

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

**PROJECT INFORMATION**

**Project Title:** Bighorn Sheep Survey of the Kofa National Wildlife Refuge **Project No.** 07-407

**Region/GMU:** Region IV **HPC:** SW Arizona

**Project Type:** Wildlife Surveys

**Project Description:** The bighorn sheep population on the Kofa National Wildlife Refuge has declined by more than 50% since 2000. This population has historically served as the primary source for transplant sheep of the *mexicana* subspecies, but it can not be used for that purpose until the population recovers sufficiently. Until that recovery is complete, there is a need to do annual surveys to determine if the population is still declining and to monitor the efficacy of our recovery actions. This project would be a complete aerial survey of the Kofa refuge in the fall of 2007.

**Wildlife Species to Benefit:** Bighorn Sheep – 100%

**Possible Funding Partners:**

**Implementation Schedule:**

**Beginning:** October 2006

**Completed:** July 2007

**PROJECT FUNDING**

**SBG Funds Requested:** \$ 50160

**Cost Share Funds:** \$

**Total Project Costs:** \$ 50160

**PARTICIPANT INFORMATION**

**Applicant:** Bob Henry

**Address:** 9140 E 28<sup>th</sup> St  
Yuma, AZ 85365

**Telephone:** 928-341-4048

**AGFD Contact and Phone No.**  
(If applicant is not AGFD personnel)

**Coordinated with:** U.S. Fish and Wildlife Service

**Applicant's signature:**

*Robert S. Henry*

**Date:** February 26, 2007

**SEND COMPLETED APPLICATIONS TO:**

**Game Branch  
2221 W. Greenway Rd.  
Phoenix, AZ 85023  
[pbarber@gf.state.az.us](mailto:pbarber@gf.state.az.us)**

**NEED STATEMENT/PROBLEM ANALYSIS:** The Kofa Refuge population needs a complete survey in order to determine the size, composition, and trend of that sheep herd. The last complete population survey was done in 2003. During a capture/transplant operation in the fall of 2005, there was evidence of a population decline. The capture ships had difficulty finding sheep in traditionally good areas. We need to determine the status of the population before taking more animals for translocation. A complete survey requires about 60 hours of helicopter time. Typically, the cost is shared by both the FWS and AGFD. It is expected that FWS will contribute its share this year also.

**PROJECT OBJECTIVES:** To determine the size, composition, distribution and trend of bighorn sheep populations. In the case of the Kofa population, this data is needed to determine if the herd is healthy enough for sheep to be captured and transplanted to other sites, and to determine appropriate level of hunter harvest.

**PROJECT STRATEGIES:**

- We will conduct aerial surveys using a helicopter and 3 experienced observers to census all available bighorn sheep habitat within the proposed population areas. We will follow standardized methods and record flight paths and animal locations with onboard GPS units.
- The census data will be used to calculate an estimate of population size.
- The estimates will be compared to previous estimates to determine trend and appropriate harvest levels.

**PROJECT LOCATION:** Aerial surveys will be conducted in the Kofa and Castle Dome Mountains of Yuma and La Paz counties.

**LAND OWNERSHIP AT PROJECT SITE (Please state specifically if PRIVATE PROPERTY and provide landowner's name):** All of the project areas are public land managed by the U.S. Fish and Wildlife Service.

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

**HABITAT DESCRIPTION:** Most of the proposal area is an upper Sonoran desertscrub community.

**ITEMIZED USE OF FUNDS:**

**BUDGET DETAILS:**

Helicopter and pilot - Cost per hour of flight time	=	\$697
Ferry and fuel truck costs per hour @ 20%	=	\$139
Total cost per hour	=	\$836

Total survey cost @ \$836 per hr  
Kofa NWR survey (60 hours) Total cost = \$50160

The entire amount will be requested by the aviation office of Game and Fish for payment to the outside helicopter contractor.

**LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION:** The Fish and Wildlife Service, Kofa National Wildlife Refuge, will contribute personnel and other support services for the project on their refuge.

**PROJECT MONITORING PLAN:** No long term costs will be associated with this project. The populations will continue to be monitored after project completion. There will be a need and desire to repeat the surveys annually in the Kofa refuge until the population has recovered to long term average population of about 800 animals.

**PROJECT MAINTENANCE:** No maintenance will be required.

**PROJECT COMPLETION REPORT TO BE FILED BY:** Bob Henry, Game Specialist, Region IV, AGFD

**WATER DEVELOPMENT PROJECTS (see attached worksheet):** N.A.

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