Rosemont Copper Project Cooperating Agency Coordination Meeting

05/26/2009
1:00 PM to 4:00 PM
AZ Game and Fish Dept
555 N. Greasewood Rd
Tucson, Arizona
Conference Room

Meeting Notes

Conservation Mitigation Considerations

Discussion:

- AZGFD shared its desire for conservation mitigation in the form of a land exchange or other lands set aside for conservation purposes. AZGFD provided the Forest Service handouts of two of their applications for ESA Section 6 Endangered Species Fund Request Recovery Land Acquisition Grants (Sonoita Creek Ranch and Triangle Bar Ranch). AZGFD indicated that these parcels could be purchased by Rosemont Copper Company or other partners.

- Handouts received from AZGFD:
  - Rosemont Land Compensation- preliminary considerations
  - ESA Section 6 Endangered Species Fund Request Recovery Land Acquisition Grants
    - Project: Sonoita Creek Ranch Acquisition
  - ESA Section 6 Endangered Species Fund Request Recovery Land Acquisition Grants
    - Project: Triangle Bar Ranch Acquisition

- AZGFD presented the concept of moving Rosemont Mine waste to off-site brown-field sites

- AZGFD presented concerns regarding recreation access, specifically the movement of recreationists and wildlife through the project area if the mine is implemented.

- AZGFD presented concerns regarding downstream protection needs.

Also included is email from AZGFD transmitting electronic copy of aforementioned grant applications

"Joan Scott" <JScott@azgfd.gov>
05/27/2009 10:04 AM
To
"Teresa Ann Ciapusci" <tciapusci@fs.fed.us>
cc
"John Windes" <JWindes@azgfd.gov>, "Leonard Ordway" <LOrdway@azgfd.gov>
Subject: possible properties for mitigation

Teresa Ann:
Here are the proposals that we wrote trying to get money to purchase Sonoita Creek Ranch and the Triangle Bar Ranch. We have not secured money for these purchases yet (received $300,000 only on the Sonoita Creek Ranch property – not
near enough). You will note that these proposals were only for partial funding (all we could apply for under that grant program). But, I am showing these to you so that you know some of the biological values of the properties. Sorry the Sonoita Creek Ranch proposal is in several files.
Additionally, ASARCO owns additional property along the San Pedro River near the confluence with Aravaipa Creek (near the Triangle Bar Ranch) that would be desirable to conserve under federal ownership. A very impressive package could be put together along the San Pedro near the Aravaipa Creek confluence with property owned by ASARCO and Triangle Bar. AGFD just received some property in this same area from ASARCO as a settlement, and The Nature Conservancy also holds property in this same area. All together, it might make a pretty impressive conservation area, if it could all be protected.

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Rosemont Land Compensation – preliminary considerations

Rosemont Impact

Per MOU
3670 ac Forest land
15 ac BLM land
3685 ac Federal land

75 ac STL
995 ac private land

What does this include?
Map red line Rosemont Claim Boundary
Rosemont Security Fencing
How about all the FS land around the project that is now unmanageable?
We need to come to some kind of consensus on the amount of land impacted.

Resolution Copper Land Mitigation – (comparison)
Resolution gets 3025 ac on Tonto NF
Resolution would give the government more than 5500 ac of conservation lands
This a ratio of 1 ac of Forest land to 1.8 ac of mitigation land for conservation.

Possible land for **partial** mitigation:

1. **Sonoita Creek Ranch**
   - 1126 ac private land adjacent to the Forest on Sonoita Creek
   - 588 ac-ft of water rights
   - $7,350,000

2. **Triangle Bar Ranch**
   - 982 ac deeded land
   - 36,000 state grazing lease
   - 355 ac-ft water rights
   - $5,000,000

3. **Access acquisition to Coronado National Forest**

ESA SECTION 6 ENDANGERED SPECIES CONSERVATION FUND REQUEST
RECOVERY LAND ACQUISITION GRANTS

Project: Sonoita Creek Ranch Acquisition
Applicant: Arizona Game and Fish Department
Contact: Josh Avey, Arizona Game and Fish Department, Habitat Branch Chief, 623-236-7605

NEED: Why is the project being undertaken?

The Sonoita Creek Ranch Acquisition is proposed to contribute to recovery of species listed under the Endangered Species Act. The Arizona Game and Fish Department, Arizona State Parks, and a private land rancher propose to cooperatively purchase Sonoita Creek Ranch. A cooperative management plan will ensure that the property is managed in perpetuity for the protection of listed and sensitive species.

The Sonoita Creek Ranch (formerly part of the Rail X Ranch) lies in the upper watershed of Sonoita Creek, a well-known core area for biodiversity in southeastern Arizona. The property offered is 1126 acres in size and includes approximately 2.5 miles of Sonoita Creek.

The offered property includes 588 acre feet of water rights from Monkey Spring (on adjacent private property retained by the Rail X Ranch). Monkey Spring is approximately one-half mile from the offered property boundary. The water from Monkey Spring is delivered by concrete channel to the offered property.

The property has rich riparian values and is currently serving as important wildlife habitat, including habitat of listed and sensitive species; it can be further managed and developed to maximize conservation of listed and sensitive species. The property currently provides a riparian corridor connection, and likewise an intermountain wildlife corridor.

The property is being offered for commercial residential development (see Appendix A for sales brochure). If this property is developed into residential home sites, the significant on-site wildlife habitat will be lost; opportunities for development of better listed and sensitive species habitat will be lost; riparian and intermountain corridors will be lost; water rights associated with the property will be used for residential development rather than for ecosystem, endangered species, and wildlife use; and additional groundwater pumping of the offered property could adversely impact adjacent habitat that is serving conservation of listed and sensitive species.

Currently, the water from Monkey Spring flows through the concrete channel to the ponds on Sonoita Creek Ranch, through the ponds to an irrigated field, and ultimately flows into the aquifer above (upstream) of the town of Patagonia. Most of the Sonoita Creek aquifer lies between Monkey Spring and Patagonia. Monkey Spring contributes a significant and constant input to the aquifer, estimated to represent 10-20% of the total inputs above the Town of Patagonia, and any significant diversion of this water could have direct impacts on the ground water levels downstream and the perennial streamflow of Sonoita Creek. Downstream of Sonoita Creek Ranch are biologically important stretches of Sonoita Creek, including The Nature Conservancy's Patagoinia-Sonoita Creek Preserve and (below Patagonia Lake) Arizona State Park's Sonoita Creek State Natural Area. Sonoita Creek flow into the Santa Cruz River.

Five federally listed Endangered species, one federally listed Threatened species, two federal Candidate species, and 21 sensitive species will benefit from the Sonoita Creek Ranch acquisition. Documentation of the species benefits is provided below under EXPECTED RESULTS OR BENEFITS.

The primary species benefit is to the Gila topminnow, an endangered species. Monkey Springs (on adjacent private property retained by the Rail X Ranch) is the entire habitat of the Monkey Springs metapopulation of Gila topminnow. The Monkey Spring metapopulation is one of only 8 metapopulations of Gila topminnow in the U.S., as identified in the draft Revised Recovery Plan. The Monkey Spring population of Gila topminnow is currently doing well, but not secured because of the location on private property. Monkey Springs is not for sale and is close to the home of the property owner. The spring is not likely to be available for purchase, and management agencies have difficulty accessing the property for management or surveys.

With this acquisition, we hope to expand this Monkey Spring population of Gila topminnow to the Sonoita Creek Ranch by removing exotic fish from the property. Because the water from Monkey Spring flows directly into the Sonoita Creek Ranch property, we believe we can establish a secure population of this fish here with minimal effort. The Sonoita Creek Ranch would be managed for conservation of Gila topminnow and under control of wildlife management agencies. This acquisition would allow habitat for this population of Gila topminnow to be set aside in perpetuity for the purposes of conservation, consistent with the conservation needs of the species.

OBJECTIVE: What is to be accomplished during the period of the project pursuant to the stated need? (Specify fully what is to be accomplished within the time, money, and staffing allocated and specify end point.)

The acquisition of Sonoita Creek Ranch will protect habitat for threatened, endangered, and sensitive species. It will also protect riparian and intermountain corridors important for listed and sensitive species.

Several entities are forming a partnership to protect this important area from development because none of the partners can afford this property alone. The purchasers include the Arizona Game and Fish Department, Arizona State Parks, and a private rancher who has worked on other properties to conserve listed species habitats.

The subject property of 1126 acres is being offered at $9,000,000. An appraisal to federal standards has not yet been completed, but the seller realizes that the purchasers are restricted to a maximum of appraised value. The seller has indicated a willingness to do a phased acquisition if necessary, and the seller is particularly interested in selling for a conservation purpose. With this grant, we are hoping to support the first phase of the acquisition of the entire property. The partners will purchase as much of the offered property as possible with the available dollars for the first phase of this acquisition.

The purchasing partners will enter into a cooperative agreement for management and ownership of the property that will protect the listed and sensitive species, riparian values, wildlife corridors, and wildlife habitats. The partners will accomplish the first phase of this land acquisition within 3 years of the grant award. The endpoint of the project will be acquisition of the proposed parcel and dedication to management of the property in perpetuity for species listed under the Endangered Species Act and for other sensitive species. The partners and other interested parties will attempt to secure an option to purchase any remaining land on Sonoita Creek Ranch not acquired in Phase 1. After completion of the first phase, additional funds will be sought to complete the acquisition of the balance of the Sonoita Creek Ranch.

EXPECTED RESULTS OR BENEFITS: How will the project impact fish and wildlife resources or benefit the public? Try to provide quantifiable or verifiable resource benefits.

Sonoita Creek Ranch has been managed as a working cattle ranch. Currently, water from Monkey Spring is moved by concrete canal to the property and released into two successional ponds, each about 5 acres in size. From the ponds, water is diverted as needed to 150 acres of irrigated pasture land to supplement forage for cattle. Sonoita Creek through the property is ephemeral, with surface water only present after rainfall events. See the LOCATION section below for a more detailed description of the property.

When the Sonoita Creek Ranch is acquired by the partners, the property will be managed by a cooperative agreement between the partners that will:

- restore habitat for federally listed and sensitive species
- restore the riparian habitat of Sonoita Creek
- maintain the riparian and intermountain corridors of the property
- use the water rights to best promote riparian and wetland habitat
- manage grazing to avoid impacts to wildlife and habitat

Historically, water from Monkey Spring flowed directly into Sonoita Creek and may have rendered this portion of the creek perennial. Since 1946-1950, Monkey Spring water has been diverted to the two ponds out of the main channel of the Sonoita Creek. Over the years, a mature riparian corridor has developed around the two ponds. Wildlife values around the two ponds are quite high, and we do not want to lose those values. But, we may be able to better manage this area for listed and sensitive species by changing the habitat from a pond to a cienega habitat. The partners desire to stop irrigating the 150-acre field and instead to divert water from the ponds directly into the Sonoita Creek drainage, restoring more natural functions to the riparian system. The irrigated pasture land has high potential for restoration to sacaton bottomland or native upland grassland. Uplands are generally in good ecological condition and can be managed by appropriate grazing practices.

The first action that will be necessary for management of the property will be to chemically treat the ponds on the property to remove exotic fish. This action alone should allow the Gila topminnow to become established in the ponds, because water from Monkey Springs (with a natural historic population of Gila topminnow) flows directly into the ponds via a concrete canal. AGFD personnel have observed Gila topminnows in the canal.

Other management actions that will be evaluated, considered, and implemented as appropriate include:

- restructuring the habitat of the ponds into a cienega habitat to discourage survival of exotic fish and promote the survival of native fish, primarily Gila topminnow
- diversion of water to Sonoita Creek from the ponds
- fencing of the riparian areas and ponds to eliminate cattle grazing from these portions of the property
- restoration (planting, seeding) of the former irrigated pasture

THREATENED, ENDANGERED, AND CANDIDATE SPECIES

The following Threatened, Endangered, and Candidate Species will benefit from the proposed acquisition.

Gila topminnow (*Poeciliopsis occidentalis occidentalis*)
Listed Endangered Species
Final Recovery Plan approved in 1984; Draft Revised Recovery Plan was written 1998 and the Notice of Availability was published in the Federal Register
Recovery Priority Number: 3c

The Gila topminnow was listed as endangered in 1967, and the current status is poor and declining. The Gila topminnow is native to the Gila River Basin of the United States and Mexico, and the Rios de la Concepcion and Sonora of Northern Mexico. The Gila topminnow was considered one of the most common fishes in the southern part of the Colorado River basin prior to 1940. However, habitat loss and interaction with nonnative fishes, particularly western mosquitofish, *Gambusia affinis*, caused range-wide disappearances and decreases in abundance within the United States.

Records of Gila topminnow from the Santa Cruz River are abundant. Various tributary streams and springs of the Santa Cruz River, including Sonoita Creek, historically supported Gila topminnows. Presently only 14 natural populations, grouped by species experts as 8 metapopulations, of Gila topminnow are extant in Arizona, including Monkey Spring, a tributary of Sonoita Creek. The Gila topminnow at Monkey Spring exhibit unique genetic characteristics.

The spring system at Monkey Spring is located on privately owned property (retained by the Rail X Ranch) currently lacking adequate protection measures. Monkey Springs is not for sale and is close to the home of the property owner. The spring is not likely to be available for purchase, and wildlife agencies have difficulty accessing the property for management or surveys. Monkey Spring is recognized as habitat that is seriously threatened by future local development, especially groundwater pumping by nearby expanding residential developments.

Water (with 588 acre-feet of water rights) is supplied to the Sonoita Creek Ranch property by a concrete canal from Monkey Spring. Currently, topminnows from Monkey Spring flow to the ponds and wetlands on the Sonoita Creek Ranch (AGFD personnel have seen topminnows in the canal), but topminnows do not persist because of predation from exotic fish in the ponds on the

Sonoita Creek Ranch. When the Sonoita Creek Ranch property is acquired, the Arizona Game and Fish Department will remove exotic fish from the waters on the property by chemical treatment to promote the expansion of the Gila topminnow population onto Sonoita Creek Ranch.

The first survival criterion in the draft Revised Recovery Plan is to "secure remaining natural populations and their habitats in the U.S." A secured population is defined in the draft Revised Recovery Plan as "one under the control of an agency or organization mandated or dedicated to legal protection against detrimental land and water practices which may threaten the continued existence of the Gila topminnow." This property acquisition will increase the habitat available for the Monkey Springs population of Gila topminnow, eliminate exotic fish from this habitat, and provide permanent protection for this habitat. This action supports the Recovery Plan "action needed" to prevent extinction by protecting a remaining natural population (by expanding the habitat of the natural population and protecting that expanded habitat in perpetuity).

If Sonoita Creek Ranch is not purchased for conservation, the property will be developed into residential home sites. The water rights that will be sold with the property will divert water that is currently flowing into the aquifer from conservation and wildlife to residential use. In addition, homesite wells could further deplete ground water resources that support Monkey Spring and the entire Sonoita Creek basin. Any additional groundwater depletion would be a further threat to the Monkey Spring metapopulation of Gila topminnow.

This acquisition will result in <u>medium</u> benefits to Gila topminnow. This rating is based on the following:

1) Although Gila topminnow have been observed in the canal that delivers water from Monkey Spring to the acquisition property, those Gila topminnow do not survive because of predation from exotic fish. Chemical removal of exotic fish will be necessary to render the pond habitat suitable for Gila topminnow.
2) The recovery plan's first survival criterion is securing natural populations. This property acquisition and restoration of the ponds is the only current option for securing the Monkey Springs metapopulation of Gila topminnow (one of only 8 metapopulations). Expanding the available habitat to the Sonoita Creek Ranch (by removal of exotic fish) and protecting this expanded habitat in perpetuity by acquisition and a cooperative management agreement helps protect the metapopulation from possible extinction.
3) This acquisition will eliminate the threat of water rights diversion (to residential use) and decrease the threat of groundwater withdrawal (for more residential use) that could adversely impact the Monkey Springs population of Gila topminnow and other listed and sensitive species.
4) We believe that securing and restoring the habitat of this natural metapopulation of Gila topminnow will support other actions that could lead to delisting or downlisting of the species. However, we cannot reasonably conclude that this acquisition alone will either: a) avoid species extinction within the next five years, nor b) assist in achieving species recovery criteria within the next five years.

Gila chub (*Gila intermidia*)
Listed Endangered Species
No recovery plan yet
Recovery Priority Number: 2c

Gila chub were historically found throughout the Gila River basin in southern Arizona, southwestern New Mexico, and northeastern Sonora Mexico. However, since 2000, only 29 populations of Gila chub remain, and all of these are small, isolated, and threatened. The species is documented to have occurred historically at Monkey Spring, but it does not persist there today.

Approximately 85-90 percent of the Gila chub's habitat has been degraded or destroyed, and much of it is unrecoverable. Today, much of the remaining Gila chub habitat is still extensively grazed, current mining operations still operate in its watersheds, increased recreation use adds to habitat alteration, and the introduction of nonnatives adds to habitat degradation. On November 2, 2005, the U.S. Fish and Wildlife Service listed the Gila chub as endangered.

Recovery through protection and enhancement of the existing populations and reestablishment of populations in suitable areas of historic range is necessary for the species' survival and recovery (Federal Register, Final Rule). The Gila chub commonly inhabits pools in smaller streams, springs, and cienegas. With active restoration, habitat on the Sonoita Creek Ranch could be appropriate for reintroduction of Gila chub. Current habitat (large man-made ponds) while not natural habitat for the species, could serve as a refugia site for the species.

The Department cannot commit to reintroduce Gila chub to Sonoita Creek Ranch as a part of this proposal, because any reintroduction efforts would have to be evaluated and approved through established Department procedures that provide for detailed analysis of biological and other considerations, public input, and approval by the Arizona Game and Fish Department Director. However, Sonoita Creek Ranch is within the historic range of the species and might provide an appropriate site for Gila chub refugia or reintroduction with active management.

The acquisition will result in <u>low</u> benefits to Gila chub. This rating is based on the following:

1) The acquisition property is currently not occupied by Gila chub
2) The acquisition will secure aquatic habitat within the historic range of Gila chub, where few appropriate reintroduction sites are available.
3) The current large man-made ponds on Sonoita Creek Ranch are not natural habitat for the species; if populated with Gila chub, those ponds may not count toward recovery of the species. However, the current ponds might serve as refugia for Gila chub.
4) Over time, the property might be managed to restore the natural flow of water through Sonoita Creek, which could provide more appropriate habitat for the species.
5) There is no recovery plan yet for Gila chub. The final listing rule states that reestablishment of populations in suitable areas of historic range is necessary for the species survival and recovery. This acquisition could aid in the recovery of the species because it is a potential refugia or reintroduction site.
6) The acquisition will remove the threat of development of residential home sites, the diversion of water rights to residential use, and potential for groundwater pumping on the site. These threats could eliminate potential aquatic reintroduction sites.

7) This acquisition alone will not result in delisting or downlisting of the Gila chub within the next five years nor prevent extinction within five years.

Desert pupfish (*Cyprinodon macularius macularius*)
Listed Endangered Species
Final Recovery Plan approved 1993
Recovery Priority Number: 2c

The desert pupfish was once a common fish, but it has been extirpated from most of its natural range. It was listed as Endangered in 1986. Historic range includes the lower Gila River basin in Arizona, including the Gila, Santa Cruz, San Pedro, and Salt rivers as well as the lower Colorado River in Arizona, California, and adjacent Mexico. The taxon now includes two recognized subspecies (which some experts now consider separate species): desert pupfish (*Cyprinodon macularis macularis*) and Quitobaquito pupfish (*C. m. eremus*). Monkey Spring, adjacent to the Sonoita Creek Ranch, was the habitat of the now-extinct Monkey Spring pupfish.

Remaining natural populations of pupfish are found in a few sites in the Salton Sea Drainage in California and the Colorado Delta in Baja California and Sonora, Mexico. The natural population of Quitobaquito pupfish still occurs in Quitobaquito Spring and Pond at Organ Pipe Cactus National Monument, although the pond is in danger. Pupfish reintroductions have been made in Pima, Pinal, Maricopa, Graham, Cochise, La Paz, and Yavapai counties in Arizona.

Recovery criteria as listed in the Recovery Plan include: Secure, maintain, and replicate all naturally occurring extant populations, and re-establish replicate populations in the most natural, identifiable habitats within the probable historic range. The Recovery Plan designates extant natural populations as Tier 1. Tier 2 populations are composed of re-established populations in the most natural (i.e. historic condition) identifiable habitats within probable historic range. Preference is given to those habitats that are most likely to persist in perpetuity without human intervention. Tier 2 populations are considered successful if they survive for 10 years and require only minor management. The recovery plan recommends re-establishing populations in Arizona in the lower and middle Gila, San Pedro, Santa Cruz, and Salt river drainages. Pupfish occupy shallow waters of springs, small streams, and marshes. The plan recommends re-establishment of pupfish into a diversity of habitat types reflective of those occupied historically (e.g. spring, cienega-marshland, stream, and river margin).

Species experts have determined that reintroduction of *C. m. macularis* is appropriate for the Santa Cruz basin, which includes the project area. The Sonoita Creek Ranch would be an appropriate area for reintroduction of desert pupfish. The existing aquatic habitat on the property, two large man-made ponds, is not natural. If desert pupfish were introduced to the ponds, these sites might not be considered optimum habitat for reintroduction, but could certainly serve as refugium sites for the species. If the water from the ponds is successfully diverted to Sonoita Creek, the creek itself may provide a more natural site for a Tier 2 recovery population of desert pupfish.

The Department cannot commit to reintroduce desert pupfish to Sonoita Creek Ranch as a part of this proposal, because any reintroduction efforts would have to be evaluated and approved through established Department procedures that provide for detailed analysis of biological and

other considerations, public input, and approval by the Arizona Game and Fish Department Director. However, Sonoita Creek Ranch is within the historic range of the species and could provide a possible site for desert pupfish reintroduction.

The Sonoita Creek Ranch acquisition will result in low benefits to desert pupfish. This rating is based on the following:

1) The acquisition property is currently not occupied by desert pupfish.
2) The acquisition will secure aquatic habitat within the historic range of desert pupfish, where few appropriate reintroduction sites are available.
3) The current large man-made ponds on Sonoita Creek Ranch are not natural habitat for the species; if populated with desert pupfish, those ponds may not count toward recovery of the species. However, the current ponds might serve as a refugium for desert pupfish.
4) Over time, the property might be managed to restore the natural flow of water through Sonoita Creek, which could provide more appropriate natural habitat for the species. Reintroduction of desert pupfish into a restored Sonoita Creek habitat might qualify as a Tier 2 recovery population that could support delisting or downlisting of the species.
5) The acquisition will remove the threat of development of residential home sites, the diversion of water rights to residential use, and potential for groundwater pumping on the site. These threats could eliminate potential aquatic reintroduction sites.
6) This acquisition alone will not result in delisting or downlisting of the Gila chub within the next five years nor prevent extinction within five years.

Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*)
Candidate Species
No recovery plan
No recovery priority assigned

In July 2001, the U.S. Fish and Wildlife determined that the western yellow-billed cuckoo warranted listing as a threatened species, but listing was precluded by higher priorities. The Service estimated that fewer than 700 breeding pairs remain in the western United States and that more than 90 percent of the bird's riparian habitat in the West has been lost or degraded. In Arizona, the western yellow-billed cuckoo is an uncommon to fairly common breeder in riparian habitats, primarily below the Mogollon Rim in the Colorado and Gila river drainages. Arizona probably has the largest remaining cuckoo populations in the western United States. The largest concentrations are in the Upper Santa Cruz, San Pedro, Verde, Bill Williams and Gila river drainages of central and southeastern Arizona. The species has been documented on the subject property, but nesting has not been documented. The species has been documented nesting in adjacent portions of Sonoita Creek. With restoration, the subject property has potential to become nesting habitat for western yellow-billed cuckoo.

Because the species is not yet listed and no recovery plan has been written, we are describing habitat requirements and population objectives as identified in the *Arizona Partners in Flight Bird Conservation Plan* (1999). The cuckoo is an obligate riparian species found in highest occurrences and density in cottonwood/willow associations. Cuckoos require a minimum of 25 acres of broad-leaved forest at least 300 feet wide and at least 2.5 acres of dense nesting habitat per pair. Marginal habitat is described as a minimum of 10 acres of broad-leaved forest at least 165 feet wide and at least 1.25 acre of dense nesting habitat. The population objective is to

achieve at least 25 self-sustaining populations (est. 25 pairs/population) by 2015, with one of these populations along Sonoita Creek. Currently, cuckoos are nesting along Sonoita Creek on property adjacent to the Sonoita Creek Ranch.

The Sonoita Creek Ranch acquisition will result in low benefits to western yellow-billed cuckoo. This rating is based on the following:

1) The acquisition will provide habitat that is used at least occasionally by the western yellow-billed cuckoo, but maybe not for nesting. Portions of the property currently meet criteria for marginal habitat for the species. Eliminating grazing from the riparian habitat of the property will enhance the riparian community, improving the habitat for the western yellow-billed cuckoo. The acquisition will maintain a corridor along Sonoita Creek that is important for cuckoo movements.
2) The acquisition will secure appropriate habitat (cottonwood/willow riparian community) adjacent to occupied habitat along Sonoita Creek. Riparian habitat required by the species has become scarce. This acquisition will secure only a small portion of the historic range of the species.
3) There is no recovery plan for the species because it is a candidate species. However, the acquisition will provide supporting habitat to help sustain a major population along Sonoita Creek (a stated goal in the *Arizona Partners in Flight Bird Conservation Plan*, 1999).
4) The acquisition will commit water rights to conservation that would otherwise be converted to domestic use. Those water rights help support riparian habitat of Sonoita Creek off of the acquisition property that is important to breeding populations of yellow-billed cuckoo.
5) This acquisition alone will not eliminate the need for listing the western yellow-billed cuckoo, but the acquisition could provide supporting habitat to a major self-sustaining population along Sonoita Creek, which could help reduce the need to list the species.

Mexican spotted owl (*Strix occidentalis lucida*)
Listed Threatened Species
Final Recover Plan approved 1995
Recovery Priority Number: 9c

One criterion for delisting the Mexican spotted owl is that the population in the three most populated Recovery Units must be stable or increasing after 10 years of monitoring. One of the three most populated Recovery Units is the Basin and Range West Unit, which includes the area of the proposed acquisition. Owl nesting areas (Protected Activity Centers, or PACs) are known in the Santa Rita Mountains and the Patagonia Mountains, and Critical Habitat is also designated in both the Santa Rita and Patagonia mountains. Riparian areas are known to be corridors for connectivity of owl nesting habitat. Sonoita Creek and its tributaries provide the riparian corridor between the Santa Rita and Patagonia Mountains. The Recovery Plan provides the following direction for land management in riparian areas: 1) maintain riparian broad-leaved forests in healthy condition, 2) restore lowland riparian areas, and 3) emphasize a mix of size and age classes of trees. Further, the Plan suggests that grazing should be managed to restore good conditions to degraded riparian communities as soon as possible.

Sonoita Creek Ranch provides riparian habitat that will help Mexican spotted owls move between PACs and Critical Habitat in the Santa Rita Mountains and the Patagonia Mountains. Securing the Sonoita Creek Ranch riparian habitat and exclusion of grazing in the riparian

habitat will aid in recovery of the Mexican spotted owl. Acquisition of the property will eliminate the threat that the property will be subdivided into residential home sites, which would include diversion of water rights to domestic use and potential groundwater withdrawals that could adversely impact the riparian functions and values.

The acquisition will result in low benefits to Mexican spotted owl. This rating is based on the following:

1) The acquisition will provide habitat that is probably occupied by Mexican spotted owl only seasonally during migration and dispersal periods. Nevertheless, riparian corridors are necessary for allowing intermountain migration and recolonization and for maintaining genetic diversity between populations.
2) This acquisition will provide only a small portion of the species range, and range only used for migration and dispersal. Nevertheless, riparian corridors are keys to linking existing primary habitat.
3) This acquisition will meet Recovery Plan objectives to maintain riparian broad-leaved forests in healthy condition, to restore lowland riparian areas, and to implement grazing strategies that will restore good conditions to degraded riparian communities as soon as possible.
4) The acquisition will commit water rights to conservation that would otherwise be converted to domestic use. Those water rights help support riparian habitat of Sonoita Creek even off of the acquisition property, and that riparian habitat is important to maintaining a corridor for movement of the owls.
5) This acquisition alone will not result in delisting or downlisting of the Mexican spotted owl within the next five years nor prevent extinction within five years, but protection of the riparian corridor will support other actions that could lead to delisting or downlisting of the species.

Lesser long-nosed bat (*Leptonycteris curasoae yerbabuenae*)
Listed Endangered Species
Final Recovery Plan approved 1995
Recovery Priority Number: 8

A significant migratory roost site for the lesser long-nosed bat is located on Forest Service land approximately five miles from the Sonoita Creek Ranch. Upland habitat within the proposed acquisition property provides foraging habitat (agaves) for the bat. Although Sonoita Creek Ranch has not been surveyed for bats, lesser long-nosed bats probably forage on agaves on the property.

One of the recovery criteria to reclassification of the species to threatened is that sufficient progress has been made in the protection of roosts and forage plants from disturbance or destruction.

If the property is not acquired, but rather is developed into residential home sites, many of the forage plants (agaves) will be destroyed. Although the acquisition property encompasses only a small portion of the range of the lesser long-nosed bat in Arizona, there is some contribution to the recovery of the species by protecting the property from development.

The acquisition will result in low benefits to lesser long-nosed bat. This rating is based on the following:

1) The acquisition will protect habitat that is likely used by lesser long-nosed bats during migration as a foraging area. The purchase will not protect any known roost site. Nevertheless, protection of foraging habitat in migration areas provides some benefit to the species.
2) This acquisition will provide only a small portion of the species foraging and migratory range.
3) This acquisition will meet Recovery Plan objectives of protecting forage plants from disturbance or destruction by removing the threat of development from the purchased property.
4) This acquisition alone will not result in delisting or downlisting of the lesser long-nosed bat within the next five years nor prevent extinction within five years, but will support other actions that could lead to delisting or downlisting of the species.

Jaguar (*Panthera onca*)
Listed Endangered Species
No recovery plan
Recovery Priority Number: 5c

Although the majority of the habitat for the jaguar is south of the United States, four male jaguars have crossed into New Mexico and Arizona since 1996. These documented records have occurred in mountain ranges to the east and to the west of the area of the Sonoita Creek Ranch. If a jaguar were to come into the area of the Patagonia Mountains, Canelo Hills, and Santa Rita Mountains, Sonoita Creek Ranch could provide a corridor for movement between available and suitable habitats. Individual jaguars have been found in habitat similar to that on the Sonoita Creek Ranch.

The Sonoita Creek Ranch acquisition will result in low benefits to the jaguar. This rating is based on the following:

1) Few jaguars have been documented in Arizona, and the majority of their habitat is south of Arizona. Nevertheless, protection of a movement corridor could benefit the species.
2) This acquisition will provide only a small portion of the species potential range, but it could protect a movement corridor that would enable additional habitat to be available.
3) The U.S. Fish and Wildlife Service has determined that a U.S. recovery plan for the jaguar would not advance conservation of the species. However, the acquisition could help to facilitate the presence of jaguars in the U.S. and help them persist here.
4) This acquisition alone will not result in delisting or downlisting of the jaguar within the next five years nor prevent extinction within five years, but will support other actions that could lead to delisting or downlisting of the species.

Huachuca springsnail (*Pyrgulopsis thompsoni*)
Candidate Species
No recovery plan
No recovery priority assigned

The Huachuca springsnail is a small aquatic species that inhabits springs and cienegas in southeastern Arizona and Sonora, Mexico. The U.S. Fish and Wildlife Service has determined that listing of the species is warranted but precluded by higher priority listing actions. Springsnail habitats are typically isolated, permanently saturated, spring-fed aquatic climax communities. Eleven populations of Huachuca springsnail are known in Arizona and two in Sonora. The prime habitat for springsnails is at the spring source, but some springsnails have been known to thrive in spring-fed ponds. Modification of springs inhabited by the Huachuca springsnail ranks among the highest threat to the species. Reasons for decline include loss or degradation of spring and cienega habitat due to overgrazing, timber harvest, altered fire regimes, drought, mining, water developments, recreation, and catastrophic fire resulting from human-caused alterations of fire regimes. Because populations are isolated, once extirpated, sites are unlikely to be recolonized without active management. Lack of regulatory mechanisms to protect against habitat modification is also a significant threat. Additionally, the small population size leaves the species vulnerable to extirpation from catastrophic events.

One population of Huachuca springsnail inhabits Monkey Spring. Recent studies have shown the Monkey Spring population of Huachuca springsnail to be genetically unique, and researchers have recommended that this population be recognized as its own "evolutionary significant unit".

No surveys for springsnail have been done in the aquatic habitats of the Sonoita Creek Ranch, but it is possible that the species exists in these ponds. The outflow from Monkey springs has been delivered by concrete canal to the ponds since the late 1940s. The habitat of the man-made ponds is not ideal for the species, but some springsnails have been known to persist in pond habitats.

The partners will evaluate the possibility of modifying the existing pond habitats on the ranch to create more of a cienega habitat, which would benefit not only Gila topminnow but also Huachuca springsnail.

Water rights acquisition that is part of this project will help maintain the Sonoita Creek aquifer. Loss of input to the aquifer might adversely impact the outflow at Monkey Spring, which could adversely impact the species in its primary habitat off of the acquisition property.

The Sonoita Creek Ranch acquisition will result in <u>medium</u> benefits to the Huachuca springsnail. This rating is based on the following:

1) There is no recovery plan for Huachuca springsnail, because it is a candidate and not yet listed under the Endangered Species Act.
2) Because no surveys for springsnails have been done on Sonoita Creek Ranch, we do not know whether the species exists in the wetland habitats of the ranch. Because the outflow from Monkey Springs has been diverted to the ponds on the ranch for almost six decades, it is possible that the species exists on the property.

3) The partners may work to change the pond habitats on Sonoita Creek Ranch to more of a cienega habitat, which would benefit both Huachuca springsnail and Gila topminnow.
4) If the Huachuca springsnail exists in the ponds on the Sonoita Creek Ranch, or if the species could be established here, this site would be the only protected habitat for the Monkey Spring population of Huachuca springsnail; Monkey Spring is on private property.
5) Acquiring the water rights with this property will ensure that the water is returned to the aquifer and not converted to domestic use. Loss of input to the aquifer might adversely impact the outflow at Monkey Spring, which could threaten the species at that site off of the acquisition property.
6) Because the Monkey Spring population of Huachuca springsnail is now known to be genetically unique, it is possible that the population could be identified as a distinct population segment or elevated to the subspecies or species level. If so, having a population on protected land could prevent the need for listing the taxon under the Endangered Species Act.
7) Although there is a probability that the Huachuca springsnail exists or could be established on the property, and that population could be genetically unique, there are enough unknown elements in this evaluation that we cannot reasonably conclude that this acquisition alone will eliminate the need for listing the taxon.

SENSITIVE SPECIES

The following sensitive species will benefit from the acquisition of the Sonoita Creek Ranch.

Northern Mexican gartersnake – exists in general area; has been documented along Sonoita Creek. Possibly exist on the property, as habitat is appropriate. The U.S. Fish and Wildlife Service is conducting a 12-month assessment of whether this species may warrant protection under the Endangered Species Act.
Gila longfin dace – exists in Sonoita Creek
Speckled dace – exists in Sonoita Creek
Desert sucker – exists in Sonoita Creek
Giant spotted whiptail – exists in general area
Thick-billed kingbird – has been documented on the property; protection of riparian habitat will improve habitat for species
Northern gray hawk –has been documented on the property; protection of riparian habitat will improve habitat for species
Common black-hawk – has been documented on the property
Gould's turkey – has been documented on the property
Black-bellied whistling duck – has been documented on the property
Violet-crowned hummingbird – has been documented on the property
Cave myotis – exists in general area; protection of riparian habitat will improve habitat for species – forages over riparian areas
Yellow-nosed cotton rat – exists in general area
Arizona metalmark – exists in general area
Obsolete viceroy butterfly – exists in general area
Wilcox fishhook cactus – exists in general area
Mock-pennyroyal – exists in general area

Huachuca golden aster – exists in general area
Chiricahua Mountain brookweed – exists in general area
Lumholtz nightshade – exists in general area
Sonoran noseburn – exists in general area

A partial list of the birds of the Sonoita Creek Ranch, prepared by Jeffrey Cooper, is included at Appendix B.

ECOSYSTEM BENEFITS

The Sonoita Creek Ranch Acquisition will provide ecosystem benefits for listed and sensitive species.

Function:

Does the habitat fill a critical role in the life cycle of the primary species for which the land is acquired?

Yes, Sonoita Creek Ranch *should* and *will* fill a critical role in the life cycle of the primary species for which the land is acquired, except that exotic fish are eliminating the Gila topminnow from the property. Gila topminnow that move from Monkey Springs through the concrete canal (we have observed the topminnow in the canal) to the two ponds on Sonoita Creek Ranch do not survive because of predation from exotic fish (largemouth bass and sunfish). But, simply by removing exotic fish from the ponds by chemical treatment, this habitat *will* play a critical role in the life cycle of Gila topminnow. The habitat that will be created by removal of the exotic fish will be the only secure habitat for the entire Monkey Springs metapopulation of Gila topminnow.

Water rights that come with the property acquisition are critical to maintaining the riparian habitat that fills a critical role in the life cycle of other listed species (e.g. western yellow-billed cuckoo) in Sonoita Creek. The acquisition alone will ensure that those water rights are used for conservation (returned to the creek and aquifer) rather than diverted to domestic use.

Does the habitat require little or no management to provide benefits to the primary species?

Yes. To provide significant benefit to Gila topminnow, only chemical treatment of the ponds to remove exotic fish is necessary. This is a relatively simple procedure that can be completed in a minimum number of days with a small group of people.

Also, acquisition of the property includes acquiring water rights that will protect the riparian corridor from water diversion for domestic use. This will benefit riparian species, such as western yellow-billed cuckoo. No management activity is necessary to provide this benefit to the species.

Connectivity:

Does the habitat link two existing protected areas together, or is it adjacent to an existing protected area? Does it reduce habitat fragmentation?

Yes. The connectivity component of this property is of utmost importance. The property completes an important riparian connection and an important intermountain connection.

Riparian Connection: The property includes approximately 2.5 miles of Sonoita Creek. This creek and riparian corridor are used by wildlife, including listed and sensitive species, connecting habitats from Redrock Canyon in the Canelo Hills all the way through Sonoita Creek to the Santa Cruz River. For species that fly or can move through upland areas, the connection even goes farther to Las Cienegas National Conservation Area and the San Pedro River National Riparian Conservation Area to the east. To the west, Sonoita Creek connects The Nature Conservancy Patagonia-Sonoita Creek Preserve, Patagonia Lake State Park, and the Sonoita Creek State Natural Area. Sonoita Creek eventually flows into the Santa Cruz River.

Intermountain Connection: Sonoita Creek Ranch is located between two large Ecosystem Management Areas (EMA) of the Coronado National Forest (see Appendix C). Only 2 miles of private property and a state highway separate the Coronado's Santa Rita EMA from the Huachuca EMA. For wildlife (including listed and sensitive species such as the jaguar and the Mexican spotted owl), maintaining a corridor to connect these two protected mountain areas is vital. The Arizona Game and Fish Department and the Arizona Department of Transportation have indentified this area as an important wildlife corridor.

Sonoita Creek Ranch encompasses the entire area between the state highway and the Huachuca EMA, bordering the Forest's Huachuca EMA along almost 2 miles on the eastern boundary of the ranch property. The other side of the state highway is low density residential development that has restricted homes to 20- to 50-acre sites with covenants that keep properties from being subdivided. Most of the properties are not fenced, and that property is currently acting as a wildlife corridor and will continue to do so. Long canyons coming out of the Santa Rita Mountains (Big Casa Blanca Canyon, Little Casa Blanca Canyon, Dry Canyon, Wood Canyon) make this part of the landscape a vital bridge linking major mountainous areas. Both north and south of the Sonoita Creek Ranch, the private land corridor between the mountains is being developed, which is restricting wildlife movements. Without protection of the Sonoita Creek Ranch, wildlife movement between the Santa Rita and Huachuca EMAs will be compromised.

APPROACH: How will the objective be attained? Include specific procedures, schedules, key cooperators, and respective roles.

The partners – Arizona Game and Fish Department (AGFD), Arizona State Parks, and a private rancher Richard Collins – will acquire as much of the Sonoita Creek Ranch as possible with the funding available. Other interested parties that are working with these partners include the Trust for Public Land, The Nature Conservancy, and the Southeastern Arizona Land Trust. The partners and other interested parties have been talking with the sellers for some years to develop a means to protect this important property. The partners will enter into a cooperative agreement to manage the property in perpetuity for the conservation of listed and sensitive species.

When the grant is awarded, AGFD will start the acquisition through the AGFD Lands Protection Evaluation Process. AGFD already has an Intergovernmental Agreement with Arizona State Parks to co-manage another state-owned property (Coal Mine Spring) for conservation of listed and sensitive species in perpetuity. AGFD has also previously worked successfully on

endangered species conservation projects with rancher Richard Collins. Also, AGFD has previously worked with Trust for Public Land to facilitate land acquisition projects.

AGFD will use $1million AGFD Heritage Funds (non-federal) as partial match to the Section 6 grant. Other non-federal financial contributions will come from Arizona State Parks ($1 million) and from Richard Collins ($500,000).

The first benefit to all listed and sensitive species would be attained by the direct acquisition itself, which will remove the property from planned residential development. Additionally, the acquisition of the 588 acre-feet of water rights will immediately benefit all species because the water will not be converted to residential use, but continue to flow into the aquifer, supporting riparian and wetland habitats.

The next benefit will come with minor management, including chemical treatment of the ponds to eliminate exotic fish (immediate benefit to Gila topminnow), fencing to eliminate livestock grazing in wetland and riparian areas (benefit to all listed and sensitive species), and regular wildlife and fish surveys (benefit to all listed and sensitive species). AGFD, FWS, and ASP staff will have regular access to the property to monitor wildlife populations (benefit to all listed and sensitive species).

More significant management efforts, such as changing the habitat of the ponds to cienega habitat, species re-introductions, diversion of water back into the Sonoita Creek channel, and restoration of the previously irrigated field will also be possible after the land is acquired.

The partners will accomplish the first phase of this land acquisition within three years of the grant award. The endpoint of the project will be acquisition of the as much of Sonoita Creek Ranch as possible with available funds and dedication to management of the property for species listed under the Endangered Species Act and for other sensitive species. The partners and other interested parties will attempt to secure an option to purchase any remaining land on Sonoita Creek Ranch not acquired in Phase 1. After completion of the first phase, additional funds will be sought to complete the acquisition of the balance of the Sonoita Creek Ranch.

LOCATION: Where will the work be done? Describe habitat type(s) to be affected, and relevant ecosystem/watershed characterization.

The Sonoita Creek Ranch (formerly part of the Rail X Ranch) lies in the upper watershed of Sonoita Creek, a well-known core area for biodiversity in southeastern Arizona. The property offered is 1126 acres in size and includes approximately 2.5 miles of Sonoita Creek. Sonoita Creek flows into the Santa Cruz River. The property contains two large (~5 acre each) ponds with mature riparian vegetation, floodplains downstream of Monkey Spring, and adjacent grassland and mixed oak uplands to the east. About 150 acres have been used as irrigated pasture for cattle. The property is located in eastern Santa Cruz County between the towns of Sonoita and Patagonia, mostly in Sections 9, 16, and 21 of Township 21 South, Range 16 East. State Highway 82 borders the property on the west, and the Coronado National Forest borders the property on the east. See Appendix A for a location map, photos, and an aerial photograph of

the property. See Appendix C for a topographic map of the property. See Appendix D for additional photos of the property. Elevation of the property is from just over 4600 feet in the uplands to about 4200 feet in the lowest portion of Sonoita Creek. The irregular parcel is over 2 miles long (north to south) and just over a mile wide at the maximum width (east to west).

The offered property includes 588 acre feet of water rights from Monkey Spring on adjacent private property (retained property of the Rail X Ranch). Monkey Spring is approximately one-half mile from the offered property boundary. The water from Monkey Spring is delivered by concrete channel to the offered property.

The property has rich riparian values and is currently serving as important wildlife habitat, including habitat of listed and sensitive species; it can be further managed and developed to maximize conservation of listed and sensitive species. The property currently provides a riparian corridor connection, and likewise an intermountain wildlife corridor.

The property offered could be categorized into 5 site descriptions, including: Ponds, Uplands, Irrigated Fields, Sonoita Creek Channel, and Floodplain, as described below. See the aerial parcel map in Appenedix A for the location of these sites.

Ponds: Currently 588 acre-feet of water from Monkey Springs (on adjacent private property) is delivered to Sonoita Creek Ranch by a concrete canal into two large (~5 acre) ponds. Around and between these ponds, a mature riparian woodland is present, represented by a diverse native floral community including cottonwood, willow, Arizona ash, Arizona sycamore, western soapberry, wild grape, hackberry, greythorn, seep willow, Arizona black walnut, catclaw acacia, and mesquite. Aquatic vegetation including bulrush and other emergent species is present in the ponds. The ponds are stocked with bass and sunfish. Water quality at the ponds appears good, with some trampling along the wetted edges by cattle. There are no erosion or sedimentation issues around the ponds. The upper pond is about 30 feet deep and the lower pond is about 40 feet deep.

Upland: The uplands on the east side of the property are an Oak Woodland and Semidesert Grassland ecotone which is in good condition, showing diversity in vegetation species that would be expected with the historic grazing use. The soil is stable with no rutting or erosion. Appropriate plant ground cover is present. The geomorphology appears to contribute to the range of diversity of the plant communities with aspects and slopes providing niches for a variety of species. The drainages from the Forest Service lands on the eastern boundary of the subject property are undeveloped.

Irrigated field: There is a 150-acre plowed field on the western side of the property. This was used for growing cereal crops for cattle forage and has been irrigated with water from Monkey Springs after the water passed through the two ponds. This area has medium to high potential to be restored to sacaton bottomland or native upland grassland.

Sonoita Creek Channel: The Sonoita Creek Channel flows through the western side of the property. Currently the creek is ephemeral through this property. It is unknown whether historic conditions (before Monkey Spring was diverted to the ponds and the irrigated field) would have been perennial. Excellent native tree species composition and structure are present with a good

age distribution of western soapberry, Arizona sycamore, Fremont cottonwood, and mesquite. The creek is channelized adjacent to State Highway 82 with a concrete retention wall along the western bank.

Floodplain: A young mesquite bosque with residual sacaton is present on some of the property south of the irrigated field. This bosque could develop into an excellent natural resource in the future.

ESTIMATED COST: Provide detailed breakdown of what it will cost to attain objective.

Budget Item*	Cost	Federal Share	Non-Federal Share
Purchase of property (estimated amount available for the first phase of a phased purchase of the entire property)	$3,500,000	$1,000,000	AGFD: $1,000,000 ASP: $1,000,000 Richard Collins: $500,000
Total Estimated Cost	**$3,500,000**	**$1,000,000**	**$2,500,000**

*We have not included costs of administering the acquisition or managing the property, which will be borne by the acquiring partners under a cooperative agreement.

Non-federal Match: 71%

Partial funding for this project would be accepted. If partial funding is approved, AGFD will purchase as much of this property as possible with all available funds.

ELIGIBILITY INFORMATION:

This proposal is being submitted by the Arizona Game and Fish Department, which has a current cooperative agreement with the Secretary of Interior.

This proposal includes a 71 percent non-Federal cost share. Funds requested of the CESCF do not exceed 75% of the cost of the project. We are not seeking any reimbursement for costs incurred in development of the project or preparing the application, or in any discussions or negotiations prior to the grant award. We are not seeking pre-award cost reimbursement, nor using pre-award costs as part of our cost share.

This proposal does not include any FWS full-time Equivalent (FTE) costs.

This acquisition is a voluntary conservation effort within the United States.

This acquisition does not seek funding for any projects that serve to satisfy regulatory requirements of the Act, including complying with any biological opinion under section 7 of the Act, or fulfilling commitments of a Habitat Conservation Plan under section 10 of the Act, or serving to satisfy other Federal regulatory requirements (e.g. mitigation for Federal permits).

State administrative costs are assumed by the State.

Habitat will be set aside in perpetuity for purposes of conservation.

This acquisition will contribute to the implementation of 4 approved final recovery plans (Gila topminnow, desert pupfish, Mexican spotted owl, lesser long-nosed bat).

The specific parcel to be acquired with the grant money has been identified. The property is for sale, and the owner has indicated a willingness to sell the property to AGFD and partners for conservation purposes. The seller understands that the property will be purchased at market value, as determined by appraisals performed in accordance with the Uniform Appraisal Standards for Federal Land Acquisitions and all other applicable laws and regulations. The cost of conducting an appraisal and completing title work, in accordance with Federal requirements, will be assumed by the State and/or non-Federal subgrantees.

The Arizona Game and Fish Department commits to funding for and implementation of management of the habitat in perpetuity, consistent with the conservation needs of the species. The acquisition partners will establish a cooperative agreement to co-manage the Sonoita Creek Ranch properties consistent with the purpose of the acquisition and the conservation needs of the species.

This proposal is being submitted for consideration under the Recovery Land Acquisition Grant Program, but not under the HCP Land Acquisition Grant Program.

The State will provide assurances and certifications of compliance with all other Federal Requirements. The State will meet established requirements concerning Federal financial assistance, as required by the Service, the Department of Interior, and the Office of Management and Budget. This includes established principles for determining which costs are allowable or eligible.

SUMMARY OF EVALUATION CRITERIA

Species Benefits (Max 62 pts)

Listed (T&E), and Candidate (C) Species	Listed Species Benefits - Habitat Contributes to Recovery (Max 20 pts)	Listed Species Recovery Priority Number (Max 22 pts)	Number of Listed Species Benefited - Final/Draft Recovery Plan (Max 20 pts)
Gila topminnow (E)	Medium (10 pts)	3c (10 pts)	Final in 1984, draft revised plan written 1998 and NOA published in Federal Register (8 pts)
Gila chub (E)	Low (5 pts)	2c (10 pts)	No recovery plan yet (2 pts)
Desert Pupfish (E)	Low (5 pts)	2c (10 pts)	Final (8 pts)
Western yellow-billed cuckoo (C)	Low (5 pts)	- (0 pts)	Candidate; No recovery plan (2 pts)
Mexican spotted owl (T)	Low (5 pts)	9c (2 pts)	Final (8 pts)
Lesser long-nosed bat (E)	Low (5 pts)	8 (5 pts)	Final (8 pts)
Jaguar (E)	Low (5 pts)	5c (5 pts)	No recovery plan (2 pts)
Huachuca Springsnail (C)	Medium (10pts)	- (0 pts)	Candidate; No recovery plan (2 pts)
# of TEC sp benefited			**8**
Total Points	**10 pts***	**22 pts**	**20 pts**

*The total points are 50, well over the maximum of 20. However, the evaluation form says, "To score 15 points, the applicant must document that the proposal will potentially result in high benefit to at least one species." We cannot reasonably conclude that this acquisition alone will lead to either a) avoiding species extinction within the next five years, or b) assisting in achieving species recovery criteria within the next five years.

Species Total: 52 pts

Ecosystem Benefits (Max 20 pts)

Function:

1. Habitat fills a critical role in the life cycle of the primary species for which the land is acquired: Yes, this habitat should and will fill a critical role in the life cycle of the Gila topminnow, and acquisition of water rights will maintain the riparian habitat that fills a critical role in the life cycle of western yellow-billed cuckoo. **8 pts**
2. Habitat requires little or no management to benefit the primary species: Yes, removal of exotic fish by chemical treatment of the ponds will provide habitat for the primary species, Gila topminnow. Acquisition of water rights will benefit all listed and candidate species on the property. **4 pts**

Connectivity:

1. Habitat links two existing protected areas together or is adjacent to existing protected areas, to reduce habitat fragmentation: Yes, the property completes a riparian connection along Sonoita Creek and completes an intermountain connection between the Santa Rita and Patagonia Mountain/Canelo Hills mountain complex. The property borders the Coronado National Forest for almost 2 miles. **8 pts**

Ecosystem Total: 20 pts

Cost Share Contributions (Max 18 pts)
71% non-federal cost share
(46% greater than the required 25% @ 2 points for each 5% over 25%)

Cost Share Total: 18 pts

Grand Total: 90 pts

Version 7/03

APPLICATION FOR FEDERAL ASSISTANCE

2. DATE SUBMITTED 09/19/2008	Applicant Identifier	
3. DATE RECEIVED BY STATE	State Application Identifier	
4. DATE RECEIVED BY FEDERAL AGENCY	Federal Identifier	

1. TYPE OF SUBMISSION:

Application	Pre-application
☐ **Construction**	☐ **Construction**
☐ **Non-Construction**	☐ **Non-Construction**

5. APPLICANT INFORMATION

Legal Name: Arizona Game and Fish Department	**Organizational Unit**: Department: Nongame/Endangered Species Program
Organizational DUNS: 804745339	Division:
Address: Street: 5000 W. Carefree Highway	**Name and telephone number of person to be contacted on matters involving this application (give area code)** Prefix: Mr. First Name: Josh
City: Phoenix	Middle Name
County: Maricopa	Last Name Avey
State: Arizona Zip Code 85086-5000	Suffix:
Country: USA	Email: javey@azgfd.gov
6. EMPLOYER IDENTIFICATION NUMBER *(EIN)*: 86-6004791	Phone Number (give area code) (623) 236-7605 / Fax Number (give area code) (623) 236-7366

8. TYPE OF APPLICATION:

☒ **New** ☐ **Continuation** ☐ **Revision**

If Revision, enter appropriate letter(s) in box(es)
(See back of form for description of letters.)

Other (specify)

7. TYPE OF APPLICANT: (See back of form for Application Types)

A. State

Other (specify)

9. NAME OF FEDERAL AGENCY: U.S. Department of Interior, Fish and Wildlife Service

10. CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER: 15-615

TITLE (Name of Program): Cooperative Endangered Species Fund

11. DESCRIPTIVE TITLE OF APPLICANT'S PROJECT:

Recovery Land Acquisition Grant for Sonoita Creek Ranch Acquisition to protect habitat of Gila topminnow and other TES

12. AREAS AFFECTED BY PROJECT *(Cities, Counties, States, etc.)*:

Santa Cruz County, State of Arizona

13. PROPOSED PROJECT

Start Date: 01/01/2009 Ending Date: 12/31/2011

14. CONGRESSIONAL DISTRICTS OF:

a. Applicant b. Project

15. ESTIMATED FUNDING:

a. Federal	$ 1,000,000.00
b. Applicant	$
c. State	$ 1,000,000.00
d. Local	$
e. Other	$ 1,500,000.00
f. Program Income	$
g. TOTAL	$ 3,500,000.00

16. IS APPLICATION SUBJECT TO REVIEW BY STATE EXECUTIVE ORDER 12372 PROCESS?

a. Yes. ☐ THIS PREAPPLICATION/APPLICATION WAS MADE AVAILABLE TO THE STATE EXECUTIVE ORDER 12372 PROCESS FOR REVIEW ON

DATE:

b. No. ☐ PROGRAM IS NOT COVERED BY E. O. 12372

☐ OR PROGRAM HAS NOT BEEN SELECTED BY STATE FOR REVIEW

17. IS THE APPLICANT DELINQUENT ON ANY FEDERAL DEBT?

☐ Yes If "Yes" attach an explanation. ☒ No

18. TO THE BEST OF MY KNOWLEDGE AND BELIEF, ALL DATA IN THIS APPLICATION/PREAPPLICATION ARE TRUE AND CORRECT. THE DOCUMENT HAS BEEN DULY AUTHORIZED BY THE GOVERNING BODY OF THE APPLICANT AND THE APPLICANT WILL COMPLY WITH THE ATTACHED ASSURANCES IF THE ASSISTANCE IS AWARDED.

a. Authorized Representative

Prefix Mr.	First Name Larry	Middle Name D.
Last Name Voyles		Suffix
b. Title Director		c. Telephone Number (give area code) (623) 236-7278
d. Signature of Authorized Representative		e. Date Signed

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Standard Form 424 (Rev.9-2003)
Prescribed by OMB Circular A-102

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INSTRUCTIONS FOR THE SF-424

Public reporting burden for this collection of information is estimated to average 45 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0043), Washington, DC 20503.

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

This is a standard form used by applicants as a required face sheet for pre-applications and applications submitted for Federal assistance. It will be used by Federal agencies to obtain applicant certification that States which have established a review and comment procedure in response to Executive Order 12372 and have selected the program to be included in their process, have been given an opportunity to review the applicant's submission.

Item:	Entry:	Item:	Entry:
1.	Select Type of Submission.	11.	Enter a brief descriptive title of the project. If more than one program is involved, you should append an explanation on a separate sheet. If appropriate (e.g., construction or real property projects), attach a map showing project location. For preapplications, use a separate sheet to provide a summary description of this project.
2.	Date application submitted to Federal agency (or State if applicable) and applicant's control number (if applicable).	12.	List only the largest political entities affected (e.g., State, counties, cities).
3.	State use only (if applicable).	13	Enter the proposed start date and end date of the project.
4.	Enter Date Received by Federal Agency Federal identifier number: If this application is a continuation or revision to an existing award, enter the present Federal Identifier number. If for a new project, leave blank.	14.	List the applicant's Congressional District and any District(s) affected by the program or project
5.	Enter legal name of applicant, name of primary organizational unit (including division, if applicable), which will undertake the assistance activity, enter the organization's DUNS number (received from Dun and Bradstreet), enter the complete address of the applicant (including country), and name, telephone number, e-mail and fax of the person to contact on matters related to this application.	15	Amount requested or to be contributed during the first funding/budget period by each contributor. Value of in kind contributions should be included on appropriate lines as applicable. If the action will result in a dollar change to an existing award, indicate only the amount of the change. For decreases, enclose the amounts in parentheses. If both basic and supplemental amounts are included, show breakdown on an attached sheet. For multiple program funding, use totals and show breakdown using same categories as item 15.
6.	Enter Employer Identification Number (EIN) as assigned by the Internal Revenue Service.	16.	Applicants should contact the State Single Point of Contact (SPOC) for Federal Executive Order 12372 to determine whether the application is subject to the State intergovernmental review process.
7.	Select the appropriate letter in the space provided. A. State B. County C. Municipal D. Township E. Interstate F. Intermunicipal G. Special District H. Independent School District I. State Controlled Institution of Higher Learning J. Private University K. Indian Tribe L. Individual M. Profit Organization N. Other (Specify) O. Not for Profit Organization	17.	This question applies to the applicant organization, not the person who signs as the authorized representative. Categories of debt include delinquent audit disallowances, loans and taxes.
8.	Select the type from the following list: • "New" means a new assistance award. • "Continuation" means an extension for an additional funding/budget period for a project with a projected completion date. • "Revision" means any change in the Federal Government's financial obligation or contingent liability from an existing obligation. If a revision enter the appropriate letter: A. Increase Award B. Decrease Award C. Increase Duration D. Decrease Duration	18	To be signed by the authorized representative of the applicant. A copy of the governing body's authorization for you to sign this application as official representative must be on file in the applicant's office. (Certain Federal agencies may require that this authorization be submitted as part of the application.)
9.	Name of Federal agency from which assistance is being requested with this application.		
10.	Use the Catalog of Federal Domestic Assistance number and title of the program under which assistance is requested.		

Print

Appendix A:

Sales Brochure
Offering the
Sonoita Creek Ranch

Sonoita Creek Ranch
Santa Cruz County, Arizona

Photo [1]

Listed for sale exclusively by:

Sam Hubbell

Headquarters West Ltd.
PO BOX 1039
Sonoita, AZ 85637
Phone: (520) 455-5834 - Mobile: (520) 609-2546 - Fax: (520) 455-5018
info@headquarterswest.com
www.headquarterswest.com/sonoitacreek

Part of Historic Rail X Ranch

Acreage
+-1,126 Deeded

Location
The property is located in Eastern Santa Cruz County between the towns of Sonoita and Patagonia. State Hwy 82 borders the property on the west side, and the Coronado National Forest borders the property to the east.

Description
The Sonoita Creek Ranch was once part of the historic Rail X Ranch. It sits in the beautiful foothills of the Santa Rita Mountains. Elevation ranges from 4400 ft. to 5000 feet above sea level. There is a 150 acre irrigated field on the eastern side of the property with 588 acre feet of water rights. Sonoita Creek runs through the property, which makes a nice riparian area, and a home for a huge variety of wildlife, and two irrigation ponds that are stocked with fish. The views from the property are exceptional in every direction. This is truly an exceptionally beautiful property.

Weather
Summers and winters are comparatively mild; temperatures vary from a daily maximum mean of approximately 58 degrees during the month of January to a daily maximum mean of approximately 88 degrees during the month of July. Annual rain fall averages about 17 inches.

Wildlife
Wildlife includes mule deer, white tail deer, bobcat, mountain lion, javelina, coyote, fox, badger, and squirrels. Quail and a wide variety of birds and other small game reside here. The Sonoita-Patagonia area is widely recognized in Arizona for its natural beauty and world renowned bird watching.

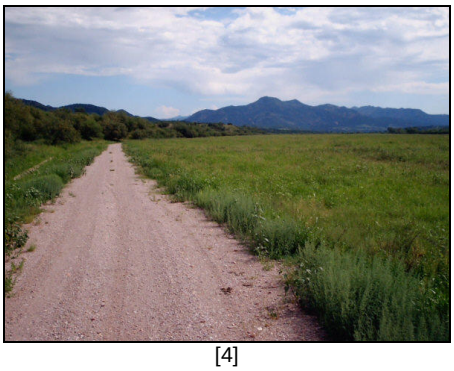
Comments
The Picturesque town of Patagonia is a short five minute drive to the south, and the town of Sonoita is a short five minute drive to the north. Nogales international airport is about fifteen minutes from the property, and Tucson international airport is little under an hours drive.

Price
Reduced to $9,000,000 from $11,260,000

Pictures

[2]

[3]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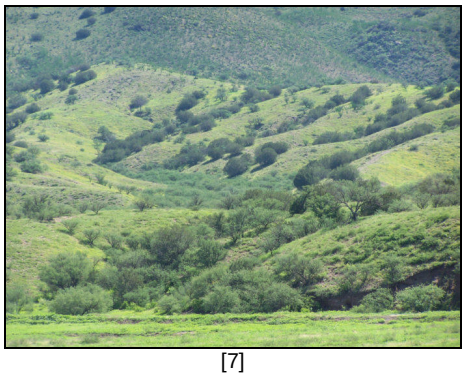
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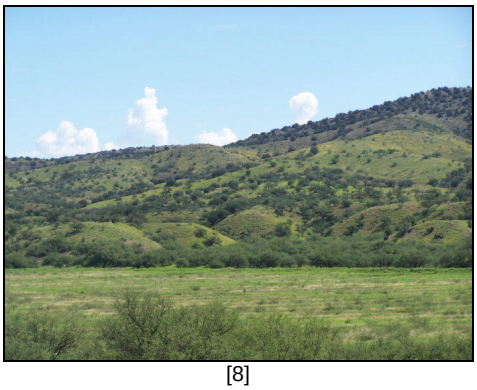
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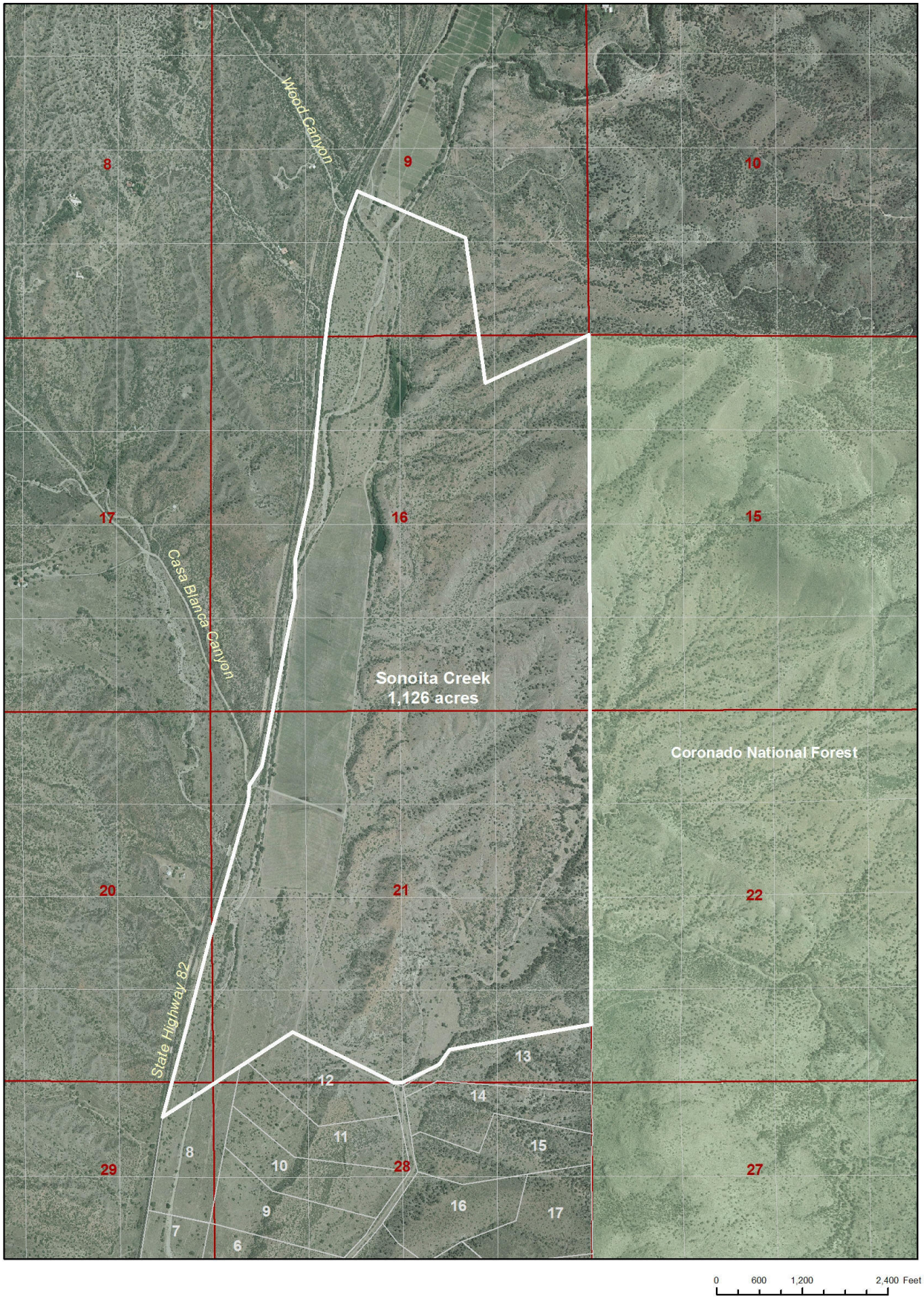
[9]

Location Map

Aerial Parcel Map



Appendix B:
A Partial List of the Birds of Sonoita Creek Ranch

A Partial List of The Birds of Sonoita Creek Ranch
Patagonia, Arizona

This list includes birds seen in the Sonoita Creek Ranch area and recorded in a monitoring effort in collaboration with the Tucson Audubon Society's Upper Sonoita Creek Important Bird Area (IBA) program. The Sonoita Creek Valley is a very significant bird area with more than 300 species having been recorded here. La Semilla is partnering with the Tucson Audubon Society to support monitoring efforts in the upper watershed area. The * indicates "At Risk/Declining" Species List, NRCS 2006.

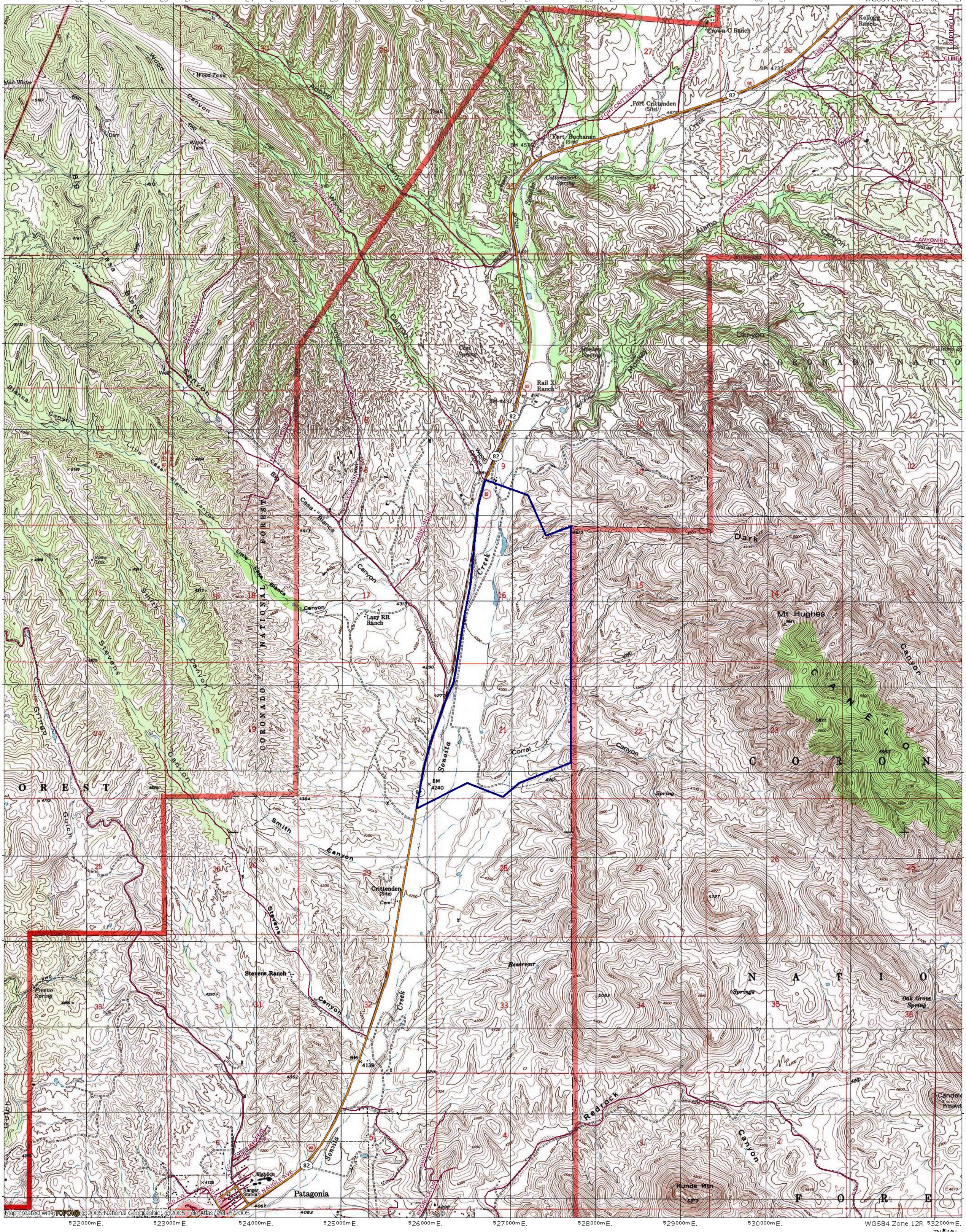
Black-bellied Whistling Duck*
American Wigeon
Mallard
Cinnamon teal
Green-winged teal
Lesser Scaup
Ruddy Duck
Wood duck
Gadwall
Wild Turkey
Gambel's Quail
Montezuma Quail
Great Blue Heron
Great Egret*
Snowy Egret*
Green Heron
Black Vulture
Turkey Vulture
White-tailed Kite
Northern Harier
Sharp-shinned Hawk
Cooper's Hawk
Northern Gray Hawk*
Zone-tailed Hawk
Common Black Hawk*
Red-tailed Hawk
Golden Eagle
American Kestel
Peregrine Falcon*
Prairie Falcon
American Coot
Killdeer
Band-tailed pigeon
White-winged dove
Mourning Dove
Inca DoveCommon Ground-dove
Yellow-billed cuckoo*
Greater Roadrunner
Barn Owl
Western Screech Owl
Whiskered Screech Owl
Great Horned Owl
Elf Owl
Lesser Nighthawk
Common Nighthawk
Common Poorwill
White-throated Swift
Broad-billed Hummingbird
Violet-crowned Hummingbird*
Magnificent Hummingbird
Black-chinned Hummingbird
Anna's Hummingbird
Costa's Hummingbird
Rufous Hummingbird
Green kingfisher*
Belted Kingfisher
Lewis' Woodpecker
Acorn Woodpecker
Gila Woodpecker
Red-naped Sapsucker
Ladderbacked Woodpecker
Northern Flicker
N. Beardless Tyrannulet
Western Wood Pewee
Hammond's Flycatcher
Gray Flycatcher
Dusky Flycatcher
Black Phoebe
Say's Phoebe
Vermilion Flycatcher
Ash-throated Flycatcher
Brown-crested flycatcher
Cassin's Kingbird
Thick-billed kingbird*

Western Kingbird
Loggerhead Shrike
Arizona Bell's Vireo*
Warbling Vireo
Mexican Jay
Common Raven
Violet-green Swallow
N. Rough-winged Swallow
Bridled Titmouse
Verdin
Bushtit
White-breasted Nuthatch
Bewick's Wren
Ruby-crowned Kinglet
Western Bluebird
Mountain Bluebird
Hermit Thrush
Northern Mockingbird
Curve-billed Thrasher
European Starling
Cedar Waxwing
Phainopepla
Orange-crowned Warbler
Lucy's Warbler
Yellow Warbler
Yellow-rumped Warbler
Common Yellowthroat
Wilson's warbler
Painted Redstart
Yellow-breasted Chat
Hepatic Tanager
Summer Tanager
Western Tanager
Green-tailed Towhee
Spotted Towhee
Canyon Towhee
Cassin's Sparrow
Fufous-crowned Sparrow
Chipping Sparrow
Black-throated Sparrow
Lincoln's Sparrow
White-crowned Sparrow
Northern Cardinal
Pyrrhuloxia
Rose-breasted Grosbeak
Black-headed Grosbeak
Blue Grosbeak
Lazuli Bunting
Eastern Meadowlark
Western Meadowlark
Brewer's Blackbird
Great-tailed Grackle
Brown-headed cowbird
Hooded Oriole
Bullock's Oriole
Scott's Oriole
House Finch
Pine Siskin
Lesser Goldfinch

4/07

Appendix C:
Topographic Map of
Sonoita Creek Ranch

Blue line in middle of page shows the property boundary.
The red lines show the boundaries of the two disjunct Ecosystem Management Areas of the Coronado National Forest.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532000m E.
WGS84 Zone 12R
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35 02000m N.
35 01000m N.
35 00000m N.
34 99000m N.
34 98000m N.
34 97000m N.
34 96000m N.
34 95000m N.
34 94000m N.
34 93000m N.
34 92000m N.
34 91000m N.
34 90000m N.
Crown C Ranch
Kellogg Ranch
Fort Crittenden (Site)
Fort Buchanan (Site)
Cottonwood Spring
Rail X Ranch
Lazy RR Ranch
Crittenden (Site)
Stevens Ranch
Patagonia
Mt Hughes
Kunde Mtn
Wood Tank
Water Tank
Dam
Fresno Spring
Oak Grove Spring
Reservoir
Corral
Sonoita Creek
Casa Blanca Canyon
Little Casa Blanca Canyon
Smith Canyon
Stevens Canyon
Redrock Canyon
Alamo Canyon
Dark Canyon
Wood Canyon
Adobe Canyon
Dry Canyon
Tecopa Canyon
Franklin Canyon
Sonoita Gulch
Stevens Gulch
Grimes Gulch
Little Casa Blanca Canyon
CORONADO NATIONAL FOREST
CANELO
Map created with TOPO! © 2006 National Geographic; © 2005 Tele Atlas, Rel. 8/2005
0.0 0.5 1.0 miles
0.0 0.5 1.0 1.5 km
TN MN
10½°
08/29/08
NATIONAL GEOGRAPHIC

Appendix D:
Photos of
Sonoita Creek Ranch

Photo #1 – Upper Pond

Photo #2 – Upper Pond

Photo #3 – Lower Pond

Photo #4 – Gould's turkeys on the property

Photo #5 – Panorama of pond

Also see photos in Appendix A.

ESA SECTION 6 ENDANGERED SPECIES CONSERVATION FUND REQUEST
RECOVERY LAND ACQUISITION GRANTS

Project: Lower San Pedro River – Triangle Bar Ranch Acquisition
Applicant: Arizona Game and Fish Department
Contact: Josh Avey, Arizona Game and Fish Department, Habitat Branch Chief, 623–236–7605

NEED: Why is the project being undertaken?

The Triangle Bar Ranch property is located between the towns of Dudleyville and Mammoth, Arizona along the Lower San Pedro River in Pinal County. A portion of the Triangle Bar Ranch sits at the confluence of the San Pedro River and the Aravaipa Creek. The subject property consists of four large parcels of approximately 982 deeded acres of land including 197 acres surrounding Putnam Spring in Camp Grant Wash (see Figure 1). The subject property also holds a 36,000-acre State grazing lease. It is important to note that the subject property acquisition would include approximately 355 acre feet of water rights. The bulk of the private land lies predominantly in the flood plain of the San Pedro River, but includes small portions of upland on its western boundaries. The Triangle Bar Ranch property is also part of the historic Old Camp Grant Military Reservation.

The acquisition of this property will contribute to the protection and recovery of species listed under the Endangered Species Act by protecting critical riparian habitat along the Lower San Pedro River. The Arizona Game and Fish Department (Department) considers the Triangle Bar Ranch property to hold significant wildlife values and recognizes riparian habitats as areas of critical environmental importance to wildlife and fisheries. The Lower San Pedro River epitomizes the riparian values that the Department recognizes as critically important for protection and restoration. The Department proposes to purchase the Triangle Bar Ranch property with the help of USFWS habitat protection funds if this proposal is funded.

If this acquisition is not accomplished, the Triangle Bar Ranch may be subdivided into residential parcels, resulting in habitat fragmentation, and more importantly, additional groundwater pumping of the Lower San Pedro River aquifer. Residential development includes drilling water wells for domestic use, which has been unregulated and is rapidly increasing in this area. Withdrawal of water through domestic wells has been shown to cause significant impacts to the aquifer that supports aquatic and riparian communities along the Lower San Pedro River.

Aquifer Pressures

In 1990, approximately 6,500 acres of land were irrigated in the Lower San Pedro basin (Arizona Department of Water Resources, 1990). Most irrigation wells are located in the streambed alluvium. The quality of groundwater in the Lower San Pedro basin generally is suitable for most uses. The mild climate around the San Pedro River has attracted tens of thousands of newcomers in recent decades to certain parts of the river, increasing human demands on precious water supplies. It is estimated that the upper portion of the basin in the U.S. alone had a 2.3 billion gallon ground-water deficit in the year 2000. Protection of the Triangle Bar Ranch property will help mitigate this problem.

The San Pedro River was formerly perennial or nearly perennial throughout much of its length (Brown et al 1981; Tellman et. al. 1997). In the Lower San Pedro River, at least 50 miles of perennial flow has been lost, chiefly as a result of human activities that have changed the river in

numerous ways. Lost perennial flow has eliminated riparian habitat in many areas; reduced perennial flow has degraded riparian habitat, resulting in an increase in the population of non-native species, such as tamarisk, at the expense of cottonwood-willow riparian forest.

A recent United States Geological Survey (USGS) report studying the impacts on surface water, vegetation and wildlife, details the complex interactions between ground and surface waters and the sensitivity of wetlands and riparian zones to changes in groundwater quality and quantity (Winter et al., 1998). One area where overuse of groundwater is affecting surface water is the San Pedro Valley. The San Pedro River flows north from the desert grasslands of Sonora, Mexico to Arizona. It is a rarity -- one of the last remaining southwest's last remaining streams to flow virtually year round – and its flow is sustained by groundwater. The lush river corridor forms a linear oasis in the middle of two of North America's largest deserts. It is one of the most important flyways for migratory birds that overwinter in Mexico and breed in the U.S. and Canada, and has been called "a unique and special place of national and continental importance".

Additional pressures to the Lower San Pedro River aquifer, exists from the American Smelting and Refining Company (ASARCO) located downstream of the subject property near the confluence of the San Pedro and Gila Rivers near the towns of Winkelman and Hayden. ASARCO is a large mining operation and a major water user in the basin. Most of its mining, industrial, and domestic/public supply wells are located in the regional basin-fill aquifer. Currently, ASARCO owns property and significant water rights adjacent to Triangle Bar Ranch and operates five wells which draw the majority of the water used for smelting operations from the PZ Ranch property approximately one mile downstream and north of the Triangle Bar Ranch property (see Figure 2).

Development Pressure

Approximately 10 miles south and upstream of the Triangle Bar Ranch, BHP-Billiton (BHP) owns approximately 26,000 acres with significant water rights approved for development near the town of San Manuel, Arizona. If developed, increased water use at this property would negatively impact the adjacent riparian habitat and critical migratory wildlife corridor which provides crucial habitat for federally protected and sensitive species. This development may potentially impact significant conservation and mitigation investments made by the Salt River Project and the Bureau of Reclamation located downstream of the Triangle Bar Ranch property. The San Manuel development may also impact the Arizona State Land Department's extensive holdings, ultimately increasing pressure to develop additional lands along the Lower San Pedro River

Considering these pressures to the aquifer in this stretch of the San Pedro River system and that the subject property is one of the largest remaining unprotected, privately owned parcels in the area, the acquisition of the Triangle Bar Ranch property is therefore a high priority for protecting perennial flow in the Lower San Pedro River.

According to the Department's Heritage Database Management System, there is a high occurrence of the federally listed Southwestern willow flycatcher (SWFL) found along the Lower San Pedro River riparian corridor. The SWFL would be the primary endangered species that would benefit from the proposed acquisition because this species currently occupies the subject property (see Figure 3). Recent SWFL monitoring and surveying projects conducted by

the Department, have determined that the ecological conditions of the riparian habitat along this stretch of the San Pedro River is extremely healthy. The adjacent riparian habitat also supports nesting black hawks, Mississippi kites, and yellow-billed cuckoos. Other reported sensitive species known to occur in the area include black-bellied whistling duck, Northern Gray hawk, great and snowy egret, thick-billed and tropical kingbirds, white-faced ibis, and white-tailed kite. This stretch has been known to support nesting raptors, provides adequate forage for various waterfowl species, and breeding habitat for a diverse number of neo-tropical migratory birds.

Most unique is the presence of active beaver on the subject property. Beaver dams have been documented annually, allowing for dense riparian habitat along the channel to thrive. The property contains perennial flow of the San Pedro River, and Aravaipa creek, two streams of critical importance to native fish species in Arizona. Gila topminnow, Gila chub, and other listed native fish species could be reestablished in the aquatic habitat along the river. Other species of interest which occur on the property are the extensive number of nongame bird species, beaver (*Castor canadensis*), and game species which include waterfowl, Gambel's quail, mourning and whitewing dove, javelina, and desert mule deer.

Five federally listed species, one federal candidate species, and at least 8 sensitive species will benefit from the Triangle Bar Ranch property acquisition. Documentation of the species benefits is provided below.

OBJECTIVE: What is to be accomplished during the period of the project pursuant to the stated need? (Specify fully what is to be accomplished within the time, money, and staffing allocated and specify end point.)

The Triangle Bar Ranch acquisition will help protect aquatic and riparian habitat and intermountain corridors important for threatened, endangered, and sensitive species. Because of the rapid subdivision and residential development of the San Pedro Valley, there is urgent need to protect this property from development that would increase groundwater pumping in the area. The proposed acquisition will purchase 982 acres that lies in a highly developable location and manage it for the benefit of riparian habitat along the Lower San Pedro River. The Department will conduct the acquisition and negotiate the transaction with the owner (John Smith). The Department is currently contacting its appraisers on contract and preparing an appraisal request to determine the appraised value of the subject property. Based on recent property sales in the area, we believe that the 982 acres have a market value of approximately $5,000,000.00, however an appraisal to federal standards will be completed to determine the actual fair market value and purchase price. Due to the limited Section 6 funding for Region 2, the Department plans to purchase the Triangle Bar Ranch property through phased acquisition.

The Department anticipates completing the land acquisition within 3 years of the grant award. The endpoint of the project will be acquisition of the proposed parcel and management of the parcel to benefit the habitat of species listed under the Endangered Species Act and for other sensitive species. If this grant request is funded, and once the property is acquired, the Department work with the Arizona Open Land Trust to will seek funding through the Arizona Water Protection Fund administered by the Arizona Department of Water Resources as well as other available funding sources to implement the activities listed above once the property has been acquired.

EXPECTED RESULTS OR BENEFITS: How will the project impact fish and wildlife resources or benefit the public? Try to provide quantifiable or verifiable resource benefits.

THREATENED, ENDANGERED, PROPOSED, AND CANDIDATE SPECIES

The following Threatened, Endangered, Proposed, and Candidate Species will benefit from the proposed acquisition.

Southwestern willow flycatcher (*Empidonax traillii extimus*)
Endangered Species
Final Recovery Plan approved in 2002
Recovery Priority number: 3c

The Southwestern willow flycatcher was federally listed by USFWS as endangered in 1995, with critical habitat designated in 1997. In Arizona, critical habitat was designated for this species along sections of the Colorado, Little Colorado, San Pedro and Verde Rivers and their tributaries (USFWS 1997); however, this critical habitat designation was remanded to USFWS for a more in-depth analysis of economic impacts (USFWS 2002). A Recovery Plan has also been drafted that identifies six Recovery Units, each with four to seven Management Units.

For breeding habitat SWFLs are dependant on dense riparian tree and shrub habitat, much of which has been modified or lost across its range due to such factors as loss of water from diversion and pumping, conversion to agriculture, stream damming and channelization, and other causes. The San Pedro River supports one of the largest sub-populations of all the stream management units identified in the recovery plan. The recovery plan also identifies protection of the natural hydrological process, including protecting aquifers from excessive pumping, as a critical recovery goal for securing riparian habitat. The plan goes on to say that water management strategies are likely to be required in a comprehensive recovery of the species.

The Triangle Bar Ranch acquisition will result in *High* benefits to the Southwestern willow flycatcher. This rating is based on the following:

1) The acquisition will directly benefit habitat that is currently occupied: The species has been documented on the subject property and along the Lower San Pedro River by the Department.
2) Proportion of the species range/area encompassed by the acquisition: The acquisition will benefit appropriate occupied habitat (cottonwood/willow riparian community). The proposed acquisition will not only secure the historic species range and designated critical habitat, but it will benefit one of the largest known subpopulations of SWFLs.
3) The contribution to stated recovery goals: The acquisition will protect critical habitat to help sustain a major population that is specifically identified in the recovery plan and reduce immediate impacts to the aquifer.
4) This acquisition alone will not allow for delisting or down-listing the Southwestern willow flycatcher, but the acquisition will help protect habitat for a major self-sustaining population along the Lower San Pedro River, which could contribute to delisting the species.

Loach Minnow (*Tiaroga cobtis*)
Threatened Species
Final Recovery Plan approved in 2002
Recovery Priority number: 4c

The Loach Minnow was listed as threatened in 1986, and critical habitat was designated in 1987. Declines of populations of Loach Minnows have been attributed to habitat depletion from dams, water diversion, watershed deterioration, channelization, and groundwater pumping, as well as competition and predation from non-native fishes (USFWS 2000). This species was once common throughout the Gila River basin, including the mainstem Gila River upstream of Phoenix, and the Verde, Salt, San Pedro, and San Francisco River sub-basins (USFWS 2000a). This species presently persists only in limited reaches along the White River in Gila County, the north and east forks of the White River in Navajo County, Aravaipa Creek, the San Francisco and Blue Rivers, and Campbell Blue Creek (USFWS 1990).

Loach Minnows are found in small to large perennial streams below 8,000 feet with swift, shallow water over cobble and gravel, and are sometimes associated with dense, filamentous, green algae. They prefer the turbulent, rocky riffles of mainstream rivers and tributaries in plant communities consisting of open, low-growing riparian type vegetation composed mostly of grass and shrubs (AGFD 1995).

The Triangle Bar Ranch acquisition will result in <u>medium</u> benefits to Loach Minnow. This rating is based on the following:

1) The acquisition will benefit habitat that is currently unoccupied by Loach Minnow, but does provide potential habitat for reintroduction of the species.
2) Proportion of the species range/area encompassed by the acquisition: The acquisition will secure aquatic habitat within the historic range of Loach Minnow, where few appropriate reintroduction sites are available. Aquatic habitat required by the species has become scarce.
3) The contribution to stated recovery goals: There is no recovery plan for Loach Minnow. The final listing rule states that reestablishment of populations in suitable areas of historic range is necessary for the species survival and recovery.
4) This acquisition alone will not allow for delisting or down-listing of the Loach Minnow within the next five years nor prevent extinction within five years, but reestablishment of a Loach Minnow population in suitable areas of historic range will support other actions that could lead to delisting or down-listing of the species.

Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*)
Candidate Species
No recovery plan
No recovery priority assigned

On July 19, 2001, the U.S. Fish and Wildlife determined that the western yellow-billed cuckoo warranted listing as a threatened species, but listing was precluded by higher priorities. The Service estimated that fewer than 700 breeding pairs remain in the western United States and that more than 90 percent of the bird's riparian habitat in the West has been lost or degraded. In Arizona, the western yellow-billed cuckoo is an uncommon to fairly common breeder in riparian

habitats, primarily in the Colorado and Gila River drainages. Arizona probably has the largest remaining cuckoo populations in the western United States. The largest concentrations are in the Upper Santa Cruz, San Pedro, Verde, Bill Williams and Gila River drainages of central and southeastern Arizona, with the upper San Pedro being one of the largest known single blocks of suitable habitat.

Because the species is not yet listed and no Recovery Plan has been written, we are describing habitat requirements and population objectives as identified in the *Arizona Partners in Flight Bird Conservation Plan* (1999). The cuckoo is an obligate riparian species found in highest occurrences and density in cottonwood/willow associations. Cuckoos require a minimum of 25 acres of broad-leaved forest at least 300 feet wide and at least 2.5 acres of dense nesting habitat per pair. Marginal habitat is described as a minimum of 10 acres of broad-leaved forest at least 165 feet wide and at least 1.25 acre of dense nesting habitat. Adequate healthy populations of cuckoos might preclude a need to list the species, or might allow for down-listing or delisting, if the species is listed.

The Triangle Bar Ranch acquisition will result in <u>medium</u> benefits to western yellow-billed cuckoo. This rating is based on the following:

1) The acquisition will benefit habitat that is currently occupied: The species has been documented along the San Pedro.
2) Proportion of the species range/area encompassed by the acquisition: The acquisition will benefit appropriate occupied cottonwood-willow riparian habitat. This acquisition will secure only a small portion of the historic species range.
3) The contribution to stated recovery goals: There is no recovery plan for the species because it is a candidate species. However, the acquisition will protect habitat to help sustain a major population along the San Pedro (a stated goal in the *Arizona Partners in Flight Bird Conservation Plan*, 1999).
4) This acquisition alone will not eliminate the need for listing the western yellow-billed cuckoo, but the acquisition could provide supporting habitat to a major self-sustaining population along the San Pedro, which could help reduce the need to list the species.

Gila topminnow (*Poeciliopsis occidentalis occidentalis*)
Endangered Species
Final Recovery Plan approved in 1984; Revised Recovery Plan being written
Recovery Priority Number: 3

Gila topminnow was listed as endangered in 1967, and the current status is poor and declining. Historically, Gila topminnow was abundant in the Gila River drainage and was one of the most common fishes of the Colorado River basin, particularly the San Pedro and Santa Cruz systems. Presently only 12 natural populations of Gila topminnow are extant. The San Pedro sub-basin historically supported abundant Gila topminnow in a large number of streams, backwaters, springs, and cienegas. Because of the scarcity of surveys for the species before the 1970s, loss of many of these habitats and topminnow populations went unrecorded.

The Draft Revised Recovery Plan calls for protecting habitat suitable for reintroduction of the species within its historic range. So, although Gila topminnow is not currently known to occur

along this stretch of the San Pedro, reintroduction is possible and protecting water supplies to sustain perennial flow in the river are a recovery goal for the species.

The Triangle Bar Ranch acquisition will result in low benefits to Gila topminnow. This rating is based on the following:

1) The acquisition will benefit habitat that is currently unoccupied by Gila topminnow, but does provide appropriate habitat for potential reintroduction of the species.
2) Proportion of the species range/area encompassed by the acquisition: The acquisition will protect aquatic habitat within the historic range of Gila topminnow, where few appropriate reintroduction sites are available. Aquatic habitat required by the species has become scarce.
3) The contribution to stated recovery goals: If Gila topminnow were reintroduced to the San Pedro, the site could qualify as a Tier 2 recovery population, as described in the Recovery Plan.
4) This acquisition alone will not allow for delisting or down-listing of the Gila topminnow within the next five years nor prevent extinction within five years, but reestablishment of a Gila topminnow population in suitable areas of historic range will support other actions that could lead to delisting or down-listing of the species.

Gila chub (*Gila intermedia*)
Endangered Species
No recovery plan yet
Recovery Priority Number: 2C

Gila chub were historically found throughout the Gila River basin in southern Arizona, southwestern New Mexico, and northeastern Sonora Mexico. The Gila chub has been reduced in numbers and distribution in the majority of its historical range. Due to the current reduced status and the severity of threats, the Gila chub is likely to become extinct throughout all or a significant portion of its range. On November 2, 2005, the U.S. Fish and Wildlife Service listed the Gila chub as endangered.

The type specimen of Gila chub was collected in 1851 from the Santa Cruz River. The species may have had basin-wide distribution in the San Pedro River basin, and is still known from at least three natural populations in the basin. Recovery through protection and enhancement of the existing populations and reestablishment of populations in suitable areas of historic range are necessary for the species' survival and recovery (Federal Register, Final Rule). The Gila chub commonly inhabits pools in smaller streams, springs, and cienegas.
The Triangle Bar Ranch acquisition will result in low benefits to Gila chub. This rating is based on the following:

1) The acquisition will benefit habitat that is currently unoccupied by Gila chub, but does provide potential habitat for reintroduction of the species.
2) Proportion of the species range/area encompassed by the acquisition: The acquisition will secure aquatic habitat within the historic range of Gila chub, where few appropriate reintroduction sites are available. Aquatic habitat required by the species has become scarce.

3) The contribution to stated recovery goals: There is no recovery plan for Gila chub. The final listing rule states that reestablishment of populations in suitable areas of historic range is necessary for the species survival and recovery.
4) This acquisition alone will not allow for delisting or down-listing of the Gila chub within the next five years nor prevent extinction within five years, but reestablishment a Gila chub population in suitable areas of historic range will support other actions that could lead to delisting or down-listing of the species.

Spikedace (*Meda fulgida*)
Threatened Species
Final Recovery Plan approved 1993
Recovery Priority Number: 2

Historically, Spikedace were widely distributed, inhabiting the main bodies and tributaries of the Salt, Verde, and Gila Rivers, as well as the Agua Fria, San Pedro, and San Francisco River systems. There have been a few recorded transplants from Aravaipa Creek into Sonoita Creek and 7-Springs Wash, but these populations have not persisted. Today, this fish only exists in Aravaipa Creek (tributary to the San Pedro), Eagle Creek (tributary to the Gila), and the upper Verde River in Yavapai County (USFWS 1990). Spikedace habitat consists of moderate to large, shallow, perennial, moderate grade streams associated with riparian vegetation below 6,000 feet with sand, gravel, and/or cobble substrates (AGFD 1995). This carnivorous fish generally feeds on insects and larvae of insects or fish. Spawning takes place in riffles or runs between April and June (USFWS 1990b).

The Spikedace was listed as threatened by the USFWS in 1986, with critical habitat designated in 2000 that includes sections of the Gila, Verde, San Pedro, and San Francisco Rivers and their tributaries. The decline of this species is mostly due to competition with non-native species and habitat depletion such as water impoundment, stream channelization, dams, diversion, bank stabilization and other erosion control efforts, as well as grazing, mining, timber harvesting, and other developments (USFWS 1990).

The Triangle Bar Ranch acquisition will result in <u>low</u> benefits to Spikedace. This rating is based on the following:

1) The acquisition will benefit habitat that is currently unoccupied by Spikedace, but does provide potential habitat for reintroduction of the species.
2) Proportion of the species range/area encompassed by the acquisition: The acquisition will secure aquatic habitat within the historic range of Spikedace, where few appropriate reintroduction sites are available. Aquatic habitat required by the species has become scarce.
3) The contribution to stated recovery goals: There is no recovery plan for Spikedace. The final listing rule states that reestablishment of populations in suitable areas of historic range is necessary for the species survival and recovery.
4) This acquisition alone will not allow for delisting or down-listing of the Spikedace within the next five years nor prevent extinction within five years, but reestablishment a Spikedace population in suitable areas of historic range will support other actions that could lead to delisting or down-listing of the species.

Desert pupfish (*Cyprinodon macularius*)
Endangered Species
Final Recovery Plan approved 1993
Recovery Priority Number: 2

The desert pupfish was once a common fish, but it has been extirpated from most of its natural range. It was listed as endangered in 1986. Historic range includes the lower Gila River basin in Arizona, including the Gila, Santa Cruz, San Pedro, and Salt rivers as well as the lower Colorado River in Arizona, California, and adjacent Mexico. Remaining natural populations are found in a few sites in the Salton Sea Drainage in California and the Colorado Delta in Baja California and Sonora, Mexico. One natural population still occurs in Quitobaquito Spring and Pond in Pima County, and reintroductions have been made in Pima, Pinal, Maricopa, Graham, Cochise, La Paz, and Yavapai counties in Arizona.

Recovery criteria as listed in the Recovery Plan include: Secure, maintain, and replicate all naturally occurring extant populations, and re-establish replicate populations in the most natural, identifiable habitats within the probable historic range. The Recovery Plan designates extant natural populations as Tier 1. Tier 2 populations are composed of re-established populations in the most natural (i.e. historic condition) identifiable habitats within probable historic range. Preference is given to those habitats that are most likely to persist in perpetuity without human intervention. Tier 2 populations are considered successful if they survive for 10 years and require only minor management. The recovery plan recommends re-establishing populations in Arizona in the lower and middle Gila, San Pedro, Santa Cruz, and Salt River drainages. Pupfish occupy shallow waters of springs, small streams, and marshes. The plan recommends re-establishment of pupfish into a diversity of habitat types reflective of those occupied historically (e.g. spring, cienega-marshland, stream, and river margin). Protecting perennial flows in the San Pedro River will help maintain potential habitat for desert pupfish reintroduction.

The Triangle Bar Ranch acquisition will result in <u>low</u> benefits to desert pupfish. This rating is based on the following:

1) The acquisition will provide habitat that is currently unoccupied by desert pupfish, but does provide appropriate habitat for reintroduction of the species
2) Proportion of the species range/area encompassed by the acquisition: The acquisition will secure aquatic habitat within the historic range of the desert pupfish, where few appropriate reintroduction sites are available. Aquatic habitat required by the species has become scarce.
3) The contribution to stated recovery goals: If desert pupfish were reintroduced to the San Pedro, the site could qualify as a Tier 2 recovery population, as described in the Recovery Plan.
4) This acquisition alone will not allow for delisting or down-listing of the desert pupfish within the next 5 years nor prevent extinction within 5 years, but creation of a Tier 2 recovery population would support other actions that could lead to delisting or down-listing of the species.

Chiricahua leopard frog (*Rana chiricahuensis*)
Threatened Species
No Recovery Plan yet; draft to be released soon
Recovery Priority Number: 2C

The Chiricahua leopard frog was listed as threatened on June 13, 2002. The Draft Recovery Plan is currently being written. The Chiricahua leopard frog is now absent from more than 75 percent of its historic sites. In Arizona, the species is extant in 7 of 8 major drainages, including the San Pedro River drainage (Federal Register, Final Rule). River mainstems may have supported large leopard frog populations in the past in southeastern Arizona, but many of these are now overrun with nonnative predators and do not presently support leopard frogs in viable numbers. Although the San Pedro River was historic habitat for the species, it currently is not suitable for reintroduction due to the ubiquitous distribution of nonnative predators.

If aquatic habitats can be protected along the San Pedro, it is possible that habitat suitable for reintroduction may be available in the future, and reintroduction from nearby tributary populations may be feasible.

The Triangle Bar Ranch acquisition will result in low benefits to the Chiricahua leopard frog. This rating is based on the following:

1) The acquisition will benefit habitat that is currently unoccupied. However, the habitat is within historic range and has potential for re-establishment of the species.
2) Proportion of the species range/area encompassed by the acquisition: This acquisition will secure only a small portion of the historic species range.
3) The contribution to stated recovery goals: There is no recovery plan yet for Chiricahua leopard frog. This acquisition will benefit potential reintroduction sites within historic habitat.
4) This acquisition alone will not allow for delisting or down-listing of the Chiricahua leopard frog within the next five years nor prevent extinction within five years, but will support other actions that could lead to delisting or down-listing of the species.

SENSITIVE SPECIES

The following sensitive species will benefit from the Triangle Bar Ranch acquisition. The acquisition and protection of the San Pedro River may prevent the need to list these species:

Desert sucker – Exists in tributaries to the San Pedro River – Potential for re-establishment in the San Pedro River.
Gila Longfin Dace – Is found along the San Pedro River.
Lowland Leopard Frog – Exists within the subject property.
Northern Gray Hawk – Documented nesting along the San Pedro River; protection of riparian habitat will improve habitat for the species.
San Carlos Wild-buckwheat – Exists within the subject property.
Sonora sucker – Exists in tributaries to the San Pedro River – Potential for reestablishment in the San Pedro River.

ECOSYSTEM BENEFITS

The Triangle Bar Ranch acquisition will provide ecosystem benefits for listed and sensitive species.

Function:
The Triangle Bar Ranch acquisition will protect a critical role in the life cycle of the Southwest willow flycatcher. When this purchase is accomplished, the property will be managed to benefit cottonwood-willow riparian nesting habitat that is critical for Southwestern willow flycatcher as well as western yellow-billed cuckoo, and many other neotropical migratory birds. This kind of riparian vegetation provides necessary and vulnerable nesting habitat that is absolutely critical for breeding success of these birds. Mature cottonwood-willow vegetation with appropriate structure and density for nesting habitat is currently present on the adjacent properties downstream and upstream of Triangle Bar Ranch, however, this habitat is at risk from de-watering if uncontrolled residential development and groundwater pumping for mining purposes continues in the area.

Simply acquiring the Triangle Bar Ranch property will provide *maximum* benefit to Southwest willow flycatcher and other listed species. The most significant threat to the Southwest willow flycatcher and other listed and sensitive species is that this property will be subdivided into residential lots if it is not purchased for conservation. Water to support the residential development will come from underground wells, which could impact aquatic and riparian habitat. Simple acquisition of the property will eliminate this threat.

Other management opportunities that will promote TES species recovery include:

- Reintroduction of native fish to aquatic habitat, as warranted.
- Reintroduction of Chiricahua leopard frogs to aquatic habitat.

Connectivity:
The property is adjacent to existing protected areas and reduces habitat fragmentation. The Triangle Bar Ranch property is adjacent to ASARCO Mitigation properties and lies immediately adjacent to State Trust mitigation lands, as well as in the vicinity of The Nature Conservancy and Salt River Project properties, which are already managed to protect habitat for threatened, endangered, and sensitive species on the Lower San Pedro River. The designation by the USFWS of the San Pedro River as critical habitat for the Southwestern Willow Flycatcher and the species documented presence of the species on the subject property highlights the importance of the Triangle Bar Ranch acquisition and of the San Pedro River habitat for the numerous riparian-dependent species that are found in the Southwest. The property lies in critical groundwater recharge zone for the shallow aquifer that supports flow in the San Pedro. Protection of this tract is key to maintaining healthy riparian corridor and a physical continuity of upland grassland habitat adjacent to the river and its floodplain, as well as protecting the aquifer from adverse effects of groundwater pumping, which will occur if the property is allowed to be subdivided and developed.

APPROACH: How will the objective be attained? Include specific procedures, schedules, key cooperators, and respective roles.

The Arizona Game and Fish Department will work with The Arizona Open Land Trust (AOLT) in the acquisition of approximately 982 acres of native fish and wildlife habitat. This land will be managed in perpetuity for conservation of listed and sensitive species. When the grant is awarded, the Department will start the Triangle Bar Ranch acquisition through the Department Lands Protection Evaluation Process. The Department will facilitate any necessary due diligence associated with acquisition of the Triangle Bar Ranch property, including appraisal, boundary survey, title work, and environmental site assessment. The non-federal match for the acquisition funding for this project will be funded by the Department's Heritage Fund. In addition, AOLT will contribute the time and expertise of its staff. The landowner has provided a written offer to the Department and has agreed to open negotiations for acquisition of property.

The acquired land will be managed to conserve and protect natural resources, to maintain diverse and healthy populations of native wildlife, and to protect populations of special-status native wildlife and fish species by the Department. The first benefit to the listed and sensitive species would be attained by the direct acquisition itself, which will remove the property from possible residential development and help control overdraft of the aquifer.

LOCATION: Where will the work be done? Describe habitat type(s) to be affected, and relevant ecosystem/watershed characterization.

The Triangle Bar Ranch property, consisting of approximately 982 acres, lies immediately adjacent to State Trust mitigation lands and ASARCO mitigation properties located on the east side of the San Pedro River. The elevation of the Triangle Bar Ranch property is approximately 900 to 1,000 feet (see Figure 2). The property contains a significant amount of riparian habitat, which provides important benefit to the neighboring aquatic ecosystem along the San Pedro River.

The river is a diverse course composed of long, flat glides, thin braided channels, and numerous backwaters. A pool at the mouth of Camp Grant Wash is approximately 10 meters wide, 100 meters long and, in places, up to two meters in depth. There is evidence of beaver activity throughout the perennial portions. At the aforementioned pool two cottonwoods greater than 10 inches in diameter were observed felled by beaver. Cattle are excluded from the river, but trespass animals though few, are common. Vegetation composition and condition does not appear to be affected much by cattle use. Bank vegetation covers approximately 80% of the ground at the shore line. Aquatic vegetation, composed primarily of filamentous algae, is dense, covering 50-100% of the substrate. Emergent vegetation is also well developed though cattails and rushes are not prevalent.

The river has a very well developed riparian area, including many large trees. Obligate riparian tree species include Goodding willow (*Salix gooddingii*), cottonwood (*Populus fremontii*), netleaf hackberry (*Celtis □igantean□*), and velvet ash (*Fraxinus pennsylvanica* var. *velutina*). Other tree species include desert hackberry (*Celtis □igant*), desert willow (*Chilopsis linearis*), Mexican elderberry (*Sambucus □igantea*), and velvet mesquite (*Prosopis velutina*).

Sedges (*Carex* species) occur at the water edge, and deer grass (*Muhlenbergia rigens*) grows beside the stream channel (see Photos 1 and 2).

The upland vegetation is predominately Arizona Upland Jojoba-Mixed Scrub Series dominated by saguaro (*Carnegiea gigantean*) and jojoba (*Simmondsia chinensis*). The vegetation in the river corridor is Sonoran Riparian Deciduous Forest (Brown 1994) with an overstory composed primarily of Fremont Cottonwood (*Populus fremontii*) and Willow (*Salix goodingii*). This type of riparian forest habitat supports among the highest known nesting bird density of any habitat in North America. Salt cedar (*Tamarix chinensis*) is present in some areas, but does not dominate. There are extensive stands of sapling willow on recently disturbed flats where one might expect salt cedar to dominate. A healthy mesquite (*Prosopsis* spp.) bosque composed of mature trees, many greater than 10 inches diameter, lies outside and adjacent the riparian gallery. These trees decrease in size with distance from the river.

ESTIMATED COST: Provide detailed breakdown of what it will cost to attain objective.			
Budget Item*	**Cost**	**Federal Share**	**Non-Federal Share**
Estimated purchase of property (Based on recent nearby sales and estimated amount available from USFWS, for the first phase of a phased purchase of the entire property)	$2,500,000.00	$1,500,000.00	Department Heritage Fund: $1,000,000.00
Due Diligence (Appraisal, ALTA boundary survey, Title Insurance, Phase I Environmental Site Assessment, Administrative costs (project and legal staff))	$35,000.00	$25,000.00	Department Heritage Fund: $10,000.00
Total Estimated Cost	**$2,535,000.00**	**$1,525,000.00**	**$1,010,000.00**

*We have not included costs of administering the acquisition of the property. Administration of the acquisition will be borne by the Department. The Department is committed to fund the implementation and management of the property (including habitat, fish and wildlife surveys and habitat restoration) in perpetuity after the acquisition is completed.

Non-federal Match: 40%

Partial funding for this project would be accepted. If partial funding is approved, the Department will attempt to purchase the most critical portion of this property with all available funds.

ELIGIBILITY CRITERIA:

This proposal is being submitted by the Arizona Game and Fish Department, which has a current Cooperative Agreement with the Secretary of Interior.

This proposal includes a 40 percent non-Federal cost share.

This proposal does not include any FWS full-time Equivalent (FTE) costs.

This acquisition does not serve to satisfy regulatory requirements of the Endangered Species Act.

This acquisition does not address any commitments of any biological opinion under section 7 of the Act or fulfill commitments of a Habitat Conservation Plan under section 10 of the Act. This acquisition will not serve to satisfy local, State, or Federal regulatory requirements and will not satisfy mitigation for local, State, or Federal permits.

State administrative costs are assumed by the State.

Habitat will be set aside in perpetuity for purposes of conservation.

This acquisition will contribute to the implementation of 5 approved final recovery plans (Southwestern willow flycatcher, Desert pupfish, Gila topminnow, Loach Minnow, and Spikedace). Also, this proposal will contribute to the recovery of the threatened species including Gila chub which was listed as Endangered in 2005. Sufficient time for development of a recovery plan has not passed. The listing documents say that re-establishment of populations in suitable areas of historic range is necessary for the species' survival and recovery. Further, this proposal will contribute to the recovery of the Chiricahua leopard frog, Western yellow-billed cukoo.

The proposal has a commitment to funding for and implementation of management of the habitat in perpetuity, consistent with the conservation needs of the species. The Arizona Game and Fish Department has committed to insure that the property is managed in perpetuity for conservation needs of listed species.

Appraisal and title work will be coordinated by a non-Federal partner (Arizona Open Land Trust) and completed by the Department. That cost is included in the proposal as part of the non-federal match.

This proposal is being submitted for consideration under the Recovery Land Acquisition Grant Program, but not under the HCP Land Acquisition Grant Program.

The State will meet established requirements concerning Federal financial assistance, as required by the Service, the Department of Interior, and the Office of Management and Budget. This includes established principles for determining which costs are allowable or eligible.

SUMMARY OF EVALUATION CRITERIA

Species Benefits (Max 62 pts)

Listed (T&E), and Candidate Species	**Listed Species Benefits – Habitat Contributes to Recovery (Max 20 pts)**	**Listed Species Recovery Priority Number (Max 22 pts)**	**Number of Listed Species Benefited – Final/Draft Recovery Plan (Max 20 pts)**
Southwestern Willow Flycatcher (E)	High (20 pts)	3c (10 pts)	Final in 2002 (8 pts)
Loach Minnow (T)	Low (5 pts)	4c (5 pts)	Final in 2002 (8pts)
Gila topminnow (E)	Low (5 pts)	3c (10 pts)	Final in 1984, revised plan being written (8 pts)
Gila chub (E)	Low (5 pts)	2c (10 pts)	No recovery plan yet (2 pts)
Desert Pupfish (E)	Low (5 pts)	2c (10 pts)	Final in 1993 (8 pts)
Spikedace (T)	Low (5 pts)	4c (10 pts)	Final in 1993 (8pts)
Western yellow-billed cuckoo (C)	Medium(5 pts)	-- (0 pts)	Candidate; No recovery plan (2 pts)
Chiricahua leopard frog (T)	Low (5 pts)	2c (10 pts)	No recovery plan yet (2 pts)
# of TEC sp benefited			**8**
Total Points	**20 pts***	**22 pts**	**20 pts**

*The total points are well over the maximum of 20. However, the evaluation form says, "To score 20 points, the applicant must document that the proposal will potentially result in high benefit to at least one species."

Species Total: 62 pts

Ecosystem Benefits (Max 20 pts)

Function:

1. Habitat fills a critical role in the life cycle of the primary species for which the land is acquired: Yes, the habitat will fill a critical role in the life cycle of Southwestern willow flycatcher. **8 pts**
2. Habitat requires little or no management to benefit the primary species: Yes, simply by purchasing and fencing the Triangle Bar Ranch property, Southwestern willow flycatcher and other species will gain *some* benefit. *Maximum* benefit will be realized when the site is managed for recharge of the San Pedro aquifer. **4 pts**

Connectivity:

1. Habitat links two existing protected areas together or is adjacent to existing protected areas, to reduce habitat fragmentation: Yes, the habitat is adjacent ASARCO mitigation properties and lies immediately adjacent to State Trust mitigation lands, as well as in the vicinity of The Nature Conservancy and Salt River Project properties, which are already managed to protect habitat for threatened, endangered, and sensitive species on the Lower San Pedro River. **8 pts**

Ecosystem Total: 20 pts

Cost Share Contributions (Max 18 pts)

40% non-federal cost share

Cost Share Total: 6 pts

Grand Total: 90 pts

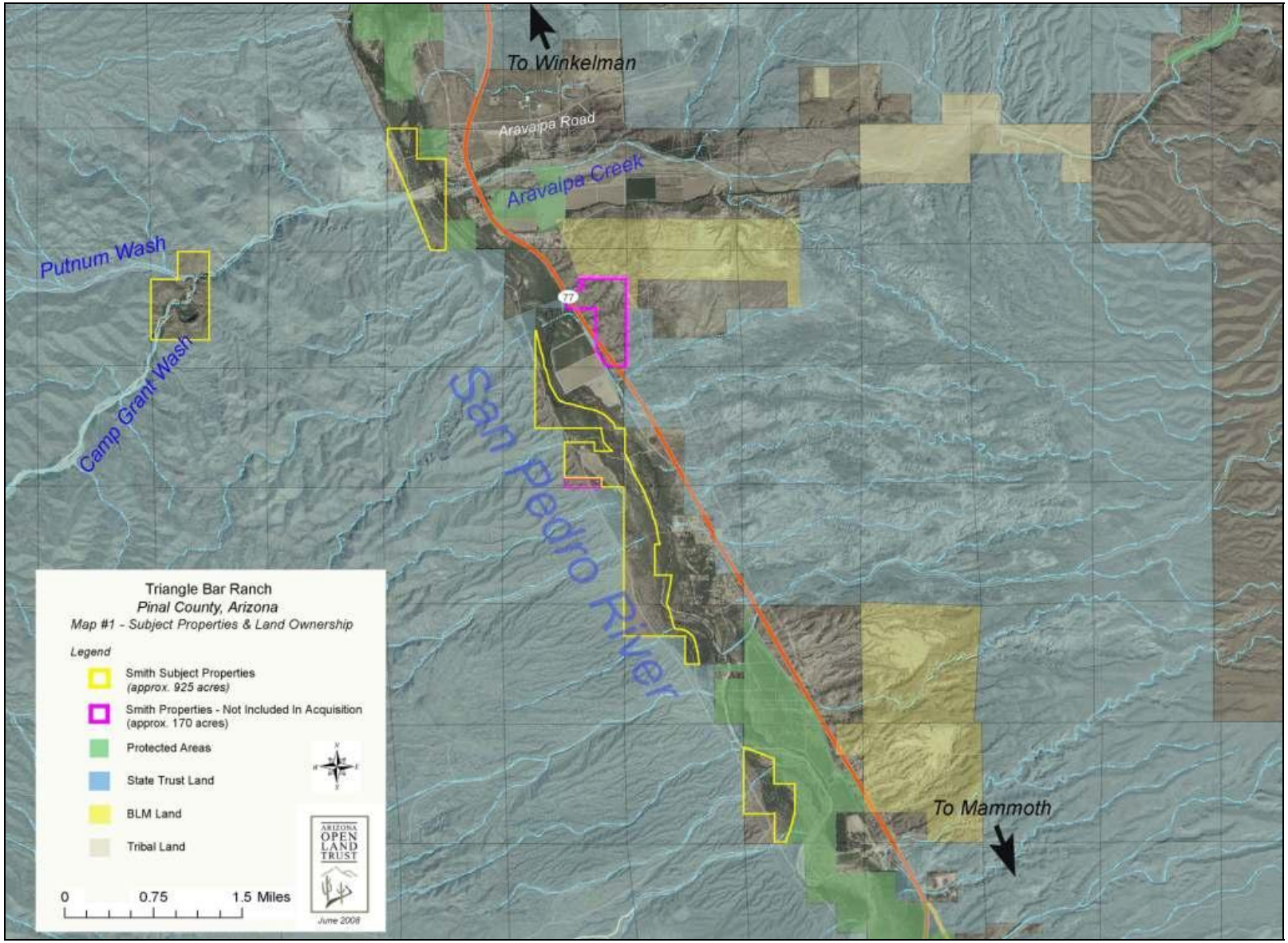

Figure 1. Map of Triangle Bar Ranch property identified in yellow outline.

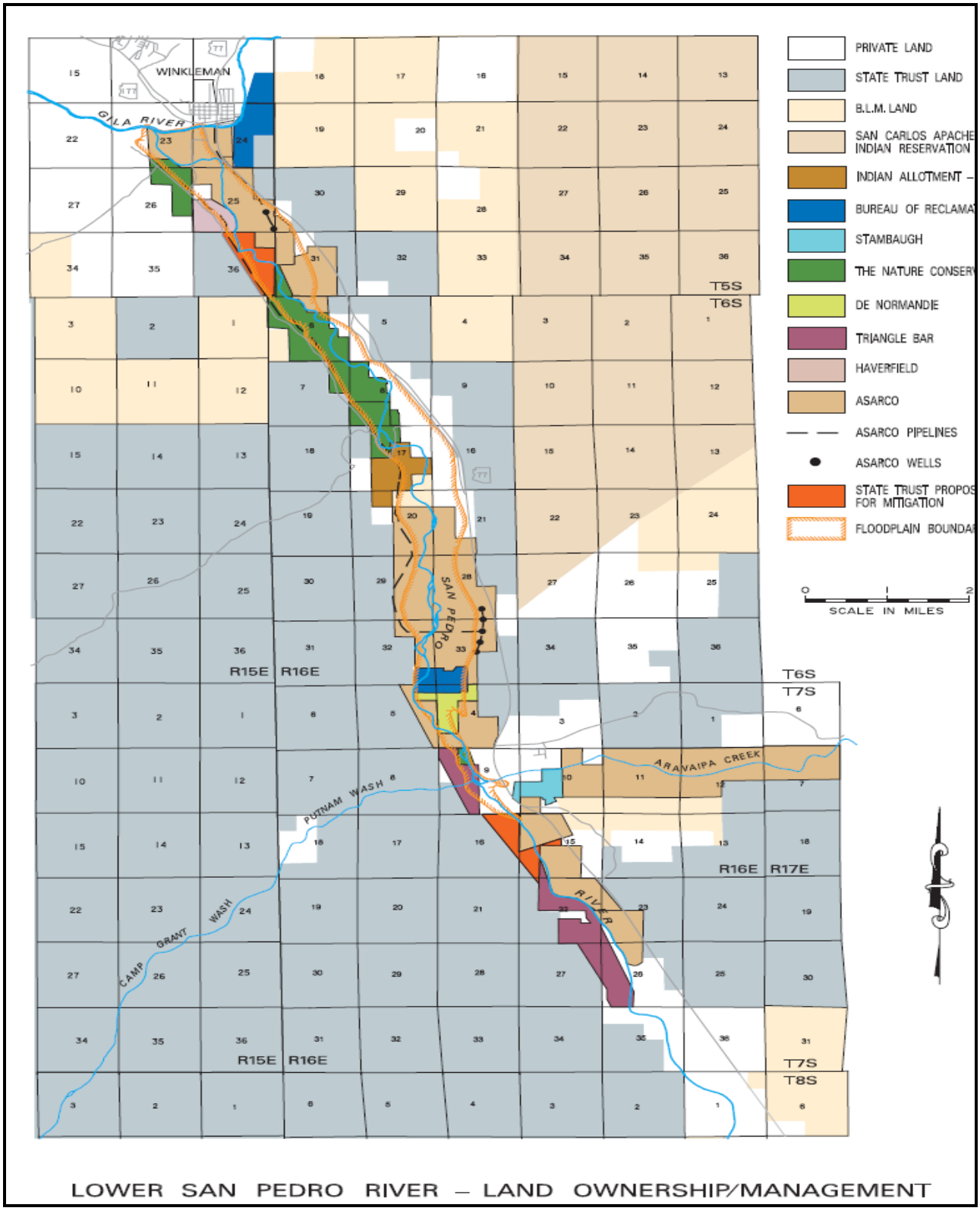

Figure 2. Ownership map along Lower San Pedro River.

Photo 1: Representative riparian habitat along Lower San Pedro River

Photo 2: Representative riparian habitat at the confluence of Aravaipa Creek and the Lower San Pedro River

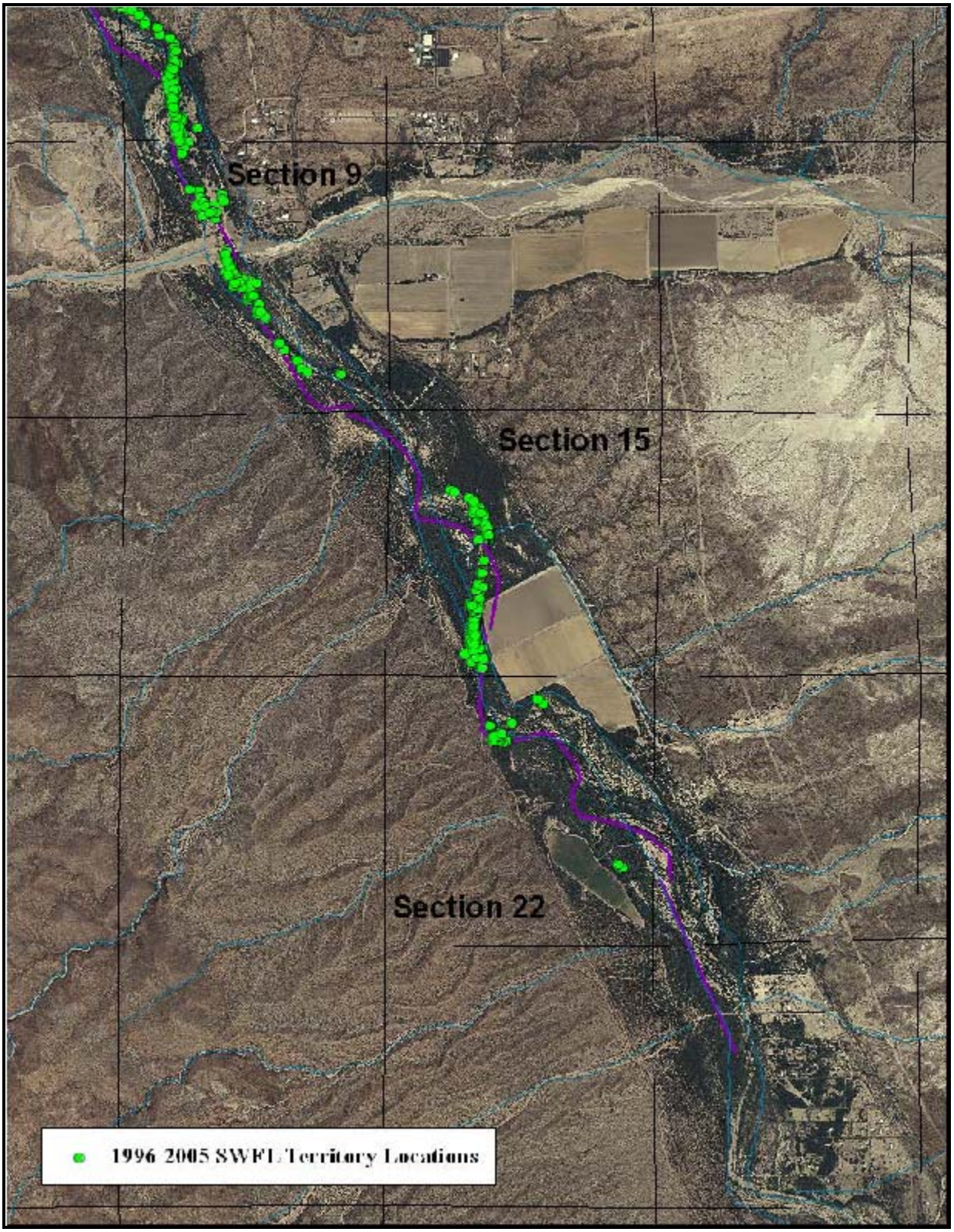

Figure 3: Map of SWFL territory locations on the Triangle Bar Ranch property.