

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

Game Branch / HPC Project Number:	12-501
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PROJECT INFORMATION

Project Title: IV Bar Water Improvement Project	
Region and Game Management Unit: Region 5/ GMU 30A	
Local Habitat Partnership Committee (LHPC): • Sierra Vista / Douglas HPC	Was the project presented to the LHPC? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
Has this project been submitted in previous years? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> If Yes, was it funded? YES <input type="checkbox"/> NO <input type="checkbox"/> → Funded HPC Project #(s):	
Project Type: Water Tank Cleanout	
Brief Project Summary: Mechanical cleanout of 2 large dirt tanks on IV Bar Ranch. Both tanks, Malpai and IV Bar Headquarters are located on private property, and have not been cleaned in over 20 years. Due to lack of management, both have silted in and do not provide year long water for wildlife and livestock. Cleanout work will be completed by licensed contractor, utilizing front-end loader. Cleanout will occur when tanks are dry, usually in the March – June time period.	
Big Game Wildlife Species to Benefit: Pronghorn (Introduced Population), Mule Deer	

Implementation Schedule (Month/Day/Year): <u>Project Start Date:</u> September 1, 2012 <u>Project End Date:</u> September 31, 2013	Environmental Compliance: NEPA Completed: Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Projected Completion Date: _____ State Historic Preservation Office - Archaeological Clearance: Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Projected Completion Date: _____ Arizona Game and Fish Department EA Checklist: N/A <input checked="" type="checkbox"/> To be Completed by: _____ Projected Completion Date: _____
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PROJECT FUNDING

Special Big Game License Tag Funds Requested: Pronghorn Antelope	\$ 5,400.00
Mule Deer Foundation	\$2,000.00
Cost Share or Matching Funds:	<u>\$0.00</u>
Total Project Costs:	\$ 7,400.00

PARTICIPANT INFORMATION

Applicant (please print): Ed Ashurst, Ranch Mgr.	Address: P.O. Box 706 Douglas, AZ 85608	E-mail: azashurst@gmail.com
Telephone: (H) 520-558-2303 (C) 520-730-9001		Date: August 12, 2012

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

Mike Richins, Wildlife Manager, GMU 30A 520-732-8359

Project has been coordinated with:

Ed Ashurst – Ranch Manager of Mallet and IV Bar (10X Ranch)

Mike Richins - AZGFD Wildlife Manager, GMU 30A

Don Decker – NRCS Rangeland Management Specialist, Douglas

Brad Fulk – Region 5 Field Supervisor, Sector 8 and Coordinator Douglas/Sierra Vista HPC

Terry Herndon – Arizona Regional Director , Mule Deer Foundation

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. There are approximately 6 reservoirs over 15 acre-feet in size and some 150 stock tanks below 15 acre-feet in size. The majority of these earthen impoundments do not currently contain perennial water due to lack of long-term maintenance. Therefore, natural, perennial water is a limiting factor for livestock and wildlife. Currently, water troughs supplied by wells and waterline systems are the only source of reliable water, but these improvements are severely limited.

Around 1996 the IV Bar and Mallet Ranches were purchased and named the 10 X Ranch (see map 1) 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 IV Bar 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 16 years and have been cooperators with the NRCS office in Douglas since 2006. Over the past 6 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 is being developed by the Douglas NRCS office and is scheduled to be completed before the end of this calendar year (reference attached NRCS support letter).

NRCS Projects	IV Bar	Mallet
Fence Reconstruction (Acres)	4 totaling 18 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	1	4
Storage Tanks (Gallons)	0	1 totaling 35, 566 gallons
Pumping Plant/ Solar Pumps	1	1
Wells	1 at 600 feet deep	0

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 wildlife standards.

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. Currently, the population has declined slightly and averaged 142 animals during the 2002-2011 survey period. Recent, 2012 survey data indicates that 71 pronghorn were observed for a ratio of 42 bucks:100 does and 6 fawns:100 does. The extrapolated population estimate for 2012 is 99 pronghorn, which is down slightly from the estimate of 104 in 2011.

Harvest over the past 10 years averaged 8 bucks, while survey data indicates an average of 38 bucks:100 does and 41 fawns:100 does. It is believed that the overall population currently has the potential to reach between 150-200 pronghorn, which makes this population the highest and most stable in southeastern Arizona (**see attached survey and harvest trend data**) . 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 IV Bar approximates 1/3 of the total number of bucks taken throughout the valley. (**Data developed by Mike Richins, AZGFD Wildlife Manager, GMU 30A. 2012**).

Both ranches, Mallet and IV Bar, contain Pronghorn antelope, with the majority of suitable habitat located on the IV Bar. Pronghorn habitat throughout the IV Bar 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.2012**).

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. Yet, habitat conditions throughout the San Bernardino, as well as on the IV Bar, continue to improve due to the variety of habitat improvement projects that have been developed through various grant programs over the years (reference NRCS projects above). As mentioned above, water distribution has adversely affected ungulate populations due to below normal precipitation patterns over

the past 10-20 years. Development of yearlong waters in and around mule deer home ranges will greatly enhance the quality and connectivity of habitat types.

The IV Bar Water Development Project will consist of cleaning out 2 large reservoir dirt tanks that have not been maintained in excess of 20 years. Both tanks, the Malpai and IV Bar Headquarters, are located on deeded property within the IV Bar portion of the Ranch. The closest perennial tank waters to either of these tanks are greater than 1 ½ miles (**see Map 2**). These tanks are an important component to pronghorn and mule deer habitat connectivity, along with being essential to the operation by improving livestock management on the Ranch.

Currently, these 2 tanks result in a shallow pool of water that remains available to wildlife for 5-6 months during the non-critical fall and winter months. Safety issues, due to high silt amounts within the tanks, arise when water is low due to the high content of clay in the soils, which results in mammals either unable to reach the available water or becoming bogged down in the mud, unable to escape.

Mechanical cleaning, utilizing a front-end loader, will result in yearlong water that is accessible to mammals, and will result in an increase in annual habitat utilization by livestock and wildlife. Cleanout of the 2 tanks will occur when dry, usually in the March –June period.

PROJECT OBJECTIVES:

Water distribution throughout the IV Bar is very limited, with yearlong water sources averaging 3 miles apart. The cleanout of these 2 large reservoirs will greatly enhance yearlong water availability and distribution throughout critical habitat. This, in turn, will increase habitat utilization and connectivity by pronghorn and mule deer throughout the year, along with dispersing livestock which will improve overall grassland ecosystem health. An added benefit of providing large, freestanding waters will be to the many grassland dependent mammalian and avian species that inhabit the valley.

Fawn survival over 5 of the past 6 years has been below 20:100. Increasing habitat through better water distribution has the potential of improving fawn survival since does will be better distributed prior to parturition and during the critical post parturition neonate stage. Better distribution of available pronghorn habitats during this period may have the effect of reducing fawn predation.

Better water distribution will lessen buck interaction during the breeding period, by allowing better distribution of buck territories. This will reduce social interaction of dominant bucks, aid in conserving energy, and reduce rutting pressure which aids in a higher percentage of does becoming bred. This will shorten the fawning period, thus having the potential of increasing fawn survival.

Mule deer populations have declined over the past 15 years due to a variety of stressors which includes lack of year long water availability. Development of these large reservoirs will greatly enhance available mule deer habitats, along with enhancing connectivity between potential home ranges.

PROJECT DESCRIPTION AND STRATEGIES:

The Malpai and IV Bar Headquarters tanks have not been cleaned out in over 20 years. Due to the lack of maintenance, the buildup of silt has reduced overall capacity resulting in a shallow pool of water that remains available to wildlife and livestock for 5-6 months during the fall and

winter months. The lack of perennial water in these 2 dirt tanks results in the lack of water for wildlife during the critical spring and summer period. The closest perennial tank water to either of these tanks is greater than 1 ½ miles.

This project will allow the Malpai Tank to be deepened to a minimum of 8 feet and encompass an area of approximately 300'X400'. Therefore, the cubic area of water that will be available yearlong will approach 960,000 cubic feet, or 8,067,600 gallons of water.

The IV Bar Headquarters Tank will be deepened to a minimum of 8 feet and encompass an area of approximately 150'X 600'. The cubic area of water that will be available yearlong will approach 720,000 cubic feet, or 5,378,400 gallons of water. (see map 3 of tank locations)

PROJECT LOCATION:

Game Management Unit 30A located in the northern end of the San Bernardino Valley on the IV Bar Ranch, southeast of Highway 80

Malpai Tank Coordinates: 0669868/3493152 (See attached Malpai Tank photo)

IV Bar Headquarters Tank: 0672469/3501101 (See IV Bar Headquarters Tank photo)

SEE MAP 3 for topographic map 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. Ranch Manager – Ed Ashurst

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: Antelope

Malpai Tank: 20 hours @ \$185.00/ hour (cost all inclusive) \$3,700.00

IV Bar Headquarters Tank: 20 hours @ \$185.00/ hour (cost all inclusive) \$3,700.00

TOTAL COST: \$7,400.00

Requested SBG Funds: AAF - \$5,400.00
MDF - \$2,000.00
TOTAL: \$7,400.00

No cost share or matching funds will be available.

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

LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION:

Ed Ashurst – IV Bar Ranch Manager: Coordinate on the ground work with machine operator

John Millican – Field/Project Manager, AAF: Oversee completion of project and filing of Completion Report

Mike Richins – Arizona Game and Fish, Wildlife Manager, GMU 30A: Conduct field inspection during course of yearly patrol and survey activities.

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

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

PROJECT MONITORING PLAN:

IV Bar Ranch will monitor tanks on yearly basis, while conducting routine ranch inspections.

PROJECT MAINTENANCE:

IV Bar Ranch will provide any maintenance required to reduce siltation and improve integrity of water storage and tank berms.

PROJECT COMPLETION REPORT TO BE FILED BY:

John Millican

Field/Project Manager

Arizona Antelope Foundation

520-508-4272

j2dbmill@msn.com

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

ARIZONA GAME AND FISH DEPARTMENT WATER DEVELOPMENT WORKSHEET

PROJECT TITLE: IV Bar Water Improvement 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.**
Not Applicable
- 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: Soup Bowl Tank
Type of water source (catchment, spring, dirt tank): Dirt Tank
Ownership of water source: State Land Department
Distance in miles from project: 2 miles. **Tank located in marginal habitat for pronghorn.**
- 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.**
Private Property – 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: Access determined by landowner. Mr. Ashurst allows limited access for antelope hunting on a case by case basis.

- 9) **Please list below (or on a separate sheet) the material type and dimensions of each component proposed to be added, modified, or repaired.**

Malpai Tank: Silt material to be removed to a minimum depth of 8 feet and encompass an area of approximately 300’X400’. Therefore, the cubic area of water that will be available yearlong will approach 960,000 cubic feet, or 8,067,600 gallons of water.

IV Bar Headquarters Tank: Silt material to be removed to a minimum depth of 8 feet and encompass an area of approximately 150'X 600'. The cubic area of water that will be available yearlong will approach 720,000 cubic feet, or 5,378,400 gallons of water.

All removed material will be utilized to strengthen integrity of dam and berms.

10) Was a site visit completed? Yes[X] No[]

If Yes, please list personnel that attended and date.

Site visit completed on June 25, 2012

Ed Ashurst – Ranch Manager

Mike Richins – AZGFD Wildlife Manager, GMU 30A

John Millican – Field/Project Manager, Arizona Antelope Foundation

Malpai Tank



I V Bar Headquarters Tank



MAP 1: IOX Ranch

Conservation Plan Map

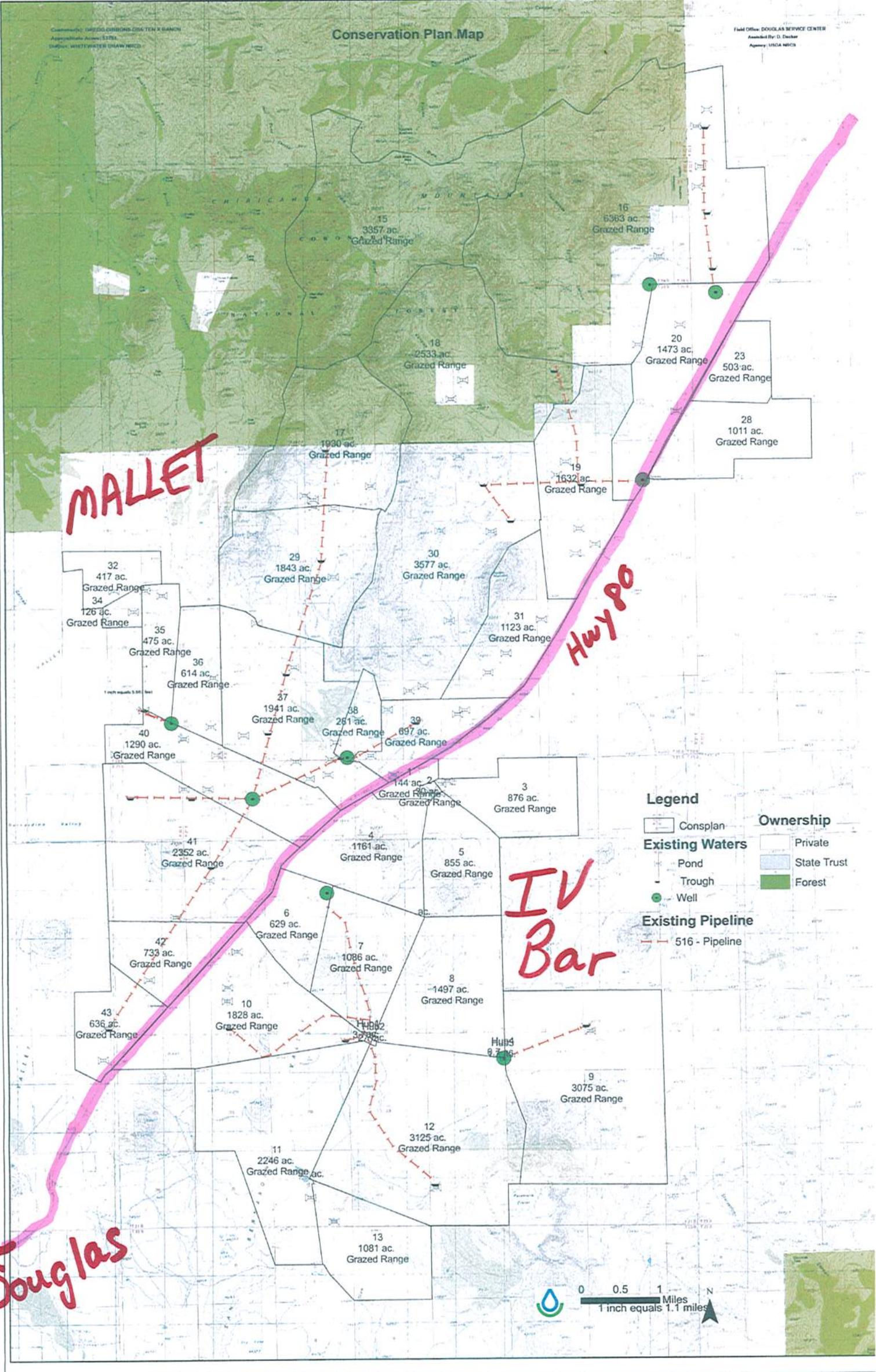
Field Office: DOUGLAS SERVICE CENTER
 Assisted By: D. Decker
 Agency: USDA NRCS

MALLET

Hwy 80

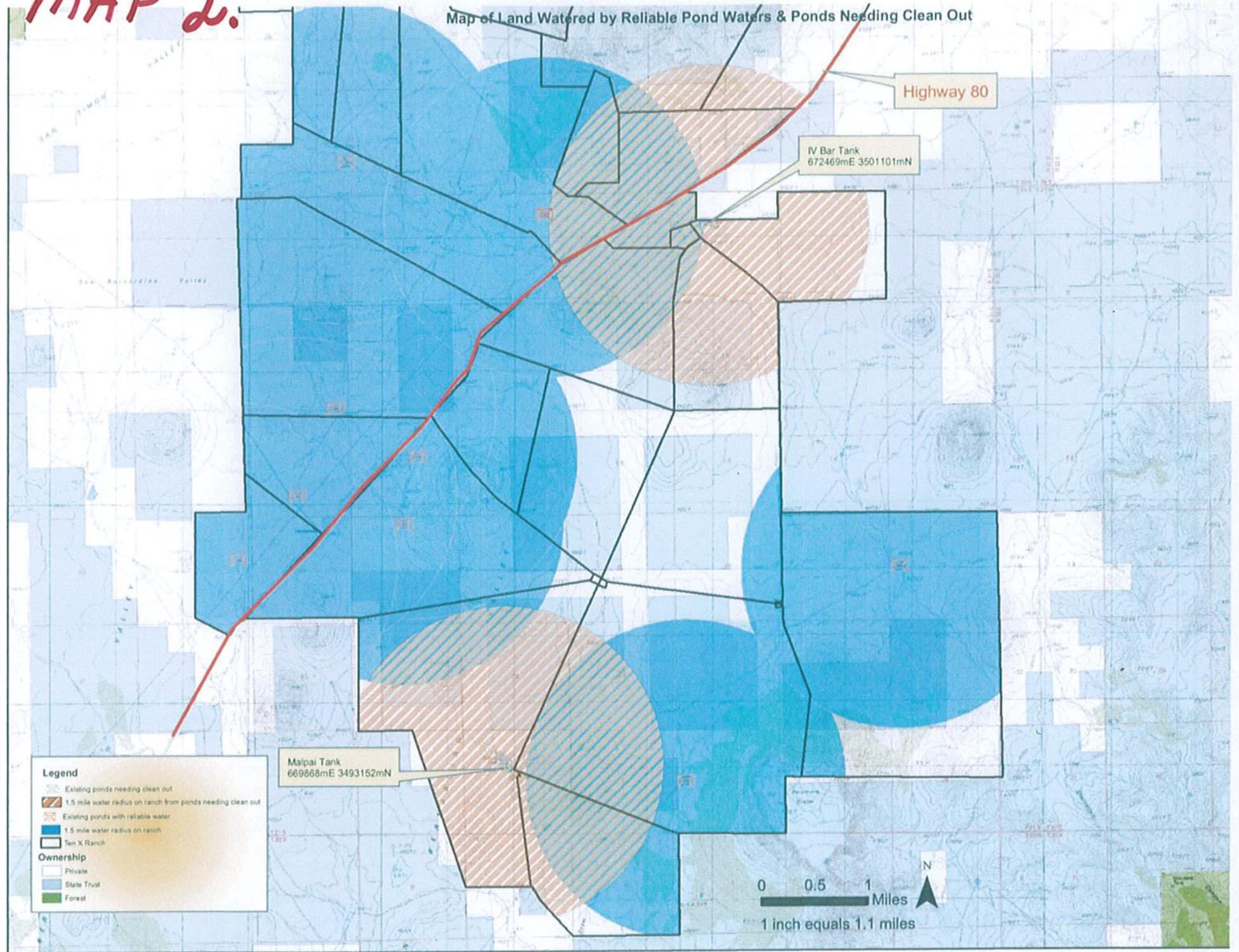
IV Bar

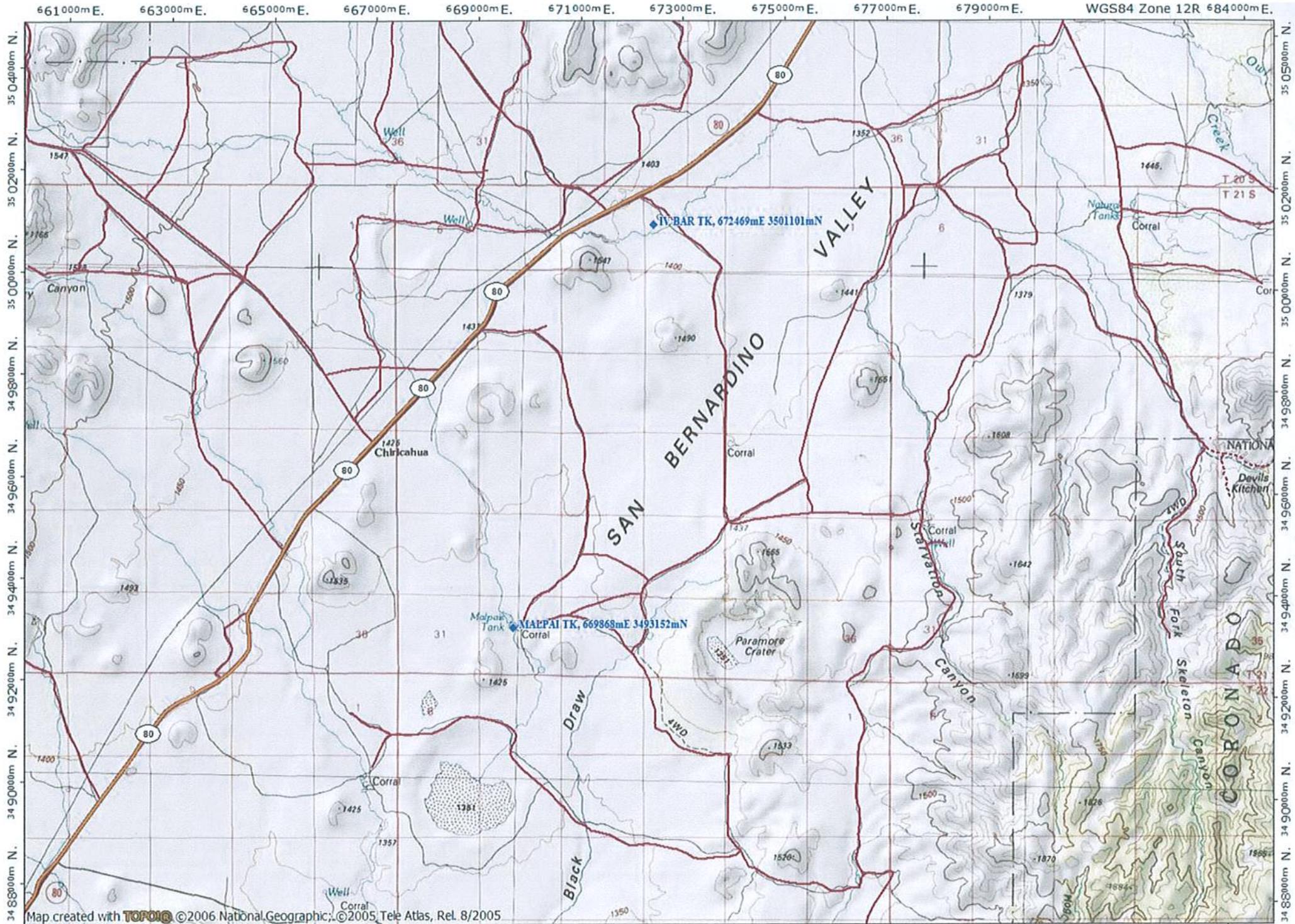
Douglas



MAP 2:

Map of Land Watered by Reliable Pond Waters & Ponds Needing Clean Out





Map created with **TOPOLG** ©2006 National Geographic, ©2005 Tele Atlas, Rel. 8/2005



MAP 3



Trends in pronghorn antelope survey and harvest data for Unit 30A, 1985-2012.

Year	Total number surveyed	Harvest	Bucks:100 Does	Fawns:100Does	Pop est.
1985	27		13	56	
1986	51		25	57	
1987	73		24	35	
1988	85		34	12	
1989	91		41	16	
1990	76		41	0	
1991	70		26	58	
1992	157	2	42	79	
1993	191	5	58	39	
1994	161	5	39	26	
1995	194	9	35	57	
1996	171	9	47	2	
1997	131	9	60	36	
1998	193	10	36	51	
1999	200	7	36	13	
2000	122	8	58	0	
2001	176	6	31	21	148
2002	156	5	33	13	185
2003	151	6	27	25	188
2004	210	6	31	24	247
2005	182	8	19	54	214
2006	113	8	61	7	133
2007	73	10	34	41	86
2008	134	8	38	13	159
2009	164	8	34	17	176
2010	179	9	55	23	195
2011	60	9	50	0	104
2012	71		42	6	99

In the above chart, pronghorn antelope harvest data nearly reflects permit numbers. Success rates are generated from the hunter questionnaire forms, which many are not returned. Based on Wildlife Manager's observations of the hunt harvest totals and management is based on 90-100% success rates.

(Data received from Mike Richins, Wildlife Manager, GMU 30A)

United States Department of Agriculture



Natural Resources Conservation Service
6940 North Air Terminal Blvd.
Douglas, Arizona 85607

phone (520) 364-2001
Fax (520) 364-8542
web site www.az.nrcs.usda.gov

August 6, 2012

To: Ruben Teran
Arizona Game & Fish Department
State Habitat Partnership Committee Coordinator

Mr. Teran,

This letter is sent in support of Gregg Gibbons and his ranch manager Ed Ashurst and their conservation plans on the Ten X Ranch. Since the ranch was first purchased by Mr. Gibbons, our office has worked closely with him and Mr. Ashurst to help them towards the development of a conservation plan that addresses the natural resource concerns for this ranch. Currently, a coordinated resource management (CRM) plan is being developed for the ranch which will be a signed document that will include input from the Arizona State Land Department, US Forest Service and the NRCS. The CRM plan is scheduled to be completed before the end of this calendar year. Among other practices, the conservation plan will specifically call for the need for; water developments, fencing and brush management. The plan will also include a livestock grazing rotation which will allow for periodic rest and ultimately, improvement of the natural resources.

The NRCS is the division of the USDA which works cooperatively with farmers, ranchers and other land owners to maintain and improve our nation's natural resources. Our Douglas office has worked closely with Mr. Gibbons on his ranch conservation plan. He and his manager have proven to be worthy stewards of the land that they ranch on. I feel confident that they will continue to take great care of the natural resources that they manage and that they will adequately complete all of the conservation practices that they agree to carry out. Feel free to contact me or this office if there are further questions in regards to this matter.

Sincerely,

A handwritten signature in cursive script that reads "Don Decker".

Don Decker
Rangeland Management Specialist & Malpai Borderlands Project Coordinator-NRCS

Letter Of Recommendation
Terry Herndon
Regional Director Arizona/Southern Nevada
Mule Deer Foundation

Project Title: IV Bar Water Improvement Project
Region and Game Management Unit: Region 5/ GMU 30A

This letter is in support of the IV Bar Water Improvement Project in GMU 30A. I believe that this project will enhance not only Mule Deer but North American Pronghorn. The mule deer and antelope will need this water to flourish in 30A.

As we all know the mule deer are suffering in all parts of our state but in the desert regions they are truly tasked with lack of water and habitat. With this water we will be able to take care of the water and with more rain we can improve the habitat.

This ranch is one that has closed access to all people who enjoy the outdoors and with this project we will partner with the ranchers and in time we will build a trust and will open acres for all to enjoy.

It is the mission and goals of the Mule Deer Foundation to help Mule Deer all over Arizona and the southern part of Arizona is in great need of help and we look forward to helping wherever and whenever we can.

It is my opinion that this project should be considered by the HPC and should be approved.

Thank you for your consideration

Terry Herndon

Regional Director Arizona/Southern Nevada

Mule Deer Foundation

[@muledeer.](#)

623-696-5579