

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

Game Branch / HPC Project Number:	16-505
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PROJECT INFORMATION

Project Title: Pronghorn Fawn Enhancement—Bonita (year 2 of 3)

Region and Game Management Unit: Region 5, Units 31/32

Local Habitat Partnership Committee (LHPC): • Safford	Was the project presented to the LHPC? YES[X] NO[]
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Has this project been submitted in previous years? YES[X] NO[]
If Yes, was it funded? YES[x] NO[] → **Funded HPC Project #(s):** 15-506

Project Type: Aerial Coyote Removal

Brief Project Summary: The Arizona Game and Fish Department (AGFD) would contract with Wildlife Services (WS) of the Animal and Plant Health Inspection Service (APHIS) to conduct aerial coyote removal in pronghorn habitat within Units 31 and 32, specifically in the northern Sulphur Springs Valley and Allen Flat. Operations would occur from March through June to coincide with the pronghorn fawning season; the goal being a short, targeted predator removal effort during a critical time of the year to boost pronghorn fawn recruitment. This effort would occur for three consecutive years (2016-2018) while the AGFD continues with the Bonita Grasslands Habitat Restoration Project and completes a supplemental pronghorn translocation to these areas.

Big Game Wildlife Species to Benefit (% benefit per species) : Pronghorn (70%); Mule Deer (30%)

<p>Implementation Schedule (Month/Day/Year):</p> <p><u>Project Start Date:</u> March 1, 2016</p> <p><u>Project End Date:</u> August 15, 2018</p>	<p>Environmental Compliance:</p> <p>NEPA Completed: Yes[X] No[] N/A[] Projected Completion Date: _____</p> <p>State Historic Preservation Office - Archaeological Clearance: <i>(Provide Attachment)</i> Yes[] No[] N/A[X] Projected Completion Date: _____</p> <p>Arizona Game and Fish Department EA Checklist: N/A[] To be Completed by: <u>Duane Aubuchon</u> Projected Completion Date: September 2, 2015</p>
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PROJECT FUNDING

Special Big Game License Tag Funds Requested:	\$ 20,000/year for three years = \$60,000
Cost Share or Matching Funds:	\$ 4,000 1 st year, \$1,500/year afterwards = \$7,000
Total Project Costs:	\$ 67,000

PARTICIPANT INFORMATION

Applicant (please print): Duane Aubuchon	Address: 555 N. Greasewood Rd. Tucson, AZ 85745	E-mail: daubuchon@azgfd.gov
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Telephone: (520) 253-0400	Date: August 25, 2016
AGFD Contact and Phone No. (If applicant is not AGFD personnel):	
Project has been coordinated with: AZ State Land Department, Wildlife Services, Arizona Antelope Foundation, local livestock operators.	

NEED STATEMENT – PROBLEM ANALYSIS:

During 1988 and 1989, a high of 55 pronghorn permits were issued each year in Game Management Units (GMU) 31/32. Since 1990 the number of permits has steadily declined to 7 permits this year. During the late 1980's, over 300 pronghorn were observed in GMU 31/32 during annual surveys. From 1995 through 2005, the average was less than 150. Since 2002, less than 90 animals have been observed annually, except in 2007 and 2008 where we observed 101 and 96 pronghorn, respectively. We believe this brief population increase was a result of aerial predator removal efforts from 2006-2008. Over the last 4 years, the average number of pronghorn observed during annual surveys has been 63. During the last 10 years, fawn to doe ratios have averaged 30:100, with 2010 through 2014 fawn to doe ratios averaging 24:100, illustrating the declining trend since the previous predator removal efforts. These trends all point toward the need for management action necessary to bolster and support this pronghorn population. The AGFD plans to translocate additional pronghorn into this area to address low pronghorn densities in the Allen Flat and East Sulphur Springs Valley sub-populations, and improve genetic diversity throughout. Concurrent with the translocation, coyote removal, which has proven effective within this focused area, will allow the pronghorn an opportunity to become established, successfully reproduce, and achieve management objectives for this population per the GMU 31/32 Management Focus Area Plan (AGFD 2015).

PROJECT OBJECTIVES:

The project objectives include removing coyotes to benefit pronghorn and mule deer recruitment; increasing the abundance of pronghorn and mule deer in the Bonita area; expanding the current distribution of pronghorn and mule deer to occupy suitable habitat; providing diverse recreational opportunities to the public; and implementing comprehensive game management through landscape level planning. The project incorporates aspects of the AGFD's GMU 31/32 Management Focus Area Plan, the Comprehensive Game Management Plan, and Strategic Plan-Wildlife 20/20.

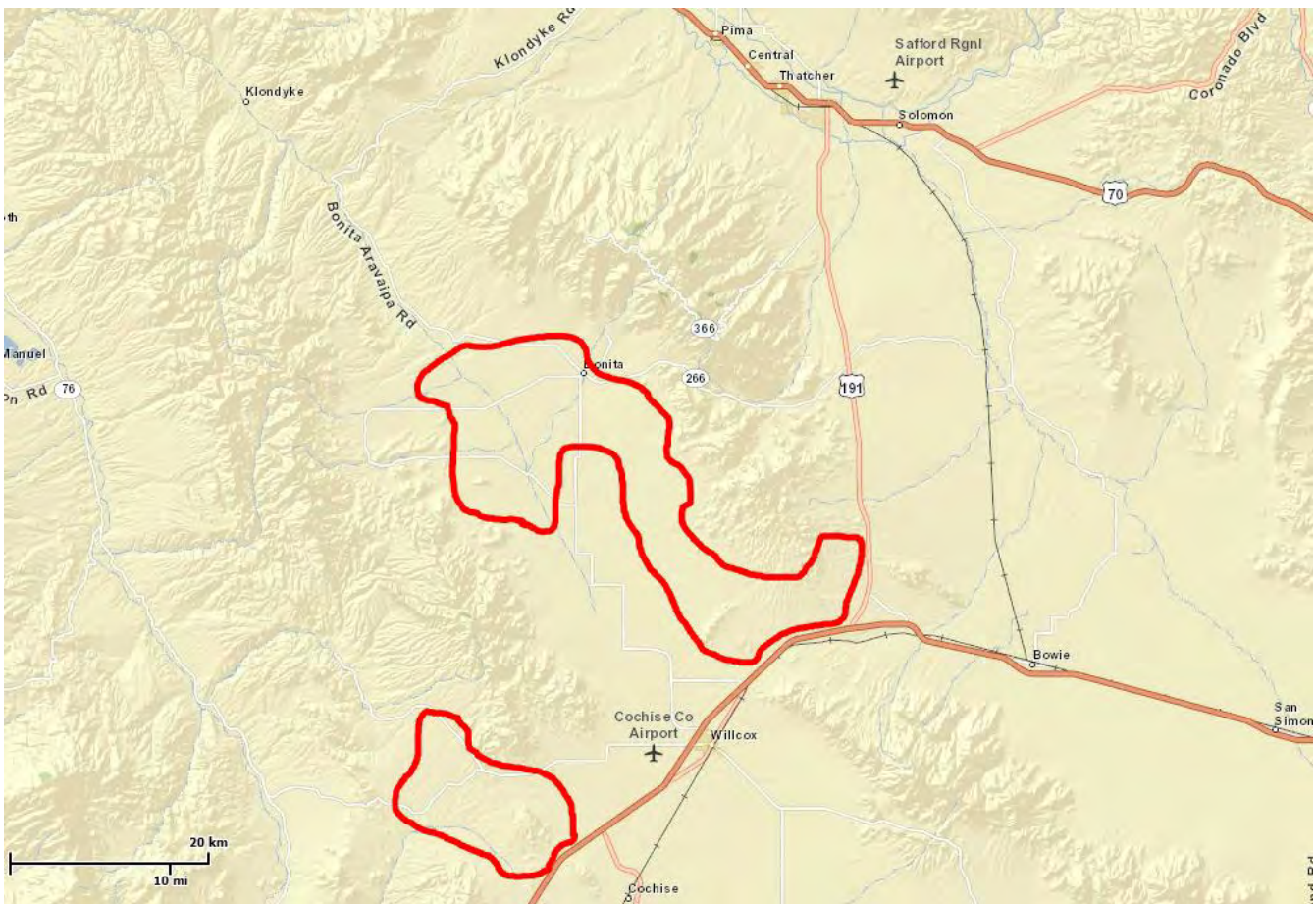
PROJECT DESCRIPTION AND STRATEGIES:

To implement these objectives, the Department will contract with WS to conduct aerial coyote removal operations in GMUs 31 and 32. They will cover all pronghorn habitat that it is safe to do so and for which we have landowner permission. General areas will include the Sulphur Springs Valley north of Willcox, south of the Pinaleno Mountains to the Circle I Hills, and east and west of the Galiuro and Winchester Mountains. WS personnel have obtained landowner permission to conduct coyote removal within the project area in the past. Several landowners have agreed to participate in the program, which will occur for at least three consecutive years (2016-2018). In January, local Wildlife Managers will obtain landowner signatures on permission forms to conduct planned aerial gunning operations, and WS will maintain the documentation (permission forms) obtained from all landowners.

The project would target a large area during a short period of time and should effectively reduce predator densities at a peak period, prior to and during the time when pronghorn are fawning, and prior to coyotes denning and having young (March-June). This, in conjunction with 14,500 acres of completed grassland habitat restoration since 2010, is expected to increase pronghorn fawn survival over both a short and long-term period. The project will have a short-term impact on coyote populations within the project area; however, coyote populations are resilient and expected to return to pre-control numbers within two-three years after the program is discontinued.

There are approximately 169 sections in game management GMU 31 and 390 sections of pronghorn habitat in GMU 32 (Ockenfels et al. 1996). There will be no surface disturbances as a result of this program. The intention of this project is to conduct aerial gunning operations over as much of this habitat as possible. Estimated flight time includes 6-8 days per year for 4-5 hours per day. The aerial coyote removal flights will occur during March 1 through June 30; three to four consecutive days the first week, then returning at least two weeks later to fly an additional three to four consecutive days. The amount of time actually flown will be dependent upon the weather and the number of coyotes observed while flying. The funding request is for \$20,000/year for three consecutive years, not all \$60,000 at one time.

PROJECT LOCATION



Lat/long coordinates for furthest directional points:

North – 32.67473, 110.06179

South – 32.09704, 110.04168

lands. In the northern end of Sulphur Springs Valley, ranching is the predominant land use and a large area of suitable habitat for pronghorn still exists. The terrain is mostly flat with some high, rolling hills. Steep areas also exist around the Black Hills. Vegetative cover is low in species richness, with areas of severe shrub invasion. The northern area has been invaded with short shrubs (mainly snakeweed) and tall yucca. The northern reaches of the Eureka Springs area has been severely invaded by mesquite and other closed canopy, desert shrubs. West of the Black Hills, a few sections of grassland low in species richness still exist, but with some invading oak and juniper from the nearby mountains. The Mesas area has low diversity, consisting mostly of grama grass, with some prickly pear and cholla. This area is also somewhat rocky. The southern end toward I-10 and Willcox is mostly flat and is predominately agricultural fields, providing forage but little else for pronghorn, thus poor quality habitat in the long term. Development is also high, with numerous homes, fences, dirt and paved roads.

ITEMIZED USE OF FUNDS:

Special Big Game License Tag Funds

Use up to \$20,000/year for three consecutive years to contract with APHIS to conduct fixed-wing aerial predator control to remove coyotes within pronghorn habitat in GMUs 31/32 over 6-8 days from approximately late March to early June (funds requested based on previous WS predator control efforts). The funds would be encumbered each year, not \$60,000 all at once.

Cost Share or Matching Funds (for volunteer labor rates please refer to the worksheet below)

Matching funds of \$4,000 for year one include salary for Department personnel to complete an Environmental Assessment Checklist, Predator Management Plan, and Section 7 Consultation for this project; obtain landowner signatures on permission forms; and field monitoring and coordination of the predator control operation with APHIS and landowners. Then, \$1,500/year for the next two years to obtain landowner signatures on permission forms and field monitoring and coordination of the predator control operation with APHIS and landowners.

LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION:

Cooperators include APHIS-WS, the Arizona Antelope Foundation, the Mule Deer Foundation, and the Arizona Game and Fish Department (all possible sources of labor assistance); along with the Arizona State Land Department, and the ranches listed above in the "LAND OWNERSHIP" section that will provide access and permission for removing coyotes on their property.

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

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

It is unlikely that this project will result in additional access to private lands; however, by working with various ranchers on brush removal treatments, we have seen more hunters gain permission to hunt private lands and this project might facilitate more goodwill with landowners and lead to additional access.

PROJECT MONITORING PLAN:

During this effort, WS will be required to report their time spent completing the operation, the number of coyotes removed and coyote harvest locations. The Department will monitor the effects on the pronghorn and mule deer populations through annual fixed-wing surveys. Standard summer pronghorn survey flights will be conducted to determine fawn to doe ratios, as well as the buck to doe ratios and total pronghorn observed. Winter helicopter, fixed-wing and ground surveys will be conducted to determine fawn to doe ratios for mule deer as well as total deer observed during and deer seen per hour of survey. These results will be published in annual performance reports highlighting the observed population and fawn recruitment/survival.

PROJECT MAINTENANCE:

None required.

PROJECT COMPLETION REPORT TO BE FILED BY:

Duane Aubuchon, Arizona Game and Fish Department

WATER DEVELOPMENT PROJECTS (please use the worksheet below):

n/a

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

n/a

ATTACHMENTS:

(Please provide cultural clearance documentation from land management agency, e.g., FONSI, Inventory Standards, etc. Also attach any project pictures)

n/a