

**BUREAU OF LAND MANAGEMENT PHOENIX DISTRICT OFFICE  
ENVIRONMENTAL ASSESSMENT  
REVIEW SHEET**

<b>Proposal:</b> Installation of water storage tank, pipeline and troughs on the Agua Fria National Monument	
<b>Land Description:</b> Agua Fria National Monument, 2Y Allotment (T11N, R3E, Sec. 1, 2, 3 and 4 )	
<b>Applicant:</b> Arizona Game and Fish Department	<b>Type of Case:</b> Wildlife/Water <b>Related #.:</b>
<b>EA Number:</b> DOI-BLM-AZ-P030-2010-001-EA	<b>Special Charge Code (if applicable) :</b>
<b>EA Assigned to:</b> Paul Sitzmann	
<p><b>Coordination:</b> Indicate in the left column which disciplines were analyzed in the EA and print the name of the individuals who participated in the third. Author's name should be used if author analyzed the impacts. Place an asterisk in the fourth column to indicate that written comments have been provided during clearance. The appropriate specialist will also initial this column to show concurrence when a critical, discipline - specific, issue is addressed in the EA or when a specialist, other than the author, provided input.</p>	

<b>NEEDED INPUT (x)</b>	<b>DISCIPLINE</b>	<b>TEAM INPUT &amp; REVIEW</b>	<b>*</b>
	Lands		
	Minerals		
x	Range	Amanda James	
	Burros		
	Recreation		
x	Cultural & Paleontological	Brian Culpepper	
	Wilderness		
	Soil		
	Water (Quality, Rights, etc.)		
	Air Quality		
x	Wildlife	Paul Sitzmann	
x	T&E Species	Paul Sitzmann	
	Surface Protection		

	Socio-Economics	
	ACECs	
	VRM	
x	Planning & Environmental	Leah Baker
	Other (Native American Consultation, etc.)	
Preparer:	Paul Sitzmann	Date:
Planning & Environmental:	Leah Baker	Date:

AZ-020-1791-



# United States Department of the Interior



## BUREAU OF LAND MANAGEMENT

Phoenix District

Agua Fria National Monument

21605 North 7<sup>th</sup> Avenue

Phoenix, AZ 85027

[www.az.blm.gov](http://www.az.blm.gov)

DECISION RECORD (DR)

Related No.

### **DOI-BLM-AZ-P030-2010-001-EA**

**Decision:** The proposed action which includes installation of a 10,000 gallon storage tank, underground pipeline, five wildlife drinkers, and partial recessing of three wildlife drinkers on the Agua Fria National Monument shall be authorized as described in the proposed action of the environmental assessment.

**Stipulations:** Wildlife friendly water troughs will be partially submerged and pipelines buried to nullify the impact on visual resources. The installation of a new storage tank will be of a size and type that matches existing facilities. A Bureau of Land Management archaeologist will monitor all ground disturbing activities. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered shall be immediately reported to the Bureau of Land Management authorized officer. All operations shall be suspended in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. In order to best limit ground disturbance, the use of rubber tire equipment is required. Before the pipeline is backfilled, the line must be checked and cleared of any wildlife. Additionally, if there is construction work being done during the months of April or May, worksites will be chosen as to not disrupt staging/fawning does if they are observed.

**Land Use Plan Conformance:** The proposed action and alternatives have been reviewed and found to be in conformance with the following BLM Land Use Plan and the associated decision:

#### **Agua Fria National Monument Record of Decision (ROD) & Approved Resource Management Plan (RMP) (2010)**

-The proposed action would not impose any constraints on other actions or activities otherwise authorized in the AFNM ROD\RMP.

WF-4: Restore and maintain habitat of suitable quality and quantity to promote long-term sustainability of a viable pronghorn population.

WF-11: The density and distribution of wildlife waters will be maintained, improved, or increased throughout the planning areas to sustain and enhance wildlife populations across their range.

WF-12: All existing wildlife waters will be maintained or improved as needed to maintain the presence of perennial water for wildlife.

WF-13: New wildlife waters will be built when needed to maintain, restore, or enhance native wildlife populations or distributions.

WF-15: Water developments, including those for purposes other than wildlife, will include design features to ensure

safe and continued access to water by wildlife.

### **Alternatives Considered**

The EA considered two alternatives: the No Action Alternative and the Proposed Action.

The No Action Alternative was not selected because it would not enhance range land conditions or benefit wildlife.

The proposed action was selected because it fulfills the goals of the Agua Fria RMP/ROD. The proposed action will serve to promote long-term sustainability of the pronghorn population in the area as well as other wildlife species. Existing wildlife waters consists of several earthen tanks located in thickly vegetated drainages and above ground livestock troughs. While these facilities are available to some wildlife, the earthen tanks are typically surrounded by thick vegetation which creates a vertical obstruction. The proposed action will improve access to existing water sources and increase water availability throughout the Area of Proposed Effect (APE) for all wildlife species, including pronghorn. Additionally, the proposed action will facilitate achieving the desired resource conditions as described in *Arizona Standards for Rangeland Health and Guidelines for Grazing Administration* (1997) within the AFNM, specifically, standard three: Upland and Riparian-Wetland Plant Communities. This standard will be improved through improved dispersion of grazing impacts.

### **Alternatives Considered but eliminated from Detailed Analysis**

No alternatives were eliminated from detailed analysis.

### **Rationale for Decision:**

1. The proposed action does not conflict with cultural, botanical, wildlife, riparian, recreational, mineral, range or other resource uses within the areas.
2. The proposed action is consistent with Bureau policies and management goals within the areas.
3. The proposed action will facilitate achieving the desired resource conditions within the Agua Fria National Monument.

### **Appeal Opportunities:**

The decision may be appealed to the Interior Board of Land Appeals, Office of the Secretary, in accordance with the regulations contained in 43 CFR Part 4. Public notification of this decision will be considered to have occurred on January 21, 2011. Within 30 days of this decision, a notice of appeal must be filed in the office of the Authorized Officer at 21605 North 7th Avenue, Phoenix Arizona, 85027. If a statement of reasons for the appeal is not included with the notice, it must be filed with the Interior Board of Land Appeals, Office of Hearings and Appeals, U.S. Department of the Interior, 801 North Quincy St., Suite 300, Arlington, VA 22203 within 30 days after the notice of appeal is filed with the Authorized Officer.

If you wish to file a petition for stay pursuant to 43 CFR Part 4.21(b), the petition for stay should accompany your notice of appeal and shall show sufficient justification based on the following standards:

1. The relative harm to the parties if the stay is granted or denied,
2. The likelihood of the appellant's success on the merits,
3. The likelihood of irreparable harm to the appellant or resources if the stay is not granted,
4. Whether the public interest favors granting the stay.

If a petition for stay is submitted with the notice of appeal, a copy of the notice of appeal and petition for stay must be served on each party named in the decision from which the appeal is taken, and with the IBLA at the same time it is filed with the Authorized Officer. A copy of the notice of appeal, any statement of reasons and all pertinent documents must be served on each adverse party named in the decision from which the appeal is taken to: Field Solicitor, U.S. Department of the Interior, 401 West Washington Street, Suite 404, Phoenix Arizona 85003, not later than 15 days after filing the document with the Authorized Officer and/or IBLA.

Signed by Jayson Barangan

Jan. 21, 2011

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Jayson Barangan  
Acting Agua Fria National Monument Manager  
Hassayampa Field Office  
Bureau of Land Management- Phoenix District

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Date: Jan. 21, 2011



# United States Department of the Interior



## BUREAU OF LAND MANAGEMENT

Phoenix District

Agua Fria National Monument

21605 North 7<sup>th</sup> Avenue

Phoenix, AZ 85027

www.az.blm.gov

Finding Of No Significant Impact (FONSI)

Related No.

**DOI-BLM-AZ-P030-2010-001-EA**

**Finding of No Significant Impacts:** Based on the analysis of potential environmental impacts contained in the attached environmental assessment, I have determined that impacts are not expected to have a significant effect on the quality of the human environment, individually or cumulatively. No environmental effects meet the definition of significance in context or intensity, as defined at 40 CFR 1508.27 and do not exceed those effects as described in the Agua Fria National Monument (AFNM) Record of Decision (ROD) and Resource Management Plan (RMP) (2010). Thus, an environmental impact statement is not required.

**Context:** This is a project intended to improve resource conditions and access water for wildlife within the AFNM. The installation of 2760 feet of pipeline will temporarily disturb soil and the installation of five water troughs and one 10,000 gal. storage tank will occupy less than 300 sq. ft. of the 71,000 acre AFNM. Existing water troughs will be buried to improve access to water. The installation of water storage and supply equipment is consistent with the AFNM ROD/RMP.

### **Intensity:**

The following discussion is organized around the 10 Significance Criteria described at 40 CFR 1508.27. The following have been considered in evaluating intensity for this proposal:

#### **1. Impacts that may be both beneficial and adverse:**

The beneficial effects of the additional wildlife waters, recessing of existing troughs and additional storage tank would be: 1) increased number of water sources in the Sycamore and 2Y allotments 2) improved access to existing water sources 3) add redundancy in the existing water supply 4) greater dispersion in forage utilization.

Adverse effects include minor impacts to soils and vegetation during construction. Soil and vegetation are expected to revert to natural conditions following project completion. Wildlife may be temporarily displaced during construction of the proposed action. Long term effects would be limited in scope. The 10,000 gal. storage tank and wildlife waters will permanently occupy the landscape. Construction activities have the potential to disturb unknown subsurface archaeological resources thus requiring the stipulation for monitoring.

#### **2. Degree of effect on public health and safety:**

The BLM has selected the placement of a 10,000 gallon storage tank, recessing of three water troughs and installation of five additional wildlife waters as the environmentally preferred alternative. The proposed action achieves the balance of resource protection and beneficial uses of the human environment envisioned by the National Environmental Policy Act.

The additional water sources and reworking of existing water sources would serve to add redundancy to an already existing water supply system as well as improve wildlife access to existing water sources. The proposed action will have little to no effect on public safety.

The project area is located in a remote area within the AFNM which experiences little recreation use. Additionally, part of the project area can only be accessed via a route designated as “administrative access only.” The Proposed Alternative is in compliance with the AFNM ROD/RMP.

**3. Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas:**

The proposed project area is not near any known cultural sites but is located in a Pronghorn Fawning Habitat Wildlife habitat Area. The proposed project will improve habitat conditions in the area following completion. Pronghorn may be temporarily displaced during construction activities.

**4. Degree to which the possible effects on the quality of the human environment are likely to be highly controversial:**

The degree to which the quality of human environment is affected is negligible. Consequently, the proposed action is not controversial. An existing water supply system already exists in the area; the proposed action would serve to improve and expand it. The proposed action is in conformance with the AFNM ROD/RMP.

**5. Degree to which the possible effects on the quality of the human environment are highly uncertain or involve unique or unknown risk.**

No highly uncertain or unknown risks to the human environment were identified during analysis of the preferred alternative.

**6. Degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration:**

The preferred alternative neither establishes a precedent for future BLM actions with significant effects nor represents a decision in principle about a future consideration. The proposed action would serve to improve and expand an already existing water supply system.

**7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts:**

No individually or cumulatively significant impacts were identified for the preferred alternative. Any adverse impacts identified for the preferred alternative, in conjunction with any adverse impacts of other past, present, or reasonably foreseeable future actions will result in negligible impacts to natural resources. Construction activities have the potential to disturb unknown subsurface archaeological resources thus requiring the stipulation for monitoring.

**8. Degree to which the action may adversely affect districts, sites, highways, structures, or objects listed on the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources:**

As required by Section 106 of the National Historic Preservation Act, to ensure an action takes into account potential effects to historic properties as defined by 36 CFR Part 800.16, the BLM surveyed 12.42 acres of the Area of Proposed Effects (APE) on April 16, 2010. The survey was completed by a professional archaeologist. Evidence for prehistoric land use was not observed within the APE. However, there is a potential to affect unknown subsurface historic resources during construction. Thus, there is the stipulation for on-site monitoring of

construction activities by qualified archeologists provided by the BLM to minimize the potential for adverse effects to heritage resources.

**9. Degree to which the action may adversely affect an endangered or threatened species or its critical habitat:**

No threatened or endangered species occur within the project area. No critical habitat will be affected by the proposed alternative. The proposed alternative may temporarily displace some wildlife due to noise associated with construction activities.

**10. Whether the action threatens a violation of federal, state, or local environmental protection law:**

The preferred alternative violates no federal, state, or local environmental protection laws.

Signed by Jayson Barangan

Jan. 21, 2011

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Jayson Barangan  
Acting Agua Fria National Monument Manager  
Hassayampa Field Office  
Bureau of Land Management- Phoenix District

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Date: Jan. 21, 2011

**Environmental Assessment**

**DOI-BLM-AZ-P030-2010-001-EA**

**2Y Water Storage Tank, Pipeline and Wildlife Troughs**

Prepared by  
Agua Fria National Monument  
Hassayampa Field Office  
Phoenix District Office  
Bureau of Land Management

January 2011

## **1.0. Introduction**

### **1.1. Introduction**

The Agua Fria National Monument was established by Presidential proclamation on January 11, 2000, to preserve and protect its significant archaeological and biological resources. These “objects of scientific and historic interests” for which the Monument was created, are defined in the proclamation as the area’s prehistoric and historical archaeological sites; its expansive semi-desert grassland and riparian forests; its vegetative diversity and ready availability of water; and the productive habitats for diverse and abundant wildlife species.

The general vegetative community of the proposed action falls within the desert grasslands biome (Brown, 1982) at an elevation of between 3960 and 4350 feet. While the majority of the Agua Fria National Monument is semi-desert grasslands, riparian deciduous forest are interspersed along most rivers, streams and perennial waters.

A key wildlife species that has a high priority for conservation and restoration in this ecosystem is the pronghorn antelope. Pronghorn population estimates statewide are below target levels, and their grassland habitats threatened from a variety of causes in central Arizona. Ongoing efforts to conserve pronghorn populations and associated grassland habitats include juniper thinning, prescribed burns, invasive plant treatments and facility modifications to benefit wildlife. The proposed project is the modification of an existing water source to facilitate safe access for wildlife, including the pronghorn.

See Appendix A.1 for an overview map of the Agua Fria National Monument

### **1.2. Background**

The Bureau of Land Management is one of four agencies focused on the conservation of grassland habitats in Central Arizona. In conjunction with the Arizona Game and Fish Department, the Prescott and Tonto National Forests, and the Natural Resources Conservation Service, the “Central Arizona Grasslands Strategy” was developed to address landscape level conservation of grassland habitat. The grasslands strategy also provides a framework for multi-agency projects that benefit grassland habitat restoration across jurisdictional boundaries. An implementation team consisting of representatives from the four cooperating agencies has also been established to identify, prioritize, and administer projects within the planning area of the central Arizona grasslands. Consistent with this effort, the 2Y Solar Well modification project was originally identified as a potential project the Arizona Game and Fish Department. The proposed installation of a storage tank and wildlife troughs is a continuation of that project. The current water distribution consists of several earthen tanks located in thickly vegetated drainages and above ground livestock troughs. While these facilities are available to some wildlife, the earthen tanks are typically surrounded by thick vegetation which creates a vertical obstruction.

### **1.3. Purpose and Need.**

The proposed action is to develop additional water supplies to benefit wildlife, in particular pronghorn, and make existing water sources wildlife friendly. The need for additional water sources stems from a lack of wildlife friendly water sources across the northern boundary of the AFNM. Not only are more wildlife waters needed but the existing water troughs need to be partially recessed to improve access to water for all wildlife species. An additional storage tank is needed to add redundancy to the existing water system which will serve to maintain water availability during system maintenance.

#### **1.4.0 Conformance with the Land Use Plan**

The Agua Fria National Monument Record of Decision (ROD) and Approved Resource Management Plan (RMP) took effect in April, 2010. The proposed action is in conformance with the existing ROD and approved RMP. The action is consistent with implementation of the Statewide Land Use Plan Amendment for Implementation of The Arizona Standards for Rangeland Health and Guidelines for Grazing Administration (1997).

#### **1.4.1. AFNM- Record of Decision and Approved Resource Management Plan (April 2010)**

WF-4: Restore and maintain habitat of suitable quality and quantity to promote long-term sustainability of a viable pronghorn population.

WF-11: The density and distribution of wildlife waters will be maintained, improved, or increased throughout the planning areas to sustain and enhance wildlife populations across their range.

WF-12: All existing wildlife waters will be maintained or improved as needed to maintain the presence of perennial water for wildlife.

WF-13: New wildlife waters will be built when needed to maintain, restore, or enhance native wildlife populations or distributions.

WF-15: Water developments, including those for purposes other than wildlife, will include design features to ensure safe and continued access to water by wildlife.

The proposed action would not impose any constraints on other actions or activities otherwise authorized in the AFNM ROD/RMP.

## **2.0. ALTERNATIVES**

The alternatives considered include the no action (current management) alternative and the proposed action.

### **2.1. Proposed Action**

The Arizona Game and Fish Department and BLM, in collaboration with the rancher, would install a 10,000 gallon steel storage tank along the existing pipeline and install approximately 2759 ft. new underground water pipeline to 5 new ground level water troughs. The location and configuration of the water system is depicted on the map in Appendix A.2. The troughs would also be partially recessed into the ground to increase structural support and allow access to smaller animals. Escape ramps would be installed on the troughs to reduce mortality of birds and small mammals. Water would be supplied to the new troughs via an underground pipeline (6"-10" deep) to prevent freezing.

The water source for the system is a solar power well located on private land at T. 11 N., R. 3 E., Sec. 1. The installation of an additional 10,000 gallon storage tank would be a secondary water supply for the existing pipeline providing redundancy to the system. The new storage tank would also supply water to 3 new troughs. The other 2 troughs would be supplied water from the existing storage and pipeline system. While a new storage tank will be installed, it will be of a size and type that matches the existing facilities. The drinkers will be partially submerged and installed to blend in with the natural landscape as well. A suitable dark color that blends into the environment is suggested if a cover is necessary over the tank. The installation of 2760 feet of pipeline will temporarily disturb soil and the installation of five water troughs and one 10,000 gallon storage tank will occupy less than one hundredth of an acre within the 71,000 acre AFNM.

### **2.2. No Action (Current Management)**

Under the No Action Alternative, the new storage tank, pipelines and troughs would not be installed nor would existing troughs be buried.

## **3.0. AFFECTED ENVIRONMENT AND ENVIRONMENTAL EFFECTS**

The following resources have been analyzed and will not be affected by the alternatives: Air Quality, Areas of Critical Environmental Concern, Energy Resources, Hazardous and Solid Wastes, Native American Religious Concerns, Prime or Unique Farmlands, Flood Plains, Recreation Resources, Threatened or Endangered Species,

Wilderness, Wild and Scenic Rivers, Visual Resource Management, and Environmental Justice Issues.

### **3.1.0. Wildlife, Migratory Birds and Special Status Species Resources**

#### **3.1.1. Description:**

The Game Management Unit 21 pronghorn population is now considered an isolated population. It is bounded on the west by the Interstate 17 corridor and topographic constraints to the north, south and east. Genetic exchange with nearby pronghorn herds within Yavapai and Coconino counties is unlikely due to natural and anthropogenic habitat fragmentation. Aerial survey data suggests that there may be two distinct subpopulations of pronghorns that occupy the north and south ranges. Annual pronghorn surveys have been conducted since 1959 in GMU 21. Survey counts peaked in 1987 at 294 and 200 pronghorn were observed during a fall 2007 survey.

In addition to pronghorn, the riparian areas of the Agua Fria River and its many tributaries, along with the adjacent uplands and mesas, provide habitat for a variety of different wildlife species. This includes game species such as javelina (*Pecari tajacu*), mule deer (*Odocoileus hemionus*), coyotes (*Canis latrans*), mountain lions (*Puma concolor*), black bears (*Ursus americanus*) and Gambel's quail (*Callipepla gambelii*). This area also provides important breeding, foraging, wintering, and migration habitat to numerous bird species. To date over 190 bird species have been documented occurring on the Monument. Numerous small mammals, reptiles and amphibians also occur in this area.

#### **3.1.2. Effects of the Proposed Action Alternative:**

Wildlife may be temporarily displaced from the project area during construction activity due to increased human activity and noise associated with construction. It is possible that construction activities may make prime fawning grounds temporarily unavailable during parturition or scare mother pronghorn away from their fawns thus increasing predation risks to fawns.

The project may reduce mortality losses due to predation and increase fawn recruitment. Providing reliable water sources should improve pronghorn distribution which in turn should improve forage availability, as pronghorn that may have otherwise avoided the area become habituated and begin using the improved water sources.

Despite temporary disturbance associated with construction, overall this project will have long-term beneficial impacts to wildlife. This impact of construction activities will be relatively short in duration, with construction activities expected to take approximately two weeks.

#### **3.1.3. Effects of the No Action Alternative:**

Under the no action alternative, wildlife would continue to be limited to the use of existing non-wildlife friendly water facilities. Wildlife species that are unable to access existing water troughs will continue to not have access.

### **3.2.0. Cultural Resources**

#### **3.2.1. Description:**

The BLM is required by Section 106 of the National Historic Preservation Act to establish if an action is an undertaking and to take into account potential effects to historic properties as defined by 36 CFR Part 800.16. The BLM surveyed 12.42 acres of the Area of Proposed Effects (APE) on April 16, 2010. The surveyed was completed by a professional archaeologist. Evidence for prehistoric land use was not observed within the APE. Historic Anglo activity consists mainly of modification to the landscape related to ranching such as fences, roads, and the drinkers, which are not eligible for the National Register of Historic Places.

#### **3.2.2. Effects of the Proposed Action Alternative:**

The subsurface ground disturbance required to bury the approximately 841 meters (2759 feet) of pipeline and recess the drinkers has the potential to disturb unknown archaeological resources thus requiring the stipulation for monitoring. Such disturbance could result in a loss of scientific information and/or the partial destruction of buried deposits. However, based on surface indications, disturbance is likely to be minimal.

### **3.2.3. Effects of the No Action Alternative:**

The no action alternative would not affect historic properties.

## **3.5.0. Rangeland Management**

### **3.5.1. Description:**

The proposed action is located within the Sycamore and 2 Y grazing allotments. These 2 allotments have a combined permitted use of 74 cattle and 2 horses (912 animal unit months) yearlong. Livestock use of the riparian pastures is limited to winter seasonal use only (November 1-March 1). Upland pastures are authorized for yearlong use. No wild horses or burros occur on the Monument.

### **3.5.2. Effects of the Proposed Action Alternative:**

The existing facilities are providing an adequate water source for cattle operations but the new troughs would be available to livestock as well as wildlife. The proposed action would likely improve livestock distribution through improved water availability. By improving cattle distribution, vegetation trampling by cattle will be reduced at individual water troughs. Additionally, forage use across the landscape will be better distributed. The rancher has agreed to perform routine maintenance on the new storage tank and wildlife drinkers, and to notify AZGF department if additional repairs are necessary.

### **3.5.3. Effects of the No Action Alternative:**

The no action alternative would have no effect on rangeland management. The existing facilities are adequate for their intended use as livestock waters.

## **3.6.0. National Monument Objects**

### **3.6.1. Description:**

The Agua Fria National Monument was established to preserve and protect the unique cultural and biological resources found in the area. The presidential proclamation establishing the Monument defines “objects of scientific and historic interest” as the area’s prehistoric and historical archaeological sites; its expansive semi-desert grassland and riparian forests; its vegetative diversity and ready availability of water; and the productive habitats for diverse and abundant wildlife species. The Proclamation upholds valid existing rights and confirms the jurisdiction of the State of Arizona with respect to fish and wildlife management. It also states that “the Secretary of the Interior shall manage the Monument through the Bureau of Land Management, pursuant to applicable legal authorities, to implement the purposes of this proclamation,” which are the “proper care and management of the objects to be protected.”

### **3.6.2. Effects of the Proposed Action Alternative:**

The proposed action would have an overall beneficial effect on Monument objects by enhancing the distribution and viability of wildlife populations which are identified as biological resources in the Agua Fria National Monument Proclamation. Water is often a limiting resource and an increase in the number of wildlife water sources would be a direct benefit to wildlife. Potential impacts to the objects for which the Monument was designated to preserve and protect have been analyzed separately in the previous sections: Wildlife, Migratory Birds Special Status Resources, Cultural Resources, and Rangeland Management. While these topics have been addressed individually for the purpose of this analysis, it is the cumulative aspect of these objects that contribute to the uniqueness of the Agua Fria National Monument.

### **3.6.3. Effects of the No Action Alternative:**

The no action alternative may have adverse effects on Monument objects by limiting the availability of wildlife friendly water sources.

#### **4.0. MITIGATION MEASURES**

4.1. Wildlife friendly water troughs will be partially submerged and pipelines buried to reduce the impact on visual resources. The installation of a new storage tank will be of a size and type that matches existing facilities. A Bureau of Land Management archaeologist will monitor all ground disturbing activities. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered shall be immediately reported to the Bureau of Land Management authorized officer. All operations shall be suspended in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. In order to best limit ground disturbance, the use of rubber tire equipment is required. Before the pipeline is backfilled, the line must be checked and cleared of any wildlife. Additionally, if there is construction work being done during the months of April or May, worksites will be chosen as to not disrupt staging/fawning does if they are observed.

#### **5.0. CONSULTATION AND COORDINATION**

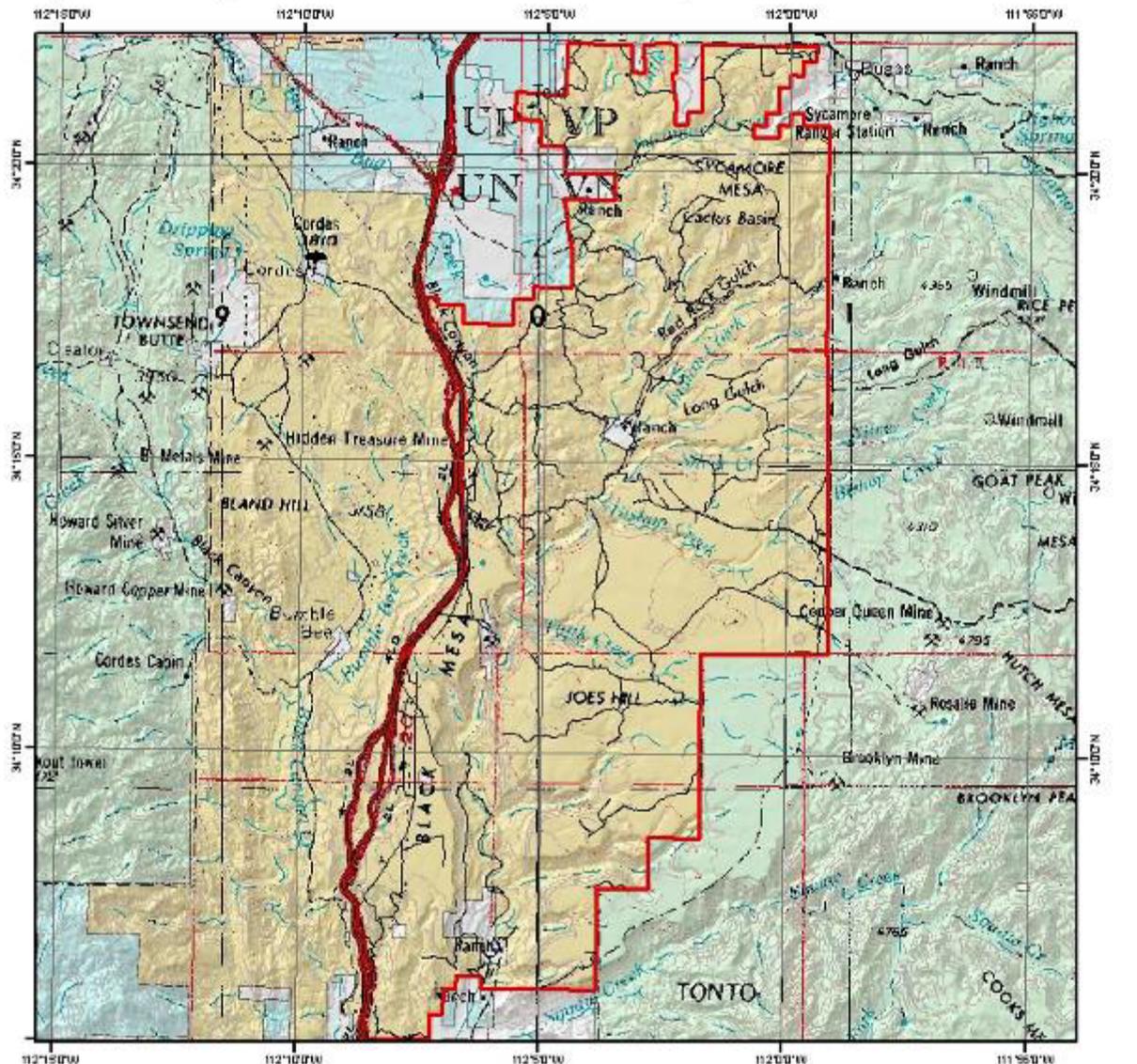
Burt Teskey, 2Y and Sycamore Grazing Allotments  
Jake Fousek, Arizona Game and Fish Department  
Arizona Antelope Foundation  
Friends of the Agua Fria National Monument  
Bureau of Land Management Staff:  
Rem Hawes  
Jayson Barangan  
Amanda James  
Nancy Stallard  
Brian Culpepper  
Leah Baker  
Mary Skordinsky

#### **F. REFERENCES**

- Brown, D. E.. 1982. *Biotic communities of the American Southwest— United States and Mexico*. Desert Plants. 4:1–341.
- Bureau of Land Management. 1997. *Arizona Standards for Rangeland Health and Guidelines for Grazing Administration*. Arizona State Office, Phoenix, AZ.
- Bureau of Land Management. 2010. *Agua Fria national Monument and Record of Decision and Approved Resource Management Plan*. Hassayampa Field Office, Phoenix, AZ. April.

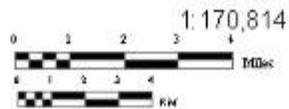
# Appendix A- Maps

Appendix A.1 Agua Fria National Monument with Proposed Facilities Insert



### Legend

- BLM National Monuments
- BR
- State
- AFNM\_Routes
- BLM
- Private
- USFS
- Interstate Highways



United States Department of the Interior  
Bureau of Land Management  
Arizona State Office  
Map created on Aug 21, 2009  
Last State Updated February 20, 2007

**CAUTION:**  
Land ownership data is derived from less accurate data than the 1:250,000 scale base map. Therefore, land ownership may not be shown for parcels smaller than 40 acres, and the ownership lines may have positional error due to source data.

No warranty is made by the Bureau of Land Management for the use of the data for purposes not intended by the BLM.

