

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

Game Branch / HPC Project Number:	11-107
Possible Funding Partners:	

**PROJECT INFORMATION**

**Project Title:** Railroad Allotment P/J Thinning and Grassland Maintenance (Phase II)

**Region and Game Management Unit:** Region I / GMU 3C (North of Hwy 260)

**Local Habitat Partnership Committee (LHPC):**

- Show Low

**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:** Pinyon / Juniper Mechanical Thinning

**Brief Project Summary:** The goal of the project is to continue with long term landscape restoration treatments in transition/winter range grassland habitat across the northeast region of Unit 3C. The project area provides year-round habitat for pronghorn, elk and mule deer in addition to important winter range habitat for elk and deer herds south of Highway 260. The local Forest Service Ranger District (Lakeside) has been working closely with AGFD Wildlife Managers to identify treatment areas and complete archaeological clearances. Phase I of this project started in 2009 with the use of WCF dollars to complete P/J thinning in a 992 acre block. In 2010, Lakeside Ranger District used stimulus dollars and RAC grants to mechanically treat another 612 acres in the project area. Total area to be treated with funding of this project (Phase II) is 2,467 acres. AGFD and the Lakeside Ranger District have already started identification of treatment areas and Archaeological Clearances in Phase III.

**Big Game Wildlife Species to Benefit:** Habitat enhancement for elk, mule deer and pronghorn

**Implementation Schedule** (Month/Day/Year):

Project Start Date:  
March 2012

Project End Date:  
March 2013

**Environmental Compliance:**

NEPA Completed: YES[X] No[] N/A[]

Projected Completion Date: September 2007

State Historic Preservation Office - Archaeological Clearance:

YES[X] No[] N/A[]

Projected Completion Date: See attachment from FS Archaeologist

Arizona Game and Fish Department EA Checklist: N/A[]

To be Completed by: Paul Greer

Projected Completion Date: February 2012

**PROJECT FUNDING**

**Special Big Game License Tag Funds Requested:**

\$ 93,025

**Cost Share or Matching Funds:**

\$ 119,000

**Total Project Costs:**

\$ 212,025

**PARTICIPANT INFORMATION**

**Applicant** (please print):

Paul Greer

**Address:**

2878 E. White Mtn. Blvd. Pinetop, 85935

**E-mail:**

jgreer@azgfd.gov

<b>Telephone:</b> (928)358-8905	<b>Date:</b> 8/27/11
<b>AGFD Contact and Phone No.</b> (If applicant is not AGFD personnel):	
<b>Project has been coordinated with:</b> Charlie Denton, Wildlife Staff, Lakeside R.D.; Sandra Arazi-Coombs, District Archaeologist, Lakeside R.D.; Kay Perkins (Permittee)	

**NEED STATEMENT – PROBLEM ANALYSIS:**

The Railroad allotment encompasses approximately 88,000 acres of National Forest land. Large portions of this allotment contain grasslands that have been invaded by relatively new stands of Pinyon/Juniper (P/J) vegetation. This encroachment of P/J trees has resulted in a decrease in the historic amount of herbaceous and woody browse plant production. The encroachment has also caused habitat fragmentation of the pronghorn habitat that exists within the grassland/juniper savannah. This project will treat the existing grassland openings by mechanical mastication of the P/J vegetation, as well as create a few corridors through thinning of P/J vegetation to improve connectivity of pronghorn habitat blocks. Additionally, the removal of this new P/J growth, in tandem with the newly developed grazing guidelines, will serve to allow for an increase in the production of herbaceous and woody browse plants.

**PROJECT OBJECTIVES:**

The Allotment Management Plan for the Railroad grazing allotment was reanalyzed and completed in September of 2007. This effort will allow appropriate livestock grazing levels for the allotment based on current range conditions. This analysis allows for a total of 10,000 acres each of grassland and woodland P/J thinning to be implemented on the allotment to restore woodland and grassland habitat structure and productivity. The project area contains year-round habitat for pronghorn as well as elk and mule deer. The project area also serves as critical winter range for mule deer and elk herds found south of Highway 260. Department personnel have worked cooperatively with Lakeside District personnel to initially identify 4,019 acres of grassland habitat for restoration thinning treatments. A large block of approximately 2,467 acres has been identified for this current proposal (Phase II). This block contains soil types that are conducive to the production of herbaceous vegetation (grasses and forbs). Additionally the woody browse component on the project area, including silver sagebrush and four wing saltbush, will benefit from the removal of the existing P/J canopy. Following are specific objectives to be accomplished by the mechanical mastication of P/J vegetation as proposed by this project:

- Restoration of grasslands and improved pronghorn, elk and mule deer habitat conditions.
- Improved forage quality and quantity within elk and mule deer winter range habitat.
- Increase connectivity of isolated pronghorn habitat blocks found in northern Unit 3C by the creation of open corridors among dense P/J vegetation.
- Modify vegetative class to allow for natural fire cycle to be reintroduced back into the ecosystem.
- Improve watershed conditions.

## **PROJECT DESCRIPTION AND STRATEGIES:**

Remove invading P/J vegetation from up to 10,000 acres on the allotment that is grassland habitat. This is a landscape level project that includes 1,552 acres already treated (Phase I) which started with the funding of an HPC grant proposal submitted in 2008. The project has been tiered into 3 phases. The project is now in Phase II. AGFD Region I is currently identifying treatment areas in cooperation with the Lakeside Ranger District for Phase III. With NEPA already complete, the Lakeside District has identified funds to start Archaeological Surveys in treatment areas within Phase III. The District's willingness to proactively complete Archaeological Surveys within Phase II has become a significant contributor to the success and efficiency of this project.

Thinning activities in Phase II and III will use mechanical mastication to remove most trees within the proposed project area. Pinyon and juniper trees will be removed to reduce visual barriers for pronghorn antelope and to improve the quality and quantity of herbaceous and woody browse plant production. In larger treatment areas, some trees will be left in clumps or stringers to facilitate movement/use by elk and deer in the form of hiding and thermal cover.

### **Phase I (COMPLETED):**

Railroad Hand Thinning Block – 992 acres

Cost: \$54,750

Funding Sources: WCF dollars

Bull Hollow Block A (mechanical mastication) – 560 acres

Cost: \$42,000

Funding Source: ARRA federal stimulus money

**Total Treatment Area: 1,552 acres (Completed)**

**Total Cost to Treat: \$96,750 (Already Spent)**

### **Phase II (Current HPC Grant Proposal)**

Bull Hollow Block B (mechanical mastication) – 490 acres

Archaeological Surveys Completed 2010

Cactus Flat Block (mechanical mastication) – 1187 acres

Archaeological Surveys Completed 2010

Umbrella Flat Block (mechanical mastication) – 790 acres

266 acres Archaeological Survey Completed 2011

524 acres Archaeological Surveys Ongoing - to be completed by December 2011

(See attached letter from District Archaeologist)

**Total Treatment Area: 2,467 acres**

**Total Cost to Treat: \$185,025 (at \$75/acre)**

### **Phase III (Proposed for Treatment in 2013-2014):**

Antelope Block (mechanical mastication) – 1,760 acres

Rattlesnake Block (mechanical mastication) – 2,240 acres

Walker Lake Block (mechanical mastication) – 800 acres

**Total Treatment Area: 4,800 acres**

**PROJECT LOCATION:**

Lakeside Ranger District, Apache Sitgreaves National Forest, Navajo County, Arizona. Townships: T 11N, R 19E; T 11N, R 20E; T 11N, R 21E; T 12N, R 19E; T 12N, R 20E; T 12N, R 21E ; various sections (See attached map).

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

USDA Apache Sitgreaves National Forest, Lakeside ranger District. There is no private land within the project area.

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

**HABITAT DESCRIPTION:**

Great Basin Grassland, P/J transition woodland. Elevation range: 5800 to 6400 ft.

**ITEMIZED USE OF FUNDS:**

P/J thinning in historic grassland habitat will be conducted by a private contractor utilizing mechanical mastication, likely a grinder attached to a skid steer. Thinning costs will be reimbursed at a rate of \$75 per acre or less, if bids from contractors come in less than \$75/acre treatment size will increase. All awarded funds from this proposal will be transferred to the current grazing permittee through an AZGFD Big Game Stewardship Agreement. This agreement is a legal document that will require the permittee to reimburse a thinning contractor for thinning services rendered.

Special Big Game License Tag Funds

**\$93,025 (for mechanical mastication)**

Cost Share or Matching Funds

**\$27,000 – USFS Stimulus money and RAC grant (Archaeological Surveys)**

**\$42,000 – USFS Stimulus money (for mechanical P/J treatment)**

**\$50,000 – USFS RAC grant (for mechanical P/J treatment)**

**\$119,000 Total Cost Share**

**LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION:**

Charlie Denton, Wildlife Staff, Lakeside Ranger District, USDA Forest Service

Sandra Arazi-Coombs, District Archaeologist, Lakeside Ranger District, USDA Forest Service

Kay Perkins (Permittee)

**PROJECT MONITORING PLAN:**

Photo points will be established in selected areas of the overall project area to document pre and post project vegetative conditions.

**PROJECT MAINTENANCE:**

Resprout on these species is minimal and will not need further treatment.

**PROJECT COMPLETION REPORT TO BE FILED BY:**

Paul Greer, AGFD

**WATER DEVELOPMENT PROJECTS** (*see attached worksheet*):

NA

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

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

**PROJECT TITLE: Railroad Allotment P/J Thinning and Grassland Maintenance (Phase II)**

**1) What is the estimated acreage of the project?**

2,467 acres

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

Mechanical grinder (likely drum grinder or Fecon grinding head attached to skid steer)

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

The grassland maintenance areas within the project range from 50 - 150 trees per acre. The areas of woodland treatment has approximately 250 - 300 trees per acre.

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

Much of the treatment area is grassland maintenance which consists of newly emergent shaggy-bark junipers with an estimated average diameter at root crown of 5 inches. In the woodland treatment areas, pinyon and shaggy-bark juniper trees are estimated to be 8 inch average diameter. Junipers are multi-stem and pinyons are single stem.

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

The terrain is gently rolling slopes with clay and loam soils. Rocky areas will not be treated.

**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:

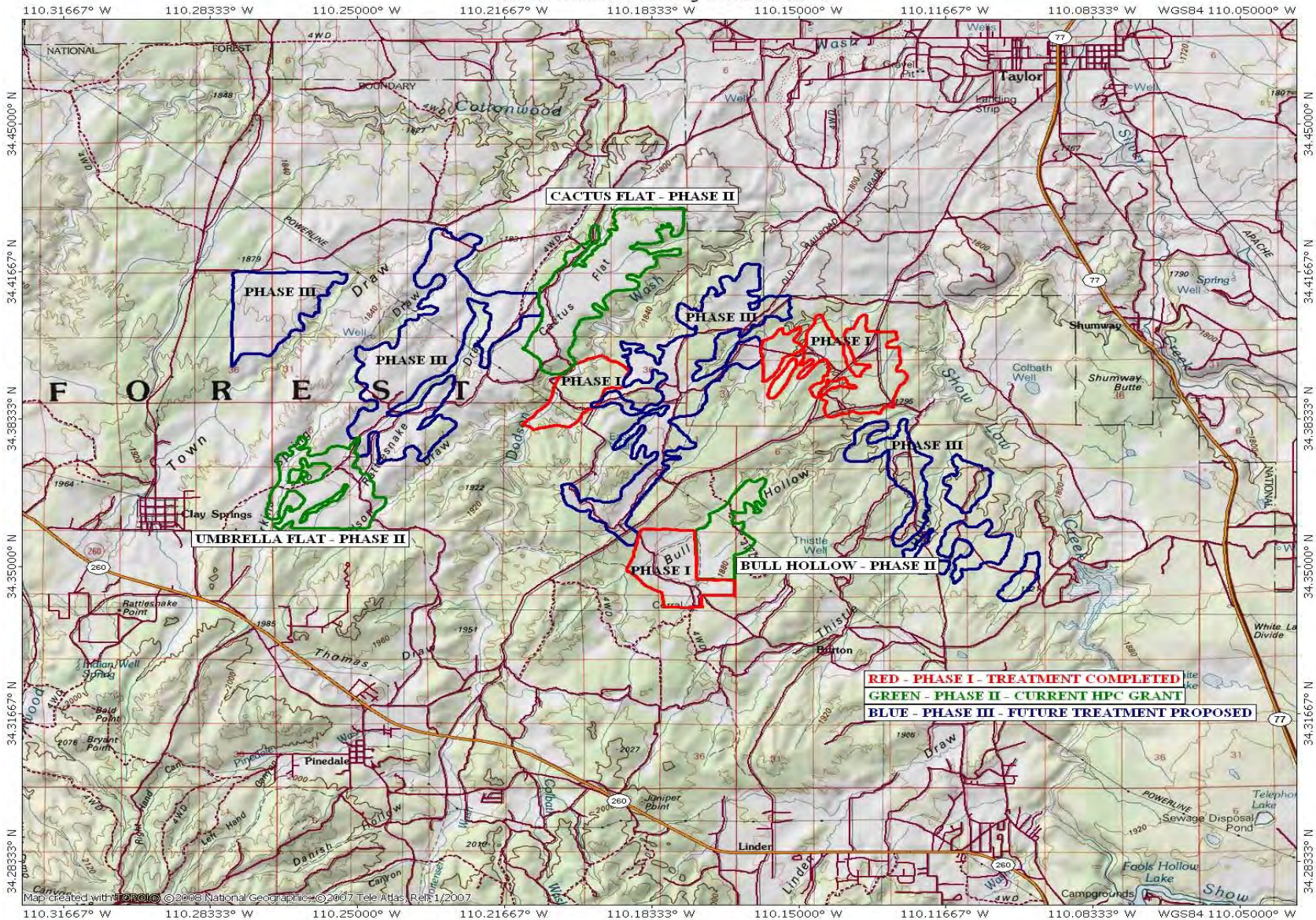
Does access to this site require crossing private or tribal lands? YES NO

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

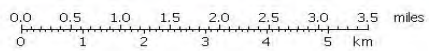
Please describe any restrictions to public access:

None

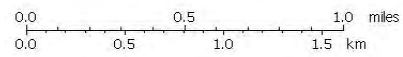
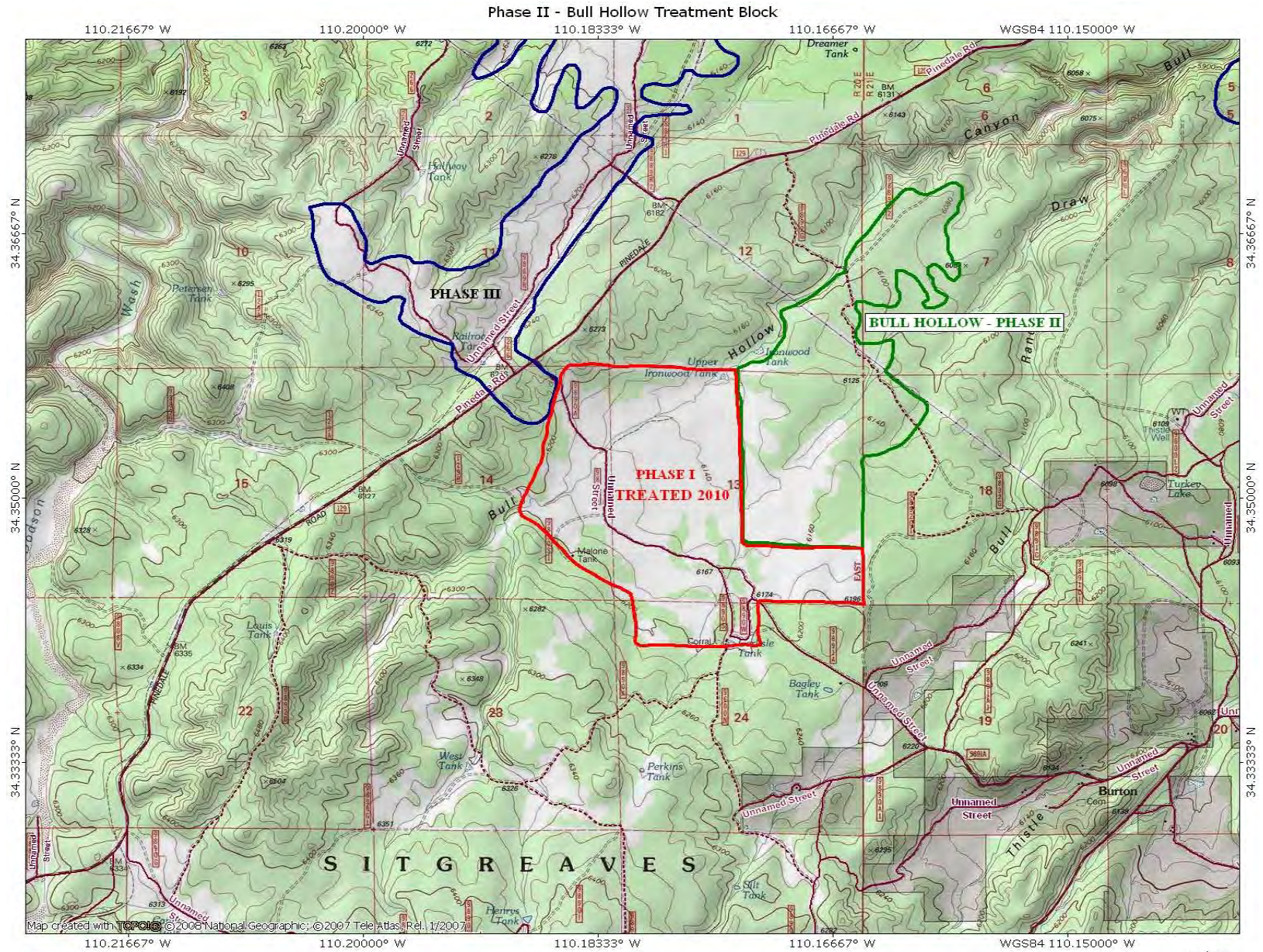
Railroad Allotment Thinning PHASES 1 thru 3



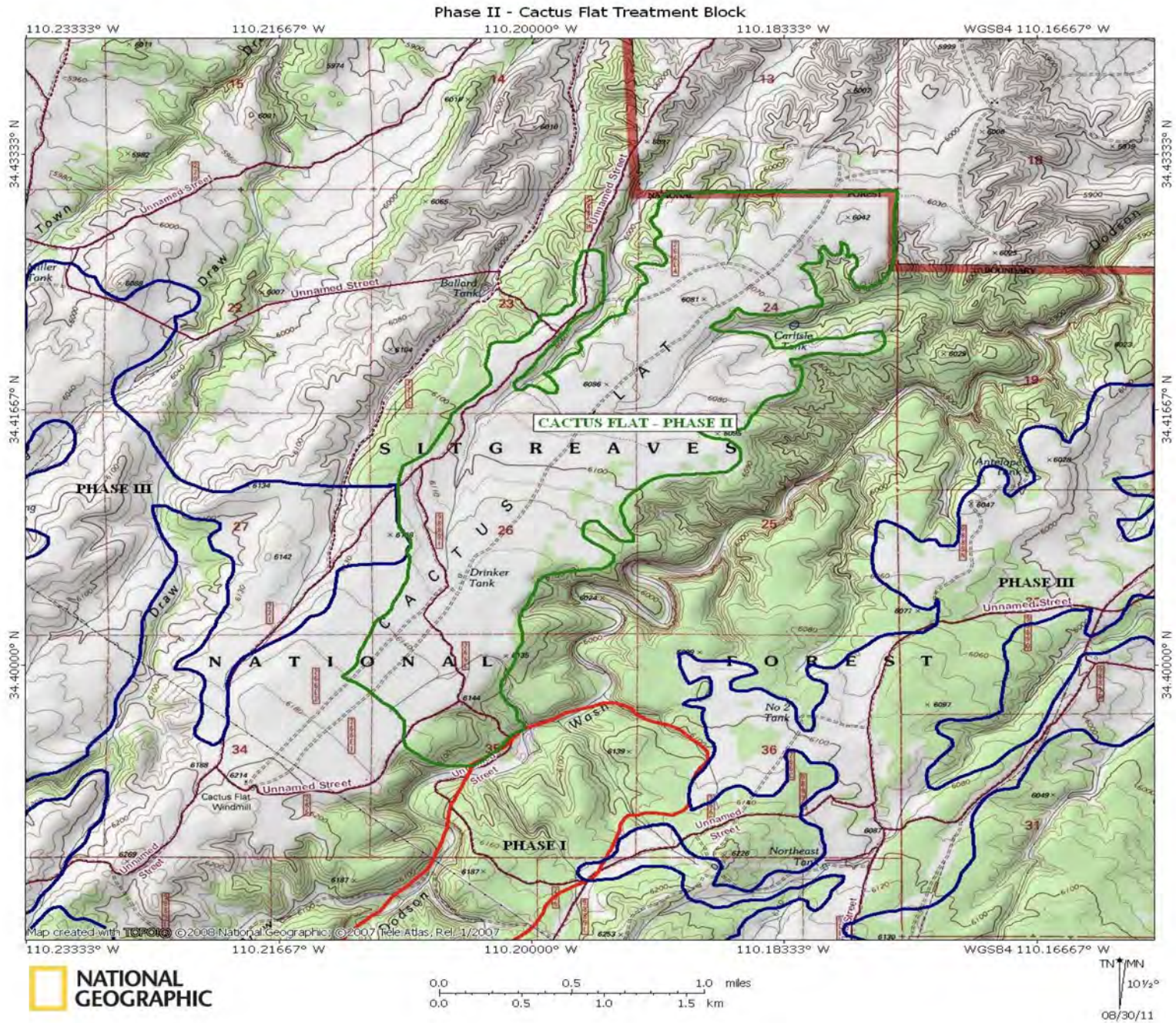
**RED - PHASE I - TREATMENT COMPLETED**  
**GREEN - PHASE II - CURRENT HPC GRANT**  
**BLUE - PHASE III - FUTURE TREATMENT PROPOSED**

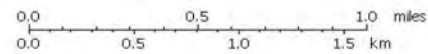
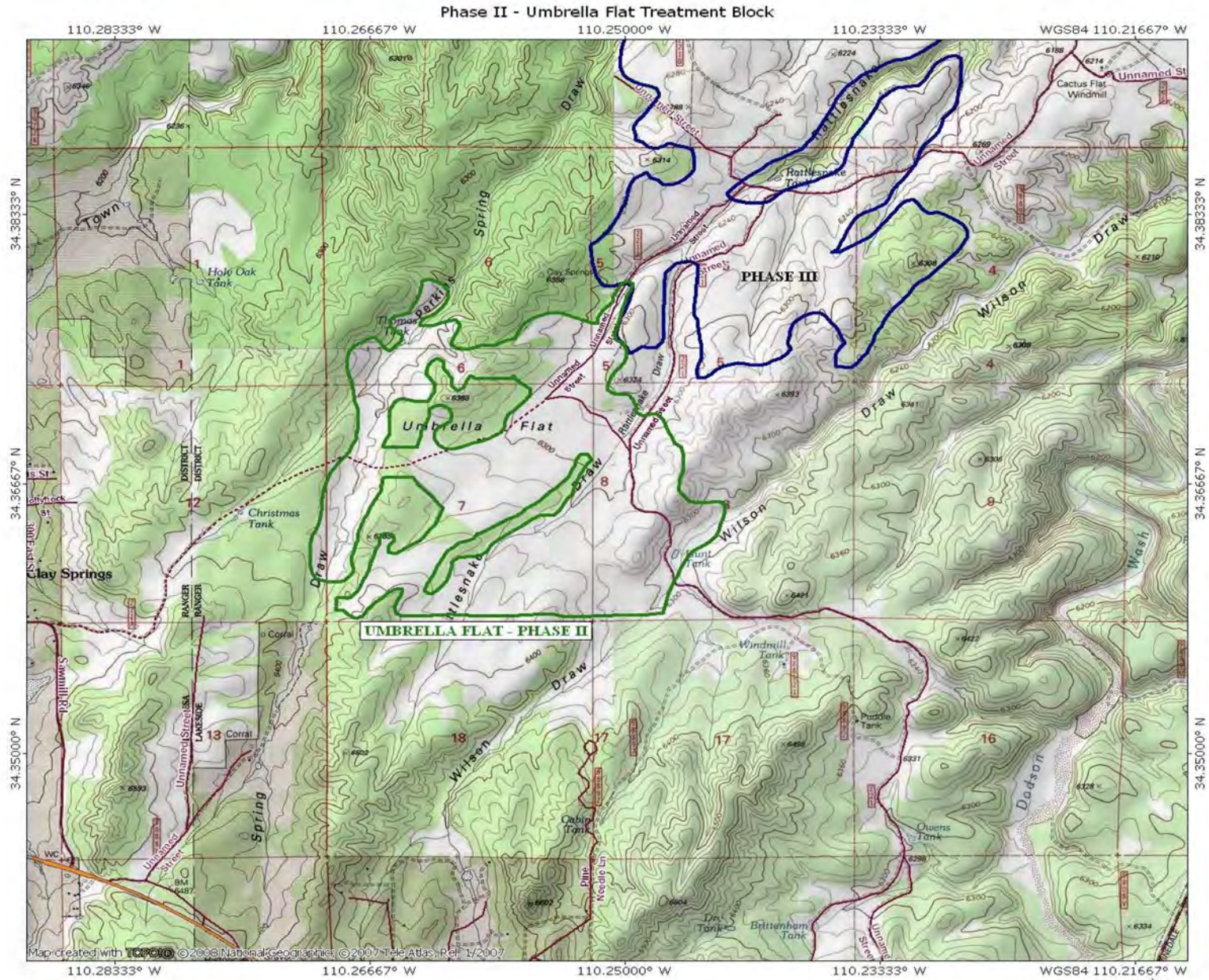


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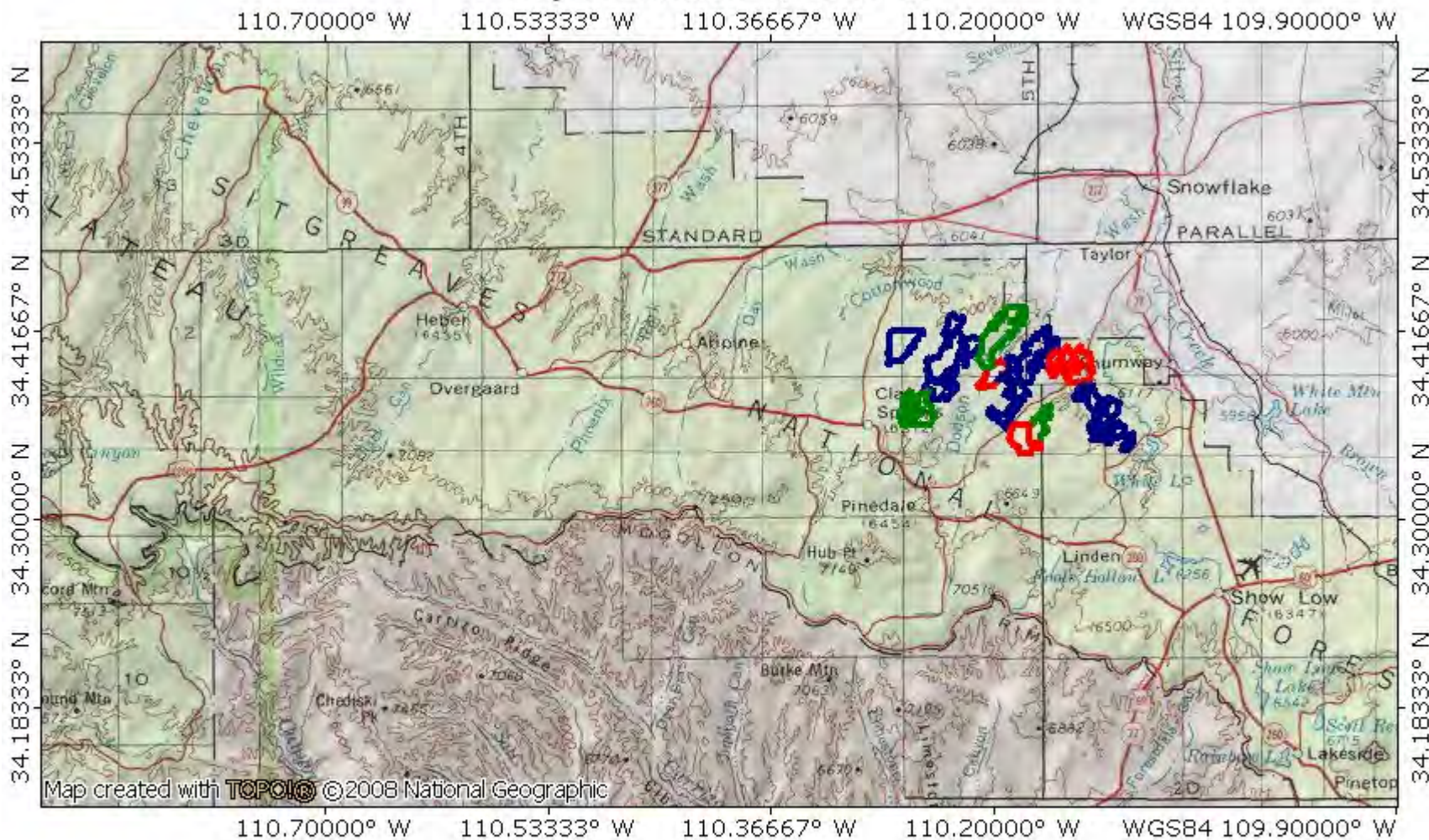








### Project Location w/i GMU 3C



Map created with **TOPO!** ©2008 National Geographic

