

PUBLIC NOTICE

U.S. ARMY CORPS OF ENGINEERS LOS ANGELES DISTRICT

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Proposed Re-Authorization of an Existing In-Lieu Fee Program

Public Notice/Application No.: SPL-2012-00539-MB **Program:** Superstition Area Land Trust In-Lieu Fee Program **Comment Period:** October 15 – November 14, 2012

Project Manager: Marjorie Blaine (520) 584-1684; Marjorie.E.Blaine@usace.army.mil

Program Sponsor

Mr. Tom McDonald President Superstition Area Land Trust PO Box 582 Apache Junction, Arizona 85117

Location

The Program service area would encompass the following watersheds:

- Upper Salt River sub-basin (HUC 15060103)
- Lower Salt River sub-basin (HUC 15060106)
- Middle Gila sub-basin (HUC 15050100)

Activity

To modify the existing Superstition Area Land Trust ("SALT") In-Lieu Fee ("ILF") Program ("Program") pursuant to the requirements of the Corps-EPA Compensatory Mitigation Rule¹ (33 CFR 332.8(d)) ("Mitigation Rule"), as well as to modify the Program's service area from Gila, Maricopa, and Pinal Counties to the above watersheds (Figure 1 in the attached Prospectus). For more information see pages 2 and 3 of this notice. Supporting documents are attached to this Public Notice.

Interested parties are hereby notified that a Prospectus has been received in order to reauthorize an existing ILF Program for the purpose of mitigating impacts to waters of the United States authorized, or enforcement actions resolved, under section 404 of the Clean Water Act. Interested parties are invited to provide their comments on the proposed re-authorization of this Program, which will become a part of the record and will be considered as part of this proposal.

Comments should be mailed to:

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¹ The mitigation rule was promulgated by the U.S. Army Corps of Engineers and U.S. Environmental Protection Agency at 33 C.F.R. Part 332 and 40 C.F.R. Part 230, respectively.

U.S. Army Corps of Engineers Los Angeles District, Regulatory Division Attn: Marjorie Blaine, Senior Project Manager Tucson Resident Office 5205 E. Comanche Street Tucson, Arizona 85707

Alternatively, comments can be sent electronically to: Marjorie.E.Blaine@usace.army.mil

Background

The SALT has requested the Corps re-authorize the Program. If re-authorized, this Program would continue to receive monies from individuals or entities ("project proponent") receiving Corps authorization under section 404 of the Clean Water Act and, when appropriate, to resolve Section 404 enforcement actions within the proposed service area (Figure 1 in the attached Prospectus).

The SALT (http://www.azsalt.org/) is a nonprofit organization established in 1994 with the mission to assure the long-term conservation, preservation, and management of natural open spaces surrounding the Superstition Wilderness Area through education, advocacy land acquisition, federal and state lands protection, and other conservation actions. The goal of the SALT ILF program is to protect the aquatic resources in the area around the Superstition Mountains and to effectively mitigate for losses to aquatic resources associated with development in the area. The SALT has operated the current ILF program since 2005.

With the existing Program, the Program sponsor has accepted \$700,000.00 in ILF fees associated with a Corps permit. These funds were used to acquire the 78-acre Tony Ranch parcel which includes 5,997 linear feet of Haunted Canyon, a high functions and services intermittent tributary of Pinto Creek, and a smaller, unnamed tributary. They also manage the Silly Mountain restoration site.

Mitigation Approval and Permitting Processes

Mitigation requirements for a particular project are negotiated between the project proponent and the Corps. The project proponent must therefore first submit a mitigation proposal to the Corps that describes the proposed use of an ILF Program or Mitigation Bank. If appropriate credits are not available at a Mitigation Bank located within the service area, and the Corps determines that the Program is the most appropriate approach to mitigation implementation, then the project proponent would contact the Program sponsor to discuss mitigation options. The Program sponsor would review copies of all permits issued to the project proponent and then submit a proposal to the project proponent, including the estimated cost of the proposed mitigation work. Prior to acceptance of payment ("credit sale"), the Program sponsor would also contact the Corps in order to verify the Corps' requirements.

Upon receipt of payment, the Program sponsor becomes legally responsible for initiating the necessary mitigation and monitoring within three growing seasons of receipt of payment. During this time, the Program sponsor would submit a complete Mitigation Plan² to the Corps and Interagency Review Team (IRT)³ as well as an application for Corps permit(s)⁴ should the proposed ILF mitigation

² The content of a complete Mitigation Plan is described in the Mitigation Rule, at 33 CFR 332.4(c)(2-14).

³ The Interagency Review Team (IRT) consists of member Agencies and includes U.S. Environmental

project activities involve a discharge of dredge or fill material within waters of the U.S. or work within navigable waters of the U.S. The Corps would complete consultation, as appropriate, under the Endangered Species Act, the Magnuson-Stevens Fishery Conservation and Management Act, the National Historic Preservation Act and other applicable laws, prior to any permit authorization.

Program funds would be held in a Program account, and all credit sales would be tracked and reported by the Program sponsor to the Corps at a minimum on an annual basis, and also uploaded to the Corps' Regulatory In-lieu Fee and Banking Information Tracking System (RIBITS).

To ensure permanent protection of the Program mitigation sites, the Program sponsor would secure in-perpetuity conservation easements or grant deed restrictions to be recorded at the appropriate County's Registry of Deeds.

The Corps is soliciting comments from the public; Federal, state, and local agencies and officials; Indian tribes; and other interested parties in order to consider and evaluate the impacts and benefits of the proposed re-authorization of the Program. Any comments received will be considered by the Corps to determine whether the proposal has the potential to provide mitigation opportunities for permitees authorized to impact waters of the U.S. under section 404 of the Clean Water Act or as a means of resolving Section 404 enforcement actions.

Additional details are provided in the Prospectus attached to this Public Notice.

For additional information please contact Marjorie Blaine of my staff via phone at 520-584-1684 or via e-mail at Marjorie.E.Blaine@usace.army.mil. This public notice is issued by the Chief, Regulatory Division.



Regulatory Program Goals:

- To provide strong protection of the nation's aquatic environment, including wetlands.
- To ensure the Corps provides the regulated public with fair and reasonable decisions.
- To enhance the efficiency of the Corps' administration of its regulatory program.

U.S. ARMY CORPS OF ENGINEERS – LOS ANGELES DISTRICT
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Protection Agency, U.S. Fish and Wildlife Service, Arizona Game and Fish Department, Arizona Department of Environmental Quality, Pima County Regional Flood Control District, Pima County Office of Conservation and Science, and City of Phoenix Office of Environmental Programs.

⁴ The proposed mitigation activities may also require separate approval from the Arizona Department of Environmental Quality.



SUPERSTITION AREA LAND TRUST (SALT) IN-LIEU FEE PROGRAM

Prospectus

Prepared for:

U.S. Army Corps of Engineers Tucson Resident Office 5205 E. Comanche Street Tucson, AZ 85707

On behalf of:

Superstition Area Land Trust PO Box 582 Apache Junction, AZ 85117

Prepared by:

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1 INTRODUCTION

The United States Army Corps of Engineers (Corps), through Section 404 of the Clean Water Act (CWA) and Section 9 or 10 of the Rivers and Harbors Act (RHA), requires that a permit be obtained for all projects that cause a loss to Waters of the United States (WUS) due to the discharge of dredge or fill materials. The Corp requires an agreement that, with each project, no net loss of WUS will occur. Therefore, the responsible party may be asked to provide mitigation to replace the lost WUS. The responsible party would then be charged with creating or restoring WUS to compensate for those destroyed during the course of their project otherwise known as permittee-responsible compensatory mitigation. Alternatively, the Corps allows the compensation to be accomplished by buying credits from an approved third party in the form of credits from a mitigation bank or In-Lieu Fee Program (ILF). This can help to expedite the process for the responsible party and transfers the burden of mitigation from the permittee to a Corps-approved program, making it the preferred course of action for the Crops.

In 2005, The Superstition Area Land Trust (SALT) signed a memorandum of understanding with the Corps to create the SALT ILF program to help mitigate for WUS losses around the Superstition Mountains area of central Arizona. In April 2008, the Corps and Environmental Protection Agency (EPA) released, "Compensatory Mitigation for Losses of Aquatic Resources; Final Rule" which established new regulations and standards for the use and operation of ILF sites as well as other forms of compensatory mitigation. This prospectus provides a summary of the SALT ILF program and outlines the objectives, operation, Compensatory Planning Framework, and accounting for the program.

1.1 Need for Program

Currently, there are no federally approved mitigation opportunities (ILF programs or mitigation banks) servicing the Superstition Mountains area of central Arizona. This results in all mitigation being either permittee-responsible or in fees paid to the ILF program to projects outside of the watershed. Permittee-responsible mitigation has been shown to be unreliable based on the permittee's lack of professional oversight, baseline information, and success metrics. Fees paid to ILF programs outside the watershed where disturbance occurs do nothing to effectively mitigate the impacts to the area being disturbed. Therefore, it would be advantageous to have an active ILF program that can service the Superstition Mountains area.

SALT is the only nonprofit organization dedicated to preservation of open spaces surrounding and in proximity to the Superstition Mountains, which they accomplish through education, advocacy, land acquisition, and federal and state land conservation. SALT is uniquely positioned to provide a valuable service that is currently non-existent in the proposed area.

1.2 Feasibility

SALT's purpose is to assure the long-term conservation, preservation, and management of natural open spaces surrounding the Superstition Wilderness Area. SALT will work closely with governmental and other organizations to obtain the technical expertise to allow for the successful implementation of compensatory mitigation projects. SALT is committed to using the best science available to determine the best management practices to aid in the creation and implementation of a rigorous adaptive management plan. SALT will use all available resources to create a viable mitigation plan and ensure the greatest chance for success of each project, as well as, the overall program.

1.3 Project Sponsor Contacts and Qualifications

The ILF sponsor for this program is SALT. Contact information for the sponsor is:

Superstition Area Land Trust PO Box 582 Apache Junction, AZ 85117 Phone: (480) 734-3257 Tom McDonald, President tmcdonald@azsalt.org

For eighteen years SALT has demonstrated its commitment to land preservation, wildlife protection, and natural plant preservation in the area around the Superstition Mountains. In 2005, SALT entered into a Memorandum of Agreement with the Corps to initially create the SALT ILF program. SALT intends to continue establishing itself as a qualified ILF sponsor for Corps conservation projects and enforcement actions in the proximity of the Superstition Mountains in Arizona. SALT plans to work with the Corps as appropriate to assure that the Corps' requirements for resource compensation are met.

2 GOALS AND OBJECTIVES

The primary mission of the SALT is to assure the long-term conservation, preservation, and management of natural open spaces surrounding the Superstition Wilderness Area through education, advocacy land acquisition, federal and state lands protection, and other conservation actions. The primary goal of the SALT ILF program is to protect the aquatic resources in the area around the Superstition Mountains and to effectively mitigate for losses to aquatic resources associated with development in the area. Specific objectives are:

- Provide an alternative compensatory mitigation option that will result in better designed and managed aquatic resource restoration projects that developers can pay a fee in-lieu of creating on-site mitigation to address their impacts to aquatic resources.
- Establish a method to prioritize the allocation of money to where there is the greatest opportunity for long-term ecological benefit.
- Increase mitigation effectiveness by pooling the resources from what would be small, isolated compensatory mitigation projects managed by developers, homeowners associations, or other permittee-designated managers, into larger projects with an increased chance of success.
- Provide projects to meet the current and future demand for credits in the proposed area.
- To aid in permit applications by eliminating the need for permittees to develop mitigation plans, as well as, add consistency to mitigation in this region.
- Use the ILF program to help protect other resources such as threatened and endangered species or culture resources.
- Increase accountability though thorough monitoring and a strong adaptive management plan.

3 ESTABLISHMENT AND OPERATION

3.1 Program Overview

SALT proposes to establish the SALT ILF program for conservation projects in areas surrounding and in the proximity of the Superstition Mountains in Gila, Maricopa, and Pinal counties of Arizona. This program will provide permit applicants with an alternative option to fulfill their compensatory mitigation requirements where permittee-responsible mitigation would be ineffective, impractical, or unfeasible. Fees to the permit applicants will be assessed on a project by project basis with the main factors being amount and quality of resources affected. Those fees can then be used to purchase credits at an ILF program site which transfers the responsibility of mitigation onto the ILF program, in this case, the SALT ILF program.

3.2 Mitigation Process

Before the ILF program can become operational, it must have a finalized prospectus and instrument completed and accepted by a group of federal, tribal, state and local regulatory and resource agency representatives making up the Interagency Review Team (IRT). The prospectus is a summary of the ILF program used by the IRT to determine whether the program has the potential for providing appropriate compensatory mitigation for Corps permits, while the instrument is the legal document for the establishment, operation, and use of an ILF program. These documents will govern the overall program and serve as the framework for the individual mitigation projects that are to be established within the service area. This document represents the prospectus; the instrument will include service area, accounting procedures, provision stating legal responsibility to provide compensatory mitigation, default and closure provisions, reporting protocols, compensation planning framework, advance credits, method for determining project specific credits and fees, draft fee schedule, and an ILF fee program account.

Potential sites for mitigation within the service area will need to be assessed. Those sites will be prioritized based on their value for creating and preserving aquatic resources and all are subject to review and approval by the Corps district engineer (DE) and the IRT. Each mitigation project will require its own mitigation plan which will also need to be approved by the IRT. Mitigation plans will include objectives, baseline information, mitigation site selection, site justification, work plan, performance standards, site protection, monitoring plan, adaptive management plan, and financial assurances.

Once funds are received, SALT must ensure they are dispensed to an approved project within three growing seasons. SALT will work with various parties to develop an acceptable monitoring plan and performance standards to allow for the proper evaluation of the mitigation project in regards to the ILF program's goals and objectives. Credits will be released to a site by the DE once the site has achieved its performance standards.

3.3 Ownership and Site Stewardship

As a land trust, it is part of SALT's mission to preserve land though advocacy land acquisition, federal and state lands protection, and other conservation actions. Therefore, SALT will either own the land in question or be the stakeholder in charge of its long-term preservation and management as in a conservation easement. A long-term management plan will be created for each mitigation site and SALT will be responsible for its implementation, either by performing the duties themselves or hiring a

qualified professional to complete the necessary tasks. The long-term management plan will include the long-term financing mechanisms to ensure the sustainability of the project.

4 COMPENSATION PLANNING FRAMEWORK

4.1 Introduction

The need for a Compensatory Planning Framework was set forth in 33 CFR part 332 and 40 CFR part 230: Compensatory Mitigation for Losses of Aquatic Resources 73 FR 19670, 10 April 2008 by the Corps and EPA. The Compensatory Planning Framework is used to select, secure, and implement aquatic resource restoration, establishment, enhancement, and/or preservation activities. The purpose of this rule was to establish standards and criteria for the use of all forms of compensatory mitigation related to unavoidable impacts to aquatic resources under Section 404 of the CWA and Sections 9 or 10 of the RHA.

The Compensatory Planning Framework will be used to select, secure, and implement aquatic resource establishment, preservation, enhancement, and/or restoration. All projects used to provide compensation for Corps permits will be in accordance with the program's Compensatory Planning Framework. Any modifications to the framework will be approved by the DE after consultation with the IRT.

4.2 Geographic Service Area

SALT's main area of interest lies in protecting the areas surrounding the Superstition Mountains within Maricopa, Pinal, and Gila Counties in Arizona. The Superstition Mountains are bordered on the west, north, and east by State Route 88 (SR 88) and to the south by US Highway 60 (US 60). This area is encompassed by three sub-basins: the Upper Salt River sub-basin (USSB); the Lower Salt River sub-basin (LSSB): and the Middle Gila River sub-basin (MGSB). These three sub-basins will comprise the geographic service area for the SALT ILF program (

Figure 1). This service area was selected because SALT, in consultation with the DE, has concluded that the scale is appropriate to ensure that the projects selected will be able to effectively compensate for adverse environmental impacts across the entire service area.

USSB, Hydrologic Unit Code (HUC) 15060103, occurs mainly in Gila County, Arizona with small portions also occurring in Maricopa, Navajo, and Pinal Counties. It occupies 2,152 square miles of area occurring mainly on US Forest Service (USFS) and tribal lands (Uhlman et al. 2008b). The Salt River is the major drainage feature within this sub-basin, with the sub-basin's western edge terminating into Roosevelt Lake. Tributaries to the Salt River in this sub-basin include: Cherry Creek, Pinto Creek, Pinal Creek, and Sawmill Creek.

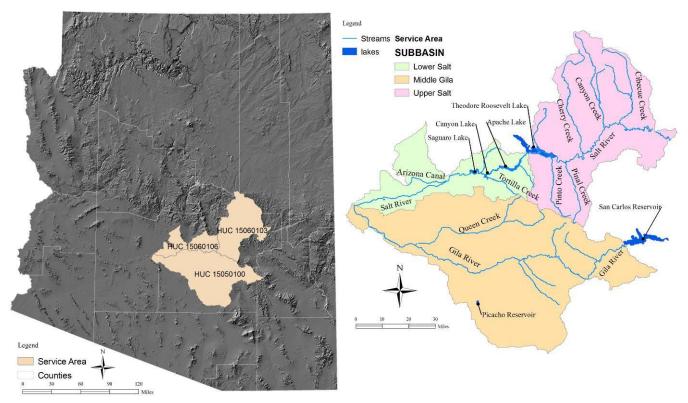


Figure 1. Geographic Service Area for SALT ILF Program

LSSB, HUC 15060106, occurs mainly in Maricopa County with small segments occurring in Pinal and Gila Counties. LSSB occupies 950 square miles of area with approximately 40 percent occurring on USFS land, 40 percent occurring on private land, and the rest on state and tribal land (Uhlman et al. 2008a; Uhlman et al. 2008b). The LSSB begins at Roosevelt Lake on the eastern boundary of the subbasin and terminates on the western boundary at the confluence of the Salt and Gila Rivers. The Salt River is the major drainage feature within the LSSB. Tributaries and hydrologic features include: Apache Lake, Canyon Lake, Saguaro Lake, Tempe Town Lake, Indian Bend Wash, Fish Creek, and Tortilla Creek.

MGSB, HUC 15050100, occurs mainly in Maricopa and Pinal counties with small portions also occurring in Gila and Graham counties. The MGSB occupies 3,354 square miles of area with the largest portions occurring on Arizona State Lands Department (ASLD) and private lands at 33 percent and 26 percent, respectively (Uhlman et al. 2008a). The rest of the area is divided between various federal, state and tribal entities. The Gila River is the major drainage feature for this watershed and begins at the eastern boundary of the sub-basin with the San Carlos Reservoir and terminates at the confluence with the Salt River on the western boundary of the sub-basin.

4.2.1 Threats to Aquatic Resources

There are many threats to aquatic resources that this service area is facing and will be facing in the future. The land within the service area is comprised of large portions of public land, which are regularly used for livestock grazing. Livestock can have negative effects on both the stream in terms of water quality and riparian health, but also stream morphology by altering the depth, width, and general flow of the channel (Belsky et al. 1999). Public lands are also used for mining operations and there are many

active and abandoned mines throughout the watershed. These mines can be a large contributor to nonpoint source pollution and increased sedimentation within the service area.

Increases in human population and the resulting increases to infrastructure and water consumption is a major threat to aquatic resources in the service area. The MGSB had an average increase of 297 people per square mile from 1990 to 2000 (Uhlman et al. 2008a). Portions of the LSSB, outside of the wilderness area, had an increase of 1,922 people per square mile over the same ten year span (Uhlman et al. 2008a). These increases in population result in expansions in residential and commercial areas, as well as, the roads and infrastructure that accompany those expansions. This affects the aquatic resources by removing riparian areas to make way for expansion, increased water consumption which has to be pulled from streams and lakes further and further away from the population center, and increased pollution due to runoff and erosion that accompanies the clearing of land. An increase in population can also facilitate the spread of invasive species, and can indirectly impact threatened and endangered species by increasing habitat fragmentation.

SALT will help to offset impacts from these threats by protecting pristine areas in the service area from being impacted or destroyed which will help protect water quality and the streams function in the environment. Furthermore SALT will look into obtaining lands already affected by these threats and restore them to their previous condition and function to increase the overall health of the ecosystem.

4.2.2 Historic Aquatic Losses

Wetland areas across the country have been disappearing at an alarming rate. Between 1780 and 1980, 54 percent of wetlands have disappeared throughout the United States (Dahl 1990). Although Arizona falls below the national average at 36 percent lost over the same time span, Arizona's landscape houses considerable less wetland areas, which account for only 0.8 percent of Arizona's total surface area (Dahl 1990). Some of the causes of these losses can be attributed to the growing human population in the state and that population's interaction with the environment. This includes issues such as livestock grazing, mining, and water consumption.

4.2.2.1 Livestock Grazing

Livestock grazing has occurred in Arizona since the 16th century. It hit its peak in 1891 with over two million cattle and sheep on Arizona lands alone (Zaimes 2007). These numbers were far above the carrying capacity for the land and, with the addition of drought, led to the death of 50 to 75 percent of the livestock (Zaimes 2007). Livestock can cause significant degradation to riparian areas in the arid southwest (Belsky et al. 1999). Shortly after 1891, 30 percent of the San Carlos Reservoir was filled with eroded sediment in large part due to excess surface and channel erosion attributed in large part to overgrazing in the area (Zaimes 2007). Direct effects from grazing can include removal and trampling of vegetation, soil compaction, nutrient redistribution, and spread of exotic plant and pathogens (NRC 2002). These can lead to other indirect impacts such as altered fire regimes, changes in stream hydrology and morphology, increase in water temperature and chemistry, and changes to the biological diversity of a stream (Belsky et al. 1999; NRC 2002).

The impacts of grazing have lessened due to increased regulations by the government. The Taylor Grazing Act of 1934 created grazing districts and required livestock owners to obtain permits. Federal agencies also began to regulate the number of cattle allowed on a parcel and the length and timing of the parcel's use. All this was done in order to protect the lands from the effects of cattle. However, livestock

are still allowed to graze riparian areas having negative effects on the environments and in some cases forever altering the stream and that environment.

4.2.2.2 Mining

Mining began in Arizona around 1000 A.D. by the native people of the region in order to fashion tools and ornaments (Chapman 1962). Mining began to increase significantly in the late 1870 due to the installment of railroads throughout the state which made the transfer of ores more cost efficient. In the late 1800's and early 1900's, production switched from mainly silver and gold mines to predominantly copper mines and Arizona has remained one of the leaders in copper ore production to this day. As of 2007, Arizona produces approximately 60 percent of all the copper ore produced within the United States each year (Niemuth 2008).

There are multiple effects that mines can have on streams and wetlands. In the past, mining areas were cleared and no reclamation work was completed even after production was halted and the mine was abandoned. This led to high levels of erosion of the area which carried the extra sediment into streams downslope from the mine. The streams and floodplains would become degraded and unstable altering stream flow and flood regimes (NRC 2002; Zaimes 2007).

Mines can also severely affect water quality through both the transfer of excavated material such as metals into the stream at high concentrations, or from transfer of the materials used to extract the metals from the ground. For example, Copper ore is extracted from other materials by the use of sulfuric acid. Rainfall events can transport the acid into the stream which alters the streams pH level affecting all organisms downstream. Regulations to mining over the past few decades have worked to minimize these effects by increasing the need for reclamation and safe practices to protect the environment; however, it is impossible to prevent all adverse affects caused by mining. The large number of mines located within the service area has helped to shape the current conditions of aquatic resources (Figure 2).

Currently, there are 1,166 total mines active or abandoned within the service area. There are 381 total mines within the USSB, 95 within the LSSB, and the MGSB has 690 total mines (Uhlman et al. 2008a; Uhlman et al. 2008b). The minerals produced from these mines vary, but the majority of mines produce gold, silver, copper, uranium, asbestos, sand, or iron. Figure 2 shows only the mines where the commodity was known, and only displays the most recent commodity. A large portion of these have been mined for multiply commodity types.

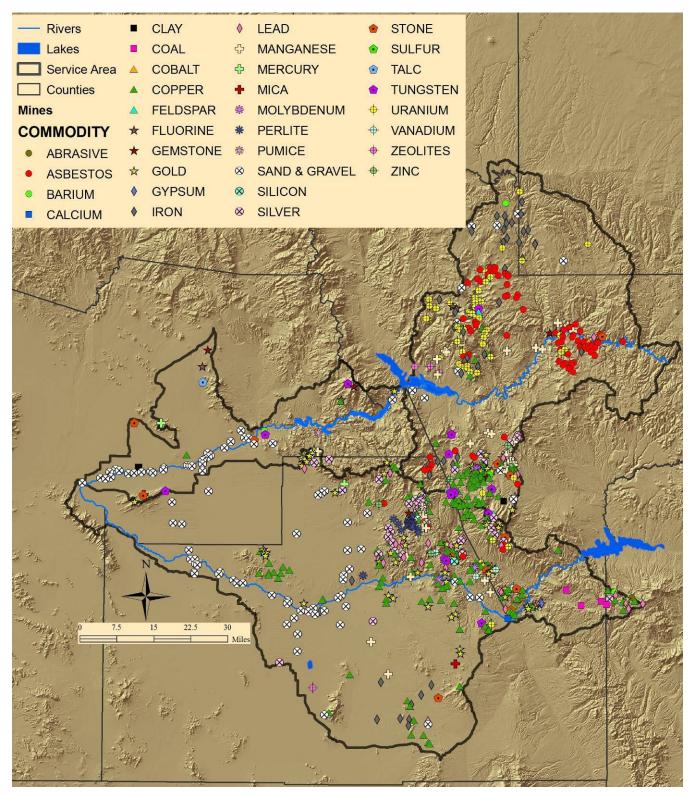


Figure 2. Mines located within the Service Area

4.2.2.3 Urbanization

Human population within the service area has risen 43 percent over the last 15 years (Arizona Department of Commerce 2010). With an increase in population comes an increase in urban areas and sprawl into previously undisturbed environments. It also leads to an increase in infrastructure and the roads needed to accommodate the increasing population. From 1972 to 1990, the size of the Phoenix metro area went from 232 square miles to 471 square miles (Auch et al. 2004). These expansions infringed on numerous streams and washes which were cleared and channelized to limit the risks of flooding to new homes and buildings. Rainfall collects pollutants from streets and other surfaces and funnels it into the streams which can affect water quality both in the area and downstream (Zaimes 2007).

Areas of streams around road crossings are usually channelized to limit flooding on the road and to stabilize the road surface. Even if roads do not cross a stream they can still affect the streams ecosystem. Forman and Deblinger (2000) found that, at a minimum, roads affect areas within 300 ft and depending on location and topography can affect portions of ecosystems within 900 ft of the road. There are 1,310 miles of road that occur within the service area, with 275 miles occurring in LSSB, 303 miles in USSB, and 732 miles in MGSB.

4.2.3 Current Aquatic Resource Conditions

In the service area, as across much of Arizona, water is a limited resource. Water makes up less than 1 percent of the entire land cover for the service area. The LSSB is covered by approximately 61 percent rangeland, 31 percent urban areas, 5 percent agriculture and 1 percent water. The USSB is made up of 71 percent rangeland, 28 percent forest, and only 0.4 percent water. The MGSB is covered by 81 percent rangeland, 9 percent urban, 9 percent agricultural, and contains the smallest amount of water at 0.04 percent of the total land cover (Uhlman et al. 2008a; Uhlman et al. 2008b).

The land within the service area is managed by many different agencies (Figure 3), with the vast majority, 43 percent, occurring on USFS land. The remaining lands are split between private lands at 20 percent, state lands 18 percent, 11 percent tribal lands, and 6 percent managed by the BLM (Uhlman et al. 2008a; Uhlman et al. 2008b). These different management entities will affect the waters of the service area in different ways based on their overall land management strategies. Waters on federal land may be impacted more by grazing and mining than private land; whereas private land may impact waters through urbanization and water use.

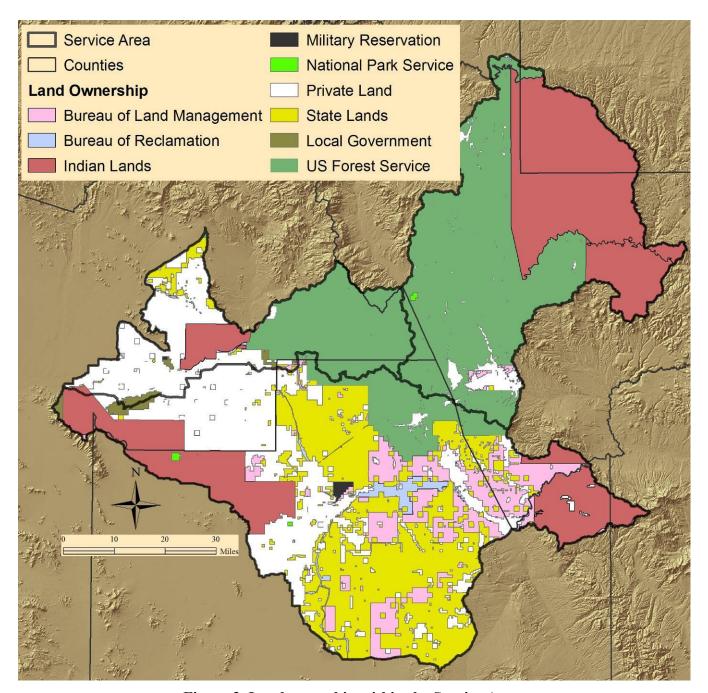


Figure 3. Landownership within the Service Area.

Of the 88 currently impaired waters in Arizona, 25 percent occur within the service area (Figure 4). Over 47 miles of tributaries to Queen Creek and Pinto Creek, as well as Queen Creek itself, are impaired due to high copper concentrations, while Pinto Creek has over 33 miles that are impaired with high levels of selenium. Both the Salt and Gila rivers have a combined 30 miles of impairment, due to suspended solid concentrations. and the Salt River through Phoenix (dichlorodiphenyltrichloroethane) metabolites, toxaphene, and chlordane found in fish tissue, making them toxic to eat. Mineral Creek, which flows into the Gila River toward the east side of the service area, is impaired for 19.6 miles with copper, selenium, low dissolved oxygen, and cyanide impairments. There area also 2,190 acres of lakes in the service area that suffer from low dissolved oxygen

concentrations which include both Apache and Canyon lakes. Roosevelt Lake has high concentrations of mercury located in fish tissue, causing agencies to release warnings about limiting consumption of fish from the lake (Sutter 2011).

Many of these water quality issues can be attributed to mining. Of the 143 miles of impaired streams in the service area, 119 miles have been impacted as a direct result of copper and/or sand and gravel mining. High copper concentrations are an expected side effect to the large number of copper mines in the area of the impaired streams. However, high selenium concentrations can also be a side effect of copper mining, and is concentrated during the electrolytic refining process (George 2003). If tailings are not disposed of properly, it is possible for them to leach into the water supply and eventually enter the stream.

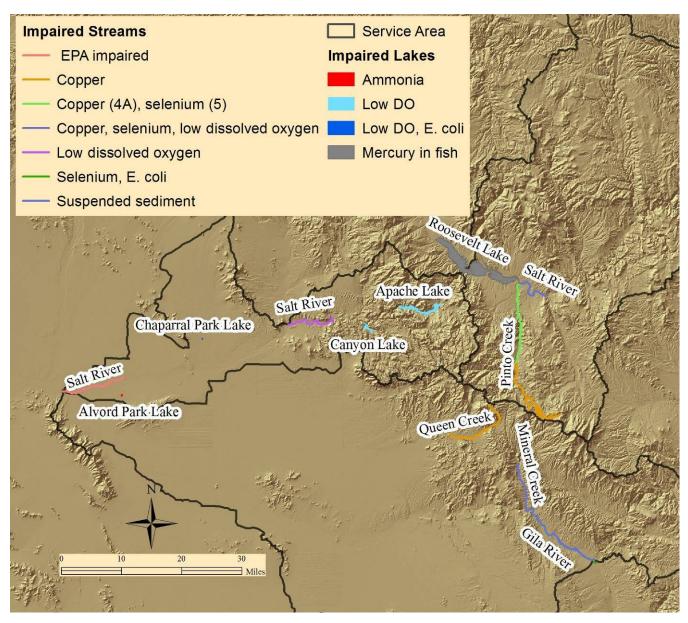


Figure 4. Impaired Lakes and Streams within the Service Area.

4.2.4 Aquatic Resource Goals and Objectives

The primary goal is to help ensure no-net loss of aquatic resources and work toward increasing aquatic resource function within the service area. To achieve this SALT hopes to preserve important areas, as well as, to improve other areas in terms of water quality, increased riparian habitat, and overall stream conditions. SALT would also like to use these areas to increase the public's appreciation for the stream ecosystem in hopes of making them more aware of the threats facing these areas, as well as, getting them engaged in the conservation effort.

Under current conditions, SALT could manage up to 1,000 acres of land and are currently looking for feasible sites that will help them obtain their goals. SALT does not plan to limit their search to one specific resource type and will look at many different types (streams, wetlands, springs, washes, pods, etc.) and choose the ones that best fit their goals and expertise. SALT will work to obtain multiple sites across the entire service area to better offset the effects of the wide array of construction that occurs throughout the area.

4.3 Strategy for Selecting and Implementing Compensatory Mitigation Activities

There are many factors that will be assessed when determining appropriate sites for compensatory mitigation. First, SALT will determine a number of properties that are attainable though either title transfer or easement. These properties will be assessed on their ability to provide chemical, physical, and/or biological improvements to the watershed, or, in the case of preservation, on the exceptional quality or rarity of these features. Each site will be judged on the expected outcome and the level of effort and money needed to reach that outcome, as well as, the probability of success. Lastly, the mitigation sites must be able to help SALT meet its goals and objectives both as a land trust and an ILF program.

SALT will provide compensatory mitigation for permitted impacts within the same sub-basin in which the impacts occurs unless the DE, in consultation with the IRT, has agreed to an exemption. SALT will not accept fees from permittees in watersheds in which SALT has been unable to identify appropriate mitigation. Individual projects will be proposed for specific sub-basins in project-specific mitigation plans.

4.4 Criteria for the Use of Preservation as a Mitigation Tool

Preservation is a useful tool in aquatic resource management. It allows for the protection of specific habitat aspects, threatened or endangered species, or otherwise threatened or outstanding aquatic habitat. As laid out in the Final Mitigation Rule (2008) 33 CFR 332.3(h), preservation may only be used as a compensatory mitigation tool when it meets the following requirements:

- The resources to be preserved provide important physical, chemical, or biological functions for the watershed:
- The resources to be preserved contribute significantly to the ecological sustainability of the watershed. In determining the contribution of those resources to the ecological sustainability of the watershed, the DE must use appropriate quantitative assessment tools, where available;
- Preservation is determined by the DE to be appropriate and practicable;
- The resources are under threat of destruction or adverse modifications; and
- The preserved site will be permanently protected through a fee title transfer to SALT or will be placed under a permanent easement held by SALT.

Since preservation mitigation costs less than establishment and restoration, and no habitat is actually created or enhanced, a larger ratio of credits to loss will be required for permitted individuals who use a preservation site as opposed to other mitigation sites. This will allow for a larger area to be preserved and offset the lack of any new or enhanced aquatic resources.

4.5 Public and Private Stakeholder Involvement

SALT is a non-profit land trust who works to conserve and protect important natural areas. As such, SALT will seek out both public and private landowners to obtain the best possible properties to help obtain their goals and objectives. They will work with the Corps as a main monetary backer, as well as, for guidance on what the greatest conservation needs in the service area might be. They will work with other state and federal agencies, conservation groups, landowners, and advisory groups as needed.

4.6 Long Term Protection and Management Strategies

There are two means by which SALT may acquire property. First, they can purchase the property outright and become the sole owner of the property. Or, they can enter into an agreement with the current landowner that would allow SALT to manage the land and protect the aquatic resources within. All property that SALT acquires through the ILF program, regardless of method, will be protected in perpetuity though a conservation easement. This will ensure that the property and its aquatic resources are protected.

Management strategies would vary by site depending on mitigation type, location, and landowner agreements. All sites would receive at least annual monitoring, field observations, and reporting, with the possibility of multiple monitoring trips based on need and/or landowner agreements. The monitoring of the land will remain the responsibility of SALT personnel or qualified persons appointed by SALT.

4.7 Strategies for Evaluation and Reporting

SALT will provide annual reports on the program which will include:

- Project summaries for each project (description of mitigation activities, partnership opportunities, long-term protection measures, conservation and ecological benefits, and current status of each project);
- Tables that include summaries of the status, proposed mitigation activity type and associated acreage, and proposed credit for each aquatic project pursued by SALT to serve as mitigation for impacts;
- Tables that provide the amount of impacted acres in the service area, the total mitigation liability in credits, and a measure of the aquatic resource that is proposed to be replaced through restoration and creation activities in comparison to the amount impacted;
- Status of progress toward mitigation performance standards; and
- Detailed financial statements.

An initial evaluation of the Program will be conducted after five years to update and revise the program as necessary. The collective status of all compensatory mitigation projects will be reviewed to evaluate projects and determine causal factors in success and/or failure. This type of review will assist in revision of future compensatory mitigation plans, particularly in light of any new scientific understanding of

aquatic resource restoration science. The contribution by partners and contractors will also be evaluated at this time. Subsequent evaluations will occur every three years or when deemed necessary.

Potential compensatory mitigation sites would be revisited, mainly to evaluate the need to add new sites to the list of potential restoration sites. Some potential mitigation sites may be removed from the list to account for compensatory mitigation sites that have been successfully restored or have been permanently impacted.

Lastly, the financial status of the program would be evaluated. The main focus of this evaluation would be the adequacy of the funding mechanism for future long-term management activities, especially after considering recent changes in costs related to compensatory mitigation, interest rates, and the current state of the economy.

5 PROGRAM ACCOUNT

5.1 Establishment

SALT will establish an ILF program account. Contributions to the account will be held in a bank that must be a member of the Federal Deposit Insurance Corporation (FDIC), separate from all other accounts. The account will be interest bearing, and all interests and earnings accruing to the account will remain in that account for use by the ILF program for the purpose of providing compensatory mitigation. The account will be invested in such a manner as to ensure immediate liquidity.

The program account will be established after this instrument is approved and before any fees are accepted. If the Corps determines that SALT is failing to provide compensatory mitigation by the third full growing season after the first advance credit is secured, the agency may direct the funds to alternative compensatory mitigation projects. The Corps has the authority to audit the program account records at any time.

Funds paid into the program account will only be used for the direct replacement and management of aquatic resources. This means the selection, design, acquisition (i.e., appraisals, surveys, title insurance, etc.), implementation, and management of in-lieu fee compensatory mitigation projects. This may include: fees associated with securing a permit for conducting mitigation activities; activities related to the restoration, enhancement, creation, and/ or preservation of aquatic resources; maintenance and monitoring of mitigation sites; and the purchase of credits from mitigation banks. Use of fees is explicitly prohibited for activities such as upland preservation (other than buffers), research, education and outreach, or implementation of best management practices for wetlands.

A small percentage of the funds, to be determined by the DE, can be used for administrative costs associated with the ILF program. Such costs include bank charges associated with the establishment and operation of the program, staff time for carrying out program responsibilities, expenses for day-to-day management of the program (such as bookkeeping, mailing expenses, printing, office supplies, computer hardware or software, training, travel) and hiring private contractors or consultants.

5.2 Annual Reporting

5.2.1 Monitoring Reports

Monitoring is required of all compensatory mitigation projects to determine if the project is meeting its performance standards and if additional measures are necessary to ensure that the compensatory mitigation project is accomplishing its objectives. If SALT fails to submit reports within 90 days of the deadlines outlined in the mitigation plan(s), the Corps may take appropriate compliance action.

Project-specific mitigation plans will detail the parameters to be monitored, the length of the monitoring period, the dates that the reports must be submitted, the party responsible for conducting the monitoring, the frequency for submitting monitoring reports to the DE, and the party responsible for submitting those monitoring reports to the DE and the IRT. The level of detail and substance of the reports must be commensurate with the scale and scope of the compensatory mitigation project. The Corps is required to provide monitoring reports to interested federal, tribal, state, and local resource agencies, and the public, upon request.

5.2.2 Credit Transaction Notification

Once the legal responsibility of compensation has been transferred from the permittee to SALT, SALT will need to submit a credit sale letter to the Corps. This letter will be signed by both SALT and the permittee and will include the date of the transaction, permit number(s), the number of credits being purchased, and resource type(s) of credits being purchased. SALT will submit the letter within ten days of receiving the fees from the permittee and will retain a copy for their administrative and accounting records.

5.2.3 Annual Program Report

In accordance with 33 CFR 332.8(i), (p), and (q), SALT will keep a detailed ledger and submit an annual ledger report to the Corps and the IRT. The report will be made available to the public upon request. The report will include the following:

- Income received and interest earned by the program account for the program and by service area;
- A list of all permits for which in-lieu fee program funds were accepted by service area, including:
 - Corps permit number;
 - Service area of authorized impacts;
 - o Amount of required compensatory mitigation;
 - o The amount paid to SALT;
 - o Date funds were received from the permittee;
- A description of program expenditures/disbursements from the account for the program and by service area;
- Balance of advance and released credits at end of reporting period for the program and by service area;
- Permitted impact for each resource type;
- All additions and subtractions of credits; and
- Other changes in credit availability.

5.2.4 Annual Financial Assurances and Long-Term Management Funding

SALT will submit an annual report on financial assurances and long-term management to the district engineer and the IRT. SALT will give the Corps at least 30 days advance notice if required financial assurances will be terminated or revoked.

The financial assurances and long-term management funding report must include the beginning and ending balances of the individual project accounts providing funds for financial assurance and long-term management, deposits into and any withdrawals from the individual project accounts providing funds for financial assurance and long-term management, and Information on the amount of required financial assurances and the status of those assurances, including their potential expiration for each individual project

5.3 Methodology for Determining Credits and Debits

Upon approval of the instrument for the SALT ILF program, SALT will be permitted to sell advance credits. As milestones in the credit release schedule are reached (i.e., restoration, creation, enhancement and/or preservation is implemented), advance credits convert to released credits. At a minimum, credits will not be released until SALT has obtained IRT approval of the mitigation plan for the site, has achieved the applicable milestones in the credit release schedule, and the credit releases have been approved by the district engineer. Once SALT has sold all of its advance credits, no more advance credits may be sold until an equivalent number of credits have been released in accordance with the approved credit release schedule outlined in a project-specific mitigation plan. Once all advance credits are fulfilled, an equivalent number of advance credits may be made available for sale, at the discretion of the district engineer and IRT.

SALT will complete land acquisition and initial physical and biological improvements by the third full growing season after the sale of advance credits. If SALT fails to meet these deadlines, the district engineer must either make a determination that more time is needed to plan and implement an in-lieu fee project or, if doing so would not be in the public interest, direct SALT to disburse funds from the ILF Program's program account to provide alternative compensatory mitigation to fulfill those compensation obligations.

Fees for the SALT ILF program will be determined based on an analysis of the expected costs associated with the restoration, establishment, enhancement, and/ or preservation of aquatic resources in the state. The program costs included in this analysis are those related to land acquisition, project planning and design, construction, plant materials, labor, legal fees, monitoring, remediation or adaptive management activities, program administration, contingency costs appropriate to the stage of project planning, including uncertainties in construction and real estate expenses, the resources necessary for the long-term management and protection of the in-lieu fee project, and financial assurances that are expected to be necessary to ensure successful completion of in-lieu fee projects. The fees will be used to determine a Draft fee schedule for the service area. These fees shall be reviewed annually and cost of credits will be updated as appropriate.

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APPENDIX A. PROPOSED ILF MITIGATION SITE: TONY RANCH

INTRODUCTION

In 2005 the Superstition Area Land Trust (SALT) entered into a Memorandum of Agreement with the U.S. Army Corps of Engineers (Corps) to create the SALT In-Lieu Fee (ILF) program. This programs purpose was to accept monies generated as an ILF funding requirement for authorized activities, as well as monies generated by enforcement and compliance actions initiated by the Corps, and to serve as a funding source for wetland and/or riparian restoration, creation, enhancement, and preservation of wetlands and other aquatic resources.

With the money provided through this program, SALT purchased the Tony Ranch property. Tony Ranch is a 78.05 parcel located in Section 31 and 32, T1N, Range 13E, approximately seven miles north of Superior, Pinal County, Arizona (Figure A-1). The primary feature within the project area is Haunted Canyon, which is an intermittent tributary of Pinto Creek and runs north-south through the parcel (Figure A-2). Within the project limits, the canyon bottom is surrounded by numerous rock outcrops and steep slopes. Elevation within the Tony Ranch parcel ranges from 3,780 to 3,940 ft (1,152 to 1,201 m) above mean sea level (MSL).

OWNERSHIP AND FUNDING

In June of 2008, SALT purchased the Tony Ranch Property from the previous owner the Ann Curtis Taylor Trust (see copy of deed in Attachment A) with money provided by the Corps through the ILF program. The purchase included the parcel along with all the structures within the parcel. The purchase did not include the water or mineral rights for the property.

SALT plans to protect the property in perpetuity though a conservation easement. They are currently working on obtaining an easement for this property and should have it completed sometime in 2012. They have begun work to protect the resources within the parcel by the installation of no trespassing signs in the more sensitive areas. SALT plans to retain ownership of the site and remain responsible for its long term protection and management.

SITE DESCRIPTION

The project vicinity is at the boundary between the northern portion of the Basin and Range physiographic province and the southern portion of the Central Highlands or Intermediate Transition Zone (Nations and Stump 1996; Smiley et al. 1984). The parcel lies at the east edge of the Superstition Mountains, and at the eastern boundary of the Superstition Wilderness. Pinto Creek runs north-south within two to three miles of the east side of the Tony Ranch property. The terrain within the vicinity is rugged and mountainous and is dissected by numerous large washes/streams.

Forest Trail (TR) 203 follows Haunted Canyon southwest from a trailhead originating on Forest Road (FR) 287 near the Pinal/Gila County border. Tony Ranch is located in that portion of Haunted Canyon which branches south from TR 203, where the trail continues west and north, returning to FR 287A.

The Tony Ranch parcel is located within the Interior Chaparral biotic community with an inclusion of Interior Riparian Deciduous Forest associated with the Haunted Canyon drainage (Brown 1994). Small areas of Madrean Evergreen Woodland occur throughout the parcel. A very small area of Interior Marshland occurs at the Tony Ranch Spring in the north-central portion of the parcel. Project area photographs are included in Appendix B.

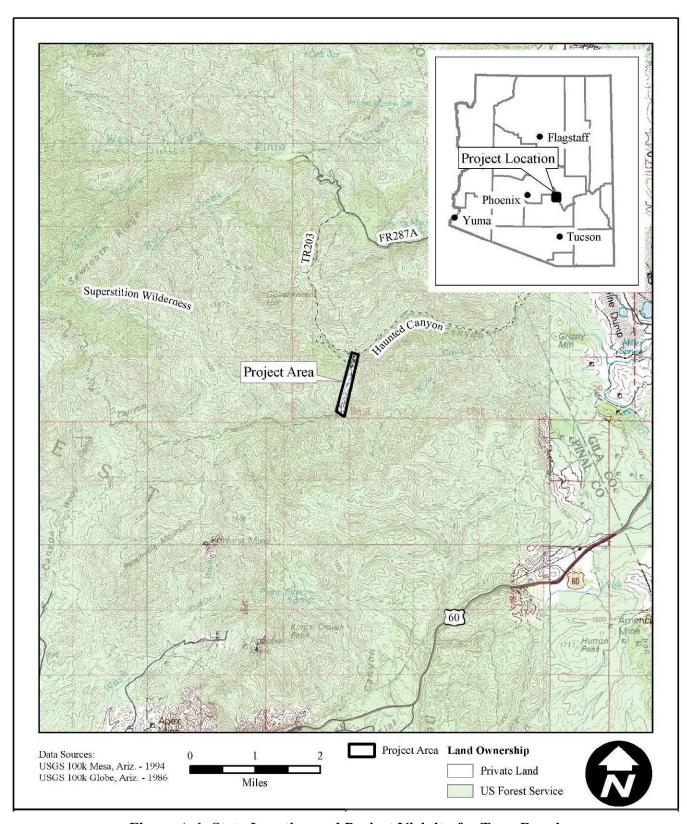


Figure A-1. State Location and Project Vicinity for Tony Ranch

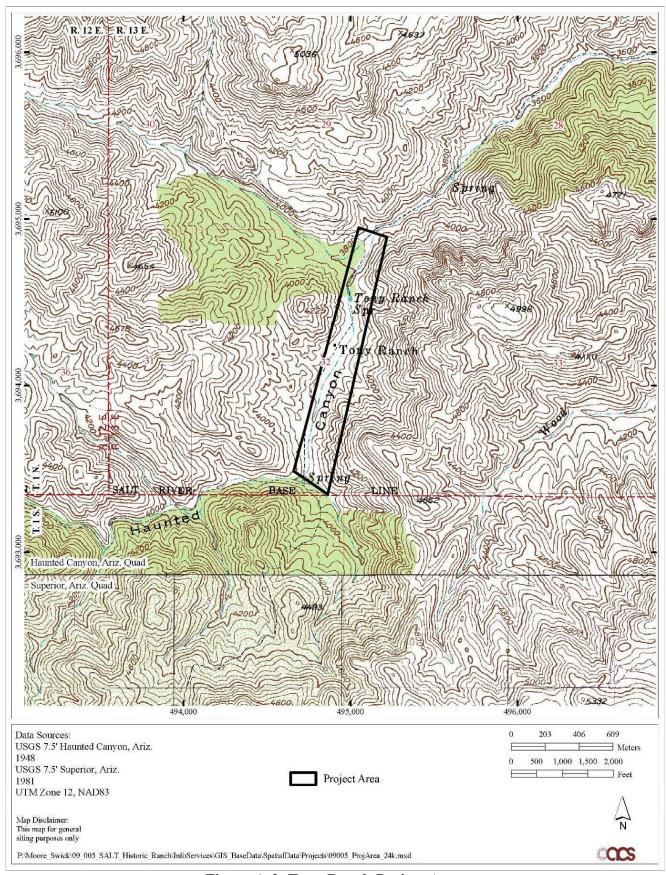


Figure A-2. Tony Ranch Project Area.

Within the Tony Ranch parcel, soils are classified as the Cellar-Spudrock-Rock Outcrop Association by State Soil Geographic (STATSGO) database for Arizona (USDA 1994). The STATSGO database was designed primarily for regional, multistate, river basin, state, and multicounty resource planning, management and monitoring. STATSGO data are not detailed enough to make interpretations on the county level. The scale of these data is 1:250,000 and does not include smaller areas of soil such as the alluvial soil found on the Tony Ranch parcel.

The Cellar soil series, a very gravelly sandy loam, consists of shallow and very shallow, somewhat excessively drained soils formed in slope alluvium from granitic rock. Cellar soils are on hills and mountains and have slopes of 2 to 70 percent. The Cellar soil series are classified as loamy-skeletal, mixed, superactive, nonacid, thermic lithic Torriorthents.

The Spudrock series, a very flaggy sandy loam, consists of moderately deep, well drained soils formed in mixed slope alluvium. Spudrock soils are on hills and mountains and have slopes of 15 to 85 percent. The Spudrock soil series are classified as loamy-skeletal, mixed, superactive, mesic Typic Haplustepts.

HYDROLOGY

Haunted Canyon is a third order stream within the Pinto Creek watershed and is considered a B3 stream type. Stream types reflect agents of formation and the processes used by different streams for maintaining their form and function (Rosgen 1996). The B3 stream types are moderately entrenched systems with channel gradients of 2 to 4 percent. These stream types are developed in very coarse alluvial fans, lag deposits from stabilized lag debris, rockfall, talus, very coarse colluvial deposits and structurally controlled drainage ways. The valley type that contains this B3 stream type is a Valley Type II: moderately steep, with gentle to steep sloping side slopes often in colluvial valleys (Table A-1). The channel bed morphology is dominated by cobble materials with boulders, gravels and sand. The bed is characterized by a series of rapids with irregularly spaced scour pools. Pool-to-pool spacing adjusts inversely to stream gradient.

TABLE A-1. HYDROLOGICAL ASSESSMENT OF HAUNTED CANYON WITHIN THE TONY RANCH PARCEL.										
Valley Type	Stream Type	Stream Order	No. of Reaches	Channel Pattern	Slope	Width Depth Ratio	Sinuosity	Entrenchment Ratio	Dominant Substrate Material	Stream Banks and Bed
II	В3	3rd	11	Single to multiple thread	.0204	> 12	1.11	1.4 - 2.2	Cobble, Gravel, Sand	Stable

The B3 stream has a moderate width/depth ratio and a moderate sinuosity. The width/depth ratio helps in understanding the distribution of energy in a channel and the ability of various discharges to move sediment. This stream is associated with residual materials derived from resistant rock types or from alluvial and/or colluvial deposition. In several of the stream reaches, channel bifurcation commonly referred to as multiple thread channels was common. The bifurcated channels often left inter-channel islands of vegetation including large mature trees. The channel materials are composed primarily of cobbles with a few boulders, and lesser amounts of gravel and sand. Large woody debris (log jams) are typical in the stream and are an important component for habitat when available, as well as a viable

component to decrease the velocity of water through the channel during high magnitude flood events. The bed and bank materials of this tributary are reasonably stable, and although flashy in nature, will only contribute small quantities of sediment during seasonal runoff events. These factors are assessed to determine stream stability, which is defined as follows:

"The ability of a stream to transport the water and sediment of its watershed in such a manner as to maintain its dimension, pattern, and profile, over time and in the present climate, without aggrading or degrading" (Rosgen 1996).

There are three features within the parcel that would be classified as Waters of the United States (WUS) by the Corps. This includes Haunted Canyon a small tributary entering Haunted Canyon from the west and Tony Ranch Spring. The total length of stream assessed within the Tony Ranch parcel was 5,997 ft. Haunted Canyon accounted for 5,698 ft and 4.24 acres of WUS, while the tributary accounted for 299 ft and 0.1 acre of WUS. Based on soil and vegetation assessed at Tony Ranch Spring the area is a wetland. The wetlands around the spring is 37 ft by 12ft and measures 0.01 acre in size. SALT has applied for a preliminary jurisdictional determination and the results are pending.

ECOLOGICAL CONDITIONS

Plant Communities

Plant communities within the Tony Ranch property are largely ecotonal, with a number of plant species occurring across more than one vegetation community type. Of the four vegetation communities (Interior Riparian Deciduous Forest, Interior Chaparral, Madrean Evergreen Woodland, and Interior Marshland), the Interior Riparian Deciduous Forest community is represented by the largest number of species. Species observed in the Interior Riparian Deciduous Forest community within the project limits include Arizona sycamore (*Platanus wrightii*), Arizona walnut (*Juglans major*), miner's lettuce (*Claytonia perfoliata*), seep monkey flower (*Mimulus guttatus*), and poison ivy (*Toxicodendron rydbergii*).

Interior Chaparral and Madrean Evergreen Woodland are characterized primarily by a relatively higher understory density than the Interior Riparian Deciduous Forest. Within the Tony Ranch parcel, the Interior Chaparral understory is significantly denser than that of the Madrean Evergreen Woodland. Dominant plant species observed in the Interior Chaparral community include pointleaf manzanita (Arctostaphylos pungens), Arizona hedgehog cactus (Echinocereus coccineus var. arizonicus [E. triglochidiatus var. arizonicus]) and Arizona cypress (Cupressus glabra). The Madrean Evergreen Woodland vegetation community exhibits two distinct subtypes based on canopy composition: an oakdominant area near the west-central portion of the parcel at the mouth of a side drainage into Haunted Canyon; and a pinyon-juniper-dominant area at the northwest property corner. Common species occurring within the Madrean Evergreen Woodland community include Emory oak (Quercus emoryi), juniper (Juniperus spp.), two-needle pinyon (Pinus edulis), chokecherry (Prunus virginiana), and catclaw mimosa (Mimosa aculeaticarpa var. biuncifera).

The Interior Marshland is a localized area associated with the Tony Ranch Spring. The spring has been modified by the installation of plastic piping and a metal tank for catchment. Limited areas of shallow standing water occur within the marshland; soils are saturated throughout. The Interior Marshland at the spring is composed predominantly of sedges (*Carex* spp.) and bulrushes (*Scirpus* spp.) with some curly dock (*Rumex crispus*) interspersed. Given the existing hydrological characteristics and associated vegetation community at Tony Ranch Spring, this area should be considered a wetland.

Endangered Plant Species

A single plant species listed as Endangered under the Endangered Species Act (ESA) was observed within the project limits: Arizona hedgehog cactus (AHC). There are five varieties of *E. coccineus* in Arizona. The AHC occurs in Pinal and Gila counties in central Arizona at elevations ranging from 3,400 to 6,360 ft. Occupied habitat typically consists of rugged, steep-walled canyons and boulder-pile ridges in Interior Chaparral, Madrean Evergreen Woodland, and sometimes Desert Grassland. The associated plant community often includes shrub live oak (*Quercus turbinella*), pointleaf manzanita, mountain mahogany (*Cercocarpus* spp.), beargrass (*Nolina microcarpa*), pinyon (*Pinus* spp.), and redberry juniper (*Juniperus erythrocarpa*). This subspecies typically occurs in suitable habitat on bedrock material, primarily of granite. Arizona hedgehog cacti are also found on Pinal schist and the Pioneer Formation where these materials are exposed as bedrock (US Fish and Wildlife Service [USFWS] 2002). Individuals of AHC are typically found on open, rocky slopes, and steep cliffs. Although some plants may establish on looser material or deep soils, they do not tend to persist in these areas (Arizona Game and Fish Department [AGFD] 2003). Preferred microsites consist of exposed and stable bedrock or boulders with fractures, which provide periodic moisture catchment and shelter from high temperatures and moist soils (USFWS 2002).

The primary population for this species occurs approximately parallel to US 60 between Superior and Miami, Arizona. Scattered subpopulations occur within the West Fork of the Pinto Creek drainage within the Superstition Wilderness. A second disjunct population occurs near Apache Peak, northeast of Globe, and a third occurs on El Capitan Mountain south of Globe (USFWS 2002). Most plants occur within the Tonto National Forest Globe Ranger District (Arizona Rare Plant Committee 2001). Threats to this variety of hedgehog cactus include taking by collectors, mining and mineral exploration, erosion and degradation of habitat resulting from livestock grazing, and road and facility development. AHC is listed as endangered under the Endangered Species Act and is protected under the Arizona Native Plant Law (AGFD 2003).

Suitable habitat for AHC exists throughout the project vicinity: Interior Chaparral and Madrean Evergreen Woodland ecotonal habitat comprises the majority of the Tony Ranch parcel, and exposed rock outcrops are common. Although protocol surveys have not been conducted for AHC within the Tony Ranch parcel, numerous individuals were observed within the north half of the property during field activities. Vegetation surveys were conducted within the entire Tony Ranch parcel over a three day field visit and a 100 percent pedestrian survey was completed for cultural resources with cultural personnel also recording AHC locations with GPS (Figure A-3). We are fairly certain that the majority of AHC within the parcel have been located. AHC were also observed within Haunted Canyon downstream of the parcel.

Wildlife

No protocol survey or sampling has been conducted for amphibian, reptile, or mammal species. However, all species that were observed on-site during environmental surveys were recorded. Canyon treefrog (Hyla arenicolor), Gila-spotted whiptail (Aspidoscelis flagellicauda), desert grassland whiptail (Aspidoscelis uniparens), and common side-blotched lizard (Uta stansburiana) were frequently observed throughout the project area. Several rock squirrels (Spermophilus variegates), a mule deer (Odocoileus hemionus) and an Arizona gray squirrel (Sciurus arizonensis) were the only mammalian species observed. All identifiable mammal sign (e.g., scat, tracks, antlers, etc.) observed within the Tony Ranch parcel was also recorded. Deer (Odocoileus sp.) tracks and black bear (Ursus americanus) scat were observed throughout the project area. A single white-tailed deer (Odocoileus virginianus) antler and a single bobcat track were also found within the project limits.

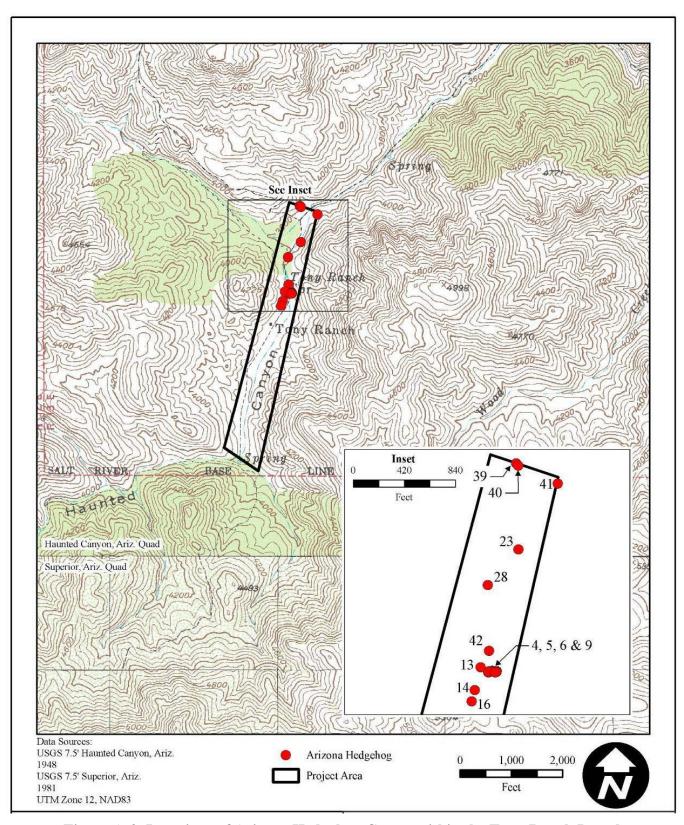


Figure A-3. Locations of Arizona Hedgehog Cactus within the Tony Ranch Parcel

Surveys for bird species were conducted within the project limits. Surveys were conducted using 100-ft fixed-radius circular plots, spaced 600 to 700 ft apart along the Haunted Canyon drainage. A total of five circular plots were surveyed on 5 and 6 May 2009 between sunrise and approximately 0800. All birds seen or heard within a 10-minute interval were recorded (Table A-2). In addition, incidental bird species observed during other field activities on-site were also recorded. Spotted towhee (*Pipilo maculates*), mourning dove (*Zenaida macroura*) and ash-throated flycatcher (*Myiarchus cinerascens*) were among the bird species most frequently observed. Common poorwills (*Phalaenoptilus nuttallii*) were frequently heard after sunset. On two of the three nights during the field visit, an elf owl (*Micrathene whitneyi*) was heard calling from various locations.

Common Name	Scientific Name				
Turkey Vulture	Cathartes aura				
Common Black-Hawk*	Buteogallus anthracinus				
Mourning Dove	Zenaida macroura				
Elf Owl	Micrathene whitneyi				
Common Poorwill	Phalaenoptilus nuttallii				
Black-chinned Hummingbird	Archilochus alexandri				
Hairy Woodpecker	Picoides villosus				
Cordilleran Flycatcher	Empidonax occidentalis				
Ash-throated Flycatcher	Myiarchus cinerascens				
Brown-crested Flycatcher	Myiarchus tyrannulus				
Cassin's Kingbird	Tyrannus vociferans				
Warbling Vireo	Vireo gilvus				
Plumbeous Vireo	Vireo plumbeous				
Common Raven	Corvus corax				
Violet-green Swallow	Tachycineta thalassina				
Bridled Titmouse	Baeolophus wollweberi				
Verdin	Auriparus flaviceps				
Bewick's Wren	Thryomanes bewickii				
Canyon Wren	Catherpes mexicanus				
Black-tailed Gnatcatcher	Polioptila melanura				
Northern Mockingbird	Mimus polyglottos				
Yellow Warbler	Dendroica petechia				
Yellow-rumped Warbler, Audubon's Race	Dendroica coronata				
Black-throated Gray Warbler	Dendroica nigrescens				
Townsend's Warbler	Dendroica townsendi				
Summer Tanager	Piranga rubra				
Northern Cardinal	Cardinalis cardinalis				
Black-headed Grosbeak	Pheucticus melanocephalus				
Spotted Towhee	Pipilo maculatus				
Canyon Towhee	Pipilo fuscus				
Black-chinned Sparrow	Spizella atrogularis				
Brown-headed Cowbird	Molothrus ater				
Hooded Oriole	Icterus cucullatus				
Scott's Oriole	Icterus parisorum				
House Finch	Carpodacus mexicanus				
House Finch Lesser Goldfinch *Observed in Haunted Canyon outside the pr	Carpodacus mexicanus Carduelis psaltria				

^{*}Observed in Haunted Canyon outside the project limits

Special Status Wildlife Species

No federally Threatened or Endangered wildlife species are known to occur within the project area. There are three candidate species and three state listed wildlife species of concern that could potentially utilize the available habitat, although none of the six has been documented in the project area.

The Sonoran desert tortoise (*Gopherus agassizii*) inhabits both Arizona upland and Lower Colorado River desertscrub, as well as Mohave desertscrub. Sonoran desert tortoises occur predominantly on steep, rocky slopes and bajadas, and will also utilize inter-mountain valleys as home ranges and for dispersal. Although not the preferred habitat type, The Sonoran desert tortoise can utilize interior chaparral habitat when necessary. No tortoises or their sign has been documented in the project area; however, if they use the area it is most likely as a dispersal corridor between patches of desert habitat. In 2010, the USFWS determined that the Sonoran Population of desert tortoises was warranted for listing as Threatened or Endangered, but precluded by higher priority items; therefore, the Sonoran Population of desert tortoise is currently a Candidate species under the ESA (USFWS 2010).

Northern Mexican gartersnakes (*Thamnophis eques megalops*) are riparian obligates occurring in a variety of riparian environments including cienegas, stock tanks, riparian woodlands, and streamside gallery forests (USFWS 2006). The northern Mexican gartersnake was petitioned for listing under the ESA as a federally endangered species in 2006; USFWS determined that listing may be warranted (USFWS 2008). The species is currently a candidate for listing (USFWS 2008). The habitat within the project limits is suitable for northern Mexican gartersnakes with a large corridor of riparian woodlands surrounding the stream channel. A small spring also occurs on site which creates a small wetland area and provides an area of constant water throughout the year. However a large portion of the creek within the project area is intermittent, so the suitability of the area may depend more on year round prey availability rather than habitat itself.

The western subspecies of the yellow-billed cuckoo (Coccyzus americanus) was petitioned for listing as a federally endangered species in 1998; the USFWS determined that listing may be warranted (USFWS 2000). The species is currently a candidate for listing (USFWS 2001). In Arizona, yellow-billed cuckoos (YBCU) arrive on the breeding grounds relatively late in mid to late May, with peak nesting activity occurring from mid-July to early August. Most YBCU begin their fall migration southward by early- to mid-September. Vegetative density, distance to water, and the linear arrangement of habitat are important characteristics relative to cuckoo occurrence (Corman and Magill 2000; Haltermann et al. 2007). Typically, YBCU occur in cottonwood-willow and/or mesquite habitat associations with most nests located in willows and fewer in cottonwoods, and are unlikely to occur in areas with greater than 75 percent tamarisk cover (Corman and Magill 2000). The riparian habitat with in the project limits is made up of mostly Arizona sycamore and Arizona walnut and is completely devoid of cottonwoods and willows within the project limits. According to Corman and Wise-Gervais (2005), YBCUs are infrequently encountered in riparian areas where sycamore or alders are the dominate riparian trees, but may be found at lower elevations in the same drainage that do contain cottonwood/willow habitat. The understory vegetation is sparse and the stream itself is intermittent both of which decrease the likelihood of YBCU habitation.

The Common Black-hawk (*Buteogallus anthracimus*) is a Wildlife Species of Concern (WSC) in Arizona. The Common Black-hawk (COBH) is a riparian obligate species who prefers perrenial streams with moderate gradients (Corman and Wise-Gervais 2005). The habitat within the project limits is marginally suitable for COBHs. Although the project limits contain riparian woodlands, the stream is intermittent and more suitable habitat occurs downstream along Haunted Canyon and Pinto Creek. A small spring does occur on site which creates a small wetland area and provides an area of constant

water throughout the year; however this area is not large enough to create a constant prey base for COBHs.

The lowland leopard frog (Rana yavapaiensis) is a WSC in Arizona. Lowland leopard frogs are habitat generalists, inhabiting natural and man-made aquatic systems in desert grasslands to pinyon-juniper woodlands at elevations ranging from 800 to 5,500 ft above MSL. The habitat within the project limits is suitable for lowland leopard frogs with a large corridor of riparian woodlands surrounding the stream channel. A small spring also occurs on site which creates a small wetland area and provides an area of constant water throughout the year. However, the creek is intermittent and a large portion creek does dry up each year so the suitability of the area may depend on water consistency and potential overwintering sites. However, the entire stream was walked during vegetation surveys and no sign of lowland leopard frog habitation was observed.

The western red bat (*Lasiurus blossevillii*) is a WSC in Arizona. They are day roosters who seem to prefer cottonwood and sycamore stands in riparian areas but will also roost in other tree species. Western red bats prefer old growth or mixed old growth, as opposed to, secondary growth or younger stands (Pierson et al. 2006). The habitat with in the project limits is suitable for western red bats with a large corridor of riparian woodlands surrounding the stream channel. A small spring also occurs on site which creates a small wetland area which could result in an increase in prey availability within the site.

Ecosystem Connectivity and Function

Tony Ranch occurs on the border the Superstition Wilderness Area and is surrounded by the Tonto National Forest. In its conservation, Tony Ranch would act as an extension of this wilderness area protecting the habitats found with in and keeping the connectivity with the surrounding forest. Tony Ranch spring occurs within the parcel which supplies water to the local wildlife after the intermittent streams dry up. The protection of this site will not only benefit the fauna that resides on the parcel but will aid all fauna from the surrounding forest that use the spring.

There is also a diverse ecosystem that occurs on the parcel. There are four different habitat types identified within the parcel which leads to a high diversity of flora and fauna occurring within the site. These areas can often be source populations that contribute to other populations across the forest. However, a more direct reason for the preservation of Tony Ranch is that it contains numerous AHCs. This is an endangered species and as such must be protected from harm. Protecting Tony Ranch will allow for the continued protection of the individuals and give them the opportunity to disperse into other areas of the forest.

HISTORICAL CONDITIONS

Tony Ranch History

Archival research was conducted to detail the history of the Tony Ranch homestead in Haunted Canyon. The principle resources consulted throughout this project included homestead records, National Forest surveys, and recorded deeds (Attachment A) that have been gathered by Jack Carlson and Elizabeth Stewart, authors and advisory board members of the Superstition Area Land Trust who are currently preparing a book, *Superstition Wilderness Trails East*, which includes the history of the Tony Ranch.

In early 1914 William T. Toney settled on land in Haunted Canyon with the intention of making a forest homestead entry. That year he constructed a log house and an enclosure of hog wire fencing on the property. After he finished building his house, he planted three acres of wheat in the fall, relying on winter rainfall to grow the crop (Taylor 1919; Toney 1919; Toney 1921a; Toney 1921b). During this time he focused on producing food for his own consumption. He planted a vegetable garden and kept

more than a hundred chickens, as well as turkeys, hogs, and horses. He also had an unspecified number of cattle on the range outside of the canyon. In February 1915 Toney planted 600 apple trees in a six-acre orchard, and had cleared about five acres of flat land near the house for farming. By 1921 Toney had switched focus from farming to raising cattle due to the harsh nature of the land and had added two rooms to the originally single room cabin.

In 1924 Toney sold the parcel to George Taylor a Superior area rancher who incorporated Tony ranch and the surrounding grazing allotments into is already large TU Ranch. Tony ranch, along with the three other Parcels that Taylor owned totaled more than 1,000 acres, but with grazing permits in the Crook National Forest, including the Superior and Brushiest allotments, and grazing leases on state and private lands, the TU Ranch covered about 75,000 acres, stretching between Queen Creek and the Gila River, and from Superior to west of Florence Junction. The Tony Ranch homestead was used as a line camp for the TU Ranch in the area. The Ranch and surrounding allotments were used for grazing up until the 1990s when it was all but abandoned due to stringent grazing restrictions that were imposed on the Brushiest Allotment and the danger posed to cattle by bears and mountain lions in the area.

In later years the Tony Ranch was used only sporadically for cattle grazing operations of the TU Ranch. During this time it was also a popular stopover for backcountry hikers in the eastern portion of the Superstition Mountain Wilderness. Tony Ranch Spring provides one of the most reliable sources of water in the area, and the log cabin is certainly a noteworthy landmark for hikers. Though frequently visited, there appears to have been a minimal amount of vandalism and graffiti at the log cabin or other cultural or natural features of the property; however, hikers have been responsible for creating several new fire rings in the area and leaving a considerable accumulation of trash and abandoned equipment at the cabin.

Current Conditions

This building is a one-story, two-room log vernacular cabin. It has a rectangular plan with two pens. The north pen is the original house that was built by William T. Toney in 1914 as his homestead residence; the south pen was added about 1919. There are also remains of a third pen that was added on the south end; but it appears to have been a roofed open enclosure rather than a room, and may have been used as a chicken coop or storage area. There are no plumbing or electrical systems.

The structural condition of the building is poor. The building materials are generally in fair condition with some minor deterioration caused by weathering, termites, carpenter bees, and rodents. The primary structural problem is the actively separating west wall, which is pulling away from the rest of the building. There is also damage to the roof, particularly at the northwest corner where a cast-iron cook stove was originally located, and on the south end of the building, due to the separation of the southwest corner.

National Registry

For a property to be eligible for listing on the National Register of Historic Places it must possess significance, i.e., historical, cultural, archaeological, or engineering importance; it must retain enough of its integrity to convey its significance; and it must be at least fifty years old, or have attained its significance at least fifty years ago. Evaluation of the eligibility of the Tony Ranch homestead is based on the guidelines provided in *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation*. A property is considered to possess significance if it:

- **A**. Is associated with events that have made a significant contribution to the broad patterns of our history; or
- **B**. Is associated with the lives of persons significant in our past; or
- C. Embodies the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- **D**. Has yielded, or may be likely to yield, information important in prehistory or history.

After due consideration, ACS concluded that Tony Ranch best fit the parameters of a Rural Historic Landscape, which comprises a district composed of a collection of natural and manmade elements. The Tony Ranch property includes a log cabin, a 5-acre cleared field, a spring and stream, and objects such as a plow, disc cultivator, numerous lengths of iron pipe, and fences, all contained within a 78-acre portion of a steep-walled canyon.

Tony Ranch is significant under National Register Criterion A for its association with the context of National Forest Homesteads in Arizona, 1912–1930, as set forth in this report. Tony Ranch is also significant under National Register Criterion C for its association with the Northern Arizona Vernacular Log Buildings Architectural Context documented in the Multiple Property Listing for Cattle Ranching in Arizona, 1540-1950 (Collins 2002). The areas of significance include Agriculture (small-scale subsistence farming), Politics/Government (illustrative of the impact of the Forest Homestead Act of 1906 and how it was carried out by homesteaders, Forest Service personnel, and government officials in the Agriculture and Interior departments), and Architecture (for vernacular log cabins). The period of significance is 1913–1924, beginning with the date of the first unsuccessful attempt by T.M. Cox to establish a homestead in Haunted Canyon, and ending with the date that William T. Tony sold his land to George Taylor. The period of significance ends with Toney's sale of the land since the subsequent owners, the Taylors, did not live on the property or cultivate crops; and the property's use switched to a temporary line camp, a use different from that under which the property achieved significance. Tony Ranch may also be eligible for the National Register under Criterion D for its potential to vield information important to understanding the prehistory and history of Arizona and this region. Further research would be needed to determine if intact subsurface remains of prehistoric or historic use of the project parcel are present.

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Attachment A:
Tony Ranch Property Deed

Recording Requested by: First American Title Insurance Agency, Inc.



When recorded mail to: Superstition Area Land Trust P.O. Box 582 Apache Junction, AZ 85217



DATE/TIME: 08/12/08 1600

FEE: PAGES: \$16.00

FEE NUMBER: 2008-076489

WARRANTY DEED

File No. 240-5061844 (ckm)

For the consideration of TEN AND NO/100 DOLLARS, and other valuable considerations, I or we,

John Daer, as Trustee for the Ann Curtis Taylor Trust, dated July 12, 1985, the GRANTOR does hereby convey to

Superstition Area Land Trust, an Arizona non-profit corporation, the GRANTEE

the following described property situate in **Pinal** County, **Arizona**:

H. E. SURVEY NO. 435, EMBRACING A PORTION OF SECTIONS THIRTY-ONE (31) AND THIRTY -TWO (32), IN TOWNSHIP ONE (1) NORTH, RANGE THIRTEEN (13) EAST, OF THE **G&SRB&M., PINAL COUNTY, ARIZONA, DESCRIBED BY METES AND BOUNDS, AS FOLLOWS:**

BEGINNING AT CORNER NO. 1 FROM WHENCE THE STANDARD CORNER TO SAID SECTIONS THIRTY-ONE (31) AND THIRTY-TWO (32) BEARS SOUTH 89 DEGREES 58 MINUTES FEET EAST 10.62 CHAINS; THENCE NORTH 55 DEGREES 28 MINUTES WEST 12.23 CHAINS TO CORNER NO. 2; THENCE NORTH 14 DEGREES 55 MINUTES EAST 75.17 CHAINS TO CORNER NO. 3; THENCE SOUTH 71 DEGREES 30 MINUTES EAST 8.87 CHAINS TO CORNER NO. 4; THENCE SOUTH 12 DEGREES 56 MINUTES WEST 78.73 CHAINS TO CORNER NO. 1, THE PLACE OF BEGINNING.

Pursuant to ARS 33-404, Beneficiaries names and addresses under said trust(s) are disclosed in Trust Certification(s) attached hereto.

Existing taxes, assessments, covenants, conditions, restrictions, rights of way and Subject To: easements of record.

And the GRANTOR does warrant the title against all persons whomsoever, subject to the matters set forth above.

DATED: August 07, 2008

File No.: 240-5061844

Warranty Deed - continued

(ckm)

A.P.N.: 106-02-0010 0

The Anne Curtis Taylor Trust, dated July 12, 1985

STATE OF

County of

_____, before me, the undersigned Notary Public, personally appeared John Daer, Trustee, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies) and that his/her/their signature(s) on the instrument the person(s) or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

My Commission Expires: 🌮 २७ ४

NOTARY PUBLIC STATE OF ARIZONA Maricopa County LINDA LESLIE My Appointment Expires 09/27/08 File No.: **240-5061844**

Warranty Deed - continued

(ckm)

A.P.N.: 106-02-0010 0

TRUST CERTIFICATION

August 07, 2008

First American Title Insurance Agency, Inc. 6877 South Kings Ranch Road, Suite 5 Gold Canyon, AZ 85219

RE: Escrow No. 240-5061844

The undersigned, being the Trustee(s) of the The Anne Curtis Taylor Trust, do(es) hereby certify that as of this date said Trust Agreement is in full force and effect and has not been amended, modified or revoked.

The names and addresses of the beneficiaries of the trust, which must be disclosed on the deed, are as follows:

NAME:	John Daer
ADDRESS:	That 30210 Wayward Que
	Phoenx AZ 85657
NAME:	
ADDRESS:	
NAME:	
ADDRESS:	
	tis Taylor Trust
John Daer, Tr	

AFFIDAVIT OF PROPERTY VALUE

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NOTARY PUBLIC STATE OF ARIZONA Maricopa County LINDA LESLIÉ My Appointment Expires 09/27/08

OFFICIAL SEAL LINDA K. HOEL NOTARY PUBLIC-ARIZONA
MARICOPA COUNTY
My Comm. Exp. April 24, 2010

EXHIBIT "A"

Escrow No. 240-5061844 (ckm)

H. E. SURVEY NO. 435, EMBRACING A PORTION OF SECTIONS THIRTY-ONE (31) AND THIRTY -TWO (32), IN TOWNSHIP ONE (1) NORTH, RANGE THIRTEEN (13) EAST, OF THE G&SRB&M., PINAL COUNTY, ARIZONA, DESCRIBED BY METES AND BOUNDS, AS FOLLOWS:

BEGINNING AT CORNER NO. 1 FROM WHENCE THE STANDARD CORNER TO SAID SECTIONS THIRTY-ONE (31) AND THIRTY-TWO (32) BEARS SOUTH 89 DEGREES 58 MINUTES FEET EAST 10.62 CHAINS; THENCE NORTH 55 DEGREES 28 MINUTES WEST 12.23 CHAINS TO CORNER NO. 2; THENCE NORTH 14 DEGREES 55 MINUTES EAST 75.17 CHAINS TO CORNER NO. 3; THENCE SOUTH 71 DEGREES 30 MINUTES EAST 8.87 CHAINS TO CORNER NO. 4; THENCE SOUTH 12 DEGREES 56 MINUTES WEST 78.73 CHAINS TO CORNER NO. 1, THE PLACE OF BEGINNING.

APPENDIX B. TONY RANCH SITE PHOTOGRAPHS



Photograph B-1. Haunted Canyon creek bed near south end of parcel, looking north. Photograph date: 5 May 2009.



Photograph B-2. View of the Arizona cypress grove south of the Tony Ranch cabin. The view is to the north. Photograph date: 6 May 2009.



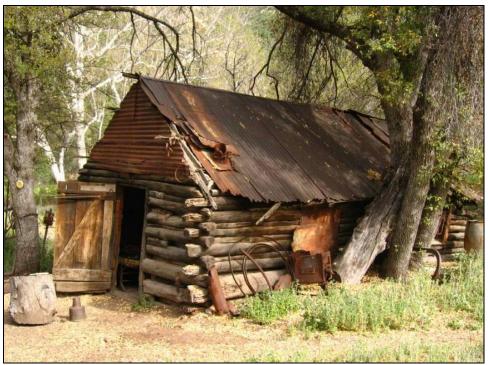
Photograph B-3. Haunted Canyon active creek bed south of Tony Ranch Spring, looking north. Photograph date: 6 May 2009.



Photograph B-4. AHC located north of the spring on the eastern slope. Photograph date: 5 May 2009.



Photograph B-5. View of the Madrean Evergreen Woodland (pinyon/juniper-dominant) in the northwest corner of the property, looking southeast across the parcel limits. Photograph date: 6 May 2009.



Photograph B-6. Exterior view of the west wall of the Tony Ranch cabin, which is partially supported by a tree. View looking southeast. Photograph date: 6 May 2009.



Photograph B-7. Overview of the interior showing the doorway cut in the structural wall between the pens and the movement of the logs on the west (right), looking south. Photograph date: 6 May 2009.