

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

Game Branch / HPC Project Number: 15-211

**PROJECT INFORMATION**

**Project Title:** Anderson Mesa Grassland Restoration Project; Yeager Canyon Unit; Treatment Area #1

**Region and Game Management Unit:** Region II, GMU 5BN

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

- Flagstaff /Williams
- FRSG

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

YES[x] NO[]

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

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

**Project Type:** Grassland Restoration/Grassland Maintenance

**Brief Project Summary:** Within Treatment Area #1 of the Yeager Canyon Unit (approx. 419 acres), we propose to maintain and improve the herbaceous community by removing encroaching trees species from grassland sites and to reduce the trees per acre in areas that have not been treated in the past. Implementation will be accomplished through the use of Agra axes, hand thinning and pile burning to restore/maintain the grasslands to provide a healthy ecosystem and improve wildlife habitat for movement, foraging, and cover.

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

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

Project Start Date: 2/1/2016

Project End Date: 10/1/2018

**Environmental Compliance:**

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

Projected Completion Date: February 3, 2005

State Historic Preservation Office - Archaeological Clearance:

Yes[x] No[] N/A[]

Projected Completion Date: Expected by December 31, 2015

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

To be Completed by: \_\_\_\_\_

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

**PROJECT FUNDING**

**Special Big Game License Tag Funds Requested:** \$ 28,800

**Cost Share or Matching Funds:** \$ 28,840

**Total Project Costs:** \$ 57,640

**PARTICIPANT INFORMATION**

**Applicant** (please print):

Beale Monday

**Address:**

5075 N. Hwy 89

Flagstaff AZ, 86004

**E-mail:**

bmonday@fs.fed.us

**Telephone:** (928) 527-8227

**Date:** 8/26/15

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

Steve Cassady, LRPS (928) 214-1270

**Project has been coordinated with:**  
Flying M Ranch (Kit Metzger)

**NEED STATEMENT – PROBLEM ANALYSIS:**

Reduce encroachment and canopy cover of juniper and pinyon pine to maintain and restore grasslands. There is also a need to remove dead pinyon pine and reduce the high fuel loading in the area to protect habitat from uncharacteristic fires.

**PROJECT OBJECTIVES:**

- Improve forage quality and quantity on elk, mule deer and antelope winter and transition range.
- Improve antelope fawn survival.
- Reduce juniper and pinyon encroachment and canopy cover.
- Reduce future bark beetle infestation.
- Reduce/remove dead pinon.
- Increase water yield.

**PROJECT DESCRIPTION AND STRATEGIES:**

This project is part of a larger landscape level approach to improve and restore grassland habitat on and adjacent to Anderson Mesa, Coconino National Forest- Flagstaff Ranger District. The goal of the project is to remove encroaching Juniper and Pinyon Pine from areas that were previously meadows and open grasslands/savannahs. Beginning in the late 1950's, and continuing to date, thousands of acres on Anderson Mesa were cleared of encroaching juniper, pinyon pine and ponderosa pine through various means such as mechanical chaining, mechanical pushing, prescribed fire and grinding. We propose to maintain and improve the herbaceous community by removing encroaching trees species from grassland sites through the use of Agra axes, hand thinning and pile burning to restore and maintain the grasslands. Additionally we propose to treat areas that have not been treated previously and are currently not meeting desired conditions by having a higher canopy cover of juniper and pinyon pine than natural conditions. Some of these areas were also severely impacted by pine bark beetles between 2008-2010 which resulted in heavy mortality of pinyon pine and a significant increase in fuel loading. By removing the heavy fuel loading and reducing the tree canopy cover, habitat conditions for pronghorn, elk and mule deer will improve and the area will be less susceptible to uncharacteristic fires. Non-game species such as golden eagles, song birds and small mammals would also benefit. Removing and reducing the canopy cover of juniper and pinyon pine will also benefit important browse species such as cliff rose which is important winter forage for elk, mule deer, and pronghorn antelope.

**PROJECT LOCATION:** Treatment Area #1 of the Yeager Canyon Unit is located in portions of sections 7, 8, and 17 of T18N, R11E (see attached map). The entire Yeager Canyon unit consists of 905 acres which has been divided into three treatment units. If funding is received, the Forest Service will implement project activities in Treatment Area #1 (approximately 419 acres). This unit is adjacent to the Flying M Ranch headquarters and borders State land to the east which has had significant vegetation treatments similar to those outlined in this proposal. Future proposals will include Treatment Area #2 (approximately 207 acres), and Treatment Area #3 (approximately 278 acres).

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

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

- Forest Service (administered by Coconino NF)

*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:** Pinyon Juniper Grassland, Great Basin Grassland and Pinyon Juniper Woodland.

**ITEMIZED USE OF FUNDS:**

| <b>HPC Funds</b>              |                                  |                   |                    |                    |
|-------------------------------|----------------------------------|-------------------|--------------------|--------------------|
| <b>Personnel</b>              | <b>Daily Rate</b>                | <b>Days</b>       | <b>Total</b>       |                    |
| Operator1                     | \$385.00                         | 30                | \$11,550.00        |                    |
| Operator2                     | \$300.00                         | 30                | \$9,000.00         |                    |
| Operator 3                    | \$275.00                         | 30                | \$8,250.00         |                    |
| <b>Total</b>                  |                                  |                   | <b>\$28,800.00</b> |                    |
| <b>Cost Per Acre</b>          |                                  |                   |                    | <b>\$68.74</b>     |
| <b>USFS Funds</b>             |                                  |                   |                    |                    |
|                               |                                  | <b>Daily Rate</b> | <b>Days</b>        | <b>Total</b>       |
|                               | Fuel                             | \$95.00           | 30                 | \$2,850.00         |
|                               | Equipment Maintenance            | \$36.00           | 30                 | \$1,080.00         |
|                               | 2-Vehicles                       | \$160.00          | 30                 | \$4,800.00         |
|                               | Hand Crew                        | \$1,500.00        | 5                  | \$7,500.00         |
|                               | Daily Rate Specialist (Fuels)    | \$350.00          | 5                  | \$1,750.00         |
|                               | Daily Rate Specialist (Range)    | \$350.00          | 3                  | \$1,050.00         |
|                               | Daily Rate Specialist (Heritage) | \$385.00          | 3                  | \$1,155.00         |
|                               | Daily Rate Specialist (Wildlife) | \$385.00          | 3                  | \$1,155.00         |
|                               | RX Burning Cost/Day              | \$2,500.00        | 3                  | \$7,500.00         |
| <b>Total</b>                  |                                  |                   |                    | <b>\$28,840.00</b> |
| <b>Combined Total</b>         |                                  |                   |                    | <b>\$57,640.00</b> |
| <b>Combined cost Per acre</b> |                                  |                   |                    | <b>\$137.57</b>    |

**RX Burning Costs include: Personnel, Supplies and Equipment. (1 Fire Engine, 1 Water Tender and 10 personnel)**

Special Big Game License Tag Funds

Approximately 50% of total project cost to treat 419 acres = \$28,000

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

From USDA Forest Service approximately 50% of total project cost to treat 419 acres = \$28,840

**LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION:**

USDA – Forest Service, Coconino National Forest – funding, equipment, labor, NEPA and Heritage Clearance

Region II Arizona Game and Fish Department – project design assistance

Flying M Ranch – project design assistance

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

YES[] NO[] N/A[x]

**PROJECT MONITORING PLAN:**

The project will be monitored by all three cooperators; USFS, AGFD, Flying M Ranch

**PROJECT MAINTENANCE:**

The project will be maintained by USFS

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

USFS and/or AGFD Region II LRPS

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

N/A

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

## **ARIZONA GAME AND FISH DEPARTMENT** **TREE CLEARING/REMOVAL WORKSHEET**

**PROJECT TITLE:** Yeager Canyon Treatment area 1

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- 1) **What is the estimated acreage of the project?**  
419 acres
  
- 2) **How are the trees going to be cleared? (agra axe, chain saw, grubbing, push, chaining):**  
Agra axe, hand thinning and pile burning
  
- 3) **What is the estimated number of trees per acre?**  
Approximately 10-100 trees per acre. About 246 acres have previously been mechanically treated and the proposed treatment will be maintaining the open grassland characteristics. This area contains mainly shrub form juniper trees at a density of less than 25 trees per acre. The remaining 173 acres have not been previously treated and have approximately 50-100 trees per acre. Pinyon pine within this area suffered heavy mortality due to the pine bark beetle infestation from 2008 to 2010.
  
- 4) **Describe trees to be cleared (species, estimated diameter, single stem, multi-stem):**  
Juniper and Pinyon Pine. Stem sizes range from 1"-5" diameter in previously treated areas to 10"-20" diameter in the previously untreated areas. Pinyon pine with a DBH of 6" or greater would not be cleared.
  
- 5) **Describe terrain (slope, soil type, rocks)**  
Yeager Canyon Treatment Area #1 is mainly located on elevated plains with slopes ranging from 0 to 15%. Soils are predominately a fine sandy loam derived from a limestone/sandstone parent material with rock fragments covering 20 – 40% of the soil surface.
  
- 6) **Please list any special land management status for the project site (e.g. Wilderness, National Park, National Monument). If private land, list landowner.**  
None
  
- 7) **Please provide the following information about access to the proposed site:**  
Type of access (mark one): 2x4 vehicles    4x4 only    Foot\*\*

\*\*If foot access only: Distance in miles:    Approx. hiking time:

Does access to this site require crossing private or tribal lands? YES[] NO[X]

Is the site relatively accessible for tree removal equipment? YES[X] NO[]

Please describe any restrictions to public access: None

## ARIZONA GAME AND FISH DEPARTMENT VOLUNTEER HOURLY RATES AND CLASSIFICATIONS WORKSHEET

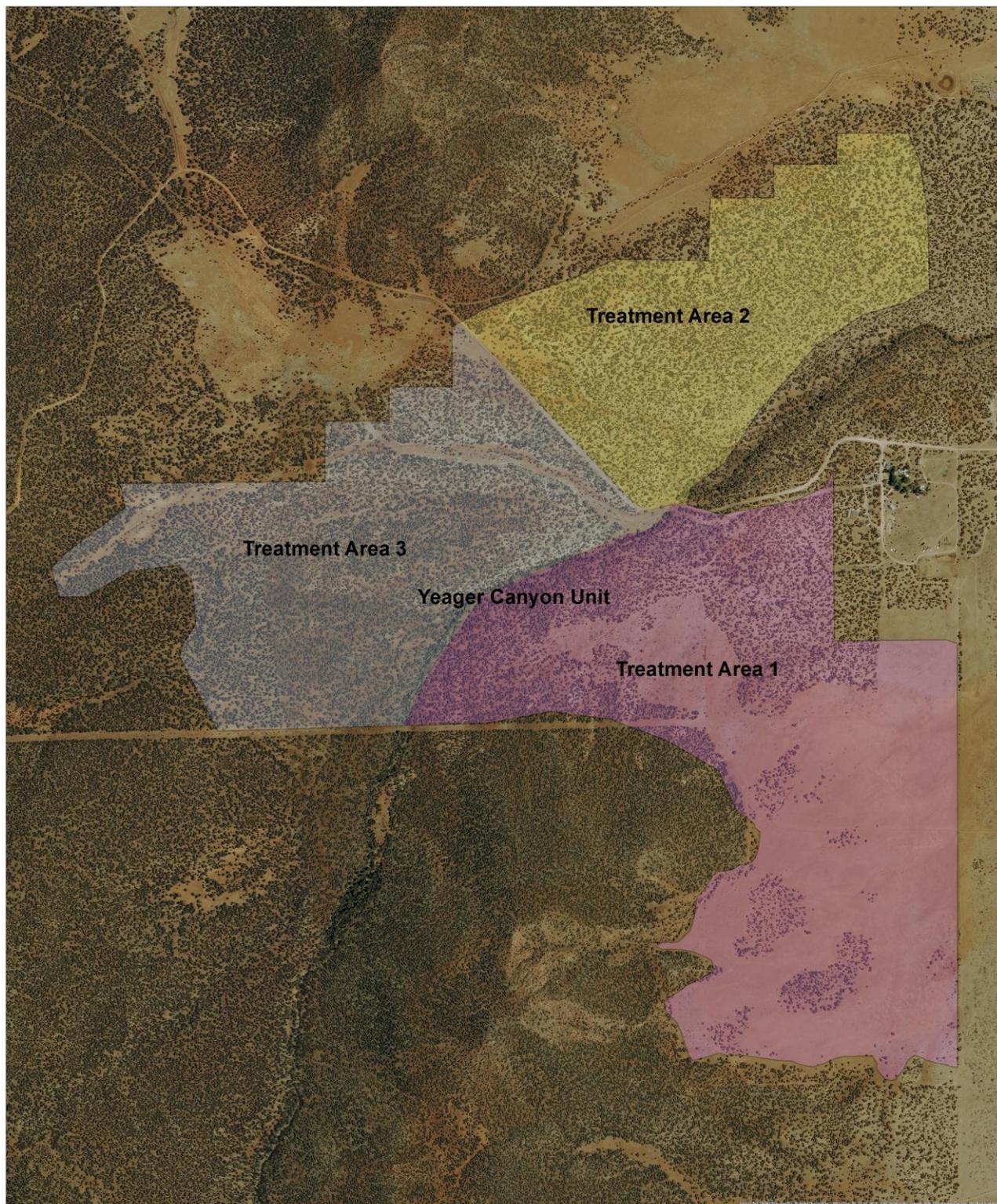
**PROJECT TITLE:** \_\_\_\_\_

The value of volunteer labor should be calculated at the hourly rate of an employee doing similar work, or using hourly rates from the Arizona Department of Administration’s Human Resource web site, plus a standard ERE rate of 35%. [http://www.hr.az.gov/HR\\_Professional/Class\\_Comp/PDF/alphacovered.pdf](http://www.hr.az.gov/HR_Professional/Class_Comp/PDF/alphacovered.pdf)

\$0.445/mile should be the calculation used for mileage.

|   |                        |                        |                    |                        |
|---|------------------------|------------------------|--------------------|------------------------|
| <b>Water Development</b>                | <b>Volunteer Hours</b> | <b>Volunteer Miles</b> | <b>Hourly Rate</b> | <b>Estimated Value</b> |
|   |                        |                        | \$14.14            |                        |
| <b>Habitat Restoration and Clean Up</b> | <b>Volunteer Hours</b> | <b>Volunteer Miles</b> | <b>Hourly Rate</b> | <b>Estimated Value</b> |
|   |                        |                        | \$14.14            |                        |
| <b>Fisheries</b>                        | <b>Volunteer Hours</b> | <b>Volunteer Miles</b> | <b>Hourly Rate</b> | <b>Estimated Value</b> |
|   |                        |                        | \$14.14            |                        |
| <b>Nongame Branch Project</b>           | <b>Volunteer Hours</b> | <b>Volunteer Miles</b> | <b>Hourly Rate</b> | <b>Estimated Value</b> |
|   |                        |                        | \$14.14            |                        |
| <b>Misc/office work</b>                 | <b>Volunteer Hours</b> | <b>Volunteer Miles</b> | <b>Hourly Rate</b> | <b>Estimated Value</b> |
|   |                        |                        | varies             |                        |
| <b>Community Services</b>               | <b>Volunteer Hours</b> | <b>Volunteer Miles</b> | <b>Hourly Rate</b> | <b>Estimated Value</b> |
|   |                        |                        | \$7.44             |                        |
| <b>Events and Other</b>                 | <b>Volunteer Hours</b> | <b>Volunteer Miles</b> | <b>Hourly Rate</b> | <b>Estimated Value</b> |
|   |                        |                        | \$14.14            |                        |
| <b>Research Branch</b>                  | <b>Volunteer Hours</b> | <b>Volunteer Miles</b> | <b>Hourly Rate</b> | <b>Estimated Value</b> |
|   |                        |                        | \$14.14            |                        |
| <b>Wildlife Area Hosts</b>              | <b>Volunteer Hours</b> | <b>Volunteer Miles</b> | <b>Hourly Rate</b> | <b>Estimated Value</b> |
|   |                        |                        | \$17.44            |                        |
| <b>Education Programs</b>               | <b>Volunteer Hours</b> | <b>Volunteer Miles</b> | <b>Hourly Rate</b> | <b>Estimated Value</b> |
|   |                        |                        | \$16.07            |                        |
| <b>Totals</b>                           |                        |                        |                    |                        |

Yeager Canyon Unit



# Yeager Canyon Unit

