

**ARIZONA GAME AND FISH DEPARTMENT  
HABITAT PARTNERSHIP PROGRAM  
HABITAT ENHANCEMENT AND WILDLIFE MANAGEMENT PROPOSAL**

**PROJECT INFORMATION**

**Project Title:** 80 Well and Pipeline Project Phase 1

**Project No. 10-521**

**Region/GMU:** V / 35A

**HPC:** Sierra Vista/Douglas

**Project Type:** Water Development

**Project Description:**

Most of the proposed project is replacement of an existing range improvement that has failed due to an unreliable water source and aged materials. The improvement was installed in the early 1980s and involved developing the Eighty Spring and piping water to a 25,000 gallon storage. From the storage water was delivered by pipeline to 3 troughs. For the past decade, this improvement has been very unreliable and recently it has stopped functioning altogether. The spring has stopped producing water, or is plugged up. The large flood events in 2006 and 2007 most likely caved in the development and have made locating the actual spring box impossible. The pipe used was 1.25" "Range Pipe" that has definitely met its life expectancy as much of it is cracked or smashed. The good news is that all of the existing troughs and the storage are in serviceable condition. The proposed project would be divided into 2 phases.

Phase 1 of the proposed project would entail replacing the water source (80 Spring) with a new well and outfitting the well with a solar pump, replacing all 4.75 miles of pipe with new 1.25" HDPE pipe, plumbing into the three existing troughs and installing three additional troughs. The existing troughs along with the proposed troughs would successfully water approximately 5,488 acres.

Phase 2 of the proposed project would connect the well installed in Phase 1 to the Happy Jack Pipeline to provide reliable yearlong water to that system. The Happy Jack system relies on a spring that can be seasonal, depending on the year. All together the project would water 13,000 acres. Phase 2 would not be implemented until April 2013, or until funding permits.

**Wildlife Species to Benefit:** Coues deer (45%), Mule deer (45%), Mountain Lion (2.5%), Black Bear (2.5%), Mearn's Quail (2.5%), Javelina (2.5%), dove, ducks and non-game species, including bats.

**Possible Funding Partners:**

**Implementation Schedule:**

**Beginning: July 2011**

**Completed: July 2013**

**PROJECT FUNDING**

**SBG Funds Requested: \$16,950.00**

**Cost Share Funds: \$49,089.07 (74% Cost Share)**

**Total Project Costs: \$76,039.07**

**PARTICIPANT INFORMATION**

**Applicant: Annette H. Chavez**  
(please print)  
**Telephone: 520-803-2805**

**Address: Sierra Vista Ranger District**  
**5990 S. Hwy 92**  
**Hereford, AZ 85615**

<b>AGFD Contact and Phone No.</b> Aaron Miller 520-625-9789 and Brad Fulk 520-4575 (If applicant is not AGFD personnel)	
<b>Coordinated with:</b> John Millican (Sierra Vista-Douglas HPC Chairperson); Al Eiden (AZGFD), Aaron Miller (AZGFD V/34B) and; Greg Locke (Lone Mountain Ranch); Dan Taylor (Bat Conservation International)	<b>Date:</b> 7/27/2010
<b>Applicant's signature:</b> /s/ Annette H. Chavez	<b>Date:</b> 7/27/2010

**NEED STATEMENT/PROBLEM ANALYSIS:**

Water in the project area is limited, sporadic and poorly distributed. The well will replace a spring that has been unreliable at best over the past decade. Portions of the existing distribution lines are no longer serviceable nor is it maintainable. The new well and pipelines will provide reliable yearlong waters.

**PROJECT OBJECTIVES:** Supply dependable, perennial water to approximately 5,488 acres along the U.S. /Mexico Border. This area lies directly west of the Coronado National Monument, and is and historically had been a dry corner of the district. The only natural water within the area is Yaqui Spring, and it only runs seasonally. All other watering areas within the project location are located 2-3 miles to the north on the steep terrain of the south face of the Huachuca Mountains.

This project would bring water to the foothills of the Huachuca Mountains connecting the habitat within the U.S to the habitat of the desert grasslands located in Mexico. The grasslands within this area in Mexico are known to have large populations of Coues and Mule Deer.

**PROJECT STRATEGIES:**

NEPA was completed in 2001 for the Lone Mountain Allotment. Cultural and biological clearances will need to be completed for the three new trough locations and the well. These will be done by the U.S. Forest Service. The remainder of the project will be replacement of an existing range improvement and will require no clearances. This HPC grant would:

1. Drill and equip a well with a solar pump.
2. Replace 4.75 miles of existing pipeline (this includes burial of the line).
3. Plumb new pipeline to existing 25,000 gallon storage.
4. Install 3 new troughs and plumb the existing 3 troughs to the new pipeline (total of 6 troughs).
5. All troughs would be outfitted with access and escape ramps for wildlife.

**PROJECT LOCATION:**

Location is in the south central portion of Unit 35A approximately one mile north of the Mexican border in Cochise County. Legal location is:

T.24S.,R.20E. Sec's 9,10,15,16,17,20

**LAND OWNERSHIP AT PROJECT SITE (Please state specifically if PRIVATE PROPERTY and provide landowner's name):**

The entire project is located on National Forest System lands.

**IF PRIVATE PROPERTY, IS THERE A STEWARDSHIP AGREEMENT BETWEEN THE**

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**LANDOWNER AND THE DEPARTMENT?** N/A

**HABITAT DESCRIPTION:**

Elevations of the project area range from 5300 to 5700 ft. The area is in the foothills of the Huachuca Mountains. The project consists of oak woodlands and desert grass lands that connect the oak woodlands of the Huachuca Mountains to the desert grasslands of Sonora, Mexico. The vegetation consists mainly of emory oak, juniper sp., Mearn's Sumac, and a variety of native perennial grasses. The area has not been completely dominated by Lehmann Lovegrass yet, but it is present in small amounts.

**ITEMIZED USE OF FUNDS:**

The attached tables summarize the estimated costs for the project and the amount requested from HPC. The Forest Service, Grazing Permittee, Arizona Game and Fish Department Hunter Donation Dollars, and Bat Conservation International matching funds are displayed on the same table.

**LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION:**

**U.S. Forest Service:** The Forest Service has completed NEPA and will complete the required biological, archaeological clearances, and will provide project oversight. The forest will also contribute 4.75 miles of 1.25" HDPE pipe, miscellaneous plumbing parts, one 8ft poly trough, and general labor throughout the project.

**Bat Conservation International:** To provide one 12' round trough for a bat friendly watering source.

**Lone Mountain Ranch:** To provide all mechanical labor to clear storage and trough locations, and bury all 4.75 miles of pipeline. The ranch will also provide the installation labor and provide maintenance year-round for the project.

**PROJECT MONITORING PLAN:**

Completion of tasks by agreed upon timelines and quality of work will be monitored by Sierra Vista Ranger District Range Management Specialists and administered through permit modifications.

**PROJECT MAINTENANCE:**

The improvements will be added to Part 3 of the rancher's Term Grazing Permit with the permittee assuming maintenance responsibility with regulatory enforcement and oversight by the Forest Service.

**PROJECT COMPLETION REPORT TO BE FILED BY:**

James Heitholt, Rangeland Management Specialist, Sierra Vista Ranger District

ARIZONA GAME AND FISH DEPARTMENT  
**WATER DEVELOPMENT WORKSHEET**

**PROJECT NAME: 80 Well and Pipeline**

- 1) **Is the water development listed as a priority in the most recent "Wildlife Water Development Annual Implementation Schedule?"** No
- 2) **Please list the Development Branch personnel and date coordinated with for this project.**  
N/A
- 3) **What is the estimated annual inches of precipitation for the area? (mark one)**  
\_\_\_2-4 \_\_\_4-6 \_\_\_6-8 \_\_\_8-10 \_\_\_10-12 \_\_\_12-14 \_\_\_14-16 X>16
- 4) **Is there a perennial water source available to big game within four miles of this project?**  
X YES (please complete #5 below) \_\_\_NO (skip #5 below)
- 5) **For the accessible, perennial water source nearest this project:**  
Name of water source: Various springs, stock tanks, ephemeral drainages and wells.  
Type of water source (catchment, spring, dirt tank, etc.):  
Ownership of water source: Forest Service  
Distance in miles from project: Varies
- 6) **Is the target wildlife species a result of transplant efforts?** \_\_\_YES XNO
- 7) **Please list any special land management status for the project site (i.e. Wilderness, National Park, National Monument, etc). If private land, list landowner.** None
- 8) **Please provide the following information about access to the proposed site:**  
Type of access (mark one): X2x4 vehicles \_\_\_4x4 only \_\_\_foot only\*\*  
\*\*If foot access only: Distance in miles: Approx. hiking time:  
  
-- Does access to this site require crossing private or tribal lands? \_\_\_YES XNO  
  
-- Please describe any restrictions to public access:
- 9) **Please list below (or on a separate sheet) the material type and dimensions of each component proposed to be added, modified, or repaired.**

See attached Cost sheet

10) **Was a site visit completed?** X Yes \_\_\_No

If Yes, please list personnel that attended and date.  
James Heitholt (USFS), Andrew Habgood (USFS), and Greg Locke (Lone Mountain Ranch) conducted a ride of the entire project on June 8, 2009.

**80 Well and North Pipeline Phase 1**

<b>HPC Contribution</b>			
<b>Item</b>	<b>Number</b>	<b>Cost per Unit</b>	<b>Cost for Project</b>
Move-in/Move-out of Well Drilling Equip. and re-hab of site			\$1,250.00
Grundfas Solar pump, Panels, and complete set up	1	\$15,000.00	\$15,000.00
Taxes			\$450
Trough 8 ft x 2ft round Poly	1	\$250.00	\$250.00
		<b>Total</b>	<b>\$16,950</b>

<b>Arizona Game and Fish Department - Hunter Donations</b>			
<b>Item</b>	<b>Number</b>	<b>Cost per Unit</b>	<b>Cost for Project</b>
Drill Well and case	350	\$25.00	\$8,750.00
Move-in/Move-out of Well Drilling Equip. and re-hab of site			\$1,250.00
		<b>Total</b>	<b>\$10,000</b>

<b>Grazing Permittee - Lone Mountain Ranch Contribution</b>			
<b>Item</b>	<b>Number</b>	<b>Cost per Unit</b>	<b>Cost for Project</b>
Dozer and Operator to Bury (per 1 mile of Pipe)	4.75	\$4,500.00	\$21,375.00
Misc. labor to Install system (hourly for 2 people)	40	\$40.00	\$1,600.00
Site Prep for well Pad (equipment and Operator Days)	2	\$250.00	\$500.00
Site Prep For new troughs (Equipment and operator per day)	1	\$250.00	\$250.00
		<b>Total</b>	<b>\$23,725</b>

<b>Forest Service Match</b>			
<b>Item</b>	<b>Number</b>	<b>Cost per Unit</b>	<b>Cost for Project</b>
Archaeological & biological surveys & clearances	6	\$300.00	\$1,800.00
NEPA analysis & documentation For New Well			\$4,000.00
Project oversight (days):	5	\$265.00	\$1,325.00
Write Permit Modification, including specifications			
Inspect project during construction & at completion			
File reports with HPC			
Misc. Labor to Deliver materials and Project Work (days)	6	\$265.00	\$1,590.00
1.25" NuMex Transitions	18	\$35.00	\$630.00
1.25" Galvanized Nipple 3 inch	18	\$2.99	\$53.82
1.25" Galvanized Union	18	\$9.00	\$162.00
1.25" Ball Valve	5	\$23.00	\$115.00
1.25" Elbow	7	\$6.50	\$45.50
1.25" Nipple 6"	4	\$4.00	\$16.00
1.25" to 1" Coupler	3	\$4.00	\$12.00
1" Nipple 26"	3	\$13.00	\$39.00
1" Nipple 4"	8	\$5.00	\$40.00
1" Elbow	8	\$4.50	\$36.00
1" Float Valve, rod, ball	4	\$74.00	\$296.00
Escape Ramp - Expanded Metal	5	\$35.00	\$175.00
Valve box plastic	6	\$15.00	\$90.00
Trough 8ft x 2ft round poly	1	\$250.00	\$250.00
1.25" diameter NuMex HDPE DR-9 Pipe	26,125	\$0.55	\$14,368.75
		<b>Total</b>	<b>\$25,044.07</b>

<b>Other Matches</b>			
Bat Conservation International - 12ft x 2ft round Trough	1	320	<b>\$320.00</b>
<b>Total Estimated Project Costs for Phase 1</b>			<b>\$66,039.07</b>
<b>Cost Share</b>		<b>74%</b>	<b>\$49,089.07</b>
<b>Requested from HPC</b>		<b>26%</b>	<b>\$16,950.00</b>
<b>80 Well and North Pipeline Phase 1</b>			