## WPF0391

## RECEIVED

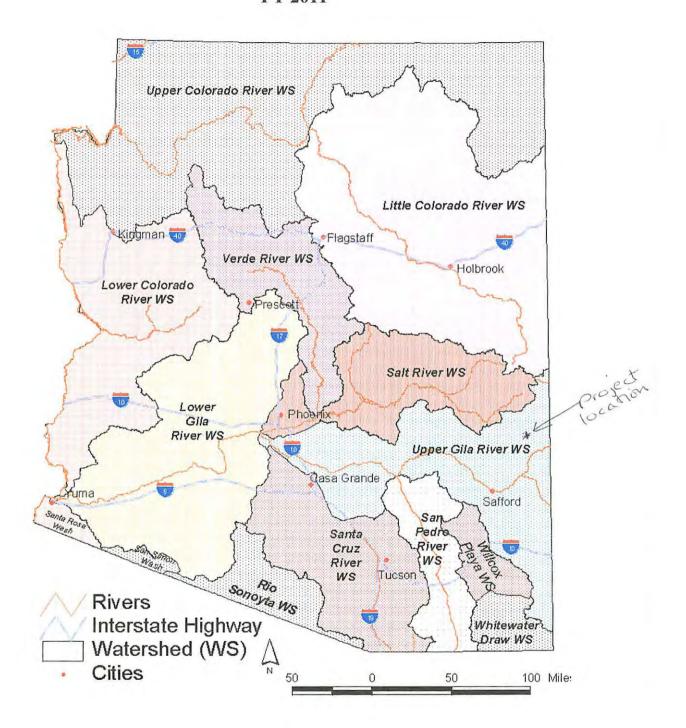
## Arizona Water Protection Fund Application Cover Page FY 2011

Water Protection Fund

AUG 3 1 2010

Title of Project: E.coli Reduct Ranch, Phase III	ion on the San Franc	cisco River through Altern	native Livestock Water on the Kaler
	Stream Type:  Perennial Intermittent Ephemeral	benefits and capital i	ment to maintenance of project mprovements: 0 years 11-15 years 16-20 years
Applicant Information: Name/Organization: Richard Address 1: Address 2: City: State: ZIP Code: Phone: Fax: none		rant application	Inside an AMA: Yes No No If yes, which AMA:    Phoenix Tucson Prescott Pinal Santa Cruz    Type of Application:   New Continuation
Contact Person:  Name: Jan Holder Title: Executive Direc Phone: 520-395-2499 Fax: 520-829-3660 e-mail: watershedholder			Any Previous AWPF Grants:  ☐ Yes ☐ No  If yes, please provide Grant #(s):  07-145WPF
Arizona Water Protection F			01.1.1.10
Grant Amount Requested: \$100,350.94  If the application is funded, will intend to request an advance:	1. 2. the Grantee 3.	Applicant/Agency/Orga Applicant	433,912
Has your legal counsel or contractor of the second of the	cting authority revie	wed and accepted the Gra	nt Award Contract General Provisions?
applicant is true and accurate. fraudulent information, or knot penalties as provided in A.R.S. Awards with modifications to s	pplication, Addition The undersigned a wingly concealing a Title 13. The Ariz	onally, signature certifies acknowledges that inten- a material fact regardin- ona Water Protection F lology, schedule, final pr	s that all information provided by the tional presentation of any false or g this application is subject to criminal and Commission may approve Grant
Richard and Lois Kaler	nnligant's Authoric	Landowner zed Title and Telepho	na Number
Typed Name of Applicant or A Representative	ppucant's Authori	zeu Titte and Telepho	ne ryumber
Cichard M Kaler Signature	Los ) Kal	8/29/20 Date Signed	210
Burnana		Date Diguett	

## Arizona Watershed Map FY 2011



Title of Project: E.coli Reduction on the San Francisco River through Alternative Livestock Water on the Kaler Ranch Project, Phase III

# Project Location & Environmental Contaminant Information FY 2011

<b>Project Location Information</b>			
1. County: Greenlee	2. Section: <u>32</u>	3. Township: <u>T3S</u>	4. Range: <u>R30E</u>
5. Watershed: <u>Upper Gila</u>	- 1- (IIIIC), 1504000	502	
6. 8 or 10 Digit Hydrologic Unit C			00.0
7. Name of USGS Topographic M	ap where project area	is located: Clifton AZ - 0331	<u>09a3</u>
8. State Legislative District: 1			
(Information available at: http://159.87.126.6/mapping/defa	ault2.asp?tname=Or	iginal.2009.Legislative.Ma	p&org2009leg=on&service
<ul><li><u>=ircmaps&amp;init=true</u>)</li><li>9. Land ownership of project area:</li></ul>	Bureau of Land MA	nagement	
10. Current land use of project area:	Livestock Grazing		
11. Size of project area (in acres): 1	ess than 1/4 acre		
12. Stream Name: San Francisco R	iver		
13. Length of stream through project	et area: 2200 feet		
14. Miles of stream benefited: 88 m	niles		
15. Acres of riparian habitat: 3,565	acres will be:	<ul><li>✓ Enhanced</li><li>✓ Maintained</li><li>✓ Restored</li><li>✓ Created</li></ul>	
16. Provide directions to the project		city or town. List any special	
In Clifon on Huy 19 bridge + turn left. downward facing a right on bottom,	Follow sign road on left,	diately after VFU to RUpark, God roward river, god imately Yarnile lo	whall. Go over is milest look for lown road, make o small stone hoose
<b>Environmental Contaminant L</b>	ocation Informatio	n	
Does your project site contain k contaminant(s) and enclose data			
<ol> <li>Are there known environmental contaminant(s) and enclose data.</li> <li>The EPA's 303(d) list includes the</li> </ol>	about the location and	levels of contaminants: E.co	
3. Are you asking for Arizona Water are present? ■YES ▼NO	er Protection Fund mo	nies to identify whether or no	t environmental contaminants

## STATE HISTORIC PRESERVATION OFFICE Review Form

In accordance with the State Historic Preservation Act (SHPO), A.R.S. 41-861 et seq, effective July 24, 1982, each State agency must consider the potential of activities or projects to impact significant cultural resources. Also, each State agency is required to consult with the State Historic Preservation Officer with regard to those activities or projects that may impact cultural resources. Therefore, it is understood that recipients of state funds are required to comply with this law throughout the project period. All projects that affect the ground-surface that are funded by AWPF require SHPO clearance, including those on private and federal lands.

The State Historic Preservation Office (SHPO) must review each grant application recommended for funding in order to determine the effect, if any, a proposed project may have on archaeological or cultural resources. To assist the SHPO in this review, the following information MUST be submitted with each application for funding assistance:

- A completed copy of this form, and
- A United States Geological Survey (USGS) 7.5 minute map
- · A copy of the cultural resources survey report if a survey of the property has been conducted, and
- A copy of any comments of the land managing agency/landowner (i.e., state, federal, county, municipal) on potential impacts of the project on historic properties.
   NOTE: If a federal agency is involved, the agency must consult with SHPO pursuant to the National Historic Preservation Act (NHPA); a state agency must consult with SHPO pursuant to the State Historic Preservation Act (SHPA),

OR

A copy of SHPO comments if the survey report has already been reviewed by SHPO.

#### Please answer the following questions:

- 1. Grant Program: Arizona Water Protection Fund
- 2. Project Title: E.coli Reduction on the San Francisco River through Alternative Livestock Water on the Kaler Ranch Project, Phase III
- 3. Applicant Name and Address: Gila Watershed Partnership, 711 S. 14th Avenue, Safford, AZ 85546
- 4. Current Land Owner/Manager(s): Bureau of Land Management
- 5. Project Location, including Township, Range, Section: T3S, R30E, Section 32
- 6. Total Project Area in Acres (or total miles if trail): less than 1/4 of an acre
- 7. Does the proposed project have the potential to disturb the surface and/or subsurface of the ground? 

  YES 

  NO
- 8. Please provide a brief description of the proposed project and specifically identify any surface or subsurface impacts that are expected: The project will include a well, solar equipment, and tank, and will all be locad within 1/4 of an acre.

	condition, or has it been bladed, paved, graded, fexisting disturbance. Also, attach photographs of
10. Are there any known prehistoric and/or historic ☐ YES ☐ NO	archaeological sites in or near the project area?
11. Has the project area been previously surveyed t ☐ YES ☐ NO ☑ UNKOWN	For cultural resources by a qualified archaeologist?
If YES, submit a copy of the survey report. report made by the managing agency and/or	
12. Are there any buildings or structures (including years or older in or adjacent to the project area?	
If YES, complete an Arizona Historic Proper structure, attach it to this form and submit is	• •
13. Is your project area within or near a historic dis	trict? YES NO
If YES, name of the district:	
Please sign on the line below certifying all information	on provided for this application is accurate to
the best of your knowledge.	DUHARD M KALFR
Richard M. Kaler Jose J. Kaler 1 8/29/2010	LOIS J. KALER
Applicant Signature /Date	Applicant Printed Name
FOR SHPO USE (	ONLY
SHPO Finding:    Funding this project will not affect historic propertie   Survey necessary – further GRANTS/SHPO consul   released until consultation has been completed)   Cultural resources present – further GRANTS/SHPO   not be released until consultation has been completed   SHPO Comments	o consultation required (grant funds will not be

Date:

For State Historic Preservation Office:

## STATE OF ARIZONA HISTORIC PROPERTY INVENTORY FORM

Please type or print clearly. Fill out each applicable space accurately and with as much information as is known about the property.

PROPERTY IDENTIFICATION
For properties identified through survey: Site No Survey Area:
Historic Names (enter the name(s), if any that best reflect the property's historic importance):
Address:
City or Town:
Township: Range: Section: Quarters: Acreage:
Block: Lot(s): Plat (Addition): Year of plat (addition):
UTM Reference – Zone: Easting: Northing:
USGS 7.5' quadrangle map:
ARCHITECT: not determined known Source:
BUILDER: not determined  known Source:
CONSTRUCTION DATE: known estimated Source:
STRUCTURAL CONDITION  Good (well maintained; no serious problems apparent) Fair (some problems apparent) Poor (major problems; imminent threat) Ruin/Uninhabitable
USES/FUNCTIONS
Describe how the property has been used over time, beginning with the original use: Additional photographs may be appended.  Attach a recent photograph of property in this space. Additional photographs may be appended.
Sources:
PHOTO INFORMATION  Date of photo:  View Direction (looking towards):
SIGNIFICANCE

To be eligible for the National Register, a property must represent an important part of the history or architecture of an area. The significance of a property is evaluated within its historic context, which are those patterns, themes, or trends in history by which a property occurred or gained importance. Describe the historic and architectural contexts of the property that may make it worthy of preservation.

A. HISTORIC EVENTS/TRENDS – Describe any historic events/trends associated with the property:	
B. PERSONS – List and describe persons with an important association with the building:	
C. ARCHITECTURE – Style: no style	
Stories: Basement Roof Form:	
Describe other character-defining features of its massing, size and scale:	
INTEGRITY To be eligible for the National Register, a property must have integrity (i.e. it must be able to visually convey its importance). The outline below lists some important aspects of integrity. Fill in the blank with as detailed a description of the property as possible.	
Location - Original Site Moved: Date: Original Site:	
DESIGN Describe alterations from the original design, including dates:	
MATERIALS  Describe the materials used in the following elements of the property:	
Walls (structure):	
Walls (sheathing):	
Windows:	
Roof:	
Foundation:	
SETTING  Describe the natural and/or built environment around the property:	
How has the environment changed since the property was constructed?	
WORKMANSHIP Describe the distinctive elements, if any, of craftsmanship or method of construction:	
NATIONAL REGISTER STATUS (if listed, check the appropriate box)  Individually Listed:  Non-contributor to Historic District	
a concernous activitation is a controlled to a controlled to the controlled to the controlled to a controlled to	

Date Liste	ed:	Determined eligible by Keeper of National Register (date:)
RECOMI survey co		TIONS ON NATIONAL REGISTER ELIGIBILITY (opinion of SHPO staff or
Property	□is	is not eligible individually.
Property	□is	is not eligible as a contributor to a listed or potential historic district.
☐ More i	informati	ion needed to evaluate.
If not cons	sidered e	ligible, state reason:

# E.COLI REDUCTION IN THE SAN FRANCISCO RIVER THROUGH ALTERNATIVE LIVESTOCK WATER ON THE KALER RANCH, PHASE III

### **AWPF APPLICATION PACKAGE**

## Submitted by:

The Gila Watershed Partnership of Arizona
711 South 14th Avenue
Safford, Arizona 85546
520-395-2499

Submitted: August 29, 2010

#### **Executive Summary**

The Kaler Ranch has been the location of numerous grant projects, supported or administered by The Gila Watershed Partnership of Arizona (GWP). The Partnership supported the Kalers in a NRCS grant to level the fields adjacent to the river to reduce livestock waste reaching the river. GWP completed two ADEQ grants that addressed the erosion and sediment deposition caused by huge culverts. We implemented an Arizona Water Protection Fund and Arizona Department of Agriculture grants to address the remaining culverts. These projects have made dramatic improvements in the San Francisco river and riparian area. With this project, our goal is to continue the restoration and enhancement of the San Francisco River.

Our objective in this project is the reduction of E.coli in the San Francisco River by installing a well and adding solar equipment and pipes, tanks and a trough to water the Kaler livestock. We are currently implementing a grant for one well, funded by ADEQ and ADA. And we have grants from ADEQ and ADA for two more. We need to install one more well, which will bring the number to four, to completely exclude the Kaler livestock from the San Francisco Riparian area. This will result in the complete exclusion of the Kaler Ranch livestock for the entire year, from the riparian area of the San Francisco River. This means that all of the current amount of livestock fecal material from the Kaler livestock will be eliminated.

The Gila Watershed Partnership is currently implementing an ADEQ Targeted Watershed grant Titled "E.coli Reduction on the San Francisco and Lower Blue Rivers". In this grant, we are sampling for E.coli on the San Francisco and Blue Rivers to determine the source of an E.coli Impairment that is listed in EPA's list of impaired waters. Even though we do not yet have DNA testing complete, the preliminary samples we have tested have extremely high readings from the samples taken just below the Kaler Ranch.

This information, coupled with the physical evidence of the livestock waste present in the riparian area, point to the Kaler livestock as a significant contributing factor. The elevated E. coli levels point not only to levels of other pathogens in a stream but to sedimentation issues. Two rules apply: 1) E. coli travels with and on sediments, so that elevated levels of E. coli often indicate increased suspended sediments, and 2) E. coli is regarded as an indicator that other enteric pathogens may be present, including some that may put wildlife as well as humans at risk. In addition, the erosion and excess sedimentation caused by the livestock in the riparian area affects the fish and vegetation, as sediment particles in the water clogs the gills of fish, and decreases the amount of sunlight available to aquatic plants.

The Kaler livestock water year-round in the riparian area of the San Francisco River. The family has water rights that give them the legal right to do so. The landowner would water their cattle in away from the river; however, no other water sources are available. Through a long education process, the Kalers have agreed to exclude their cattle permanently from the riparian area when they have enough watering capacity by means of solar wells.

#### **Background**

The Kaler Ranch has been the location of numerous grant projects, supported or administered by The Gila Watershed Partnership of Arizona (GWP). The Partnership supported the Kalers in a NRCS grant to level the fields adjacent to the river to reduce livestock waste reaching the river. In 2002, the Kalers approached the GWP for help in addressing huge culverts that were eroding their property and depositing sediment in the San Francisco River. The Kalers and the NRCS worked together to develop a plan to extend the culvert to the river's edge and eliminate the erosion and sedimentation.

GWP completed two ADEQ grants that addressed the erosion and sediment at the ranch entrance and four of the culverts. We implemented Arizona Water Protection Fund and Arizona Department of Agriculture grants to address the remaining culverts. These projects have made dramatic improvements in the river and riparian to reduce the erosion and sedimentation.

However, in 2006, the GWP began planning ways to address a serious water quality issue on the San Francisco River. The San Francisco and Lower Blue Rivers are listed on the EPA's 303(d) list as impaired for E.coli. The Partnership coordinated an effort with its partners from Greenlee County, the Apache Sitgreaves Forest, The Bureau of Land Management, the NRCS, and ADEQ to determine possible causes of the impairment. The possible causes were determine to be wildlife, humans (from either outdated in ineffective septic systems, lack of restroom facilities in recreation areas), and livestock.

In 2009, the GWP wrote and was awarded a grant from ADEQ for a Targeted Watershed Grant titled "E.coli Reduction on the San Francisco and Lower Blue Rivers". In this grant, we are monitoring the water on the San Francisco and Blue Rivers to determine the source of the E.coli impairment. We are sampling the water, and testing for E.coli, and further testing samples that indicate high levels to determine the source of the E.coli. This is done by sending the samples for DNA testing, that will determine if the source is human, livestock or "other", which includes a variety of wildlife sources. Even though we do not yet have DNA testing complete, the preliminary samples we have tested have extremely high readings from the samples taken just below the Kaler Ranch.

This information, coupled with the physical evidence of the livestock waste present in the riparian area, point to the Kaler livestock as a significant contributing factor. The elevated E. coli levels point not only to levels of other pathogens in a stream but to sedimentation issues. Two rules apply: 1) E. coli travels with and on sediments, so that elevated levels of E. coli often indicate increased suspended sediments, and 2) E. coli is regarded as an indicator that other enteric pathogens may be present, including some that may put wildlife as well as humans at risk. In addition, the erosion and excess sedimentation caused by the livestock in the riparian area affects the fish and vegetation, as sediment particles in the water clogs the gills of fish, and decreases the amount of sunlight available to aquatic plants.

The Kaler livestock water year-round in the riparian area of the San Francisco River. The family has water rights that give them the legal right to do so. The landowner would water their cattle

in away from the river; however, no other water sources are available. Through a long education process, the Kalers have agreed to exclude their cattle permanently from the riparian area when they have enough watering capacity by means of solar wells.

Our objective in this project is the reduction of E.coli and sedimentation in the San Francisco River by installing a well and adding solar equipment and pipes, tanks and a trough to water the Kaler livestock. We need to install one more well, which will bring the number to four, to completely exclude the Kaler livestock from the San Francisco Riparian area. This will result in the complete exclusion of the Kaler Ranch livestock for the entire year, from the riparian area of the San Francisco River. This means that all of the current amount of livestock fecal material from the Kaler livestock will be eliminated.

#### Goals

Our goal is to reduce the E.coli and sediment levels in the San Francisco River by eliminating livestock from the riparian area.

#### **Objectives**

Our objective in this project is the reduction of E.coli and excess sedimentation in the San Francisco River by installing a well and adding solar equipment and pipes, a tank and a trough to water the Kaler livestock. We are currently implementing an ADEQ grant for a solar well to remove the Kaler livestock from the riparian area, which is matched by an ADA grant. In addition, we have another ADA grant for well number two, and a just-awarded grant from ADEQ for a third well. One more well needs to be installed, which will bring the number to four, to completely exclude the Kaler livestock from the San Francisco Riparian area. The four wells have been calculated to produce a minimum of 5 gallons per minute. One well is currently located on the Kalers' private land, and three are planned for BLM property (see attached map). The wells have been planned to water the number of livestock the Kalers are permitted on their BLM allotment. The BLM has written their Biological Opinion (attached) to allow for a fifth well, to allow for the possibility that the wells do not produce sufficient water to accommodate the landowner's permitted number of livestock.

#### **Statement of Problem and Causes**

In order to continue with the restoration of the San Francisco River restoration, we need to remove the Kalers livestock from the riparian area. The Kaler livestock water year-round in the riparian area of the San Francisco River. The family has water rights that give them the legal right to do so. The landowner would water their cattle in away from the river; however, no other water sources are available on their private land or on their leased land.

The Gila Watershed Partnership is currently implemented an ADEQ Targeted Watershed grant titled "E.coli Reduction on the San Francisco and Lower Blue Rivers". In this grant, we are sampling for E.coli on the San Francisco and Blue Rivers to determine the source of an E.coli Impairment that is listed in EPA's list of impaired waters. Even though we do not yet have DNA testing complete, the preliminary samples we have tested have extremely high readings from the samples taken just below the Kaler Ranch. This information, coupled with the physical

evidence of the livestock waste present in the riparian area, point to the Kaler livestock as a significant contributing factor.

The elevated E. coli levels point not only to levels of other pathogens in a stream but to sedimentation issues. Two rules apply: 1) E. coli travels with and on sediments, so that elevated levels of E. coli often indicate increased suspended sediments, and 2) E. coli is regarded as an indicator that other enteric pathogens may be present, including some that may put wildlife as well as humans at risk. In addition, the erosion and excess sedimentation caused by the livestock in the riparian area affects the fish and vegetation, as sediment particles in the water clogs the gills of fish, and decreases the amount of sunlight available to aquatic plants.

#### **Statement of Solutions**

Through a long education process, the Kalers have agreed to exclude their cattle permanently from the riparian area when they have enough watering capacity by means of solar wells. The Kalers have agreed to sign an agreement to that effect. The Kalers ranching operation will benefit, as by locating the wells away from the river, the ranch will have better distribution of the livestock, allowing for better grazing of the BLM, state land, and private land, and the river, the community, Greenlee County, the watershed and the state will benefit because the E.coli will be reduced in the San Francisco River.

The BLM has made a strong commitment to the Kaler Ranch and assisting in the environmental issues present there. The Coordinated Ranch Management Plan, developed by the BLM's range management staff, in cooperation with the landowner and the NRCS, includes the Kaler's private land and their BLM lease, their Freeport Mac Mo Ran lease and their state land lease. In addition, a Biological Evaluation has been prepared by the BLM and approved by the USFW Service for the wells. Attached is a copy of the approved BE.

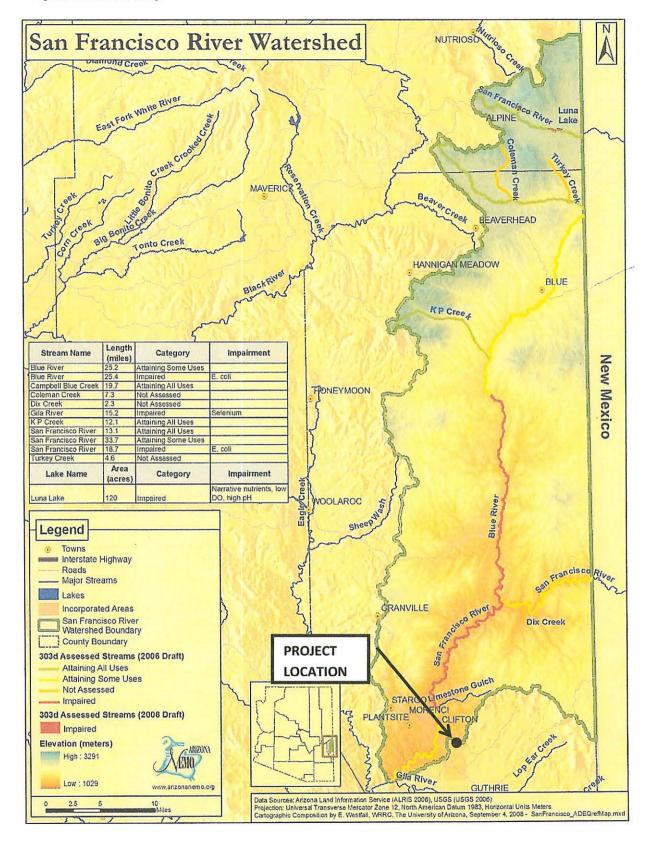
The implementation of this project will result in the reduction of E.coli in the San Francisco River. We intend to drill a well and add solar equipment and pipes, tanks and a trough to water the Kaler livestock. We are currently implementing an ADEQ grant for a solar well to remove the Kaler livestock from the riparian area, which is matched by an ADA grant. In addition, we have another ADA grant for well number two, and a just-awarded grant from ADEQ for a third well. We need to install one more well, which will bring the number to four, to completely exclude the Kaler livestock from the San Francisco Riparian area.

This will result in the complete exclusion of the Kaler Ranch livestock from the riparian area of the San Francisco River. This means that all of the current amount of livestock fecal material, and the resulting E.coli, from the Kaler livestock will be eliminated.

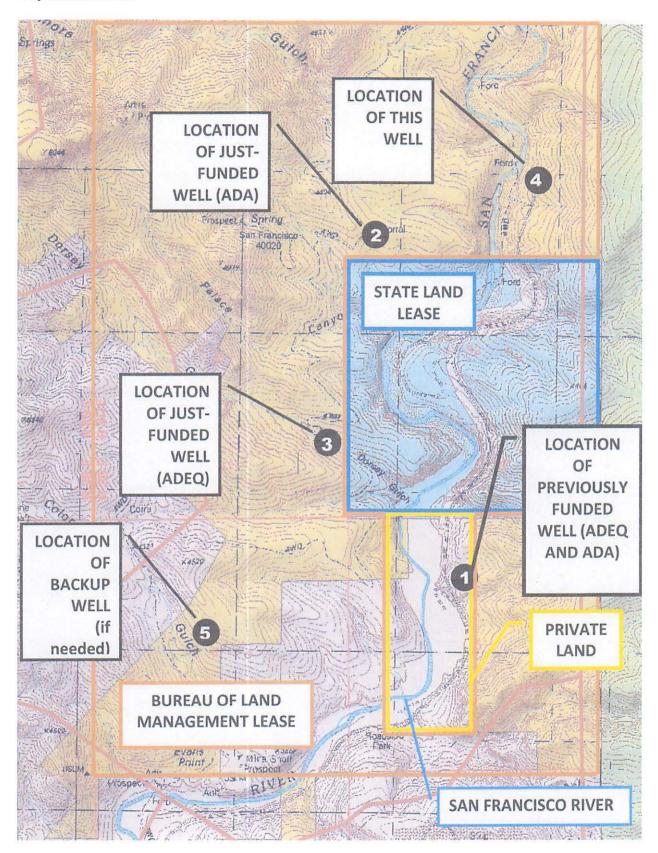
#### **Statement of Project Years of Benefits**

This project, when properly maintained, will last 20 years or more.

#### **Project Location Map**



### **Project Schematic**



#### Scope of Work

Task 1: Permits, Authorizations, Clearances and Agreements

**Task Description**: The Gila Watershed Partnership shall obtain all permits, authorizations, environmental clearances and agreements necessary to complete the tasks listed in this Scope of Work. These include but are not limited to: archeological clearance, biological evaluation, 404 and 401 permits, county flood control permit, if necessary, BLM access agreements, operation and maintenance agreement with landowner, and a notice of intent to drill from ADWR. Since the well will be located on BLM property, the BLM will obtain all permits that are required on BLM property.

**Task Purpose**: To comply with all AWPF, local, state and federal permit requirements, environmental laws, and obtain legal access to project area.

**Deliverable Description**: Copies of all approved permits, authorizations, clearances and agreements.

**Deliverable Due Date:** Prior to any ground disturbing activities

Reimbursable Cost: \$3,344.25

Task 2: Develop Implementation Plan

**Task Description**: The Grantee shall develop an implementation plan that will include a Site Preparation Plan, Well Drilling Plan, Solar Installation Plan, Stock Tank Installation Plan, Monitoring Plan, and an Education & Outreach Plan

**Task Purpose**: To insure the correct design and proper installation of the improvements. **Deliverable Description**: Copies of all implementation plans including the Site Preparation Plan, Well Drilling Plan, Solar Installation Plan, Stock Tank Installation Plan, Monitoring Plan, and an Education & Outreach Plan

Deliverable Due Date: March 31, 2011

Reimbursable Cost: \$5,651.60

Task 3: Implement the Site Preparation Plan

**Task Description** Preparation of the site including leveling and grading, as well as widening the road to the site.

**Task Purpose**: To provide a flat surface for the construction.

**Deliverable Description**: Completion report including a narrative description of completed work, copies of all invoices, timesheets and photos of the completed work.

**Deliverable Due Date:** May 31, 2011 **Reimbursable Cost:** \$2,879.60

Task 4: Implement the Well Drilling Plan

**Task Description**: Implementation includes mobilization of the equipment, drilling the well, utilizing a water truck to keep the equipment cool, and installing the well casing, down rod, miscellaneous fittings.

Task Purpose: To drill and outfit the well.

**Deliverable Description** Completion report including a narrative description of completed work, copies of all invoices, timesheets and photos of the completed work.

Deliverable Due Date: October 31, 2011

Reimbursable Cost: \$10,523.60

Task 5: Implement the Solar Installation Plan

**Task Description**: Implementation includes installation of solar mounting poles, solar modules, Trackers, submersible motor, solar control system, and miscellaneous fittings, connectors, etc. **Task Purpose**: To install solar system to provide power for the well in the remote location of the well

**Deliverable Description** Completion report including a narrative description of completed work, copies of all invoices, timesheets and photos or copies of the completed work.

**Deliverable Due Date**: July 31, 2011. **Reimbursable Cost**: \$59,002.10

Task 6: Implement the Water Storage Tank and cattle trough Installation Plan

**Task Description**: Implementation includes hiring a stone mason and helper to construct a rock and mortar water storage tank, and cattle watering trough and connect them with pipe to the well pump. Stone structures, although expensive and laborious to construct, were selected instead of commercial metal tanks, as the remote site is subject to frequent vandalism. A metal tank seldom lasts through one season. The rock will be excavated from site(s) on the ranch, and transported to the site by the landowner with a backhoe. Cement will be mixed on site by the stone mason, and his helper. The rock, which is 9" and 14" in diameter. Rebar will be used to increase the structural integrity of the structures.

**Task Purpose**: To install a rock and mortar water tank and trough that will be resistant to the vandalism that tends to occur in remote settings.

**Deliverable Description** Completion report including a narrative description of completed work, copies of all invoices, timesheets and photos or copies of the completed work.

Deliverable Due Date: September 31, 2011

Reimbursable Cost: \$7,134.67

#### **Task 7: Implement the Monitoring Plan**

**Task Description**: Implementation includes photo monitoring of the riparian area to ensure that livestock are not present in the riparian area. Seven photo points have been established to determine if any there is evidence of livestock in the riparian area. Since the landowner has to cross the riparian are to ship his cattle, these incidents will be recorded, including the date and length of time of the occurrence and the number of animals crossing.

Monitoring for E. coli is one method of monitoring the health of a riparian system, since E. coli levels point not only to levels of other pathogens in a stream but to sedimentation issues. Two rules apply: 1) E. coli travels with and on sediments, so that elevated levels of E. coli often indicate increased suspended sediments, and 2) E. coli is regarded as an indicator that other enteric pathogens may be present, including some that may put wildlife as well as humans at risk.

E. coli monitoring is accomplished by collecting water samples from the stream and putting them through lab processes, under an established protocol. When collecting the samples, the observer takes other measurements and lists observations that will assist in determining the following: turbidity (suspended sediments), pH, flow, water and air

temperature, occasionally dissolved oxygen, and field observations such as signs of wildlife or livestock watering, open toilets in recreation areas, degradation of stream banks by animals or vehicles, etc

The observer transports the refrigerated bottles filled with stream water to a certified lab (which will be the Gila Watershed Partnership laboratory in Greenlee County that was established to process the E.coli samples for the ADEQ E.coli Reduction in the San Francisco and Lower Blue Rivers Grant Project), where the sample is combined with a reagent that feeds the E. coli. The sample water with reagent is then sealed into a multi-celled "Colilert" tray by processing through a Colilert sealing machine. The Colilert tray is incubated for 18 to 22 hours at a consistent temperature (37°C), then placed under an ultraviolet light. The cells containing E. coli colonies will fluoresce under the ultraviolet light. The observer completes a count of the fluorescing cells and records the result on a spreadsheet.

The result is a most probable number (MPN) of colony forming units (CFUs) per 100 ml. of stream water, which is compared to the number at which the scientific community and government agencies agree that stream water becomes unsafe for humans to enter. This points to the presence of other enteric pathogens that are much more expensive to monitor, including the parasites Giardia and Cryptosporidium, the bacteria Salmonella and MRSA, and the viruses Rotavirus and Adenovirus, among others. The results will be compared with the E.coli monitoring samples collected in 2010 in the ADEQ E.coli Reduction Project to determine the level of E.coli reduction.

Task Purpose: To quantify the level of E.coli reduction in the San Francisco River.

**Deliverable Description** Monitoring report including a narrative description of completed work, copies of all data sheets, lab reports, invoices, timesheets and photos or copies of the completed work.

Deliverable Due Date: December 31, 2011, and December 31, 2012.

Reimbursable Cost: \$7,134.67

Task 8: Implement the Education & Outreach Plan

Task Description: Implementation includes a field day at the Kaler Ranch, with a tour of the AWPF, ADEQ, ADA and NRCS grant projects, as well as a report on the vegetation and water quality monitoring results. The GWP will invite their general membership, including the local, state, and federal agencies that are partners in the watershed and involved in the E.coli reduction effort. The Greenlee County newspaper, The Copper Era, who is very supportive of our efforts to improve the rivers in our watershed, will be invited as well.

**Task Purpose**: To demonstrate the project's contribution to the restoration of the San Francisco River.

**Deliverable Description** Completion report including a narrative description of completed work, copies of all invoices, timesheets and photos or copies of the completed work.

Deliverable Due Date: December 31, 2012.

Reimbursable Cost: \$675.93

Task 9: Final Report

**Task Description**: The grantee shall document and summarize the entire project, including a project narrative, summarization, future recommendations, all project data, maps, photographs, etc, as required by the Arizona Water Protection Fund.

Task Purpose: To document project success.

**Deliverable Description** The Final report will a summary of the entire project, analysis of the project data, problems encountered, deviations from the work plan, and conclusions and recommendations for follow-up projects, and an evaluation of the project success against project purpose and objectives, copies of all invoices, timesheets and photos or copies of the completed work.

Deliverable Due Date: January 31 2013.

Reimbursable Cost: \$6,431.25

# **Budget**Attached

#### **Supplemental Information**

Stock tank design, Completed Bureau of Land Management Biological Evaluation, ADEQ Targeted Watershed Grant Quality Assurance Project Plan, and water rights information.

#### **SHPO**

Attached

#### **Key Personnel**

**Dick Kaler** is the owner of the ranch, the grant applicant, and will be acting as site supervisor, and also providing his labor and a back hoe, caterpiller, tractor, and truck for leveling the site for the well digging equipment as an in-kind match. He will also be providing match to pay the rock tank and trough labor and supplies, as well as giving them a place to stay. He will be helping in the education and outreach.

Jan Holder is the Executive Director of The Gila Watershed Partnership. Holder will be administrating the grant, overseeing the project is progressing in accordance with the approved scope of work and milestones, submitting quarterly and final reporting as well as budget and reimbursement request documents to ADEQ, providing additional load reduction and project information upon request, and serving as the day-to-day contact person regarding the project.

Katie Alessi is the monitoring specialist that will be conducting the photo monitoring.

**Deborah Mendelsohn** will be conducting the E.coli monitoring. Ms Mendelsohn is conducting the E.coli monitoring for the ADEQ E.coli Reduction on the San Francisco and Lower Blue Rivers grant project. She wrote the Sampling Plan, and Quality Assurance Project Plan (SAP/QAPP), lead, trained and supervised the monitoring teams for the E.coli sampling and conducted the laboratory tests at the Gila Watershed laboratory in Greenlee County.

The well drilling contractor, solar contractor, and the stone masons will be hired, and an agreement will be signed if the grant is approved and the contract is signed.

# E.coli Reduction on the San Francisco River through Alternative Livestock Water on Kaler Ranch, Phase III

## **DETAILED BUDGET BREAKDOWN**

Task 1								
Permits, Authorizations, Agreements - permits and								
subcontractor agreements	Amount	Unit	Cost per Unit			Total Cost		
Direct Labor					<b> </b> -			
Gila Watershed Coordinator	48	hrs	\$	65.00	\$	3,120.00		
Subtotal	40	1112	Ψ.	05.00	\$	3,120.00		
Other Direct Costs			+					
Office supplies, printing and postage	1	each	\$	65.00	\$	65.00		
Subtotal					\$	65.00		
Task Subtotal					\$	3,185.00		
Administration Costs (5%)					\$	159.25		
Task Total					\$	3,344.25		

Task 2						· · · · · · · · · · · · · · · · · · ·
Prepare Implementation Plans (Site Preparation			1			
Plan, Well Drilling Plan, Solar Installation Plan, Stock						
Tank Installation Plan, Monitoring Plan, Education &						
Outreach Plan)	Amount	Unit	Cos	t per Unit	T	otal Cost
Direct Labor			-			
Gila Watershed Coordinator	80	hrs	\$	65.00	\$	5,200.00
Subtotal					\$	5,200.00
Other Direct Costs			+-			
Office supplies, printing and postage	1	each	\$	65.00	\$	65.00
Mileage (2 trips at 132 Miles round-trip each)	264	miles	\$	0.45	\$	117.48
Subtotal					\$	182.48
Task Subtotal					\$	5,382.48
Administration Costs (5%)					\$	269.12
Task Total					\$	5,651.60

Task 3						
Implement Site Preparation Plan	Amount	Unit	Cost per Unit		Total Cost	
Direct Labor						
Gila Watershed Coordinator	40	hrs	\$	65.00	\$	2,600.00
Subtotal					\$	2,600.00
Capital Outlay & Equipment			_			
Tractor (includes operator)	10	hr	\$	85.00	\$	850.00
Backhoe (includes operator)	12	hr	\$	85.00	\$	1,020.00
D3 Caterpiller (includes operator)	10	hr	\$	65.00	\$	650.00
1 ton, 4 whl drive truck (includes operator)	10	hr	\$	45.00	\$	450.00
water truck	60	hr	\$	110.00	\$	6,600.00
Subtotal			Ţ		\$	9,570.00
Other Direct Costs						
Office supplies, printing and postage	1	each	\$	25.00	\$	25.00
Mileage (2 trips at 132 Miles round-trip each)	264	miles	\$	0.45	\$	117.48
Subtotal			<u> </u>		\$	142.48
Task Subtotal					\$	2,742.48
Administration Costs (5%)			+		\$	137.12
Task Total					\$	2,879.60

.′

Task 4				1
Implement Well Drilling Plan	Amount	Unit	Cost per Uni	t Total Cost
Direct Labor			+	<del> </del>
Contract Well Driller (contract amount)	1	each	\$ 7,400.00	\$ 7,400.00
Well construction labor	32	hrs	\$ 45.00	<u> </u>
Gila Watershed Coordinator	16	hrs	\$ 65.00	
Subtotal				\$ 9,880.00
Capital Outlay & Equipment			ļ	
Drill Rig (Contract Amount)	1	ttl	\$ 10,600.00	\$ 10,600.00
water truck	1	ttl	\$ 3,000.00	
Back Hoe	1	ttl	\$ 1,200.00	\$ 1,200.00
Crane Truck	1	ttl	\$ 1,150.00	
Subtotal				\$ 15,950.00
Material & Supplies				
Well casing, down rod, discharge pipe, and misc fittings	1	ttl	\$ 10,800.00	\$ 10,800.00
down rod and discharge pipe	1	ttl	\$ 1,400.00	
down wire and pump cable	1	ttl	\$ 2,200.00	\$ 2,200.00
casing grout and gravel pack	1	ttl	\$ 2,420.00	\$ 2,420.00
Liner, seal, nipples, couplings, misc fittings	1	tti	\$ 2,700.00	\$ 2,700.00
Subtotal				\$ 19,520.00
Other Direct Costs				
Office supplies, printing and postage	1	each	\$ 25.00	\$ 25.00
Mileage (2 trips at 132 Miles round-trip each)	264	miles	\$ 0.45	\$ 117.48
Subtotal				\$ 142.48
Task Subtotal				\$ 10,022.48
Administration Costs (5%)				\$ 501.12
Task Total				\$ 10,523.60

Task 5						
Implement Solar Installation Plan	Amount	Unit	Co	Cost per Unit		Total Cost
Direct Labor			╁╌		<u> </u>	
Contract Solar Installer	1	ttl	\$	3,850.00	\$	3,850.00
Gila Watershed Coordinator	20	hrs	\$	65.00	\$	1,300.00
Subtotal			Ţ		\$	5,150.00
Capital Outlay & Equipment			+			
Solar Modules	1	ttl	\$	29,600.00	\$	29,600.00
Trackers	1	ttl	\$	10,400.00	\$	10,400.00
Submersible Motor	1	ttl	\$	3,300.00	\$	3,300.00
Solar Control System	1	ttl	\$	6,800.00	\$	6,800.00
Subtotal			1		\$	50,100.00
Material & Supplies			╁	<del> </del>		
Misc Solar Fittings, Connectors, etc.	1	ttl	\$	800.00	\$	800.00
Subtotal					\$	800.00
Other Direct Costs	-		╁	·····		
Office supplies, printing and postage	1	each	\$	25.00	\$	25.00
Mileage (2 trips at 132 Miles round-trip each)	264	miles	\$	0.45	\$	117.48
Subtotal			T		\$	142.48
Task Subtotal			+		\$	56,192.48
Administration Costs (5%)			#		\$	2,809.62
Task Total			$\perp$		\$	59,002.10

. .

Task 6						
Implement Stock Tank Installation Plan	Amount	Unit	Cos	t per Unit	T.	otal Cost
Direct Labor						
Gila Watershed Coordinator	20	hr	\$	65.00	\$	1,300.00
Subtotal					\$	1,300.00
Material & Supplies						
Pipe	10	roll	\$	250.00	\$	2,500.00
Connectors and fittings	2	tons	\$	300.00	\$	600.00
Subtotal					\$	3,100.00
Other Direct Costs						
Office supplies, printing and postage	1	each	\$	25.00	\$	25.00
Mileage (1 trips at 132 Miles round-trip each)	132	miles	\$	0.45	\$	58.74
Subtotal			ļ		\$	83.74
Task Subtotal					\$	4,483.74
Administration Costs (5%)					\$	224.19
Task Total					\$	4,707.93

•

.

Task 7						
Implement Monitoring Plan	Amount	Unit	Cos	t per Unit	Т	otal Cost
Direct Labor						
Gila Watershed Coordinator	20	hrs	\$	65.00	55	1,300.00
E.coli Monitoring Specialist	48	hrs	\$	65.00	\$	3,120.00
Photo Monitoring Specialist	8	hrs	\$	35.00	\$	280.00
Subtotal					\$	4,700.00
Material & Supplies			+			
E.coli Testing	2	ttl	\$	800.00	\$	1,600.00
Subtotal					\$	1,600.00
Other Direct Costs			ļ			- "
Office supplies, printing and postage	1	each	\$	25.00	\$	25.00
Mileage (8 trips at 132 Miles round-trip each)	1056	miles	\$	0.45	\$	469.92
Subtotal			1		\$	494.92
Task Subtotal					\$	6,794.92
Administration Costs (5%)					\$	339.75
Task Total		· · · · · · · · · · · · · · · · · · ·	+		\$	7,134.67

Task 8						
Implement Education & Outreach Plan	Amount	Unit	Cos	t per Unit	To	otal Cost
Direct Labor						-
Gila Watershed Coordinator	8	hrs	\$	65.00	\$	520.00
Subtotal					\$	520.00
Other Direct Costs			+-			
Office supplies, printing and postage	1	each	\$	65.00	\$	65.00
Mileage (1 trips at 132 Miles round-trip each)	132	miles	\$	0.45	\$	58.74
Subtotal		• • • • • • • • • • • • • • • • • • • •		- ··· - <del>-</del>	\$	123.74
Task Subtotal					\$	643.74
Administration Costs (5%)				· · · ·	\$	32.19
Task Total					\$	675.93

.•

•

Task 9			<u> </u>			
Final Project Report	Amount	Unit	Cos	t per Unit	T	otal Cost
Direct Labor						
Gila Watershed Coordinator	80	hrs	\$	65.00	\$	5,200.00
Landowner	40	hrs	\$	20.00	\$	800.00
Subtotal					\$	6,000.00
Other Direct Costs						
Office supplies, printing and postage	1	each	\$	125.00	\$	125.00
Subtotal					\$	125.00
Task Subtotal					\$	6,125.00
Administration Costs (5%)			-		\$	306.25
Task Total					\$	6,431.25

<b>Total Requested AWPF</b>	\$ 100,350.9	4
		_

#### **DETAILED MATCHING BREAKDOWN**

Task 1						
Permits, Authorizations, Agreements - permits and						
subcontractor agreements	Amount	Unit	Cost per Unit		T	otal Cost
Direct Labor			+			
Landowner	60	hrs	\$	20.00	\$	1,200.00
Bureau of Land Management Range Conservationist	24	hrs	\$	45.00	\$	1,080.00
Bureau of Land Management archeologist	24	hrs	\$	55.00	\$	1,320.00
Bureau of Land Management Biologist	24	hrs	\$	55.00	\$	1,320.00
Subtotal				<del></del>	\$	4,920.00
Task Subtotal			-		\$	4,920.00
Task Total			+	· · · · · · · · · · · · · · · · · · ·	\$	4,920.00

Task 2						
Prepare Implementation Plans (Site Preparation Plan, Well Drilling Plan, Solar Installation Installation Plan, Stock Tank Installation Plan, Monitoring Plan,				·		
Education & Outreach Plan)	Amount	Unit	Cos	t per Unit	t Total Cost	
Direct Labor			+			
Landowner	60	hrs	\$	20.00	\$	1,200.00
Subtotal					\$	1,200.00
Task Subtotal					\$	1,200.00
Task Total			+		\$	1,200.00

Task 3						
Implement Site Preparation Plan	Amount	Unit	Cost	ost per Unit		otal Cost
Direct Labor		·	+			
Landowner - Site Supervision	80	hrs	\$	20.00	\$	1,600.00
Subtotal					\$	1,600.00
Task Subtotal			- <del> </del>		\$	1,600.00
Task Total					\$	1,600.00

Task 4					
Implement Well Drilling Plan	Amount	Unit	Cost per Unit	Ţ	otal Cost
Direct Labor				$\vdash$	
Landowner - Site Supervision	80	hrs	\$ 20.00	\$	1,600.00
Subtotal				\$	1,600.00
Task Subtotal				\$	1,600.00
Task Total				\$	1,600.00

.

•

Task 5								
Implement Solar Installation Plan	Amount	Unit	Cost pe	r Unit	T	Total Cost		
Direct Labor			-					
Landowner - Site Supervision	80	hrs	\$ 2	20.00	\$	1,600.00		
Subtotal					\$	1,600.00		
Task Subtotal		<u> </u>			\$	1,600.00		
Task Total					\$	1,600.00		

Task 6			$oldsymbol{\perp}$			
Implement Stock Tank Installation Plan	Amount	Unit	Co	st per Unit	1	Total Cost
Direct Labor			+	<del></del>	-	
Landowner - Site Supervision	80	hrs	\$	20.00	\$	1,600.00
Landowner - Labor to connect pipe btw pump & trough	60	hrs	\$	20.00	\$	1,200.00
Stone Mason	220	hr	\$	28.00	\$	6,160.00
Masonry Helpers	220	hr	\$	20.00	\$	4,400.00
Subtotal			T		\$	13,360.00
Equipment			╁	<del></del>	-	
Tractor(includes operator) (for moving rock)	24	hr	\$	75.00	\$	1,800.00
Back Hoe (includes operator) (for moving rock)	48	hr	\$	75.00	\$	3,600.00
Subtotal					\$	5,400.00
Material & Supplies			╫			
Sand	1	tti	\$	12.00	\$	12.00
Rock	1	tti	\$	1,500.00	\$	1,500.00
Subtotal					\$	1,512.00
Task Subtotal			1		\$	20,272.00
Task Total			+		\$	20,272.00

Task 7			_			
Implement Monitoring Plan	Amount	Unit	Cos	t per Unit	Т	otal Cost
Direct Labor						
Landowner - Monitoring Assistance	80	hrs	\$	20.00	\$	1,600.00
Subtotal					\$	1,600.00
Task Subtotal			<u> </u>		\$	1,600.00
Task Total					\$	1,600.00

Task 8			1			
Implement Education & Outreach Plan	Amount	Unit	Cos	t per Unit	To	tal Cost
Direct Labor						
Landowner	16	hrs	\$	20.00	\$	320.00
Subtotal					\$	320.00
Task Subtotal					\$	320.00
Task Total		. ,,, .			\$	320.00

Task 9						
Final Project Report	Amount	Unit	Cost per Uni	To	Total Cost	
Direct Labor						
Landowner	40	hrs	\$ 20.00	\$	800.00	
Subtotal				\$	800.00	
Task Subtotal				\$	800.00	
Task Total		<del></del>		\$	800.00	

Total Matching	\$ 33,912.00
Additional Match from ADEQ (\$174,520) and ADA (\$118,568) Well Grants	\$ 293,088.00
Total AWPF Funds and Match	\$ 427,350.94

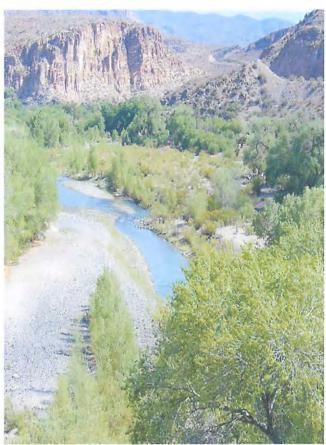
#### **Photos**



Livestock in the riparian area at the Kaler Ranch



Solar installation being completed with an ADEQ and ADA grant on the Kaler Ranch



The Kaler Ranch's private land is located along the San Francisco River in Greenlee County

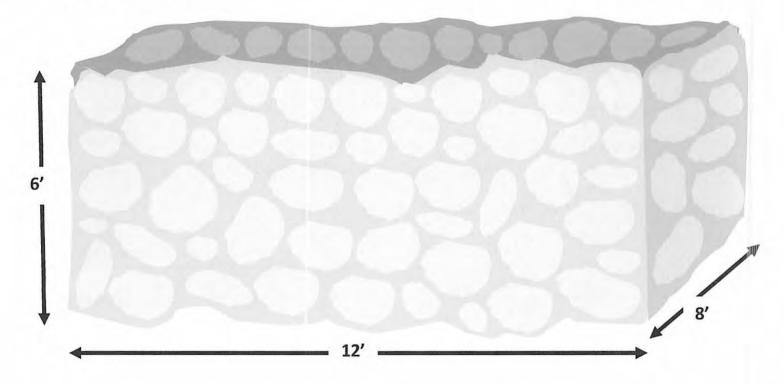


Article in the Greenlee County newspaper about the E.coli impairment in the San Francisco River

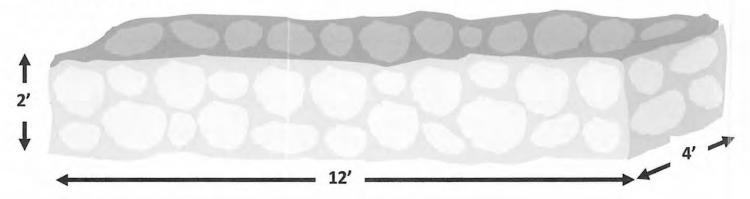
#### E.coli Reduction on the San Francisco River

### Through Alternative Livestock Water on the Kaler Ranch, Phase III

Water Storage Tank Design – Built of rock and concrete – will hold approximately 2,300 gallons. Dimensions shown below are outside dimensions. Water storage capacity is based on inside dimensions, which is approximately 5 feet in depth, 10 feet in length, and 6 feet in width.



Cattle Trough Design – Built of rock and concrete – will hold approximately 740 gallons. Dimensions shown below are outside dimensions. Water storage capacity is based on inside dimensions, which is approximately 1 foot in depth, 10 feet in length, and 2 feet in width.



## **Existing Plans, Reports, Information Relevant to the Project**

See attached

## **Letters of Community Support**

See attached

# **Graham County**



COLLEGE OF AGRICULTURE AND LIFE SCIENCES

PO Box 127 • 2100 S. Bowie Avenue • Solomon AZ 85551-0127 • (928) 428-2611 • FAX: (928) 428-7023

August 27, 2010

Arizona Water Protection Fund 3550 North Central Ave. Phoenix, AZ 85012

Dear Representatives of the Arizona Water Protection Fund:

I am writing this letter to express my support for the Gila Watershed Partnership and their application for grant funding for the E.coli Reduction on the San Francisco River through Alternative Livestock Water on the Kaler Ranch, Phase III, grant project. This grant is important as it will help to address the E.coli issue on the San Francisco River. Solving this issue is critical to Greenlee County and the Upper Gila Watershed.

I support their efforts to secure these grant funds and I am confident that they will be used in a very worthwhile and efficient manner.

Thank you for your consideration in this matter.

Sincerely,

Bill Brandau

Graham County Cooperative Extension Director Area Agent, Agriculture and Natural Resources, Graham and Greenlee County University of Arizona Cooperative Extension P.O. Box 127 Solomon, Arizona 85551

William K. Branch

wbrandau@cals.arizona.edu



## United States Department of the Interior

BUREAU OF LAND MANAGEMENT Safford Field Office 711 14<sup>th</sup> Avenue Safford, Arizona 85546 928-348-4400 www.blm.gov/az/sfo



August 21, 2010

Arizona Water Protection Fund Commission Arizona Water Protection Fund 3550 North Central Avenue Phoenix, Arizona 85012

Re: E.coli Reduction on the San Francisco River Through Alternative Livestock Water on the Kaler Ranch, Phase III

Dear Arizona Water Protection Fund Commissioner,

This letter is to indicate support for the Gila Watershed Partnership of Arizona's grant application for the E.coli Reduction on the San Francisco River through Alternative Livestock Water on the Kaler Ranch, Phase III project. This grant will reduce E.coli in the San Francisco River by providing alternative livestock water out of the riparian area of the San Francisco River. We agree to supply the match for the permits and clearances on the applicable BLM land. We support this grant application and we urge you to fund this project.

Thank you for your consideration. Please contact me if you have any questions.

Sincerely,

Lance R. Brady Assistant Field Office Manager Safford Field Office Bureau of Land Management **Greenlee County Planning and Zoning** 

Director Voice - (928) 865 4762 P.O. Box 908 253 Fifth Street Clifton, Arizona 85533 Facsimile - (928) 865 4763 email - pronnerud@co.greenlee.az.us

<u>Clerk</u> Yvonne Pearson Board of Supervisors
David Gomez, District 1
Hector Ruedas, Chair, District 2
Richard Lunt, District 3

Administrator Deborah K. Gale

August 20, 2010

Arizona Water Protection Fund Commission 3550 North Central Avenue Phoenix, Arizona 85012

Dear Arizona Water Protection Fund Commissioners:

I support the Gila Watershed Partnership's grant application for E.coli Reduction on the San Francisco River through Alternative Livestock Water on the Kaler Ranch, Phase III. This grant is important as it will install critical infrastructure to address the E. coli problem in the San Francisco River, which is an critical resource to us in Greenlee County and the Upper Gila Watershed.

I support their efforts to secure these grant funds, and are confident that they will be used in a very worthwhile and efficient manner.

Please call if you have questions.

Yours truly,

Philip Ronnerud Engineer

Ad Jones

d: kalar III.wpd



RESOURCE CONSERVATION AND DEVELOPMENT AREA, INC.

656 N. Bisbee Avenue Willcox, AZ 85643

Phone: (520) 384-2229 x122 Fax: (520) 384-2735

August 29, 2010

Arizona Water Protection Fund Commission 3550 North Central Ave. Phoenix, AZ 85012

Dear Arizona Water Protection Fund Commissioners:

I am writing in support of the Gila Watershed Partnership's project to install a well on the Kaler property in Greenlee County. This well will allow the rancher to completely exclude livestock from the San Francisco River riparian area and restore a healthy ecosystem.

As a Council that also works on projects in southeastern Arizona to improve our natural resources, we feel that providing an alternate source of water, provides feasible options for the ranchers and allows for the protection of the riparian area. The Gila Watershed Partnership has worked on multiple phases of projects to improve the San Francisco River and this one is a much needed next step. We would recommend it for funding and appreciate your consideration of this proposal.

Sincerely,

John E. Hays, President



Janice K. Brewer Covernor

# ARIZONA DEPARTMENT ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007 (602) 771-2300 • www.azdeg.gov



Director

August 25, 2010

Arizona Water Protection Fund Commission **Arizona Department of Water Resources** 3550 North Central Avenue Phoenix, Arizona 85012

Re: Letter of Support for the Kaler Ranch Well Project

To Whom It May Concern,

I am writing in support of the Gila Watershed Partnership's application for funding to implement a solar powered well at the Kaler Ranch to provide off-channel water sources for livestock. The Kaler Ranch is located along a reach of the San Francisco River that has been assessed as impaired by the Arizona Department of Environmental Quality (ADEQ) due to exceedances of the E. coli bacteria standard for Full Body Contact. A Total Maximum Daily Load (TMDL) report developed by ADEQ has identified livestock as a contributing source of bacteria in this reach.

The owners of the Kaler Ranch have expressed concern that grazing their cattle near and in the riparian areas of the San Francisco River may be contributing to the E. coli impairment, and have taken measures to provide alternative water sources for their cattle with support from two previous ADEQ Water Quality Improvement Grants (WQIGs). In addition, they have utilized WQIG funding to implement best management practices to address overall erosion from their property. The owners have also been involved in the ongoing San Francisco/Blue River Targeted Watershed Improvement Grant, a WQIG awarded to the Gila Watershed Partnership in 2009 to identify specific bacteria sources within the drainage contributing to the E. coli impairment. Photo and water quality monitoring associated with these projects has shown that cattle from the Kaler Ranch are a likely bacteria source. While the Kalers are willing to completely exclude their cattle from the riparian area in order to protect water quality, they are unable to do so until sufficient alternative water supplies have been established. Funding for this fourth and final solar well would allow them to isolate a documented source of E. coli along the San Francisco River.

Both the GWP and the Kalers have shown strong interest in and commitment to active stewardship of the lands surrounding the San Francisco River to protect its water resources. I encourage you to strongly consider their Arizona Water Protection Fund application for award.

Sincerely,

Krista Osterberg

**Grant & Outreach Coordinator** 

Water Quality Division

Known C

Arizona Department of Environmental Quality

cc Jan Holder, Gila Watershed Partnership

Northern Regional Office 1801 W. Route 66 • Suite 117 • Flagstaff, AZ 86001 (928) 779-0313

Southern Regional Office 400 West Congress Street • Suite 433 • Tucson, AZ 85701 (520) 628-6733

#### **DECISION RECORD**

**EA Number:** DOI-BLM-AZ-G010-2008-0043

Serial/Case File No. 40020

**BLM Office:** Safford Field Office

**<u>Decision:</u>** It is my decision to implement the proposed action and drill up to four wells as a source of permanent water on the San Francisco Allotment.

<u>Alternatives Considered:</u> The No Action Alternative would not fulfill the purpose and need of the project.

Rational for Decision: The proposed action is specifically provided for in the Safford District RMP. The environmental assessment dated 26 November 2007, prepared for the project analyzed the potential impacts to the environment and the public should the proposed action be implemented. A Finding of No Significant Impacts (FONSI) has been signed documenting no significant impacts to the environment that would require an environmental impact statement. By selecting the proposed action, the Safford Field Office is implementing this portion of the Safford District RMP.

#### Mitigation Measures/ Additional Stipulations:

- 1. No new road construction will occur.
- 2. Livestock waters will not be stocked with nonnative aquatic species.
- 3. Water will remain accessible to wildlife
- 4. Any unused or discarded materials will be properly disposed.
- 5. Periodic inspection and continued range monitoring

#### Appeals:

This decision may be protested or appealed under the procedures outlined in CFR 300.4 (Appeals), 43 CFR 4.411., and 1610.5, 5-1.

Scott Cooke

Field Office Manager

Senti & Cook

**Attachments:** Finding of No Significant Impact dated  $\frac{\dot{\epsilon} / 4//\epsilon}{/}$ 

Environmental Assessment – AZ-G010-2008-0043

There are no pending or authorized lands actions which might conflict with this proposed action. The decision to allow the proposed action does not result in any undue or unnecessary environmental degradation and is in conformance with the Safford Resource Management Plan, and Record of Decision approved September 1992 and July 1994. This proposed action has been reviewed to determine if it conforms to the land use plan terms and conditions as required by 43 CFR 1610.5, BLM MS 1617.3.

Attachments: NEPA#: DOI-BLM-AZ-G010-2008-0043

Scott Cooke

Field Office Manager

Seatt & Cook

Date

#### FINDING OF NO SIGNIFICANT IMPACT

**EA Number:** DOI-BLM-AZ-G010-2008-0043

Serial/Case File No. 40020

BLM Office: Safford Field Office

#### Finding of No Significant Impact:

I have reviewed the environmental assessment (EA), # DOI-BLM-AZ-G010-2008-0043, dated 26 November 2007, prepared for the San Francisco Wells project, and have found through the EA that there are no potentially significant environmental impacts caused by the proposed project. I have determined that the proposed action with the mitigation measures listed below will not have any significant impacts on the human environment and that an EIS is not required. I have determined that the proposed action is in conformance with the Safford District Resource Management Plan approved in Record of Decision dated Part I, September 1992; Record of Decision Part II, July 1994.

#### Below are the substantive reasons for finding no significant impact:

The rationale for this decision is such that it does not conflict with the Safford Resource Management Plan. The issues that are identified are not significant and are mitigated sufficiently given the potential impacts. The "no action" alternative does not adequately meet the applicant's needs, nor is it adequate given the environmental or economic impacts that are identified.

The following elements have been analyzed and would not be affected or are mitigated sufficiently: Air Quality, ACEC's, Cultural Resources, Environmental Justice, Socio-Economics, Floodplains, Hazardous Materials, Nonnative/Invasive Plants, Native American Rel., Prime/Unique Farmlands, Solid Waste, T&E Animal Species, T&E Plant Species, VRM (Class III), Water Quality (Ground and Surface), Water Rights, Wetlands/Riparian, Wild & Scenic River, Wilderness, Standards for Rangeland Health, Lands, Wildlife, and Fisheries.

A + +

#### ARIZONA DEPARTMENT OF WATER RESOURCES

Surface Water Rights 3550 North Central Avenue, Phoenix, Arizona 85012 Telephone (602) 771-8500 Fax (602) 771-8688



July 19, 2006

Richard M. and Lois J. Kaler Personal Iden ifying Information

RE: Assignment (Conveyance) of Statement of Claim Nos. 36-25449 and 36-25450.

From: Jerald P. Baldwin and Leslie A. Wootten

To: Richard M. and Lois J. Kaler

#### Applicant:

The referenced assignment actions have been completed as required by Arizona Revised Statutes §§ 45-163 and 45-164. The official records of the Arizona Department of Water Resources (Department) have been revised to indicate the name and address of the current holder of the referenced surface water fillings.

The Department assumes your request for assignment on the Statement of Claim of Right is a request to change the name of the claimant only. The Department does not presume to either adjudicate the validity of the claim or determine who should hold the claim.

Check No. 7868 for \$20.00 has been deposited. Thank you for your payment. The cancelled check is your receipt.

If you have further questions regarding the assignment application process, please contact me at (602) 771-8500.

Sincerely,

Jeannie Aguilar

Surface Water Rights Specialist

-	NAME	REG#	ADDRESS	STATUS	PERMIT #	FILED	CEPTH	SOURCE	LEGAL	DIV	USES
i	-	4A-780.0		ACTIVE - ACTIVE	-	Dec 07, 1927	207.000	-	NE NW 5 4S 30E	-	-
2							1				IRRIGATION
3	-	-		11-11-11-1	-					-	in a control
4	Personal Identifying it	35-25449.1	Personal Identifyl	ACTIVE - FULL ASSIGNMENT		Jun 29, 1979		SAN FRANCISCO RIVER	NE SW 5 4S 30E	POD	IRRIGATION
5										POLL	IRRIGATION
6		36-25450,1	Personal Identifying	ACTIVE - FULL ASSIGNMENT	39	Jun 29, 1979		SAN FRANCISCO RIVER	SE NW 5 4S 30E	-	
		Lance Control									
7										POU	IRRIGATION
8	Personal Identify	BB-532.0	X CLIFTON, AZ 85532	ACTIVE -	0.0000	Dec 31, 1915	532,000	SAN FRANCISCO RIVER	NE SW 5 4S 30E	POU	IRRIGATION
9									SE NW 5 4S 30E	POU	IRRIGATION
10	PHELPS DODGE CORP	36-104801.0	4521 US HWY 191 MORENCI, AZ 85540	ACTIVE -		Mar 11, 1996		GARFIELD(A GULCH	NW SW 5 4S 30E	POU	ANNUAL USE
11											COMMERCIA
12	100										INDUSTRIAL
13		-			21						MINING
14						3					STOCK
15					-		=		S2 SW 5 4S 30E	POU	ANNUAL USE
16											COMMERCIAL
17	-	-									INDUSTRIAL
18											MINING
19					1						STOCK
20									SW NW 5 48 30E	POU	ANNUAL USE
21											COMMERCIAL
22											INDUSTRIAL
23	-			-	-						MINING
24			ph	1							STOCK

## Supplemental Information on disk:

The ADEQ E.coli Reduction on the San Francisco and Lower Blue Rivers Grant SAP/QAPP