

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

Game Branch / HPC Project Number: 13-513

PROJECT INFORMATION

Project Title: Water Catchment #676 - West Silver Bell #1 Redevelopment

Region and Game Management Unit: Region 5 / 37A

Local Habitat Partnership Committee (LHPC):
• Tucson

Was the project presented to the LHPC?
YES[X] NO[]

Has this project been submitted in previous years? YES[] NO[X]
If Yes, was it funded? YES[] NO[] → **Funded HPC Project #(s):**

Project Type: Wildlife Water Catchment Redevelopment

Brief Project Summary: This project will be a complete redevelopment of wildlife water catchment #676. Due to continuously deteriorating material conditions, this wildlife water catchment will require replacement of its collection apron and storage tank, along with adding an additional drinker. The initial concrete system was installed in 1960's. The ring tank and tin apron were added in the 1980's and has reached the end of its lifespan. The wood-frame of the apron has rotted out and its ability to collect water is extremely limited. The original cement vault and apron are operational, but need to be resealed. Catchment #676 is listed as a second priority system recommended for redevelopment on the 2002 Wildlife Water Team Report.

Big Game Wildlife Species to Benefit: mule deer, javelina, desert bighorn sheep, mountain lion

Implementation Schedule (Month/Day/Year):

Project Start Date: September 1, 2013

Project End Date: June 30, 2015

Environmental Compliance:

NEPA Completed: Yes[X] No[] N/A[]
Projected Completion Date: August, 2013 (D. Tersey BLM CatEx)

State Historic Preservation Office - Archaeological Clearance:
Yes[] No[X] N/A[]
Projected Completion Date: When funded, if needed by BLM

Arizona Game and Fish Department EA Checklist: N/A[]
To be Completed by: Joe Currie
Projected Completion Date: When funded

PROJECT FUNDING

Special Big Game License Tag Funds Requested: \$ 26,324.00

Cost Share or Matching Funds: \$ 12,796.00

Total Project Costs: \$ 39,120.00

PARTICIPANT INFORMATION

Applicant (please print):
Diane Tilton AZGFD

Address:
555 N. Greasewood Rd
Tucson, AZ 85745

E-mail: dtilton@azgfd.gov

Telephone: 520-975-6149

Date: 8/31/2013

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

Project has been coordinated with:

Darrell Tersey, BLM – Tucson Field Office; Ed Jarke, Development Branch; Joe Sheehey ADBSS

NEED STATEMENT – PROBLEM ANALYSIS:

Mule deer numbers and distribution have been declining throughout the West since the latter third of the 20th century. To address this concern, the Western Association of Fish and Wildlife Agencies (WAFWA), an organization represented by 17 states and four Canadian provinces, created a Mule Deer Working Group (Group). Using adaptive resource management, the Group sent out to find “solutions to our common mule deer management problems” in the seven different ecoregions in North America. Overall, loss and degradation of habitat was determined to be the single greatest factor that has caused declines in mule deer. In the Southwest Desert Ecoregion, rainfall and competition with livestock were found to be the two biggest limiting factors. The number one recommendation of the Group to improve mule deer management in the Southwest Desert Ecoregion was to create sources of water in areas where water is limiting and where other potentially limiting factors are being addressed. Also, consistent with the Group’s recommendation is the Department’s Species Management Guidelines (SMG) which provides goals, objectives, strategies and procedures for a specific species. The SMG outlines four ways to improve and enhance deer habitat to accomplish the overall goal of increasing mule deer populations to levels that provide diverse recreational opportunities. Number one on the list is: protect and maintain current water sources.

Catchment #676 is not a dependable water source for wildlife in the West Silver Bell Mountains and as such is in need of redevelopment.

PROJECT OBJECTIVES:

This redevelopment will require removing the current wood frame and corrugated tin collection apron, and replacing it with a 24’ x 60’ R-panel collection apron; seal and paint the existing concrete apron; muck out and seal the existing concrete vault; replace existing barbed wire fence with standard piperail fence; install 3’ deep x 4’ wide fiberglass walk-in trough; remove metal ring tank and liner and replace with 3’ x 18’ fiberglass ring tank, or similar system (5700 Gal.). A trail camera and protective case will be added to observe and document wildlife using the updated catchment.

This reliable water source will:

- Increase deer, javelina, and desert bighorn sheep populations by providing dependable, long term, self-sustaining, quality water sources.
- Increase hunter opportunity
- Install a system that has a long lifespan (40-50 years for storage and collection systems, 25 years for drinking troughs)
- Install a system that does not require supplemental hauling except in rare or exceptional circumstances
- Install a system that is accessible and that requires minimal routine maintenance

PROJECT DESCRIPTION AND STRATEGIES:

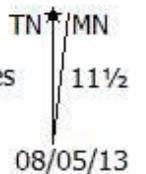
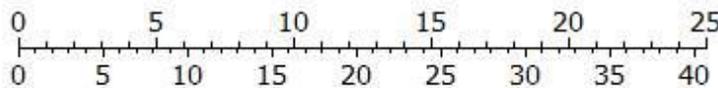
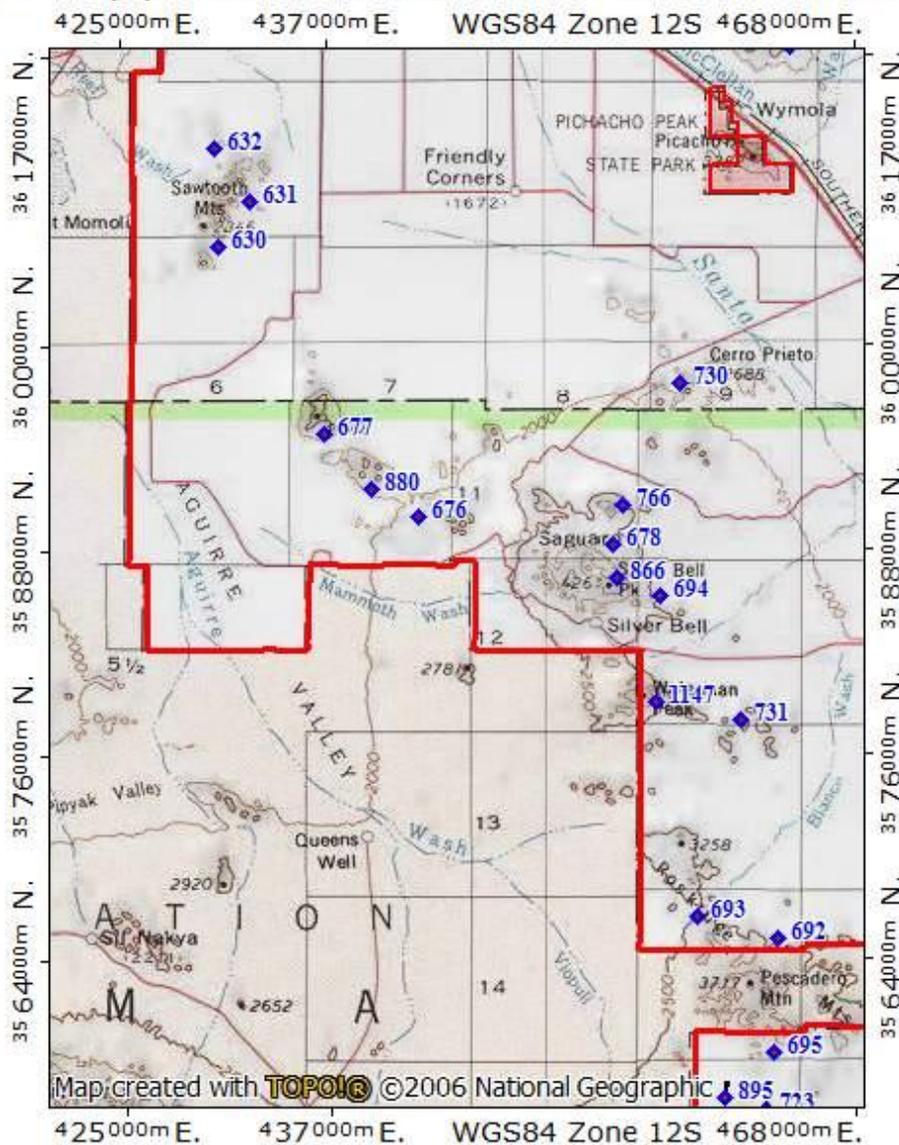
- Reseal and paint existing cement apron.
- Muck out and reseal existing cement tank.
- Replace existing barbed wire fence with standard piperail fence
- Install new fiberglass trough

- Remove PVC plumbing that connects tanks and replace with overflow plumbing
- Remove metal ring tank and line and replace with fiberglass ring tank (5,700 Gal) or equivalent system.
- Remove wood frame and corrugated tin apron and replace with metal frame and R-panel apron.

PROJECT LOCATION:

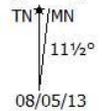
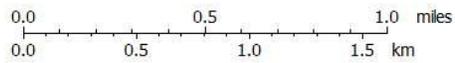
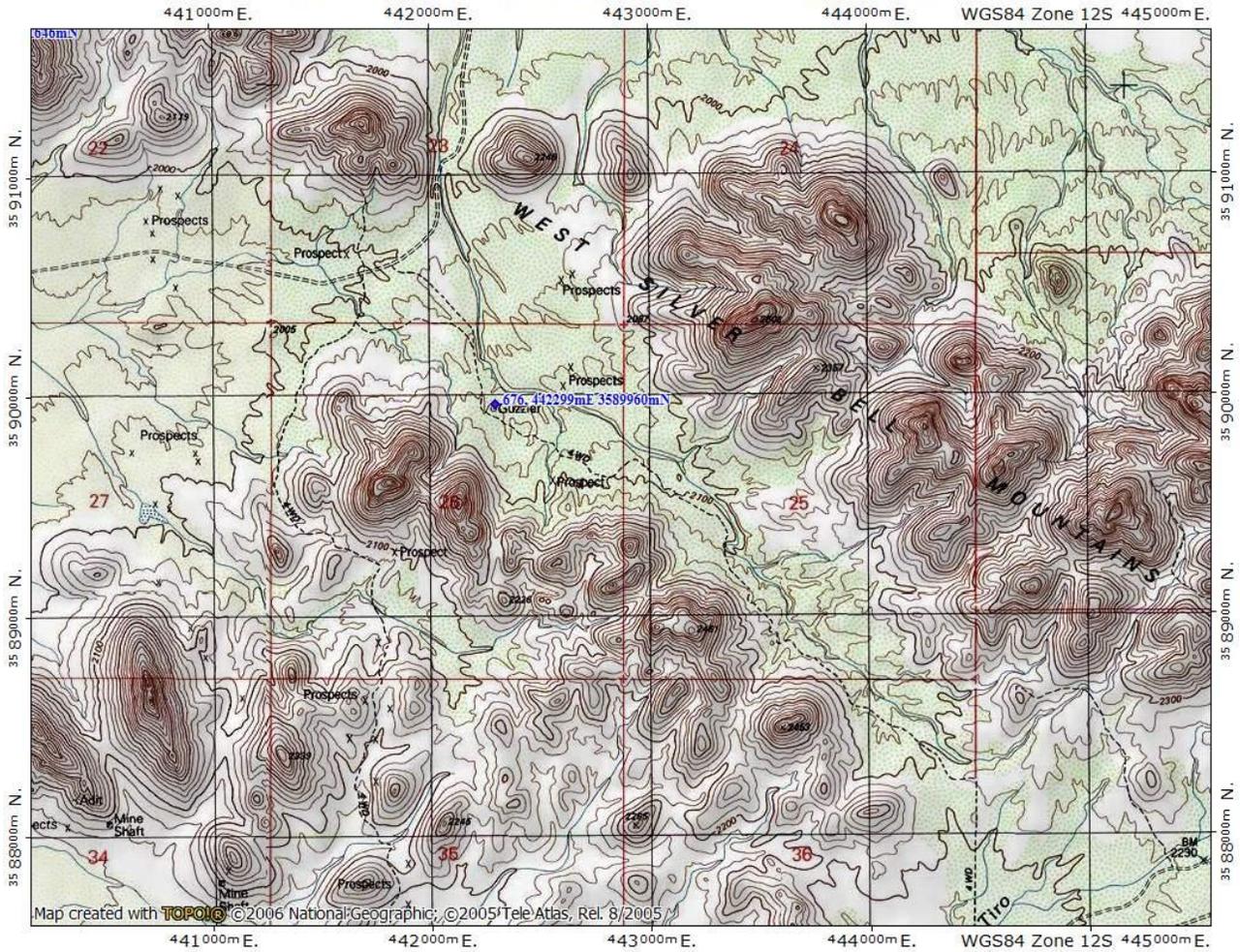
The project is located northwest of Tucson and south of Casa Grande in Game Management Unit 37A.

TOPO! map printed on 08/05/13 from "37A catchments.tpo"



08/05/13

TOPO! map printed on 08/05/13 from "37A catchments.tpo"





LAND OWNERSHIP AT THE PROJECT SITE(S):

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

- The project site is on land administered by the Bureau of Land Management, Tucson Field Office.

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

YES[] NO[] N/A[]

HABITAT DESCRIPTION:

Game management unit 37A is located in Pima and Pinal Counties, Arizona, west of Tucson and south of Phoenix. Two main biotic community types, Sonoran Desertscrub and Semidesert Grassland, comprise the bulk of the habitat in 37A. The proposed project is located in the Sonoran Desertscrub community. Common vegetation includes foothill palo verde (*Cercidium microphyllum*), mesquite (*Prosopis spp.*), saguaro (*Carnegiea gigantea*), ocotillo (*Fouquieria splendens*), and triangle-leaf bursage (*Ambrosia deltoidea*). Average rainfall is approximately 10-13" and elevation is approximately 1700'.

ITEMIZED USE OF FUNDS:

Special Big Game License Tag Funds

18' x 3' fiberglass ring tank or equivalent	\$10,010.00
60' x 24' Metal frame and R-panel collection apron	\$6,800.00
3' x 4' standard fiberglass wildlife trough	\$3294.00
Plumbing	\$750.00
Concrete/mortar	\$500.00
180 x 200' Pipe rail Fence	\$4470.00
Remote Digital Monitoring Camera	\$500
Total	\$26,324.00

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

Volunteer Labor	\$2,828.00 (20 volunteers X 10 hours + 10 vehicles @ 120 miles RT)
SSDV Crew and Vehicles	\$10,000.00
Total	\$12,796.00

LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION:

AGFD SS Development Branch
AGFD Region V
BLM – Tucson Field Office

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

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

PROJECT MONITORING PLAN:

Project would be monitored by SSDV up to and during redevelopment, to include all required federal and state compliance paperwork; all project material and flight expenses; all state and federal volunteer paperwork and a final construction completion report with 'as built' drawings. This information will be housed in AGFD SSDV Water Development hard files and the SSDV Water Development data base located at the AGFD Headquarters, 5000 W. Carefree Highway, Phoenix, AZ 85086. Regular welfare monitoring will occur as deemed appropriate by the GMU 37A Wildlife Manager.

A remote digital camera will be used to monitor density and frequency of wildlife water use. This will enable the Wildlife Manager to make better informed decisions for the management of wildlife within GMU 37A.

Water levels will be monitored at least twice per year with emphasis during the warmer drier months by the Wildlife Manager. Additional monitoring will be conducted as needed.

PROJECT MAINTENANCE:

Any project maintenance will be assumed by the AGFD SSDV Branch and AGFD Region V. Minor maintenance will also be conducted as needed by the Wildlife Manager. The AGFD Development Branch will be responsible for major maintenance issues

PROJECT COMPLETION REPORT TO BE FILED BY:

D. Tilton, AGFD Region V GMU 37A Wildlife Manager.

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: AGFD #676 West Silver Bell #1 Wildlife Water Redevelopment

- 1) **Is the water development listed as a priority in the most recent “Wildlife Water Development Annual Implementation Schedule?”**

Yes, listed on Region 5 implementation schedule and statewide water development team report as second priority.

- 2) **Please list the Development Branch personnel and date coordinated with for this project.**

Ed Jahrke April 2013

- 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: Water Catchment #880

Type of water source (catchment, spring, dirt tank): Catchment

Ownership of water source: AZGFD

Distance in miles from project: 2

- 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.**

Ironwood Forest National Monument, BLM- Tucson Field Office

- 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:

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

1 – 18’ diameter x 3’ deep’ fiberglass ring tank (or equivalent system) added;

1 – 60’ x 24’ R-panel collection apron, including all support sub structures (metal frame) and 24’ fiberglass gutter added;

1 – 3’ deep x 4’ long x 3’ wide fiberglass wildlife-friendly walk-in trough added;

1- 180’ x 200’ Pipe rail Fence

Sealant and paint for cement apron and catchment

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

If Yes, please list personnel that attended and date.

April 16, 2013 with Darrell Tersey, BLM and Diane Tilton - AGFD GMU 37A Wildlife
Manager

April 2013 Ed Jahrke AGFD Development Branch

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

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

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