



## PHOENIX METROPOLITAN RECLAMATION AND REUSE (AGUA FRIA LINEAR RECHARGE) PROJECT

Subcommittee: Energy and Water

**Request:** Appropriate \$200,000 in the Water and Energy Appropriation Bill for Fiscal Year 2011 to be used by the Bureau of Reclamation under its Title 16 authorization for investigating and implementing reclaimed water utilization strategies for wastewater treated by the City of Phoenix in partnership with the other Sub-Regional Operating Group (SROG) cities of Glendale, Mesa, Scottsdale and Tempe.

### Community Value:

As the Phoenix metropolitan area moves toward full utilization of Salt River Project and Central Arizona Project surface water supplies for urban use, reclaimed water becomes an increasingly important resource in meeting the need for a sustainable water supply to meet growth needs, and as a supplement when surface water supplies are restricted due to drought. The region is working cooperatively with the Bureau of Reclamation to develop reclaimed water as a supplemental water source and as a means of preserving and enhancing local groundwater supplies.

This funding will be utilized to identify and explore opportunities to enhance the economic feasibility of both the direct use and the recharge and recovery of effluent through a series of projects. The Agua Fria Linear Recharge Project (AFLRP) has been the primary element in recent years, and there is a pressing need to expand planning and development efforts to address: 1) salinity and other water quality constraints that affect the feasibility of AFLRP and other re-use projects, 2) the feasibility of aquifer storage and recovery (ASR) for indirect potable utilization of reclaimed water, 3) the need for institutional and other large infrastructure solutions to overcome geographic and legal constraints to reclaimed water utilization and 4) other constraints to full utilization of reclaimed water.

### Background:

In the Water Resources Development Act of 1992, the Phoenix Metropolitan Reclamation and Reuse Project was authorized to provide federal funding to the city of Phoenix and its SROG partners to develop facilities within the Agua Fria River to recharge 40,000 to 100,000 acre-feet of reclaimed water from the 91st Avenue Wastewater Treatment Plant. Recent escalation of project costs warrant evaluation of alternatives to reach the objective of developing economically practical means of utilizing reclaimed water.

For fiscal year 2011, funding will be used to explore means to reduce costs associated with concentrate management and disposal. The salinity content of reclaimed water has proven a primary constraint in storing water underground via the Agua Fria Linear Recharge Project and other potential recharge projects. Costs to manage concentrate (the salt product removed through treatment) are often higher than the treatment process itself.

Funding also will be used for the evaluation, design and pre-construction activities associated with Aquifer Storage and Recovery (ASR) wells in the city of Phoenix to both demonstrate the feasibility and safety of storing and recovering reclaimed water via ASR, and to begin augmenting aquifers for long-term growth needs and drought shortage mitigation.



Contact: Steve Rossi, Water Services Department, Principal Water Resources Planner  
602 495-3669, [steve.rossi@phoenix.gov](mailto:steve.rossi@phoenix.gov)