

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

Game Branch / HPC Project Number: [REDACTED]

**PROJECT INFORMATION**

**Project Title:** Turtle Mountain Wildlife Enhancement Project

**Region and Game Management Unit:** 28

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

**Was the project presented to the LHPC?**  
YES[X] NO[]

**Has this project been submitted in previous years?** YES[X] NO[]

**If Yes, was it funded?** YES[X] NO[] → **Funded HPC Project #(s):** 12-502

**Project Type:** Water Development

**Brief Project Summary:** Turtle Mountain Wildlife Enhancement Project will replace, enhance and multiply the number of watering facilities on Turtle Mountain. Due to the drought reliable watering sources such as springs and dirt tanks have dried up. This project will be a viable low maintained and critical implementation for all wildlife on Turtle Mountain. We will focus primarily on Big Horn Sheep.

**Big Game Wildlife Species to Benefit:** Rocky Mountain Big Horn Sheep, Mule Deer, White Tail, Javelin, Bears and Lions.

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

Project Start Date: 10/01/2014

Project End Date: 03/31/2016

**Environmental Compliance:**

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

Projected Completion Date: \_\_\_\_\_

State Historic Preservation Office - Archaeological Clearance:

Yes[] No[] N/A[X]

Projected Completion Date: Most practices are existing

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:** 26,400 ft HDPE pipe

\$ 33,000.00

**Cost Share or Matching Funds:**

\$ 246,346.83

Previous HPC Grant \$ 29,624

FSA emergency drought program funds \$80,300 (solar pumps, labor, spring development and pump house)

DBHSS \$35,000 (helicopter)

Noland Ranch \$97,100 (tank & trough install, road reconstruction using D8)

Volunteer Rates: \$4,322.83

**Total Project Costs:**

\$ 279,346.83

**PARTICIPANT INFORMATION**

**Applicant (please print):**

**Address:**

**E-mail:**

<b>Telephone:</b> [REDACTED]	<b>Date:</b> 08/13/2013
<b>AGFD Contact and Phone No.</b> (If applicant is not AGFD personnel): [REDACTED]	
<b>Project has been coordinated with:</b> [REDACTED] - USDA, NRCS Safford Field Office, [REDACTED] - DOI, BLM Safford Field Office, [REDACTED] [REDACTED] - Desert Big Horn Sheep Society, [REDACTED] - Bat Conservation International, [REDACTED] - Gila Watershed Partnership	

### **NEED STATEMENT – PROBLEM ANALYSIS:**

The recent drought in Arizona has caused reliable water sources such as springs and dirt tanks to dry up on our ranch and most ranches in southern Arizona. This has caused over grazing in areas where there is water such as creeks and rivers. Wild animals (big game) are forced to compete with livestock such as cattle for water and feed. There has been a decline in big game species over the years because of this problem.

### **PROJECT OBJECTIVES:**

- a) Increase the number of reliable watering facilities for big horn sheep, mule deer, and white tail deer.
- b) Replace the current watering facilities to operate year round.
- c) Improve forage quality for all game species.
- d) Improve wildlife survival rate by expanding the current watering system away from dead end predator locations.
- e) Control the number of livestock in riparian areas such as Eagle Creek and Gila River.

### **PROJECT DESCRIPTION AND STRATEGIES:**

- a) Replace current watering facility with reliable year round running water on wintering range for big horn and deer.
- b) Reconstruct an additional eight watering facilities for all wildlife.
- c) Construct a barrier fence along Lower Eagle Creek to keep cattle off of the creek ten months out of the year.
- d) Increasing the water on the uplands will allow wildlife to escape from intense predation in the riparian areas during the hot months of the year.

### **PROJECT LOCATION:**

Turtle Mountain Allotment Graham/Greenlee Counties.  
Township 5 South, Range 28 East, Sections: 2,3,4,9,10,14,15,16,22,23,24  
The allotment is east of the Apache Reservation, north of the Gila Box Riparian Conservation Area, west of the Freeport Mc Moran Copper Mine, and South of the USDA Forest.

### **LAND OWNERSHIP AT THE PROJECT SITE(S):**

(if the project area is private property, please state specifically and provide the landowner's name)

- DOI, BLM Safford Field Office

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

YES[] NO[] N/A[]

## **HABITAT DESCRIPTION:**

Elevations and vegetation communities on the ranch are diverse average elevation is 5000 ft. The topography of the ranch consists of mountains, valleys, mesas, and three major river corridors. Vegetation is characterized by Chihuahu desert scrub, semi-desert grasslands, Great Basin conifer woodland, mountain conifer forest, and riparian communities along the Gila, San Francisco, and Eagle rivers.

Turtle Mountain allotment is west of Lower Eagle Creek, a privately owned creek where cattle are ~~not~~ prohibited on the 23 miles of riparian water ways year round. Eagle Creek is also used as a migration corridor for all types of birds and animals traveling from the deserts to the forest. The uplands of Turtle Mountain contain a range of big game and nongame species. Mule deer and big horn are the most heavily populated big game species you will find. Populations of big horn are doing so well in Eagle Creek, they have become transplants for other areas of Arizona. In years past predation has been the main concern in the decline of numbers for big game and non game species. The lack of reliable waters for wildlife has limited water resources allowing predators more of an advantage during hot seasonal months. The animals that have suffered as a direct result to the predation are; mule deer, turkey, javalina, and cattle. Turtle Mountain is home to healthy community of big game predators such as black bear and mountain lion. They travel by means of riparian areas like Gila River, San Francisco and Eagle Creek. They travel between the boundaries of Turtle Mountain and San Carlos Reservation. I believe we have an abundance of predators because they travel back and forth from the reservation where they are not hunted, and also because we are situated so close to four major water traveling routes including Bonita Creek.

## **ITEMIZED USE OF FUNDS:**

Special Big Game License Tag Funds

Cost Share or Matching Funds (for volunteer labor rates please refer to the worksheet below)

## **LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION:**

USDA - NRCS have finalized the CRMP for the ranch, FSA will provide cost sharing for this project. BLM - completed NEPA, they will also provide the Archaeological clearances, Desert Big Horn Sheep Society has stated upon approval from HPC committee they would like to provide a helicopter to fly in materials. I have also discussed this project with Jan Holder from the Gila Watershed Partnership and upon available funds for FY 2013 or 2014 she will apply for grant monies to fund the creek barrier fencing.

**WOULD IMPLEMENTATION OF THIS PROJECT ASSIST IN PROVIDING, MAINTAINING, OR FACILITATING RECREATIONAL ACCESS?**

YES[X] NO[] N/A[]

**PROJECT MONITORING PLAN:**

Implementation Monitoring : To improve future management, a record is maintained of all changes in the planned annual livestock operation, numbers of livestock annually, duration of use per grazing pasture, general observations of utilization levels of available forage, forage use patterns, within riparian areas, any observations of wildlife, soil movement, or changes in the land area. Point photographs are used to document changes or observations. Inspections to document observations is conducted where necessary after livestock use patterns have been identified within the allotment. Monitoring points have been established across the project area, in all vegetation associations. Monitoring points included:

1. Fixed point photographs
2. Paced Transects
3. Production/Utilization

The following are examples of adaptive management measures that have been implemented:

- Placement of additional fences to reduce trespass into preserved lands or to reduce grazing pressures.
- Alteration in the duration and timing of grazing, as needed for habitat function and health.
- Modify invasive & noninvasive native plant species control measures.

With the use of our ranch monitoring mechanisms we have voluntarily reduced the numbers of livestock by an average of 18% in the last 5 years. These actions are a direct result of the implementation of the seven principals used for monitoring.

**PROJECT MAINTENANCE:**

We anticipate this project lasting 20 years, we will use all ASTM approved materials to increase the quality and durability. Our project will include a design that will have minimal maintenance including solar powered pumps, wildlife ramps that include bear proof cages to protect the floats, pressure reduction valves throughout the system, various places of added protection against freeze, we will fuse all pipe to avoid disconnection by animals and weather, automatic shut off valve system to continually fill all storage tanks. Our project will be developed by a licensed engineer and approved by NRCS watering facility standards. Noland Ranch has been ranching at the current location for over 16 years. We are committed to maintaining the new watering system, we have two yearly employees who work on the current pipeline during the seasons of use.

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

[REDACTED]

**WATER DEVELOPMENT PROJECTS** *(please use the worksheet below):*

**TREE CLEARING/REMOVAL PROJECTS** *(please use the worksheet below):*



## **ARIZONA GAME AND FISH DEPARTMENT WATER DEVELOPMENT WORKSHEET**

**PROJECT TITLE:** Turtle Mountain Wildlife Enhancement Project

- 1) **Is the water development listed as a priority in the most recent "Wildlife Water Development Annual Implementation Schedule?"**
- 2) **Please list the Development Branch personnel and date coordinated with for this project.**
- 3) **What is the estimated annual inches of precipitation for the area? (mark one)**  
☐2-4   ☐4-6   ☐6-8   ☐8-10   ☐10-12   ☒12-14   ☐14-16   ☐ >16
- 4) **Is there a perennial water source available to big game within four miles of this project?**

YES☒ (please complete #5 below)   NO☐ (skip #5 below)

- 5) **For the accessible, perennial water source nearest this project:**  
Name of water source: Lower Eagle Creek  
Type of water source (catchment, spring, dirt tank): Creek  
Ownership of water source: Freeport Mc Moran Gold & Copper, Inc.  
Distance in miles from project: Varies from 3-6
- 6) **Is the target wildlife species a result of transplant efforts?** YES☒   NO☐
- 7) **Please list any special land management status for the project site (i.e. Wilderness, National Park, National Monument). If private land, list landowner.**  
Gila National Conservation Area
- 8) **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: 1-5   Approximate hiking time: 6 hours

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

-- Please describe any restrictions to public access:

- 9) **Please list below (or on a separate sheet) the material type and dimensions of each component proposed to be added, modified, or repaired.**

Quantity	Description	Unit	Total Cost
26,400 ft	HDPE black poly pipe	1.25 per foot	\$33,000.00
<b>TOTAL</b>			<b>\$33,000.00</b>

- 10) **Was a site visit completed?** Yes☒   No☐

If Yes, please list personnel that attended and date.

NRCS, BLM has visited the project sites for CRMP & NEPA details

Turtle Mountain is our best allotment the terrain ranges from 4500 feet to over 6500 feet. This allotment is very rugged and remote, mostly accessible by horseback although old existing roads may be improved to allow for ATVs to access most of the project sites. Due to an unreliable watering system on Turtle Mountain cattle live in the riparian areas of Lower Eagle Creek during the dry seasons. When the system isn't running all animals are force into the riparian areas of Lower Eagle Creek there is no other water available on the uplands.

The watering system in place was constructed 30+ years ago, a reliable year round spring at Kitting pumps water to an old rock 10,000 gallon cement storage at Trujillo. From there the water flows with pressure to Virden tank, a steel rim 30,000 gallon storage, from there with pressure it is pumped down past Trujillo tank up to Turtle tank a 30,000 gallon steel rim tank, from Turtle tank there are two different black poly pipes running gravity to Windy and White Mesa. There are also some old existing pipes with cement troughs that haven't been kept in good condition for 20 years.

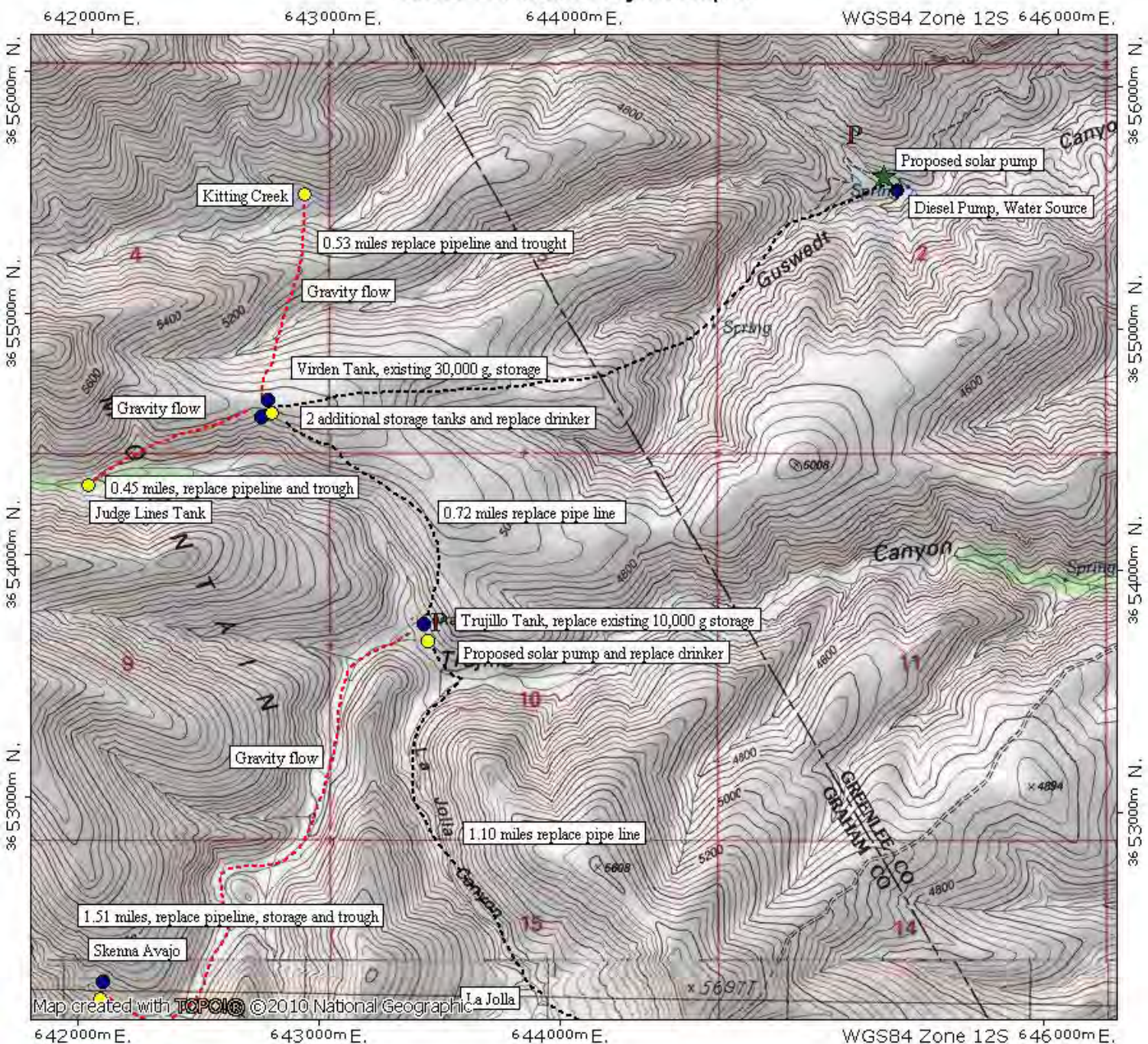
The down fall to the current system is the steel pipe, we have to shut off our watering system on Turtle mountain 6 months out of the year because of frozen conditions. We spend a lot of time and effort trying to replace steel pipe and get the system up and running in the spring (especially if the pipes freeze). The current system is very unreliable due to the steel pipe. The pump uses diesel and often the bears eat the fuel lines that feed the diesel pump, draining all the fuel on the ground. Washed out roads make it impossible to maintain the pump by truck or 4 wheeler, we have to pack all fuel and oil by mules 8 miles to the pump. We also have a problem with bears getting in our storage tanks and troughs and draining all the water (30,000 gallons). The tanks and troughs at Windy and White Mesa are in need of new pipe, storage, and troughs they are not in use at this time.

We propose a new system to replace the old with solar pumps, panels, HDPE black poly pipe, storage tanks, and troughs. We would stay within the same pipeline layout and incorporate old existing practices in non use as well. The system will consist of 4 new solar pumping plants to replace the one diesel pump currently running, 12 miles new HDPE black poly pipe 267, 320 and 400 psi, 14 new storage tanks, 11 new drinkers and all the fittings. The watering system will have a total of 11 areas for wildlife and cattle to drink. This project will affect over 16,000 acres of wildlife habitat and improve 7 miles of riparian corridor in Lower Eagle Creek. We also plan on installing barb wire fencing to control cattle from entering the creek. We plan on doing this by gap fencing using natural barriers and boundaries on BLM land.

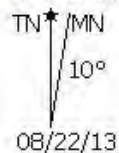
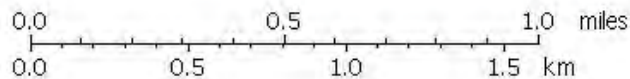
The Noland Ranch has been very patient and waited many years for this project to develop. We have completed our CRMP and now await the final draft of our NEPA due October 2012. Many government agencies support this project and we have all worked together to get to this point. The exact layout of the project will be determined by NRCS as the funding becomes available, Noland Ranch has become a high priority for them. DBHSS has said they would fly by helicopter the pipe, tanks, and troughs, NRCS will fund all labor, pipe and miscellaneous parts, Noland Ranch will provide D8 work and fuel on all existing roads to access the project sites, Volunteers will also be available to help construct the tanks and troughs accessible by ATV, Arizona Water Protection Fund will fund the fencing portion of the project if funding is available FY 2013. We are asking the HPC committee to fund the storage tanks and troughs as matching funds to complete the total project.



# Turtle Mountain Project Map B

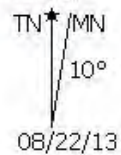
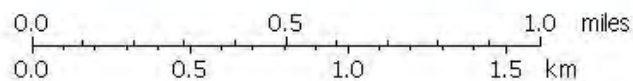
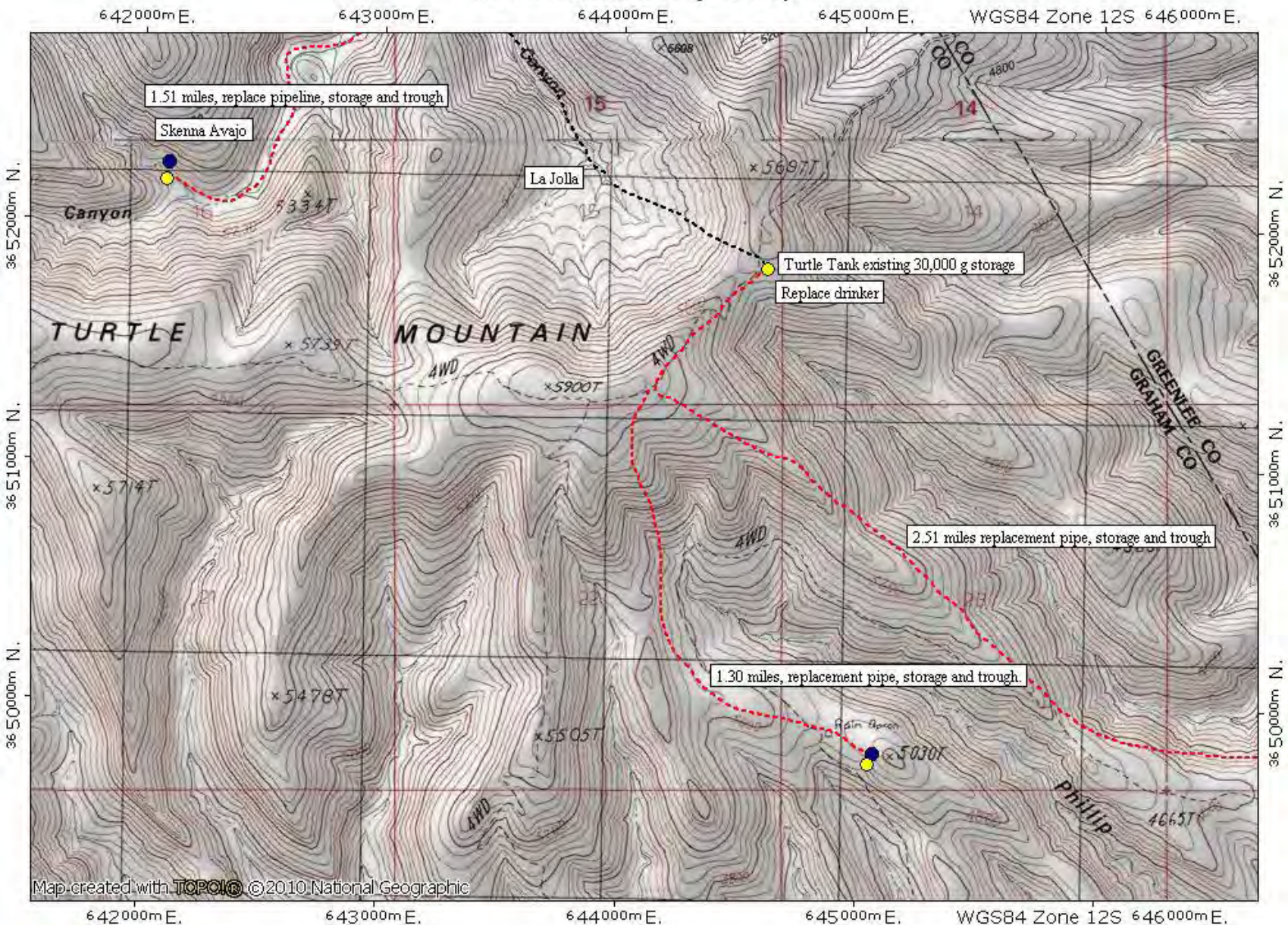


Map created with **TOPOLIC** © 2010 National Geographic





# Turtle Mountain Project Map B



## **ARIZONA GAME AND FISH DEPARTMENT TREE CLEARING/REMOVAL WORKSHEET**

**PROJECT TITLE:** \_\_\_\_\_

- 1) What is the estimated acreage of the project?**
- 2) How are the trees going to be cleared? (agra axe, chain saw, grubbing, push, chaining):**
- 3) What is the estimated number of trees per acre?**
- 4) Describe trees to be cleared (species, estimated diameter, single stem, multi-stem):**
- 5) Describe terrain (slope, soil type, rocks)**
- 6) Please list any special land management status for the project site (e.g. Wilderness, National Park, National Monument). If private land, list landowner.**
- 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 removal equipment? YES ☐ NO ☐

Please describe any restrictions to public access:



## ARIZONA GAME AND FISH DEPARTMENT

# VOLUNTEER HOURLY RATES AND CLASSIFICATIONS WORKSHEET

**PROJECT TITLE:** Turtle Mountain Wildlife Enhancement Project

\$0.445/mile should be the calculation used for mileage.

<b>Water Development</b>	<b>Volunteer Hours</b>	<b>Volunteer Miles</b>	<b>Hourly Rate</b>	<b>Estimated Value</b>
Gustwedt Spring	80	40	\$14.14	1149.00
<b>Habitat Restoration and Clean Up</b>	<b>Volunteer Hours</b>	<b>Volunteer Miles</b>	<b>Hourly Rate</b>	<b>Estimated Value</b>
Pump Station @ Kidding	80	40	14.14	1149.00
<b>Fisheries</b>	<b>Volunteer Hours</b>	<b>Volunteer Miles</b>	<b>Hourly Rate</b>	<b>Estimated Value</b>
			\$14.14	
<b>Nongame Branch Project</b>	<b>Volunteer Hours</b>	<b>Volunteer Miles</b>	<b>Hourly Rate</b>	<b>Estimated Value</b>
			\$14.14	
<b>Misc/office work</b>	<b>Volunteer Hours</b>	<b>Volunteer Miles</b>	<b>Hourly Rate</b>	<b>Estimated Value</b>
Grant Reports	50		25.00	1250.00
<b>Community Services</b>	<b>Volunteer Hours</b>	<b>Volunteer Miles</b>	<b>Hourly Rate</b>	<b>Estimated Value</b>
Local Youth Outreach	40	20	\$7.44	306.50
<b>Events and Other</b>	<b>Volunteer Hours</b>	<b>Volunteer Miles</b>	<b>Hourly Rate</b>	<b>Estimated Value</b>
			\$14.14	
<b>Research Branch</b>	<b>Volunteer Hours</b>	<b>Volunteer Miles</b>	<b>Hourly Rate</b>	<b>Estimated Value</b>
			\$14.14	
<b>Wildlife Area Hosts</b>	<b>Volunteer Hours</b>	<b>Volunteer Miles</b>	<b>Hourly Rate</b>	<b>Estimated Value</b>
Bat Conservation International	8	250	\$17.44	250.77
<b>Education Programs</b>	<b>Volunteer Hours</b>	<b>Volunteer Miles</b>	<b>Hourly Rate</b>	<b>Estimated Value</b>
	8	200	16.07	217.56
<b>Totals</b>	<b>266</b>	<b>550</b>		<b>4322.83</b>