

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

Game Branch / HPC Project Number:	11-515
Possible Funding Partners:	

PROJECT INFORMATION

Project Title: Bonita Grasslands Restoration Phase 2 (**KY Ranch**)

Region and Game Management Unit: Region V, GMU 32

Local Habitat Partnership Committee (LHPC):

- Safford

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**[] → **HPC Project #:**

Project Type: Grassland Restoration (mesquite grubbing)

Brief Project Summary:

This overall project (**Bonita Grasslands Restoration**) is in the second phase of a 20,000 acre landscape scale grassland restoration project in the Bonita area within GMU 31 and 32 which will involve using several grants from the Natural Resources Conservation Service (NRCS), Arizona Department of Agriculture (ADA), US Fish and Wildlife Service (USFWS) and Arizona Game and Fish Department (AGFD). During the initial planning stages of this project, it was foreseen to require up to 10-15 years to complete the entire proposed project area dependant upon available funding sources and cooperating landowners and lessees.

This particular project (**KY Ranch**) will reclaim 825 acres of historic semi-desert grassland through the use of mechanical grubbing and piling of mesquite, which entails piling carcasses and breaking them down into piles no taller than 4-6 feet and no closer than 200 yards from each other. Depending upon the density of piles per acre, most of the piles will be burned and the remaining piles will remain to decay over time and provide additional habitat for ground nesting birds such as scaled quail and other small mammals and reptiles. The removal of the mesquite carcasses after grubbing is important in relation to pronghorn antelope's "visibility" within their habitat. Ideal pronghorn habitat would consist of open grasslands with a mixture of grasses, forbs and low shrubs averaging between 10 and 18 inches in height. Canopy cover and shrubs above 30 inches should be considerably less than 20% of total cover for the area. Leaving mesquite carcasses lay in the project area could seriously jeopardize the visibility level and hinder pronghorn antelope's use of these areas. This is why there is a heavy emphasis on removing the carcasses during the project.

The grubbing work is preferred to be done by means of an excavator as opposed to a bull dozer due to the greater efficiency of this machine and its minimal ground disturbance. Piling or removing of the carcasses will be done with a front-end loader or small bull dozer.

Following the grubbing operation, the lessee will be required to rest the treated area for a minimum of 2 growing seasons and a CRM (Coordinated Resource Management) Plan has been developed for the ranch with the NRCS.

The removal or significant reduction in mesquites within the treated area and improved range management will overall result in improved range conditions. This will go along way toward restoring the grassland ecosystem benefiting all grassland associated wildlife species.

Big Game Wildlife Species to Benefit: Pronghorn Antelope (90%), mule deer (10%).

Implementation Schedule (Month/Day/Year): Project Start Date: July 2011 Project End Date: July 2013	Environmental Compliance: NEPA Completed: YES <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Projected Completion Date: <u>NRCS Completed</u> State Historic Preservation Office - Archaeological Clearance: YES <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Projected Completion Date: <u>NRCS Completed</u> Arizona Game and Fish Department EA Checklist: N/A <input checked="" type="checkbox"/> To be Completed by: _____ Projected Completion Date: _____
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PROJECT FUNDING

Special Big Game License Tag Funds Requested:	\$ 35,000.00
Cost Share or Matching Funds:	\$ 125,455.00
Total Project Costs:	\$160,455.00

PARTICIPANT INFORMATION

Applicant (please print): John Bacorn	Address: AZ Game and Fish Dept 555 N. Greasewood Road Tucson, AZ 85705	E-mail: jbacorn@azgfd.gov
Telephone: 520-591-1485		Date: July 18, 2011

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

Project has been coordinated with: NRCS (Natural Resource Conservation Service), Landowner Brent Haas.

NEED STATEMENT – PROBLEM ANALYSIS:

“The antelope were once very abundant throughout the entire Sulphur Springs Valley, but now inhabit the grassland north of Willcox, east of the Galiuro and Winchester Mountains and west of the Pinaleños. A portion of the population also ranges on Allen Flat to the southwest of the Winchester Mountains. Raymond Wildlife Area-Chavez Pass antelope were released here (22 in 1943, 6 in 1944, 40 in 1945)” from Region V Pronghorn Antelope Management Plan.

In the early to mid 1990’s over 100 antelope were observed during AGFD aerial surveys within the Bonita area. Starting in the year 2000 the number of animals observed decreased to lows of 25 in 2004 and 2005. Also during this time period fawn to doe ratios dipped to lows of 9, 5 and 0 fawns per 100 does. In 2006, 2007 and 2008, AGFD contracted with Wildlife Services to fly aerial coyote control within the Bonita area, observation numbers increased to 49, 84 and 58 animals and fawn ratios were 35, 75 and 21 fawns per 100 does during the three years of aerial coyote control. In the two years since the aerial coyote control, observation numbers have been 63 and 59 and fawn to doe ratios have been 25 and 27 fawns per 100 does.

This particular project area is located along the east side of Fort Grant road just south of Bonita. Fort Grant road is the Game Management Unit boundary between GMU 31 and 32. This area is also the last remaining open antelope corridor between GMU 31 and 32; the grassland link/corridor between the Bonita

herd and southern Greasewoods herd.

Land that was historically semi-desert grassland is being encroached upon by mesquite trees. Therefore, the historic grassland blocks are declining in size and connections between them are being lost. Grassland associated wildlife are being impacted by this loss due to habitat degradation and fragmentation. Pronghorn antelope is definitely one of the key species being negatively impacted these changes in grasslands habitat.

Mesquite invasion in grasslands alters the entire grassland ecosystem; it alters the water infiltration, changes the vegetation composition such as grasses, forbs, shrubs and sub-shrub (browse) species. This change in vegetation results in changes in wildlife species composition normally associated with grasslands.

PROJECT OBJECTIVES:

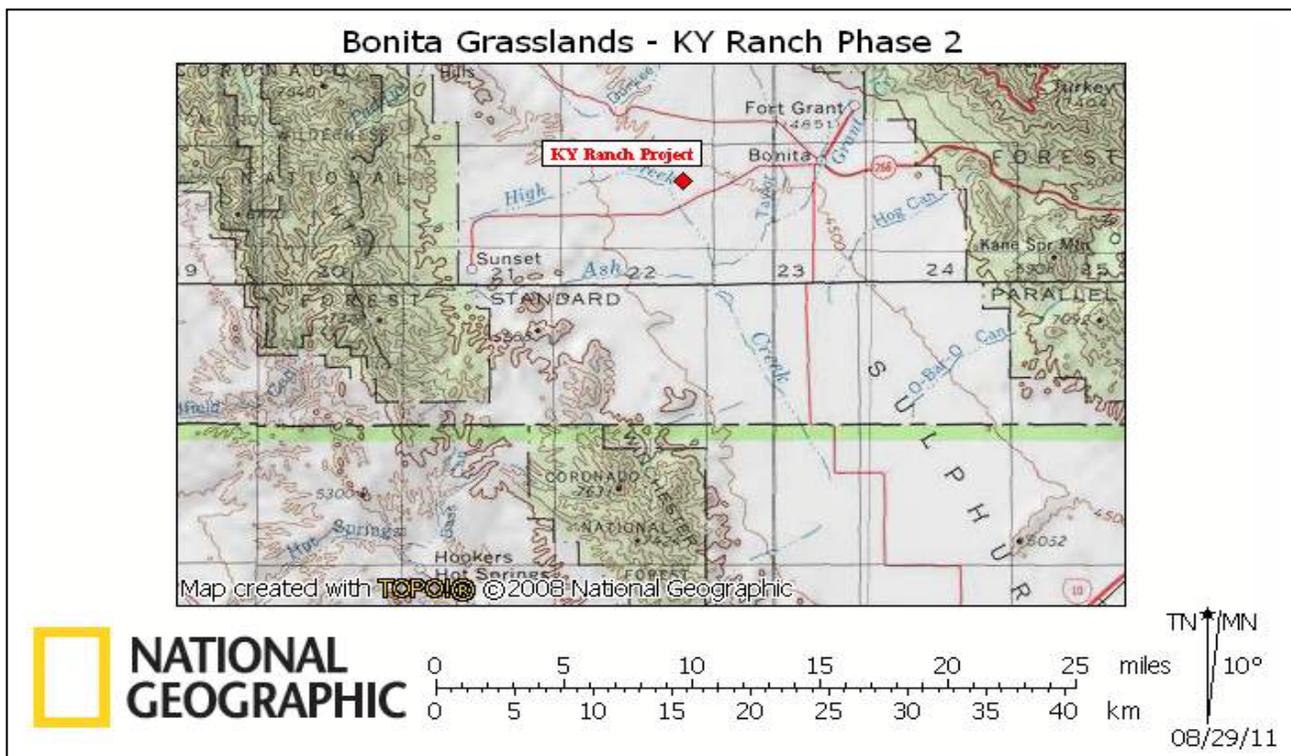
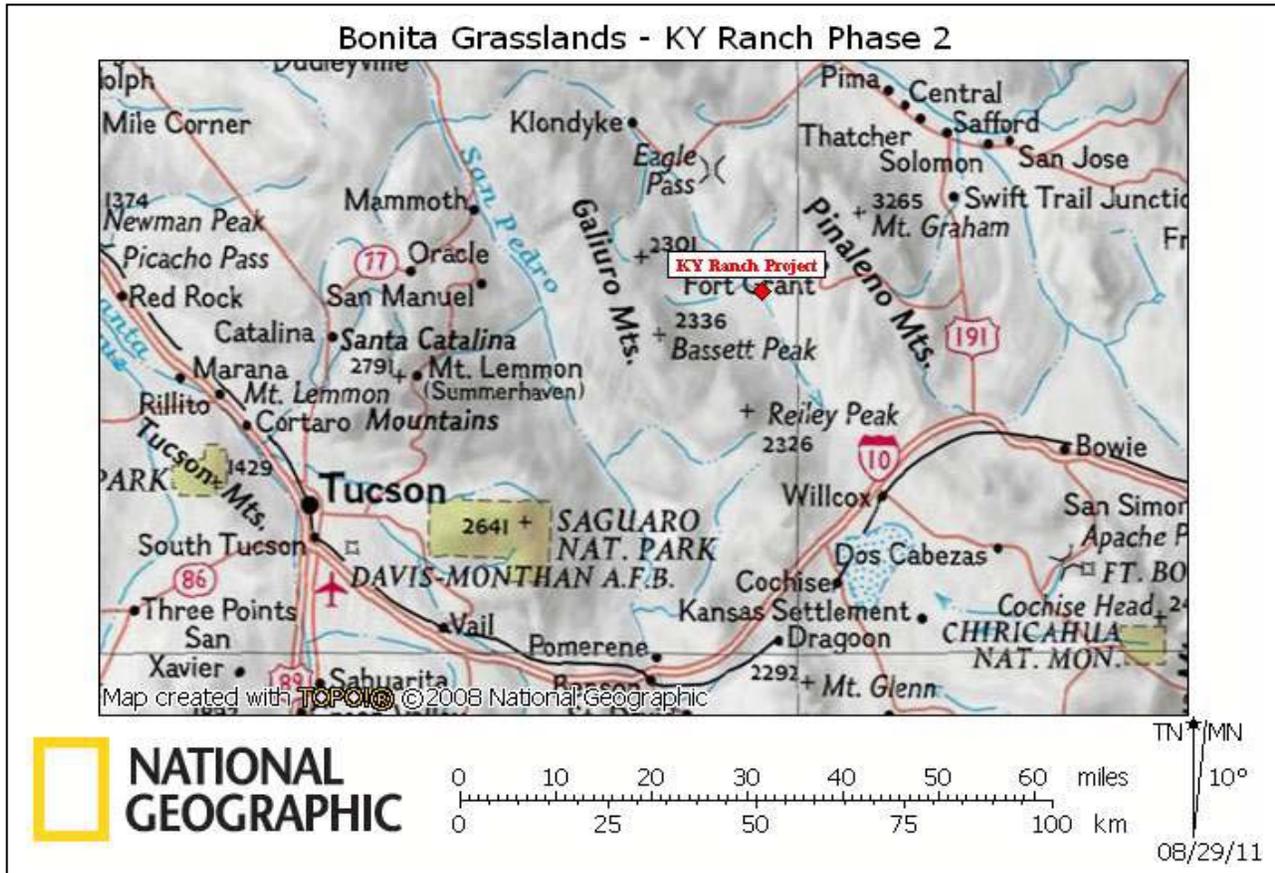
- 1) Improve/restore desert grassland ecosystem.
- 2) Restore pronghorn antelope corridor between Bonita herd and Southern Greasewoods herd.
- 3) Improve range conditions for all grassland associated wildlife species and livestock.

PROJECT DESCRIPTION AND STRATEGIES:

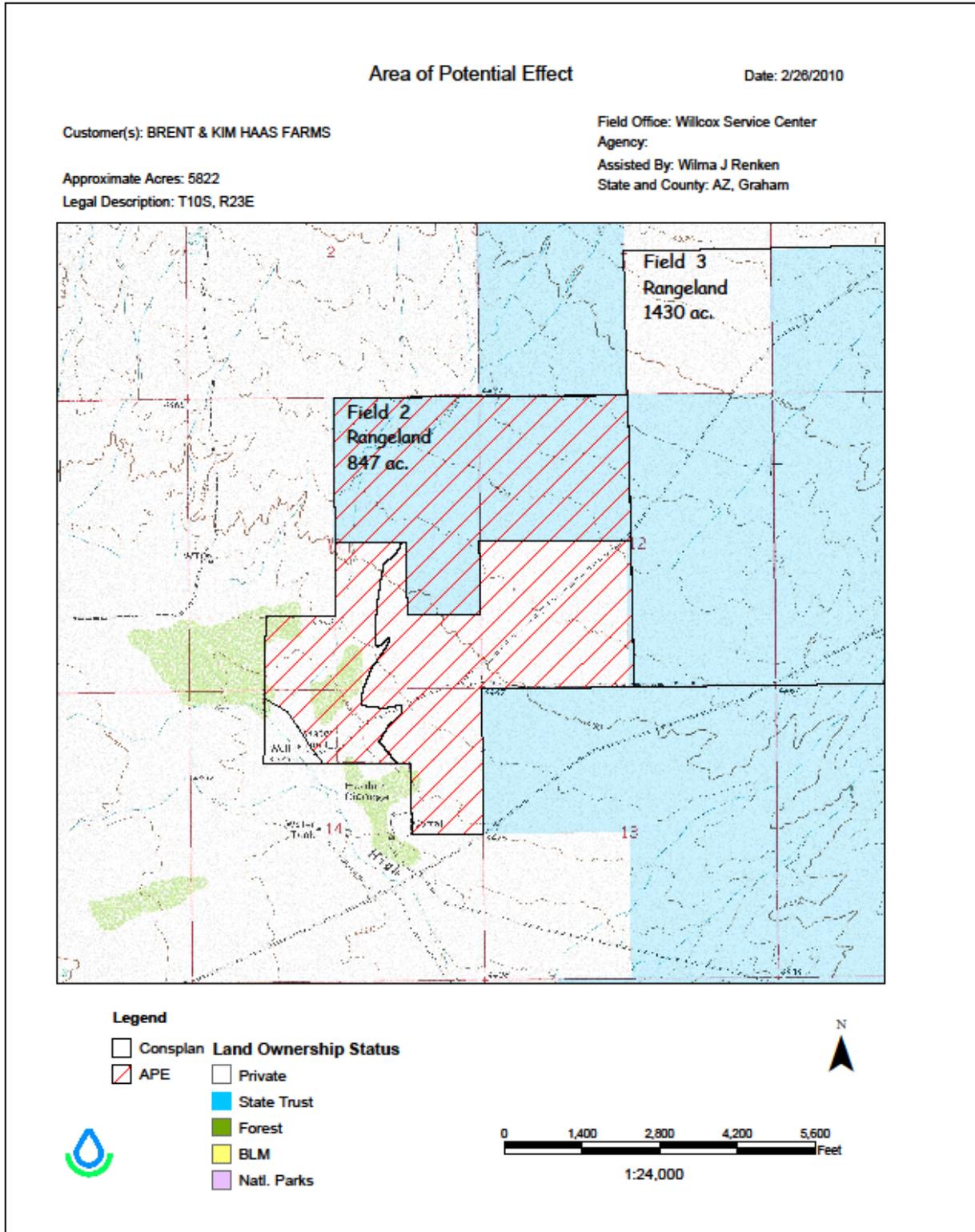
- 1) Remove/reduce mesquite densities within project area.
- 2) Remove mesquite carcasses by piling and burning.
- 3) Reseed rangeland with grass/forbs seed mixture.
- 4) Defer grazing in project for 2 growing seasons.
- 5) Implement CRM (Coordinated Resource Management) plan to improve range conditions.

PROJECT LOCATION:

The project site is located approximately 30 miles north of Willcox AZ and 5 miles west of Bonita.



Project consists of 360 acres of State Trust lands and 465 acres of deeded lands; 825 acres total.



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

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

YES[X] NO[]

This landowner participated in the Bonita Grasslands Restoration project in 2010 and grubbed and cleared over 600 acres of heavily mesquite invaded lands within the Restoration area. Participated in another AGFD Stewardship agreement for a water project back in 2006-07.

Photo of mesquite grubbing and piling conducted by Mr. Haas in 2010 as part of the Bonita Grasslands Restoration project (Phase 1).



HABITAT DESCRIPTION:

Remnant semi-desert grassland with mesquite shrub dominance at approximately 4500 feet

ITEMIZED USE OF FUNDS:

Source	Item	Unit Price	Quantity	Total Costs
NRCS	Grubbing (heavy density)	\$150/ac	135 acres	\$20,250.00
NRCS	Grubbing (light density)	\$75/ac	690 acres	\$51,750.00
NRCS	Obstruction Removal	\$61.68/ac	360 acres	\$22,205.00
HPC	Obstruction Removal and Stacking		465 acres	\$35,000.00
Rancher	Labor			\$31,250.00
Total Project Costs				\$160,455.00

Special Big Game License Tag Funds

Pronghorn Antelope...\$35,000

Cost Share or Matching Funds

Natural Resource Conservation Service (NRCS) WHIP and EQUIP Grants: \$94,205.00

Rancher (Brent Haas): \$31,250.00

LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION:

Brent Haas (land owner): Conduct grubbing and piling operation.

NRCS: Matching Funds and CRM (Coordinated Resource Management Planning)

PROJECT MONITORING PLAN:

Project is being monitored by NRCS and AGFD.

PROJECT MAINTENANCE:

The project area/treated sites will be monitored yearly by NRCS, rancher/lessee and/or AGFD. It is anticipated that there will not be 100% mesquite mortality and that there will be some re-sprouting of mesquite in subsequent years. This has been discussed between all parties involved. The maintenance plan is to return to the project site every few years and apply a spot herbicide treatment. NRCS does not have a maintenance funding source; therefore it will be the responsibility of the Rancher/lessee and AGFD to supply funding for herbicide treatment. It is planned that subsequent grants/HPC/LIP monies will be sought after to fund continued maintenance of the project/treated areas. Funding costs associated with this type of maintenance is unknown at this time, due to this being a new project but it is believed maintenance costs will be considerably less than costs of the original treatment.

PROJECT COMPLETION REPORT TO BE FILED BY:

John Bacorn (AGFD)

WATER DEVELOPMENT PROJECTS (see attached worksheet):

N/A

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