

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

Game Branch / HPC Project Number:	15-226
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PROJECT INFORMATION

Project Title: South Zone Kaibab National Forest, Williams District, Pronghorn Corridor Mastication (phase 2)

Region and Game Management Unit: Region II, 7W

Local Habitat Partnership Committee (LHPC): <ul style="list-style-type: none"> • Flagstaff/Williams HPC 	Was the project presented to the LHPC? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
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Has this project been submitted in previous years? YES NO
If Yes, was it funded? YES NO → **Funded HPC Project #(s):**

Project Type: Grassland Restoration/Mechanical Mastication

Brief Project Summary: This project would treat approximately 200-250 acres in an ungulate movement corridor on the Williams District of the Kaibab National Forest. Mechanical mastication of trees less than 8 feet in height would be cut, opening up the area and restoring the grassland corridor.

Background
 The South Zone Kaibab National Forest cooperatively restores 2,000-2,500 acres of grasslands per year, with funding assistance from groups like the HPC program. Mastication proved effective and ecologically responsible after implementation of an experimental 100 acre mastication project using funds from HPC in 2013. As indicated then, the South Zone of the Kaibab National Forest is seeking additional external funds (Phase 2) to masticate targeted areas such as the movement corridor. Figure 1 below shows the project area location with pronghorn telemetry coordinates around the area shown in blue dots. Mule deer and elk also use the area. The area is highly encroached with tree species and would be exactly the type of area (grassland corridors that are highly overstocked with trees historically) identified by the first phase of the project where mastication would be the best tool to accomplish grassland restoration.

Big Game Wildlife Species to Benefit (% benefit per species) : 60 % Pronghorn antelope, 10 % Mule deer, 30 % elk.

<p>Implementation Schedule (Month/Day/Year):</p> <p><u>Project Start Date:</u> 04/01/2016</p> <p><u>Project End Date:</u> 10/30/2017</p>	<p>Environmental Compliance:</p> <p>NEPA Completed: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/></p> <p>Projected Completion Date: <u>Ida Grassland Maintenance Project 2008</u></p> <p>State Historic Preservation Office - Archaeological Clearance: <i>(Provide Attachment)</i></p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/></p> <p>Projected Completion Date: <u>04/2013 (District Archeologist has been consulted with surveys scheduled in Fall 2015)</u></p> <p>Arizona Game and Fish Department EA Checklist: N/A <input checked="" type="checkbox"/></p> <p>To be Completed by: _____</p> <p>Projected Completion Date: _____</p>
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PROJECT FUNDING

Special Big Game License Tag Funds Requested:	\$ \$ 50,000 (\$25,000/year over two years, strictly for on-the-ground implementation; Between 200-250\$ per acre
Cost Share or Matching Funds:	\$50,000 for site selection, archeological clearance, project layout, contract administration, contractor inspection, and grassland restoration program administration.
Total Project Costs:	\$ 100,000

PARTICIPANT INFORMATION

Applicant (please print): Justin Schofer	Address: Williams Ranger District 742 S. Clover Rd. Williams, AZ 86046	E-mail: jschofer@fs.fed.us
Telephone: (928) 635-5627		Date: 08/31/2015

AGFD Contact and Phone No. (If applicant is not AGFD personnel):
 Colby Walton (928) 864-9384

Project has been coordinated with:
 Arizona Game and Fish Department; Steve Rosenstock, Arizona Elk Society; Steve Clark

NEED STATEMENT – PROBLEM ANALYSIS:

Historic overgrazing and fire exclusion have allowed junipers and pines to encroach upon hundreds of thousands of acres of historically open lands on the Kaibab National Forest. Grasslands on the Williams Ranger District serve as essential habitat for elk, mule deer, white-tailed deer, wild turkey – and most notably – pronghorn antelope. Golden eagles, burrowing owls, ferruginous hawks, Gunnison’s prairie dogs, and other grassland wildlife of conservation concern also use these areas. However, many of these grasslands are being so heavily invaded by junipers and pines that mechanical treatment is necessary before fire can be reintroduced to the ecosystem.

In 2013 the South Zone Kaibab National Forest implemented an experimental mastication grant using funds from HPC. The objectives were to identify if mastication was a tool that would benefit wildlife and grassland restoration efforts on the Kaibab NF. Results indicated that this mastication method seems most useful in small areas where a more intense treatment is needed to facilitate movement corridor thinning, or thinning in selected areas where the desired condition is for open, non-patchy grassland areas. The cost to thin these areas considered by managers to be important movement corridors or important areas needed by the species is high, but the results could allow for maintenance free areas, opened up for an increased amount of time. This is an expensive, yet effective method for thinning small areas of important habitat.

PROJECT OBJECTIVES:

The objective of the project is to restore heavily encroached grasslands with mastication-based treatment in an area identified by AZGFD as an ungulate movement corridor. This project will benefit pronghorn antelope, elk, mule deer, white-tailed deer, wild turkey, and many non-game species of conservation concern.

PROJECT DESCRIPTION AND STRATEGIES:

Project Description and Strategies for Mastication-Based Treatment

We will use masticators (e.g., grinders) to restore 200-250 acres of heavily encroached grasslands. *However, please note that we will restore more acres if the cost of the mastication contract is less than our conservative estimate of \$250/acre.* Only invasive conifers approximately 8 feet and below will be masticated (to clear most trees and leave small amounts of fuel), and the treatment area will only be located in historic grassland (e.g., the area is dominated by mollisols). We will design the treatment area to serve as a corridor that connects larger grasslands.

Archeological clearance associated with this project will take a matter of one day and will not be a cost or time burden to the agency, as selected areas are already cleared for treatment but need additional clearance for mastication treatment.

PROJECT LOCATION

The study will take place within the Ida Grassland Treatment Area, (see Map 1).

The UTM, UPS, NAD 83 Zone 12S for the center of the project area is: 412717 easting
3923733 northing

LAND OWNERSHIP AT THE PROJECT SITE(S):

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

- All public land (Williams Ranger District, Kaibab National Forest).

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

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

HABITAT DESCRIPTION:

Grasslands invaded by junipers, pinyon pines, and other woody species.

ITEMIZED USE OF FUNDS:

Special Big Game License Tag Funds

\$50,000 to spent solely on mastication treatments. We will use masticators (e.g., grinders) to restore at 200-250 acres of heavily encroached grasslands. *However, please note that we will restore more acres if the cost of the mastication contract is less than our conservative estimate of \$250/acre.*

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

\$50,000 for site selection, archeological clearance, project layout, contract administration, contractor inspection, and grassland restoration program administration.

LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION:

This proposal was developed with input from the Arizona Game and Fish Department, Arizona Elk Society, and Arizona Wildlife Federation.

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

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

Grassland restoration increases hunting opportunities.

PROJECT MONITORING PLAN:

The project will be monitored by a Contacting Officer Representative (COR) and their inspectors.

PROJECT MAINTENANCE:

Following mechanical thinning with masticator, prescribed fire (and when the opportunity arises, wildfire) will be used to maintain grasslands on a 7-12 year fire return interval. Weather and fuel moisture conditions preclude exact timing of use of wildfires or prescribed fires.

PROJECT COMPLETION REPORT TO BE FILED BY:

30 days after completion or 10/2017, whichever comes first by Justin Schofer, Program Manager.

WATER DEVELOPMENT PROJECTS (please use the worksheet below):

N/A

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

Please see worksheet below.

ATTACHMENTS:

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

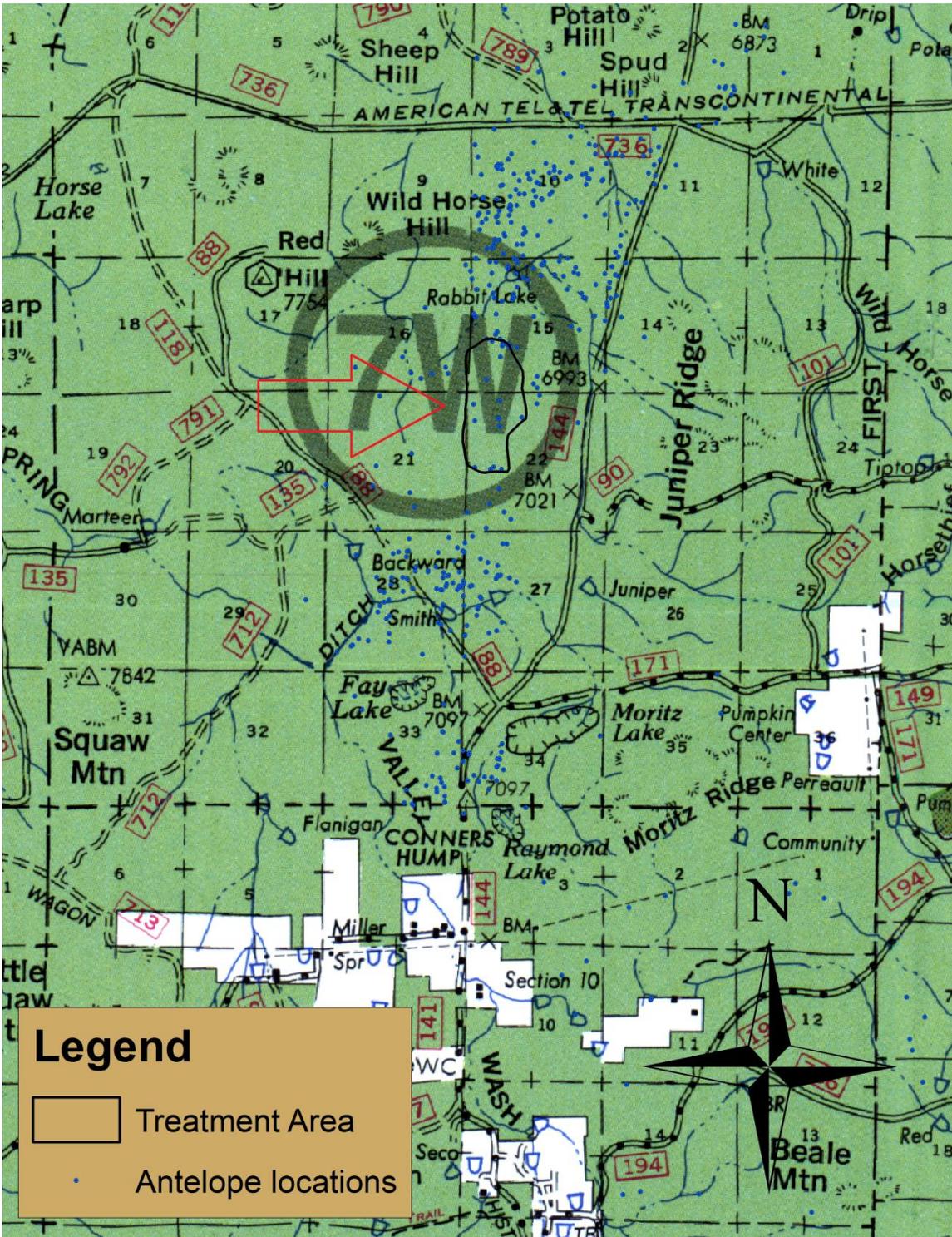


Figure 1. 2016 Williams District Mastication Treatment Area Map with pronghorn telemetry locations.

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

PROJECT TITLE: South Zone Kaibab National Forest, Williams District, Pronghorn Corridor Mastication (Phase 2).

1) What is the estimated acreage of the project?

The total acreage treated through funds would be approximately 200-250 acres upon project completion. *However, please note that we will restore more acres if the cost of the mastication contract is less than our conservative estimate of \$250/acre.*

2) How are the trees going to be cleared? (agra axe, chain saw, grubbing, push, chaining):
Masticator.

3) What is the estimated number of trees per acre?

200-400 trees per acre

4) Describe trees to be cleared (species, estimated diameter, single stem, multi-stem):

One-seed juniper (*Juniperus monosperma*; multi-stem), Utah juniper (*Juniperus osteosperma*; single-stem), pinyon pine (*Pinus edulis*). All post-settlement trees will be cleared. Trees selected for mastication will be approximately 8 feet in height or less.

5) Describe terrain (slope, soil type, rocks)

Relatively even terrain. Grassland mollisols. Rocky areas occur sporadically throughout the project area, but do not predominate. Pre-settlement trees will be retained.

6) Please list any special land management status for the project site (e.g. Wilderness, National Park, National Monument). If private land, list landowner.

N/A

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[X]

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

Please describe any restrictions to public access: None