

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

<b>PROJECT INFORMATION</b>	
<b>Project Title: 13B Cooperative Catchment Maintenance 2008</b>	<b>Project No. 07-218</b>
<b>Region/GMU: Region 2/GMU 13B</b>	<b>HPC: Fredonia</b>
<b>Project Type: Livestock/Wildlife Water Catchment Redevelopment</b>	
<b>Project Description:</b> This grant is the continuation of a grant awarded in 2004. In 2004 a grant was awarded for the maintenance of cooperative livestock/wildlife projects in 13B. The projects involved replacing worn out asphalt aprons with high-density polyethylene sheeting, and installing metal evaporative covers over storage tanks. The project was a great success with 4 catchments being completed, and 5 cooperators coming to the table including the BLM, Permittee, Big Game Stewardship Funds, Mule Deer Special Tags Funds, and Littlefield Chapter of the ADA. This project will build on that effort and directly tie into efforts for maintenance of existing facilities across the Arizona Strip.	
<b>Wildlife Species to Benefit:</b> Pronghorn Antelope ; Mule Deer	
<b>Possible Funding Partners:</b> Mule Deer Special Tag Fund, Antelope Special Tag Fund	
<b>Implementation Schedule:</b> <b>Beginning:</b> Summer 2008 <b>Completed:</b> Summer 2009 *approximate dates	<b>NEPA Compliance: (if applicable)</b> <b>Completed:</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Please see attached letter of support from BLM staff.
<b>PROJECT FUNDING</b>	
<b>SBG Funds Requested: \$ 24000.00</b>	
<b>Cost Share Funds: \$ 26700.00</b>	
<b>Total Project Costs: \$ 50700.00</b>	
<b>PARTICIPANT INFORMATION</b>	
<b>Applicant:</b> Luke F. Thompson  <b>Telephone:</b> 435-574-2978	<b>Address:</b> 3500 S Lake Mary Road Flagstaff, AZ 86001
<b>AGFD Contact and Phone No.</b> <b>(If applicant is not AGFD personnel)</b>	
<b>Coordinated with:</b> BLM Range and Wildlife Staff, Livestock Permittee	<b>Date:</b> Ongoing 2007
<b>Applicant's signature:</b>	<b>Date:</b>

**SEND COMPLETED APPLICATIONS TO:**

**Game Branch  
2221 W. Greenway Rd.  
Phoenix, AZ 85023  
mdisney@azgfd.gov**

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

This overall project was presented to the Fredonia HPC in 2004, 2005, and 2006. It is the extension of a grant submitted and approved in 2004 titled Hurricane Valley Catchments and is a continuing incremental effort to replace existing components of existing dilapidated catchments across Unit 13B on the Arizona Strip. A completion report was recently submitted regarding the success of the previously funded grant.

This is a BLM project that the AZGFD is a cooperator on.

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

This stage of the project has not been submitted in prior years.

**NEED STATEMENT/PROBLEM ANALYSIS:**

In 2004 an effort was initiated to begin replacing worn out components of cooperative wildlife/livestock waters in GMU 13B on the Arizona Strip. Water collection and water quality issues had been noted on many of these projects across 13B. Most of these facilities have open top storage tanks approaching 80,000 gallons. In the summer, evaporative loss often approaches 40% or 30,000 gallons of the storage capabilities of the tanks.

These waters are often the only catchment waters available to wildlife as there are few to no wildlife only catchments in many of these areas. Concerns over Pronghorn fawning and the ability of Pronghorn to have available water during fawning have been documented as potential limiting factors to the growth of the 13B population. There are similar concerns over the mule deer population in the unit. A catchment that has limited collection ability and high evaporation in the storage tank is of limited value to these animals.

This effort involves replacing biddum tar aprons with High Density Polyethylene Sheeting, and installing metal r-panel roofing over the storage tanks to reduce or eliminate evaporation. It has already been documented that evaporative barriers on storage tanks significantly reduce water loss, and greatly improve the value of the project to wildlife.

The tank lids also provide safety to big game and other animals that may fall into the tanks. Many of these tanks are at or near ground level, and there have been instances where big game and other animals have drowned in these catchments. A photo is attached documenting this fact. A comment from the Arizona Strip BLM range staff sums up the benefit of these tank lids as:

“...it would be improving upon the project by eliminating the ability of animals and humans for that matter from gaining access to the tank and drowning and polluting the water. It would further serve to reduce evaporation and help ensure an adequate water supply for wildlife during periods of drought that are common in our area.” – Robert Sandberg , 2007.



Dead Animals Removed from storage tank Twist Hills 2007: From Left to Right – Mule Deer Buck, Hind quarter of antelope, coyote, coyote, jackrabbit.

Below are some before and after photos of work that already was completed with the previous effort:



Cox Atkin Apron After



Cox Atkin Apron Before



Higley Tank Before



Higley Tank Lid After



Twin Butte w/ Apron Done



Twin Butte Tank Lid

### PROJECT OBJECTIVES:

1. Build on previous efforts and continue Statewide efforts of maintaining existing catchment facilities across 13B and the Arizona Strip to meet wildlife and livestock needs.
2. Greatly improve available water distribution for antelope and mule deer across 13B.
3. Improve rainwater collection capabilities of cooperative livestock/wildlife catchments in 13B.
4. Increase apron life, improve water quality and water collection minimizing maintenance needs and water hauling.
5. Develop Cooperative agreements between BLM, Permittee, and AZGFD to ensure projects continue to meet wildlife and livestock needs into the future.
6. Improve safety of the facilities by eliminating drowning danger of big game and other animals.

### PROJECT STRATEGIES:

1. Replace apron at the Whitmore livestock/wildlife COOP catchment in 13B. High-density polyethylene sheeting (HDPE) will replace the current worn asphalt aprons, greatly increasing apron life, improving water quality and water collection minimizing maintenance needs and water hauling. Aprons at pronghorn catchments such as West Wind, Temple Trail and Sunshine may be added to if further funding from the BLM is attained.
2. Install metal r-panel type evaporative covers over the storage tanks of each of these catchments (4 total). A steel beam design will be used as structural support for the roofs.
3. **It is recognized by all cooperators that Catchment priorities can change and other appropriate catchments may be substituted from those described in this grant.**

### PROJECT LOCATION:

Whitmore Point Catchment: T33N R9W Sec 17 36° 15.62' N 113° 17.018' W

West Wind: T 36N R 13 W sec 1 36° 40' 54.09' N 113° 22' 21.6' W

Sunshine: T 37N R 10 W sec 11 36° 37' 30.13' N 113° 20' 46.48' W

Temple Trail: T 38N R 9W sec 22 36° 40.765' N 113° 14.815' W

**LAND OWNERSHIP AT PROJECT SITE (Please state specifically if PRIVATE PROPERTY and provide landowner's name):** Land ownership at the sites is 100% federal, managed by the BLM – Arizona Strip Field Office.

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

**HABITAT DESCRIPTION:**

Habitat consists of a great-plains grassland giving way to a sagebrush-steppe community and finally a pinyon-juniper woodland at higher elevations. Common grass species include galleta grass, dropseed, and Indian Rice grass. Forb species that are common are winterfat, globe mallow, and several species of buckwheat. Shrub species include big sage, cliffrose, and ephedra. Tree species include Utah Juniper, and Pinyon Pine. The average elevation of the area is 5,000 feet ASL.

**ITEMIZED USE OF FUNDS:**

The BLM – Arizona Strip Field Office would request payment and administer the distribution of funds. Funds would provide additional dollars needed for purchase of roof materials and associated labor to install.

**ESTIMATED PROJECT COST SHEET**

13B Cooperative Catchment Maintenance 2008

<b>Costs Category-Equipment, Labor, Administrative, Material</b>	<b>Grant Dollars Requested – Special Tag</b>	<b>Cost Share Dollars – Arizona Strip BLM</b>	<b>Cost Share Dollars – Heaton Ranch Livestock Permittee</b>
1 x – 1/2 acres HDPE plastic sheeting as apron material for Whitmore Point Catchment		\$10473.00	
4 x – 1300 sq. ft r-panel roofing material with steel beam support	\$14000.00	\$4500.00	
Contract Labor for Installation of Tank Lids	\$10000.00	\$10000.00	
Labor For installation of Whitmore Point Catchment Apron		\$607.00	\$1120.00
<b>Totals</b>	<b>\$24000.00</b>	<b>\$25536.00</b>	<b>\$1120.00</b>

**LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION:**

**Arizona Game and Fish Department:**

Provide funding for the purchase of r-panel roofing material and labor for installation of 2 tank lids.

**BLM:**

Provide funding for purchase and installation of HDPE plastic apron material for Whitmore Point Catchment and r-panel roofing material. Administrative support including funds administration.

**LIVESTOCK PERMITTEE:**

Labor and equipment necessary to install apron sheeting and tank roof material. Heaton Ranch will also provide required maintenance on the site as needed.

**PROJECT MONITORING PLAN:**

The Arizona Game and Fish Department will monitor the completion of this project, and ensure that water is available for wildlife year round. Photographs of the completed project will be taken and submitted to the game branch. The department will also monitor pronghorn antelope and mule deer use of the area, and complete population surveys in the area to provide population indexes.

**PROJECT MAINTENANCE:**

The Wildlife Manager, livestock permittee, and BLM staff will maintain this project at least semi-annually as needed.

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

Luke Thompson – Wildlife Manager

**WATER DEVELOPMENT PROJECTS (see attached worksheet): Coordination with Development Branch was conducted and it was determined that the water development worksheet would not need to be completed as these projects are BLM projects that the AZGFD will not be completing the work needed for implementation. The AZGFD is a partner in this project and all funding will be utilized by the BLM to complete these projects on the ground.**

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



**UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
ARIZONA STRIP FIELD OFFICE  
345 East Riverside Drive  
St. George, Utah 84790  
Phone: (435) 688-3200 Fax: (435) 688-3258**

**In Reply Refer To:  
(AZ-010-1020)**

August 31, 2007

Dear Grant Committee,

This letter is to confirm the Arizona Strip Field Offices' involvement in and support of the 13B Cooperative Catchment reconstruction grant proposal, on the BLM Arizona Strip District.

Luke Thompson, Wildlife Manager for Game Unit 13B, has coordinated this grant effort very closely with the BLM and grazing permittees.

The grant proposal is a cooperative effort between BLM, the Arizona Game and Fish Department and the interested permittees, to provide more reliable sources of water in both deer and antelope habitat where no natural water sources exist, or are available only seasonally. The BLM and grazing permittee fully support implementing the project and providing safe, dependable water storage in the area for both wildlife and livestock. Necessary project NEPA requirements have been satisfied and await implementation. We appreciate the opportunity to partner with Arizona Game and Fish on such worthwhile projects.

Sincerely,

Robert W. Sandberg  
Lead Rangeland Management Specialist  
Arizona Strip Field Office