

**Proposition 50 Integrated Regional Water Management (IRWM)  
 Project Proposal Form**

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Detailed guidance on the Integrated Regional Water Management (IRWM) Grant Program can be found on the State Water Resources Control Board's Prop 50 Integrated Regional Water Management (IRWM) grant program web page at: <http://www.swrcb.ca.gov/funding/irwmgp/index.html>. Please familiarize yourself with the general requirements of this program before preparing and submitting a project proposal.

Completed forms should be submitted no later than December 1, 2004, either via email to [jon.vanrhyn@sdcountry.ca.gov](mailto:jon.vanrhyn@sdcountry.ca.gov) or mailed to the following location:

Jon Van Rhyn  
 County of San Diego  
 Watershed Protection Program  
 9325 Hazard Way  
 San Diego CA 92123                      PHONE: 858-495-5133                      FAX: 858-495-5263

**SECTION A – PROJECT INFORMATION**

<b>1. Project Title</b>	Coastal Embayment Bacterial Source Identification Study
<b>2. Contact Information</b>	
? Agency/organization	City of Encinitas (Carlsbad Watershed Lead)
? Address	Engineering Department 505 S. Vulcan Ave. Encinitas, CA 92024
? Phone	(760)633-2632
? E-mail	kweldon@ci.encinitas.ca.us
? Submitted by (name & title)	Katherine Weldon
<b>3. Project Location (City/Community)</b>	San Elijo Lagoon, Encinitas, CA
<b>4. Watershed (if multiple or regional, please indicate)</b>	Carlsbad Hydrologic Unit (904)
<b>5. Amount Requested</b>	\$1,600,000
<b>6. Match Information (a minimum 10% match is required for all projects):</b>	
? Estimated match amount	\$160,000
? Has a match been identified (y/n)?	<b>no</b>
? If so, please identify the source(s)	
<b>7. Status of Project (conceptual, designed &amp; ready to build, CEQA completed, etc.)</b>	<b>Conceptual</b>

**8. Project Description (less than 100 words)**

Excessive levels of indicator bacteria is one of the most common water quality problems in San Diego County and most of the coastal embayments in the region are on the 303(d) list for bacteria indicators. The goal of this project is to identify the sources of bacteria in San Elijo Lagoon, using traditional and newly developed source tracking methods recently utilized in Mission Bay. This project consists of the following components: (1) Bacterial source tracking to identify sources of bacterial contamination in the Lagoon; (2) An epidemiological assessment of area beaches, and; (3) Identification of potential solutions and BMPs.

**9. Additional information (include photo, regional map, text as needed. Please limit entire document to 3 pages or less):**

***Project Stakeholders***

- City of Encinitas, Carlsbad, and Oceanside
- Caltrans
- Non Profits (i.e., San Elijo Lagoon Conservancy, etc)

***Detailed Project Description***

Bacterial contamination of surface waters is a common problem in San Diego County, in watersheds as well as area beaches. Coastal embayments act as the final receiving waters for many watersheds prior to discharge to the ocean. Flow from these embayments can impact water quality on adjacent beaches. Despite this important and common environmental problem, the sources of the bacteria within the embayments and the potential for human health impacts to swimmers at adjacent beaches have not been thoroughly investigated. San Elijo Lagoon will be used as a case study to address these issues. The project has the following components:

1. Bacterial Source Tracking (BST)
  - a. Traditional source tracking will be performed to identify bacterial inputs to the receiving waters and;
  - b. Microbial source tracking methods (e.g., ribotyping and PCR, which were recently used in the Mission Bay bacterial source identification study) will be used to determine the origin (human, avian, canine, etc.) of bacterial contamination. The main focus will be to determine human vs. non-human bacterial sources.
2. Epidemiology
  - a. An epidemiological study will be conducted in coastal areas adjacent to the lagoon inlet or other areas used for human recreational purposes to determine the presence of microbial pathogens that may pose a threat to human health.
3. Reduction of Contamination
  - a. Potential solutions and BMPs to reduce bacterial contamination will be identified and applied to other coastal embayments in the region.

**SECTION B – SUPPLEMENTAL INFORMATION**

**1. CWC section 79561 states that eligible projects must include one or more of the water management elements listed below (see Guidance Section III.C.). Please check all that apply to your proposed project.**

- Programs for water supply reliability, water conservation, and water use efficiency
- Storm water capture, storage, treatment, and management
- Removal of invasive non-native plants, the creation and enhancement of wetlands, and the acquisition, protection, and restoration of open space and watershed lands
- Non-point source pollution reduction, management and monitoring
- Groundwater recharge and management projects
- Contaminant and salt removal through reclamation, desalting and other treatment technologies
- Water banking, water exchange, water reclamation and improvement of water quality
- Planning and implementation of multipurpose flood control programs that protect property; and improve water quality, storm water capture and percolation; and protect or improve wildlife habitat
- Watershed management planning and implementation
- Demonstration projects to develop new drinking water treatment and distribution methods

**2. The Dept. of Water Resources (DWR) and State Water Resources Control Board (SWRCB) have established the statewide priorities listed below for guiding the selection of projects for funding (see Guidance Section II.E.). Please check all that apply to your proposed project.**

- Reduce conflict between water users or resolve water rights disputes, including interregional water rights issues
- Implementation of Total Maximum Daily Loads that are established or under development
- Implementation of Regional Water Quality Control Board Watershed Management Initiative Chapters, plans, and policies
- Meet Delta Water Quality Objectives
- Implementation of recommendations of the floodplain management task force, desalination task force, or recycling task force;
- Address environmental justice concerns
- Assist in achieving one or more goals of the CALFED Bay-Delta Program

**NOTE: The eligibility requirements and statewide priorities listed above should be considered minimum screening criteria for project selection. Additional prioritization criteria will be identified once regional goals have been established for the draft IRWM Plan. In general, applicants should assume that preference will be given to projects that are regional, multi-functional, and able to demonstrate multiple benefits.**

**NOTE: Proposals that include on-stream or off stream surface water storage facilities are not eligible.**