

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

Game Branch / HPC Project Number:	16-203
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PROJECT INFORMATION

Project Title: Anderson Mesa Grassland Restoration, South Burro Unit, Treatment Area # 3A

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

Local Habitat Partnership Committee (LHPC): • Flagstaff	Was the project presented to the LHPC? YES[X] NO[]
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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

Brief Project Summary: This project is part of a larger landscape level approach to improve and restore grassland habitat on Anderson Mesa, Coconino National Forest- Flagstaff Ranger District (see map). The goal of the project is to remove encroaching juniper that has invaded the area. We propose to maintain the area and improve the herbaceous community by removing encroaching trees as well as decreasing the canopy cover by reducing the trees per acre. All 622 acres of the South Burro Unit, Treatment Area #3A will be treated in this proposal. Approximately 475 acres of the 622 acres have received past treatments and are stocked with trees in excess of 40 stems/acres, with an average tree height of 12 to 14 feet. The remaining 147 acres have not received past treatments and are more heavily stocked at approximately 80 stems per acre. Project goals are to reduce stems per acre by at least 80-90% across the entire project acreage to provide a healthy ecosystem and improve wildlife habitat for movement, foraging and cover. Implementation will be accomplished through the use of Agra axes, hand thinning and pile burning to restore the grassland. This grant builds on two other projects of the same nature where 1,070 acres have been treated on Anderson Mesa (HPC 14-236 & HPC 15-211). Implementation of these vegetation treatment projects was approved in the February 3, 2005 Record of Decision for the Bar T Bar and Anderson Springs Allotment Management Plans.

Big Game Wildlife Species to Benefit (% benefit per species) : Elk (25%), Mule Deer (25%), Pronghorn (50%)

<p>Implementation Schedule (Month/Day/Year):</p> <p><u>Project Start Date:</u> October 2017</p> <p><u>Project End Date:</u> January 2018</p>	<p>Environmental Compliance:</p> <p>NEPA Completed: Yes[X] No[] N/A[] Projected Completion Date: <u>February 3, 2005</u></p> <p>State Historic Preservation Office - Archaeological Clearance: <i>(Provide Attachment)</i> Yes[] No[X] N/A[] Projected Completion Date: <u>Expected by December 31, 2016</u></p> <p>Arizona Game and Fish Department EA Checklist: N/A[X] To be Completed by: _____ Projected Completion Date: _____</p>
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PROJECT FUNDING

Special Big Game License Tag Funds Requested:	\$ 44,450
Cost Share or Matching Funds:	\$ 41,475

Total Project Costs:		\$ 85,925
PARTICIPANT INFORMATION		
Applicant (please print): Beale Monday	Address: Coconino NF, Flagstaff RD 5075 N. Hwy 89 Flagstaff AZ, 86004	E-mail: bmonday@fs.fed.us
Telephone: (928) 527-8227		Date: 8/29/16
AGFD Contact and Phone No. (If applicant is not AGFD personnel): Carl Lutch (928) 214-1242		
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 Anderson Mesa, Coconino National Forest - Flagstaff Ranger District (see map). The goal of the project is to remove encroaching juniper that has invaded the area. We propose to maintain the area and improve the herbaceous community by removing encroaching trees as well as decreasing the canopy cover by reducing the trees per acre. All 622 acres of the South Burro Unit, Treatment Area #3A will be treated in this proposal. Approximately 475 acres of the 622 acres have received past treatments and are stocked with trees in excess of 40 stems/acres, with an average tree height of 12 to 14 feet. The remaining 147 acres have not received any past treatments and are stocked with trees in excess of 80 stems/acre. Project goals are to reduce stems per acre by at least 80-90% across the entire project acreage to provide a healthy ecosystem and improve wildlife habitat for movement, foraging and cover. This area was 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. Implementation will be accomplished through the use of Agra axes, hand thinning and pile burning to restore the

grassland. This grant builds on two other projects of the same nature where 1,070 acres have been treated on Anderson Mesa (HPC 14-236 & HPC 15-211). Implementation of these vegetation treatment projects was approved in the February 3, 2005 Record of Decision for the Bar T Bar and Anderson Springs Allotment Management Plans.

PROJECT LOCATION

(Please provide lat/long of project area and datum. If project is larger than one point, please add multiple lat/long points or an existing shapefile of the project area)

Treatment Area #3A of the South Burro Unit is located in portions of sections 5, 8, of T18N, R11E (see attached map). The entire South Burro unit consists of 3,044 acres which has been divided into 4 treatment units.

LAND OWNERSHIP AT THE PROJECT SITE(S):

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

- USDA, 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 Woodland.

ITEMIZED USE OF FUNDS:

HPC +Funds				
Personnel	Daily Rate	Days	Total	
Operator 1	\$380.00	40	\$15,200.00	
Operator 2	\$255.00	30	\$7,650.00	
Operator 3	\$240.00	30	\$7,200.00	
Operator 4	\$240.00	30	\$7,200.00	
Operator 5	\$240.00	30	\$7,200.00	
Total			\$44,450.00	
Cost Per Acre				\$71.46
USDA, Forest Service Funds				
	Daily Rate	Days	Total	
Fuel (3 BOBCATs)	\$95.00	40	\$3,800.00	
Maint. 3 BOBCAT	\$60.00	40	\$2,400.00	
2-Vehicles	\$160.00	40	\$6,400.00	
Hand Crew	\$2,500	6	\$15,000.00	
Daily Rate Specialist (Fuels)	\$385.00	5	\$1,925.00	
Daily Rate Specialist (Range)	\$270.00	5	\$1,350.00	
Daily Rate Specialist (Heritage)	\$395.00	5	\$1,975.00	
Daily Rate Specialist (Wildlife)	\$375.00	3	\$1,125.00	
RX Cost/Day	\$2,500.00	3	\$7,500.00	
Total			\$41,475	
Combined Total				\$85,925
Combined cost Per acre				\$138.00

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

Special Big Game License Tag Funds

Approximately 51% of total project cost to treat 622 acres = \$44,450

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

From USDA, Forest Service approximately 49% of total project cost to treat 622 acres = \$41,475

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; USDA, Forest Service, AZGFD, Flying M Ranch

PROJECT MAINTENANCE:

The project will be maintained by USDA, Forest Service

PROJECT COMPLETION REPORT TO BE FILED BY:

USDA, Forest Service and/or AZGFD Region II LRPS

WATER DEVELOPMENT PROJECTS (please use the worksheet below):

N/A

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

ATTACHMENTS:

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

ARIZONA GAME AND FISH DEPARTMENT **WATER DEVELOPMENT WORKSHEET**

PROJECT TITLE: _____

- 1) **Is the water development listed as a priority in the most recent “Wildlife Water Development Annual Implementation Schedule?”**
- 2) **Please list the Development Branch personnel and date coordinated with for this project.**
- 3) **What is the estimated annual inches of precipitation for the area? (mark one)**
2-4 4-6 6-8 8-10 10-12 12-14 14-16 >16
- 4) **Is there a perennial water source available to big game within four miles of this project?**

YES (please complete #5 below) NO (skip #5 below)

- 5) **For the accessible, perennial water source nearest this project:**

Name of water source:

Type of water source (catchment, spring, dirt tank):

Ownership of water source:

Distance in miles from project:

- 6) **Is the target wildlife species a result of transplant efforts? YES NO**

- 7) **Please list any special land management status for the project site (i.e. Wilderness, National Park, National Monument). If private land, list landowner.**

- 8) **Please provide the following information about access to the proposed site:**

Type of access (mark one): 2x4 vehicles 4x4 only foot only**

**If foot access only: Distance in miles: _____ Approximate hiking time: _____

-- Does access to this site require crossing private or tribal lands? YES NO

-- Please describe any restrictions to public access:

- 9) **Please list below (or on a separate sheet) the material type and dimensions of each component proposed to be added, modified, or repaired.**

- 10) **Was a site visit completed? Yes No**

If Yes, please list personnel that attended and date.

ARIZONA GAME AND FISH DEPARTMENT TREE CLEARING/REMOVAL WORKSHEET

PROJECT TITLE: Anderson Mesa Grassland Restoration, South Burro Unit, Treatment Area # 3A

- 1) **What is the estimated acreage of the project?**
622 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?**
The 622 acres contain 475 acres that have had past treatments and 147 acres that have not been previously treated. Therefore, on average, the 622 acres have approximately 30-50 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 stem sizes range from 1" - 20" diameter, Pinyon pine (all sizes) with a dwarf mistletoe will be targeted, healthy pinyon pine trees would not be cleared.

- 5) **Describe terrain (slope, soil type, rocks)**
South Burro Unit, Treatment Area #3A 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 only**

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

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

Is the site relatively accessible for tree removal equipment? YES 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.state.az.us/ClassComp/CC_Job_Titles_with_Ranges.asp

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

Water Development	Volunteer Hours	Volunteer Miles	Hourly Rate	Estimated Value
			0	
Habitat Restoration and Clean Up	Volunteer Hours	Volunteer Miles	Hourly Rate	Estimated Value
			0	
Fisheries	Volunteer Hours	Volunteer Miles	Hourly Rate	Estimated Value
			\$0	
Nongame Branch Project	Volunteer Hours	Volunteer Miles	Hourly Rate	Estimated Value
			\$0	
Misc/office work	Volunteer Hours	Volunteer Miles	Hourly Rate	Estimated Value
			varies	
Community Services	Volunteer Hours	Volunteer Miles	Hourly Rate	Estimated Value
			\$0	
Events and Other	Volunteer Hours	Volunteer Miles	Hourly Rate	Estimated Value
			\$0	
Research Branch	Volunteer Hours	Volunteer Miles	Hourly Rate	Estimated Value
			\$0	
Wildlife Area Hosts	Volunteer Hours	Volunteer Miles	Hourly Rate	Estimated Value
			\$0	
Education Programs	Volunteer Hours	Volunteer Miles	Hourly Rate	Estimated Value
			\$0	
Totals			\$0.00	