendix C).

Notably, BMP Manual II updates have been driven by both the Stormwater Ordinance and Grading ordinance amendments. As such, the City's BMP Manual II, as it relates to the Grading Ordinance, is contained in the City's Local Coastal Program (LCP), and must receive Coastal Commission approval of any changes. As part of this broader update of associated ordinances and manuals, the City has worked with the Coastal Commission to ensure adequate inclusions in the LCP. As such, to date the Coastal Commission has not approved the amended Grading Ordinance and updated BMP Manual II.

### **Standard Urban Storm Water Mitigation Plan (SUSMP)**

As required by the Municipal Permit, the City of Encinitas participated in the collective review and update of the Model SUSMP. The Model SUSMP was developed to address post-construction urban runoff pollution from development projects and defines the minimum required LID, source control and treatment control BMPs. The City of Encinitas has incorporated the updated Model SUSMP into the Storm Water BMP Manual II.

Additional updates, as required by the Municipal Permit, of the Model SUSMP are planned for the future. Details about the completed and planned updates can be found in Section 4.4.4.4. Any new updates to the Model SUSMP will be incorporated into the City's Storm Water BMP Manual II.

A copy of the Storm Water BMP Manual II is available on the City's website and is provided in Appendix C of this document.

## **4.3 ENVIRONMENTAL REVIEW PROCESS**

As part of the JURMP update process, the City's environmental review staff evaluated the City's environmental review process and confirmed that the current process accurately evaluates water quality and cumulative impacts and identifies appropriate measures to avoid, minimize and mitigate those impacts for all development projects.

The California Environmental Quality Act requires environmental review of discretionary applications for development projects. Environmental initial studies are conducted to determine whether the project may have a significant impact on the environment. This review process evaluates a project's potential for significant impacts on water quality. In compliance with the Municipal Permit, additional questions have been provided in the initial study checklist, a tool utilized to evaluate the environmental effects of a project. To evaluate potential water quality impacts of projects requiring discretionary review, the following questions have been included as part of the initial study checklist:

*Would the project:*

- *Substantially conflict with city-adopted water quality standards or waste discharge requirements?*
- *Substantially alter the existing drainage pattern of the site or area, including the alteration of a stream or river course, in a manner which would result in substantial erosion or siltation on- or offsite?*
- *Result in a substantial degradation of receiving water quality during construction activities?*
- *Propose a land use or an on-site activity that would substantially degrade receiving water quality?*
- *Substantially increase any pollutant for which a tributary water body is listed on the Clean Water Act Section 303(d) list?*
- *Substantially degrade surface water quality within wetland, fresh, marine, or recreational waters?*
- *Substantially degrade groundwater quality?*

The environmental review process ensures that a project's impact on water quality is addressed early in the planning process. If a project is determined to have a significant environmental effect, mitigation measures are required under CEQA to avoid or reduce the effect to below a level of significance. The mitigation measures will normally take the form of adopted permanent Best Management Practices to be incorporated into project plans prior to discretionary approval.

## **4.4 DEVELOPMENT PROJECT APPROVAL AND VERIFICATION PROCESS**

### **4.4.1 BACKGROUND**

As discussed in the previous sections, the City of Encinitas has an established multi-departmental review process for all new development and redevelopment projects. Through the use of the City's Storm Water Ordinance, Storm Water BMP Manual II and development project review process, the City aims to mitigate the negative impacts of urban runoff from development projects to the MEP.

The following sections describe the City of Encinitas Development Project Approval and Verification Process.

### **4.4.2 SOURCE CHARACTERIZATION**

As discussed in Section 4.2.2, development projects have the potential to discharge different types and amounts of pollutants based on the project's size and intended land use. Pollutants such as trash and debris are anticipated from all developments, regardless of land use; however, pollutants like bacteria and viruses are more likely to originate from restaurants and residential developments rather

than from parking lots and automotive repair shops. Since the potential for a site to discharge pollutants is unique to each development, the City's design requirements for development projects vary according to size, project characteristics, and anticipated land use.

The City's updated SUSMP (Storm water BMP Manual II) describes specific categories for Priority Projects and indicates common pollutants associated with each category (see Table 4-1). A Priority Project must identify the potential pollutants anticipated from its development and implement design concepts and other BMPs to address these pollutants.

In the City of Encinitas, all development projects, including non-priority projects, are required to meet the applicable BMP requirements, which are discussed below.

#### **4.4.3 BEST MANAGEMENT PRACTICE REQUIREMENTS**

The City's minimum BMP requirements for all development projects are summarized here and are included in the City's Storm Water BMP Manual II. All development projects are required to implement the following principles, where applicable:

- Source control BMPs that reduce storm water pollutants of concern in urban runoff, including storm drain stenciling and signage, properly designed material and trash storage areas, and use of efficient irrigation systems.
- Low Impact Development (LID) BMPs that maximize infiltration, provide retention, slow runoff, minimize impervious footprint, direct runoff from impervious areas into landscaping, and construct impervious surfaces to minimum widths necessary.
- Provide buffer zones or other buffers for natural water bodies.
- Grading and construction activities must implement all requirements outlined in Section 5 of this document.
- Submittal of proof of a mechanism for ongoing long-term maintenance of all structural post-construction BMPs.

A SUSMP Priority Project must submit a grading plan, which includes identification of potential pollutants from the project, proposed LID, source control and treatment control BMPs, calculations for sizing the treatment control BMPs, and an attached maintenance agreement. The grading plan must also address how the project will manage increases in runoff discharge rates and durations associated with the project, where such increases could cause erosion downstream of the project.

**Table 4-1**  
**Anticipated and Potential Pollutants Generated by Land Use Type**

	<b>General Pollutant Categories</b>								
<b>Priority Project Categories</b>	Sediments	Nutrients	Heavy Metals	Organic Compounds	Trash & Debris	Oxygen Demanding Substances	Oil & Grease	Bacteria & Viruses	Pesticides
Detached Residential Development	X	X			X	X	X	X	X
Attached Residential Development	X	X			X	P <sup>(1)</sup>	P <sup>(2)</sup>	P	X
Commercial Development >1 acre	P <sup>(1)</sup>	P <sup>(1)</sup>		P <sup>(2)</sup>	X	P <sup>(5)</sup>	X	P <sup>(3)</sup>	P <sup>(5)</sup>
Heavy Industry /Industrial Development	X		X	X	X	X	X		
Automotive Repair			X	X <sup>(4)(5)</sup>	X		X		
Restaurants					X	X	X	X	
Hillside Development >5,000 ft <sup>2</sup>	X	X			X	X	X		X
Parking Lots	P <sup>(1)</sup>	P <sup>(1)</sup>	X		X	P <sup>(1)</sup>	X		P <sup>(1)</sup>
Retail Gasoline Outlets			X	X	X	X	X		
Streets, Highways & Freeways	X	P <sup>(1)</sup>	X	X <sup>(4)</sup>	X	P <sup>(5)</sup>	X		

X = anticipated

P = potential

(1) A potential pollutant if landscaping exists on-site

(2) A potential pollutant if the project includes uncovered parking areas

(3) A potential pollutant if land use involves food or animal waste products

(4) Including petroleum hydrocarbons

(5) Including solvents

#### **4.4.3.1 INTERIM HYDROMODIFICATION CRITERIA**

In addition, to reduce the negative impacts to beneficial uses and stream habitats that are attributed to increased runoff rates; the City is collaborating with the other Copermittees to adopt a detailed Hydromodification Management Plan (HMP).

The final HMP is not expected to be complete until the middle of 2009; however, the City has established Interim Hydromodification Criteria that will be in effect until the final HMP is approved. The City requires all Priority Projects disturbing 50 or more acres to comply with the Interim Hydromodification Criteria, except for those sites that are considered exempt as described in Section D.1.(g)(6) of the Municipal Permit. The details of the Interim Hydromodification Criteria are presented in the City's Storm Water BMP Manual II. A time table for development of the final HMP can be found in Section 4.4.4.4.

All updated SUSMP and Hydromodification requirements will apply to all Priority Projects or phases of Priority Projects which have not yet begun grading or construction activities at the time the updated requirements go into effect. However, if lawful prior approval of a project exists that makes implementing the updated requirements infeasible, the updated requirements will not be required for that project. The City considers a project with any of the following as having "lawful prior approval":

- A vesting tentative map
- A development agreement
- A permit has already been issued and construction has already started

The City will notify development projects undergoing the approval process of changes in updated regulations that will be required to be included in the project's plans.

The City will not issue permits to development projects until all minimum BMP requirements are met. Any changes made to a development project's proposed storm water BMPs during project construction must be approved by the City before being implemented.

#### **4.4.4 PROGRAM IMPLEMENTATION**

As required by the Municipal Permit, the City of Encinitas has implemented a program to ensure that development and redevelopment projects comply with post-construction Best Management Practice (BMP) requirements, including Low Impact Development, source control, and treatment control BMPs. The Municipal Permit further requires that the City ensure proper installation of treatment control BMPs and their maintenance into perpetuity through such procedures as BMP verification, maintenance agreements, and annual inspections.

The following departments, divisions, and sections of the City of Encinitas are involved in the development, review, approval, and inspection of development projects and share the responsibility for ensuring that SUSMP projects are appropriately identified, processed, implemented, and inspected.

- The Planning and Building Department receives project applications, reviews, and distributes them to other departments for review and further processing.
- The Engineering Department conducts plan checks and issues grading, improvement, and other permits.
- The Engineering Department designs and prepares plans for Capital Improvement Projects and is responsible for the supervision of design and construction of public facilities.
- The Engineering Department conducts project inspections during grading and improvement phases, conducts post-construction BMP inspections, and initiates enforcement when necessary.
- Clean Water Program staff provides guidance for City staff that implements the Development Project Approval Process and verify that the City's program meets the Municipal Stormwater Permit requirements.

The following section provides an overview of the City's SUSMP implementation process (including project tracking).

#### **4.4.4.1 DEVELOPMENT PROJECT APPROVAL PROCESS**

During the planning process, prior to project approval and issuance of any permits, the City prescribes the necessary requirements so that development project discharges of pollutants to the MS4 will be reduced to the MEP, will not cause or contribute to a violation of water quality standards and will comply with the City's ordinances, plans, and the Municipal Permit. Both discretionary and ministerial projects must undergo a project approval process during which the City's local SUMSP requirements are applied to the project.

#### **DISCRETIONARY PROJECTS**

Projects requiring a discretionary permit are subject to a three-tier review process that includes an initial predevelopment review prior to submittal to the City, a written self-certification of the BMP requirements for the project, and the application of project conditions of approval to meet storm water pollution control requirements. Those projects requiring a further ministerial permit are also subject to a plancheck review as described in the Ministerial Project section.

#### **Predevelopment Process**

The stormwater element of the predevelopment process is geared toward disseminating information on stormwater pollution control and the City's SUSMP requirements. During this preliminary design phase, engineers and applicants are guided by City staff to provide adequate facilities in conceptual form and to document those facilities on the site plans upon the initial discretionary permit application submittal. This process results in better designed and integrated post-

construction BMPs, since the facilities are included in the project design even in the earliest phases of the project.

Priority Projects, which require more stringent stormwater pollution control methods, are first identified during the predevelopment process. The categories of development falling under the Priority Project classification can be found in the City's BMP Manual II and are consistent with the requirements of the Municipal Permit. During the predevelopment meeting, applicants proposing Priority Projects will learn they must implement LID and source control BMPs and must install treatment control BMPs which meet the numeric sizing criteria required by the Municipal Permit. City staff will also inform applicants at the predevelopment meeting that installed post-construction BMP facilities must be maintained in working order into perpetuity. City staff and the applicant and/or engineer discuss options for meeting the numerical post-construction treatment requirements, including volume-based systems such as treatment ponds, wet ponds, detention basins, and flow-based systems such as grassy swales and stepped grass-lined channels. In Encinitas, mechanical treatment systems are discouraged and when accepted may only account for a maximum of 50% of the treatment requirement, with the remainder of the treatment being provided by a natural system.

#### **Stormwater Pollution Control Checklist and Certification**

All development project applicants are required to perform a written self-certification of the post-construction BMPs proposed with their project. This certification is required to accompany the initial submittal of each discretionary permit application. The checklist briefly describes the Clean Water Program and regulations. Applicants are required to:

- Classify their projects as Priority, Standard, or Exempt from SUSMP
- Present the LID, source control and treatment control BMPs that will be installed or implemented on site to comply to the SUSMP requirements, and
- Certify that they understand and will implement post-construction BMPs on their site as appropriate for their project's priority.

This checklist must be completed by the party responsible for the development project and submitted with the project's permit applications. A copy of the checklist is provided in BMP Manual II (see Appendix C).

#### **The Development Review Process**

The Engineering Department has established specific Conditions of Development Approval to assure compliance with the City's stormwater pollution control standards. These conditions include construction requirements as well as post-construction standards for effective stormwater pollution control facilities. Once the predevelopment meetings are conducted and the self-certification checklist has been completed, the Engineering Department reviews the adequacy of the project's

proposed facilities shown on the site plan and issues Conditions of Approval to ensure implementation of satisfactory LID, source control and treatment control BMP measures. The Conditions of Approval take into account the nature of each project site and the work proposed. The Conditions of Approval are then recorded in a covenant against the property.

Applicants not showing adequate construction or post-construction BMP measures on their initial development review submittals are asked to revise their plans and resubmit prior to approval. At a minimum, stormwater pollution control facilities for Standard projects must meet the minimum requirements established in the City's BMP Manual II). Priority Projects must show LID, source control and treatment control BMPs on the project plans. In addition, their project plans must show a feasible solution for numerically-sized treatment control BMPs. Projects with treatment areas that appear to be inadequate are asked to resubmit with substantiating calculations for the proposed treatment control BMPs. These numeric treatment requirements are listed in the City's Storm Water BMP Manual II and available to all applicants through the City website.

### **MINISTERIAL PROJECTS**

Projects requiring a ministerial permit such as a grading, improvement, or building permit are also required to include post-construction stormwater pollution control facilities in the project design. These BMP facilities must be considered adequate before the project's plans are approved by Engineering staff. Often the project has been scrutinized at the discretionary permit level and the project is already conditioned to provide specific treatment facilities. For those projects not requiring a discretionary permit, the review of the storm water pollution control treatment facilities begins at the plancheck stage.

#### **The Plancheck Process**

City plancheck engineers are trained in the design of stormwater pollution control facilities and serve as resources to the general public and to design engineers. During the plancheck process, every project is reviewed for stormwater construction and post-construction BMPs. City plancheck engineers emphasize to applicants the variety of solutions that may be used in providing stormwater pollution control. All landscape areas used as post-construction BMPs must be clearly marked on the project plans along with the following associated note, "Landscape area for Best Management Practice to be privately maintained and not to be modified without a permit from City". The permitted drawing will become public record; therefore documentation of the designated treatment areas is maintained. Engineers are also required to provide stormwater pollution control notes on the plans addressing employee stormwater education, materials storage, erosion control, and waste management in order to meet the minimum SUSMP requirements.

Every plan in plancheck is also reviewed to determine if it meets the City's definition of a Priority Project. In addition to meeting standard BMP requirements, Priority Projects must provide LID, source control and numerically-sized treatment control BMPs as required by the Municipal Permit and the City's SUSMP. These requirements are discussed in detail in the City's Storm Water BMP Manual II.

All Priority Projects must comply with the numeric sizing criteria for treatment control BMPs in order to be approved by the City Engineer. Plancheck engineers review the project's hydrology calculations to determine the adequacy of the treatment system proposed. The project applicant is required to assume the maintenance responsibility or to identify the maintenance mechanism for the treatment system prior to project approval. A covenant ensuring adequate maintenance into perpetuity is recorded against the property. Those projects with the potential for substantial erosion are often required to provide an additional plan for permanent landscaping and irrigation and to place bonds with the City to guarantee successful implementation of the measures shown thereon. Such bonds are retained until the landscaping has become fully established.

During the plancheck process, erosion control plans are also carefully reviewed to ensure compliance with construction BMP measures. Gravel bags, silt fences, stabilized construction entrances, and other methods must be provided where appropriate. Inlets to drainage facilities must be protected from sediment. Additionally, all exposed slopes need to be protected by a combination of hydroseed, permanent landscaping, and other erosion control measures. For more information regarding temporary construction BMPs, refer to Section 5 of this document.

#### **Post-Construction BMP Maintenance Agreements**

All Priority Projects under review for ministerial permits must execute a stormwater maintenance agreement guaranteeing the maintenance and/or replacement of the project BMPs as necessary into perpetuity. The covenant includes an attachment depicting the specific project BMPs, so that the required facilities and their location on the project site are easily identified. The maintenance agreement is then recorded against and runs with the property. In a few rare cases the maintenance requirements are outlined on the plans themselves and an agreement is not recorded.

#### **CAPITAL IMPROVEMENT PROJECTS**

The City's Capital Improvement Projects (CIP) are subject to the same post-construction BMP requirements as private development. Because many projects are redevelopment, linear, or repair projects, often only construction BMPs are necessary. However, SUSMP qualifying projects must also install post-construction BMPs. Priority CIP Projects are designed to incorporate the City's SUSMP requirements and LID, source control and treatment control BMPs will be

implemented. The City will take responsibility for long-term maintenance and regular inspection of any installed permanent BMPs. Section 6 of this document provides a description of the City's MS4 maintenance and inspection program.

#### **4.4.4.2 OUTREACH AND STAFF TRAINING**

The City works closely with a variety of different industries involved in planning and development to educate the development community about storm water requirements. As soon as a project proponent contacts the City to obtain applications for a development project, the applicant is given the appropriate information regarding the applicable storm water requirements. The main tool used for educating the development community about applicable storm water requirements is the City's Storm Water BMP Manual II. In addition, the City works closely with applicants during the entire approval process through meetings and phone conversations.

All City staff involved in planning and review of development projects are trained in storm water requirements on an as needed basis. Training focuses on general water quality concepts in addition to specific SUSMP requirements and implementation procedures. City planners and engineers will be educated on the new Municipal Permit requirements on a regular basis. Training includes a review of LID, source control and treatment control concepts, so that engineers can effectively review development projects for appropriate BMP implementation and incorporate appropriate BMPs into Capital Improvement Projects.

For more detail on the City of Encinitas outreach and training with respect to development planning, refer to Section 10 of this document.

#### **4.4.4.3 WAIVER PROVISIONS**

In the event that a Priority Project is unable to meet the treatment control BMP sizing requirements outlined in the City's SUSMP, the City has the authority to issue a waiver. In order to receive a waiver for treatment control BMP sizing requirements, the project must prove that all available treatment control BMPs have been determined to be infeasible for the site. If a waiver of infeasibility is issued, the City will notify the RWQCB within five days of granting the waiver. The following information will be provided in the notification to the RWQCB:

- The name of the City employee granting the waiver
- The name of the developer receiving the waiver
- The location of the site
- The reason for granting the waiver
- A description of the BMPs required for the site

The City has never granted such a waiver to a Priority Project in the past and does not anticipate granting waivers in the future; however, if waivers are warranted, the City may choose to develop a waiver mitigation program. The waiver

mitigation program would collect funds from projects that receive waivers and use the funds on programs to improve water quality in the projects' watershed.

#### **4.4.4.4 MODEL AND LOCAL SUSMP UPDATES**

The City has updated its current SUSMP to meet the new requirements outlined in the new Municipal Permit. The City's update follows the recommended language developed by the regional SUSMP update group. The following were performed during the review and update of the SUSMP:

- Priority Project categories were updated.
- The document was reviewed to ensure no obsolete or ineffective BMPs were retained.
- Low Impact Development (LID) requirements and additional source control requirements were added to meet or exceed Municipal Permit requirements.
- LID BMPs that can be used as treatment control BMPs were added to appropriate tables and discussions of treatment control options were updated accordingly.
- Pollution removal efficiencies of treatment control BMPs were reviewed and updated where necessary.

In addition to the changes discussed above, an updated Model SUSMP will be developed by a regional workgroup. The Model SUSMP will include the following as required by the Municipal Permit:

- Inclusion of LID, source control, and treatment control BMPs that meet or exceed the minimum requirements of the Municipal Permit.
- Establishment of siting, design, and maintenance criteria for each LID and treatment control BMP listed in the Model SUSMP.
- Addition of criteria to help determine conditions where implementation of each LID BMP included in the Model SUSMP is applicable and feasible.
- Addition of a requirement for Priority Projects with low traffic areas and appropriate soil conditions to use permeable surfaces.
- Addition of any necessary restrictions for infiltration BMPs from Priority Projects that generate high levels of pollutants.

Once the Model SUSMP is accepted by the Regional Board as described in Section D.1.d(8)(b) of the Municipal Permit, the City will update its Local SUSMP to include requirements at least as stringent as those in the Model SUSMP within one year. Additionally, the City's Local SUSMP will include a review process to verify all proposed BMPs for Priority Projects meet the criteria designated in the updated Local SUSMP.

The City will also incorporate a Hydromodification Management Plan (HMP) into the City's Local SUSMP. The HMP is currently being developed by a consultant and regional workgroup and the draft HMP is projected to be completed in January 2009. After receiving comments from the Regional Board on the draft HMP, the final HMP will be prepared. The final HMP will be added to the Local SUSMP after approval by the Regional Board.

All necessary SUSMP updates described above and their projected completion dates are presented in Table 4-2.

**Table 4-2  
Time Schedule for Model and Local SUSMP Updates**

<b>SUSMP Update</b>	<b>Time Schedule</b>
Model SUSMP update	July 2008
Local SUSMP update	July 2009
HMP Progress Report	July 2008
Draft HMP	January 2009
Final HMP	180 days after receiving comments on the draft HMP from the RWQCB
Adoption of HMP into local SUSMP	180 days after RWQCB approval of the final HMP

#### **4.4.4.5 BMP INSTALLATION VERIFICATION**

Engineering inspection staff will inspect all Priority Projects subject to SUSMP requirements prior to occupancy to ensure that all LID, source control, and treatment control BMPs proposed for the project have been constructed in compliance with all approved plans, City permits and ordinances. Inspections of Priority Project sites prior to occupancy will allow the City to verify that all BMPs are in place before any anticipated pollutants associated with the occupied site are generated.

Engineering inspectors check to ensure that BMPs have been built according to plans before signing off on each stage of construction. The inspectors use the project's grading plans to identify any missing or incorrectly installed BMPs and deny approval for sites with observed problems. Digital copies of the grading plans for each Priority Project will be accessible to City staff through the City's electronic project tracking system.

Since installation of post-construction BMPs is closely inspected and signed off during regular grading and building inspections, the City does not expect major deficiencies in BMP installation to be found once construction is completed. Before final project approval, the Engineering inspectors check the completed project against its approved grading plans. If any BMP is missing or is found to be incorrectly installed by any of the City's inspectors during or upon completion of

construction, appropriate enforcement measures as described in Section 4.4.4.9 will be taken to require proper installation of all approved BMP(s).

#### **4.4.4.6 TREATMENT CONTROL BMP MAINTENANCE TRACKING**

The City has established a watershed-based GIS data management system to track the long-term maintenance of all approved treatment control BMPs installed at development sites. The database includes the following information:

- Type of treatment control BMP
- Location of the BMP
- Watershed within which the BMP is located<sup>1</sup>
- Date of construction of the BMP
- The party responsible for maintenance of the BMP
- Maintenance certifications or verifications
- Inspection findings
- Any corrective actions issued

The City has compiled an inventory of existing development projects with approved treatment control BMPs based upon the best information available at the time of JURMP development. The City's inventory of development projects with approved treatment control BMPs is presented in Appendix B. It is anticipated that the Treatment Control BMP inventory will be refined through the implementation of required inspection and verification actions. The inventory and data management system is maintained and updated by the City's GIS Division.

The inventory includes treatment control BMPs for projects that have been completed and require maintenance inspections per the new Permit requirements. Projects that are in the planning or construction phases at the time of this writing will be added to the inventory after the project is completed and proper treatment control BMP installation has been verified by the City. With the aid of the City's Treatment Control BMP Inspection Priority flowchart (see Appendix D), all development projects with approved treatment control BMPs are prioritized as high, medium, or low Threat to Water Quality (TTWQ) as required by the Permit. The following criteria are used to determine the TTWQ:

- Type of project
- Sensitivity of the receiving water body

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<sup>1</sup> The entire City of Encinitas is within the Carlsbad watershed. In order to more accurately define the local hydrology, the City has delineated hydrologic sub-basins within its jurisdiction. The sub-basins divide the Regional Board defined hydrologic subareas within Encinitas into smaller watersheds. The sub-basins allow City staff to more accurately characterize the area in which the treatment control BMPs is located. The treatment control BMPs are identifiable by sub-basin in the City's GIS data management system and the treatment control inventory.

- Proximity to ESAs
- Size of the BMP
- Recommended maintenance frequency
- Likelihood of operational and maintenance issues associated with the BMP(s)
- Location of the BMP(s)
- Other pertinent factors

The BMP Inspection Priority flow chart addresses basic site and treatment control BMP characteristics that can influence a site’s TTWQ such as receiving water body sensitivity and the removal efficiencies of the installed treatment controls. Note that not all development projects and treatment control BMPs are the same; each may have unique water quality risks associated with it. The City will consider additional relevant factors beyond those included in the flow chart as necessary.

Each year the City of Encinitas will prepare an updated inventory of all approved treatment control BMPs for completed development projects within the City’s jurisdiction in addition to the list of all treatment control BMPs approved during the previous permit cycle. This list will be included in the City’s JURMP Annual Report.

**4.4.4.7 TREATMENT CONTROL BMP MAINTENANCE INSPECTIONS**

All treatment control BMPs installed at development projects will be regularly inspected by the Engineering inspection staff to ensure treatment controls are operating effectively and are being properly maintained. Inspection frequencies are based on the project’s assigned TTWQ priority as determined by the criteria outlined in Section 4.4.4.6 of this document. Table 4-3 below presents treatment control BMP TTWQ priorities and their corresponding inspection frequencies.

**Table 4-3  
Treatment Control BMP Inspection Frequencies**

<b>Development Project with Treatment Control BMPs TTWQ</b>	<b>Inspection Frequency</b>
High	Annually (prior to the start of the rainy season)
Medium	Every two years
Low	As needed

As required by the Municipal Permit, a minimum of 20% of the total number of projects with approved treatment controls and a maximum of 200% of the average number of projects with treatment control BMPs approved per year will be inspected annually.

Inspections will include examination of all treatment control BMPs at the site to verify that each treatment control BMP is working, being maintained properly, and

is in compliance with all applicable City ordinances and permits. Inspection findings will be documented by the inspector using the Treatment Control BMP Inspection Form included in Appendix D. If any deficiencies in treatment control operation and maintenance are noted during the inspection, the responsible party will be notified and appropriate enforcement actions will be taken (as described in Section 4.4.4.9 of this document) to achieve compliance.

Inspection findings and follow-up actions for each development site with installed treatment controls will be included in the City's treatment control BMP tracking GIS data management system.

Treatment control BMPs that are operated and maintained by the City are considered part of the City's MS4 and are maintained and inspected by Public Works staff on an annual basis. For more information regarding the maintenance and inspection of the City's MS4 refer to Section 6 of this document.

#### **4.4.4.8 ANNUAL MAINTENANCE VERIFICATION**

The City will require annual verification of proper maintenance of all treatment control BMPs by the party responsible for maintenance prior to the start of each rainy season. The City will mail annual verification letters to the responsible party for each development site with treatment control BMPs in the City's treatment control BMP inventory. Utilizing information from the City's treatment control BMP data management system, the verification letters will inform the responsible parties of the treatment control BMPs for which they are responsible and require the responsible parties to sign statements verifying that the treatment control BMPs are being properly maintained in accordance with the sites' maintenance requirements. An example of the verification letter can be found in Appendix D. The City is planning on creating a website that will include information on how to maintain treatment control BMPs, which will be referenced in the verification letter. The annual maintenance verification of treatment controls by the responsible party for maintenance is unlike any current program within the City. Because of this, the City anticipates having to closely re-evaluate its annual maintenance verification procedure in the coming years and modify the program where necessary.

#### **4.4.4.9 ENFORCEMENT MEASURES FOR DEVELOPMENT SITES**

The City will use a variety of escalating enforcement methods to implement storm water requirements for all development projects within the City's jurisdiction. Enforcement methods include verbal and written warnings, notices of violation, monetary penalties, and denial of permits. A more detailed description of the different enforcement measures used by the City to enforce its storm water regulations and their legal basis can be found in Section 2 of this document.

#### **4.5 DEVELOPMENT PLANNING COMPONENT EFFECTIVENESS ASSESSMENT**

The City will continue to assess the effectiveness of its development planning component as needed. Regular treatment control BMP inspections will provide the City with valuable information about the post-construction treatment control maintenance problems that exist and what enforcement methods are the most effective in dealing with these BMP maintenance deficiencies. Refer to Section 13 of this document for a review of the City's effectiveness assessment process.

#### **4.6 PROGRAM REVIEW AND MODIFICATION**

Future modifications to the City's Development Planning component to meet the requirements of the Municipal Permit will be documented as necessary. Section 14 includes a list of the major changes that have been made to the development planning component of the City's JURMP.