



## Recharge of Recycled Water Master Plan, San Timoteo Watershed Management Authority

### Background

The San Timoteo Watershed Management Authority (STWMA) was formed by the City of Beaumont, Beaumont Cherry Valley Water District, South Mesa Water Company, and Yucaipa Valley Water District in 2001. In 2004, STWMA made a commitment to the Santa Ana Regional Water Quality Control Board (RWQCB) to monitor the groundwater quality and groundwater levels in the regions known as the Beaumont and San Timoteo Management Zones. The purpose of this monitoring program is to ensure that STWMA member agencies' groundwater management programs are not having a negative impact on the groundwater and that the groundwater quality continues to meet the objectives set by the RWQCB.

### Objective of the Project

The Project is part of an integrated watershed management program being developed by the San Timoteo Watershed Management Authority. A stakeholder process will be used to develop the watershed management program. The stakeholders will include the

Counties of Riverside and San Bernardino, City of Beaumont, City of Yucaipa, South Mesa Water Company, Beaumont Cherry Valley Water District, Yucaipa Valley Water District, interested state and federal agencies, citizen groups and environmental organizations. The purpose of the project is to produce an urban stormwater and dry-weather management program as part of the larger San Timoteo Watershed Management Program. Other components of the San Timoteo Watershed Management Program (STWMP) include the protection and enhancement of groundwater quality, direct use and recharge of recycled water, stormwater recharge, minimization of the use of State Project Water in general and potentially eliminating the use of State Project Water during drought periods, conjunctive use and creation/restoration of wetland and riparian habitat.

Wildermuth Environmental, Inc. (WEI) conducted an investigation which included a two-year field program, development and application of modeling tools to characterize future surface water quality problems and to analyze solutions, and the development of a two-prong stormwater and dry-weather discharge management strategy.

The two-prong approach included both a regional stormwater management program and a localized treatment and stormwater management program. The regional stormwater management program included a master plan of channel works, wetlands, and stormwater extended detention/infiltration facilities, and the development of best management practices (BMPs).



*Recharge Basin in the San Timoteo Watershed*



## Recharge of Recycled Water Master Plan, cont'd

### Monitoring Program

A surface water monitoring program was undertaken to assess storm and dry weather flow quality for the period of late 2003 through 2004. A literature review and an inventory of existing and planned surface water management projects and facilities were completed in 2004. The current land use was developed by overlaying 1993 Southern California Association of Governments (SCAG) information obtained from the Santa Ana Watershed Project Authority (SAWPA) onto 2002 aerial photos to update the 1993 information. Future land use was determined by reviewing general plans and specific plans for the STWMA area. In addition to hydrologic and soil data, information from regulatory permits, urban

water management plans, sewer master plans and master plans of drainage, and local ordinances was also used to develop appropriate model parameters and input data sets to the extent they were available. The purpose of these activities was to identify the current dry-weather and stormwater runoff management regulations, practices and policies, and to obtain information to use with modeling tools to characterize the current and projected future water quality and quantity due to projected changes in land use.

### Value-of Project

This urban runoff management strategy is an integral component of the Integrated Regional Water Management Program (IRWMP), which is currently being imple-

mented by the STWMA members. It provides the strategy and facilities necessary to accomplish the second Program Element of the IRWMP; to develop and

implement a comprehensive surface water resources management and recharge program. The STWMA area stakeholders are committed to meeting the IRWMP goals in order to enhance the basin water supplies, protecting and enhancing water quality, optimizing the management of the STWMA area groundwater basins, protecting and enhancing habitat in the STWMA area, and equitably distributing the benefits and costs of the IRWMP. The urban runoff management strategy accomplishes the IRWMP goals by integrating stormwater management, water quality protection and enhancement, supplemental water recharge, water supply reliability, and groundwater management strategies with flood control, public access, and recreation management strategies. Integrating these strategies facilitates the equitable distribution of the benefits and costs of the IRWMP.

### Successful Components

Measurable components of its success will include increases in local yield, increases in recharge capacity, the maintenance and enhancement of water quality, and the demonstration that the Basin Plan maximum benefit objectives are being met.



*Stormwater Runoff*