

**ARIZONA GAME AND FISH DEPARTMENT
HABITAT PARTNERSHIP COMMITTEE
HABITAT ENHANCEMENT AND WILDLIFE MANAGEMENT PROPOSAL**
Electronic version available here: <https://goo.gl/forms/NZ8uNdSYpqg0AoUL2>

HPC Project Number:	17-303
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PROJECT INFORMATION			
Project Title:	Hackberry 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: 34.35480 LONGITUDE/EASTING: -112.61111 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%), javelina (10%)	
Implementation Schedule (Month/Day/Year)	START DATE: 04/01/17	COMPLETION DATE: 06/30/17	

PROJECT FUNDING

Project Funding *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.	Itemized Use of Funds Please email separate quotes if HPC funds are to be used to purchase materials or contracted labor: HPC@azgfd.gov .
<u>HPC Funds Requested</u> Amount: \$1,116.50 <u>Cost Share or Matching Funds</u> Amount: \$ 1,116.25 <u>Percent Match :</u> 50 % <u>Total Project Cost</u> Amount: \$ 2232.75	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 <hr/> Match : Labor 7 hours @ \$120 per hour (Quote is from a very similar project completed last cycle - Wilhoit Well). Labor : \$840 Controllor PCA-30 \$276.25 Grand total \$1,116.25

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:		Completion Date:	
State Historic Preservation Office/ Archaeological Clearance:		Completion Date:	

No ground disturbance will occur. Maughan Ranches has made contact with ASLD and they have approved the project verbally. Once funded, ASLD wants Maughan Ranches to submit a formal document "application to place improvement". This document is a formality and will be approved because there is no ground disturbance.

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:

Don Glasgow (General Manager for Maughan Ranches, Terry Herndon (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 Hackberry Well is located at the base of a mountain range that encompasses Fire Clay Hill which is just northeast of Kirkland Junction. This small mountain range is an important range for wildlife. The Department conducts annual aerial deer/javelina surveys on this mountain range and survey several herds of deer and javelina annually. It is a small mountain range which offers wildlife more diverse habitat and some of the cover components needed to survive as opposed to the surrounding flatter habitat. To the south about 1 mile in 20C there is a water source at the Walker House which is a property owned by Maughan Ranches. The water is literally within 100 feet of the residence and wildlife use is very minimal. To the north and east there are few dirt tanks that do not hold perennial water. The nearest perennial water is approximately 2 miles north and called Holder Tank which is another Maughan Ranch well which holds water year round. To the east it is approximately 4 miles to the nearest water which is another HPC project proposal for this year called Middewater 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). This 4 mile gap without perennial water it not within the 3 mile distance. Therefore, keeping these two waters perennial is important to mule deer success in this area so this 4 mile gap is not further expanded. In this 4 mile gap there are pockets of water near the Hassayampa River that may be perennial.

This well is operated by a windmill which has been unreliable and unable to produce enough water. Therefore Maughan Ranches have installed a submersible pump which is operated by generator to ensure

the well produces enough water. When cattle are not on the allotment, Maughan Ranches does not run the gas generator water pump which often leaves the trough dry to wildlife. The proposal is to convert the generator 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 generator operated 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 for availability for deer. Maughan Ranch Manager Don Glassgow states this water is very important for keeping cattle further north on the allotment and ensures proper grazing distribution. 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 Hackberry Well is located on Arizona State Trust Land. Currently the well is operated by a windmill but has been unreliable in providing perennial water. Therefore Maughan Ranches has installed a gas generator operated water pump. 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 gas generator water pump 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 Maughan Ranches.

LAND OWNERSHIP AT THE PROJECT SITE(S):

Arizona State Land Department

- The entire project lies within land owned by the Arizona State Land Department.

PROJECT MONITORING PLAN:

Project progress will be monitored by AGFD Wildlife Manager Dennis Fogle and Maughan Ranch general Manager Don Glasgow.

PROJECT MAINTENANCE:

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

PROJECT COMPLETION REPORT TO BE FILED BY:

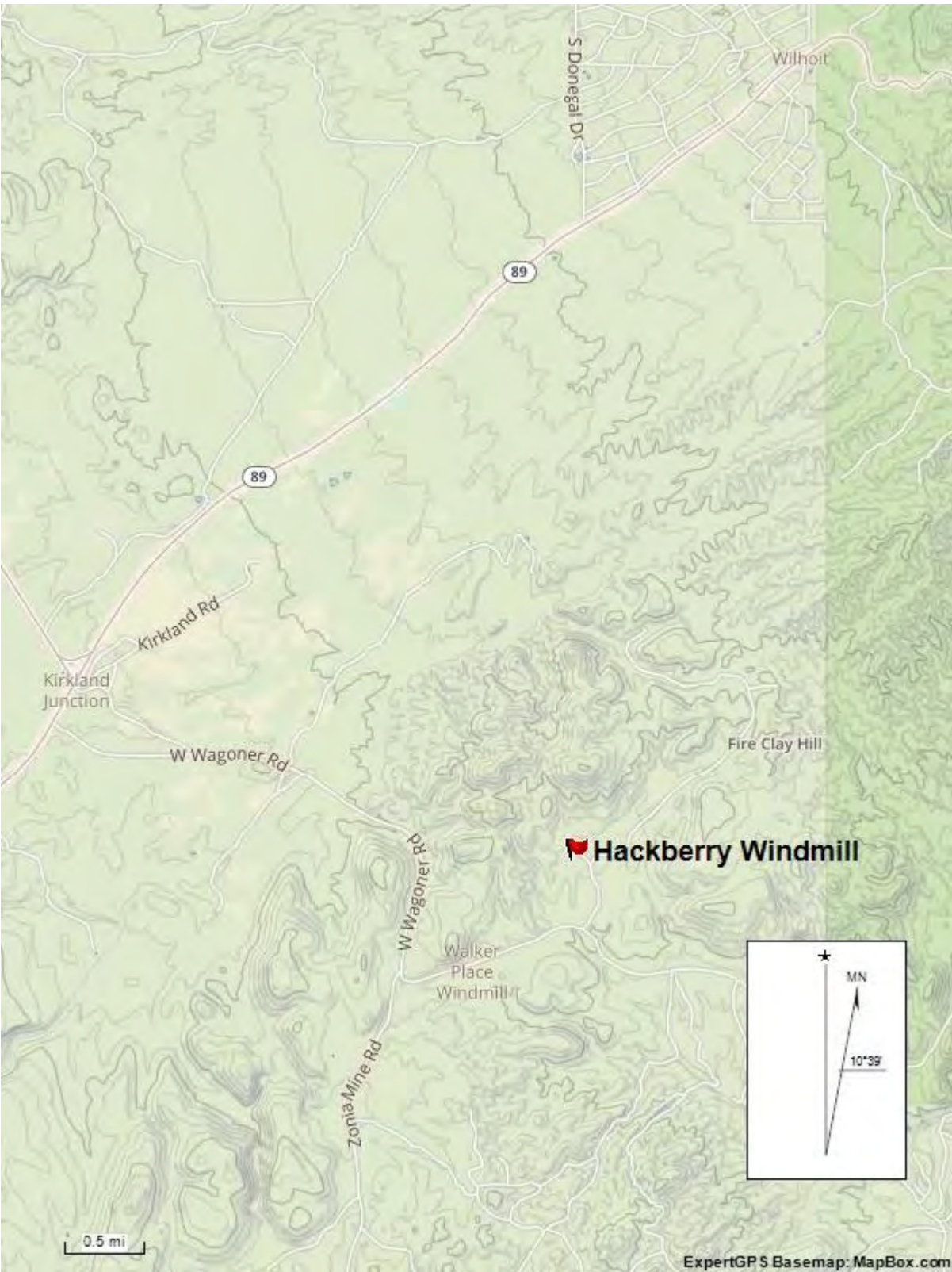
Completion report will be filled out by AGFD Wildlife Manager Dennis Fogle and Maughan Ranches General Manager Don Glasgow.

SUPPORTING DOCUMENTS LIST:

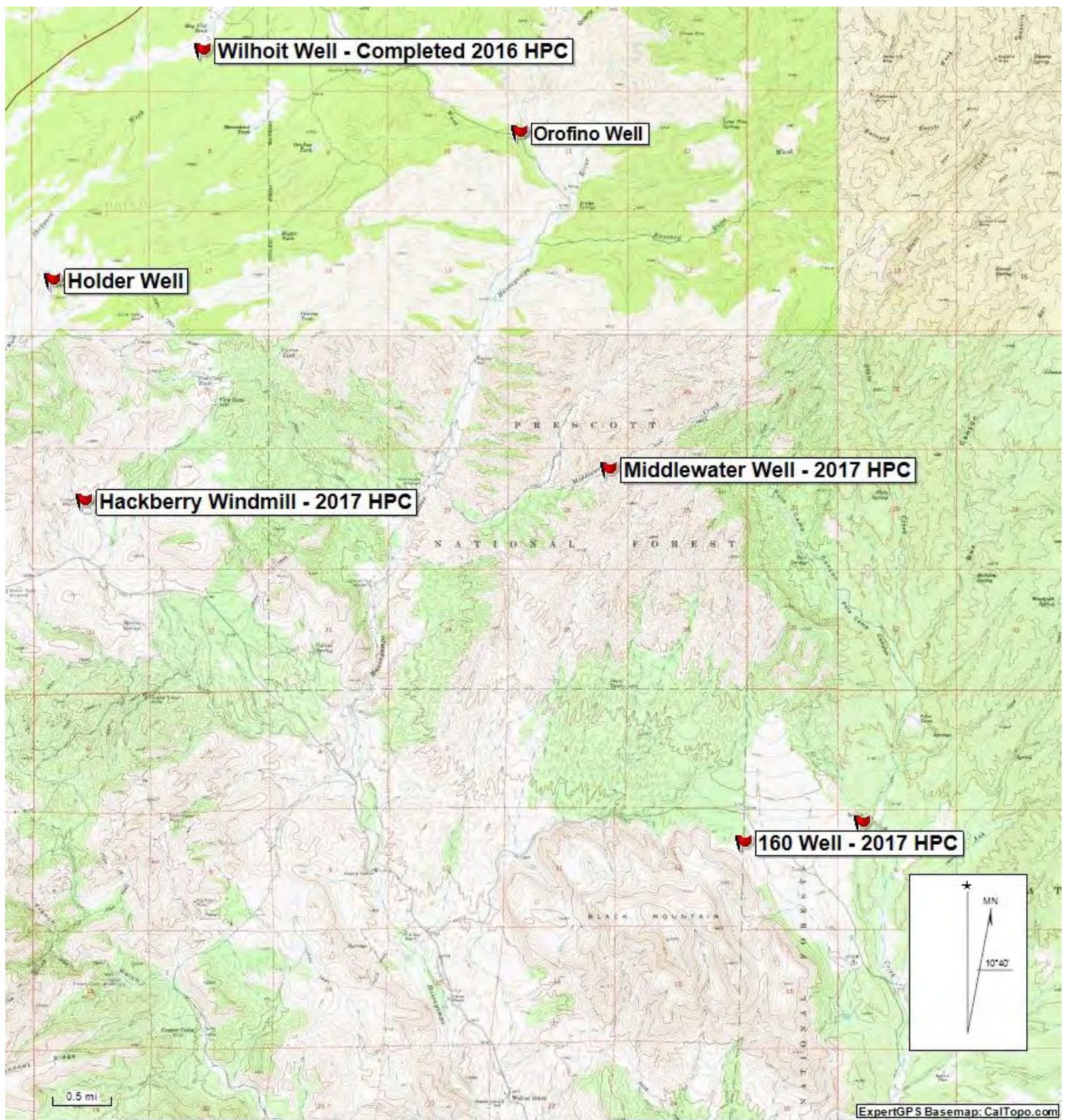
If you are unsure, please reference the Recommended Supporting Documents for your Application:
(<https://www.azgfd.com/wildlife/hpc/forms/>).



State view of project site



Close up of project site



Wells in southern 20A along the Hassayampa River Corridor including three 2017 HPC proposals.



Photo of Hackberry Well, windmill and drinker.

Dracser Well Service

MRL# 9275983

INVOICE NO. 252209

Roc #297611

Invoice

BILL TO <i>Maughan Ranches</i>		SERVICE PERFORMED AT <i>Willhoit Well</i>	
ADDRESS		ADDRESS	
CITY, STATE, ZIP		CITY, STATE, ZIP	
CUSTOMER ORDER NO.	SOLD BY	TERMS	DATE <i>7-15-17</i>

	<i>6SQF3</i>	<i>\$2854.00</i>
	<i>6-190 Watt Panels \$235.00 each =</i>	<i>\$1410.00</i>
	<i>Panel Rack</i>	<i>\$300.00</i>
	<i>Splice Kit</i>	<i>\$18.00</i>
	<i>Tape 10 mil 4 rolls \$7.50 each =</i>	<i>\$30.00</i>
	<i>labor 7 hours at \$120.00 =</i>	<i>\$840.00</i>
	<i>Sub Total =</i>	<i>\$5452.00</i>
	<i>Tax =</i>	<i>\$318.94</i>
	<i>Grand Total =</i>	<i>\$5770.94</i>
	<i>\$4000.00 Paid in Advance -</i>	<i>4000.00</i>
	<i>New Total =</i>	<i>\$1770.94</i>

[Signature]

11415.6672

Asset Req# 7935

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SunPumps IK-DT-250 SDS-D or SDS-T 250 Foot Installation Kit With Pipe, Wire, and Safety Rope

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Qty:

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Description

Additional Information

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