

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

**PROJECT INFORMATION**

**Project Title:** West Patagonia Water Development Project, Phase 2

**Project No. 09-520**

**Region/GMU:** V / 35B

**HPC:** Tucson

**Project Type:** Water Development

**Project Description:**

In 2008 an application was submitted but not funded for Phase 2 of the West Patagonia Water Development Project. This application is a revised resubmission of that proposal. Phase 2 will supply dependable, perennial wildlife water to the southwest side of the Patagonia Mountains by improving an existing well with a solar pump, panels and tracker, and by adding a water lot with a storage tank and troughs to a newly constructed pasture division fence funded by a grant from ADEQ.

Phase 1 was partially funded in 2008 with HPC grants totaling \$25,000. Additional funding came from AZGFD Hunter Donation Funds (\$20,000). Matching funds came from two ADA grants (\$125,000), the NWTF Guzzlers for Gobblers Program (\$1,600), the Boy Scouts (\$2,000 in in-kind labor), and ranchers (approximately \$10,000 volunteer labor) for a total match of \$138,600. The entire West Patagonia Water Development Project will supply water within a mile radius of ~33,453 acres.

The Alisos Well is the critical component of an extensive water system that currently supplies water troughs in four pastures. The windmill at Alisos Well has been nonfunctional for many years. Water is pumped with a submersible pump and a generator that is periodically transported to the well site. Fuel for the generator must be hauled in by truck in 5-gallon cans. These conditions make it extremely difficult for the rancher to maintain water in all the troughs for wildlife year-round.

The installation of a solar system at Alisos Well would greatly enhance the year-round reliability and availability of wildlife water at the well site, which serves Upper and Lower Alisos Pastures, the Stanley Corrals (serving Sierra Tordilla, Piedragosa and Mesquital Pastures), and the proposed water lot in Mesquital Pasture. In addition, an NRCS-EQIP proposed water development project in Piedragosa Pasture would depend on Alisos Well to supply wildlife water to the entire central portion of that pasture. A pipeline may also be extended north to a storage and troughs on the Alisos/Santa Cruz Allotment boundary. Converting the well power source to solar would reduce the expenditure of fossil fuels and the carbon footprint of operating this water system.

Mesquital Pasture has recently been divided with funds from an ADEQ grant, and the construction of a water lot between the two new pastures would enable Alisos Well to provide permanent, year-round wildlife water to both pastures. All troughs supplied by the Alisos Well solar project would be equipped with wildlife access and egress ramps. Floats would be covered. Pipelines would be buried wherever possible. Water would be provided to wildlife year-long whether livestock were in the pastures or not. There are no restrictions to public access in the project area.

**Wildlife Species to Benefit:** Coues deer, white tail deer, black bear, mountain lion, javelina, quail, Gould's turkey, dove, ducks and non-game species, including bats.

**Possible Funding Partners:** La Chamba L.L.C., USFS, Hunter Donation Funds, NRCS, NWTF

**Implementation Schedule:**

**Beginning:** April, 2010

**Completed:** November, 2011

**PROJECT FUNDING**

**SBG Funds Requested:** \$14,464  
**Cost Share Funds:** \$35,035 (71% Cost Share)  
**Total Project Costs:** \$49,499

**PARTICIPANT INFORMATION**

<b>Applicant:</b> Annette H. Chavez (please print) <b>Telephone:</b> 520-378-2805	<b>Address:</b> Sierra Vista Ranger District 5990 South Hwy 92 Hereford, AZ 85615
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**AGFD Contact and Phone No.** Aaron Miller 520-455-4653, 435-830-4896

<b>Coordinated with:</b> Brian Dolan (Tucson HPC Chairperson); Aaron Miller (AZGFD V/35B); Al Eiden (Hunter Donations); Scott Lerich (NWTF); Wayne Lackner (Coues Deer); Duncan Blair (La Chamba, L.L.C.); Robert Heilig (Double Bar R Ranch); Kent Ellett (USFS); Sharon Biedenbender (USFS)	<b>Date:</b> 08/25/2009
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<b>Applicant's signature:</b>	<b>Date:</b>
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**SEND COMPLETED APPLICATIONS TO:**

**Game Branch  
 5000 W. Carefree Hwy.  
 Phoenix, AZ 85086  
 rothompson@azgfd.gov**

**NEED STATEMENT/PROBLEM ANALYSIS:**

Water in the project area is limited and sporadic. The pipeline that HPC funded in 2007 has been a great help in supplying dependable wildlife water to the north and central western side of the Patagonia Mountains. However, there is still a need to improve wildlife waters in the south end of the project area.

**PROJECT OBJECTIVES:**

Supply dependable, perennial wildlife water to the southwest side of the Patagonia Mountains, including the Sycamore and Italian Canyon areas.

**PROJECT STRATEGIES:**

NEPA was completed in 2007 and project environmental clearances were obtained in 2008. Concurrent with this grant application, La Chamba, L.L.C. is submitting a grant application with the NRCS for EQIP funds. The EQIP projects include water developments that depend on water from the Alisos Well. This HPC grant would:

1. At Alisos Well, install solar panels, pump and tracker.
2. Improve Forest Service Road #4674 within the existing road profile to provide access to Alisos Well for the solar installation.
3. Construct a water lot on the new Mesquital Pasture division fence to provide wildlife water and control livestock access.
4. Install 2 water troughs and a 5,000-gallon water storage tank at the Mesquital water lot.
5. Construct a pipeline ~3/4 mile from the existing Alisos Pipeline to the storage at the Mesquital water lot.

**PROJECT LOCATION:**

Location is the western side of Unit 35B, east of Nogales and Hwy. 82 and west of the San Rafael Valley in Santa Cruz County located in:

T. 24 S., R. 15 E., SEC 1, 2

T. 23 S., R. 16 E., SEC 31

**LAND OWNERSHIP AT PROJECT SITE:** The entire project is located on National Forest System lands.

**IF PRIVATE PROPERTY, IS THERE A STEWARDSHIP AGREEMENT BETWEEN THE LANDOWNER AND THE DEPARTMENT?** NA

**HABITAT DESCRIPTION:**

Phase 2 of the West Patagonia Water Development Project covers a large area which provides year-round habitat to the benefited species. The terrain varies from gently rolling hills between 4000-5000 feet elevation in the western portion of the area to just over 7000 feet on Mount Washington in the Patagonia Mountains. Lower elevations are semi-desert grasslands with oak woodland at the higher elevations. Providencia Canyon follows the northern boundary of Phase 2 of the project area. Sycamore Canyon runs generally east-west through the east-central portion. Italian Canyon flows out of the Patagonia Mountains and joins Sycamore Canyon. These drainages run seasonally in response to precipitation events. Vegetation associated with stream courses is a mixture of evergreen oaks, deciduous riparian trees, and mesquite.

**ITEMIZED USE OF FUNDS:**

The attached tables summarize the estimated costs for the project and the amount requested from HPC. Items in red represent La Chamba, L.L.C. matching funds.

**LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION:**

**Arizona Game & Fish Department:** \$5000 has been committed by Hunter Donation Funds, providing the HPC grant is awarded.

**NRCS:** The owner of La Chamba L.L.C. has been working with the NRCS EQIP program since January, 2008. Together they have developed a Coordinated Ranch Management Plan and are finalizing the 2009 EQIP grant application, which is typically due on October 1.

**National Wild Turkey Federation:** The Guzzlers for Gobblers Program funded a project at Shannon Spring as part of Phase 1, and they have expressed interest in funding additional water projects in the area.

**Forest Service:** The Forest Service has completed NEPA and the required biological, archaeological and hydrological project clearances, and will provide project oversight.

**PROJECT MONITORING PLAN:**

Completion of tasks by agreed upon timelines and quality of work will be monitored by Sierra Vista Ranger District Rangeland 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 rancher assuming maintenance responsibility with regulatory enforcement and oversight by the Forest Service.

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

Sharon Biedenbender, Rangeland Management Specialist, Sierra Vista & Nogales Ranger Districts

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

**PROJECT NAME:** West Patagonia Water Development Phase 2

- 1) **Is the water development listed as a priority in the most recent "Wildlife Water Development Annual Implementation Schedule?"**    **Yes**
  
- 2) **Please list the Development Branch personnel and date coordinated with for this project.**  
    **Jim Heffelfinger    08-25-2009**
  
- 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    \_\_\_X\_\_\_ 14-16    \_\_\_ >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. See project map.  
    Type of water source (catchment, spring, dirt tank, etc.): Various springs, stock tanks, ephemeral drainages and wells.  
    Ownership of water source: Forest Service.  
    Distance in miles from project: Varies
  
- 6) **Is the target wildlife species a result of transplant efforts?** \_\_\_X\_\_\_ YES    \_\_\_ NO    Gould's Turkey.
  
- 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.**
  
- 8) **Please provide the following information about access to the proposed site:**  
    Type of access (mark one): \_\_\_ 2x4 vehicles    \_\_\_X\_\_\_ 4x4 only    \_\_\_X\_\_\_ foot only\*\*  
    \*\*If foot access only: Distance in miles:    Approx. hiking time:  
        The well sites and a few troughs are available by vehicle. The rest is overland travel by foot or horseback.  
  
    -- Does access to this site require crossing private or tribal lands? \_\_\_ YES    \_\_\_X\_\_\_ NO  
  
    -- Please describe any restrictions to public access:    None
  
- 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 Spreadsheets.
  
- 10) **Was a site visit completed?** \_\_\_X\_\_\_ Yes    \_\_\_ No    A site visit with AZGFD was held on August 13, 2009. Several site visits by the rancher, Forest Service personnel, and NRCS have also been conducted.

**MAIL COMPLETED PROJECT COMPLETION FORM TO:**

**Game Branch  
Arizona Game and Fish Department  
2221 W. Greenway Road  
Phoenix, AZ 85023**

**E-mail to:  
rothompson@azgfd.gov**