Linking Science and Policy Through an Adaptive Management Approach: The San Pedro River

06-250

Background:

The Upper San Pedro Partnership (Partnership) is a consortium of 21 local, state and federal agencies (including Department of Defense (DoD)/Fort Huachuca), that formed in 1998 to address regional water use conflicts. The Partnership's planning goal is to "ensure that an adequate long-term groundwater supply is available to meet the reasonable needs of both the area's residents and property owners (current and future) and the San Pedro Riparian National Conservation Area."

Objective:

The intent of this DoD Legacy Resource Management Program-funded project was to: 1) provide adequate technical coordination to the Partnership to ensure the effective integration of the best available science (predictive models, research, and monitoring efforts) into decision-making processes, and 2) document key aspects of the Partnership's adaptive management approach such that lessons learned regarding collaborative regional groundwater management can be applied to other watersheds and/or DoD installations.

Summary of Approach:

This project focused on the continued integration between science, policy development, and the implementation of water conservation, recharge, reuse, and augmentation projects that were initiated as part of Legacy Project 05-250. Monitoring results were used to determine the effectiveness of previous project implementation programs and to prioritize future strategies to accomplish established goals and objectives.

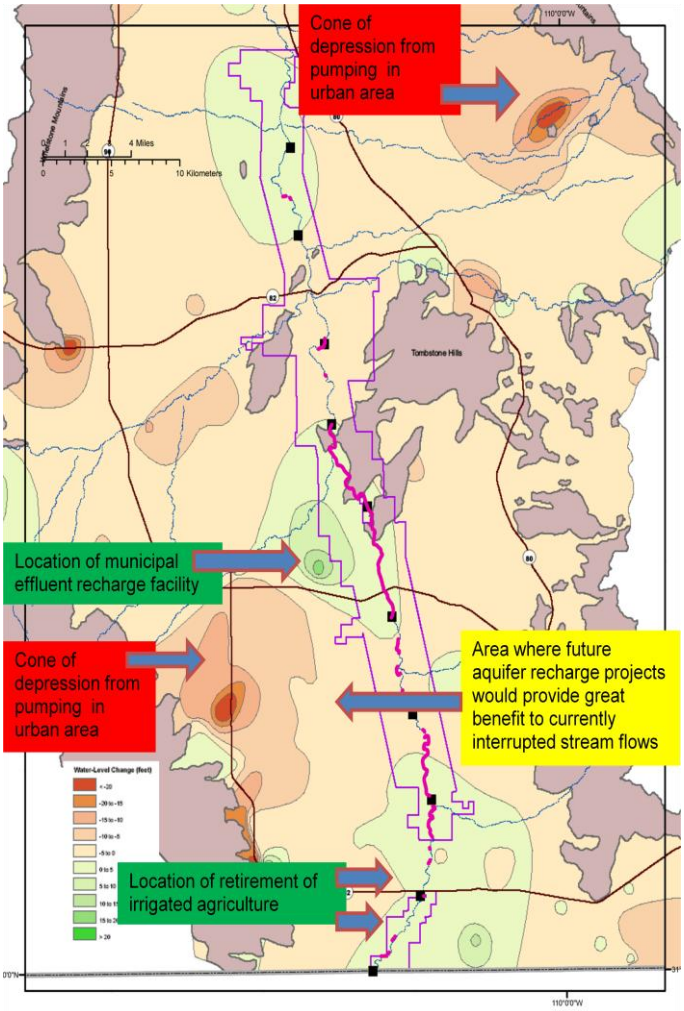
Benefit:

This project provided essential technical coordination to the Partnership for their collaborative development and refinement of water conservation project and policy recommendations. The adaptive management process has improved the understanding of key technical concepts by decision-makers, and resulted in the implementation of projects and policies that contribute toward regional water management issues.

Accomplishments:

Localized improvements in the regional aquifer have been detected through regional monitoring programs, however, additional water management strategies will be necessary to ensure the long-term viability of the larger riparian ecosystem.

The most effective strategies for sustaining baseflows are now better understood by stakeholders as a result of modeling tools and regional monitoring programs.



Regional Groundwater Level Change 2001-2006, courtesy of the Arizona Department of Water Resources. The retirement of pumping and the recharge of treated effluent have both played a key role in improving groundwater elevations in locations near the river to sustain baseflows.

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