



THE METROPOLITAN WATER DISTRICT  
OF SOUTHERN CALIFORNIA



## Southern California World Water Forum College Grant Program – 2009 Project Summaries

COLLEGE	LOCAL PROJECTS	MEMBER AGENCY	SUMMARY
CSU Northridge (1)	Analysis of Aquifer Traits and Hydrostratigraphy of the South Las Posas Basin, Ventura County	LADWP / Calleguas MWD	Develop comprehensive subsurface characterization and analysis of the South Las Posas Basin in Ventura County; GIS analysis of stratigraphy and aquifer characteristics to improve groundwater resources
CSU San Diego	Disinfection of Secondary Effluent Using Surfactants Immobilized on the Surfaces of Minerals	SDCWA	Investigate cost-effectiveness of innovative disinfection method for secondary effluent using surfactants; potential to pioneer disinfection method and increase use of recycled water
USC (3)	Let the Games Begin	LADWP	Develop a “board game” to educate people about water issues in southern California; the game will be similar to Monopoly but will focus on water supply, distribution and conservation
Santa Monica College	Public Service Announcement	CITY OF SANTA MONICA	Produce a PSA addressing various water conservation strategies used in different countries (as told by international students); the PSA will include local strategies for southern California residents
UC Riverside (2)	Silica Removal from Inland Brackish Water	WESTERN MWD	Develop a pretreatment process (combined thermal coagulation and activated alumina) that will reduce the overall operating costs by increasing the lifespan of reverse osmosis membranes.
USC (4)	Green Alley Design: Creating a Menu of Water Conservation Options	LADWP	Produce a menu of BMP design options for alleys, such as permeable paving and native plantings; while educating residents about the monetary, environmental and quality of life benefits



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<b>San Bernardino Valley College</b>	Gray Water to Green Trees	MWD	Study the feasibility of using gray water to irrigate fruit trees; possibly reducing consumption of potable water; generating less wastewater and growing fruit trees inexpensively
<b>Pasadena City College (2)</b>	Multi-stage Strategy to Improve the Water Quality of Urban Runoff	CITY OF PASADENA	Build and test a multistage passive water treatment program (of urban runoff) that will include charcoal filtration, bioreactors and a subterranean wetland
<b>USC (6)</b>	Design of an Instant Hot Water System to Increase Water Conservation	LADWP	Design a new system to use the initial cold water from a hot water tap; this project could potentially save millions of gallons annually in Los Angeles county
<b>Cal Poly Pomona (1)</b>	Landscape Irrigation Water Conservation Project with Hollenbeck Middle School Model	THREE VALLEYS MWD	Create a living refinery at an urban school to treat and infiltrate parking lot runoff; the surrounding area will be landscaped with drought tolerant plants.
<b>Golden West College</b>	"Water for People" Mobile Education Project	MWDOC	Develop portable prototype for mobile education; get students and community members involved in key global issues of water quality and conservation



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UC Santa Barbara	Education Tech Trans / Plan for Sustainable Regional Expansion of Knowledge: Train Experts in the Southern Andes of Peru	MWD	Develop and install slow sand filtration systems in regions of Peru; this holistic approach includes a model for project sustainability by educating the residents on how to build, operate and maintain the system
Art Center College of Design (2)	Providing Access to Clean Water in Rural Guatemala: A proposal for Low-Cost Solar Water Purifier	CITY OF PASADENA	Construct prototype of a solar water purification system to combat water-borne diseases in Guatemala.
USC (1) Engineers w/o Borders	Design and build a pump, water filtration system, and storage tank for community of Corral de Piedras in Honduras.	LADWP	Design and build a pump, filtration system and storage tank for community in Honduras; improve water quality and quality of life by improving sanitation habits
Cal Poly San Luis Obispo	Bio-Sand Filtration and Curriculum for Public Schools	MWD	Train elementary school teachers in developing countries (pilot testing in Mexico and Zambia) on how to build and maintain inexpensive bio-sand filters.
Occidental College	A Study on Applying Solar-Powered Membrane Filtration Systems to the Treatment of Malian Ground Water	LADWP	Determine whether ground water can be effectively treated using membrane filtration units powered with photovoltaic modules; pilot tests at university of Bamako in Mali (western Africa).
University of Redlands (1)	Developing a GIS-Based Suitability Model for Rural Water Supply in Rwanda	MWD	Employ spatial technologies (GIS and GPS) to create a geo-database for improving access to clean water in Rwanda; mitigate problematic sources; identify locations for new sources.