

## **Altar Valley Watershed Plan**

### **Project Description: Wildlife Waters Assessment and Enhancements**

**Project description:** Assess current wildlife waters (drawing upon existing data from multiple sources), identify where water sources may be enhanced for wildlife use, and implement projects to make important connections between waters.

**Status:** This project is in progress. Current surface waters and waters within Chiricahua Leopard Frog habitat were identified through part of the 2021 Chiricahua Leopard Frog assessment by AVCA and Whitney Noel. Two specific improvements are being planned on City of Tucson land and the Santa Margarita Ranch. The Santa Margarita Ranch improvement, at Lagunita Tank, will set an example for updated design of a tank maintenance project.

The next phase is identify best practices for designing tanks and other surface waters for multiple species (e.g., CLF, pronghorn, livestock, grassland birds, waterfowl, etc.), including:

- Designing waters to accommodate the needs of multiple species (e.g, open habitat for pronghorn, appropriate cover for quail, access for cattle, etc.)
- How to determine the potential for restoring native vegetation around the tank and/or sediment trap
- Managing water upstream and downstream of tanks - how to encourage the retention of water and soil upstream of the tank and deliver water effectively out of the tank to mitigate tank blowouts and channel incision (so that the surrounding area is hydrated, not de-watered, by the tank)
- Specific to the Altar Valley, the locations of perennial waters and distance between them (our idea of creating a map of perennial waters and any movement barriers between them)
- Ideas on how government agencies, NGOs, and ranchers/landowners can work together on the different aspects of tank improvements.

**Potential project partners** (*indicate possible co-leads if known*): Arizona Game and Fish Department, Arizona GIS, BANWR, Pima County, ADEQ/ADWR, landowners, University of Arizona students/researchers

**Purpose of the project:** Overall goals and/or objectives of the project as you see them.

Given the data available on existing water sources in the Altar Valley, prioritize where to enhance resources for the benefit of wildlife. The goal would be to connect key water sources

to increase access for many wildlife species and increase the overall habitat quality of the Altar Valley as a whole. It is anticipated that the projects would involve improving existing water sources more than creating new waters. Only willing landowners would be involved.

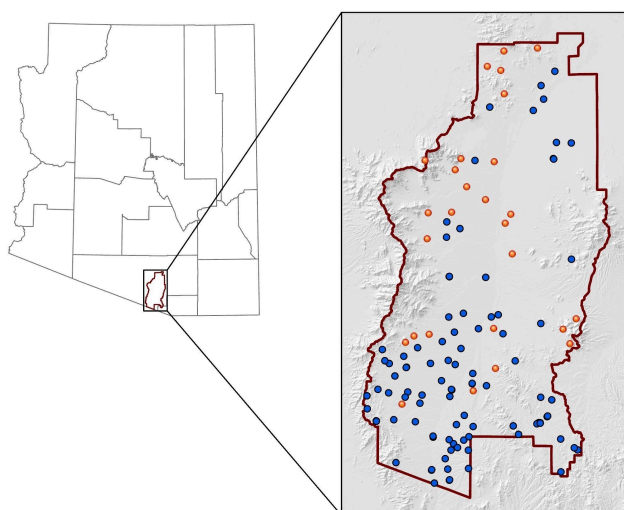
**Relationship to goals/desired conditions of the Watershed Framework:** Indicate which goals/desired conditions the project will help to achieve from [this list](#). Insert the number of the desired condition below (ex: 1a).

- 4a. Wildlife populations are sustained or enhanced.
- 4b. Habitat enhancement practices reflect general wildlife needs as well as those of individual species (especially threatened and endangered species).
- 4c. Support the implementation and outcomes of the Pima County Multi-species Conservation Plan and biological goals of the Sonoran Desert Conservation Plan.
- 4d. Rangeland waters (stock ponds, drinkers, waterlines) continue to be widely available and maintained and include, where appropriate, wildlife escape ramps.
- 4e. Hunting, managed by the Arizona Game and Fish Department, is encouraged as a sustainable opportunity that enhances public awareness of the value of conserving the Altar Valley watershed. Continued emphasis is placed on hunter education to respect private property and to cause no harm to non-target wildlife, management infrastructure or domestic animals.

**Value:** Why is this project important? How will it contribute to watershed productivity and community well-being? Your 60-second “elevator pitch” for this project.

**Implications of no action:** What are the likely results of *not* doing the project?

**Project area and site conditions:** The entire Altar Valley, specifically existing surface waters and areas where new waters would be beneficial.



- Wildlife Waters
- Lake/pond perennial
- Altar Valley Conservation Alliance area of interest

**Project activities:** Describe the overall process and primary activities of the project. *Optional: Include graphics/photos of project concepts or relevant examples.*

- Identify an individual to assess best practices for tank/surface water design
- Convene a team to guide the assessment and process/apply results
- Apply best practices to maintenance and establishment of surface waters

**Project timeline:** Organize the project activities into the planning, implementation, and maintenance/monitoring phases in the table below. *Optional: Include estimated duration and costs.*

Planning, Design/Engineering, & monitoring plan, permitting	Implementation/ Construction	Monitoring (post-implementation)	Maintenance (post-implementation)
<i>Activities:</i>	<i>Activities:</i>	<i>Activities:</i>	<i>Activities:</i>
<i>Duration:</i>	<i>Duration:</i>	<i>Cycle:</i>	<i>Cycle:</i>
<i>Estimated cost:</i>	<i>Estimated cost:</i>	<i>Estimated cycle cost:</i>	<i>Estimated cycle cost:</i>
<input type="checkbox"/> <\$10,000	<input type="checkbox"/> < \$10,000	<input type="checkbox"/> < \$1,000	<input type="checkbox"/> < \$1,000
<input type="checkbox"/> \$10,000	<input type="checkbox"/> \$10,000	<input type="checkbox"/> \$1 -10,000	<input type="checkbox"/> \$0 -10,000
<input type="checkbox"/> -\$100,000	<input type="checkbox"/> -\$100,000	<input type="checkbox"/> \$10,000	<input type="checkbox"/> \$10,000
<input type="checkbox"/> \$100,000 -	<input type="checkbox"/> \$100,000 -	<input type="checkbox"/> -\$100,000	<input type="checkbox"/> -\$100,000
<input type="checkbox"/> \$500,000	<input type="checkbox"/> \$500,000	<input type="checkbox"/> \$100,000 -	<input type="checkbox"/> \$100,000 -
<input type="checkbox"/> \$500,000 - \$1	<input type="checkbox"/> \$500,000 -	<input type="checkbox"/> \$500,000	<input type="checkbox"/> \$500,000
<input type="checkbox"/> million	<input type="checkbox"/> \$1 million		
<input type="checkbox"/> >\$1 million	<input type="checkbox"/> >\$1 million		

**Potential funding sources:** Partners for Fish & Wildlife, Pima County Regional Flood Control District, City of Tucson

**Permits:** Vary according to land ownership.