

**ARIZONA GAME AND FISH DEPARTMENT  
HABITAT PARTNERSHIP PROGRAM**

**HABITAT ENHANCEMENT AND WILDLIFE MANAGEMENT PROPOSAL**

**PROJECT INFORMATION**

**Project Title: Sunnyside Canyon Water Storage/Drinker Development**

**Project No. 09-503**

**Region/GMU: Region 5/ GMU 35A**

**HPC: Douglas/Sierra Vista**

**Project Type: Yearlong Water Development**

**Project Description: Construct a 2,500 gallon polyethylene water storage tank, and replace drinker at end of existing waterline, located on USFS lands. This waterline currently does not support yearlong water due to insufficient flow from a well located in Scotia Canyon, and due to vandalism on the waterline and trough float by illegal border crossers.**

**Wildlife Species to Benefit: Gould's Turkey (80%), Whitetail (20%)**

**Possible Funding Partners: NWTF State Chapter, ADA, SCI**

**Implementation Schedule:  
Beginning: September 1, 2009  
Completed: March 31, 2010**

**NEPA Compliance: (if applicable) Not applicable  
Completed: Yes \_\_\_ No \_\_\_  
Projected Completion Date:**

**PROJECT FUNDING**

**SBG Funds Requested: \$1,485.40**

**Cost Share Funds: \$1,973.60**

**Total Project Costs: \$3,459.00**

**PARTICIPANT INFORMATION**

<b>Applicant: John Millican, President</b> <b>Huachuca Gould's Chapter of NWTf</b> (please print) <b>Telephone: 520-508-4272</b>	<b>Address: 9035 E. Chandler Lane</b> <b>Hereford, AZ 85615</b>
<b>AGFD Contact and Phone No.</b>	<b>Brad Fulk, Sector 8 Field Supervisor</b> <b>Region 5, Tucson</b> <b>520-400-4575</b>
<b>(If applicant is not AGFD personnel)</b>	
<b>Coordinated with: Lone Mountain Ranch</b> <b>James Heitholt, USFS, Sierra Vista</b> <b>Glenn Frederick, USFS, Sierra Vista</b> <b>Douglas, Sierra Vista HPC</b>	<b>Date: January 2009</b> <b>July, 2009</b> <b>July, 2009</b> <b>August, 2009</b>
<b>Applicant's signature:</b>	<b>Date: August 10, 2009</b>

**SEND COMPLETED APPLICATIONS TO:**

**AZ Game and Fish Department**  
**Attn: Game Branch**  
**5000 W. Carefree Highway**  
**Phoenix, AZ 85086**  
[rgregory@azgfd.gov](mailto:rgregory@azgfd.gov)

**WAS PROJECT PRESENTED TO THE LOCAL HPC? YES   X**  
**NO**

**HAS PROJECT BEEN SUBMITTED IN PREVIOUS YEARS? NO**  
**IF SO WAS IT FUNDED?**

**NEED STATEMENT/PROBLEM ANALYSIS:** The development of a water storage tank and wildlife accessible trough will provide yearlong water to an area that contains critical habitat for the Gould's turkey. The Sunnyside Canyon drainage supports one of the largest concentrations of Gould's turkey throughout the Huachuca Mountains. The project area is located to the east of Sunnyside Canyon and does not support a perennial water source, particularly, during the driest months of April –July. Coincidentally, these months are critical to Gould's turkey due to breeding, nesting, and poult rearing. Therefore, turkeys utilize the area infrequently even though the habitat is sufficient to support a robust population.

The project area is made up of diverse habitat types necessary for Gould's turkey to exist on a yearlong basis. Roost trees, the limiting habitat component of turkey's, are prevalent throughout the area, but are utilized on a seasonal basis when water is available due to seasonal rainfall patterns.

**Water is currently supplied to the project site by a waterline that extends from a solar operated well located in Scotia Canyon. Livestock are grazed by the Lone Mountain Ranch throughout the winter months (November-March). Due to insufficient water output by the well, and vandalism to the waterline and float valve on existing trough, water availability is not predictable on a yearly basis, particularly, during the driest months of April-July when livestock are not in the area.**

**Through the development of a 2,500 gallon polyethylene storage tank and a wildlife drinker installed with a float cover, yearlong water availability and a reduction in vandalism will result in the increase of approximately 4 square miles of critical turkey habitat.**

**The USFS and Lone Mountain Ranch have agreed that a condition of the lease agreement will be to provide yearlong water to the storage tank and trough, and to fill both prior to removing livestock from the pasture. The Lone Mountain Ranch and the Huachuca Gould's Chapter will work as a partnership to maintain the storage and trough. The Lone Mountain Ranch will provide maintenance to the existing solar well and pipeline feeding the project.**

#### **PROJECT OBJECTIVES:**

**Purchase, install and plumb a 2,500 gallon polyethylene storage tank at end of existing water line pumped from a solar well in Scotia Canyon. Shut off valves will be installed at the inlet and outlet of the storage tank, to assist with maintenance. Additionally, the existing trough will be replaced with a fiberglass trough that is wildlife friendly and provides a float cover. Escape ramps will be installed in the trough.**

**Upon completion, the project area which currently is void of perennial water will provide Gould's turkey and other wildlife with the only yearlong water within 4 square miles.**

#### **PROJECT STRATEGIES:**

**Utilize SBG funds to purchase a 2,500 gallon polyethylene water storage tank , and plumb into existing water line east of Sunnyside Canyon to provide yearlong wildlife water . The project area is important roost, loafing, nesting and poult rearing for Gould's turkey, and has diverse vegetative types ideal for whitetail deer.**

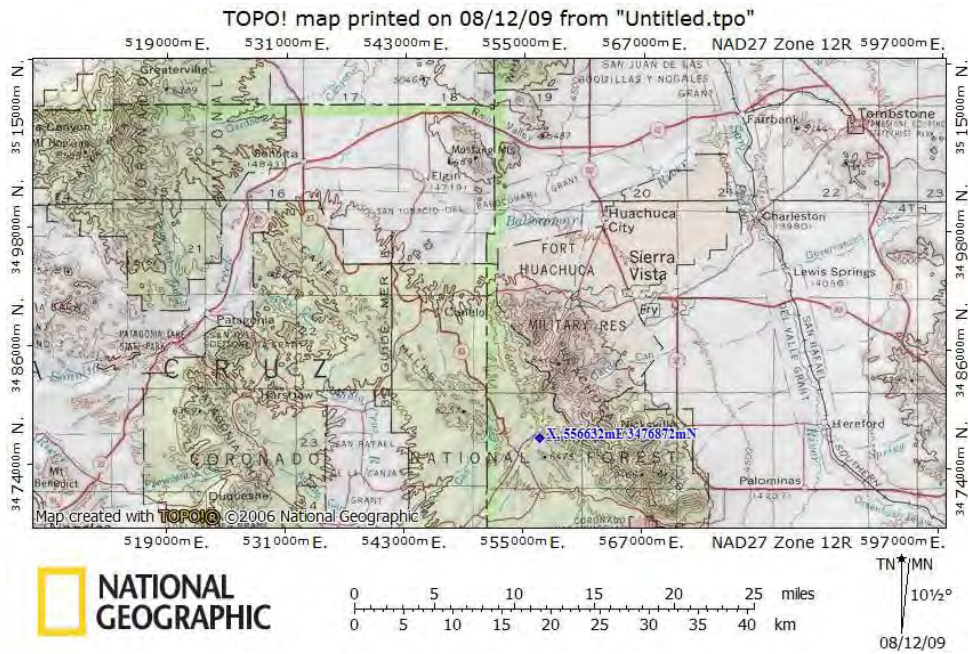
**Along with the addition of a storage tank, the existing trough will be replaced with a fiberglass trough, accessible to wildlife, and fabricated with a float cover. Wildlife ramps will be installed to facilitate access to and from the drinker by wildlife. This trough and associated pipe and fittings associated with plumbing into the existing line will be provided by the Huachuca Gould's Chapter of the NWTF.**

**Since the water will be available to livestock during the winter months, no fence will need to be constructed around the project. Under the forest grazing plan, the leasee, Lone Mountain Ranch, will be required to maintain the well and water line, and assure that the storage tank and trough are full on a yearlong basis. All general maintenance and yearly checks to the system will be accomplished by the Lone Mountain Ranch and the Huachuca Gould's Chapter.**

**PROJECT MAP: GMU 35A, T 23S, R 19E, SW ¼ of Sec. 15**



**PROJECT LOCATION:**



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

**IF PRIVATE PROPERTY, IS THERE A STEWARDSHIP AGREEMENT BETWEEN THE LANDOWNER AND THE DEPARTMENT? NOT APPLICABLE**

**HABITAT DESCRIPTION:**

The habitat type is typically referred to as Madrean Oak Woodlands, comprised primarily of various oak species (*Quercus sp.*), Juniper (*Juniperus sp.*), piñon (*Pinus sp.*), manzanita (*Arctostaphylos sp.*), cliffrose (*Cowania mexicana*) various native grasses and forbs. The area also hosts distinct galleries of Chihuahua Pine (*Pinus leophylla var. chihuahuana*) and Apache Pine (*Pinus engelmannii*). The area lies at a range of approximately 5800-6300 foot elevation with a number of drainages and riparian areas cutting through the hills. These drainages consist of a variety of riparian species, including cottonwood (*Populus sp.*), sycamore (*Platanus wrightii*), Arizona walnut (*Juglans major*), and willow (*Salix sp.*)

**ITEMIZED USE OF FUNDS:**

**REQUESTED MATERIALS AND COST**

Item	Unit	Quantity	Unit Cost (\$)	Cost (\$)
2,500 gallon polyethylene storage tank – 95”dia.X90” H	ea	1	\$1485.40 (including tax)	\$1485.40
<b>TOTAL</b>				<b>\$1485.40</b>

**COST SHARE MATERIALS AND LABOR**

Item	Unit	Quantity	Unit Cost (\$)	Cost (\$)
Fiberglass trough w/ float cover- 94”LX47”WX24”H	ea	1		\$500.00
Escape Ramps	ea	2	\$30.00	\$60.00
Black pipe, 1 ¼ in. dia., HDPE, 160 psi	ft	150	.30	\$45.00
Shut off valve, ball, brass, ¼ turn, 1 ¼ in.	ea	2	\$15.00	\$30.00
Union, metal	ea	2	\$4.00	\$8.00

galvanized, 1 in.				
Valve control box, rectangular	ea	2	\$14.00	\$28.00
Nipples, elbows and transition fittings				\$75.00
Labor, per diem, travel – 5 volunteers for 1 day/ 8 hours				\$810.00
USFS – Labor and travel to haul storage tank to site – 2 personnel				\$417.60
<b>TOTAL</b>				<b>\$1973.60</b>

**BUDGET SUMMARY**

Requested	\$1,485.40
<u>Cost Share</u>	<u>\$1,973.60</u>
<b>TOTAL</b>	<b>\$3,459.00</b>

**LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION:**

**Douglas/Sierra Vista HPC – Review and approve project proposal**

**Lone Mountain Ranch – Maintain Scotia Canyon well, water line and yearlong water level in storage tank and trough.**

**USFS – Develop lease agreement with Lone Mountain Ranch**

**Haul 2,500 gallon storage tank and trough to project site**

**Huachuca Gould’s Chapter – Provide fiberglass trough, plumbing materials, installation of storage tank and trough, and perform yearly field checks and maintenance as required to storage tank and trough.**

**Assist AZGFD with conducting yearly spring turkey surveys in project area.**

**PROJECT MONITORING PLAN:**

**The Lone Mountain Ranch will monitor and maintain the solar well and water line feeding the project, along with maintaining full water levels to the storage tank and trough on a yearlong basis.**

**The Huachuca Gould’s Chapter will perform yearly field checks and maintenance as required to the storage tank and trough.**

**The Huachuca Gould’s Chapter under the direction of the Arizona Game and Fish Department will provide support in conducting annual spring turkey surveys and field checks.**

**PROJECT MAINTENANCE:**

The Lone Mountain Ranch and USFS will maintain the solar well in Scotia Canyon, along with the waterline feeding the storage tank and trough. They will also maintain the storage tank and trough as needed to assist with their livestock management.

The Huachuca Gould's Chapter will assist by providing yearly field checks and routine maintenance as required to the storage tank and trough.

It is anticipated that minimal maintenance to the tank and trough will be required.

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

John Millican, President  
Huachuca Gould's Chapter

**WATER DEVELOPMENT PROJECTS (see attached worksheet):**

**TREE SHEARING (AGRA-AXE, PUSH) PROJECTS (see attached worksheet):**

# ARIZONA GAME AND FISH DEPARTMENT

## WATER DEVELOPMENT WORKSHEET

PROJECT NAME: \_\_Sunnyside Canyon Storage/Water Development

- 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.

NOT APPLICABLE

3) What is the estimated annual inches of precipitation for the area? (mark one)  
 \_\_\_2-4 \_\_\_4-6 \_\_\_6-8 \_\_\_8-10 \_\_\_10-12 x12-14 \_\_\_14-16 \_\_\_>16

4) Is there a perennial water source available to big game within four miles of this project?

\_\_\_YES (please complete #5 below) xNO (skip #5 below)

5) For the accessible, perennial water source nearest this project:

Name of water source: Dirt Tank (no known name) / Scotia Canyon

Type of water source (catchment, spring, dirt tank, etc.): Dirt tank / spring

Ownership of water source: USFS

Distance in miles from project: 1 ¼ miles / 1 ½ miles

6) Is the target wildlife species a result of transplant efforts? X YES \_\_\_NO

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.

NOT APPLICABLE

8) Please provide the following information about access to the proposed site:

Type of access (mark one): \_\_\_2x4 vehicles X4x4 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.

**REQUESTED MATERIALS AND COST**

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10) Was a site visit completed?  Yes  No

If Yes, please list personnel that attended and date.

USFS, Sierra Vista District November, 2008

Glenn Frederick – District Wildlife Biologist

Lone Mountain Ranch, Greg Locke (Ranch Manager) – January, 2009