



SOUTHERN CALIFORNIAN FRESHWATER DEPRESSIONAL WETLANDS

What is it?

The San Diego, Los Angeles, and Santa Ana Regional Water Quality Control Boards have undertaken the first year of a multi-year study to determine the extent and condition of freshwater depressional wetlands in southern California. Depressional wetlands, such as freshwater marshes and wet meadows, are of particular interest because they are the most abundant wetland type and are subject to ongoing impacts, such as increasing urbanization pressures in southern California. In addition, freshwater depressional wetlands are seldom systematically monitored to evaluate if beneficial uses are being supported. Specific assessment questions addressed by the study include the following: What is the extent and distribution of depressional wetlands in southern California? What is the condition of depressional wetlands in southern California? What are the major stressors affecting depressional wetland condition in southern California?



Zuniga Marsh

In 2012, 16 freshwater depressional wetlands were sampled throughout southern California. The following indicators for conditions assessment were collected: California Rapid Assessment Method (CRAM), aquatic macroinvertebrates, and algae. The following indicators for stress assessment were collected: sediment toxicity, sediment

chemistry, hydrology, and landscape-scale stressors. Data analysis is currently underway for the 2012 data. Additional sites will be collected in 2013.

Why is it important?

This project is important because it will provide the first overall condition assessment of freshwater depressional wetlands across southern California targeted at determining the aquatic life beneficial use status of these wetlands. Specific field methods and sampling protocols have been developed for sampling depressional wetlands that can be transferred to other areas of the state to ensure consistent approaches to conditions of wetlands. Most importantly, the focus of the project is to determine the stressors that affect wetland condition; in southern California, those stressors are primarily urbanization. The assessment of freshwater wetlands and the potential identification of stressors will help decision makers carry out informed management actions to protect and/or restore depressional freshwater wetlands.

How will this information be used?

Wetland protection is an important statewide priority. Results from this multi-year study will be used to establish a baseline of aquatic information about each wetland that can be factored into any permitting decision considered by the State. It is anticipated that the regional boards will use the aquatic beneficial use information to ensure that further degradation and impacts to wetlands are avoided or minimized. In addition, avoidance and/or mitigation standards and expectations for each wetland can be used in the permitting and watershed planning process.

The data will be available to the public through the California Environmental Data Exchange Network ([CEDEN](#)).

For more information, please visit the [Southern California Coastal Water Research Project](#) website.