

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

Game Branch / HPC Project Number:	14-520
Possible Funding Partners:	

**PROJECT INFORMATION**

**Project Title:** Pronghorn Antelope Fawn Enhancement GMU 34/35 Phase 4

Region and Game Management Unit: Region 5; GMU 35 and GMU 34

Local Habitat Partnership Committee (LHPC): SEAZ-HPC	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[] → HCP Project #: 13-519

**Project Type:** Predator Control

**Brief Project Summary:**  
Removal of coyotes to include gunning, trapping and associated hunting practices in GMU 35 and GMU 34 grassland habitats to improve the recruitment rates for Pronghorn Antelope and Desert Mule Deer populations.

**Big Game Wildlife Species to Benefit:** Pronghorn Antelope, Desert Mule Deer

Implementation Schedule (Month/Day/Year):  Project Start Date: January 1st, 2015  Project End Date: December 31st, 2015	Environmental Compliance: NEPA Completed: YES[X] No[] N/A[] Projected Completion Date: _____  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: <u>Arizona Game and Fish Department</u> Projected Completion Date: <u>Already completed</u>
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**PROJECT FUNDING**

Special Big Game License Tag Funds Requested:	\$ 10,000.00
Cost Share or Matching Funds:	\$ 5,000.00
Total Project Costs:	\$ 15,000.00

**PARTICIPANT INFORMATION**

<b>Applicant</b> (please print): Matt Braun –WM GMU 35 AZGFD	Address: 555 N. Greasewood Rd. Tucson, AZ 85745	E-mail: mbraun@azgfd.gov
<b>Telephone:</b> 623-237-1821		<b>Date:</b> August 31, 2014

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

**Project has been coordinated with:** Arizona Antelope Foundation, Arizona Deer Association, Mule deer Foundation, SCI-Tucson Chapter, AZGFD Game Branch, USFS-Sierra Vista Ranger District, BLM-Sierra Vista Field Office, Department of Defense: Fort Huachuca, Arizona State Land Department, Arizona State Parks, Private Landowners and Lessees

## NEED STATEMENT – PROBLEM ANALYSIS:

### **History:**

Pronghorn Antelope have continuously occupied the project area having been documented as early as 1851 by the Graham and Bartlett parties (Davis, 2001). Early prospectors in the Patagonia Mountains frequently observed pronghorn right up to the oaks in the late 1850's". The following information summarizes the trends and distribution of pronghorn herds in the San Rafael Valley and the grasslands south and east of Sonoita, Arizona. Pronghorn were common on the 40,000 acre Babocomari Ranch, located between the Huachuca and the Mustang Mountains. The lower foothill plains of the Mustang's were occupied by resident herds when purchased by Frank Brophy senior in 1935. These herds traveled the valley, east and west and occupied areas on the east and west range of Fort Huachuca. By 1949, there were just 4 pronghorn remaining on the west boundary of Ft. Huachuca. The Arizona Game and Fish Department (AGFD) and Fort Huachuca began restocking efforts in 1949 to augment the diminishing herds.

Grassland habitat in the San Rafael Valley exceeds 44,000 acres of which 60% is USFS property with the remaining 40% private property controlled by five ranches. This International Border area is secure from urbanization due to a mixture of public land, open space conservation easements and continued cooperation from landowners. Pronghorn populations were extirpated by 1945, which led to AZGFD pronghorn reintroductions in 1950. Thereafter, populations reached their high in the mid-1960's, when Wildlife Manager John Carr reported more than 100 animals distributed from the Vaca Ranch south to the Sharp Ranch, east to the Parker Canyon steppes and further east on the Campini Mesa On Campini Mesa, located in the southeastern portion of the Valley, as many as 27 Pronghorn used the grassland mesa.

In 2011 aerial surveys, the numbers total approximately 25 animal in the GMU 35, of which only one animal was a fawn. The Elgin herd consisted of 16 animals and the San Rafael consisted of 9. From 2009 to 2011, only 1 fawn per year was surveyed in the San Rafael Valley herd. There was zero fawn recruitment in the Elgin herd from 2009-2011.

In 2011/12, to combat the dwindling pronghorn population numbers, habitat projects, fence modifications, predator control, and a translocation were planned for GMU 35. Plans were to receive 70 additional animals from Chino Valley in the spring of 2012 with predator control continuing for three years. An unsuccessful capture in 2012 and lack of archeological clearances in 2013 prevented GMU from GMU 35. However, the habitat improvements and predator control continued.

Predator control, aided by fence modifications, water improvements, burns, and good monsoons, increased the fawn survival for the Elgin herd from 0 to 20 fawns in 2012 and 17 fawns in 2013. A translocation from New Mexico and Chino Valley are scheduled for January 2014. GMU 35 is scheduled to receive 80 pronghorn in January 2014.

GMU 34 has also been the recipient of many pronghorn habitat improvements, namely fence improvements. Very little predator control has been done in GMU 34. The 2013 aerial survey only resulted in 37 animals, of which only 6 were fawns. Surveys were consistently in the 50-60s in this area in recent years. GMU 34 is slated to receive 30 antelope from Chino Valley in the spring of 2014.

Desert Mule Deer herds were also more abundant in the high desert grassland of Pima/Santa Cruz/Cochise Counties and the adjacent transition zones in the oak woodlands. Similar to pronghorn in the units, the mule deer population trends has also declined over the past 8 years. Preliminary data from the 2012/13 winter survey flights indicates a

higher than normal fawn to doe average of 75:100 in areas where coyote control was practiced. This is, however, only one year's worth.

**2014 Update:** Forty eight pronghorn were released in January of 2014 in the Elgin area and San Rafael Valley. Three of these animals were fitted with GPS collars. A department contract hunter removed 20 coyotes from project area. A private trapper removed another 24 from the project area. Summer surveys resulted in 130(103 Elgin and 27 in the San Rafael Valley) pronghorn being surveyed in GMU 35 with 20(18 Elgin and 2 in the San Rafael Valley) fawns being observed. 60 Pronghorn were surveyed in GMU 34 with 14 fawns being observed. An AAF fence project modified approximately 3 miles of fence on the Upper Elgin Road. Winter surveys for mule deer in our project area were also very good. A 77:100 fawn to doe ratio was observed in the project area versus a 19:100 fawn to doe ratio in the non project area. This is the second year in a row where the fawn to doe ratio in the project area has been above 70:100(75:100 in 2013).

#### **PROJECT OBJECTIVES:**

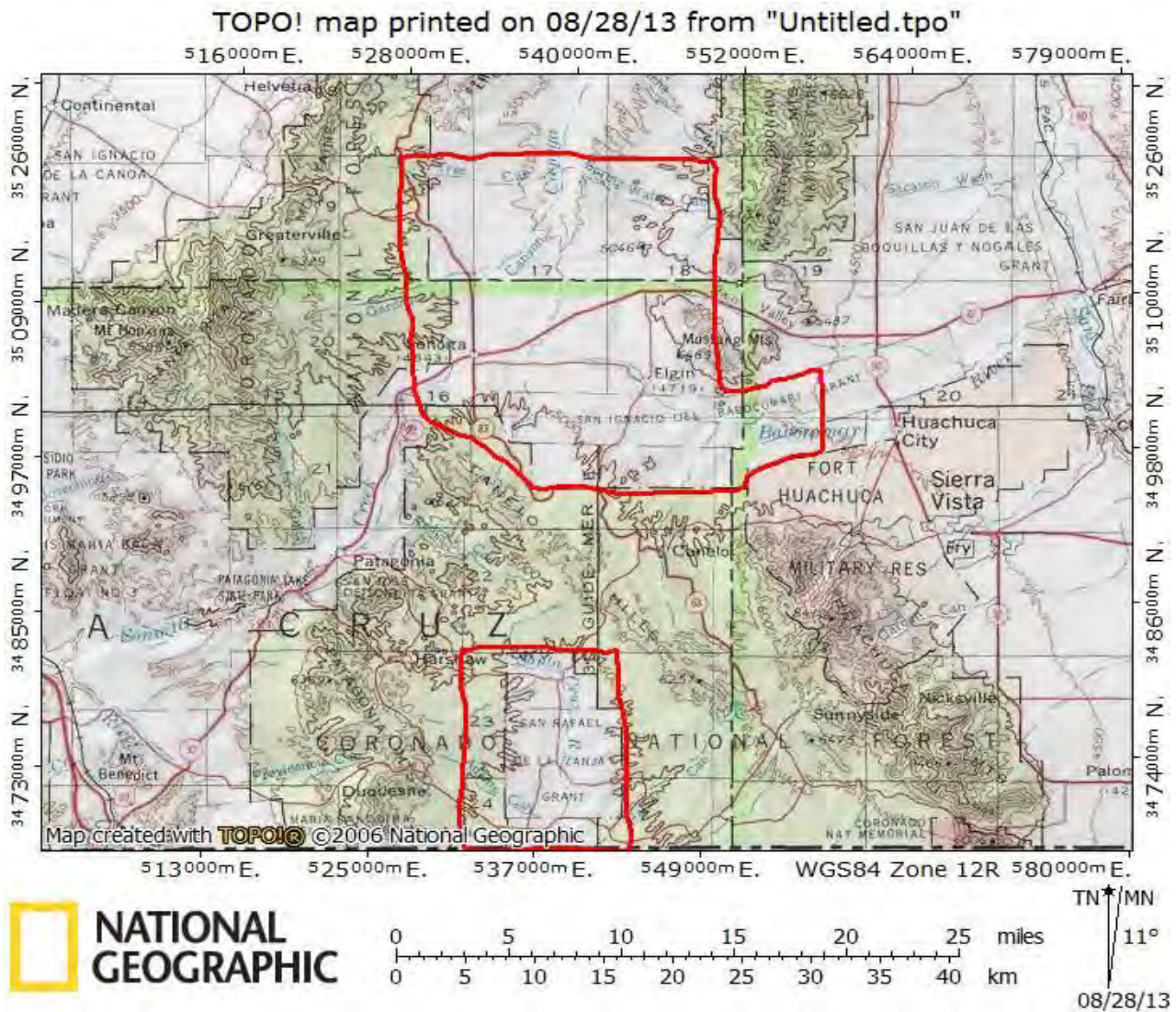
- 1) Increase the pronghorn fawn:doe ratio to at least 40 fawns:100 does in support of ongoing habitat improvement/augmentations in GMUs 34 and 35.
- 2) Increase GMUs 34/35 post hunt adult pronghorn antelope population to 250 animals.

Standard summer and early fall surveys will be conducted to assess pronghorn fawn:doe ratios as well as total pronghorn antelope observed. Mule deer surveys will be conducted in the winter months and the population and fawn:doe ratios will be monitored during predator control treatments.

#### **PROJECT DESCRIPTION AND STRATEGIES:**

This project will remove coyotes from the prescription areas specifically to increase fawn survival in pronghorn and mule deer populations. Coyotes will be removed by predator calling, sitting waterholes, as well as opportunistically. This will be done by Department contractor, personnel, volunteers, and the general public prior to and during the peak of the fawning season (March-May). Trapping by private individuals will also occur on private land during the normal 2014/15 trapping season.

#### **PROJECT LOCATION**



**GMU 35:**

The public lands surrounding the San Rafael Valley and possibly private lands of the Vaca Ranch pending landowner approval. In the Elgin/Sonoita area, The predator control will done on the Babocomari Ranch and surrounding Forest Service Lands, Rosetree Ranch, State Trust and BLM lands on the east side of the Upper Elgin Road, the BLM/State Trust lands south of Highway 82 and north of the Lower Elgin Road commonly referred as the Davis Pasture.

**GMU 34:**

The Las Cienegas National Conservation Area(BLM) and surrounding State Trust lands. Possibly on some private ranches pending landowner approval.

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

**San Rafael Contacts:**

- Bob Hudson - Vaca Ranch
- Ross Humphries - San Rafael Ranch
- Sidney Spencer
- Ki He Kah Ranch
- Bud Berich

Elgin/Sonita Contacts:

Ben Brophy - Babocomari Ranch  
Rukin Jelks III – Diamond C Ranch  
Bill Brake/Al Wilcox - Rose Tree Ranch  
Scott Martin – Rain Valley Ranch  
Bill Shrock - Elgin  
Ian Tomilison- Vera Earl Ranch

USFS-Sierra Vista Ranger District  
Bureau of Land Management- Sierra Vista Field Office  
Arizona State Land Department  
Arizona State Parks

IF PRIVATE PROPERTY, IS THERE A STEWARDSHIP or LANDOWNER AGREEMENT BETWEEN THE LANDOWNER AND THE DEPARTMENT?  
YES[X] NO[]

**HABITAT DESCRIPTION:**

Gentle rolling hills bisected by small cuts and riparian areas to include the Santa Cruz River and the Babocomari River drainages forming the most proximate riparian habitats. The surrounding grasslands are dominated by blue grama, with tobosa, three-awn, and side oats grama. Shrub species diversity includes cat claw, whitethorn acacia, false mesquite, yucca, cholla and prickly pear cactus species, with invasive mesquite and Manzanita, cedar and juniper species in the transitional breaks in adjacent habitat.

The area has been identified as one of 7 priority population areas by the Arizona Antelope Foundation (AAF) and the Southeastern Arizona Grassland Collaborative Workgroup (SEAGrass). These groups will support grassland restoration and habitat enhancement projects in the 7 priority areas over projects in other areas (SEAGrass minutes, May 31, 2011.)

**ITEMIZED USE OF FUNDS:**

Special Big Game License Tag Funds: **\$10,000**

The Big Game License Tag funds will be used to pay the a contract hunter to remove coyotes from March to June.

**Treatment Areas:** Public and some private lands around Sonoita, Elgin, and in the San Rafael Valley. See map above.

Cost Share or Matching Funds **\$5,000.00** reflects the cost for a contract trapper for the 2014/15 trapping season.

**LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION:**

Arizona Game and Fish Department – Technical advice, project planning, coordination and financial contribution  
Arizona Antelope Foundation – Technical advice and support, funding partner  
Arizona Deer Association – Funding support  
SCI-Tucson Chapter – Funding support  
Mule Deer Foundation – Funding support

USFS; Sierra Vista Ranger District – Project support and potential partner in the future Pronghorn Management Plan

BLM-Sierra Vista Field Office – Project Support and potential partner in the future Pronghorn Management Plan

Arizona State Parks – Project support

Arizona State Land Department – Project support

USDA-AHPIS Director; Dave Bergman – Contract for services and technical support

Private Landowners/Lesseees – Project support and possible financial match contributions (listed above).

**PROJECT MONITORING PLAN:**

Standard summer and early fall surveys will be conducted to assess pronghorn antelope and winter surveys will be conducted for mule deer. In each case, the fawn:doe ratios and total population observed and associated population estimates will be determined annually by AZGFD employees and compared to past survey data.

Upon notification of a supplemental transplant source, Region V will coordinate with the Game and Research Branches to formalize a monitoring plan of a predetermined number (up to 10%) of released pronghorn to be fitted with GPS tracking collars (pending HPC Grant Proposal approval). There is an ongoing effort to plan for the potential release which includes developing a formal monitoring plan to collect data to support future management needs of the populations. .

**PROJECT MAINTENANCE:**

NA

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

Matt Braun-Wildlife Manager GMU 35; AZGFD - Region V

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

NA

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