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**Status of Generation, Reuse and Recharge of Treated Wastewater in Arizona;
Evaluation of Programs, Data Sources and Utilization Opportunities**

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Abstract:

A nexus of factors are currently pressuring Arizona's water resources; these factors include a growing population, ongoing drought, and recognition of the importance of ecological systems. Accordingly, water managers are considering all available sources of water supply, including municipal effluent. Currently, there is a critical need to assess effluent generation and reuse in Arizona, both statewide and on a regional basis. Information corresponding to effluent generation and reuse is currently be assembled in a centralize database. In addition, current water reuse incentive programs are being evaluated to provide insight into public and industry perceptions regarding wastewater reuse. Initial results indicate that a critical gap has formed in the tabulation of water availability in Arizona. This project provides recommendations towards enhancing data reporting, records management, and incentive program effectiveness. The end goal is to facilitate efforts of state and local actors to match end use needs with treated wastewater sources through the development of an online registry of wastewater treatment plants and corresponding water quality classes and effective reuse incentive programs. The resulting findings and database will be tools for decision-makers and water managers to help make important water resource decisions, learn about new and existing approaches to effluent reuse, and improve the effectiveness of programs to encourage effluent use.

Impact Statement:

This project consists of three phases; (1) Data collection and organization, (2) Evaluations, and (3) Recommendations. The resulting findings and database are tools for decision-makers and water managers to help make important water resource decisions, learn about new and existing approaches to effluent reuse, and improve the effectiveness of programs to encourage effluent use.

Partnerships encouraged throughout this project include the Arizona Department of Environmental Quality (ADEQ) as well as participating Waste Water Treatment Plants.

Funding for this project was provided in part by the Arizona Water Institute which in turn leveraged funds from the Arizona Department of Water Resources (ADWR).

This project has facilitated communication and understanding of the academic community with the local regulatory agency on water reuse permit requirements as well as data acquisition. Additionally, this project has increased awareness of the general public on adequate use and availability of reclaimed water throughout the state of Arizona.

Category: Conservation and Resource Management

Type of Presentation: Poster Presentation