

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

PROJECT INFORMATION

Project Title: NO Bar/4 Bar Pasture

Project No. 07-111

Region/GMU: 27 South

HPC: Safford HPC

Project Type: Mechanical thinning and Prescribed Fire.

Project Description: The NO Bar project consist of 10,000 acres of prescribed burning in conjunction with approximately 1,018 acres of juniper thinning to be completed by bobcat skid steer with agra axe attachment with implementation occurring in two phases. Phase I will be submitted for funding during this cycle with Phase II funding request to be submitted in FY08. The 4 Bar Pasture project lies adjacent to the NO Bar project and consist of 110 acres of juniper thinning in previous juniper pushes combined with approximately 700 acres of burning. Combined, both the No Bar/4 Bar Pasture projects will total approximately 10,700 acres of burning with 1,130 acres of thinning. Thinning for 4 Bar pasture is ongoing and will likely be completed this fall.

The proposed NO Bar/4 Bar Pasture projects complement previous prescribed fire and/or mechanical thinning restoration projects on the Clifton Ranger District. The proposed project will provide for continuous treatment by prescribed fire and/or thinning between the 21,500 acre Pigeon prescribed fire (completed July 2007), and the 10,600 Mesa project (completed in summer of 07) which included 1,200 acres of juniper thinning on mesa tops. Both the NO Bar and 4 Bar pasture treatment areas have been prioritized for treatment by the local Unit 27 Wildlife Manager for treatment in order to maximize and augment treatments that are finished or ongoing within the Pigeon and Mesa restoration projects.

Thinning on NO Bar will take place in the fall of 2007 and winter of 2008. Both projects are slated to be burned in the spring of 2008. No bar may be burned in two entries to facilitate the grazing rotation on the allotment (Double Circles ranch).

A NEPA decision has been issued for the 4 Bar Pasture project with an anticipated NEPA decision date for NO Bar of September 20, 2007.

Wildlife Species to Benefit: Mule deer, White-tailed Deer, Pronghorn Antelope, Turkey, and Mearn's Quail

By implementing the NO BAR Prescribed Fire and Thinning Project, desired future conditions would benefit a variety of wildlife species including but not limited to: mule deer, white-tailed deer, pronghorn antelope, Mearn's quail, wild turkey, semi-arid desert grassland and juniper savannah avian species.

Desired future condition for the shrub vegetation association is to create a diverse mosaic of vertical stand structure and promote re-sprouting in the brush species by applying prescribed fire. By providing a mosaic treatment, the project area will provide both open foraging habitat with better predator detection and untreated cover areas. Re-sprouting of browse species will provide a substantial increase in quality and quantity of browse forage for both mule and white-tailed deer. By providing for a mosaic burn, adequate hiding and thermal cover would remain within the treatment area for all target species. No more than 40% of these vegetation associations should be in a burned or early seral condition to maintain this mosaic.

Desired future condition for the riparian vegetation within the project area is to maintain or improve riparian plant species by ensuring that no more than 10% of the riparian area will be burned by high intensity fire. Riparian areas are a crucial habitat type for mule deer for forage, water, and cover. Mearn's quail and wild turkey are expected to continue to utilize the project area with riparian habitats remaining in current condition. Past Best Management Practices implemented by the Clifton Ranger District for prescribed burning and thinning from previous restoration projects will be carried forward to the proposed project to maintain the riparian corridor within the project area.

Desired future condition for herbaceous vegetation is to provide for a diverse mix of warm and cool season perennial bunch grass species along with early successional annual grasses and forbs to meet the nutritional requirements for all target wildlife species (mule deer, pronghorn antelope, Mearn's quail, wild turkey). Implementing the project will provide suitable site distance for pronghorn antelope to travel eastward and potentially occupying the juniper savannah grasslands within the Mesa Restoration Project area. Habitat for pronghorn antelope and Mearn's quail habitat would be greatly improved in the woodland types by reducing tree canopy to the range of 10-20% allowing the herbaceous component to respond to available resources.

Additionally, the anticipated improvement in the herbaceous component (increased species diversity, increased production and vigor) by reducing competition with overstory tree species will provide an opportunity to allow for natural fire to occur within the project area by maintaining residual herbaceous material to carry fire, thus maintaining the desired habitat values for a variety of wildlife species that occurs in the project area.

Possible Funding Partners:

Implementation Schedule:
Beginning: July, 2007
Completed: June, 2009

NEPA Compliance: (if applicable)
Completed: Yes No
Projected Completion Date: 4 Bar complete, October 2007 for NO Bar.

PROJECT FUNDING

SBG Funds Requested: \$99,000

Cost Share Funds: \$173,000 Senate bill 1441 dollars to complete NEPA and start implementation. \$20,100 federal salary contributions.

Total Project Costs: \$219,220 Please see attached cost breakdown.

PARTICIPANT INFORMATION

Applicant: Frank Hayes Clifton Ranger Dist.
 (please print)
Telephone: 928-687-1301

Address: Clifton Ranger District
397240, AZ 75
Duncan AZ 85534

AGFD Contact and Phone No. Steve Najjar, 928-687-2454
(If applicant is not AGFD personnel)

Coordinated with: Safford HPC, AZGFD

Date: 6/27/2007 and 8/29/2007

Applicant's signature:/s/ Frank Hayes

Date:8/30/2007

SEND COMPLETED APPLICATIONS TO:

**Game Branch
2221 W. Greenway Rd.
Phoenix, AZ 85023
mdisney@azgfd.gov**

WAS PROJECT PRESENTED TO THE LOCAL HPC? YES NO

HAS PROJECT BEEN SUBMITTED IN PREVIOUS YEARS? IF SO WAS IT FUNDED?

Project has not been previously submitted.

NEED STATEMENT/PROBLEM ANALYSIS:

The primary need to use prescribed fire and mechanical thinning to treat the No Bar and 4 Bar Pasture project areas is to reintroduce fire in to a fire adapted ecosystem in order to create openings that increase sight distance and create habitat heterogeneity for a variety of wildlife species. Essentially, the mesa tops within the project area were once open Alligator juniper savannah's that have since become encroached resulting in a closed canopy of Pinyon Juniper woodlands with poor herbaceous production and decadent browse stands. By implementing the No Bar and 4 Bar Pasture projects, it would provide for a continuous treatment area from the two adjacent landscape scale restoration efforts.

Vegetative surveys indicate canopy densities within the area were historically between 5-15% but are currently between 45-65% within the area. Much of the area that has good herbaceous production can be treated with fire to reduce the canopy cover. Areas that are targeted for thinning are areas that in previous efforts indicate low success with fire-only treatments due to low grass content.

PROJECT OBJECTIVES:

Overall objectives for the project are to:

- Stabilize and improve watershed conditions.
- Increase habitat heterogeneity and improve wildlife habitat conditions.
- Restore grasslands by removing juniper to more closely resemble historic conditions.
- Manage livestock in such a manner as to allow for watershed improvements.
- Restore fire as a disturbance function in a fire adapted ecosystem.

PROJECT STRATEGIES:

The Strategy for the 4 Bar Pasture project is to complete all thinning with existing district personnel and the district skid steer by August of 2007 by using regular program funds and Senate Bill 1441 dollars. Burning

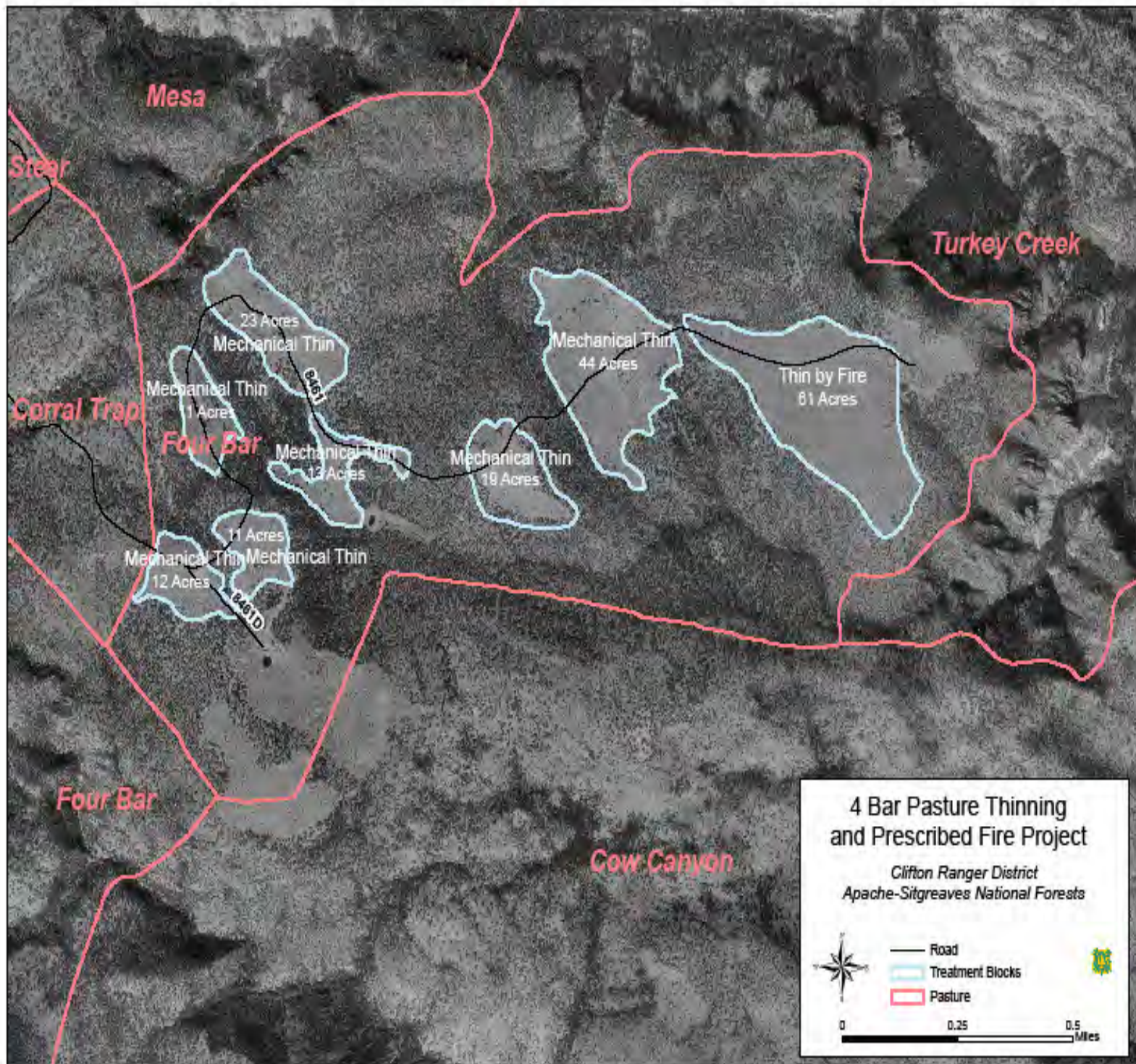
may take place in the spring of 2008 unless a window occurs prior or after the 2007 monsoon season. This project may be completed using current funds. There is no phase II for the 4 bar pasture project.

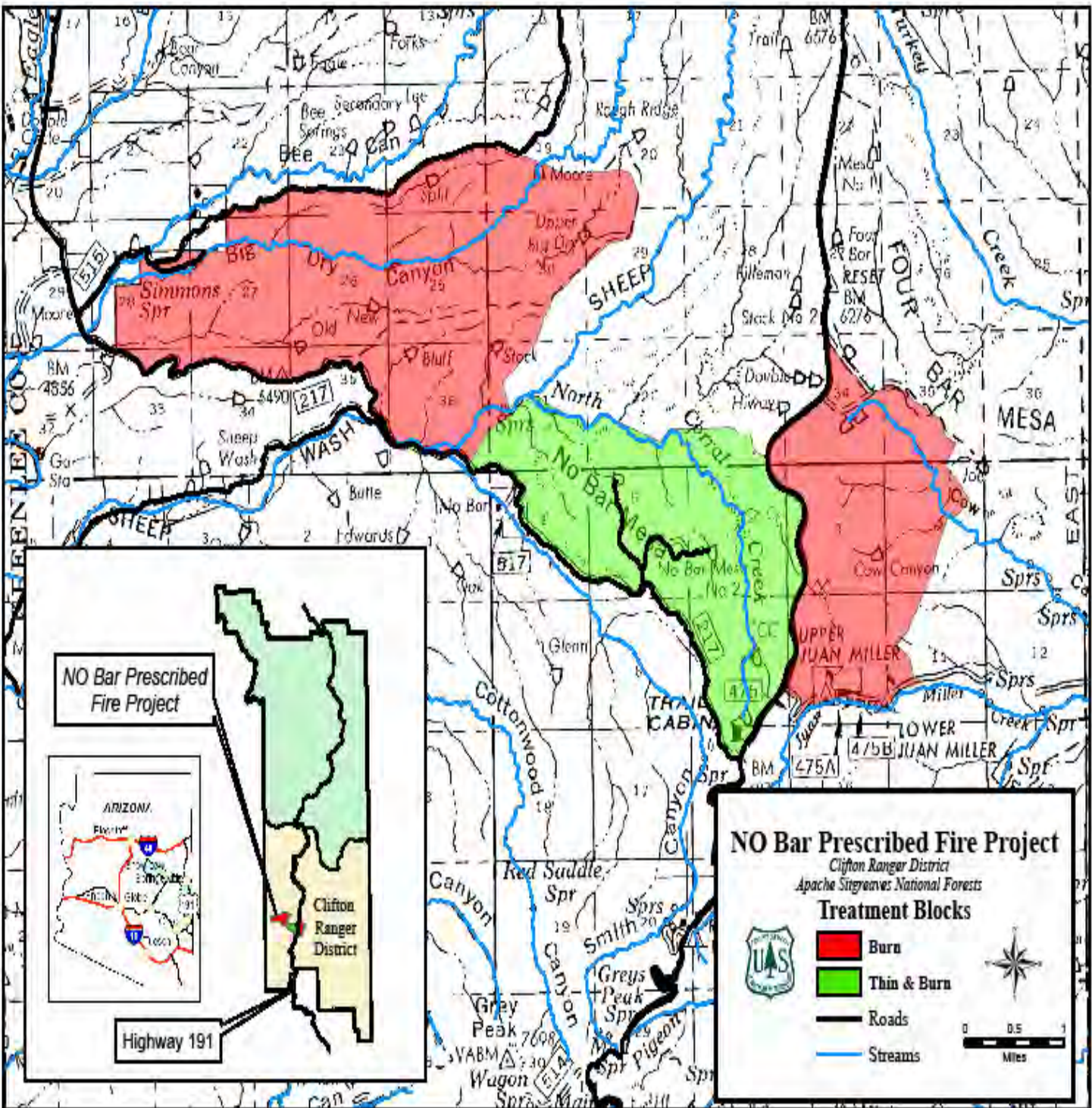
Phase I for NO Bar includes 1018 acres of thinning to be completed in the winter/spring of 2008 and a 4521 acre burn to be completed in the spring of 2008.

Phase II for the NO Bar project will include burning all cut slash and the remainder of the burning for a total of 5042 acres of burning in the spring of 2009. Phase II will be submitted for funding during FY08.

PROJECT LOCATION:

Project location is T1S, R 29E, multiple sections. See attached maps.





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

Project lies entirely within the Clifton Ranger District, USFS, Apache Sitgreaves N.F.

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

N/A

HABITAT DESCRIPTION:

Primarily the habitat consists of Juniper Savannah mesa tops surrounded by canyon lands. Slopes along canyons consist of Oak browse slopes with canyon bottoms consisting of Ponderosa Pine.

ITEMIZED USE OF FUNDS:

See attached.

LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION:

Current cooperators are the Clifton Ranger District, Arizona Game and Fish Department, the Double Circles Ranch, and Jim and Clarice Holder (Baseline Horsesprings allotment).

The ranchers involved are cooperating for the benefit of wildlife by altering their grazing plan to facilitate restoration within the project area. The project itself has been prioritized as high priority by the Wildlife manager for Unit 27 south, Steve Najjar, in the Unit 27 habitat plan.

Potential partners include Arizona Deer Association, Mule Deer Foundation, SCI, Arizona Antelope, Quail Unlimited, and the NWTF. All the potential partners were involved with funding the Mesa restoration project which lies directly north of the two project areas included with this proposal.

PROJECT MONITORING PLAN:

The proposed monitoring plan consists of several range monitoring related plots within the project areas that have been combined with canopy density transects. The plots have been read to complete the NEPA for each project and will need to be re visited due to post burn re stocking guidelines outlined in the NEPA documents. In addition, approximately 15 photo points have been established which will illustrate the effectiveness of treatments. Similar data and photo points were used with the Mesa project and proved effective at monitoring project effectiveness.

PROJECT MAINTENANCE:

Both projects will be available for re-entry if monitoring shows lack of effectiveness. However, once objectives are achieved for each project, wild land fire use may be employed as a maintenance tool to enhance and maintain the initial project investment.

PROJECT COMPLETION REPORT TO BE FILED BY:

The project completion report will be filed by the Clifton Ranger District at the completion of each phase of the project. Typically we have provided a CD or other electronic media with photos to grant sources. We will continue to do so with these projects. In addition, a power point presentation could be made available to partners to be used by the partner or simply given by district employees much as we have done for the Mesa project and other 1441 funded projects.

WATER DEVELOPMENT PROJECTS (see attached worksheet):

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

COST BREAKDOWN
NO-BAR, FOUR BAR PASTURE
HPC PROPOSAL

Total Phase I cost	\$219,220
Total Federal contributions	\$ 20,100
Total 1441 contributions for implementation	\$100,000
Total needs for Phase I implementation	\$ 99,120 (HPC)

Cost breakdown of the \$99,000 is as follows:

Slash fuel 100 gallons @ \$3.20 per gallon = \$320 dollars.
Per diem for burn resources \$5,796
Fuel for skid steer @ \$3.20 per gallon= \$6,400
Helicopter @ \$7,000 per day for 5 days=\$35,000
Salaries for non permanent employees= \$45,000
Misc parts for chainsaws and skid steer=\$6,484
Total \$99,000

The Four bar pasture and No bar projects have \$100,000 of senate bill 1441 money already committed to implementation.

\$73,000 dollars of Senate bill 1441 funding have been spent on the NEPA for the projects.

Federal contributions will be approximately \$20,100 dollars for implementation of the projects.

Total needs for the projects are \$219,220 which equates to \$100 per acre for Agra axe work, \$130 per acre hand thinning, and approximately \$20 per acre to burn both projects.

ARIZONA GAME AND FISH DEPARTMENT
TREE SHEARING WORKSHEET

PROJECT NAME: NO Bar/4 Bar Pasture

1) What is the estimated acreage of the project?

10,700 acres of burning and 1,130 thinning.

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

Agra axe and chainsaw to be completed by USFS employees.

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

68 trees per acre in 4 bar, 245 in No bar.

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

Species consist primarily of alligator juniper with some one seed juniper and some pinyon pine. 4 bar pasture consist mainly of single stem trees with very little multi stem. No bar is approximately a 50/50 split between multi and single stem trees. However, as the treatment area is considered a savannah, not all trees will be cut and single stem trees will be selected for retention.

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

Thinning will take place primarily on slopes less than 5% and on relatively smooth terrain. Primary soil types to be thinned will be 630 and 632 soils which are characterized as Lithic Aruistolls. These soils mirror soils that were treated on the Mesa project and have proven to respond very well to thinning and fire treatments. The 632 soil type has shown excellent production post treatment, and in fact, treated 632 soils on the Mesa project far out produced non-treated 632 soils in each of these project areas which provided impetus to initiate these projects.

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

No special land status.

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 shearing equipment? YES NO

Please describe any restrictions to public access: **None.**