

Project Title: San Diego County Lagoon Eutrophication Control Project
Katherine Weldon, City of Encinitas (Carlsbad Watershed Lead)

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

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@sdcounty.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

1. Project Title	San Diego County Lagoon Eutrophication Control Project
2. Contact Information	
? Agency/organization	City of Encinitas
? Address	505 S. Vulcan Avenue 506 Encinitas, CA 92024
? Phone	(760)633-2632
? E-mail	kweldon@ci.encinitas.ca.us
? Submitted by (name & title)	Katherine Weldon, Clean Water Program Manager
3. Project Location (City/Community)	San Diego County – Multiple Locations
4. Watershed (if multiple or regional, please indicate)	Santa Margarita and Carlsbad Hydrologic Unit
5. Amount Requested	1,900,000
6. Match Information (a minimum 10% match is required for all projects):	
? Estimated match amount	190,000
? Has a match been identified (y/n)?	No
? If so, please identify the source(s)	
7. Status of Project (conceptual, designed & ready to build, CEQA completed, etc.)	Conceptual
8. Project Description (less than 100 words)	

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Eutrophication of surface waters has been identified as one of the largest non-point pollution problems in the country and several lagoons in San Diego County have been placed on the 2002 CWA 303(d) list for excessive nutrients and/or eutrophication. The ultimate goal of this project is to identify solutions that will reduce nutrient loading in the county's coastal embayments. This will be achieved through a thorough assessment of nutrient loading and eutrophication of two embayments (San Elijo Lagoon and Santa Margartia River Estuary), including hydrodynamic and pollutant modeling, identification of nutrient sources, nutrient characterization and impact on beneficial use criteria, and a detailed implementation plan for nutrient reduction.

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

Project Stakeholders

- Local Municipalities
- Non Profits
- Water Agencies
- San Diego County
- California Department of Fish and Game

Detailed Project Components

Results of the Ambient Bay and Lagoon Monitoring Program have shown that there are notable differences in the water quality and biotic communities between two differing types of coastal lagoons in San Diego County (1) sinuous channel lagoons, and (2) open lagoons. This program will attempt to characterize the nature and source of nutrient inputs contributing to eutrophication problems in two representative lagoons: San Elijo Lagoon (sinuous), and Santa Margarita River Estuary (open). By studying both types of embayments, results from this program will be useful on a regional scale to help address eutrophication problems in similar watersheds. The goals of this will be accomplished through the following program elements:

1. Development of RMA Model to assess nutrient dynamics
 - The RMA model is a 2-dimensional modeling system that can be used to assess hydrodynamics, water quality, and sediment transport processes.
 - The hydrodynamic component of the model has been previously applied in the San Elijo Lagoon by the U.S. Army Corps of Engineers and is ready for the pollutant loading component.
 - The model will also be developed for Santa Margarita River Estuary.
2. Determination of Nutrient Sources in Lagoons and Watersheds
 - A long-term monitoring program will be developed to accomplish the following:
 - Detailed characterization of nutrients in the lagoons and an assessment of impact to beneficial uses
 - Identification of nutrient sources in the lagoons and watersheds
 - Development of pattern of eutrophication
 - Validation of groundwater as a nutrient source
3. Implementation Plan
 - Following completion of the modeling and monitoring components of the program, a detailed implementation plan will be developed that will address methods to reduce and control eutrophication problems in the watersheds and lagoons. This program may include such topics as:
 - Source Control Program
 - Water Conservation Measures-Reduction in overall water usage and increase of water reuse practices
 - Pilot BMP Project - Implement small scale BMPs to treat local runoff that isn't contained through conservation strategies before it enters the watershed (example = treatment wetland)
 - Public Outreach- Implementation of Public Education program designed to reduce pollutants entering watershed
 - Identification and Implementation of Regional BMPs

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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.