

**ARIZONA GAME AND FISH DEPARTMENT
HABITAT PARTNERSHIP COMMITTEE
HABITAT ENHANCEMENT AND WILDLIFE MANAGEMENT PROPOSAL**
Electronic version available here: <https://goo.gl/forms/NZ8uNdSYpqq0AoUL2>

HPC Project Number:

17-302

PROJECT INFORMATION

Project Title:	Middlewater Well Solar Conversion		
Game Management Unit:	20A	Region:	3
Local Habitat Partnership Committee (LHPC):		Was the project presented to the LHPC?	
Yavapai (Prescott)		NA	
Project Location: (Please provide <u>lat/long</u> in decimal degrees or meters of project area using datum WGS84 or NAD83. If project is larger than one point, please include them all. Provide an accompanying shapefile as an attachment for the project area). Please include enough maps to clearly demonstrate what the project will accomplish and where in Arizona the project is located (e.g. site specific map, and a larger overview map that shows where in the state the project is located).			
LATITUDE/NORTHING: 34.35869 LONGITUDE/EASTING: -112.53437 MULTIPLE LOCATION COORDINATES: Please separate coordinate pairs with names & commas. (ex. Bob's Tank 34.365, -110.663. Clear Spring 34.55, -110.107, etc.):			
Project Type:	Well solar conversion		
Water Project Action (if applicable):			
Habitat Restoration Action (if applicable):			
Other Project Type and Action (if applicable):			
Has this project been submitted in previous years?	No		
PROJECT SUMMARY			
Describe the proposed action only. Please use plain English, what action are you proposing? (If applicable, please reference any completed compliance including EAC#).			
Brief Project Summary: This project will consist of converting a windmill/gas generator operated well into a solar operated well system. The well currently feeds one drinker at the well site. This well is not operational when cattle are not on the allotment. This will provide perennial water to wildlife.			
Primary Big Game Wildlife Species to Benefit:		mule deer (90%), javelin (10%)	
Implementation Schedule (Month/Day/Year)	START DATE: 04/01/17	COMPLETION DATE: 06/30/17	

PROJECT FUNDING

Project Funding	Itemized Use of Funds
<p>*Qualifying Cost Share should be restricted to support (materials, compliance, and or labor) of the proposed action ONLY (same time and place). Please do not include previously purchased supplies or past completed work.</p>	<p>Please email separate quotes if HPC funds are to be used to purchase materials or contracted labor: HPC@azgfd.gov.</p>
<p><u>HPC Funds Requested</u></p> <p>Amount: \$1,116.50</p> <p><u>Cost Share or Matching Funds</u></p> <p>Amount: \$ 1,116.25</p> <p><u>Percent Match :</u> 50%</p> <p><u>Total Project Cost</u></p> <p>Amount: \$ 2232.75</p>	<p>Sun Pump SDS T 128 \$560.25 Installation kit IK-DT 200-sdst \$406.25 Shipping 25.00 Solar Panel 100watt 125.00 Grand total \$1,116.50</p> <hr/> <p>Match :</p> <p>Labor 7 hours @ \$120 per hour (Quote is from a very similar project completed last cycle - Wilhoit Well) Labor - \$840 Controller PCA-30 \$276.25 Grand total \$1,116.25</p>

ENVIRONMENTAL COMPLIANCE

Please indicate the status of the Project's compliance. if you are unsure, please reference:

HPC Compliance Checklist (<https://www.azgfd.com/wildlife/hpc/forms/>).

If you have questions regarding the requirement of an EAC, contact AGFD's Project Evaluation Program:

(<https://www.azgfd.com/wildlife/planning/projevalprogram/>).

***Please email supporting compliance documents to HPC@azgfd.gov ***

AGFD EA Checklist Completed:		Completion Date:	
NEPA Completed:	NA	Completion Date:	
State Historic Preservation Office/ Archaeological Clearance:	NA	Completion Date:	

This project is on Forest Service and will have zero ground disturbances. Maughan Ranches has made contact with John Kava of the Forest Service and they consider this project as maintenance in their NEPA and do not require any additional paperwork or archaeological survey. A copy of the NEPA will be provided once approved.

CONTACT INFORMATION

Applicant

The project applicant is the responsible party for seeing the work through to completion.

APPLICANT NAME: Dennis Fogle

PHONE: 480-318-6221

ORGANIZATION: Arizona Game & Fish Department

EMAIL: dfogle@azgfd.gov

ADDRESS: 5325 N Stockton Hill Rd, Kingman, AZ 86409

AGFD Project Proponent

The Project Proponent is responsible for compliance, implementation, and annual/final reporting requirements.

AGFD CONTACT NAME: Dennis Fogle

PHONE: 480-318-6221

Cooperators

COOPERATOR NAME(S), ORGANIZATION, ROLE IN PROJECT:

██████████ (General Manager for ██████████, ██████████ (Mule Deer Foundation)

PROJECT NEED AND DESCRIPTION

Please use direct language: why is this project important? What problem will be solved? How will you implement it, and how will the habitat be enhanced? Please include # of acres, methods, roles, and any phases. Please be specific and thorough.

NEED STATEMENT – PROBLEM ANALYSIS:

This project is 1 of 3 HPC proposals this cycle which include converting gas operated wells to solar in southern GMU 20A along the Hassayampa River Corridor as outlined in the Management Focus Area Plan (MFA) for GMU 20A. A map is attached to show the 3 proposed well conversions and surrounding perennial wells.

Perennial water in this area is nearly nonexistent. The Middlewater Well is the only current perennial water source within approximately 2 miles and that is only if the windmill is working properly. The Hassayampa River is roughly two miles to the west but it is ephemeral in parts of the river which is why this well was installed. There is a small seep two miles away that does not produce much water. As you move east from the Hassayampa River, water is scarce and the nearest water source is approximately 4 miles while the mule deer habitat is excellent which makes this an important water for mule deer. To the south approximately 3 miles is another HPC proposal called 160 Well. Mule deer water sources should not be more than 3 miles apart so all mule deer habitat is within 1.5 miles of a permanent water source (WAFWA Habitat Guidelines for Mule Deer). Therefore, keeping these two waters perennial is key to mule deer success in this area so this 3 mile gap is not further expanded.

This allotment does not occupy cattle year round which means ranch personnel do not monitor this well year round. This well is operated by a windmill which has been unreliable and unable to produce enough water. Therefore ██████████ have installed a submersible pump which is operated by generator to ensure the well produces enough water. This spring the generator operated water pump failed and this well did not keep water in the trough. When cattle are not on the allotment, ██████████ does not run the gas generator water pump which often leaves the trough dry to wildlife. The proposal is to convert the gas operated pump to a solar water pump. Converting to solar will create a renewable energy source that is more reliable than the windmill and or the gas water pump. Converting to a solar well pump will ensure

perennial water for wildlife and ensure water availability for cattle which will help distribute cattle range use on this allotment which will improve forage availability for deer. This solar operated water pump will operate 365 days a year and ensure the trough is full of water year-round.

PROJECT DESCRIPTION AND STRATEGIES:

The 200 foot Middlwater Well is located on Forest Service land. Currently the well is operated by a windmill but has been unreliable in providing perennial water. Therefore [REDACTED] has installed a gas generator operated water pump but that water pump failed this spring. The installation of the solar panels will all be above ground and cause zero ground disturbances. The solar panels will be mounted to the existing windmill. The existing windmill pump mechanism will be removed from the well. A solar water pump will be installed inside the already existing well which will draw water into the existing water lines which will feed into the water trough at the project location. There will be absolutely zero ground disturbance as all water lines are in place and this project only replaces parts inside the well.

All labor will be provided by [REDACTED].

LAND OWNERSHIP AT THE PROJECT SITE(S):

Forest Service

- The entire project lies within Forest Service land.

PROJECT MONITORING PLAN:

Project progress will be monitored by AGFD Wildlife Manager Dennis Fogle and [REDACTED] general [REDACTED].

PROJECT MAINTENANCE:

Ongoing maintenance of the well and trough will be completed by Maughan Ranches and at the expense of [REDACTED]. Long term monitoring includes [REDACTED] analyzing cattle range use and ensuring the well is operational.

PROJECT COMPLETION REPORT TO BE FILED BY:

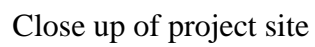
Completion report will be filled out by AGFD Wildlife Manager Dennis Fogle and [REDACTED] General Manager [REDACTED].

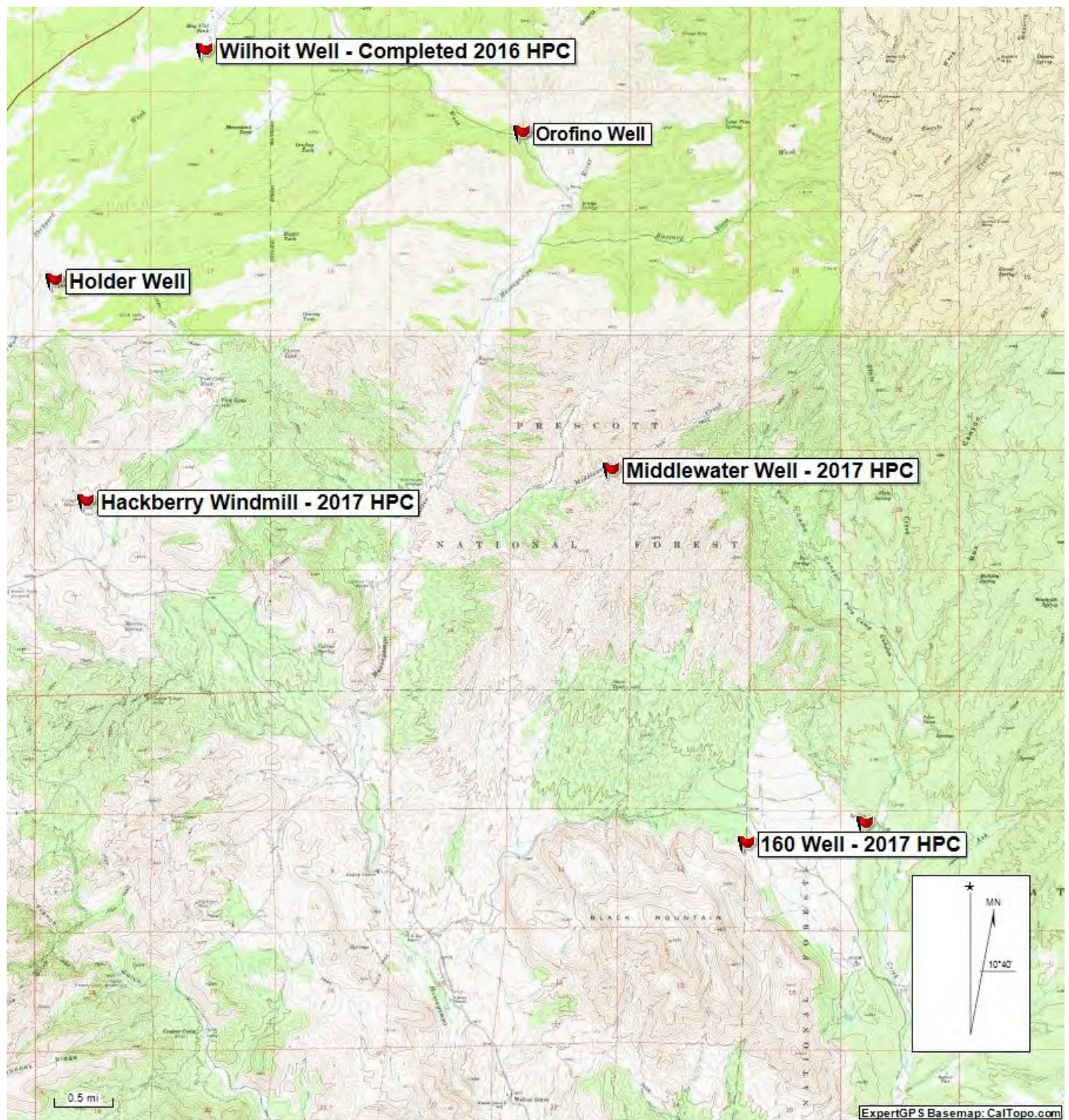
SUPPORTING DOCUMENTS LIST:

If you are unsure, please reference the Recommended Supporting Documents for your Application:
(<https://www.azgfd.com/wildlife/hpc/forms/>).



State view of project site





Wells in southern 20A along the Hassayampa River Corridor including three HPC proposals.



Photo of Middlwater Well , windmill and trough.