

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

Game Branch / HPC Project Number:	12-106
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<b>PROJECT INFORMATION</b>
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<b>Project Title:</b> GMU 1 Pronghorn Seasonal Movement Study	
<b>Region and Game Management Unit:</b> Region 1/ GMU 1	
<b>Local Habitat Partnership Committee (LHPC):</b> • Alpine/Springerville	<b>Was the project presented to the LHPC?</b> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
<b>Has this project been submitted in previous years?</b> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> If Yes, was it funded? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> → <b>HPC Project #:</b>	
<b>Project Type:</b> Research	
<b>Brief Project Summary:</b> GPS tracking collars will be applied to a sample of pronghorn summering in high elevation grasslands in GMU 1. Tracking collars will be programmed to increase waypoints recorded during fall and spring migration periods. The location information will be used to determine selected migration routes and highway crossings.  Department personnel would conduct capture operation, retrieve collars, and analyze location/movement data.  The completed report would be shared with staff from the Apache-Sitgreaves National Forest and the Arizona Department of Transportation.	

**Big Game Wildlife Species to Benefit:** Pronghorn

<b>Implementation Schedule</b> (Month/Day/Year):  Project Start Date: 10/2013   Project End Date: 10/2015	<b>Environmental Compliance:</b> NEPA Completed: YES <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Projected Completion Date: _____  State Historic Preservation Office - Archaeological Clearance: YES <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Projected Completion Date: _____  Arizona Game and Fish Department EA Checklist: N/A <input type="checkbox"/> To be Completed by: <u>Tyler Richins</u> Projected Completion Date: <u>December 2013</u>
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<b>PROJECT FUNDING</b>
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<b>Special Big Game License Tag Funds Requested:</b>	\$ 31,950.00
<b>Cost Share or Matching Funds:</b>	\$ 25,960.00
<b>Total Project Costs:</b>	<b>\$ 57,910.00</b>

## PARTICIPANT INFORMATION

<b>Applicant</b> (please print): Tyler Richins Wildlife Manager AGFD,	<b>Address:</b> 2878 E. White Mountain Blvd., Pinetop, AZ 85935	<b>E-mail:</b> trichins@azgfd.gov
<b>Telephone:</b> Tyler (928) 240-2493		<b>Date:</b> 6/19/2012
<b>AGFD Contact and Phone No.</b> (If applicant is not AGFD personnel):		
<b>Project has been coordinated with:</b> United States Forest Service, Apache-Sitgreaves National Forest, Arizona Antelope Federation		

### NEED STATEMENT – PROBLEM ANALYSIS:

The majority of land in GMU 1 is Public Land. It is comprised of approximately 75% United States Forest Service land and 16% State Trust land. This provides a great management opportunity that may allow for the maintenance of a substantial pronghorn population in Arizona. Within GMU 1 there are high quality summer ranges that occur on United States Forest Service land at elevations of approximately 9,000 feet. On these high elevation ranges the fawn:doe ratio is often much higher than the ratio observed in the pronghorn populations that use the lower elevation grasslands. These ranges are separated from each other by large stands of ponderosa pine and mixed conifer forests. Pronghorn leave the high elevation summer range during winter. The migration corridors by which these pronghorn move between summer and winter range are unknown.

A majority of the project area and anticipated movement corridors are within the burn perimeter of the 2011 Wallow Fire. The fire has had a significant impact on the forest landscape. Projects are being conducted to maintain and improve the forest, salvage lumber, and replace pasture fences. Additionally, the USFS is working on a new management structure, Four Forest Restoration Initiative (4FRI), that is anticipated to go into effect in 2014. This is a great time and opportunity to collect important data that will help direct future management projects to improve and maintain pronghorn movement on and off these summer ranges.

In addition to identifying these migration corridors, the collected data may also help identify locations where pronghorn cross AZ Highway 260, AZ Highway 273 (recently paved), and to a lesser extent AZ Highway 60. The identification of highway crossings will help with future projects to improve highway permeability for pronghorn and to address mitigation measures for any future highway expansion projects. The final report will be shared with ADOT.

AGFD Region I personnel have ranked this project as a top priority research need in the Region.

## **PROJECT OBJECTIVES:**

### Primary

- a) Identify pronghorn migration corridors from high elevation to low elevation grasslands and direct habitat and forest treatments to these areas in order to maintain access to high quality seasonal habitats via these areas.
- b) Identify highway crossings used by pronghorn in order to address future highway expansion projects and maintain/ improve their permeability to pronghorn.

### Secondary

- c) Identify fawning areas in the high elevation grasslands.
- d) Identify mortality rates of pronghorn using the high elevation grasslands.
- e) Identify how pronghorn are using the high elevation grassland habitat.

## **PROJECT DESCRIPTION AND STRATEGIES:**

- a) Capture and affix GPS tracking collars to a subset of pronghorn utilizing high elevation habitats.
- b) Analyze GPS location data to identify migration corridors and highway crossings.
- c) Collars will be collected by AZGFD employees when they drop off the animals.
- d) Any mortalities will be investigated by area wildlife managers.

## **PROJECT LOCATION:**

Captures/collaring will occur on the grasslands north and northeast of Big Lake (From Pool Corral Lake southeast to Crosby Crossing) and possibly at one or more of the following locations: Lee Valley north to the grasslands surrounding Norton Reservoir and CC and Gillespie Flats (west-northwest of Greens Peak).

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

The project will take place on public lands that are administered by the United States Forest Service, Apache-Sitgreaves Forest, Alpine and Springerville Ranger Districts.

## **HABITAT DESCRIPTION:**

Subalpine grasslands dominated by bunchgrasses, principally *Festuca arizonica*. Elevation averages 2,750 meters (~9,000 feet).

**ITEMIZED USE OF FUNDS:**

Special Big Game License Tag Funds

\$10,550.00 -Helicopter capture time (\$5,275.00/day x 2 days (appx. 14 hours))

\$14,400.00 -Lotec Satellite Tracking collars (6 x \$2,400.00 each)

\$ 7,000.00 -Airtime charges (24 months, 5 x \$1,4000 each)

Cost Share or Matching Funds

\$9,600.00 -Lotec Satellite Tracking collars by USFS, Apache-Sitgreaves (4 x \$2,400.00)

\$7,000.00 -Airtime Charges covered by USFS, Apache-Sitgreaves (5 x \$1,400.00)

\$3,300.00 -Fixed Wing Aircraft, AGFD (22 hours x \$150.00/hour)

\$3,240.00 -Wildlife Managers, AGFD (12 personnel x \$135.00/day x 2 days)

\$1,050.00 -Wildlife Specialists, AGFD (3 personnel x \$175.00/day x 2 days)

\$1,020.00 -Per Diem, AGFD (15 personnel x \$34.00/day x 2 days)

\$550.00 -Mileage, AGFD (1000 miles x \$0.55/mile)

\$200.00 -Miscellaneous items, AGFD (paper, batteries, etc.)

**LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION:**

The United States Forest Service, Apache-Sitgreaves Forest, Alpine and Springerville Ranger Districts.

**PROJECT MONITORING PLAN:**

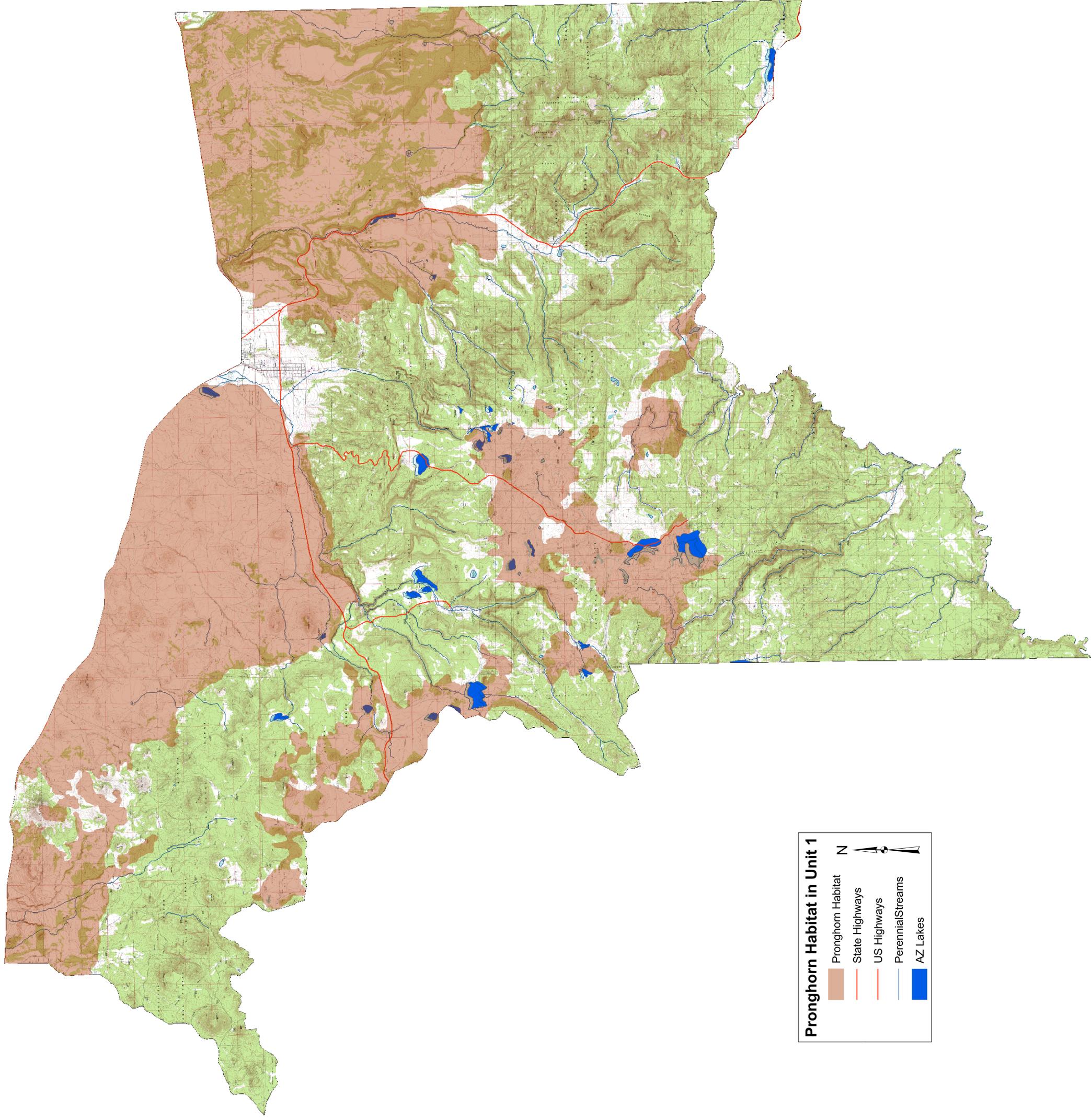
Collars and animals will be monitored several times a week for movement and mortalities. Tyler Richins and Rick Langley will coordinate the analysis of movement data.

**PROJECT MAINTENANCE:**

None

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

The GMU 1 wildlife manager will file the completion report.

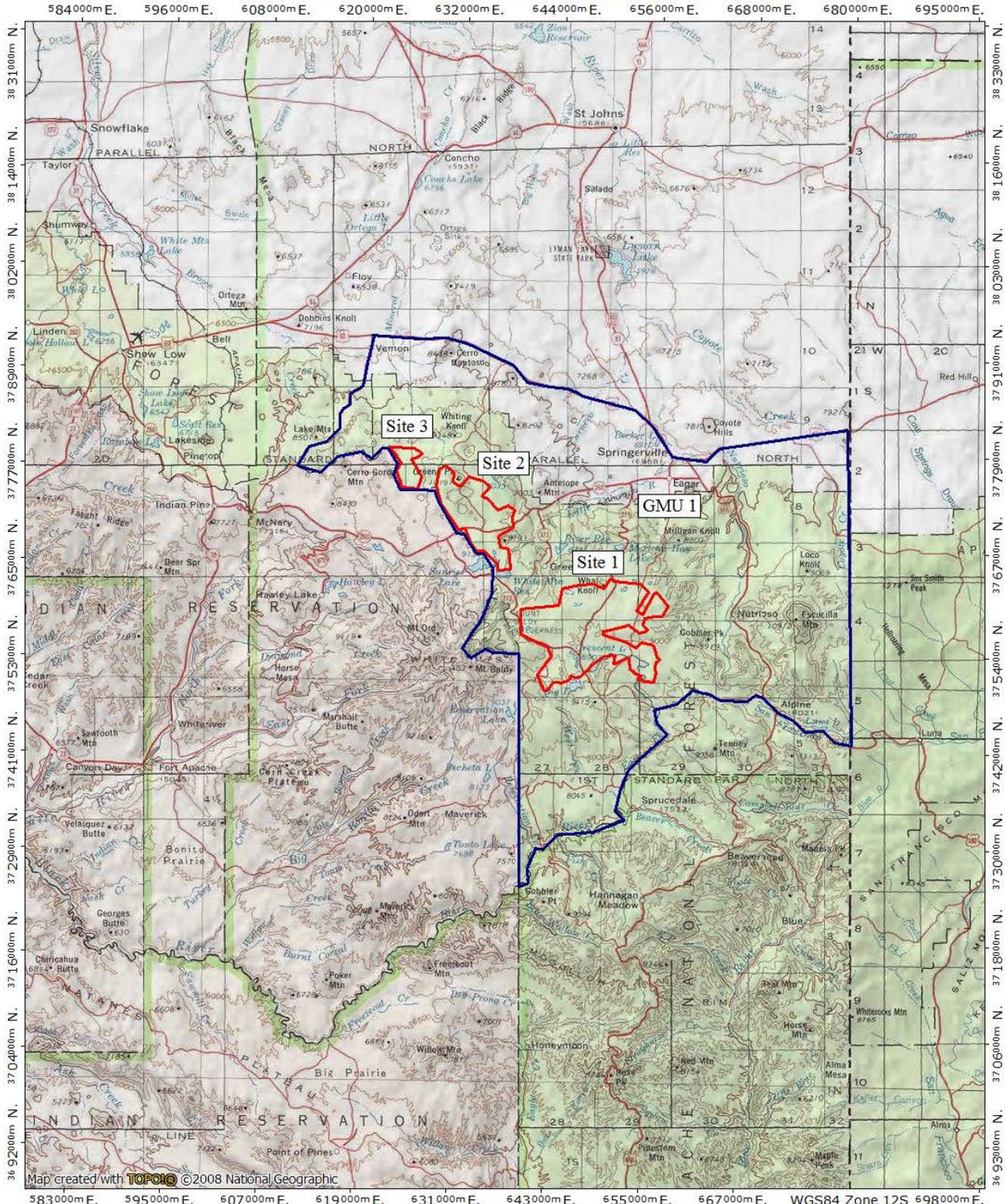


**Pronghorn Habitat in Unit 1**

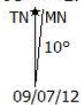
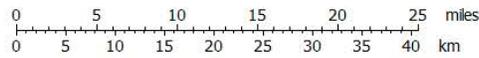
	Pronghorn Habitat
	State Highways
	US Highways
	Perennial Streams
	AZ Lakes

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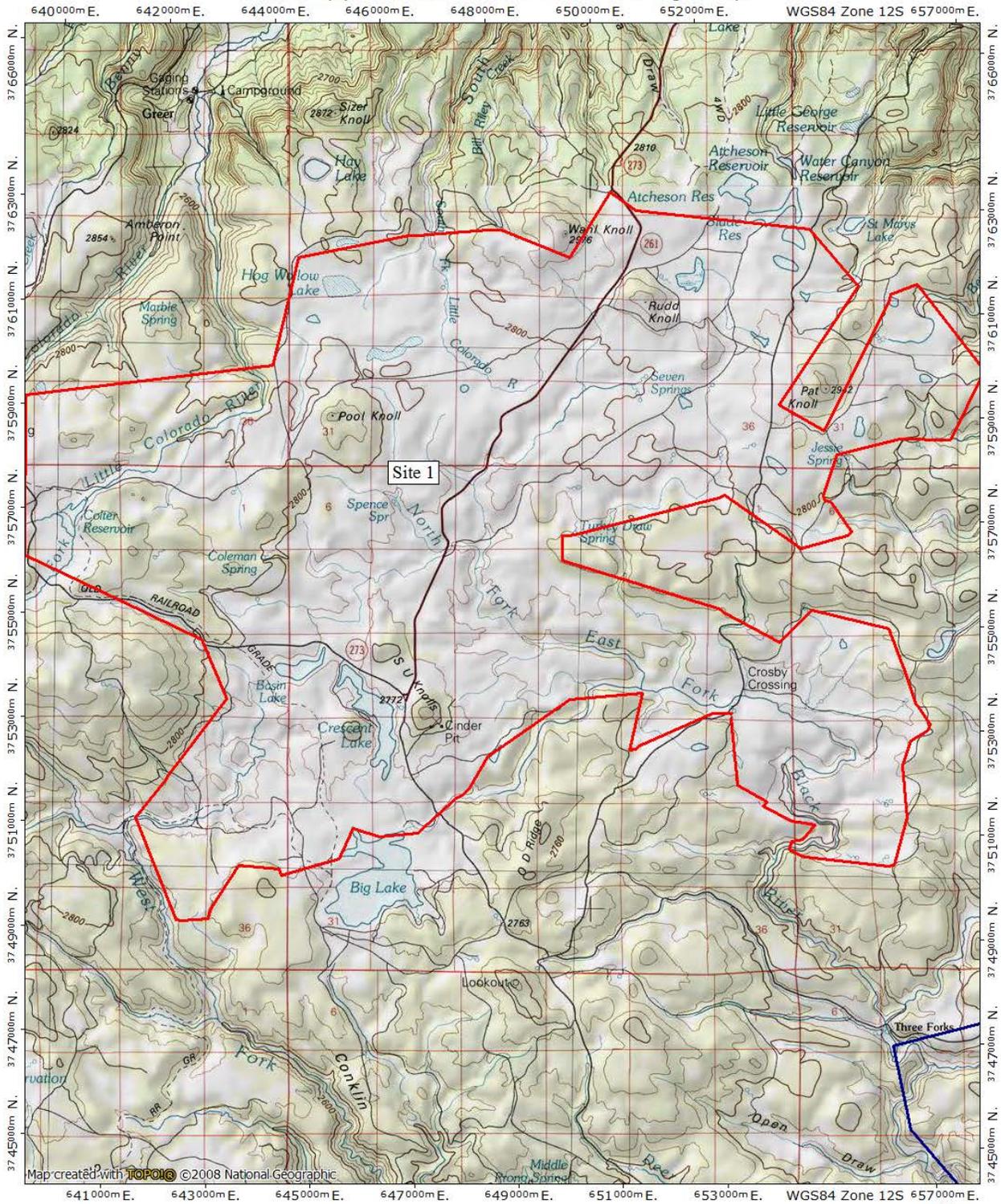
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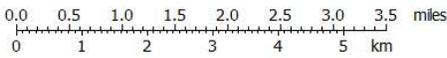
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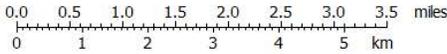
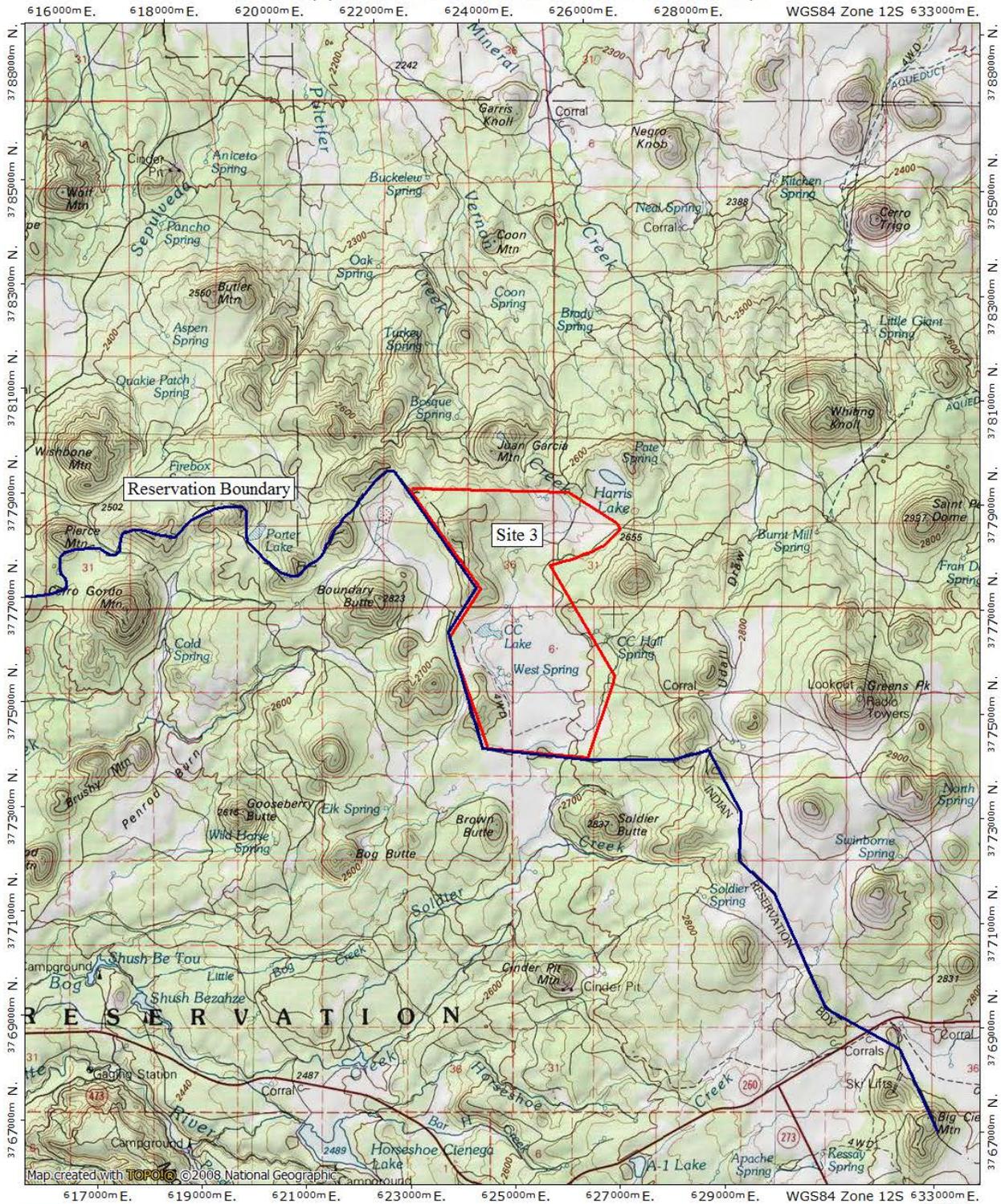


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