

2013 Foundational Actions Funding Program Awards

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Proposal Name	Lead Agency (Participating Agencies)	Recommended Funding	Description	Links
Groundwater				
Enhanced Research Using RCF for Hexavalent Chromium Removal	City of Glendale Water and Power	\$180,000	This study was part of a larger research effort to develop feasible treatment solutions for hexavalent chromium, which is a contaminant regulated by the State of California. The study included jar and pilot testing to improve RCF technology and compared data with other best available treatment technologies.	Report Conference Presentation
Pilot-scale Groundwater Desalter Brine Concentrator Study	Eastern Municipal Water District	\$192,214	The pilot study evaluated the AquaSel desalter system of General Electric Water Process & Technologies at the Menifee and Perris desalter facility to increase overall groundwater desalter recovery from 75% to 95%. Water yield increased without compromising water quality.	Report Conference Presentation
San Juan Basin Groundwater and Desalination Optimization Program	Municipal Water District of Orange County	\$200,000	Through groundwater modeling, this study determined the feasibility of stormwater capture and recharge, recycled water recharge, adaptive production, and seawater intrusion control for the San Juan Basin. The study further developed and analyzed alternatives, strategies, and implementation approaches.	Report Conference Presentation
Pilot-scale Biological Treatment	Inland Empire Utilities Agency	\$239,600	Installed a pilot-scale BIOTTTA unit at two sites, which showed effective removal of nitrates and volatile organic compounds	Report

Process (BIOTTTA)	<i>Western Municipal Water District</i>	\$175,600	using indigenous bacteria that converts contaminants to innocuous by-products.	Conference Presentation
Recycled Water				
Pilot-scale 3-D Fluorescence Excitation-Emission Matrix	Inland Empire Utilities Agency	\$25,000	Total Organic Carbon (TOC) standards limit the percentage of recycled water that can be blended for groundwater recharge. However, TOC can come from imported water and stormwater used in recharge as well and can be discounted from calculations towards TOC limits for groundwater recharge. Being able to differentiate the source of TOC could lead to increase recycled water use for groundwater recharge.	Report Conference Presentation
	<i>Western Municipal Water District</i>	\$25,000		
Recycled Water Intertie Study	Inland Empire Utilities Agency	\$12,500	Recent planning studies have found that Inland Empire Utilities Agency's (IEUA) demand for recycled water is projected to exceed supply availabilities, requiring IEUA to search for new supply. One option involves a partnership with Western Riverside County Regional Wastewater Authority (WRCRWA) to intertie with their proposed recycled water system.	Report Conference Presentation
	<i>Western Municipal Water District</i>	\$12,500		
Direct Potable Reuse Research Initiative	West Basin Municipal Water District	\$100,000	The DPR Research Program builds on existing research done by the Water Environmental & Reuse Foundation to address critical questions regarding the feasibility of DPR. The four studies included in this project will strive to meet the goal of addressing regulatory, scientific, technical, and public perception barriers to DPR. These studies are: Model Communication Plans for Increasing Awareness and Fostering Acceptance of DPR; Critical Control Point Assessment to Quantify Robustness and Reliability of Multiple Treatment Barriers of a DPR Scheme; Guidelines for Source Water Control Options and the Impact of Selected Strategies on DPR; Development of an Operation and Maintenance Plan, and Training and Certification for DPR Systems.	Report Conference Presentation
	<i>Burbank Water and Power</i>	\$20,000		
	<i>City of Torrance</i>	\$30,000		
	<i>Eastern Municipal Water District</i>	\$50,000		
	<i>Las Virgenes Municipal Water District</i>	\$50,000		
	<i>Municipal Water District of Orange County</i>	\$100,000		
	<i>Three Valleys Municipal Water District</i>	\$50,000		

	<i>Upper San Gabriel Valley Municipal Water District</i>	\$50,000		
	<i>Western Municipal Water District</i>	\$50,000		
Innovative Indirect Potable Reuse Treatment Train	Upper San Gabriel Valley Municipal Water District	\$150,000	Total Organic Carbon (TOC) standards limit the percentage of recycled water that can be used for groundwater recharge. Minimizing the TOC content in recycled water through optimization of ozonation, biofiltration and SAT will increase the proportion of recycled water for recharge.	Report Conference Presentation
Tracer Alternative Research	West Basin Municipal Water District	\$82,250	Recycled water recharge regulations include the use of a tracer to prove residence time of recycled water in aquifers before extraction. Existing tracer, SF6, was recently banned due to greenhouse gas concerns. Groundwater samples from monitoring wells were collected and analyzed to determine the arrival of Xenon from injection wells.	Report Conference Presentation
Ocean Desalination				
Ocean Water Desalination Intake Biofouling and Corrosion Study	West Basin Municipal Water District	\$125,000	This two-part study focused on the biofouling of the intake pipes as well as the biofouling and corrosion of submerged seawater intake screens. The project consisted of testing sub-surface wedge wire screens and intake piping materials.	Report Conference Presentation
Advancement of Slant Well Technology for Seawater Desalination	Municipal Water District of Orange County	\$200,000	A slant well is a subsurface seawater intake technology that pulls water through a sand and gravel aquifer under the ocean floor. These wells have the potential to draw much higher volumes of water than vertical wells, with no impacts to marine life. This study included the development and refinement of various models, a geotechnical evaluation, and conceptual designs to further the understanding and utilization of slant well intakes.	Report Conference Presentation
Stormwater				

<p>Stormwater Capture Master Plan</p>	<p>City of Los Angeles Department of Water and Power</p>	<p>\$414,034</p>	<p>The development of this Stormwater Master Plan included a two-year stakeholder process and evaluated existing stormwater projects, modeled stormwater capture potential, and developed feasible stormwater capture alternatives and potential strategies to increase stormwater capture.</p>	<p>Report Conference Presentation</p>
<p>Stormwater Harvesting and Direct Use Demonstration Project</p>	<p>City of Santa Monica</p>	<p>\$400,000</p>	<p>This project diverts water from an existing storm drain into a cistern, treats the captured water, and delivers the treated water to the park irrigation system and restrooms at Los Amigos Park in Santa Monica.</p>	<p>Fact Sheet Conference Presentation</p>