

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

Game Branch / HPC Project Number:	17-204
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**PROJECT INFORMATION**

<b>Project Title:</b> Buckhorn Allotment Water Enhancement Project	
<b>Region and Game Management Unit:</b> Region 2, Game Management Unit 6A	
<b>Local Habitat Partnership Committee (LHPC):</b> • Flagstaff-Williams	<b>Was the project presented to the LHPC?</b> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
<b>Has this project been submitted in previous years?</b> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> <b>If Yes, was it funded?</b> YES <input type="checkbox"/> NO <input type="checkbox"/> → <b>Funded HPC Project #(s):</b>	
<b>Project Type:</b> Water Development	
<b>Brief Project Summary:</b> The Winter, Winter Heifer and Heifer pastures of the Buckhorn Allotment are livestock utilized as cold-season pastures. Several existing pond basins have collected sediments since construction that compromise their storage capacity. This project proposes to improve water distribution for both livestock and wildlife by removal of sediments from pond basins and/or replacing the basin with a catchment.	
<b>Big Game Wildlife Species to Benefit:</b> Mule deer, whitetail deer, javelina, Rocky Mountain sheep	

<b>Implementation Schedule</b> (Month/Day/Year):  <u>Project Start Date:</u> March 15, 2018  <u>Project End Date:</u> October 31, 2022	<b>Environmental Compliance:</b> NEPA Completed: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Projected Completion Date: _____  State Historic Preservation Office - Archaeological Clearance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Projected Completion Date: Prior to implementation (See Attachment A) _____  Arizona Game and Fish Department EA Checklist: N/A <input type="checkbox"/> To be Completed by: <u>Lee Luedeker</u> Projected Completion Date: Prior to implementation, spring 2018
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**PROJECT FUNDING**

<b>Special Big Game License Tag Funds Requested:</b>	\$20,000
<b>Cost Share or Matching Funds:</b>	\$75,000 (\$60,000 ADEQ; \$10,000 Access through M-Diamond, \$5000+ M-Diamond)
<b>Total Project Costs:</b>	\$ 100,000

**PARTICIPANT INFORMATION**

<b>Applicant</b> (please print): ██████████	<b>Address:</b> ██████████ ██████████ ██████████	<b>E-mail:</b> ██████████
<b>Telephone:</b> ██████████	██████████	<b>Date:</b> August 1, 2017

<b>AGFD Contact and Phone No.</b> (If applicant is not AGFD personnel): Lee Luedeker 928-856-0747		
<b>Project has been coordinated with:</b> [REDACTED]; Coconino National Forest, Red Rock Ranger District-[REDACTED]; Arizona Mule Deer Foundation-[REDACTED]; Arizona Deer Association-[REDACTED]		

**NEED STATEMENT – PROBLEM ANALYSIS:**

The Winter, Winter Heifer and Heifer pastures of the Buckhorn Allotment provide habitat for mule deer and the southern margins near West Clear Creek Wilderness also support whitetail deer and Rocky Mountain bighorn sheep. Water resources, mostly dirt ponds, were constructed to support livestock grazing, but sedimentation through time has compromised the storage capacity. Since these pond basins are persistently dry, range function for both livestock and wildlife has been impaired. This project proposes to improve water distribution for both livestock and wildlife by removal of sediments from pond basins and/or replacing the basin with a catchment.

The Arizona Department of Environmental Quality (ADEQ) offers a grant opportunity to improve watershed function with proposed dispersal of water resources. The restoration of the historic water sources will reduce hoof disturbance/trampling of the soil surface at the current water sources and distribute forage utilization across the pastures. The positive effect of this treatment complements ongoing landscape treatments in the Wickiup Draw watershed of the [REDACTED] implemented within the past 5 years to improve watershed function. The ADEQ grant offers a 60-40 matching funds ratio that justifies requesting HPC out-of-cycle funds to meet the narrow ADEQ grant window (expires August 9, 2017).

**PROJECT OBJECTIVES:**

The project objective targets the evaluation of 6 dirt pond basins to determine the best option for long-term perennial water availability. Options will include sediment removal, sealing basins with bentonite, installation of a liner and replacement with a catchment. The 6 sites targeted all have previously disturbed soils in existing dirt pond basins (Winter Pasture-Mulcaire Tank and Lost Tank; Winter Heifer Pasture- Hance Tank, Cedar Mountain Tank and Cedar Bench Tank #1; Heifer Pasture-Vernon Tank).

**PROJECT DESCRIPTION AND STRATEGIES:**

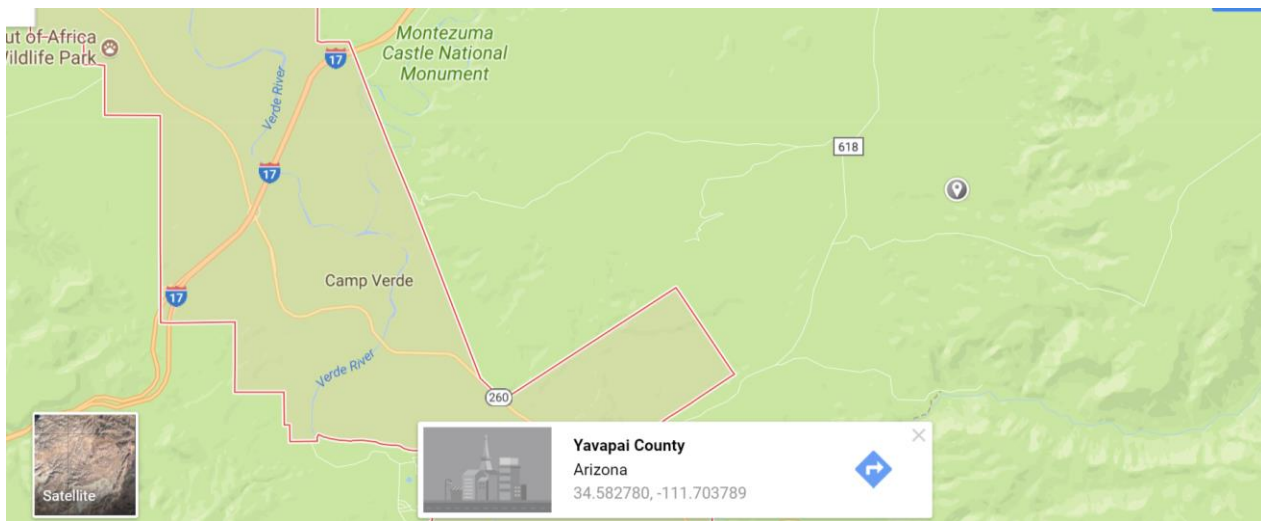
Restoring water availability to habitat in the Wickiup and Hance basins will enhance the capability to sustain resident mule deer and javelina populations. Small game, particularly Gambel quail will also benefit from dispersal of water resources. The recently submitted Access Agreement will assure availability of the area to public use.

The [REDACTED] has already engaged Natural Channel Design to commence evaluation of the pond sites to develop a recommended implementation process. If the recommendation requires significant soil disturbance, more intensive cultural clearance may be necessary.

The intent of the project is to treat as many of the historic dirt pond waters as possible with the funds available.

**PROJECT LOCATION:**

[REDACTED] Yavapai County  
Game Management Unit 6A  
Forest Road 618, 9 miles east of Camp Verde, AZ



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

Coconino National Forest, Red Rock Ranger District

*IF PRIVATE PROPERTY, IS THERE A COOPERATIVE BIG GAME STEWARDSHIP or LANDOWNER AGREEMENT BETWEEN THE LANDOWNER AND THE DEPARTMENT?*

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

The M-Diamond Ranch is a recent addition to the Adopt-A-Ranch program. The Department and the M-Diamond Ranch will engage in a Stewardship Agreement to support this project.

**HABITAT DESCRIPTION:**

North aspects are juniper-pinyon woodland or juniper woodland. South aspects are juniper savannah transitioning into desert grassland/ semi-desert scrub.

**ITEMIZED USE OF FUNDS:**

Special Big Game License Tag Funds

\$20,000- Implementation cost for contracting sediment removal from pond basins and/or construction of trick tank(s).

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

M-Diamond- \$10,000 Through Access grant (Consultation for design-Natural Channel Design; Implementation)

\$5,000+ Labor, equipment and administrative oversight

ADEQ- \$60,000 Implementation of waters

**LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION:**

Coconino National Forest- completed NEPA and Cultural Resources Analysis

Arizona Game and Fish Department- Processed Access grant and HPC proposal

██████████ - Processed Arizona Department of Environmental Quality (ADEQ) grant proposal and will contribute labor, equipment and administrative oversight to the implementation phase

ADEQ- Grant management

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

YES NO N/A

See Access agreement, Attachment B

**PROJECT MONITORING PLAN:**

Administrative function of ██████████

**PROJECT MAINTENANCE:**

██████████

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

Lee Luedeker, Az. Game & Fish Dept.

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

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

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

**PROJECT TITLE: Buckhorn Allotment Water Enhancement Project**

- 1) **Is the water development listed as a priority in the most recent “Wildlife Water Development Annual Implementation Schedule?”** No. This project will be implemented externally, with majority funding through an ADEQ grant, supplemented with Access funds and an HPC out-of-cycle grant.
  
- 2) **Please list the Development Branch personnel and date coordinated with for this project.**  
Joe Currie, July 31, 2017
  
- 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?** This project proposes to treat as many as 6 water sites within a polygon of approximately 1500 acres north of West Clear Creek.  
YES (please complete #5 below) NO (skip #5 below)
  
- 5) **For the accessible, perennial water source nearest this project:**  
Name of water source: West Clear Creek  
Type of water source (catchment, spring, dirt tank): Perennial stream  
Ownership of water source: Coconino National Forest  
Distance in miles from project: 2 miles
  
- 6) **Is the target wildlife species a result of transplant efforts?** YES NO  
The Cedar Mountain Tank location provides a water opportunity for Rocky Mountain bighorn sheep, the West Clear Creek population of which derives from transplants (2005-07). The largest benefit will be for the resident mule deer population.
  
- 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\*\*  
Some of the sites require 4x4 access.  
  
\*\*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:
  
- 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](http://www.hr.az.gov/HR_Professional/Class_Comp/PDF/alphacovered.pdf)

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

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