

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

Game Branch / HPC Project Number: 16-602

PROJECT INFORMATION

Project Title: Lower Copper Hills/Johnson Ranch

Region and Game Management Unit: Region VI, GMU 24A

Local Habitat Partnership Committee (LHPC):

- Payson Natural Resource Committee.
Voted on as a priority by members.

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**[] → **Funded HPC Project #(s):**

Project Type: Water development (dirt and maintenance)

Brief Project Summary: Repairing the spillways, and cleaning out three dirt tanks north of Globe, AZ. In addition to providing materials for covers for metal water holding tanks to reduce evaporation. Rancher Charley Johnson is cost sharing. Mule Deer Foundation has site visited prior to this proposal.

The first step in a multi-year solution to help the declining Mule Deer population in GMU 24A by providing more water across the unit. The project is located in a popular hunting spot called the Copper Hills just north of Globe, AZ. All current water is seasonal and does not make it through the summer due to all tanks and water sources in various stages of disrepair.

Big Game Wildlife Species to Benefit (% benefit per species) : Mule Deer (85%), Javelina (10%), Coues Deer (5%)

Implementation Schedule (Month/Day/Year):

Project Start Date:

Spring, 2017

Project End Date:

Summer/Fall 2017 (Weather Permitting)

Environmental Compliance:

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

Projected Completion Date: Not needed

State Historic Preservation Office - Archaeological Clearance:
(Provide Attachment)

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

Projected Completion Date: September 2016

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

To be Completed by: Not needed

Projected Completion Date:

PROJECT FUNDING

Special Big Game License Tag Funds Requested:

\$ 14,500

Cost Share or Matching Funds:

\$ 11,819

Total Project Costs:

\$ 26,319

PARTICIPANT INFORMATION

Applicant (please print):

Grant Pearce

Address:

7200 E University Drive

E-mail:

gpearce@azgfd.gov

Telephone: 480-521-9040	Mesa, AZ 85207	Date: 8/31/16
AGFD Contact and Phone No. (If applicant is not AGFD personnel):		
Project has been coordinated with: Tonto National Forest, Mule Deer Foundation, Johnson Ranch, Arizona Game and Fish Department		

NEED STATEMENT – PROBLEM ANALYSIS:

Since 2010, Mule deer populations have declined across GMU 24A, ultimately resulting in a cut of Mule Deer rifle tags from 300 permits to 200 permits for the Fall of 2016. The Copper Hills, and the Johnson ranch are located in the heart of 24A Mule Deer habitat, and represent one of the most popular areas to hunt in the unit. The lack of water across the unit has been identified as one of the major contributing factors to the declining Mule Deer population. Much of the man-made water in the unit is in various stages of disrepair, including the tanks identified here. These tank repairs are the first step in what will be a multi-year attempt to restore the water availability in 24A to what it once was.

WAFWAs Habitat Guidelines for Mule Deer support this suggesting that water sources not be more than 3 miles apart so all mule deer habitat is within 1.5 miles of a permanent water source (Brownlee 1979, Dickinson and Garner 1979). Water is a critical component of mule deer habitat in the Copper Hills portion of 24A as it is extremely scarce and is only present in earthen stock tanks after a heavy monsoon period and during the winter and early spring months and seldom lasts into May. Cleaning these tanks increases the water capacity and lengthens the time the water lasts, considering use and evaporation. Bentonite will seal the tanks where adequate clay is not found.

Marshal et al. (2006) stated that water in the absence of forage and cover likely will not create mule deer habitat, but forage and cover in the absence of water may provide deer habitat, at least seasonally. Thus, dependable dirt tanks might make forage resources, which would otherwise be unavailable, available year-round. Further, where deer might otherwise make seasonal movements between parts of their range with forage and parts with water, developments may reduce the need for seasonal movements, make a greater proportion of the range and its forage available to deer, reduce competition for forage in exploited range, decrease risks associated with long-distance movements (e.g., Nicholson et al. 1997, Bleich and Pierce 2001) and, thereby, increase deer abundance (Krausman and Czech 1998).

These tanks will also benefit the surrounding quail population, and Javelina population resulting in increased hunting opportunities for both small game and big game species.

PROJECT OBJECTIVES:

- To increase Mule Deer and Javelina populations by providing dependable, long term, and self-sustaining quality water sources and by increasing the use of otherwise unavailable forage resources
- To increase hunter opportunity
- To increase water collection and efficiency so as to not require supplemental hauling except in rare or exceptional circumstances
- To install systems that are accessible and that requires minimal routine maintenance

PROJECT DESCRIPTION AND STRATEGIES:

(How will you implement project)

Goodman Excavation will clean out the dirt tanks when the tanks are dry after the winter rains. Mule Deer Foundation volunteers will spread bentonite over the needed tank areas after excavation. Charley Johnson will build the metal tank covers over existing metal holding tanks once funding is available, and weather permits.

PROJECT LOCATION

(Please provide lat/long of project area and datum. If project is larger than one point, please add multiple lat/long points or an existing shapefile of the project area)





LAND OWNERSHIP AT THE PROJECT SITE(S):

Tonto National Forest.

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

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IF PRIVATE PROPERTY, IS THERE A COOPERATIVE BIG GAME STEWARDSHIP or

LANDOWNER AGREEMENT BETWEEN THE LANDOWNER AND THE DEPARTMENT?

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

HABITAT DESCRIPTION:

Habitat consists of high desert shrubs, and a mixture of Juniper and prickly pear rolling hills. Elevation is approximately 4,000 to 4400 feet.

ITEMIZED USE OF FUNDS:

Special Big Game License Tag Funds

Excavation and dirt work: \$11,500

Metal tank roof Materials: \$3000

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

12,000 pounds bentonite: \$4569

Design labor: \$5250

Volunteer labor: \$2000

LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION:

Contractor: Goodman Excavation LLC – Equipment and dirt work for the tanks.

Rancher: Charley Johnson – design of the dirt tanks and metal roofs. Labor for Metal roof construction.

Mule Deer Foundation - Has visited site already, and ready to fund the project. Will also contribute volunteers for bentonite distribution.

Arizona Game and Fish: Coordination and submitting HPC as well as labor for the project.

Tonto National Forest Service: Archeology clearances, and coordination

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

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

The ranch allows hunter access through the ranch headquarters, and the newly available water will promote better hunting opportunities in the future.

PROJECT MONITORING PLAN:

AZGFD will continue to survey the area for Mule Deer, and javelina every January, in addition to listening to hunter feedback.

PROJECT MAINTENANCE:

Rancher Charley Johnson will maintain the metal roofs, and repair as needed. N/A to dirt tanks. 24A Wildlife Manager will monitor all repaired tanks.

PROJECT COMPLETION REPORT TO BE FILED BY:

24A Wildlife Manager

WATER DEVELOPMENT PROJECTS (please use the worksheet below):

N/A

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

N/A

ATTACHMENTS:

(Please provide cultural clearance documentation from land management agency, e.g., FONSI, Inventory Standards, etc. Also attach any project pictures)

Arch clearance available by October 2016.

12,000 pounds of bentonite at the Johnson Ranch ready for the tanks.





Goodman Excavating, LLC.

1104 N. Alyssa Cir.
Payson, AZ 85541

928-474-0568

Invoice

Date	Invoice #
6/20/2016	2388C

Bill To
Jim Lawerance Mule Deer Foundation 21633 N. 14 Ave Phoenix, Az 85027

Ship To

Serviced	Description	Quantity	Rate	Amount
	Romeo Tank - Mob equipment - dig out and repair tank		3,500.00	3,500.00T
Thank you for your business.		Sales Tax (0.0%)		\$0.00

Total	\$3,500.00
Payments/Credits	\$0.00
Balance Due	\$3,500.00

Goodman Excavating, LLC.

1104 N. Alyssa Cir.
Payson, AZ 85541

928-474-0568

Invoice

Date	Invoice #
6/20/2016	2387C

Bill To
Jim Lawerance Mule Deer Foundation 21633 N. 14 Ave Phoenix, Az 85027

Ship To

Serviced	Description	Quantity	Rate	Amount
	Copper Basin Tank - MOB equipment - dig out and repair tank		3,500.00	3,500.00T
Thank you for your business.		Sales Tax (0.0%) \$0.00		
		Total \$3,500.00		
		Payments/Credits \$0.00		
		Balance Due \$3,500.00		

Goodman Excavating, LLC.

1104 N. Alyssa Cir.

Payson, AZ 85541

928-474-0568

Invoice

Date	Invoice #
6/20/2016	2386C

Bill To
Jim Lawerance Mule Deer Foundation 21633 N. 14 Ave Phoenix, Az 85027

Ship To

Serviced	Description	Quantity	Rate	Amount
	Park Tank - MOB equipment -dig out and repair tank		4,500.00	4,500.00T
Thank you for your business.		Sales Tax (0.0%) \$0.00		
		Total \$4,500.00		
		Payments/Credits \$0.00		
		Balance Due \$4,500.00		