

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

Game Branch / HPC Project Number:	16-517
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<b>PROJECT INFORMATION</b>
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<b>Project Title:</b> Ten X Ranch Water Enhancement Project
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<b>Region and Game Management Unit:</b> 30A
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<b>Local Habitat Partnership Committee (LHPC):</b> • Sierra Vista/Douglas	<b>Was the project presented to the LHPC?</b> YES[X] NO[]
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<b>Has this project been submitted in previous years?</b> YES[] NO[X] <b>If Yes, was it funded?</b> YES[] NO[] → <b>Funded HPC Project #(s):</b>
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<b>Project Type:</b> Water Enhancement
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<b>Brief Project Summary:</b> Three very old and small existing troughs and cement pads that have reached the end of their lifespan will be replaced with 1,000 gallon troughs. Old cement pads will be replaced with new pads developed around each trough to minimize ground disturbance and allow easy access to water. Installation of the troughs and cement pads will be completed by the Ten X Ranch. The Ranch will cost share on the labor to install, plumb and lay the cement pads at each trough. Escape ramps will be installed in each trough.  The Ten X Ranch is developing a solar pumping plant on an existing well that is currently supplied with an antiquated pump jack which requires continuous maintenance and repair. This well supplies 3 troughs, in 3 separate pastures, throughout the Ranch that is necessary to provide yearlong water in an arid environment. One of the 3 replacement troughs is fed by this existing well. Funding the solar pumping plant will be made up through Ranch funding.
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<b>Big Game Wildlife Species to Benefit (% benefit per species) :</b> Pronghorn (50%), Mule Deer (50%)
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<b>Implementation Schedule</b> (Month/Day/Year):  <u>Project Start Date:</u> April 2017   <u>Project End Date:</u> December 2017	<b>Environmental Compliance:</b> NEPA Completed: Yes[] No[] N/A[X] Projected Completion Date: _____  State Historic Preservation Office - Archaeological Clearance: <i>(Provide Attachment)</i> Yes[] No[] N/A[X] Projected Completion Date: <b>No ground disturbance will occur due to replacement of existing troughs and cement pads.</b> Arizona Game and Fish Department EA Checklist: N/A[] To be Completed by: <u>Waiting for GF response</u> Projected Completion Date: _____
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## PROJECT FUNDING

<p><b>Special Big Game License Tag Funds Requested:</b></p>  <p><b>Cost Share or Matching Funds:</b></p>	<p><b>\$4,800.00</b>                  AAF : \$2,400.00                  MDF: \$2,400.00</p> <p>Solar Pumping Station:                  \$28,000.00 (Landowner cost share)</p> <p>Labor (40 hrs x 2 @ 14.14/hr):                  \$1,131.20 (Landowner cost share)</p> <p><b>TOTAL: \$29,131.20</b></p>
<p><b>Total Project Costs:</b></p>	<p><b>\$ 38,560.65</b></p>

## PARTICIPANT INFORMATION

<p><b>Applicant</b> (please print):                  Ed Ashurst, Ranch                  Manager</p>	<p><b>Address:</b>                  P.O. Box 706                  Douglas, AZ 85608</p>	<p><b>E-mail:</b>                  azashurst@gmail.com</p>
<p><b>Telephone:</b> (H) 520-558-2303                  (C) 520-730-9001</p>		<p><b>Date:</b> August 22, 2016</p>

**AGFD Contact and Phone No.** (If applicant is not AGFD personnel):  
 Mike Richins, GMU 30A Wildlife Manager 520-732-8359

**Project has been coordinated with:**  
 Ed Ashurst – Ten X Ranch Manager  
 Mike Richins – GMU 30 A Wildlife Manager  
 Duane Aubuchon – Field Supervisor, Region 5  
 Sierra Vista/Douglas HPC  
 Don Decker – NRCS, Douglas  
 Arizona Antelope Foundation – Glen Dickens, Vice President  
 Mule Deer Foundation – Terry Herndon, Regional Director and Clyde Weakley, MDF project coordinator for SE Arizona

**NEED STATEMENT – PROBLEM ANALYSIS:**

The San Bernardino Valley is a small, 387 square mile basin in the southeastern corner of Arizona flanked by 2 major mountain ranges, the Chiricahua Mountains to the west and the Peloncillo Mountains to the east. The valley is made up primarily of volcanic rock, with Paramore Crater being the largest of the volcanic depressions. The major soil types are characterized by clay and clay-loam resulting in a semi-desert grassland vegetation class with Chihuahuan desert scrub scattered throughout the valley. Overall, the valley averages approximately 12 inches of rainfall per year, with the majority of moisture falling during the summer monsoon period. Currently, water troughs supplied by wells and waterline systems are the only source of reliable water, but these improvements are severely limited, and many are in poor condition and capacity is small.

Around 1996 the IV Bar and Mallet Ranches were purchased and named the Gibbons Ranch by Mr. Gregg Gibbons. The 2 ranches are located in the northern end of the San Bernardino Valley and separated by State Highway 80 that bisects the valley. Land ownership throughout the San Bernardino Valley consists of 24.3% private, 63.2% State Trust, with the remaining 12.5 managed by BLM, USFS or USFWS.

The Ten X is located to the southeast of Highway 80 and comprises approximately 18,000 acres, with the Mallet lying to the northwest with an additional 37,000 acres. Out of the 55,000 acres, approximately 24,000 acres are deeded, with the remaining 31,000 acres managed under State Trust by the Arizona State Land Department. Both ranches have been managed by Ed Ashurst over the past 18 years and have been cooperators with the NRCS office in Douglas since 2006. Over the past 8 years both ranches have been involved in a variety of NRCS conservation practices which can be seen in the table below. Currently, a Coordinated Resource Management Plan (CRM) for the ranch has been completed. (**reference attached NRCS support letter**).

To date the following projects have been completed with funding coming from NRCS contracts, Ranch funds and Ranch labor.

NRCS Projects	Ten X	Mallet
Fence Reconstruction (Acres)	5 totaling 20 miles	8 totaling 31 miles
Pipeline Development (Miles)	.4	.4
Trough (Gallons)	2 totaling 1,536 gallons	3 totaling 2,217 gallons
Tank Reconstruction/Cleanout	3	4
Storage Tanks (Gallons)	0	1 totaling 35, 566 gallons
Pumping Plant/ Solar Pumps	1	1
Wells	3	0
Mechanical Mesquite Removal	1 with 1 proposed in 2017	

Additionally, the 10X Ranch has completed numerous fence reconstructions, water trough developments, and clean out of 5 dirt tanks utilizing private funds. All fence projects, either through private or NRCS funds, have been built to AZGFD and NRCS wildlife standards. In 2013, the Ranch partnered with the AAF and MDF in cleaning out 2 dirt tank impoundments and replacing 2.5 miles of boundary fence with a new wildlife friendly fenceline. (**see attached map**)

During 1984 and 1986, a total of 99 pronghorn were captured from west Texas and released into the San Bernardino Valley, which contains approximately 165 square miles of prime pronghorn habitat. The overall population has fluctuated over the past 28 years due to periods of low precipitation. Surveys indicated that the population peaked during 1996-2001, when an average of 163 pronghorn were observed. The population declined slightly and averaged 142 animals during the 2002-2011 survey period. In 2012 survey data indicated that 71 pronghorn were observed for a ratio of 42 bucks:100 does and 6 fawns:100 does, with an extrapolated population estimate of 99 pronghorn.

It is believed that the overall population currently has the potential to reach between 150-200 pronghorn. Contiguous, unfragmented pronghorn habitat along with well managed ranches that practice and employ various conservation tools have resulted in a healthy grassland ecosystem. Due to the amount of private property located throughout the San Bernardino Valley, permit numbers remain low due to controlled access by landowners. Long term harvest on the Ten X approximates 1/3 of the total

number of bucks taken throughout the valley. **(Data developed by Mike Richins, AZGFD Wildlife Manager, GMU 30A.)**

In 2014 AGFD initiated a contract with Wildlife Services to conduct 3-years of aerial coyote control throughout the San Bernardino Valley. Over the course of the contract, fawn survival and Pronghorn population continued to increase. The 2016 survey indicated 197 Pronghorn observed for a 24buck:100 doe:32 fawn ratio. Fawn ratio were lower than expected due to the large number of yearling does that entered the population in 2015. The current population total is the highest recorded since 2004.

The Ten X Ranch, contains the majority of quality Pronghorn antelope habitat within the San Bernardino Valley. Pronghorn habitat throughout the Ranch is considered good-excellent, with close to one-quarter of the population inhabiting this area. Stressors that negatively impact the population include unfriendly fencing, brush encroachment, predation, drought related factors, and lack of perennial water. **(Mike Richins, AZGFD Wildlife Manager, GMU 30A.)**

Through the late 70s up to the mid-90s, mule deer populations throughout the San Bernardino Valley were quite high, resulting in excellent harvest of large bucks. Weather conditions throughout this period resulted in excellent habitat conditions. Beginning around 1995, below average rainfall patterns began to adversely affect population dynamics, resulting in a reduction in permit numbers and overall harvest. Mule deer populations have declined due to the same stressors that have affected pronghorn populations. In the last 5 years' population estimates in the Valley have been encouraging. In the early 2000s population estimation for Mule Deer GMU 30A where mid to low 2,000 individuals, in 2012 however the estimates dropped to an estimates 1,200 individuals. Since 2012 however population estimates have steadily climbed to their current levels of approximately 2,500 individuals.

Habitat conditions throughout the San Bernardino, as well as on the Ten X, continue to improve due to the variety of habitat improvement projects that have been, or currently being developed through various grant programs (reference NRCS projects above). As mentioned above, mesquite encroachment and water distribution has adversely affected ungulate populations due to below normal precipitation patterns over the past 10-20 years. Development of grassland restoration practices, fenceline modification and improvement of yearlong waters in and around mule deer home ranges will greatly enhance the quality and connectivity of habitat types.

#### **PROJECT OBJECTIVES:**

Improve water availability and capacity at 3 existing trough locations through the replacement of 3 small and very old troughs with 3-one thousand gallon troughs. Install escape in each trough.

Remove and install new cement pads around each trough to insure continuous access to water for wildlife and livestock, and to reduce ground disturbance.

Enhance the effectiveness and reduce costs of existing well that is currently supplied with antiquated pump jack system through the installation of a solar pumping plant. This well currently supplies 3 water systems in 3 pastures, one of which is a replacement trough. Water availability in this part of the ranch is critical to pronghorn and mule deer.

The cost of the solar pump will be cost shared through Ranch. The completion of these projects will significantly enhance habitat quality and distribution for Pronghorn and Mule Deer.

#### **PROJECT DESCRIPTION AND STRATEGIES:**

(How will you implement project)

To enhance water availability and capacity, 3 existing troughs that are failing will be replaced with 1,000 gallon troughs. Existing cement aprons will be replaced with new aprons installed around each trough to reduce ground impacts due to livestock and wildlife use, and provide unrestricted access for wildlife.

The Ten X Ranch to fund the placement of a solar pumping system into an existing well. This well currently supplies a 27,500-gallon storage tank, which in turn provides yearlong water distribution to 3 troughs, one of which is a replacement trough. The current pump is antiquated and requires costly maintenance and repairs.

### 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)

Datum: WGS 84

Trough 1: 31.63188 109.21938 (Very important water for mule deer)

Trough 2: 31.58757 109.19717

Trough 3: 31.63248 109.17879 Habitat around this trough is one of many critical fawning areas located on the Ranch. (per Mike Richins, GMU 30A Wildlife Manager)

Solar pumping station: 31.58319 109.165553

**See attached map for project locations**

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

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

- Private Property – Ed Ashurst – Ranch Manager

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

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

### HABITAT DESCRIPTION:

Vegetation is primarily semi-desert grassland with smaller areas of madrean evergreen woodland and Chihuahuan desertscrub. Riparian vegetation includes mesquite and cottonwood/willow along Black Draw, located along the southern end of the valley.

The San Bernardino Valley Basin is covered by volcanic flows and cinder cones with some relatively thin alluvial deposits. Groundwater flow is from the mountains toward the valley center and south to Mexico.

### ITEMIZED USE OF FUNDS:

Special Big Game License Tag Funds:

Trough X 3 and cement for pads:	\$4,800.00
AAF: \$2,400.00	
MDF: \$2,400.00	

**Total:** **\$4,800.00**

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

Solar Pumping Station:	\$28,000.00 (Landowner cost share)
Trough X 3:	
Labor (40 hrs.X2 @ 14.14/hr.):	\$1,131.20 (Landowner cost share)
<b>TOTAL:</b>	<b>\$29,131.20</b>

**LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION:**

Ed Ashurst – Ranch Manager: Remove and replace troughs, lay cement aprons, conduct routine maintenance and monitoring

Don Decker – Douglas NRCS: Discussed project.

Mike Richins – GMU 30A Wildlife Manager: Assist with monitoring of project on yearly basis

John Millican – AAF Project Manager: Review and submit completion report

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

YES NO N/A

The Ten X and Mallet Ranches allow restricted access to private property upon prior approval. Overall, the San Bernardino Valley is made up of nearly 76% public lands. Habitat enhancement projects provided by the landowners have shown significant increases in Pronghorn and Mule Deer Populations. The net effect will continue to improve wildlife populations for public use.

**PROJECT MONITORING PLAN:**

Ten X Ranch will monitor well and troughs on yearly basis, while conducting routine ranch inspections.

AGFD will monitor project improvements in course of district duties.

**PROJECT MAINTENANCE:**

Ten X Ranch will maintain well and troughs as necessary on yearly basis.

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

John Millican  
Arizona Antelope Foundation Project Manager  
520-508-4272

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

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

**ATTACHMENTS:**

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

**See attached maps and photos**

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

**PROJECT TITLE:** Ten X Water Enhancement 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.**  
Joe Currie 08/30/16
- 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: No names  
Type of water source (catchment, spring, dirt tank): Water troughs  
Ownership of water source: Private  
Distance in miles from project: Anywhere from 1-3 miles
- 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.**  
Ten X Ranch – Ed Ashurst Ranch Manager
- 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: Approved prior access required
- 9) **Please list below (or on a separate sheet) the material type and dimensions of each component proposed to be added, modified, or repaired.**  
3- 1,000 gallon metal troughs will replace 2 old concrete and 1 old metal trough

10) **Was a site visit completed?** Yes No

If Yes, please list personnel that attended and date. August 12, 2016  
John Millican – AAF Project Manager  
Clyde Weakley – MDF SE Az project manager



Ed Ashurst – Ten X Ranch Manager

**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.state.az.us/ClassComp/CC\\_Job\\_Titles\\_with\\_Ranges.asp](http://www.hr.state.az.us/ClassComp/CC_Job_Titles_with_Ranges.asp)

\$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>				