

Project Title: Comprehensive Groundwater Recharge Study
Project Contact (name and organization/agency): Robert Hingtgen DPLU

**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	Comprehensive Groundwater Recharge Study
2. Contact Information	
? Agency/organization	SD County Dept. of Planning and Land Use
? Address	5201 Ruffin Rd. San Diego, 92123
? Phone	858-694-2960
? E-mail	Robert.hingtgen@sdcounty.ca.gov
? Submitted by (name & title)	Robert Hingtgen
3. Project Location (City/Community)	County-wide, groundwater dependent areas
4. Watershed (if multiple or regional, please indicate)	
5. Amount Requested	\$90,000
6. Match Information (a minimum 10% match is required for all projects):	
? Estimated match amount	
? Has a match been identified (y/n)?	n
? If so, please identify the source(s)	
7. Status of Project (conceptual, designed & ready to build, CEQA completed, etc.)	Conceptually completed workplan for a GIS groundwater recharge model using the Thornthwaite soil moisture budget calculation and existing data sets.

Project Title: Comprehensive Groundwater Recharge Study
Project Contact (name and organization/agency): Robert Hingtgen DPLU

8. Project Description (less than 100 words)

The project outlines a comprehensive workplan to develop a model to calculate groundwater recharge for *groundwater dependent areas only (with a small buffer to be determined)* using the Thornthwaite soil moisture budget calculation. The data needs to be in a compatible format for the final GIS model – rasterized data sets divided into 300ft x 300ft grid cells. Required data: soil moisture and slope, precipitation, runoff, evapotranspiration, estimated groundwater storage. The model is largely dependent on the grid of precipitation values, which subsequently affects the value of the respective adjacent grid cell(s). An extensive study/data compilation has already been done on the past 30 years of rainfall information for the county.

If GIS cannot find a suitable model to run the Thornthwaite calculations, a FORTRAN program will be written (possible in 40 hours by a competent programmer).

A “base case” will be the main simulation representing average recharge and serve as a benchmark to develop other simulations. For example, an extensive recharge study was conducted in the Pine Valley area which can serve as a test for our model.

The model will be used to predict recharge during drought years, and to quantify the current groundwater demand, among other purposes.

The estimated time necessary to complete this task is 1 month of GIS time to develop a working model, and 2 months of GIS staff as well as the Hydrogeologist lead for calibrating and ‘ground-truthing’ the model.

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

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

Project Title: Comprehensive Groundwater Recharge Study

Project Contact (name and organization/agency): Robert Hingtgen DPLU

- () 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.