

US EPA ARCHIVE DOCUMENT



Targeted Watersheds Grant

Santa Cruz River, AZ and Mexico



Prolonged drought conditions and lowered groundwater tables take a toll on riparian health, as seen in this image of riparian mortality in 2005.

Photo by Amy McCoy



The river runs through the small ranching community of San Laz ro in Sonora, Mexico where the Sonoran Institute is working with ranchers to reduce the impacts of overgrazing in the riparian area. *Photo by Amy McCoy*



The greatest challenge facing the river is to balance the needs of multiple users, namely residential development, agriculture, and riparian vegetation. *Photo by Amy McCoy*

Sonoran Institute

The Watershed

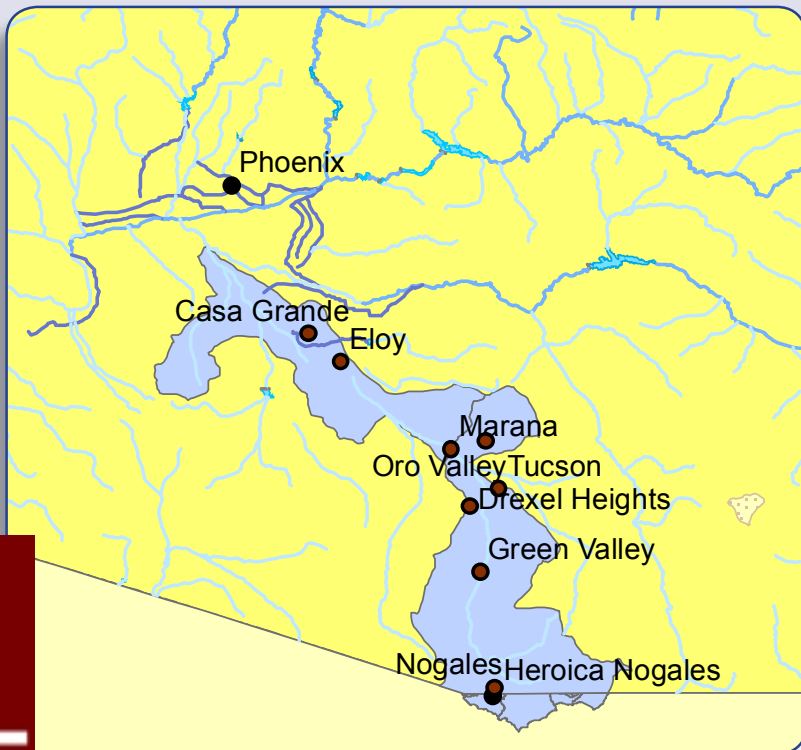
The Santa Cruz River begins in Arizona and flows south from the U.S. into Sonora, Mexico, where the river makes a U-turn and flows back into Arizona. It is the only river to cross the U.S./Mexico border twice. Its riparian corridor represents an important but threatened Sonoran Desert ecological system. The river and its tributaries support numerous resident and migratory species, including the endangered Southwestern Willow Flycatcher and the Gila Topminnow. The Upper Santa Cruz River serves as a primary drinking water supply for parts of both Arizona and Nogales, Mexico. The aquifer is shallow with limited storage capacity and extreme sensitivity to drought. The Middle and Lower Santa Cruz River is quite different. The aquifer becomes deep and broad, but surface water is ephemeral, except where effluent from wastewater treatment plants is released.

Issues

In the Upper Santa Cruz River, increased municipal water usage to support a growing population and prolonged drought conditions are placing an increasing burden on the aquifer and degrading riparian vegetation. In the lower and middle Santa Cruz River, increased urbanization on the outskirts of Tucson, Arizona is contributing to the destruction of riparian habitat and to increased polluted runoff. After rains, intense flood peaks occur with little infiltration, due to increased impervious surfaces (e.g., paved surfaces like roads and parking lots). Stormwater runoff also transports pollutants to the tributaries.

Project Activities

- **Stormwater Recapture:** To restore and augment the natural infiltration capacity of the watershed, stormwater runoff capture demonstration projects will be implemented on five different land uses: open space, residential, ranchlands, public lands and urban areas. Projects include habitat restoration and planting riparian areas with native vegetation, installation of brush weirs and gabions (barriers to slow stormwater flow), and monitoring the implementation of the City of Tucson Water Harvesting Guidance Manual, which addresses the need to increase utilization of stormwater to off-set the demand for groundwater.



Santa Cruz River Watershed

Project Partners:

- **City of Tucson**
- **Pima County**
- **Santa Cruz County**
- **University of Arizona**
- **University of Sonora**
- **Friends of the Santa Cruz River**
- **Tucson Audubon Society**
- **National Park Service**
- **Arizona Department of Water Resources**
- **Arizona Department of Environmental Quality**
- **Local developers and ranchers**

Leveraged Resources:

EPA Grant: \$858,612

Match in non-federal funds and
in kind services: \$377,500

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- **Rainwater Harvesting Workshops:** Workshops will be conducted to highlight the successes from the restoration projects, and small grants will be provided to private landowners to develop their own restoration and water harvesting plans.
- **Riparian Health Report Card:** A report card will be issued to the community to provide information on riparian conditions. The information in the report card can be applied to management decisions and conservation actions within the watershed. As a priority recommendation from the Santa Cruz County Comprehensive Plan, a finance strategy will be developed to utilize local revenue sources to identify, assess, and purchase high-value conservation lands in the watershed.
- **Conservation Steering Committee:** A workshop bringing together stakeholders from both the U.S. and Mexico will be held and a Conservation Steering Committee will be formed to ensure continued coordination on basin-wide restoration, monitoring, and policy efforts.



EPA's Targeted Watersheds Grant program is a competitive grant program designed to encourage collaborative, community-driven approaches to meet clean water goals.

For more information about the selected watersheds, please visit:
<http://www.epa.gov/twg>

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