

## **1.0 INTRODUCTION**

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In 2002, the City of Encinitas (City) developed a Jurisdictional Urban Runoff Management Program (JURMP) document as required by the San Diego Regional Water Quality Control Board (RWCQB) Order No. 2001-01. On January 24, 2007, Order No. R9-2007-0001 (Permit or Municipal Permit), was adopted by the Regional Board, regulating the discharge of urban runoff from municipal separate storm sewer systems (MS4) draining the watersheds of the County of San Diego and the incorporated Cities of San Diego County, including the City of Encinitas. Under the requirements of Order No. R9-2007-0001, the City has prepared an updated JURMP document to describe enhancements to existing programs, as well as newly developed programmatic elements to meet the provisions of the adopted permit.

This document is presented in the standardized format developed collectively by the Copermittees and is based on the most updated information available at the time this document was prepared. Each year the City will submit a JURMP Annual Report to the RWQCB, and any changes to the City's JURMP will be noted in that document. Any program modifications will be for the advancement of the City's program and will comply with all regulations as presented in the Municipal Permit.

### **1.1 BACKGROUND**

#### **1.1.1 URBAN RUNOFF AS NON-POINT SOURCE OF POLLUTANTS**

Urban development typically involves conversion of natural space to impervious developed area such as streets, buildings, and parking lots and an increase in human population associated with use of the impervious developed areas. An increase in impervious area is related to higher runoff volume and velocity because impervious area has reduced capacity to absorb and hold rainwater. Land use of developed areas is associated with a number of pollutants that can be conveyed to the municipal separate storm sewer system (MS4) by a rain event or non-storm water discharges. Non-point source pollution, such as an urban runoff discharge to the MS4, has been identified as a large source of pollutants to receiving water bodies in the San Diego region and throughout the United States. Pollutants commonly associated with urban runoff include pesticides, fertilizers, herbicides, trash, sediments, oil and grease, and heavy metals. Such pollutants are generated by everyday activities such as landscaping and vehicle use.

#### **1.1.2 REGULATORY BACKGROUND**

The Clean Water Act of 1972 established the National Pollutant Discharge Elimination System (NPDES) permit program to regulate the discharge of pollutants from point sources to the waters of the United States. In 1987, the Clean Water Act was amended to include non-point source pollution such as urban runoff, and established a framework

for regulating urban storm water runoff and other non-point source pollutants through establishment of various general and individual permits issued to local governments and other agencies.

The California Regional Water Quality Control Board, San Diego Region (RWQCB), adopted the first NPDES General Municipal Permit for the San Diego Region in 1990. On February 21, 2001 Order No. 2001-01 was adopted, and the City of Encinitas JURMP was developed. The JURMP document is intended to describe all of the programs, processes, and procedures utilized by the City to comply with said permit requirements, to describe the City's approach to minimizing the discharge of pollutants to and from its storm drainage system, and to reduce the impact of urban runoff on adjacent water bodies and sensitive areas.

In January 2007, the San Diego RWQCB released a revised municipal permit, Order No. R9-2007-0001. The new Municipal Permit required all Copermittees to make significant revisions to the JURMP.

## **1.2 PURPOSE AND OBJECTIVES**

The updated JURMP document will serve as the City's foundational program management and 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) standard, and to protect and improve the quality of water bodies in Encinitas. The following list of objectives has been established 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.

## **1.3 CITY SETTING**

The City of Encinitas encompasses an overall area of nearly 20 square miles and is located along six miles of Pacific coastline in northern San Diego County. The City is characterized by coastal beaches, cliffs, flat-topped coastal areas, steep mesa bluffs and rolling hills. Incorporated in 1986, drawing together the communities of New Encinitas, Old Encinitas, Cardiff-by-the-Sea, Olivenhain and Leucadia, the City has an

approximate population of 60,000. Encinitas is bordered by the Pacific Ocean to the west, Batiquitos Lagoon to the north, and the San Elijo Lagoon to the south.

### **1.3.1 WATERSHEDS**

The City of Encinitas is situated entirely within the Carlsbad Hydrologic Unit and is split between the San Marcos Watershed to the north and the Escondido Creek Watershed to the south. The City is naturally divided by eight (8) distinct drainage areas (sub-basins); Cardiff, Lower Escondido, La Orilla, La Costa South, Leucadia, Encinitas, Rancho Santa Fe, and Lux Canyon sub-basins. Encinitas receives an average annual rainfall of approximately ten (10) inches.

### **1.3.2 STORM DRAIN SYSTEM**

The City owns and maintains improved and open storm water channel, underground pipes of varying material, storm water detention basins, catch basins and a variety of other MS4 facilities, which are included in Map 1.

### **1.3.3 ENVIRONMENTALLY SENSITIVE AREAS (ESA)**

Environmentally sensitive areas, as defined in the Permit, include but are not limited to the following:

- Clean Water Act Section 303(d) impaired water bodies
- Areas designated as Areas of Special Biological Significance (ASBS) by the State Water Resources Control Board (SWRCB)
- Water bodies designated with the RARE beneficial use by the SWRCB
- Areas designated as preserves or their equivalent under the Multi Species Conservation Program
- Any other equivalent environmentally sensitive areas which have been identified by the Copermittees.

In general, the City drains to three blue-line creeks: Cottonwood Creek, Encinitas Creek and Escondido Creek. Cottonwood Creek drains the heart of Encinitas and discharges to the Pacific Ocean at Moonlight Beach. In 2006, Cottonwood Creek was 303(d) listed for DDT, phosphorous, and sediment toxicity stressors. Further, the Pacific Ocean is listed as a 303(d) impaired water body at Moonlight Beach for bacteria indicators due to urban runoff from Cottonwood Creek. Encinitas Creek drains the north-central portion of the City, and drains into Batiquitos Lagoon, which is designated as a Critical Coastal Area in the State of California 2002 Critical Coastal Areas Strategic Plan. In 2006, Encinitas Creek was 303(d) listed for phosphorous impairments. Escondido Creek, listed in 2006 for DDT, phosphorous, sediment toxicity, manganese, phosphate, selenium, sulfates, and total dissolved solids, drains the southern and northwest (Olivenhain) portion of the City and drains into San Elijo Lagoon. San Elijo Lagoon is 303(d) listed as an impaired water body for sediment/siltation, bacteria indicators, and eutrophic conditions.

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The City of Encinitas has identified and geographically captured the Environmentally Sensitive Areas located with the City as summarized in the Table 1-1 below.

**Table 1-1 2006 303(d) List of Impaired Water Quality Limited Segments in Encinitas**

WATER BODY / SEGMENT	POLLUTANT / STRESSOR	POTENTIAL SOURCE	ESTIMATED AREA
Cottonwood Creek	DDT Phosphorous Sediment Toxicity	unknown unknown unknown	1.9 miles
Encinitas Creek	Phosphorous	unknown	3 miles
Escondido Creek	DDT Phosphorous Sediment Toxicity Manganese Phosphate Selenium Sulfates Total Dissolved Solids	unknown unknown unknown unknown unknown unknown unknown	26 miles
Pacific Ocean Shoreline, Escondido Creek HA ( <i>San Elijo Lagoon Outlet</i> )	Indicator Bacteria	Nonpoint / Point Source	0.44 miles
Pacific Ocean Shoreline, San Marcos HA ( <i>Moonlight State Beach</i> )	Indicator Bacteria	Nonpoint / Point Source	0.5 miles
San Elijo Lagoon	Eutrophic / Nutrients Indicator Bacteria Sedimentation / Siltation	Nonpoint / Point Source Nonpoint / Point Source Nonpoint / Point Source	566 acres

**1.4 REPORT ORGANIZATION**

This report follows the standard reporting outline jointly developed by the San Diego County Stormwater Copermittees.

**Section 1 Introduction**

The introduction includes a general regulatory background leading up to the creation of this JURMP document and background information about the City.

**Section 2 Administrative and Legal Procedures**

This section identifies and describes the departments within the City that conduct and oversee urban runoff management activities.

**Section 3 Non-Storm Water Discharges**

This section describes non-storm water discharge prohibitions and the City’s approach to controlling such discharges.

- Section 4 Development Planning Component**  
This section addresses how the City will reduce discharge of pollutants from development projects through its project approval process and Best Management Practice (BMP) maintenance verification efforts.
- Section 5 Construction Component**  
This section describes how the City will reduce discharge of pollutants from construction activities through its construction and grading permit approval process, contract specifications, and inspection procedures.
- Section 6 Municipal Component**  
This section provides updated descriptions of municipal areas and activities including MS4 maintenance, street sweeping, power washing, and special events.
- Section 7 Industrial and Commercial Component**  
This section provides updated information regarding verification of industrial and commercial BMP implementation through the City's inspection program.
- Section 8 Residential Component**  
This section provides a description of BMP implementation for residential areas and activities.
- Section 9 Illicit Discharge Detection and Elimination Component**  
This section describes the processes by which illicit discharge detection and elimination (IDDE) is conducted by the City.
- Section 10 Education Component**  
This section describes the education programs and activities that will be used by the City for each target community as described by the Municipal Permit.
- Section 11 Public Participation Component**  
This section describes the mechanisms that will be used to encourage public participation in the City urban runoff management-related programs.
- Section 12 Fiscal Analysis Component**  
This section provides City revenue sources, expenditure categories, and the methods of reporting the yearly fiscal analysis in the Annual Report.
- Section 13 Effectiveness Assessment Component**  
This section provides the City's approach to annually assess the effectiveness of the JURMP.

**Section 14 Modifications to the JURMP**

This section provides an identification of the locations in the JURMP where changes have been made to meet the new Municipal Permit requirements.

**Section 15 Conclusions and Recommendations**

This section describes conclusions and recommendations that were drawn from updates made to the JURMP document.

**Appendices**

**Appendix A Ordinances**

Includes a letter from chief legal council certifying that the City has taken the necessary steps to obtain and maintain full legal authority to implement and enforce each of the requirements contained in the City's Ordinance and the Municipal Permit. The City has revised ordinances as part of the JURMP update process, where necessary.

**Appendix B Inventories**

Includes inventories of treatment control BMPs, construction sites, municipal facilities, and industrial and commercial facilities.

**Appendix C City of Encinitas Best Management Practices Manual I & II**

Includes the updated City of Encinitas Standard Urban Stormwater Mitigation Plan (SUSMP).

**Appendix D Implementation Tools and Procedures**

Provides storm water quality inspection forms for treatment control BMP operation and maintenance inspections, construction, municipal and industrial/commercial inspections.

**Appendix E Dry Weather Monitoring Program**

Includes the Dry Weather Monitoring Sampling Manual, the Dry Weather Monitoring Field Data Sheet, and all other documents needed to implement the City's Dry Weather Program.