

# **Reclaimed Water: Changing the Paradigm for Sustainable Resource Management**

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## **ABSTRACT**

As Arizona's fastest growing private water and wastewater utility, Global Water Resources ("Global") is driving the deployment of efficient water resource management to ensure the sustainability of development. The drought plagued Southwest, poised to experience continued rapid growth, does so at the peril of its limited groundwater supplies. Thus, water conservation is imperative in the desert Southwest. Groundwater conservation can be achieved through the "triad of conservation": (1) reusing reclaimed water for non-potable uses such as irrigating landscaping and flushing toilets; (2) introducing renewable surface water sources to the maximum feasible extent; (3) recharging excess reclaimed water and surface water into the aquifer to the maximum extent feasible. Global has taken a leadership role in the deployment of water reclamation infrastructure and the strategic reduction of potable water use for non-potable applications. Recognizing reclaimed water as the only increasing water supply, and the only true "sustainable" or "renewable" resource, effective management and deployment of reclaimed water will ensure development may continue even in the face of environmental stresses. Demonstration of these principles is made through a case study of Global Utilities in Maricopa, Arizona.

Global Utilities have achieved remarkable reductions in average raw water use, in this case groundwater, up to 30% and counting, as compared to traditional providers. This 30% reduction has been achieved with only "basic" remediation thus far. In planning and/or construction is "advanced" reclamation, which involves deploying dual meters at the home-owner level, and building dual-plumbed buildings.

Cost savings can be realized over time through reduced operating expenses through basic and advanced reclamation. The avoided costs of importing water from outside of the basin or worse, the State, coupled with the conservation opportunities which in effect extend the precious water supplies for the future, are truly priceless.