

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

<b>PROJECT INFORMATION</b>	
<b>Project Title:</b> Aspen/Maple/Willow and Spring Fence Enclosures on the Mogollon Rim (Phase I)	
<b>Project No.</b> 08-221	
<b>Region/GMU:</b> R2/5A	<b>HPC:</b>
<b>Project Type:</b> Fence Maintenance/Repair of existing Enclosures on the Mogollon Rim. Phase I of III that will be requested over the next three years (2009-2011)	
<p><b>Project Description:</b> There are 5 maple, 1 willow, 2 springs and 44 aspen Enclosures on the Coconino NF administered side of the Mogollon Rim (all within GMU 5A) that are in need of maintenance. These habitats are of great importance for wildlife. Unfortunately they have not been maintained in the past ten years. The Coconino NF has had several requests to have these fences maintained and repaired by sportsmen, birders, NAU researchers, AZGFD personnel, USFWS personnel and also livestock permittees. This project has been identified in the East Clear Creek Ecosystem Plan and also has been identified for maintenance in the Buck Springs Allotment Management Plan. A portion of the area is also under review for possible purchase to improve wildlife habitat by AZGFD and AZ Elk Society. These fences would greatly improve the desired habitat conditions relating not only to the purchased area but the Mogollon Rim as a whole.</p> <p>Fences are intended to provide protection and support for maple, willow, riparian (spring) vegetation and aspen habitats to support greater wildlife diversity and higher population densities.</p> <p>The project will also serve as an insightful monitoring tool for big game population management objectives (counts), other species known to occur in the area, and for the USFS silvicultural and ecosystem health monitoring of habitats that are declining throughout their range such as aspen, maple and willow.</p> <p>The project will be done in 3 phases to ensure its success. The first phase (this proposal) will implement 5 maple (11,7108 feet), 1 willow 900 feet), 2 springs (1300 feet) and 15 aspen Enclosures (15,315feet). TOTAL fence line feet = 28,323 feet. In the subsequent years the remaining aspen will be broken out into Phases II and III to complete the work.</p>	
<b>Wildlife Species to Benefit:</b> Elk, Mule Deer, Turkey, Black Bear, Mountain Lion, and several non-game bird species including Northern Goshawk, Mexican Spotted Owl along with many important migratory bird species identified by Bird Conservation International.	
<b>Possible Funding Partners:</b>	
<b><u>Implementation Schedule:</u></b>	

**Beginning:** Spring (May) 2009

**Completed:** Fall/Winter (November/December) 2009

### PROJECT FUNDING

**SBG Funds Requested: \$18,500**

**Cost Share Funds: \$** In Kind: \$5,855 (Wildlife Biologist time, Fencing Crew Time, Forest Service Vehicle Use, USFS Bobcat, ATV use, Gas, digital cameras, bird call equipment (digital), computer assessments for GIS maps and data keeping)

**Total Project Costs: \$ 24,355**

### PARTICIPANT INFORMATION

**Applicant** (please print): Barbara A Garcia (District Wildlife Biologist)  
USFS Mogollon Rim Ranger District-Coconino NF

**Telephone:** 928-477-2255

**Address:** HC 31 Box 300

**Email:** bagarcia@fs.fed.us

Happy Jack, AZ 86024

**AGFD Contact and Phone No.** (If applicant is not AGFD personnel):

**Garrett Fabian** [gfabian@azgfd.gov](mailto:gfabian@azgfd.gov), (928) 474-2053

**John Goodwin** [jgoodwin@azgfd.gov](mailto:jgoodwin@azgfd.gov), 928-774-5045

**Coordinated with:** Carin Knight, Cliff Finch, Bob Prosser (permittees) **Date:** 8/11/08

**Applicant's signature:** Barbara A Garcia

**Date:** 8/20/08



8/20/08

**NEED STATEMENT/PROBLEM ANALYSIS:** Climate change (drought), lack of natural disturbance and concentrated herbivory can degrade vegetative communities and alter ecosystem processes. Some methods for protecting these ecosystems both short term and long term are fencing exclosures. Whether big game is a big contributor to these effects are of much debate. This area along with the type of exclosure already in place is an excellent way to monitor big game use of the area through systematic methodology and perhaps answer more of these debated questions with scientific data. Fence line differences can visually illustrate differences in habitats within the exclosure and those outside. Additionally, across the range of maple, willow and aspen in particular, foresters and ecologists are seeing major declines in these species distributions. The Mogollon Rim is known to have a multitude of diverse animal species; it has been identified by Bird Conservation International as having one of the most diverse migratory bird compositions in the state and is under review for special designation as an area of special management protection. It has over 20 Protected Activity Centers (PACs) for the Endangered Mexican Spotted Owl and it has over 10 Northern Goshawk nest locations. Furthermore, the Mogollon Rim and specifically the aspen, maple, willow and spring areas are, "hot spots" for species such as Black Bear, Turkey, Mule Deer and Mountain Lion.

Because there are over 60 total exclosures to maintain and or repair, the work will be done in three phases over the next three years. Phase one will be completed in 2009, Phase two in 2010 and Phase three in 2011. Each Phase will have its own grant proposal within the year the work is anticipated to be done to accommodate for man days and supplies. This will ensure the appropriate dollars are asked for within each year and also (due to changes in USFS personnel and budgets), the work is ensured to be completed. The first phase (this proposal) will implement 5 maple (11,7108 feet), 1 willow 900 feet), 2 springs (1300 feet) and 15 aspen Exclosures (15,315feet). TOTAL fence line feet = 28,323 feet. Phases two and three will be lesser in extent and will complete the roughly 60 fence exclosures and over 47,000 feet of fenceline currently needing work. This proposal will ensure these rare habitats by re-building, up keeping, and basically maintaining the exclosures to their correct and efficient intended use.

This proposal only accounts for man days and supplies for Phase I. Funding of this project will demonstrate to the forest service, researchers, environmental NGOs and permittees that AGFD is addressing wildlife habitat concerns and is willing to invest money in this area.

### **PROJECT OBJECTIVES:**

The objective is to improve these exclosures so they provide protection for aspen, maple, willow and springs that are rare over the landscape and of great benefit to a multitude of wildlife. The benefits may include:

- 1) Higher number of acres and greater survival of important tree species (currently declining across their ranges)
- 2) Increased use of area by black bear, mountain lion, turkeys and mule deer;
- 3) Higher survival of nesting birds;
- 4) Increased survivorship of turkey poults;
- 5) Wider distribution of wildlife may minimize overgrazing/browsing of grasses and browse

### **PROJECT STRATEGIES:**

The 5 maple, 1 willow, 2 springs and 15 aspen fence exclosures would be rebuilt and or repaired to provide maximum efficiency. Additionally, permanent photo and monitoring plots would be properly installed to assess wildlife use and plant growth and vigor.

### **PROJECT LOCATION:**

Coconino National Forest- Mogollon Rim Ranger District. Mogollon Rim Area East of Highway 87, with most along the 300 "rim road" or just north of it. See Map Attached. All fences are located on the map but only 1-19 of the aspen will be done under this proposal. The others will be addressed in subsequent years and grant proposals. Note\* Although 15 fences proposed are seen as 1-19 on the map, 4 were dropped due to the clones being completely gone from 10 years ago. All maple, all willow and all spring exclosures will be done.

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

All enclosures are within USFS administered land-Coconino NF Mogollon Rim Ranger District jurisdiction.

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

Not Applicable

**HABITAT DESCRIPTION:**

Mixed Conifer with Gambels Oak, Pine-Oak Woodlands, Maple Draws, Aspen Draws, Moist high mountain meadows with some willow. Dramatic draws with great vistas and year-round water flow. Many sensitive plant species along with Dane's thistle, known to occur only in Danes Canyon. Average Elevation = 6700'

**ITEMIZED USE OF FUNDS:**

Man Days and Budget for Implementation:

1. 25 Days 1 GS-7 Fence/Multiresource Crew Personnel (\$150 X 25 days) = \$3750
2. 25 Days 1 GS-5 Fence/Multiresource Crew Personnel (\$115 X 25 days) = \$2875
3. 10 Days 1 GS-6 Wildlife Crew Personnel (\$130 X 10 days) = \$1300
4. 10 Days 1 GS-5 Wildlife Crew Personnel (\$115 X 10days) = \$1150
5. 15 Days 2 GS-11 Wildlife Biologists (\$300 X 15 days) = \$4500

**TOTAL: \$13, 575**

Supplies and Equipment Budget for Implementation:

- |                    |                         |
|--------------------|-------------------------|
| 1. Field Wire      | \$370.00                |
| 2. 2"x4"x10'boards | \$481.00                |
| 3. Staples         | \$198.00                |
| 4. Elec. Wire      | \$142.00                |
| 5. 16P Nails       | \$200.00                |
| 6. Hog Rings       | \$23.00                 |
| 7. Barbed Wire     | \$344.00                |
| 8. Wire Stays      | \$700.00                |
| 9. 6' Posts        | \$300.00                |
| 10. 10' Posts      | \$300.00                |
| 11. T-post clips   | \$50.00                 |
| 12. Wire Strainers | \$250.00                |
| 13. Wire Splicers  | \$310.00                |
| TAX at .825        | \$3668 X .0825 = 302.00 |

**TOTAL: \$3,970**

Misc. Budget:

1. Cost increases unforeseen
2. Equipment breakdown unforeseen

**TOTAL: \$1,000.00**

**IN KIND ITEMIZATION:**

1. FOR two USFS vehicles	\$1200.00
2. Gas at .57/mile	\$230.00
3. 2 USFS ATVs and USFS Bobcat for posts	\$1,000.00
4. Crew Time: 7 days GS-11 Wildlife Biologist	\$2100.00
5. Crew Time: 5 Day GS-5 Fence/Multi-resource Crew	\$575.00
6. Crew Time: 5 Day GS-7 Fence/Multi-resource Crew	\$750.00
<b>TOTAL: \$5,855.00</b>	

**LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION:**

The Coconino National Forest will assist with monitoring, to ensure all standards are being met, this may include the incorporation of NGO-volunteer groups and also livestock permittees.

**PROJECT MONITORING PLAN:**

A mix of USFS personnel, volunteer groups, NGO groups, AZGFD personnel and permittees will aid in the annual monitoring.

1. Bird point counts will be established within and outside the exclosures to measure bird use and fence efficacy
2. Permanent photo plots (already established in most exclosures) will be taken every year to show fence-line contrast and plant growth
3. Vegetative growth will be measured in aspen exclosures by permanent photo plot interpretation and if possible for at least 5% of the exclosures 1/10<sup>th</sup> acre sucker plots
4. Pellet counts for big game species will be taken in and outside exclosures
5. Scat and track detections for turkeys, bears, and cougars will be taken in and outside the exclosures

**PROJECT MAINTENANCE:**

The Coconino National Forest will assist with maintenance, to ensure all standards are being met; this may include the incorporation of NGO and/or volunteer groups and also livestock permittees.

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

Barbara A Garcia, District Wildlife Biologist, Mogollon Rim RD Coconino NF

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

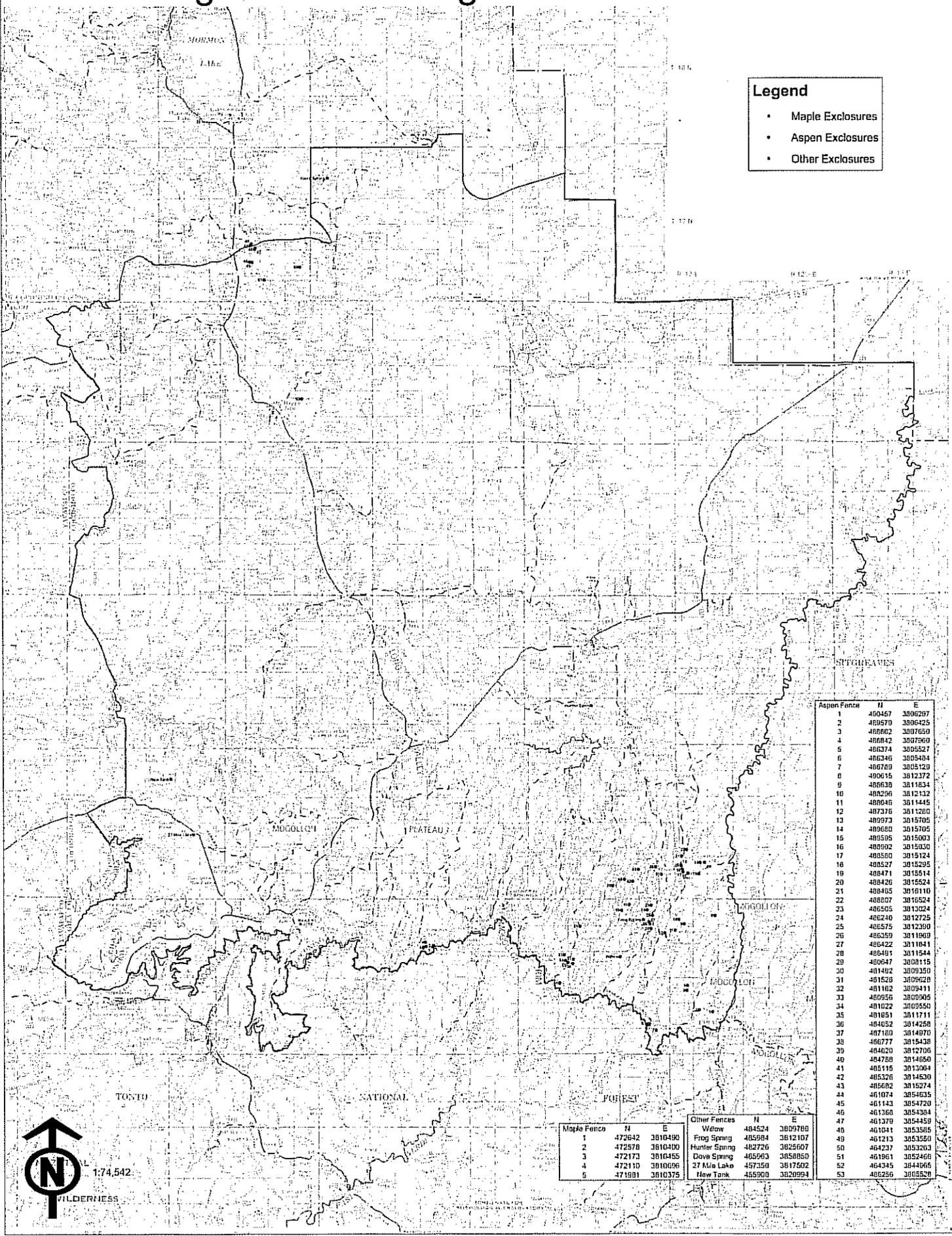
Not Applicable

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

Not Applicable

**SEND COMPLETED APPLICATIONS TO:**  
**Game Branch**  
**2221 W. Greenway Rd.**  
**Phoenix, AZ 85023**  
**[mdisney@azgfd.gov](mailto:mdisney@azgfd.gov)**

# Mogollon Rim Ranger District Exlosures



- Legend**
- Maple Exlosures
  - Aspen Exlosures
  - Other Exlosures

Aspen Fence	N	E
1	460457	3806297
2	469570	3806425
3	468602	3807650
4	468842	3807960
5	466374	3805527
6	466346	3805404
7	466789	3805129
8	490615	3812372
9	466638	3811834
10	488296	3812132
11	488046	3811445
12	487376	3811280
13	488973	3815706
14	489680	3815706
15	489595	3815003
16	488902	3815030
17	489580	3815124
18	488527	3815295
19	488471	3815514
20	488426	3815524
21	488465	3816110
22	488807	3816524
23	486505	3813024
24	486240	3812725
25	466575	3812390
26	466359	3811869
27	466422	3811841
28	466481	3811544
29	46647	3808115
30	481482	3809350
31	481528	3809628
32	481482	3809411
33	480956	3809005
34	481022	3808550
35	481851	3811711
36	484652	3814268
37	487180	3814970
38	486777	3815438
39	484820	3812706
40	484788	3814658
41	485115	3813064
42	485326	3814530
43	485682	3815274
44	461074	3854635
45	461143	3854720
46	461368	3854304
47	461379	3854459
48	461041	3853585
49	461213	3853560
50	464237	3853203
51	461961	3852466
52	464345	3844866
53	462256	3805528

Maple Fence	N	E
1	472642	3810490
2	472578	3810400
3	472173	3810465
4	472110	3810636
5	471981	3810375

Other Fences	N	E
Wallow	464524	3809788
Frog Spring	485984	3812107
Hunter Spring	482726	3825607
Dove Spring	465963	3853850
27 Mile Lake	457358	3817502
New Tank	455900	3820994



1:74,542

WILDERNESS

BOUNDARIES AND PLACES SHOWN ARE NOT GUARANTEED BY THE BUREAU OF LAND MANAGEMENT