Arizona Game and Fish Department’s Wildlife Water Catchments Project on the Tonto National Forest

This project is a cooperative effort between the Tonto National Forest and Arizona Game and Fish Department. The Arizona Game and Fish Department’s (AZGFD) wildlife water catchments (catchment) project is located on the Tonto National Forest’s Cave Creek Ranger District, Mesa Ranger District, and Globe Ranger District. The project is located at sixteen discrete sites in the vicinity of Squaw Creek Mesa, Picketpost Mountain, the Goldfield Mountains, Camp Creek Wash, Gonzales Pass, and northwest of Silver King Wash in Maricopa, Yavapai, and Pinal counties. Catchment locations within the Cave Creek Ranger District range between 11 and 15 air miles northwest and to the east of the Town of Cave Creek. The catchments within the Mesa Ranger District are located approximately four air miles north of Apache Junction. Catchment locations within the Globe Ranger District range between two and seven air miles northwest and to the west of the Town of Superior. The legal descriptions of the sixteen project areas are provided in the attachments in Table 1 and depicted on maps in Figures 1 and 2.

Background

Improvements at seven catchments and the construction of nine new catchments are proposed in response to AZGFD’s Wildlife Habitat Enhancement Initiative (WHEI), under which federal funding has been earmarked for habitat improvement projects. The WHEI receives federal funding through the Federal Aid in Wildlife Restoration Act, also known as the Pittman-Robertson Act. Under the Act, tax on ammunition and firearms used for sport hunting is set aside and distributed to states for wildlife restoration and improvement projects. This federal funding mechanism covers up to 75 percent of project costs, and states contribute at least 25 percent to account for the difference.

Existing Condition

Over the last 25 years, mule deer populations have declined in Arizona and throughout the west, with populations decreasing as much as 25 percent since the 1980s. Currently, wildlife populations on the Tonto National Forest, specifically mule deer (*Odocoileus hemionus*), rely on active grazing allotments with developed waters such as dirt stock tanks, windmills, troughs, and developed springs, and on intermittent flows within canyon creeks and drainages as water sources. The availability of water often depends on the frequency of precipitation events, and how quickly it evaporates from the dirt stock tanks and other surface waters. Water availability for mule deer and other wildlife species is further limited by dry periods or drought conditions.

Desired Conditions

The 1985 Tonto National Forest Land and Resource Management Plan (Forest Plan) promotes the implementation of projects that target species diversity and greater wildlife populations through improvement of habitat. Water developments, such as catchments, represent important resources for supporting species populations. This project is intended to halt or lessen the decline of mule deer, if not increase the population. These catchments would enable mule deer and other species to occupy the mesas
during the summer and avoid dependence on springs within confined canyons, where the potential for predation is higher.

**Current Management Direction**

The catchments require a special use permit from the Tonto National Forest because they are constructed and maintained on lands administered by the U.S. Forest Service. In addition, the project would use federal funding through the WHEI. As such, the project is considered a federal undertaking requiring compliance with the *National Environmental Policy Act* (NEPA). The Tonto National Forest intends to issue a special use permit to AZGFD for the construction and maintenance of nine new and seven existing catchments. The maximum term of the permit for a Tonto National Forest issued special use permit is 20 years. The existing and proposed catchment areas will be subject to biological and cultural resource surveys to determine whether any special-status plant or wildlife species or significant cultural resources are present. Archaeological and heritage sites will be completely avoided by all ground disturbing activities of this project. At this time, the Tonto National Forest anticipates that a Categorical Exclusion will be the appropriate level of NEPA documentation for this project.

**Purpose and Need**

The purpose of this project is to increase water availability, reliability, and distribution for mule deer (*Odocoileus hemionus*). However, this project is also expected to benefit Gambel’s quail (*Callipepla gambelii*), elk (*Cervus elaphus*), and javelina (*Tayassu tajacu*). The project will maintain existing and provide new water catchments to supplement existing water sources for wildlife use across the Tonto National Forest.

**Proposed Action**

The project would include the construction of new catchments and the installation of tanks and troughs to provide supplemental water sources to wildlife at nine discrete locations. Activities associated with the construction of the new catchments would occur within an approximately 150-foot by 150-foot area (0.5 acre). Construction of the catchments would involve the excavation of a 45-foot-long by 18-foot-wide by 5-foot-deep area with a backhoe. The excavated areas would be lined with rubber mats, and four 2,500-gallon polyethylene storage tanks would be placed inside. Each tank would be 13-foot-long by 8-foot-wide by 4-foot-deep. The tanks would be completely buried unless precluded by soil conditions, the presence of large boulders, or bedrock, in which case the tanks may be partially buried or placed above ground. A 72-foot-long by 24-foot-wide metal apron would be installed to channel precipitation to the storage tanks. A walk-in, wildlife-accessible drinking trough would be placed 40 to 60 feet away and connected to the tanks by a pipe.

The catchments would be enclosed with a black steel pipe-rail fence with vertical supports and three cross rails. Each vertical post would have a concrete footing and the post would be set to a depth of 18 inches below ground surface. The pipe-rail fences would be assembled by hand and with a skid steer tractor within a 20-foot area surrounding the 0.5-acre footprint of disturbance. The pipe-rail fence is designed to allow safe access by wildlife, but restrict access by livestock. The spacing of the rails allow most wildlife the ability to walk through the fence and the height is low enough to allow larger wildlife the ability to jump the fence, but discourages livestock, wild burros and horses from entering.
The project would also include the redevelopment of existing catchments at seven discrete locations. Redevelopment activities at each of these sites would include the replacement or expansion of the piperail fence, removal of steel tanks and replacement with four 2,500-gallon polyethylene storage tanks, expanding metal aprons to 96-foot-long by 24-foot-wide, and replacement of the existing wildlife-accessible drinking troughs with a 4-foot-deep by 5-foot-wide by 8-foot-long polyethylene walk-in trough. The existing catchments were built between 1952 and 1968 and catchment components have outlived their expected lifespan. Each are currently unable to provide yearlong water supply, especially during the hottest and driest months of the year, due to capacity issues, inefficiency in collecting water, and general disrepair as a result of exposure to the elements, moving parts, and vandalism. Redevelopment activities would provide larger capacity and would minimize maintenance issues by being buried and an overall lack of moving parts. All proposed catchments would be built to the construction standards as defined by the AZGFD’s Wildlife Water Development Standards and are anticipated to have an expected life of approximately 35 years.

Minor ground improvements are anticipated to occur for access between existing Tonto National Forest roads, unauthorized user created access, and select new catchment locations. For the proposed #69 Currie Wood catchment, Forest Road (FR) 2356 would be improved to its assigned maintenance level within its existing footprint in order to provide access to the proposed catchment. For the proposed #70 Silver King catchment, a project driven temporary road would be created between the proposed catchment location and an existing roadway proposed for decommissioning; the existing roadway is located off of FR 229 and leads to the general area of the proposed catchment. The project driven temporary road would be decommissioned following construction at the catchment.

For all other catchment locations, access would be completed using available Tonto National Forest roads and/or unauthorized user created access; no roads would be constructed or improved for access to those catchments. In most situations, some cross country travel would also be required between the catchment locations and the Tonto National Forest roads and/or unauthorized user created access. As previously mentioned, cultural surveys and clearances from the Tonto National Forest archaeologist will be obtained prior to any ground disturbance to ensure avoidance of archeological and heritage sites. This would include the locations of the project driven temporary road and cross country travel off of Tonto National Forest roads and/or unauthorized user created access. Please refer to Table 1 for a description of proposed access for each catchment location.

Future maintenance activities at the new and existing catchments will be the responsibility of AZGFD and would include the removal of debris or vegetation within and adjacent to the catchments, as well as inspections to ensure adequate water levels and to assess wear and damage of all aboveground facilities and fences. Access for maintenance activities would be accomplished through the use of Tonto National Forest roads, unauthorized user created access, and traveling on foot.

**Design Features**

All new metal components would be allowed to develop a patina, enabling these elements to recede into the visual surroundings.

Vegetation removal and pruning would be minimized to the extent possible, and generally limited to the 0.5-acre footprint at each catchment and an adjacent 20-foot area surrounding the footprint. Soil and rock from the tank excavations would be spread across the disturbed area inside of the fence.
The minimum number of tools and equipment necessary to complete the project would be transported to the site via trucks, all-terrain vehicles, and a helicopter. Equipment, including a backhoe, skid steer tractor, and 4-wheel drive truck, would be transported using Tonto National Forest roads, unauthorized user created access, and the project driven temporary road. When the project is completed, the construction crew would lightly rake out tire tracks from construction equipment and unauthorized user created routes would be decommissioned through coordination with the Tonto National Forest. Additionally, the project driven temporary road and areas of cross country travel will be returned to their original condition following construction activities.

Comments

If you have information you feel the Forest Service may not be aware of, especially any extraordinary circumstances, regarding the Proposed Action, please send these in writing on or before May 25, 2016 to:

Kelly Kessler, 5140 East Ingram Street, Mesa, Arizona, 85205, 480-610-3305, and unit comment email box comments-southwestern-tonto-mesa@fs.fed.us

When submitting comments, please keep them specific to this proposal only. Comments which are not specific to the project and project area will be deemed outside the scope of the analysis and will not be considered. If you are including references, citations, or additional information to be considered for this project, please specify exactly how the material relates to the project. Also indicate exactly what part of the material you would like us to consider (such as page or figure number).

Comments received in response to this scoping notice, including names and addresses of those who comment, will be considered part of the public record on this project and will be available for public inspection. Electronic comments must show name and address of submitter. Comments submitted anonymously will be accepted and considered. Additionally, any persons may request the agency to withhold a submission from the public record by showing how the Freedom of Information Act (FOIA) permits such confidentiality (7 CFR 1.27(d)).

If you have questions concerning this process, please contact Kelly Kessler at 480-610-3305.
Figure 1. Project Vicinity Map – Cave Creek Ranger District
Figure 2. Project Vicinity Map – Mesa and Globe Ranger Districts
Figure 3. Typical Wildlife Water Catchment Design
### Table 1. Arizona Game and Fish Department 16 Wildlife Water Catchments Project on the Tonto National Forest – Proposed Access

| Catchment Name       | New or Existing Catchment | TNF Ranger District | Proposed Access to Build                                                                 | Approximate distances traveled off of Proposed Road System*                                                                                                                                                                                                 | Location                                                                                                                                                                                                 |
|----------------------|---------------------------|---------------------|------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| #69 Currie Wood      | New                       | Globe               | FR 2356 and unauthorized user created access that continues to the south would be used. Cross country travel off of unauthorized user created access would be needed.                                                                 | • Distance on unauthorized user created access from FR 2356: 479 feet  
  • Distance cross country travel required off of unauthorized user created access: 50 feet | • Township 1 South, Range 12 East, NE ¾ NW ¼ of Section 8  
  • GPS NAD83 N33 21.735’ W111.09.505’  
  • UTM NAD83 12S 3691458mN 485261mE |
| #70 Silver King      | New                       | Globe               | FR 229 and a proposed decommissioned road would be used. A project driven temporary road would be needed from the proposed decommissioned road to catchment location. Project driven temporary road alignment is included in resource surveys and would be decommissioned after build. | • Distance on proposed decommissioned road from FR 229: 0.84 mile  
  • Distance of project driven temporary road proposed: 574 feet | • Township 1 South, Range 12 East, SE ¼ SW ¼ of Section 22  
  • GPS NAD83 N33 19.500’ W111 07.180’  
  • UTM NAD83 12S 3687323mN 488862mE |
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| WD71 Prop (*Priority is for 1, possibly 2 of the WD71 sites) | New | Mesa | Administrative Use route 3455 and an unauthorized user created access would be used. Cross country travel off of unauthorized user created access would be needed. The catchment site is at the rear of an old stock tank. | ● Distance on unauthorized user access from proposed Administrative Use route 3455: 0.58 mile  
● Distance cross country travel required from end of unauthorized user created access: 300 feet | ● Township 2 South, Range 11 East, NE ¾ NW ¼ of Section 4  
● GPS NAD83 N33 17.505’ W111 13.743’  
● UTM NAD83 12S 3683654mN 478673mE |
| WD71 Prop1 | New | Mesa | Would require helicopter access to build. | Not applicable (Helicopter access) | ● Township 2 South, Range 11 East, NW¼ SE ¼ of Section 4  
● GPS NAD83 N33 17.098’ W111.13.273’  
● UTM NAD83 12S 3682901mN 479401mE |
| WD71 Prop2 | New | Mesa | Would require helicopter access to build. | Not applicable (Helicopter access) | ● Township 2 South, Range 11 East, NE ¾ SE ¼ of Section 5  
● GPS NAD83 N33 17.030’ W111 14.231’  
● UTM NAD83 12S 3682778mN 477914mE |
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| #72 Hackberry Canyon | New | Mesa | FR 172 and an unauthorized user created access would be used. Cross country travel off unauthorized user created access would be needed. | • Distance on unauthorized user created access from FR 172: 0.23 mile  
• Distance cross country travel required off of unauthorized user created access: 75 feet | • Township 1 South, Range 11 East, NE ¼ NE ¼ of Section 2  
• GPS NAD83 N33 22.551’ W111 11.968’  
• UTM NAD83 3692972mN 481445mE |
| #76 Roblas Canyon | New | Mesa | FR 1921 and an unauthorized user created access would be used. The unauthorized user created access could be closed after build. | • Distance on unauthorized user created access beyond end of FR 1921: 0.51 mile  
• Distance cross country travel required off of unauthorized user created access: 75 feet | • Township 1 South, Range 11 East, SE ¼ SW ¼ of Section 12  
• GPS NAD83 N33 21.167’ W111 11.420’  
• UTM NAD83 12S 3690417mN 482291mE |
| Whiskey Tank | New | Cave Creek | FR 2026 would be used. Cross country travel off of FR 2026 would be needed. | Distance cross country travel required off of FR 2026: Up to 500 feet | • Township 8 North, Range 3 East, NW ¼ SE ¾ of Section 9  
• GPS NAD83 N34 2.989’ W112 3.242’  
• UTM NAD83 3768180mN 402717.00mE |
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| Forgotten Tank         | New                       | Cave Creek          | FR 2029 would be used. Cross country travel off of FR 2029 would be needed.                | Distance of cross country travel required off of FR 2029: Up to 300 feet                                                                 | • Township 9 North, Range 3 East, SE ¼ SW ¼ of Section 34  
• GPS NAD83 N34 4.315' W112 2.498'  
• UTM NAD83 3770620mN 403887mE                                                                                                                                 |
| #725 Goldfield Mountains #1 | Existing                  | Mesa                | FR 3745 would be used to access location from Bulldog Canyon OHV area entrance (Via Phon D Sutton). FR 3745 is included in resource surveys. | FR 3745 would be used for a total length of 600 feet                                                                 | • Township 6 North, Range 6 East, NW ¼ NE ¼ of Section 32  
• GPS NAD83 N33 28.768' W111 33.176’  
• UTM NAD83 3704579mN 448628mE                                                                                                                                 |
| #252 Camp Creek Deer #2 | Existing                  | Cave Creek          | FR 205 and a road proposed for decommissioning would be used. Cross country travel off of decommissioned road would be needed. | • Distance on proposed decommissioned road from FR 205: 0.20 to 0.50 mile depending on access point used  
• Distance cross country travel required off of decommissioned road: 150 feet | • Township 6 North, Range 6 East, SE ¼ SW ¼ of Section 9  
• GPS NAD83 N33 52.452’ W111 44.725’  
• UTM NAD83 3748456mN 431061mE                                                                                                                                 |
| #253 Camp Creek Deer #3 | Existing                  | Cave Creek          | FR 2068 would be used. Cross country travel off of FR 2068 would be needed.                | Distance cross country travel required off of FR 2068: 175 feet                                                                  | • Township 6 North, Range 6 East, NE ¼ NE ¼ of Section 6  
• GPS NAD83 N33 53.830' W111 46.190’  
• UTM NAD83 3751019mN 428821mE                                                                                                                                 |
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<tr>
<td>#262 Camp Creek Quail #2</td>
<td>Existing</td>
<td>Cave Creek</td>
<td>FR 1104A would be used. Cross country travel required off of FR 1104A would be needed.</td>
<td>Distance off cross country travel required off of FR 1104A: 125 feet</td>
<td>• Township 6 North, Range 6 East, NE ¼ NW ¼ of Section 4&lt;br&gt;• GPS NAD83 N33 53.848' W111 44.894'&lt;br&gt;• UTM NAD83 3751040mN 430818mE</td>
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<td>#263 Camp Creek Quail #3</td>
<td>Existing</td>
<td>Cave Creek</td>
<td>FR 2076 would be used. Cross country travel required off of FR 2076 would be needed.</td>
<td>Distance off cross country travel required off of FR 2076: 100 feet</td>
<td>• Township 6 North, Range 6 East, NW ¼ NE ¼ of Section 7&lt;br&gt;• GPS NAD83 N33 52.989' W111 46.530'&lt;br&gt;• UTM NAD83 3749470mN 428285mE</td>
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<td>#264 Camp Creek Quail #4</td>
<td>Existing</td>
<td>Cave Creek</td>
<td>FR U2163 would be used. Cross country travel required off of FR U2163 would be needed.</td>
<td>Distance off cross country travel required off of FR U2163: 110 feet</td>
<td>• Township 6 North, Range 6 East, SW ¼ SE ¼ of Section 17&lt;br&gt;• GPS NAD83 N33 51.561' W111 45.430'&lt;br&gt;• UTM NAD83 3746819mN 429962mE</td>
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<td>#265 Camp Creek Quail #5</td>
<td>Existing</td>
<td>Cave Creek</td>
<td>FR 19/Bartlett Dam Road and existing unauthorized user created access would be used.</td>
<td>Distance required on unauthorized user created road: 1,000 feet</td>
<td>• Township 6 North, Range 6 East, SW ¼ SE ¼ of Section 10&lt;br&gt;• GPS NAD83 N33 52.384' W111 43.486'&lt;br&gt;• UTM NAD83 3748319mN 432970mE</td>
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