

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

Game Branch / HPC Project Number: 13-204

PROJECT INFORMATION

Project Title: Bar T Bar Quayle Hill Browse Release and Grassland Restoration

Region and Game Management Unit: Region 2 / GMUs 5A & 5B

Local Habitat Partnership Committee (LHPC):

- Forage Resource Study Group

Was the project presented to the LHPC?

YES NO

Has this project been submitted in previous years? YES NO

If Yes, was it funded? YES NO →

Project Type: Removal of invading juniper through grinding, agra axe, and prescribed fire

Brief Project Summary: This project is part of a larger landscape level approach to improve and restore grassland habitat on the Bar T Bar allotment of the Coconino National Forest. The Bar T Bar Ranch has removed encroaching juniper encompassing over 30,000 acres of grasslands using a variety of methods such as mechanical chaining, mechanical pushes, prescribed fire, direct source fire (tera-torch) and grinding, however much of that area is being re-invaded by juniper. To address the invasion, the USFS has planned a multi-phased effort to maintain the grassland and improve forb and browse availability. Phase 1 (HPC 10-203) attempted to restore approximately 10,000 acres through prescribed fire. Phase 2 proposes to maintain and improve the herbaceous and browse communities through grinding/ agra-axe of large stands of Juniper over 5000 acres followed by prescribed fire.

Big Game Wildlife Species to Benefit: Elk, Mule Deer, Pronghorn, and Black Bear

Implementation Schedule (Month/Day/Year):

Project Start Date: October 2013

Project End Date: June 30, 2016

Environmental Compliance:

NEPA Completed: YES No N/A

Projected Completion Date: _____

State Historic Preservation Office - Archaeological Clearance:

YES No N/A

Projected Completion Date: _____

Arizona Game and Fish Department EA Checklist: N/A

To be Completed by: _____

Projected Completion Date: _____

PROJECT FUNDING

Special Big Game License Tag Funds Requested: \$ 32,000

Cost Share or Matching Funds: \$ 46,000

Total Project Costs: \$ 78,000

PARTICIPANT INFORMATION

Applicant (please print):

Jeff Thumm

Address:

8738 Ranger Road

Happy Jack, AZ 86024

E-mail:

jthumm@fs.fed.us

Telephone: (928) 477-5037

Date: July 1, 2013

AGFD Contact and Phone No. (If applicant is not AGFD personnel): Co-applicant
Garrett Fabian (928) 606-3557

Project has been coordinated with:
USFS, Bob and Judy Prosser (Bar T Bar allotment), AZGFD, AES, ADA, AAF

NEED STATEMENT – PROBLEM ANALYSIS: Juniper invasion of historic grasslands in Arizona has greatly diminished the diversity and production of herbaceous perennial cover. This has resulted in a near monoculture of Juniper, which is low quality habitat for many wildlife species and livestock, which has reduced the carrying capacity. Besides reducing carrying capacity, juniper invasion has reduced travel corridors and reduced visibility, which likely contributes to a greater vulnerability to predation for species such as pronghorn, mule deer, and elk. Another impact from juniper invasion has been erosion from down cutting. By reducing juniper and increasing ground cover, the local watershed should become healthier and allow for a quicker recovery. Habitat diversity and grassland maintenance is critical for recovery of the Anderson Mesa Pronghorn herd, and this project will compliment many other projects conducted within this population's habitat.

PROJECT OBJECTIVES:

- Remove large encroaching junipers via grinding, Agra-axe, and Terra-torch
- Remove small invasive junipers through prescribed fire
- Increase herbaceous/ browse diversity and viability through broadcast prescribed fire
- Broadcast burn and remove encroaching junipers via grinding Agra-axe and Terra-torch up to 5,000 acres over the two years

PROJECT DESCRIPTION AND STRATEGIES:

This project is part of a larger landscape level approach to improve and restore grassland habitat on the Bar T Bar allotment of the Coconino National Forest. The Bar T Bar Ranch has removed encroaching juniper encompassing over 30,000 acres of grasslands using a variety of methods such as mechanical chaining, mechanical pushes, prescribed fire, direct source fire (tera-torch) and grinding, however much of that area is being re-invaded by juniper. To address the invasion, the USFS has planned a multi-phased effort to maintain the grassland and improve forb and browse availability. Phase 1 (HPC 10-203) attempted to restore approximately 10,000 acres utilizing primarily prescribed fire due to mechanical methods becoming cost prohibitive on a large scale. However it was quickly realized due to the high risk of summer wildfires, that prescribed fire at the needed time was not attainable, so a mixture of prescribed fire and mechanical methods was utilized. Phase 2 proposes to continue maintenance of grasslands and improve the herbaceous and browse communities through grinding/ agra-axe of large stands of Juniper over 5000 acres. Slash will be scattered and allowed to dry for follow-up prescribed fire. Prescribed fire of the grassland community would follow after a drying period to stimulate forb and browse diversity and growth. Burning of the slash piles will also reduce visibility obstacles for wildlife such as pronghorn.

PROJECT LOCATION: The general project area is known as Red Hill, Quayle Hill to Boundary Well located in Game Management Unit 5A in Region II. The proposed project boundary consists of USFS road 319E at the south, to Clear Creek canyon to the east, to the Clear Creek Ranch boundary at the north, to Highway 87 on the west. The proposed project area borders nearly 8000 acres of

restored grasslands on the Clear Creek ranch that was funded through several different funding avenues including HPC. See attached map. There will also be some work done in the Broomy Valley area west of Long Lake in Game Management Unit 5B in Region II. The boundary for this area generally follows old pushes and fuel wood sales from the 60's-70's and is on east and west side of FR 123A and the south side of FR 82.

LAND OWNERSHIP AT PROJECT SITE (Please state specifically if PRIVATE PROPERTY and provide landowner's name): US Forest Service, Coconino National Forest, Mogollon Rim District

IF PRIVATE PROPERTY, IS THERE A STEWARDSHIP or LANDOWNER AGREEMENT BETWEEN THE LANDOWNER AND THE DEPARTMENT?
YES[] NO[]

HABITAT DESCRIPTION: Grasslands that have been invaded by Pinion Juniper stands. Primary plant species include blue grama, squirrel tail, winterfat, bigelow sage, cliffrose, fern bush, Algarita, pinion, and shaggy bark juniper. Elevation is approximately 6500 feet receiving moderate precipitation.

ITEMIZED USE OF FUNDS: See attached worksheet.

Special Big Game License Tag Funds

Cost Share or Matching Funds

Cost share funds does not include the many hours of both AZGFD Fabian and USFS Thumm to develop the project, coordination, write the proposal, and track it through the HPC process through implementation.

LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION:

US Forest Service Coconino National Forest Mogollon Rim District, AZ Game & Fish Dept, Bob & Judy Prosser (Bar T Bar ranch)

PROJECT MONITORING PLAN: USFS will monitor project implementation and ensure compliance. USFS will monitor plant community prior and post treatment. USFS will complete HPC completion report.

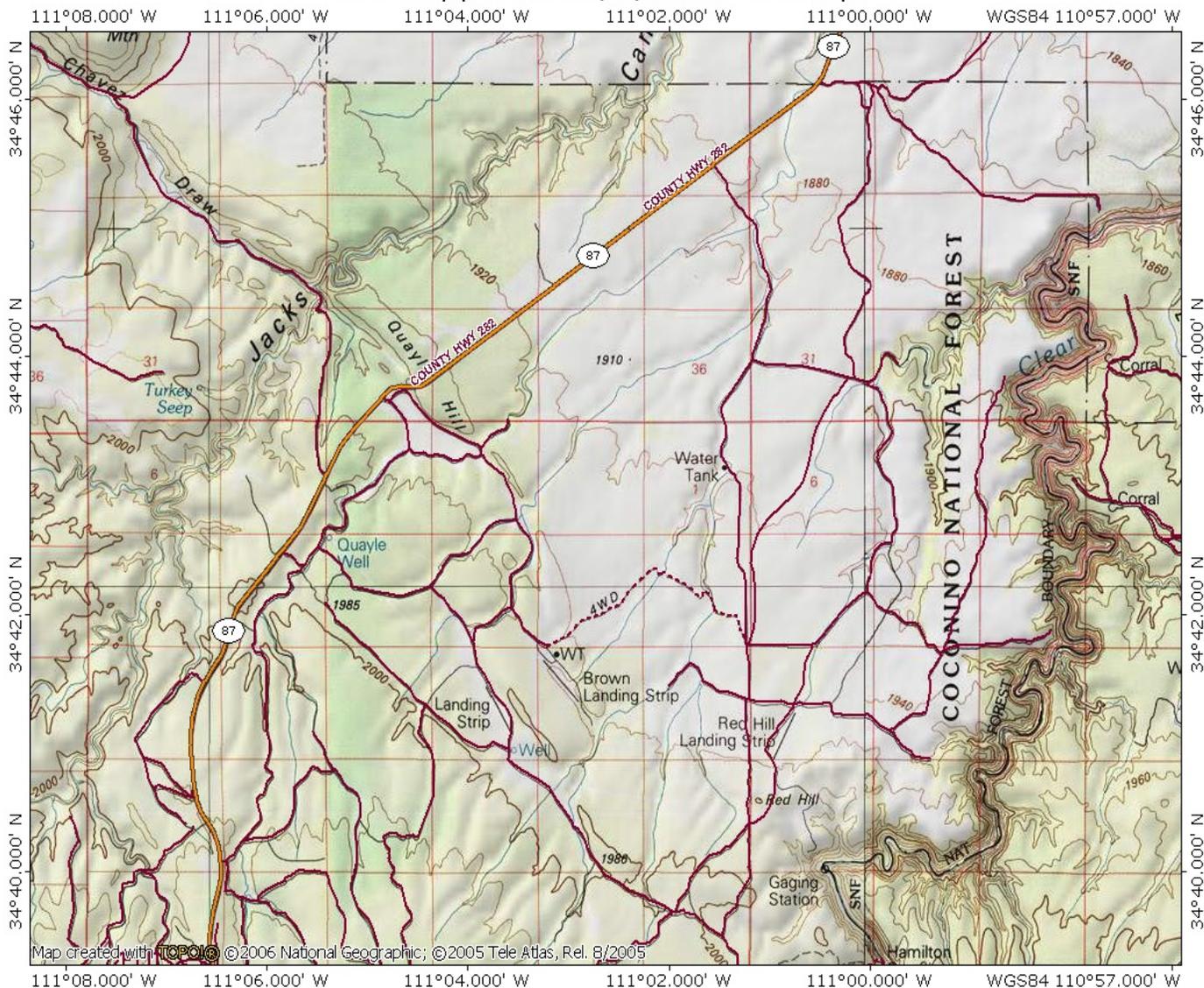
PROJECT MAINTENANCE: USFS and Bar T Bar ranch in cooperation as allowed through the AOI.

PROJECT COMPLETION REPORT TO BE FILED BY: USFS

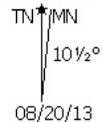
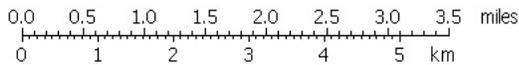
TREE SHEARING (AGRA-AXE, PUSH) PROJECTS (*see attached worksheet*):

Proposed Project Area

TOPO! map printed on 08/20/13 from "Untitled.tpo"



Map created with TOPO! © 2006 National Geographic; © 2005 Tele Atlas, Rel. 8/2005



ARIZONA GAME AND FISH DEPARTMENT **TREE SHEARING WORKSHEET**

PROJECT TITLE: Bar T Bar Quayle Hill browse release and grassland restoration

- 1) **What is the estimated acreage of the project?**
Overall, project acreage is 30,000 acres with up to 5,000 being treated through these funds

- 2) **How are the trees going to be cleared? (agra axe, chain saw, push):**
Grinding from a Bobcat machine, Agra axe from a Bobcat machine, and terra torch.

- 3) **What is the estimated number of trees per acre?**
The number of trees per acres varies widely, but within the Quayle hill area trees per acre average 30-40, while in the Broomy Valley area trees per acre is in the 100-200 range

- 4) **Describe trees to be cleared (species, estimated diameter, single stem, multi-stem):**
Juniper will be the primary species cut with estimated diameter of less than 12” and they vary from a single stem to multiple stems. Also in the Quayle Hill area there is a large amount of Algarita that is multi-stemmed and needs treated.

- 5) **Describe terrain (slope, soil type, rocks)**
Terrain is relatively flat with molisal soils and varies from extremely rocky to rock free.

- 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

Is the site relatively accessible for tree shearing equipment? YES NO

Please describe any restrictions to public access:

GRANTS AND AGREEMENTS LEADERSHIP TEAM APPROVAL

Partner Organization: Arizona Game & Fish

Partner Contact Info:

Arizona Game & Fish Department
3500 South Lake Mary Road
Flagstaff, AZ 86001-9311

Project Name: Bar T Bar Browse Release and Chaining maintenance Project/Qualye Hill

FS Unit and Ranger: Mogollon Rim Ranger District, Linda Wadleigh: Ranger

Contact Info: Jeff Thumm (928) 606-3840 or Linda Wadleigh (928) 477-5001

Project Summary: This project is part of a larger landscape level approach to improve and restore grassland habitat on the Bar T Bar allotment, Coconino National Forest – Mogollon Ranger District. The Bar T Bar Ranch has removed, using a variety of methods, encroaching juniper since the late 1950's to date. Such methods include mechanical chaining, mechanical pushes, fire (terra-torch) and grinding. Since the 1950's, vegetation treatments now exceed 30,000 acres. The project will use a variety of treatments to restore grasslands including; prescribed burning, pile burning with a Terra-torch, and clipping and masticating junipers with a Bobcat.

Incoming Funds (\$ amt): \$32,000.00 _____

Outgoing Funds (FS Obligation amt): _____ FS Job Code: _____

Partner Match (\$ amt and item): _____

FS Match (\$ amt and item): **\$46,000** FS Job

Code:

Purchase of Bobcat Shear		\$11,000	WFPR04
1 person funded through HPC grant	120 days for clipping	\$32,000	HPC
Prescribe burn	\$1,000/day 10 days	\$10,000	WFHF04
1 person to/share time clipping \$200/day	100 days(2 years)	\$20,000	WFHF04
Maintenance of bobcat and fuel		<u>\$5,000</u>	WFHF04
Total		<u>\$78,000</u>	

FS Personnel requested/needed: (or attach a Work Plan)

Name: **_SEE ATTACHED WORKPLAN_** Days ____ Name: _____ Days

National Burden Rate Assessed: No Yes. (See FSH 1909.13 chapter 40) If no,

Justification:

Working with Arizona Game & Fish collaboratively.

Approved by Leadership Team: _____

Date: _____

Forest Supervisor or Acting

Comments:

Please forward completed/signed form to G&A Specialist for 1580 file and initiation of the agreement.

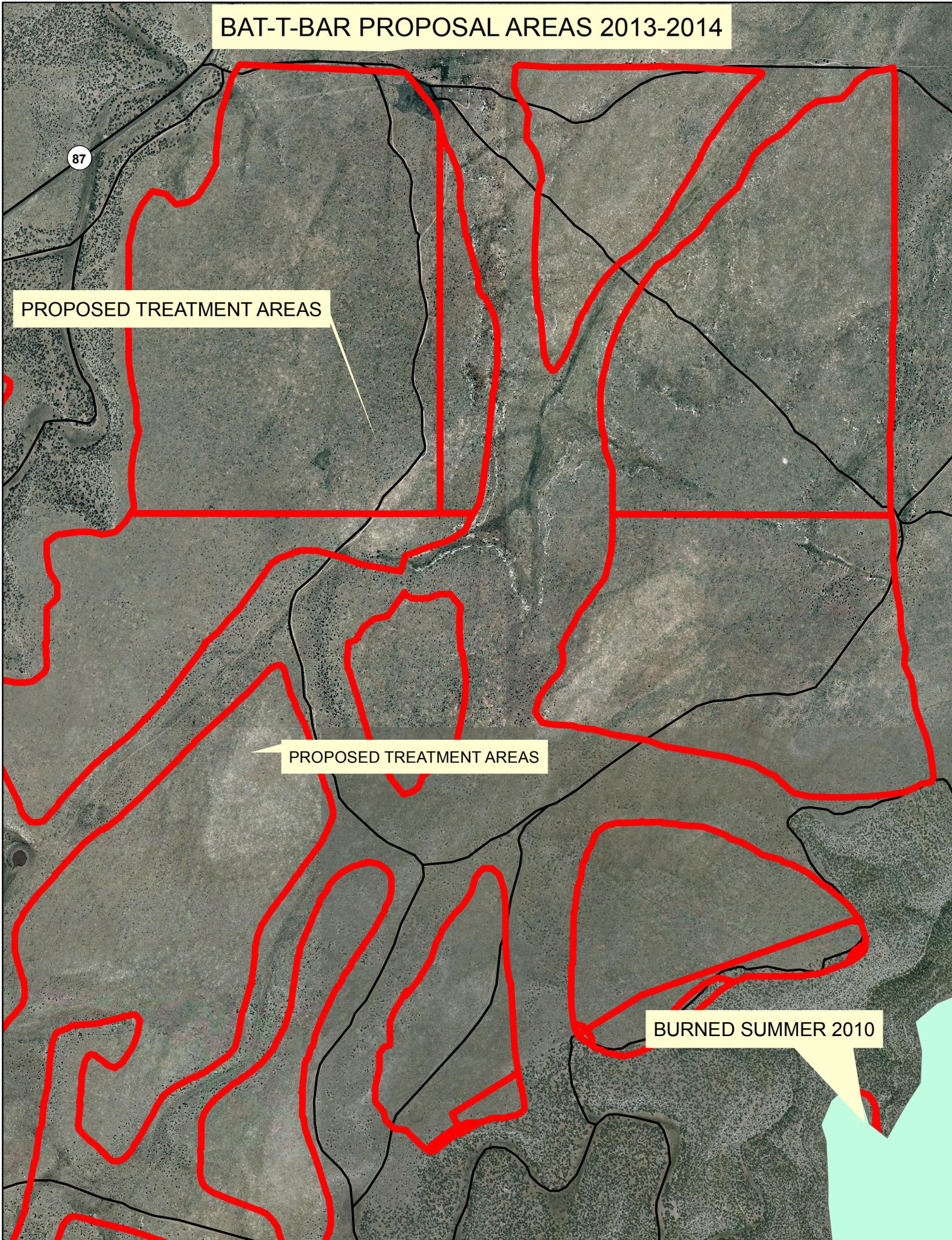
BAT-T-BAR PROPOSAL AREAS 2013-2014

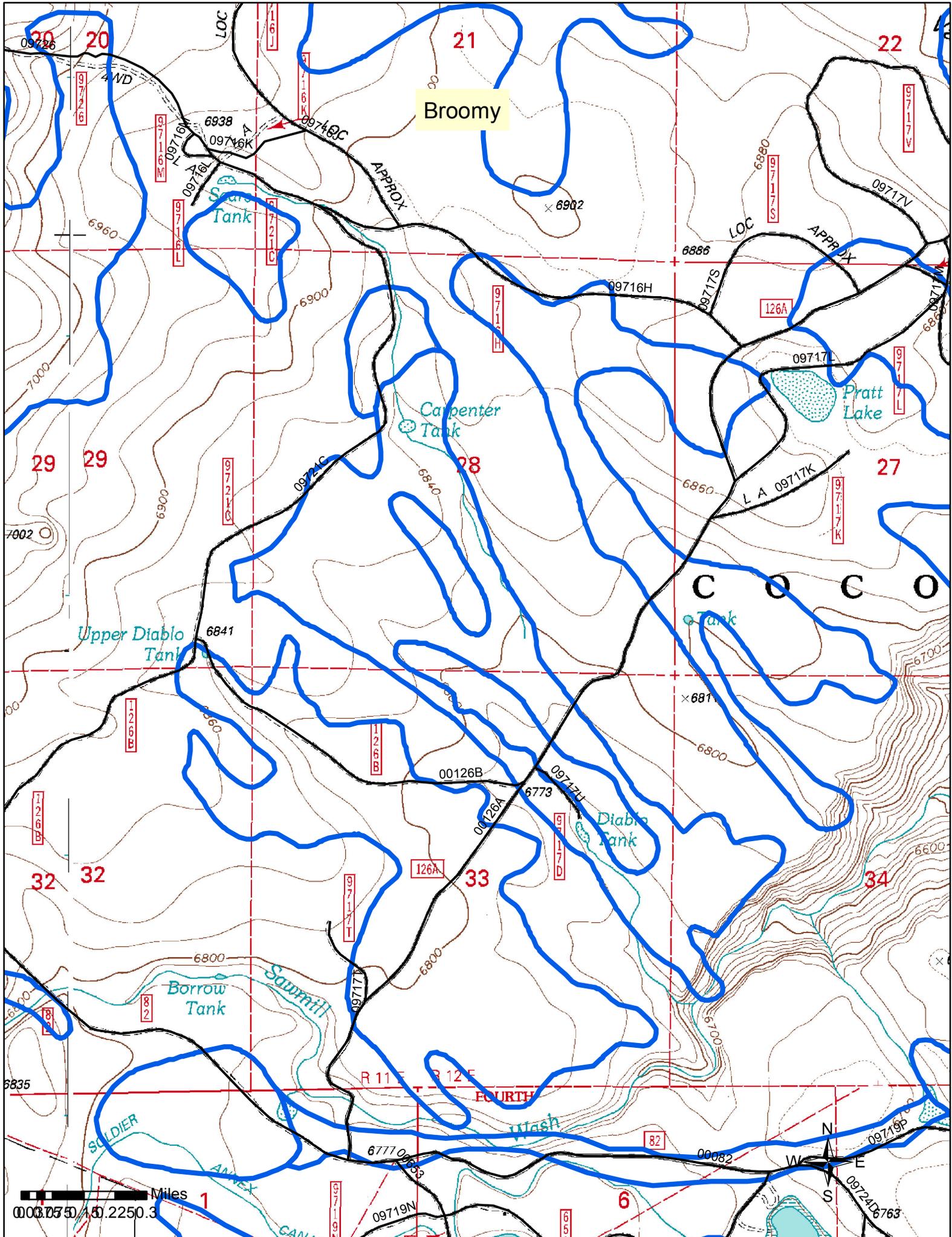
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PROPOSED TREATMENT AREAS

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BURNED SUMMER 2010





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