

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

Game Branch / HPC Project Number:	15-310
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**PROJECT INFORMATION**

**Project Title:** Antelope Hills Water Catchment Construction

**Region and Game Management Unit:** GMU19A

<b>Local Habitat Partnership Committee (LHPC):</b> • Prescott HPC	<b>Was the project presented to the LHPC?</b> YES[] NO[] Pending
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**Has this project been submitted in previous years?** YES[] NO[X]  
**If Yes, was it funded?** YES[] NO[] → **Funded HPC Project #(s):**

**Project Type:** Wildlife/Livestock Water Development

**Brief Project Summary:** This project will install a wildlife/livestock water development on Prescott National Forest land in northeast GMU19A on the Antelope Hills Allotment, for the purpose of providing year-round water for mule deer, pronghorn, and other wildlife. This development will also provide water for livestock on the grazing allotment to more effectively distribute the cattle utilization of available forage. The catchment will follow Department specifications for all development projects of this nature.

**Big Game Wildlife Species to Benefit (% benefit per species) :** mule deer = 90%; pronghorn = 10%

<b>Implementation Schedule</b> (Month/Day/Year):  <u>Project Start Date:</u> 7/15/16     <u>Project End Date:</u> 7/15/18	<b>Environmental Compliance:</b> NEPA Completed: Yes[] No[X] N/A[] Projected Completion Date: <u>05/31/16</u>  State Historic Preservation Office - Archaeological Clearance: (Provide Attachment) Yes[] No[X] N/A[] Projected Completion Date: <u>05/31/16</u>  Arizona Game and Fish Department EA Checklist: N/A[] To be Completed by: <u>Wade Albrecht and Tom Bagley</u> Projected Completion Date: 05/31/16
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**PROJECT FUNDING**

<b>Special Big Game License Tag Funds Requested:</b>	\$ \$30,000
<b>Cost Share or Matching Funds:</b>	\$ \$40,000
<b>Total Project Costs:</b>	\$ \$70,000

**PARTICIPANT INFORMATION**

<b>Applicant</b> (please print): Wade Albrecht	<b>Address:</b> ██████████ ██████████	<b>E-mail:</b> walbrecht@azgfd.gov
<b>Telephone:</b> (928) 853-0044		<b>Date:</b> 8/25/15

**AGFD Contact and Phone No.** (If applicant is not AGFD personnel):

Tom Bagley (Wildlife Manager; ph. 928-856-0800) or Wade Albrecht (Landowner Relations Specialist)  
Region III

**Project has been coordinated with:**

Prescott National Forest (John Kava) and Silkie Perkins: rancher Antelope Hills Allotment

**NEED STATEMENT – PROBLEM ANALYSIS:**

There is a lack of year-round waters in the Antelope Hills Allotment within Game Management Unit 19A, with the Verde River being the only available perennial source. However, the steep canyon walls make the river nearly inaccessible for many of the area's wildlife. The addition of waters in this area will add to, and complement, the significant browse component that occurs in the vicinity of the project area, creating a greater opportunity for increasing the resident mule deer population and facilitating pronghorn movement through a known habitat corridor.

**PROJECT OBJECTIVES:** To provide year-round waters in the uplands south of the Verde River for wildlife and livestock. This will lead to more effective management of range resources by the rancher/allotment holder. This is a partnership with the Prescott National Forest to improve habitat and land resources. The overriding goal is to enhance mule deer populations by increasing available habitat resources in the project vicinity. Not only will this water benefit the local deer population, but it will also provide a missing habitat component to the deer from the Woodchute Mountain area that winter in the Antelope Hills. The Prescott National Forest has been treating Woodchute and Mingus Mountains with substantial prescribed burns under their decade-long Black Hills Vegetation Treatment Plan, which is having the effect of setting the vegetative communities back to early successional stages and increasing available forage. Former AGFD HPC projects have contributed money to these burns, so this proposal is part of a larger, landscape-scale plan to increase deer numbers in Unit 19A. The Antelope Hills Water Catchment would also provide water for pronghorn antelope along a documented route that interconnects populations at Duff Flat (in Unit 6B) and near the towns of Clarkdale and Jerome (in Unit 19A) with populations residing at Little Black Mesa and Chino Valley (in western Unit 19A), through Red Flat Draw.

**PROJECT DESCRIPTION AND STRATEGIES:**

To work in collaboration with the Prescott National Forest, the allotment holder, and the AGFD Development team to design and install a wildlife/livestock water catchment. The development team will initiate design and complete construction of the catchment as outlined in Department specifications. The addition of a shared wildlife/livestock water development will help address the primary habitat shortcoming in the area – that of reliable year-round water. Because of the combined use by wildlife and livestock, a large 20,000 gallon water storage system is recommended. Two separate drinking troughs outside of the enclosure fence (in addition to a wildlife drinker inside the enclosure) will accommodate several animals drinking from the catchment at one time. To cover the eight polyethylene water storage tanks for weather protection, AGFD Development Branch recommends the apron size to be 48 feet by 48 feet. Teaming this project with other planned water projects (by PNF) will help to enhance mule deer populations in the area and will provide greater latitude to the rancher in managing ranch resources more effectively. Game Management Unit 19A has not had a new Game & Fish water catchment constructed since the 1950s. This location is very well suited to expanding the area's mule deer population by creating a reliable water source in deer habitat that contains a large amount of under-utilized browse.

## 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)

Township 17N, Range 2E, Section 23.

Lat: 34° 50' 31" North

Long: 112° 06' 50" West

(WGS 84)

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

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

- Prescott National Forest, Chino Ranger District

*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:

The habitat is high desert uplands at 4,600 feet in elevation, within the Antelope Hills range, just south of the upper Verde River. The vegetative community includes juniper sp., cliffrose, rhus sp., cat claw, mountain mahogany, blue and black grama grasses, and many other plant species. The landscape descends in elevation from the Woodchute Mountain foothills to the south, northward to the Verde River. There is good water retention in the soils and a high browse component. The terrain is rugged, with steep canyons and hills descending gradually to the overlook of the Verde River, where cliff walls drop sharply into the riparian area bordering the north edge of the Antelope Hills Allotment.

## ITEMIZED USE OF FUNDS:

### Special Big Game License Tag Funds

\$30,000 to pay for materials and construction costs:

#### **Catchment: \$ 35,675**

8 –2500 gallon Polyethylene Water Tanks @ \$3,500 each = \$28,000

1 – 4' Polyethylene Walk-in Standard Trough = \$ 4,075.00

2- Rainmaker 250 Cattle Troughs @ \$875 = \$1750

2 – 24' Polyethylene Gutter @ \$ 925.00 = \$1850

**48' X 48' Apron Package = \$ 8,000.00**

24' x 3 5/8" 16ga. Metal Studs

24' x 3 5/8" 16ga. Metal Track

Cold roll channel lock for studs

24' x 36" Tan 26ga. R-panel

1500 – 5/16" Hex head x 1" #10 self-drilling screws w/ neoprene washer

50 – 5/16" Hex head x 1 1/2" #10 self-drilling screws w/ neoprene washer

15 – 2" X 20' Steel Square Tube

**Plumbing Materials = \$ 1,050.00**

**Fence and Support Posts (Standard Pipe rail Enclosure 800' lineal feet) = \$4,134**

27 – 1 ½" Sch. 40 Black Steel Pipe, Plain End (includes 11 for apron support post)

135 – 1/2" Black Steel Pipe, Threaded and Coupled

140 – Premix concrete 3000psi 60lb. bags (42 bags for apron support post)

**Trough and Gutter Materials = \$ 100.00**

**Miscellaneous Materials = \$ 500.00**

**Approximate Total Cost of Wildlife Catchment = \$50,000**

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

\$40,000 to pay for materials and construction costs.

- \$20,000 – Prescott National Forest (providing NEPA, archeological clearances, logistics, construction materials, planning)
- \$20,000 – Landowner Relations Program (AGFD) – construction costs and additional materials

**LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION:**

Prescott National Forest: John Kava, Chino Ranger District- \$20,000 contribution; will also complete NEPA and cultural resource compliance.

Silkie Perkins – site preparation, assist with construction and maintenance

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

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

Although the area is public land managed by the U.S. Forest Service (Prescott National Forest), it is remote and under-utilized by sportsmen because of the current low densities of deer in the area. A reliable water source here would increase the deer population in the project area and would expand productive areas for sportsmen.

**PROJECT MONITORING PLAN:**

Will be monitored by the local Wildlife Manager, Tom Bagley for GMU 19A. PNF range personnel (Chino Ranger District) will provide assistance with monitoring.

**PROJECT MAINTENANCE:**

To be encumbered by the Allotment holder & AGFD personnel

**PROJECT COMPLETION REPORT TO BE FILED BY:**

Tom Bagley or Wade Albrecht (AGFD)

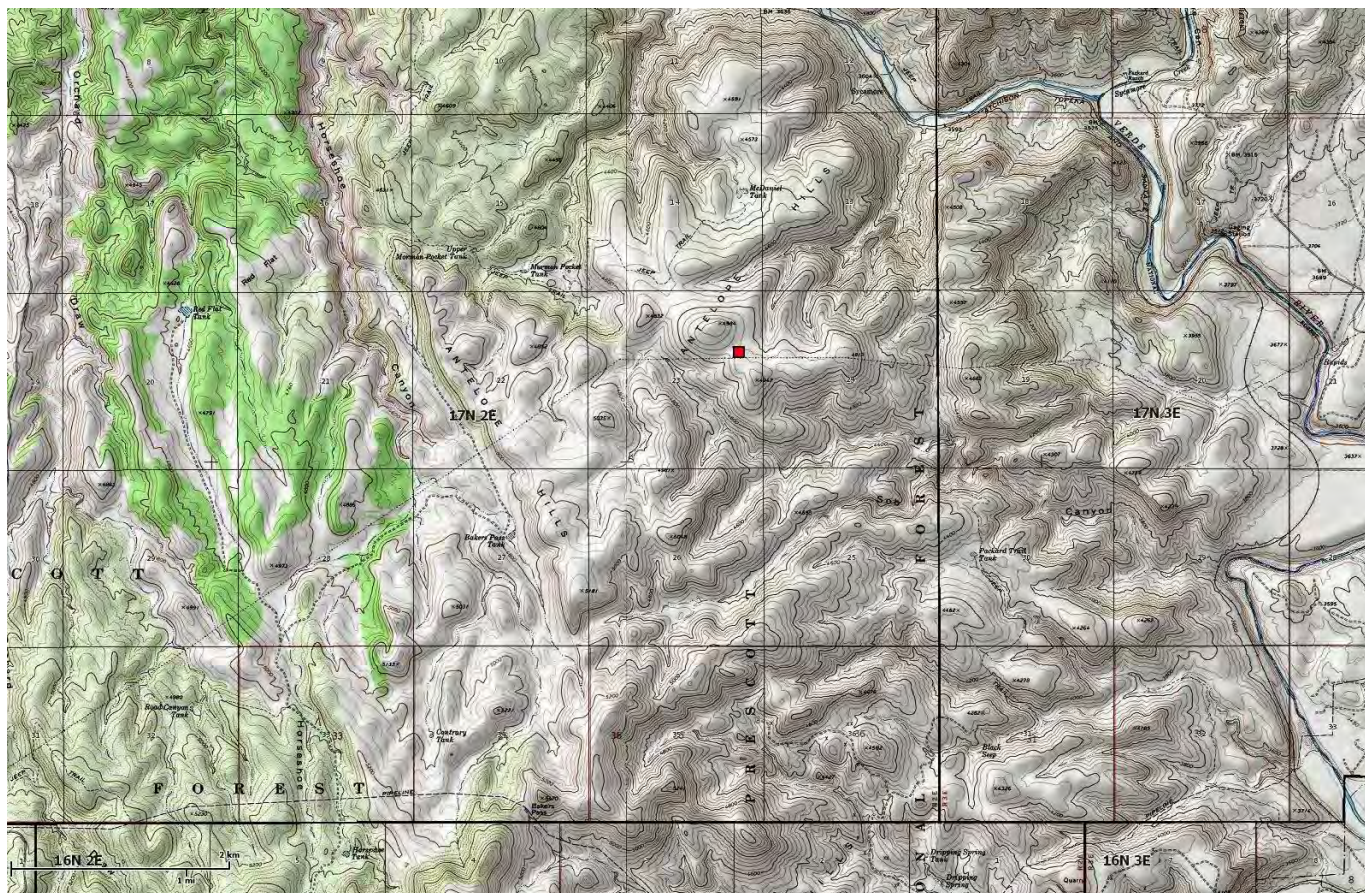
**WATER DEVELOPMENT PROJECTS (please use the worksheet below):**

**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)

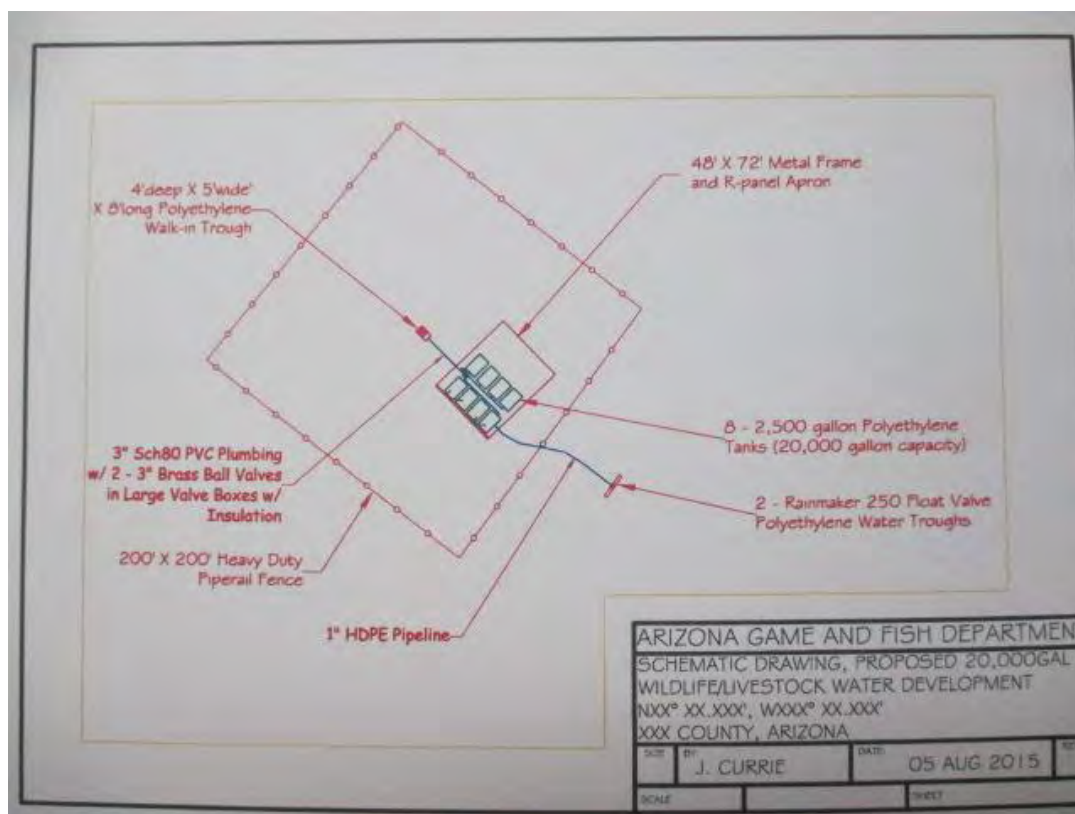
**ANTELOPE HILLS WILDLIFE/LIVESTOCK CATCHMENT**



Proposed Antelope Hills Catchment Location, Unit 19A



Proposed Antelope Hills Catchment Site



General Schematic Drawing of Wildlife/Livestock Water

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

**PROJECT TITLE:** Antelope Hills Water Catchment Project

- 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.**  
Ed Jahrke, Joe Currie (August 2015)
- 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: Verde River  
Type of water source (catchment, spring, dirt tank): Perennial River  
Ownership of water source: Prescott National Forest  
Distance in miles from project: Greater than 2 miles as the crow flies, but far more when traversing the canyons and hills toward the river. This country is rugged and the river water nearly inaccessible to ungulates in the uplands, due to extreme drop to the riparian corridor below the cliff walls.
- 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.**  
This land is part of the Prescott National Forest.
- 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: Best accessed by ATV, side by side or high profile 4 X 4.
- 9) **Please list below (or on a separate sheet) the material type and dimensions of each component proposed to be added, modified, or repaired.** (see above)
- 10) **Was a site visit completed?** Yes No

Site visit with the rancher (Silkie Perkins), AGFD Wildlife Manager Virginia Goldsbury, PNF biologist and ranger specialists (Dan Garcia & John Kava) in 2014. AGFD Wildlife Manager Tom Bagley site visit in August 2015.