


**TIER-1 APPLICATION TO THE NEW MEXICO INTERSTATE STREAM COMMISSION
FOR NEW MEXICO UNIT OR WATER UTILIZATION ALTERNATIVE
UNDER THE ARIZONA WATER SETTLEMENTS ACT**

APPLICANT INFORMATION (PRINT OR

DATE: July 14, 2011

1. Legal Name: Donna Stevens	2. Organization: Upper Gila Watershed Alliance			
3. Address (street, city, county, state, and zip code): PO Box 383 Gila, NM 88038	4. Name, email, and phone number of contract person: Donna Stevens director@ugwa.org 575.590.5698			
5. TYPE OF APPLICATION (check one): <input checked="" type="checkbox"/> Final <input type="checkbox"/> Preliminary for review <input type="checkbox"/> Revised	6. TYPE OF APPLICANT (CHECK BOX): <input type="checkbox"/> local governments or municipalities <input type="checkbox"/> soil and water conservation districts, irrigation districts or commissions, acequias, or other political subdivision of the State of New Mexico <input type="checkbox"/> institutions of higher education or a consortium of such institutions <input checked="" type="checkbox"/> non-profit organizations or associations <input type="checkbox"/> private individual/s <input type="checkbox"/> federal agency (ies) <input type="checkbox"/> Other (specify)			
7. BRIEF PROJECT DESCRIPTION: Establishment of a water bank for domestic use in the Gila/San Francisco basins and lifting of restrictions on rainwater collection				
8. AREAS AFFECTED (describe by county, municipality, township, etc. as applicable): Luna County Hidalgo County Grant County Catron County				
9. TOTAL FUNDING REQUESTED (in \$1,000):				
2012: \$100,000	2013: \$100,000	2014: \$100,000	2015: \$100,000	2016: \$100,000
2017: 0	2018: 0	2019: 0	2020: 0	2021: 0
10a. TO THE BEST OF MY KNOWLEDGE AND BELIEF, ALL DATA IN THIS APPLICATION ARE TRUE AND CORRECT, THE DOCUMENT HAS BEEN DULY AUTHORIZED BY THE GOVERNING BODY OF THE APPLICANT AND THE APPLICANT WILL COMPLY WITH THE ATTACHED REQUIREMENTS AND ASSURANCES IF THE PROPOSAL IS ACCEPTED.				
10b. TYPED OR PRINTED NAME OF AUTHORIZED REPRESENTATIVE: Donna Stevens	11. TITLE: Executive Director	12. PHONE NUMBER: 575.590.5698		
13. SIGNATURE: 			DATE: July 14, 2011	

14. Evaluation criteria. Comprehensive responses to criteria A through D should be supported where possible by the best available science and scientific data, studies, models, and, where applicable, cite state, regional, or other water plans. Where such data and information is not available, applications should include best estimates and describe how such information would be obtained. Applications that do not include the requested information will not satisfy Tier-1 standards and, therefore, will not be eligible for Tier-2 consideration. Use Form 14a if needed.

A. State whether the proposal is for the “New Mexico Unit,” a “water utilization alternative,” or both.

This proposal is for a water utilization alternative.

B. Describe how the proposal will meet a “water supply demand” in the Southwest New Mexico Water Planning Region, comprised of Catron, Grant, Hidalgo and Luna Counties.

This proposal will meet a water supply demand through the establishment of a water bank administered by the Office of the State Engineer for the benefit of domestic well users in the Gila/San Francisco watershed, and through lifting restrictions on rainwater collection.

The most disadvantaged water users in New Mexico are Gila/San Francisco basin residents, who are denied access, under the Rifkind Decree (*Arizona v. California*) to well water except for non-consumptive, indoor, domestic uses. The approximately 3,572 households in this watershed cannot legally use water outdoors from their individual wells unless they own water rights.¹ This restriction does not apply anywhere else in the state, where most other wells are simply accorded a specific amount of water, typically three acre-feet for domestic use. The proposed water bank would use Colorado River water, delivered via individual domestic wells, to address this inequity. It would be impossible for a large diversion project to remedy this problem because the residents are dispersed across a large area. The water bank is the most practical and inexpensive way to remedy this situation, as no additional infrastructure is needed.

The water bank would pay for the delivery of Colorado River water to an Arizona user such as the Gila River Indian community. These costs, which are currently about \$120 an acre foot, would be paid through a contract with the Office of the State Engineer by individual members of the bank. In exchange, the residents would be assigned a water use to their individual domestic wells that was proportionate to their contribution to the water bank. This use might be limited to one to three acre feet per well. The Office of the State Engineer would lift the non-consumptive limitation on these wells for the duration of the contract, which could be renewed annually or perhaps on a longer term basis.

When studying the hydrology of the Gila River system, the Sandia modeling used the figure of .6 acre feet of consumptive use per each domestic well in the Gila/San Francisco basin even though theoretically

¹ Personal communication with Amy Sun, Sandia Laboratory 11/07/09. ~3572 households (542 in San Francisco Basin; 3030 in Gila Basin) are used in the Sandia Decision Support Model developed for the Gila Planning Process. Data is from NMOSE.

these wells are considered " non-consumptive" and should not result in any consumptive use. The reality of the situation is that many residents in this watershed are using their wells for outside watering, e.g., dogs, horses, trees, gardens, etc. In actuality, domestic wells are probably already drawing closer to .6 acre foot. The water bank system would formalize the use presumed to be occurring presently and once again make honest citizens out of Gila/San Francisco basin residents.

The costs of this water bank system would be borne by Gila/San Francisco watershed residents. Start-up costs are estimated at \$500,000, to be spread equally over the first five years. This funding would pay for feasibility studies to ensure compliance with the CUFA and environmental laws, design of the water bank, and administration of the system. Meters for each domestic well would also be included in this cost, as would the first year of AWSA water exchange costs, which would need to be paid up front.

This \$500,000 would be paid back to the system by the members of the water bank, who would pay an annual fee for use of AWSA water. After the first five years, no funding is requested or required, as water bank members would bear all exchange costs and water bank administrative fees.

The water bank concept is technically, economically, and politically feasible, as well as fair, because in most areas of New Mexico, wells are currently accorded a specific amount of water.

In addition to the restrictions on outdoor water use, residents of the Gila/San Francisco basin are prohibited from collecting rainwater off their roofs. This proposal would rescind that constraint.

Approximately 13,000 gallons of water fall annually on a household in this basin. This estimate is based on an average roof size of 1,700 square feet x 1.2 feet of annual precipitation x 90% runoff coefficient x 7.48 gallons per cubic foot.

On average, enough precipitation falls on a home in the Gila/San Francisco basin to supply a significant portion of their annual outdoor water demands. In addition to meeting a water supply demand, rainwater harvesting also prevents or mitigates downstream flooding and erosion caused by excessive runoff during heavy rainfalls.

C. Describe how the proposal considers the Gila environment and describe how any negative impacts might be mitigated.

Because no diversions and concomitant infrastructure are required, this proposal has far fewer ecological impacts to the Gila River than would many projects. The water bank would draw groundwater via individual wells spread over a broad area, and therefore any groundwater drawdown would be localized. Our current understanding of the interaction between groundwater and surface water needs to be advanced, and data now being collected and analyzed will be helpful in determining whether and how much groundwater depletion would occur under this scenario.

The water bank would abide by all state and federal environmental laws. The CUFA technical committee would monitor any impacts to river flows according to the CUFA and if reduced flows were to occur, the program could be curtailed to ensure that downstream water rights holders remained whole.

D. Describe how the proposal considers the historic uses of and future demands for water in the Southwest New Mexico Water Planning Region and the traditions, cultures and customs affecting those uses.

Prior to the Rifkind Decree, residents of the Gila/San Francisco basin enjoyed the same rights of outdoor water use as the rest of the state. This proposal would restore previously held traditions and customs to these households. Gila/San Francisco basin residents would continue to enjoy their current quality of life, which includes the ecological, economic, and aesthetic values of the free-flowing Gila and San Francisco Rivers. Southwestern New Mexico residents outside of these basins would not be affected by this proposal.