

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

Game Branch / HPC Project Number: 14-113

**PROJECT INFORMATION**

**Project Title:** Gust Phase II Habitat Enhancement – Spring Box Refurbishment and Protection

**Region and Game Management Unit:** Pinetop Region 1, GMU 1

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

**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[] NO[X] → **Funded HPC Project #(s):**

**Project Type:** Water Development

**Brief Project Summary:** Gust family owns 115 acre private land track north of Buckelew spring, adjacent to Pulcifer creek, obtaining the land and associated decreed water rights in 1956. Two earthen tanks and a small wetland meadow receive permanent water from a spring located on Forest lands about 1.25 miles to the south. Developed with a spring box by Gusts in 1959, the spring and box is in need of refurbishment and sealing/cleaning to increase water flow both into the transmission pipeline from Forest to private land, and to allow overflow to enter the small wet meadow drainage in Pulcifer creek. The spring area needs to be fenced with on-site materials to protect against trampling/silting by livestock.

**Big Game Wildlife Species to Benefit:** Elk, mule deer, black bear, Merriams turkey

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

Project Start Date: May1, 2015

Project End Date: May 30, 2015

**Environmental Compliance:**

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

Projected Completion Date: Cat. Ex. For Mnt 10/1/2013

State Historic Preservation Office - Archaeological Clearance:

Yes[] No[x] N/A[]

Projected Completion Date: Review of files for Cat. Ex. 10/1/2013

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:** \$ 4,000

**Cost Share or Matching Funds:** \$ 4,000

**Total Project Costs:** \$ 8,000

**PARTICIPANT INFORMATION**

**Applicant** (please print):  
Morgan Gust

**Address:** 104 E. Rio Salado Parkway  
#901  
Tempe, AZ 85281

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hayes.8287@gmail.com

**Telephone:** 602-689-1848

**Date:** 8/12/13

**AGFD Contact and Phone No.** (If applicant is not AGFD personnel): Jason Capps, Wildlife Manager Unit 1, 928-358-0813; Mike Godwin, Pinetop Area Field Supervisor, 928-242-3716

**Project has been coordinated with:** Dominic Barrett, Partners Program Coordinator, U.S. Fish and Wildlife Service – Pinetop; Jason Capps; Mike Godwin; Rachel Williams, Landowner Incentive Program Specialist- Pinetop AZGF; Vicinte Ordonez, Wildlife Biologist USFS, Springerville RD; Frank Hayes, Consultant/biologist, Heart and Horn Ecological Services; Steve Clark, Arizona Elk Society.

**NEED STATEMENT – PROBLEM ANALYSIS:** For overview see attached Project Summary for Gust – Phase II Habitat Enhancement Spring Refurbishments. Gust family has owned a 115 acre private land parcel north of Buckelew spring (SW/SW/SE ¼ Sec 2, T9S, R25E) since 1956. In 1959 Gusts developed a spring in Pulcifer Canyon with a transmission pipeline to service stock tanks and wet meadow lands on the private land parcel in Section 11, T9S, R25E, supported by decreed water rights from the late 1900's. While maintenance of the irrigation ditch and transmission pipeline have been completed periodically since that early date, the spring box and collection units are in need of refurbishment to increase water flow from the spring, into the transmission line, and into the wet meadow area adjacent to the spring on Forest Service lands in Pulcifer Canyon. In coordination with the U.S. Fish and Wildlife Service Partners Program, a habitat enhancement program of work has been developed with input from the private land owner, Arizona Game and Fish personnel, and private biological consulting expertise that includes Five (5) Phases of habitat, access, and species enhancements and protection. Spring refurbishment is the initial part of Phase II of this emerging program.

**PROJECT OBJECTIVES:** 1. Clean collection units, including sand spit attached to transmission pipeline; 2. Clean spring box area; 3. Seal spring box, and wall up/cement sides of box to improve water collection; 4. Develop overflow pipe from box to allow overflow water to enter Pulcifer canyon as free-flowing surface spring water; 5. Remove old standard barb wire fence around spring area, and replace (1/4 acre) with pole fence to protect spring box location and expected wet meadow area from livestock.

**PROJECT DESCRIPTION AND STRATEGIES:** Spring box refurbishment will be completed by hand, using readily available materials and tools (filter fabric, Patch cement and mortar, poly pipe, etc) to clean, patch, seal, and ensure effective water flow into transmission pipeline and overflow if available to Pulcifer Creek. Fencing will involve removal of existing old barbed wire fence, replacement with pole fencing obtained on site for esthetic and safe passage of wildlife and bovine calves.

**PROJECT LOCATION:** Spring sources that are developed into the spring box which service the Gust private in-holding (Sec. 11, T9S, R25E) are in Pulcifer Creek, a tributary of Mineral Creek. Specific spring sources are located in SWSE ¼ Section 14, T.9S, R25E, 34°10'18.46"N/109°39'43.76"W.

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

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

- Spring source – Forest Service lands, but with decreed water right and FLMA Transmission Line Easement to Gust from Forest Service for transport of water to Private parcel.

- Private parcel (115 acres, Sec. 11) owned by Gust family. Currently, access to the private parcel for hunting is allowed by foot only.

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

YES[] NO[x] N/A[]

Existing PLA between Gust and U.S. Fish and Wildlife Service, Partners Program for habitat and forest enhancements on Private lands; Safe Harbor and Big Game Stewardship Agreements pending between Gust and AZ Game and Fish Department. Private land owners agree to allow foot access with an appropriate signage program in place. FWS Partners Program has signage available to interpret the ongoing forest thinning proposal.

**HABITAT DESCRIPTION:** Pulcifer Creek, within the Mineral White Mountain Stewardship treatment area, extends from an elevation of 8800 feet into Mineral creek about 5,000 feet elevation. The area at the spring site (8,000 feet elevation) is characterized by moderately dense to open mixed conifer forest, with a sporadic mix of Alder and Aspen overstory, along with various herbaceous and woody species within the relative confines of the canyon. Presently, there is no free-flowing water in Pulcifer creek, and there is a lack of highly developed herbaceous understory of riparian obligate species. Water that enters the spring box and transmission line flows into a butyl lined earthen reservoir on Gust private lands at 7700 feet elevation, and is characterized as a relatively open Ponderosa pine/gambel oak forest. Water leaves this lined but heavily vegetated earth reservoir in both transmission ditch and pipeline into a wet meadow area (now about 5 acres), and to another earth tank about .5 miles north in the meadow area on private lands. Private lands are fenced to exclude cattle, although unauthorized use occurs on an annual basis.

#### **ITEMIZED USE OF FUNDS:**

##### Special Big Game License Tag Funds

\$4,000 - Purchase of materials for spring cleaning, collection unit sealing and refurbishment, pipeline as needed, materials for pole fencing construction.

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

\$2,500 - U.S. Fish and Wildlife Partner Funding;

\$1,500 - Volunteer labor for project coordination and development, removal of barbed wire, cutting of poles

**LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION:** Gust Family – contribute water facilities, labor and expertise; Frank Hayes, consultant with Heart and Horn Ecological Services- planning and implementation expertise; U.S. Fish and Wildlife Service Partners Program – funding for Phase I Forest health enhancements and Phase II water availability improvements; Bat International – potential funding to maintain/enhance open water sources.

**WOULD IMPLEMENTATION OF THIS PROJECT ASSIST IN PROVIDING, MAINTAINING,**

**OR FACILITATING RECREATIONAL ACCESS?**

YES[] NO[] N/A[x] Improving water availability will not provide access to the private lands. Currently, the land owner allows access for hunting by foot traffic only, and would consider developing a Stewardship agreement with the Department if Phase I is funded.

**PROJECT MONITORING PLAN:** Photo points of pre, during, and post work; estimate of gals. water produced and collected at spring source pre and post refurbishment; confirmation with digital imagery of development of wet meadow area below spring with overflow occurrence; confirmation with imagery of permanent water availability at reservoirs on private lands; documentation of expenditures of funds and value of contributed/volunteer labor for project.

**PROJECT MAINTENANCE:** Gust has maintained transmission pipeline and water facilities since 1956, and intends to continue with maintenance of spring source collection on Forest lands, and water holding facilities, fence around private inholding, and forest health conditions in the future. Maintenance costs are expected to be minimal, occur annually.

**PROJECT COMPLETION REPORT TO BE FILED BY:** Frank Hayes with Heart and Horn Ecological Services, within 45 days of completion of the project.

**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:** Gust Habitat Enhancement – Spring refurbishment

- 1) **Is the water development listed as a priority in the most recent “Wildlife Water Development Annual Implementation Schedule?”** No
  
- 2) **Please list the Development Branch personnel and date coordinated with for this project.**  
Jason Capps, Unit 1 Wildlife Habitat Manager; Mike Godwin, Unit 1 Area Field Supervisor
- 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: Turkey Spring  
Type of water source (catchment, spring, dirt tank): Spring, undeveloped free flowing  
Ownership of water source: Forest Service  
Distance in miles from project: 1/8 mile at spring source, 1.25 miles to permanent wetland pond on Private lands.
  
- 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.** Spring source is on Forest lands, no special status. Collected into an earthen tank managed for wetland values on private, owned by Gust family. Water use based on decreed water right (1939) and Ditch Bill Easement from Forest Service (1999).
  
- 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: .25 mi. Approximate hiking time: 20 minutes  
Appears Forest Service has attempted to close the old logging road that passes this site, but ATV's use at present. Walking access is easy, in bottom. Materials can be hauled in by ATV or Rhino.

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

-- Please describe any restrictions to public access: Travel-way ATV only, or foot traffic for workers.

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

Spring Box – 4ft X 4 ft at least 4ft deep; Cement walls and raise original box 6” above ground; clean out spring collection area, seal with filter fabric and bentonite; clean or replace sand spit collection unit for entry into transmission line; replace pipeline as needed; reconstruct overflow to allow water to flow into meadow below spring site when ample water is available.

Protection Fence – Remove existing old barbed wire fence, replace with log pole fence to encompass ¼ acre area around spring box and into wet meadow portion of Pulcifer Creek; poles to be cut, peeled, and dried on or near site, construction design to prohibit ground livestock but allow baby calves to have relatively easy ingress/egress, and wildlife access points/jumps.

**10) Was a site visit completed?** Yes[x] No[]

If Yes, please list personnel that attended and date.

Gust Enhancement Project site review – Dominic Barrett (US FWS), Mike Godwin (AZGF), Jason Capps (AZGF), Rachel Williams (AZGF), Frank Hayes (Consultant for Gust). 8/01/13.

Gust Enhancement Project spring site field visit – Dominic Barrett (US FWS, Morgan Gust (Owner), Frank Hayes (Consultant). 8/10/13.

Several previous site visits have occurred since August, 2013 where Hayes, Gust, and Barrett have met with Forest products contractors or other FS personnel to discuss and review proposed forest restoration work on private lands, and phased wetland and water availability needs. Barrett and Dan Taylor (Bats International) made a field visit to the private land to confirm occupancy and use of line cabin as maternity site by various bats in August, 2012.