

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

Game Branch / HPC Project Number:	16-603
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PROJECT INFORMATION

Project Title: Phoebe Well Repair and Augmentation	
Region and Game Management Unit: Region VI - Unit 21	
Local Habitat Partnership Committee (LHPC): •	Was the project presented to the LHPC? YES[] NO[X]
Has this project been submitted in previous years? YES[] NO[X] If Yes, was it funded? YES[X] NO[] → Funded HPC Project #(s):	
Project Type: Well Restoration and Augmentation	
Brief Project Summary: Phoebe Well, is located near Yellow Jacket Mesa, and supplies water to 7 different water troughs across over 2 miles of pipeline and services 2 ranches/allotments. Years ago, the well was powered by a solar pump that was sufficient to supply water to the entire system. When that pump failed, it was replaced with a smaller pump (due to cost) that is unable to supply water to the farthest drinkers. This project involves replacing the existing solar pump with a much larger and more powerful solar pump, and adding 3 additional solar panels to power it. This project also involves adding a 2,500 gallon storage tank at one of the drinkers to ensure a consistent water source.	
Big Game Wildlife Species to Benefit: Pronghorn 30%, Mule Deer 30%, Javelina 20%, Elk 10%, Whitetail 10%	

Implementation Schedule (Month/Day/Year): <u>Project Start Date:</u> February 2017 <u>Project End Date:</u> June 2019	Environmental Compliance: NEPA Completed: Yes[X] No[] N/A[] Projected Completion Date: _____ State Historic Preservation Office - Archaeological Clearance: Yes[] No[X] N/A[] Projected Completion Date: _____ Arizona Game and Fish Department EA Checklist: N/A[] To be Completed by: <u>M. White</u> Projected Completion Date: <u>November 2016</u>
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PROJECT FUNDING

<p>Special Big Game License Tag Funds Requested: \$12,101</p> <p>Cost Share or Matching Funds Paid by :</p> <ul style="list-style-type: none"> • \$10,101 Materials and Labor Cost on Well and Cost on Storage Tank • \$2,000 Delivery and Installation of Storage Tank <p style="text-align: right;">Total Match: \$12,101 at 50% Match</p>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">• Pump, Sub-Drive, Solar Panels, Misc. Electrical and Plumbing parts, and Labor -</td> <td style="text-align: right; padding: 2px;">\$20,702</td> </tr> <tr> <td style="padding: 2px;">• 2,500 Gallon Storage Tank and miscellaneous plumbing materials -</td> <td style="text-align: right; padding: 2px;">\$1,500</td> </tr> <tr> <td style="padding: 2px;">- Delivery and Installation -</td> <td style="text-align: right; padding: 2px;">\$2,000</td> </tr> <tr> <td style="padding: 2px;">Total</td> <td style="text-align: right; padding: 2px;">\$24,202</td> </tr> </table>	• Pump, Sub-Drive, Solar Panels, Misc. Electrical and Plumbing parts, and Labor -	\$20,702	• 2,500 Gallon Storage Tank and miscellaneous plumbing materials -	\$1,500	- Delivery and Installation -	\$2,000	Total	\$24,202
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- Delivery and Installation -	\$2,000								
Total	\$24,202								

Total Project Costs: \$24,202		
PARTICIPANT INFORMATION		
Applicant (please print): Trudy Birkemeyer	Address: HC 63 Box 3081 Dugas Ranch Mayer, AZ 86333	E-mail: (son's address) dugasfence@yahoo.com
Telephone: 928-713-9349		Date: August 15, 2016
AGFD Contact and Phone No. (If applicant is not AGFD personnel): Micah White, 928-821-6057		
Project has been coordinated with: Prescott National Forest, Horner Mountain Ranch, Mule Deer Foundation, AGFD		

NEED STATEMENT – PROBLEM ANALYSIS:

Phoebe Well is located in the heart of the best pronghorn and mule deer habitat in unit 21. It provides water to 8 different troughs over 2 miles of pipeline on 2 different ranches. Years ago, the well was powered by a solar pump (foreign made, by a company that went out of business) that was sufficient to supply water to the entire system. When that pump failed, it was replaced with a smaller pump (ue to a lack of equivalent pump) that is unable to supply water to the farthest drinkers. Now, solar technology has improved to where domestic pumps will be sufficient to meet the needs of the system. Currently, a generator must be used to push water to these farthest drinkers. This is extremely difficult to maintain and operate, as Phoebe Well is located in an extremely rough, remote location. The high cost of diesel fuel makes it impossible for livestock operators to continue pushing water to these distant drinkers when cattle are not in the pasture.

The additional storage tank is also a critical component to this project due to the fact that it is used by two different ranches. The extra 2,500 gallon storage tank will help ensure that water stays in the system for wildlife, even at the well's maximum use by livestock through the summer.

PROJECT OBJECTIVES:

The objective of this project is to make a more efficient, more reliable water source that is capable of pushing water throughout its entire system. This water will provide water to pronghorn and mule deer primarily, and then whitetail, elk and javelina in lower numbers. This project will facilitate the availability of water to wildlife year-round, and not when livestock are in the pasture. Another goal of this project is to increase the overall storage capacity by installing an additional storage tank.

PROJECT DESCRIPTION AND STRATEGIES:

- A well company will be contracted to come in, pull the existing column pipe and solar pump, and replace the solar pump with a larger, more power pump that will be capable of pushing water to the end of the pipeline. If the pump is insufficient, an in-line solar pump will be installed along the way to boost the power of the system and allow it to push water uphill, over long distances.
- 22 new solar panels will be installed at the well to give the pump additional power.
- A 2,500 gallon storage tank will be added to the system to increase water storage and prevent excessive draw down.

PROJECT LOCATION: N° 34 24'52.98", W° 111 56'11.22"





LAND OWNERSHIP AT THE PROJECT SITE(S):

(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:

Semi-desert grassland, juniper woodland, chaparral drainages.

ITEMIZED USE OF FUNDS:

Special Big Game License Tag Funds

- **\$12,101** in SBGLTF is requested to purchase Solar Pump, Sub-Drive, Solar Panels, Misc. Electrical and Plumbing parts, Contractor Labor, and a 2,500 Gallon Storage Tank.

Cost Share or Matching Funds

- **\$10,101** toward the materials will be paid by the permittee
- **\$2,000** Cost of Delivery and Installation of Storage Tank. Permittee will pick up storage tank from distributor, deliver storage tank to the site, and install tank to the system, including connecting plumbing.

Total Match: \$12,101 at 50% Match

LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION:

Trudy Burkemeyer – Dugas Ranch, Micah White – AZGFD

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

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

PROJECT MONITORING PLAN:

Permittee will be responsible for monitoring

PROJECT MAINTENANCE:

Maintenance will be performed by the livestock operator.

PROJECT COMPLETION REPORT TO BE FILED BY:

Micah White

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

N/A

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

N/A

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

PROJECT TITLE: _____

- 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.**
N/A
- 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:**
Arnold Creek, Rice Spring,
- 6) **Is the target wildlife species a result of transplant efforts?** YES NO
Pronghorn have been transplanted into unit 21 several times over the last two decades.
- 7) **Please list any special land management status for the project site (i.e. Wilderness, National Park, National Monument). If private land, list landowner.**
- 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: _____ Approximate hiking time: _____

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

-- Please describe any restrictions to public access: Groups over 20 require a recreation permit from the forest. A large volunteer project may require a permit unless sponsored by the forest.
- 9) **Please list below (or on a separate sheet) the material type and dimensions of each component proposed to be added, modified, or repaired.**
- 10) **Was a site visit completed?** Yes No
If Yes, please list personnel that attended and date.

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: _____

The value of volunteer labor should be calculated at the hourly rate of an employee doing similar work, or using hourly rates from the Arizona Department of Administration's Human Resource web site, plus a standard ERE rate of 35%. http://www.hr.az.gov/HR_Professional/Class_Comp/PDF/alphacovered.pdf

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

Water Development	Volunteer Hours	Volunteer Miles	Hourly Rate	Estimated Value
			\$14.14	
Habitat Restoration and Clean Up	Volunteer Hours	Volunteer Miles	Hourly Rate	Estimated Value
			\$14.14	
Fisheries	Volunteer Hours	Volunteer Miles	Hourly Rate	Estimated Value
			\$14.14	
Nongame Branch Project	Volunteer Hours	Volunteer Miles	Hourly Rate	Estimated Value
			\$14.14	
Misc/office work	Volunteer Hours	Volunteer Miles	Hourly Rate	Estimated Value
			varies	
Community Services	Volunteer Hours	Volunteer Miles	Hourly Rate	Estimated Value
			\$7.44	
Events and Other	Volunteer Hours	Volunteer Miles	Hourly Rate	Estimated Value
			\$14.14	
Research Branch	Volunteer Hours	Volunteer Miles	Hourly Rate	Estimated Value
			\$14.14	
Wildlife Area Hosts	Volunteer Hours	Volunteer Miles	Hourly Rate	Estimated Value
			\$17.44	
Education Programs	Volunteer Hours	Volunteer Miles	Hourly Rate	Estimated Value
			\$16.07	
Totals				

