

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

Game Branch / HPC Project Number: 15-106

**PROJECT INFORMATION**

**Project Title:** Willow Wash Allotment Dirt Tank Maintenance

**Region and Game Management Unit:** Region 1, GMU's 3A & 3C

<b>Local Habitat Partnership Committee (LHPC):</b> • Show Low	<b>Was the project presented to the LHPC?</b> YES[X] NO[]
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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:** Dirt Tank Maintenance

**Brief Project Summary:** This project will provide required maintenance (removal of silt buildup) to 11 dirt tanks and application of bentonite clay to 5 (of the 11) dirt tanks on the Willow Wash Allotment in northcentral 3C and southwestern 3A to improve water availability for elk, pronghorn and mule deer.

**Big Game Wildlife Species to Benefit (% benefit per species) :** Elk 40%, Pronghorn 35%, Deer 25%

<p><b>Implementation Schedule</b> (Month/Day/Year):</p> <p><u>Project Start Date:</u> May 15, 2016</p> <p><u>Project End Date:</u> July 15, 2017</p>	<p><b>Environmental Compliance:</b></p> <p>NEPA Completed: Yes[X] No[] N/A[]                  Projected Completion Date: Current Willow Wash Allotment Management Plan _____</p> <p>State Historic Preservation Office - Archaeological Clearance:                  (Provide Attachment)                  Yes[X] No[] N/A[]                  Projected Completion Date: Field surveys completed, IS&amp;A expected Sept 2015 _____</p> <p>Arizona Game and Fish Department EA Checklist: N/A[]                  To be Completed by: <u>Paul Greer</u>                  Projected Completion Date: February 2016</p>
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**PROJECT FUNDING**

<b>Special Big Game License Tag Funds Requested:</b>	\$ 19,550
<b>Cost Share or Matching Funds:</b>	\$ 8,620
<b>Total Project Costs:</b>	<b>\$ 28,170</b>

**PARTICIPANT INFORMATION**

<p><b>Applicant</b> (please print): Paul Greer</p>	<p><b>Address:</b> 2878 E. White Mountain Blvd. Pinetop, AZ 85935</p>	<p><b>E-mail:</b> jgreer@azgfd.gov</p>
<p><b>Telephone:</b> (928) 358-8905</p>	<p><b>Date:</b> August 28, 2015</p>	

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

**Project has been coordinated with:** USFS Black Mesa Ranger District and Willow Wash Allotment Ranch Manager

**NEED STATEMENT – PROBLEM ANALYSIS:**

The southwest portion of Unit 3A and northcentral portion of Unit 3C are areas lacking perennial water sources for wildlife. There are no perennial lakes, streams or rivers in this area and annual precipitation is much lower than precipitation common for southern portions of the forest at higher elevations and closer to the Mogollon Rim. With xeric conditions common, wildlife that occupy this habitat rely primarily on man-made water sources. For years, a paper mill was operational west of Snowflake, located just off the Apache-Sitgreaves National Forest north of Highway 277. The paper mill supplied water to several pipelines that provided perennial water to livestock drinkers in this area. Elk, pronghorn and deer benefited from these water drinkers that were maintained and kept full year-round by the Willow Wash Allotment ranch hands. In 2013, the paper mill was closed and the water supply for the pipelines lost. As a result, many of the perennial wildlife and livestock waters were lost. Some wildlife guzzlers/catchments are present; however the primary water developments are dirt tanks.

Dirt tanks, or earthen stock tanks are cheap and easy to build, but do require routine maintenance to clean out deposits of silt that accumulate in the dirt tanks over time. Additionally, bentonite clay can be added to tanks in specific circumstances to improve the “seal” of the tank, or the tank’s ability to hold water. These dirt tanks identified in this project are all in need of cleaning and are not holding water at their potential. The present condition of these tanks results in reduced wildlife water distribution especially during the critical months of May and June.

**PROJECT OBJECTIVES:**

Improve permanent water distribution for wildlife. This will be accomplished in the following manner:

- Hire a contractor to clean out silt buildup and complete any needed repairs for 11 dirt tanks (see attached list of the 11 tanks).
- Apply bentonite clay to 5 of the 11 dirt tanks that have been individually identified as needing clay to improve water storage ability.
- Improve range condition by improving water distribution which in turn facilitates better distributed livestock grazing.

**PROJECT DESCRIPTION AND STRATEGIES:**

- Restore tanks to original storage capacity and extend the number of days water is available to wildlife and livestock.

**PROJECT LOCATION**

(Please provide lat/long in decimal degrees of project area using datum WGS84. If project is larger than one point, please provide multiple lat/long points or an existing shapefile of the project area)

- USDA Forest Service, Apache-Sitgreaves National Forest, Black Mesa Ranger District

- SEE ATTACHED list with tank names and locations

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

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

- USDA Apache-Sitgreaves National Forest, Black Mesa 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:**

Great Basin Grassland, P/J transition woodland. Elevation ranges from 6,000 to 6,300 feet.

**ITEMIZED USE OF FUNDS:**

Special Big Game License Tag Funds

Clean (and repair if necessary) 11 dirt tanks =	\$ 19,250 (\$1,750 per tank – avg.)
Bentonite Clay for 5 dirt tanks and delivery =	\$ 300
<b>Total SBGLT Funds Requested =</b>	<b>\$ 19,550</b>

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

Willow Wash Allotment Permittee

Application of Bentonite Clay at 5 tanks = \$ 1,250 (\$250 to apply at each tank)

USDA Forest Service

Archaeological Surveys and Clearance for 11 tanks = \$ 7,370 (\$670 per tank)

**Total Cost Share = \$ 8,620**

**Total Project Cost = \$ 28,170**

**LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION:**

- US Forest Service Black Mesa RD – archaeological surveys/clearance, NEPA compliance, project oversight and land management agency approval
- Willow Wash Permittee and Ranch Manager – contract/administer cleaning of dirt tanks and application of bentonite clay

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

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

**PROJECT MONITORING PLAN:**

Paul Greer AZGFD will take photos before and after the project. These tanks should fill during summer monsoon storms.

**PROJECT MAINTENANCE:**

N/A

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

Paul Greer AGFD

**ATTACHMENTS:**

(Please provide cultural clearance documentation from land management agency, e.g., FONSI, Inventory Standards, etc. Also attach any project pictures)

**CULTURAL RESOURCE DOCUMENTATION:**

Archaeological surveys have been completed by the Black Mesa Ranger District at all of the 11 dirt tanks to be cleaned (see attached list of tanks). The Inventory Standards and Accounting (IS&A) is in the process of being completed by the forest archaeologist. The completed IS&A is expected no later than the first week of October, likely within September, and will be forwarded to Game Branch as soon as it is signed.

**ENVIRONMENTAL CLEARANCE (NEPA COMPLIANCE):**

NEPA compliance for cleaning/maintaining stock tanks is covered under the Willow Wash Allotment Management Plan maintained and updated through the Black Mesa Ranger District.

**PHOTOS**

See Attached

**PROJECT MAPS**

See Attached

**TANK LIST AND LOCATIONS**

See Attached



### Flood Tank - silted in and needing to be cleaned to restore original capacity



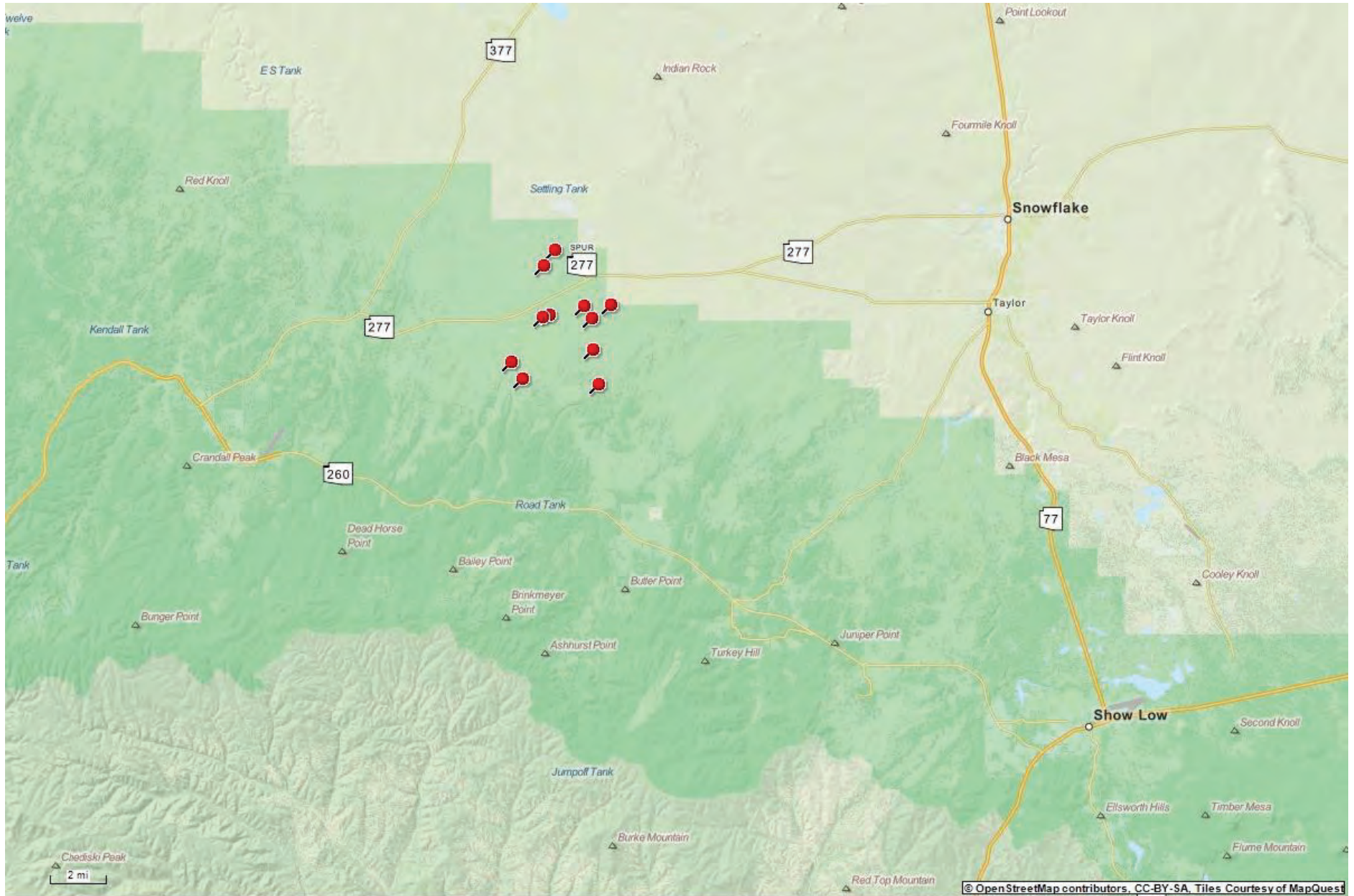
(This photo was taken late August after above average summer rains. This tank is usually dry during the rest of the year)

**Pine Tank - silted in and in need of ditch repair to restore functionality**



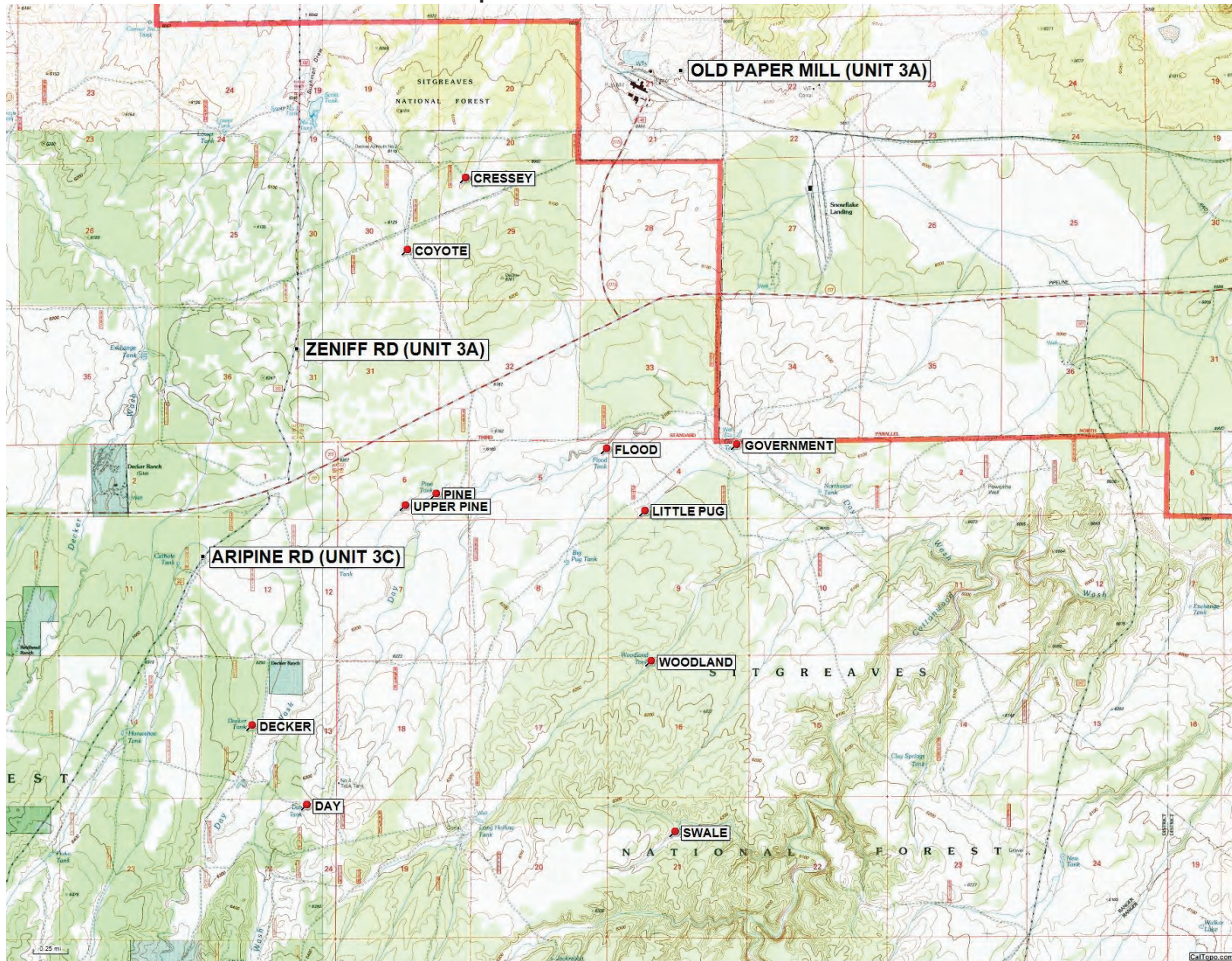


### Locations of Dirt Tanks to be Cleaned in Willow Wash Allotment





### Topo with Dirt Tank Locations





## Willow Wash Allotment Dirt Tank Maintenance - Tank List

<b><u>Tank Name</u></b>	<b><u>Lat/long Datum – WGS84</u></b>
<i>T.13N, R.19E</i>	
Cressey – <i>Sect. 29</i>	34.49511 / 110.35780
Coyote – <i>Sect. 30</i>	34.48755 / 110.36518
<i>T.12N, R.18E</i>	
Day – <i>Sect. 24</i>	34.42998 / 110.37774
Decker – <i>Sect. 13</i>	34.43823 / 110.38466
<i>T.12N, R19E</i>	
Pine (bentonite) – <i>Sect. 6</i>	34.46225 / 110.36157
Upper Pine – <i>Sect. 6</i>	34.46107 / 110.36538
Flood (bentonite) – <i>Sect. 5</i>	34.46694 / 110.34015
Government – <i>Sect. 4</i>	34.46738 / 110.32384
Little pug (bentonite) – <i>Sect. 4</i>	34.46051 / 110.33537
Woodland (bentonite) – <i>Sect. 16</i>	34.44493 / 110.33456
Swale (bentonite) – <i>Sect. 21</i>	34.42719 / 110.33158