

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

Game Branch / HPC Project Number: 14-301

**PROJECT INFORMATION**

**Project Title:** Predator Management in Game Management Unit 16A

**Region and Game Management Unit:** Region III, Unit 16A

**Local Habitat Partnership Committee (LHPC):**

- Kingman HPC

**Was the project presented to the LHPC?**

YES NO

**Has this project been submitted in previous years?** YES NO

**If Yes, was it funded?** YES NO → **Funded HPC Project #(s):**

**Project Type:** Predator control

**Brief Project Summary:** Coyote and mountain lion removal through hunting and trapping to reduce predation on mule deer in Unit 16A.

**Big Game Wildlife Species to Benefit:** Mule deer: decrease fawn mortality, increase fawn recruitment, increase adult survivorship, increase population.

**Implementation Schedule** (Month/Day/Year):

Project Start Date: January 2015

Project End Date: December 2017

**Environmental Compliance:**

NEPA Completed: Yes No N/A

Projected Completion Date: \_\_\_\_\_

State Historic Preservation Office - Archaeological Clearance:

Yes No N/A

Projected Completion Date: \_\_\_\_\_

Arizona Game and Fish Department EA Checklist: N/A

To be Completed by: Erin Butler

Projected Completion Date: December 2014

**PROJECT FUNDING**

**Special Big Game License Tag Funds Requested:**

\$ 56,200

**Cost Share or Matching Funds:**

\$

**Total Project Costs:**

\$ 56,200

**PARTICIPANT INFORMATION**

**Applicant** (please print):

Erin Butler

**Address:**

5325 N. Stockton Hill Rd.

Kingman, AZ 86409

**E-mail:**

ebutler@azgfd.gov

**Telephone:** 928-692-7700

**Date:** Aug 29, 2014

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

**Project has been coordinated with:**

Bureau of Land Management, Arizona State Land Department, Mule Deer Foundation, Arizona Deer Association, Kingman Region, Game Branch, Cane Springs Ranch, Byner/Walnut Creek Allotment owners, Yellow Pine Ranch

**NEED STATEMENT – PROBLEM ANALYSIS:**

The Wildlife Habitat Enhancement Initiatives (WHEI) has been initiated by the Game Program to counter declines in populations of game species. Declines in mule deer have developed sufficient attention to merit the focus of specific working groups at the Western Association of Fish and Wildlife Agencies (WAFWA). These working groups have developed science-based assessments detailing shortcomings of certain habitats that once supported abundant populations of mule deer (Heffelfinger et al. 2006, Watkins et al. 2007, Zornes and Bishop 2009). Habitat components are one aspect that influence population dynamics and play a pivotal role in mitigating the effects of other variables like persistent drought and predation.

Recent highs in mule deer permits authorized by the Commission occurred in 1983. During that year 94,285 general deer permits were authorized and 12,676 mule deer were harvested in these hunts. When comparing current harvest levels with those observed in 1983, by unit, there are several that indicate a substantial potential for increase. Units that stand out as areas that have suffered greatest declines include Units 4, 5, 10, 16A, 21, 22, 27, 31, and 33. Unit 16A is a unit with a good deal of potential for habitat restoration, with a number of cooperative landowners and lessees. Unit 16A has a unique ecosystem where experimentation on habitat enhancement projects, water distribution, local and statewide partnerships, and funding may be explored to effect landscape-scale changes to benefit mule deer.

Unit 16A is currently working under the Wildlife Habitat Enhancement Initiative (WHEI), in which a minimum of \$400K will be spent each year, for a minimum of three years to improve habitat for mule deer (these monies are Pittman Robertson funds, which cannot be used for predator control). Under the WHEI, a large amount of funding has been earmarked for habitat improvement and water distribution improvements on the Cane Springs Ranch, the Yellow Pine Ranch, and the Byner Allotments.

Unit 16A supported large numbers of mule deer in the past, offering as many as 1,800 permits in the mid 1980s and harvesting 690 mule deer. Permit level decreased dramatically from 1,000 in 1989 to 700 in 1990-91 to 150 in 1992 and remained below 500 until the early 2000s. Harvest of mule deer hit a low of 34 in 1998; with no more the 50 deer harvested annually between 1992-1998. While permit numbers increased in the early 2000s varying between 500-700 permits, the deer harvest has remained below 150 mule deer per year. Current decreases in permit levels have not been drastic, but only 450 will be offered in 2014.

While habitat is the focus of WHEI, habitat cannot be the only aspect of the landscape improved if expectations are to increase the mule deer population for short term and long term timeframes. Unit 16A has a high predator population distributed throughout the area, and predation has been shown to be a contributing factor in recruitment in the mule deer populations. By addressing

predation management in the short-term and habitat in the long-term, our objectives for the mule deer population should be met.

### **PROJECT OBJECTIVES:**

Data used to support the choice of Unit 16A for a WHEI focus area was based on the potential increase for permit levels and harvest levels; however these are long term changes that might not be able to measure within the scope of the three year period. While specific population objectives are difficult to set, and measure with consistency, the region can continue to track trends in the buck and fawn ratio, the total deer observed during annual surveys and deer seen per hour of survey.

- a) Increase the fawn:doe ratio to at least 40 in 2017. The 3-year average (2011-2013) fawn:doe ratio is 22 and the long term average (1980-2013) is 40. Current guidelines for fawn:doe ratios are 30-40.
- b) Maintain the buck:doe ratio within or above current guidelines of 20-30.
- c) Increase the number of deer seen per hour of survey to the average number of deer seen per hour before 2006 (1990-2005) of 16 deer seen per hour.

Mule deer surveys will be conducted during the winter months. Population trends, ratio trends, permit levels and harvest levels will be monitored during predator control treatments.

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

The goal of this project is to aid in the enhancement of mule deer populations in Unit 16A through increased removal of mountain lions and coyotes. WHEI funds, private landowner funds and labor cost share are being spent on a variety of habitat improvement projects from 2014 - 2017; including repairing defunct waters, building new waters, burns to open up chaparral and mastication projects to open up lower elevation desert scrub.

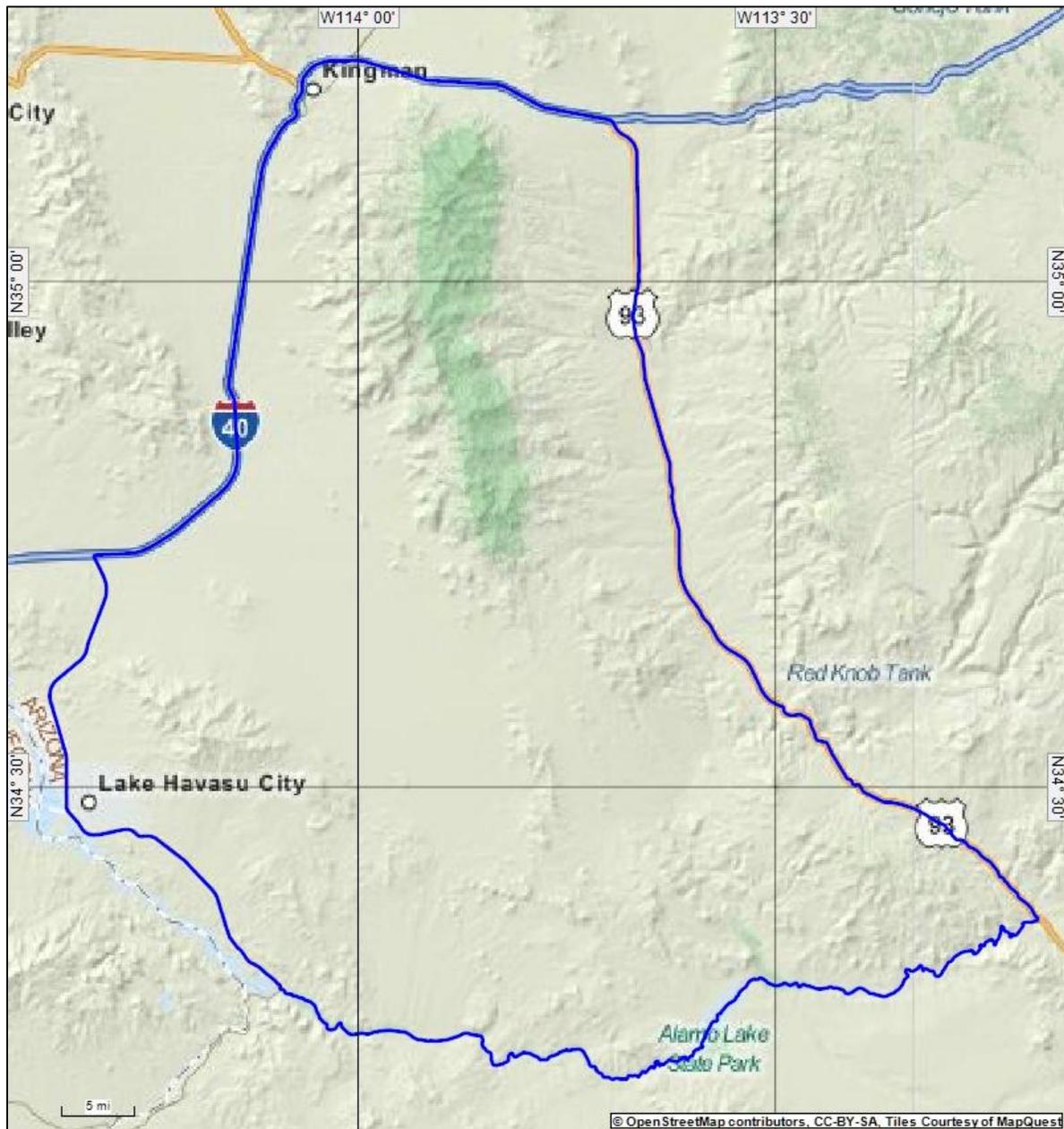
- Multiple Bag Limit (MBL) for lions - through the regular hunt recommendation process the Department will recommend a mountain lion multiple bag limit in all of Unit 16A. Triggers and MBL levels have not been determined. If approved by the Commission the season would start July 1, 2015.
- Daylong Shooting Seasons for coyotes – through the regular hunt recommendation process the Department will recommend a daylong coyote season in all of Unit 16A. Season dates have not been set, but will coincide with a timeframe to benefit mule deer fawning. If approved by the Commission the season would start in the 2015-2016 hunt cycle.
- Contract Trapping for coyotes – private lands are exempt from the restrictions imposed by ARS 17-301D and the use of foot hold traps to control some predator species are allowed. Contract trappers may be utilized year round, outside of normal trapping seasons, based on the needs determined by the WHEI steering committee; but will certainly be suggested between January to April/May to curb the growth of the predator populations before fawning and between April/May to August to curb the predation on mule deer fawns.

It will be the responsibility of the trapper to ensure they are on those private lands the Department has obtained permission for this project.

- Contract Predator Hunter for coyotes – public lands are open year round for coyote hunting, with limited season for other predators. A contract caller may be utilized year round based on the needs of the WHEI steering committee and would be useful in the project area since it is largely public lands.
- Contract Hounds men for mountain lions – public lands are open year round for mountain lion hunting. Hounds men may be utilized year round based on the needs determined by the WHEI steering committee.
- Promoting Unit 16A for predators - the Department will also work closely with predator hunting clubs and trapping organizations to increase coyote harvest in this area. The Department is hopeful that these organizations may focus their attention and calling events to the unit during the duration of Unit 16A being a focus area for WHEI.
- Aerial Gunning for coyotes – the project area is largely public lands, but only portions of the area would be open enough to attempt aerial gunning. While the WHEI steering committee is aware that there are no large grassland section to remove coyotes in, the committee is interested in testing the ability of aerial gunning to be successful in the portions of the habitat that are less dense and visibility of coyotes is increased.

All non-target wildlife will be released immediately. No portions of any predators removed under contract by the Department may be possessed unless specifically permitted or desired by the Department.

## PROJECT LOCATION:



Unit 16A

## LAND OWNERSHIP AT THE PROJECT SITE(S):

(if the project area is private property, please state specifically and provide the landowner's name)

- Cane Springs Ranch, Anite Waite and Sherwood Kohen
- Yellow Pine Ranch, John Morotti
- Byner Allotments, Clay and Sandra Overson

*IF PRIVATE PROPERTY, IS THERE A COOPERATIVE BIG GAME STEWARDSHIP or LANDOWNER AGREEMENT BETWEEN THE LANDOWNER AND THE DEPARTMENT?*

YES NO N/A

**HABITAT DESCRIPTION:**

The majority of Unit 16A is made up of the Hualapai Mountains, a sky island habitat which grades from desert grassland on the north end, Mohave Desert scrub on the east and west sides of the mountain range, and upper and lower Sonoran habitat zone in the south end. Lower desert habitats grade into pinyon-juniper and Arizona chaparral habitat at the mid range elevations with ponderosa pines at the highest elevation. The southern third of the unit is Sonoran desert.

**ITEMIZED USE OF FUNDS:**

Special Big Game License Tag Funds

- Contract Trapper/Hunter: ~\$2,700.00 per month per trapper (\$1,700 salary/ \$1,000 per diem gas/food) for a total of \$16,200.00 per trapper per year for six months of effort.
- Contract Hounds men: ~\$30,000 per year for this effort
- Aerial Control: ~\$10,000.00 per year for this effort.

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

- None at this point.

**LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION:**

Bureau of Land Management, Arizona State Land Department, Mule Deer Foundation, Arizona Deer Association, Kingman Region, Game Branch, Cane Springs Ranch, Byner/Walnut Creek Allotment owners, Yellow Pine Ranch

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

YES NO N/A

**PROJECT MONITORING PLAN:**

Standard winter mule deer surveys will be conducted annually to assess mule deer populations in Unit 16A. Data to be collected will include, but will not be limited to, fawn:doe ratios, buck:doe ratios, total numbers observed and deer seen per hour. As well as, hunting data including number of permits, hunt success and hunter days.

**PROJECT MAINTENANCE:**

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

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

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