

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

Game Branch / HPC Project Number: 15-401

PROJECT INFORMATION

Project Title: Bighorn Sheep Survey of the Kofa National Wildlife Refuge

Region and Game Management Unit: Region 4, GMU 45

Local Habitat Partnership Committee (LHPC):

- SW Arizona

Was the project presented to the LHPC?

YES[] NO[X]

Has this project been submitted in previous years? YES[X] NO[]

If Yes, was it funded? YES[X] NO[] → **Funded HPC Project #(s):** 10-410

Project Type: Wildlife survey

Brief Project Summary: The desert bighorn sheep population on the Kofa National Wildlife Refuge declined by more than 50% between 2000 and 2006. Historically, this population served as a primary source of desert bighorn sheep (*mexicana* subspecies) for translocation, but it cannot be used for that purpose until the population recovers sufficiently. Various recovery actions are being implemented, and the 2014 survey indicates the population is increasing. Annual surveys are necessary to determine the rate of recovery of this population, and to monitor the efficacy of our recovery actions. This project would entail a complete aerial survey of the Kofa National Wildlife Refuge in the fall of 2016.

Big Game Wildlife Species to Benefit: Desert Bighorn Sheep

Implementation Schedule (Month/Day/Year):

Project Start Date:

October, 2016

Project End Date:

July, 2017

Environmental Compliance:

NEPA Completed: Yes[X] No[] N/A[]

Projected Completion Date: Programmatic EAC M10-06070423
(Statewide Aerial Surveys)

State Historic Preservation Office - Archaeological Clearance:

Yes[] No[] N/A[X]

Projected Completion Date: _____

Arizona Game and Fish Department EA Checklist: N/A[]

To be Completed by: M10-06070423

Projected Completion Date: _____

PROJECT FUNDING

Special Big Game License Tag Funds Requested: \$ 69,020

Cost Share or Matching Funds: \$

Total Project Costs: \$ 69,020

PARTICIPANT INFORMATION

Applicant (please print):

Mark Brown

Address: 9140 E 28th St

Yuma, AZ 85365

E-mail:

mbrown@azgfd.gov

Telephone: 928-341-4052

Date: August 19, 2015

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

Project has been coordinated with:

U.S. Fish and Wildlife Service

NEED STATEMENT – PROBLEM ANALYSIS:

Since the 1950's, the bighorn sheep population on the Kofa National Wildlife Refuge has been an important source of animals for translocation throughout historic bighorn sheep range in Arizona and neighboring states (Texas and New Mexico). Approximately 600 sheep have been removed from the Kofa NWR for translocation to other areas. The bighorn sheep population on the Kofa NWR declined by more than 50% (from over 800 to about 400 sheep) between 2000 and 2006. The Kofa NWR will not again be a source of sheep for translocation until the population recovers sufficiently. Various recovery actions are being implemented, including predator control and water source improvement. The most recent survey in 2014 survey indicates the population is increasing (population estimate 546 sheep). Annual surveys are necessary to determine the rate of recovery of this population, and to monitor the efficacy of our recovery actions. This project would entail a complete aerial survey of the Kofa refuge in the fall of 2016. The cost of past surveys has traditionally been shared by both the Fish and Wildlife Service and AZGFD. However, because the Kofa NWR recently experienced a short-term budgetary windfall (which must be spent by December of 2015), and is uncertain about the status of future funding for surveys, the Fish and Wildlife Service will be covering the costs for the entire survey in the fall of 2015. It is for that reason that this proposal asks for an amount that would cover the costs of a complete survey. A complete survey will allow us to determine the size, composition, and trend of the sheep herd on the Kofa NWR.

PROJECT OBJECTIVES:

To determine the size, composition, distribution and trend of the bighorn sheep population on the Kofa National Wildlife Refuge. This data is needed to determine if current proactive management activities, such as predator control and water source improvement, instituted to assist in the recovery of the bighorn sheep population, are having a positive effect. The adaptive predator management plan that we are currently employing on the Kofa NWR specifies different levels of response to mountain lion predation, based on current population estimates of bighorn sheep. In addition, population estimates and herd composition data are necessary to determine the appropriate level of hunter harvest.

PROJECT DESCRIPTION AND STRATEGIES:

- We will conduct aerial surveys using two helicopters and 6 experienced observers to census all available bighorn sheep habitat within the project area. We will follow standardized survey protocols 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 current estimate will be compared to previous estimates to determine trend and appropriate harvest levels.

PROJECT LOCATION:

Aerial surveys will be conducted in the Kofa, Castle Dome and a portion of the Tank Mountains of Yuma and La Paz counties, all within the boundaries of the Kofa National Wildlife Refuge. The approximate center point of Kofa National Wildlife Refuge is: N 33.250°/W 114.000°. (North boundary 33.550° latitude, East boundary 113.750° longitude, South boundary 32.942° latitude, West boundary 114.250° longitude)

**WOULD IMPLEMENTATION OF THIS PROJECT ASSIST IN PROVIDING, MAINTAINING,
OR FACILITATING RECREATIONAL ACCESS?**

YES[] NO[X] N/A[]

PROJECT MONITORING PLAN:

No long term costs will be associated with this project. The population will continue to be monitored after project completion. There will be a need to repeat surveys on the Kofa NWR, perhaps annually, until the population has recovered to the long-term average population of about 800 animals.

PROJECT MAINTENANCE:

No maintenance will be required.

PROJECT COMPLETION REPORT TO BE FILED BY:

Mark Brown, Game Specialist, Region 4, AZGFD

WATER DEVELOPMENT PROJECTS (*please use the worksheet below*):

N/A

TREE CLEARING/REMOVAL PROJECTS (*please use the worksheet below*):

N/A

Bighorn Sheep Survey of the Kofa National Wildlife Refuge

