
APPENDIX E

**DESCRIPTIONS OF OFFERED LANDS NOT SELECTED FOR INCLUSION
IN THE LAND EXCHANGE ALTERNATIVE**

This appendix describes the existing natural and human environment of the three PD-owned properties that were made available by PD as part of the optional package of offered lands but were not included in the Land Exchange alternative developed by the ID Team. These are the Davison, Lehner Ranch, and Lincoln Ranch properties.

DAVISON PROPERTY

This 428-acre property is located east of Davidson Canyon at the south end of the Empire Mountains, in Pima County, Arizona. The terrain is hilly, with elevations ranging from 4,300 to 4,840 ft above msl. A steep-sided canyon runs through the southeastern end of the property. Several small ephemeral washes dissect the parcel (SWCA 1995a).

Land Use

The Davison property lies within the perimeter of the Empire-Cienega RCA. It represents approximately one percent of the total area within that perimeter. The total boundary of the Davison property is four miles, of which 2.0 mi to the south and west is abutted by state lands. The remaining 2.0 mi abuts other private lands. Figure E-1 shows the property and surrounding land ownership.

This property is accessible via an unimproved dirt road maintained by the U.S. Forest Service (USFS) off Highway 83. Because the Davison property is privately-owned, no public recreation is authorized. However, because the property falls within the Empire-Cienega RCA, potential recreational uses include, but are not limited to, hiking, camping, picnicking, hunting, and bird and wildlife watching. This property is located within the watershed of a segment of Cienega Creek that BLM has recommended for Wild and Scenic River designation.

PD has let a grazing lease to this property that would be terminated upon completion of the realty transactions of the proposed land exchange. The property also includes a 160-acre State Land grazing lease that is being exercised by the leasee. Title to the property includes a Special Use Permit (Road) from the USFS. No other easements, rights-of-way, residential leases, or other encumbrances are associated with this property.

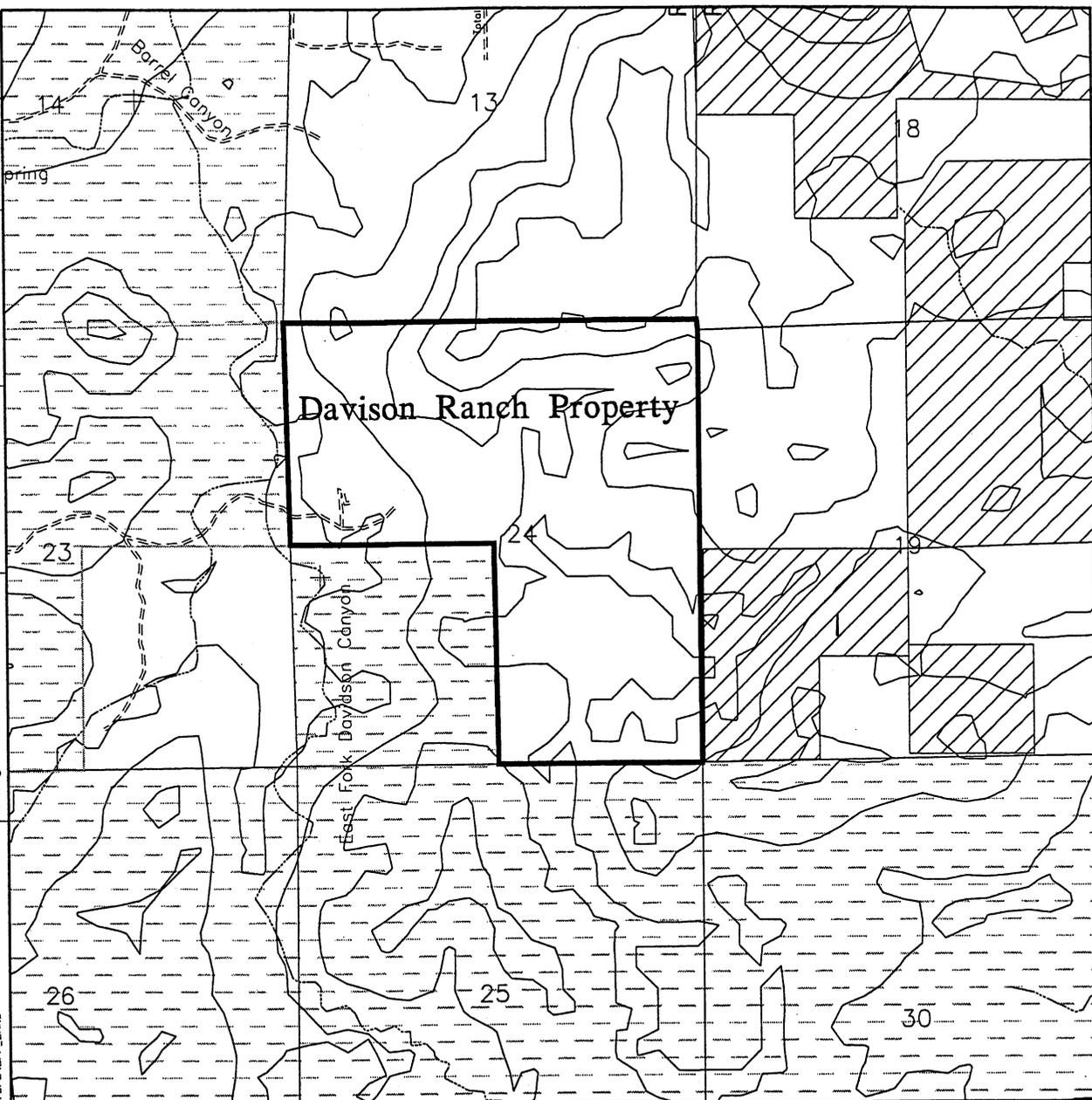
PD owns the subsurface estate (mineral rights). No surface water rights have been filed for this property.

No formal visual quality analysis has been completed for this property; however, natural resource elements of the area that define its visual quality include native grassland and woodland vegetation, and surrounding rolling hills. No Visual Resource Management Objectives (classes) have been established for the Empire-cienega RCA at this time (S. Knox, BLM, pers. comm.).

Physical Resources

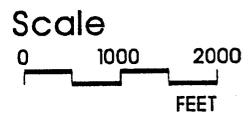
The geological substrate is primarily bouldery outcrops and colluvium from the underlying Paleozoic and Mesozoic sedimentary and volcanic parent rocks of the Empire Mountains. The potential for occurrence of mineral resources on this property is summarized in Table E-1.

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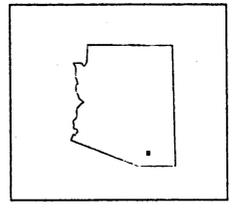


KEY

- DIRT ROADS
- EPHEMERAL DRAINAGES
- PROPERTY BOUNDARY
-  BLM LAND
-  STATE LAND
-  PRIVATE LAND



LOCATION MAP



USGS 7.5' QUADRANGLE:
EMPIRE RANCH, ARIZ.

DOS POBRES/SAN JUAN PROJECT

Pima County, Arizona T.18S.,R.16E.

DAVISON RANCH PROPERTY
OFFERED LANDS

FIGURE E-1

Table E-1. Summary of Mineral Potential of the Davison Property

| Mineral Resource | Potential | Level of Certainty |
|--|------------------------------------|--------------------|
| Coal, Oil & Gas, Sodium & Potassium | Low | C |
| Uranium & Thorium | Low | C |
| Geothermal Resources | Low | C |
| Locatable Metallic Minerals | Low (portions) Moderate (portions) | B |
| Non-Metallic Minerals/Industrial Minerals | Low | C |
| Common Variety Minerals (Sand & Gravel) | Low | C |

Source: D.E. Wahl 1997

Biological Resources

The property's vegetation communities are ecotonal between Sonoran Desertscrub and Sonoran Desert Grassland biomes. Commonly observed species include lovegrass, fluffgrass, mesquite, ocotillo, Coahuila juniper, catclaw acacia, wait-a-minute bush, mortonia, fairyduster, and wolfberry. Cactus and succulent species present include prickly pear, fishhook cactus, Arizona rainbow cactus, cane cholla, Bisbee beehive cactus, flat cream pincushion, barrel cactus, Palmer agave, desert spoon, and banana yucca. The xeroriparian areas were dry during recent site visits, except for a few small rock pools that were present in February 1995. Xeroriparian vegetation is not well-developed as a distinct community throughout most of the property, but there are a few patches of riparian plants along the largest washes. These include desert broom, wolfberry, greythorn, netleaf hackberry, Fremont cottonwood, and Goodding willow. AGFD classified this parcel as Resource Category IV habitat (low resource value for wildlife) (SWCA 1995b).

Wildlife or sign observed included northern harrier, Cooper's hawk, mourning dove, common raven, great horned owl, white-throated woodrat, coyote, rock squirrel, ringtail, skunk, mule deer, and lizards. Wildlife is expected to be typical of the habitats represented on the property. Crinoid fossils were found in limestone rocks present on the site. Rock outcrops and cliff exposures along the principal washes appear to provide suitable nesting and roosting habitats for cliff-nesting birds, such as ravens and great horned owls, and several species of bats (SWCA 1995b).

Of 67 special interest species identified by federal and state agencies as potentially occurring on the Davison Ranch property, 21 are considered likely to occur with some regularity, 41 may occur occasionally, and the remaining five are unlikely to occur (Table E-2).

Cultural Resources

The Davison Ranch property has not been surveyed for cultural resources. No sites have been recorded there, however, a small site was observed during a recent reconnaissance of the property (SWCA 1995a). This artifact cluster is located on a sloping bench overlooking a deeply incised drainage; it includes more than five flakes and an unshaped handstone that is pecked and ground on one side. A tabular knife was noted a few tens of meters away, on the opposite side of the drainage.

Table E-2. Special-Status Species Potentially Occurring on the Davison Ranch Property, Pima County, Arizona

| Species' Common Name | Scientific Name | Status* |
|-------------------------------|---|----------|
| Species That May Occur | | |
| American peregrine falcon | <i>Falco peregrinus anatum</i> | WSCA |
| Bartram stonecrop | <i>Graptopetalum bartramii</i> | SS, SR |
| Big free-tailed bat | <i>Nyctinomops macrotis</i> | SS, WSCA |
| Desert pupfish | <i>Cyprinodon macularius</i> | E, WSCA |
| Ferruginous hawk | <i>Buteo regalis</i> | WSCA |
| Fringed myotis | <i>Myotis thysanodes</i> | SS |
| Gila topminnow | <i>Poeciliopsis occidentalis occidentalis</i> | E, WSCA |
| Huachuca golden aster | <i>Heterotheca rutteri</i> | SS |
| Lesser long-nosed bat | <i>Leptonycteris curasoae yerbabuena</i> | E, WSCA |
| Loggerhead shrike | <i>Lanius ludovicianus</i> | SS |
| Longfin dace | <i>Agosia chrysogaster</i> | SS |
| Mexican garter snake | <i>Thamnophis eques</i> | SS, WSCA |
| Mexican long-tongued bat | <i>Choeronycteris mexicana</i> | SS, WSCA |
| Northern gray hawk | <i>Asturina nitida maxima</i> | SS, WSCA |
| Pocketed free-tailed bat | <i>Nyctinomops femorosaccus</i> | SS |
| Santa Cruz beehive cactus | <i>Coryphantha recurvata</i> | SS, HS |
| Small-footed myotis | <i>Myotis ciliolabrum</i> | SS |
| Sonoran desert tortoise | <i>Gopherus agassizii</i> | SS, WSCA |

Table E-2. Special-Status Species Potentially Occurring on the Davison Ranch Property, Pima County, Arizona

| Species' Common Name | Scientific Name | Status* |
|----------------------------------|---|----------|
| Southwestern willow flycatcher | <i>Empidonax traillii extimus</i> | E, WSCA |
| Speckled dace | <i>Rhinichthys osculus</i> | SS |
| Western burrowing owl | <i>Athene cunicularia hypugea</i> | SS |
| Species Unlikely to Occur | | |
| Acuna cactus | <i>Echinomastus erectocentrus acunensis</i> | C, HS |
| Allen's (Mexican) big-eared bat | <i>Idionycteris phyllotis</i> | SS |
| Arizona giant sedge | <i>Carex spissa var. ultra</i> | SS |
| Bald eagle | <i>Haliaeetus leucocephalus</i> | T, WSCA |
| California brown pelican | <i>Pelicanus occidentalis</i> | E |
| Cactus ferruginous pygmy-owl | <i>Glaucidium brasilianum cactorum</i> | E, WSCA |
| California leaf-nosed bat | <i>Macrotus californicus</i> | SS, WSCA |
| Canyon spotted whiptail | <i>Cnemidophorus burti</i> | SS |
| Cave myotis | <i>Myotis velifer</i> | SS |
| Chiricahua leopard frog | <i>Rana chiricahuaensis</i> | T, WSCA |
| Chuckwalla | <i>Sauromalus obesus</i> | SS |
| Desert sucker | <i>Catostomus (Pantosteus) clarki</i> | SS |
| Gentry Indigobush | <i>Dalea tentaculoides</i> | SS, HS |
| Gila chub | <i>Gila intermedia</i> | PE, WSCA |
| Gooddings onion | <i>Allium gooddingii</i> | CA, HS |
| Huachuca milk vetch | <i>Astragalus hypoxylus</i> | SS |
| Huachuca water umbel | <i>Lillaeopsis schaffneriana ssp. recurva</i> | E, HS |
| Kearney's blue star | <i>Amsonia kearneyana</i> | E, HS |
| Loach minnow | <i>Tiaroga cobitis</i> | T, WSCA |
| Long-legged myotis | <i>Myotis volans</i> | SS |
| Masked bobwhite | <i>Colinus virginianus</i> | E, WSCA |

Table E-2. Special-Status Species Potentially Occurring on the Davison Ranch Property, Pima County, Arizona

| Species' Common Name | Scientific Name | Status* |
|--|--|----------|
| Mexican gray wolf | <i>Canis lupus baileyi</i> | E, WSCA |
| Mexican spotted owl | <i>Strix occidentalis lucida</i> | T, WSCA |
| Nichol's Turk's head cactus | <i>Echinocactus horizonthalonius</i> var. <i>nicholii</i> | E, HS |
| Occult little brown bat | <i>Myotis lucifugus occultus</i> | SS |
| Ocelot | <i>Leopardus (Felis) pardalis</i> | E, WSCA |
| Pima pineapple cactus | <i>Coryphantha scheerii robustispina</i> | E, HS |
| Rosy boa | <i>Lichanura trivirgata</i> | SS |
| San Xavier tallussnail | <i>Sonorella macrophallus</i> | CA |
| Santa Cruz striped agave | <i>Agave parviflora</i> ssp. <i>parviflora</i> | SS, HS |
| Sonora sucker | <i>Catostomus insignis</i> | SS |
| Sonoyta mud turtle | <i>Kinosternon sonoriense longifemorale</i> | C |
| Spikedace | <i>Meda fulgida</i> | T, WSCA |
| Sonoran pronghorn | <i>Antilocarpa americana</i> | E, WSCA |
| Spotted bat | <i>Euderma maculatum</i> | SS, WSCA |
| Texas purple spike | <i>Hexalectris warnockii</i> | SS, HS |
| Texas horned lizard | <i>Phrynosoma cornutum</i> | SS |
| Tumamoc globeberry | <i>Tumamoca macdougalii</i> | SS, SR |
| Underwood's mastiff bat | <i>Eumops underwoodi</i> | SS |
| White-faced ibis | <i>Plegadis chihi</i> | SS |
| Yellow-billed cuckoo | <i>Coccyzus americanus occidentalis</i> | C, WSCA |
| Likelihood of Occurrence is Unknown | | |
| Balloonvine | <i>Cardiospermum corindum</i> | SS |
| Chisos Mountain coralroot | <i>Hexalectris revoluta</i> | SS |
| Cocherell's striate disc | <i>Discus shemeki cockerelli</i> | SS |
| Dallhouse spleenwort | <i>Asplenium (Ceteracach) dalhousiae</i> | SS |

Table E-2. Special-Status Species Potentially Occurring on the Davison Ranch Property, Pima County, Arizona

| Species' Common Name | Scientific Name | Status* |
|--|-------------------------|---------|
| Santa Rita Mountains chlorochroan bug | <i>Chlorochroa rita</i> | SS |

* Status Key: E = Federal Endangered; T = Federal Threatened; PE = Proposed Endangered; C = Candidate; SS = BLM Sensitive Species; WSCA = Wildlife of Special Concern in Arizona (AGFD 1996); SR = Salvage Restricted (under Arizona Native Plant Law); HS = Highly Safeguarded.

Although no sites have been recorded within a mile or so of the Davison Ranch property, several dozen sites have been recorded 2 -5 mi to the west, in the Santa Rita Mountains. They include Archaic period hunting-and-gathering sites, Hohokam (Formative period) habitations, and Historical period sites (Ferg et al. 1984; Huckell 1984). The Archaic sites are in hilly country like that of the Davison property, which would suggest that similar, archaeologically significant Archaic sites could be found on the property. The small site discovered during the reconnaissance visit may, for example, date to the Archaic period. Historical period mining sites may be present as well (SWCA 1995a).

Socioeconomic Resources

The Davison property generated \$499.72 in private property taxes for Pima County in 1996. Currently there is a grazing lease that generates roughly \$150/lease-year for PD.

LEHNER RANCH PROPERTY

This 60-acre property is situated on the floodplain of the San Pedro River about one mile south of the community of Hereford in Cochise County, Arizona. Elevation varies little, averaging about 4,200 ft above msl (Zenitech 1997). Several small, entrenched arroyos drain the property to the east.

Land Use

The Lehner Ranch property is owned by PD but lies within the perimeter of one of Arizona's two congressionally-designated Riparian National Conservation Areas (RNCAs), the San Pedro RNCA. This 56,100-acre, 36-mi -long RNCA is recognized by BLM for its richness in scenic, historic, prehistoric cultural resources, wildlife, riparian, and recreational values. Additionally, the RNCA is listed in the recovery plan for the endangered northern Aplomado falcon as a potential release site for reestablishment of the species. The Lehner Ranch property appears to have some characteristics that might make it suitable for this species.

This property, one of about a dozen private inholdings within the perimeter of the RNCA, is nearly surrounded by public land administered by the BLM. Adjoining public land includes the Lehner Mammoth Kill Site National Historic Landmark, an important cultural resource developed by the BLM as an interpretive site. Adjoining

non-public land is limited to a single, private, 8.7-acre inholding that includes the original Lehner ranch house. Figure E-2 shows the Lehner Ranch property and surrounding land ownership.

Located near the southern end of the RNCA, the Lehner Ranch property is accessible via the dirt road leading to the Mammoth Kill Interpretive Site off of the county road between Hereford and Palominas, Arizona. Because the property is privately-owned, no public recreational use is authorized. Potential recreational uses on this property might include, but would not be limited to, camping, hiking, bird and wildlife watching, environmental education and interpretation, and horseback riding.

At this time, the Lehner Ranch property is not grazed. However, it appears to have been grazed in the recent past, and is fenced and has water development for livestock. A low-voltage electric power line runs to the property and to a water well at the south end of the property; however, no utilities easements or rights-of-way encumber this property.

PD owns the subsurface estate (mineral rights). No surface water rights have been filed for this property.

No formal visual quality analysis has been completed for the Lehner Ranch property, but resources that define its visual quality include scenic views on all sides of distant mountain ranges as seen across a broad expanse of grassland. Toward the east, the grassland is broken by the linear cottonwood-willow forest that snakes along the San Pedro River. The visual quality of the property itself is characterized by moderately vegetated, flat terrain with some entrenched gullies. Human modifications include a dry, man-made pond; an irrigation pump; and irrigation canals. According to the San Pedro River Riparian Management Plan and Environmental Impact Statement (Final) (p. 34), "Designation of visual resource management classes has not occurred on the public lands in the San Pedro EIS area." However, BLM-administered lands in the immediate vicinity of the Lehner Ranch property, like the property itself, have been previously disturbed and would most likely meet the criteria for VRM Class III (D. Morgan, BLM Sierra Vista Field Office, pers. comm. 1997). The management objective of Class III is to *partially retain* the existing character of the landscape. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape (BLM 1991, 1994b).

Physical Resources

The Lehner Ranch property consists primarily of Holocene to latest Pleistocene alluvial and fluvial deposits derived in part from late Paleozoic sedimentary rocks from mountain ranges bordering the San Pedro Valley. Observations from on-site examination of surface soils indicated fine-grained fluvial material, predominantly sands and silts (Zenitech 1997). The potential for the occurrence of mineral resources on this property is summarized below in Table E-3.

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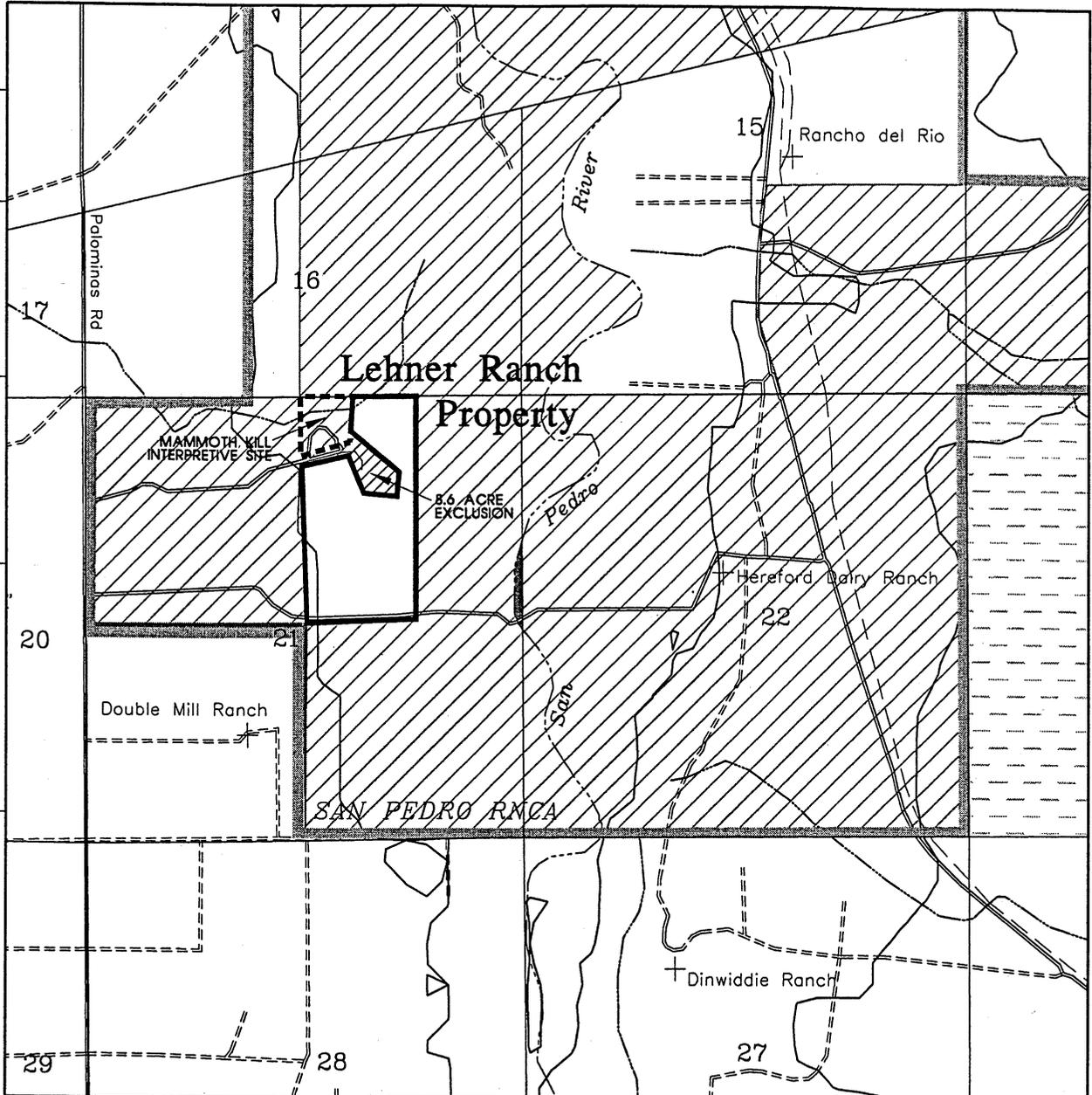
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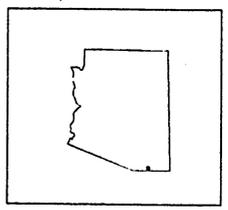
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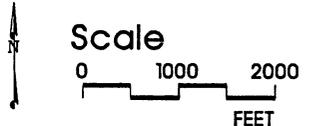
KEY

- ROADS
- DIRT ROADS
- MAJOR DRAINAGE
- EPHEMERAL DRAINAGES
- PROPERTY BOUNDARY
- RNCA BOUNDARY
- MAMMOTH KILL INTERPRETIVE SITE
- BLM LAND
- STATE LAND
- PRIVATE LAND

LOCATION MAP



USGS 7.5' QUADRANGLE:
HEREFORD, ARIZ.



DOS POBRES/SAN JUAN PROJECT

Cochise County, Arizona T.20S,R.18E

LEHNER RANCH PROPERTY
OFFERED LANDS

FIGURE E-2

Table E-3. Summary of Mineral Potential of the Lehner Ranch Property

| Mineral Resource | Potential | Level of Certainty |
|---|-----------|--------------------|
| Coal, Oil & Gas, Sodium & Potassium | Low | C |
| Uranium & Thorium | Low | C |
| Geothermal Resources | Low | C |
| Locatable Metallic Minerals | Low | C |
| Non-Metallic Minerals/Industrial Minerals | Low | C |
| Common Variety Minerals (Sand & Gravel) | Low | B |

Source: D.E. Wahl 1997

Biological Resources

Vegetation on the Lehner Ranch property is characteristic of an old field or pasture that is recovering with native vegetation and will become either grassland or mesquite bosque. The original condition of the property was probably sacaton grassland or mesquite bosque, possibly some of both, which can be classified as Semidesert Grassland, *Sporobolus wrightii-Prosopis juliflora* Association. It includes, on the east half, a currently inactive irrigated field or pasture that has been succeeded by a mixture of native grasses, some non-native species, and several species of forbs. Small mesquite trees (<6 ft tall) and some white-thorn acacia dot the pasture. The west half of the property is a dense grove of small (10-15 ft tall), young mesquite trees forming a young bosque grading out into the pasture. Most of the plant species occurring in the pasture also are in the bosque, in openings between or under trees. Species observed included mesquite, sacaton, white-thorn acacia, Rothrock grama grass, devils-claws, narrow-leafed yucca, Palmer amaranth, crabgrass, range ratany, summer poppy, buffalo-gourd, silverleaf nightshade, morning glory, horse-purslane, woolly tidestromia, Russian thistle, three-awn grasses, desert broom, cane cholla, castor bean, desert zinnia, plains bristlegrass, and other grasses (SWCA 1996d).

No clear demarcation of species is evident between bosque and pasture, but relative density and size gradually changes, with mesquites becoming denser and larger west of the irrigation ditch. No distinct primary natural riparian or upland community exists on the property. The entire property appears to have been disturbed by human activities in the past. Remains of large dead cottonwood trees are present around the dry pond and their location suggests that they were intentionally planted. Plant species observed at the pond include bulrush, jungle rice, spikerush, Fremont cottonwood, and desert broom, most of which were dead or dying for lack of water (SWCA 1996d).

There are no natural wetlands on the property. The dry, artificial pond may be interpreted as a man-made former wetland. Although it apparently has not held water for some time and its only apparent source of water is a well, remnant vegetation and soils appear to be characteristic of ponds and wetlands (SWCA 1996d).

Wildlife observed included desert grassland whiptail, desert spiny lizard, desert box turtle, eastern fence lizard, curve-billed thrasher, mourning dove, northern cardinal, northern mockingbird, vermilion flycatcher, song

sparrow, red-tailed hawk, house finch, Gila woodpecker, Gambel's quail, loggerhead shrike, collared peccary, round-tailed ground squirrel, coyote, and white-throated woodrat (SWCA 1996d).

Of 73 special interest species identified by federal and state agencies as potentially occurring on the Lehner Ranch property, 18 is considered likely to occur with some regularity, 50 may occur occasionally, and the remaining five are unlikely to occur (Table E-4).

Cultural Resources

Archaeologists were first drawn to the Lehner Ranch in 1952 after the discovery of deeply buried bones by the rancher. Excavations uncovered one of the most extensive Clovis Culture sites ever documented (Haury, Sayles, and Wasley 1959). The portion of the ranch containing the site is now administered by the BLM as the Lehner Mammoth Kill Site National Historic Landmark. In 1968, most or all of the ranch was included in the survey area for the proposed Charleston Reservoir. Although Kayser (1968:1) describes the Charleston survey as "an intensive search for all possible sites," by today's standards the study would probably qualify as a reconnaissance. The Charleston study located two sites near the offered property. During a recent visit to the property, archaeologists noted one site (a large area of fire-cracked rock in association with lithic artifacts) and three isolated artifacts (a San Pedro point from the Late Archaic period, a plainware sherd, and a concentration of fire-cracked rock about three ft in diameter) (SWCA 1996a). The potential for significant archaeological remains on the property is good.

Socioeconomic Resources

The Lehner property, taxed as Vacant Land, generated \$2,456 in private property taxes for Cochise County in 1996. Currently, no grazing leases have been signed for this property.

LINCOLN RANCH PROPERTY

This property consists of 1,000 acres south of the Bill Williams River in La Paz County in western Arizona. It occupies much of Reid Valley, a pocket of nearly level to gently sloping, primarily agricultural land surrounded by badlands. Elevations range from 860 to 1,060 ft above msl.

Land Use

The property is completely surrounded by BLM-administered public land, borders the BLM's 38,470-acre Rawhide Mountains Wilderness, and is approximately six miles downstream of Alamo Lake State Park. Resource values of the Wilderness include a predominantly natural environment with human imprints largely unnoticeable, a highly productive riparian wildlife habitat, and scenery characterized by colorful bluffs and riparian vegetation. The BLM manages the Wilderness to provide for the long-term protection and preservation of the area's wilderness character. Specific management objectives include providing opportunities for solitude and primitive and unconfined recreation, including hiking, backpacking, river running, birdwatching, sightseeing, and photography (C. Bobinski, BLM Lake Havasu Field Office, pers. Comm. 1997). Figure E-3 shows the property in relation to surrounding land ownership.

This property is accessible via two public roads: 1) Lincoln Ranch Road, a county-maintained road that runs north, northeast from the community of Bouse (on State Highway 72), a distance of about 30.0 mi; and 2) a four-wheel drive dirt road that follows the El Paso Natural Gas Line northwest from the community of Wenden (on U.S. Highway 60), a distance of about 35 mi.

Because the property is privately-owned, no recreational uses are authorized. Potential public recreational uses include, but are not limited to, hiking, backpacking, river-running, birdwatching, and photography. Three segments of the Bill Williams River (totalling 19 mi) flowing just north of and parallel to the northern boundary of this property have been recommended for inclusion in the National Wild and Scenic River System. These segments, which total 4,650 acres, are recommended for designation as "wild" (M. Henderson, BLM Havasu Field Office, pers. comm. 1996; Wild & Scenic Rivers EIS, Appendix 1).

The Lincoln Ranch property falls within the Primrose allotment, an ephemeral grazing allotment encompassing 106,569 acres. The property has not been grazed for at least eight years. Incidental grazing likely occurs, as wild burros roam the adjacent federal lands, and the property is not completely fenced. The primary land use currently is and historically has been agriculture, particularly cotton production. Other encumbrances associated with this property include a gas main easement with access road for El Paso Natural Gas Company (PD 1996).

The subsurface mineral rights are owned by the Santa Fe Pacific Railroad and two former property owners. Two surface water rights, each for 7,500.0 af/yr from Bill Williams River, have been filed for this property by PD Corporation, respectively, for irrigation purposes.

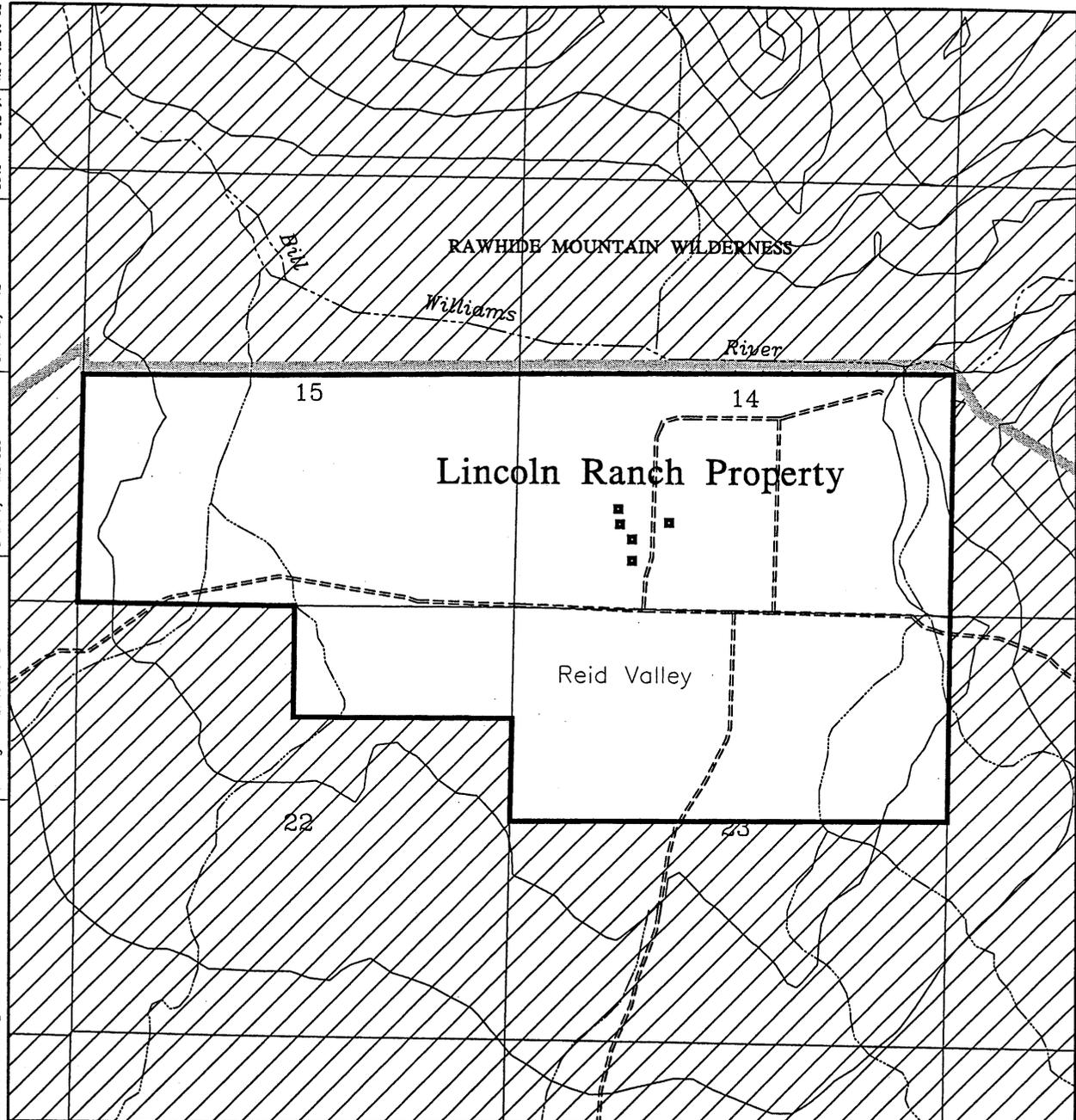
No formal visual quality analysis was completed for this property; however, some natural resource elements of the property which define its visual quality include irrigated cotton fields, rugged mountain landscapes, steep hillsides dotted with saguaro cacti, and views of adjoining riparian vegetation along the Bill Williams River. Evidence of human modification on the property is extensive. In addition to the fields, the property contains several ranch buildings, including residences, a barn, and various outbuildings; a corral complex; an irrigation system with pumps; wells; fences; and ranch roads.

The adjacent Rawhide Mountains Wilderness is categorized as VRM Class I, in which the objective is to preserve the existing character of the landscape by allowing only very limited management activity. The level of change should be very low and it must not attract attention. The remaining adjacent BLM-administered lands have not yet been classified (C. Bobinski, BLM Lake Havasu Field Office, pers. comm. 1997).

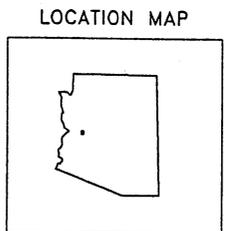
Physical Resources

No evaluation of the mineral potential of this property was conducted, although the remains of a stamp mill dating between 1920 and 1945 was found on the property, along with a small pile of copper-bearing ore (SWCA 1996a). The apparent source of that ore, a small, abandoned mine, is located just outside the property boundary.

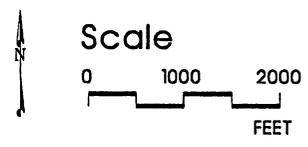
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- KEY**
- BUILDING
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 - PROPERTY BOUNDARY
 - - - - - MAJOR DRAINAGE
 - · — · — EPHEMERAL DRAINAGES
 - ▨ WILDERNESS BOUNDARY
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 - PRIVATE LAND



USGS 7.5' QUADRANGLE:
REID VALLEY, ARIZ.



DOS POBRES/SAN JUAN PROJECT
 La Paz County, Arizona T.10NR.14W.
 LINCOLN RANCH PROPERTY
 OFFERED LANDS
 FIGURE E-3

Table E-4. Special Interest Species Potentially Occurring on the Lehner Property, Cochise County, Arizona

| Species' Common Name | Scientific Name | Status* |
|----------------------------------|---|----------|
| Species That May Occur | | |
| Baird's sparrow | <i>Ammodramus bairdii</i> | WSCA |
| Bald eagle | <i>Haliaeetus leucocephalus</i> | T, WSCA |
| Big free-tailed bat | <i>Nyctinompos macrotis</i> | SS |
| Canyon spotted whiptail | <i>Cnemidophorus burti</i> | SS |
| Ferruginous hawk | <i>Buteo regalis</i> | WSCA |
| Fringed myotis | <i>Myotis thysanodes</i> | SS |
| Lesser long-nosed bat | <i>Leptonycteris curasoae yerbabuenae</i> | E, WSCA |
| Loggerhead shrike | <i>Lanius ludovicianus</i> | SS |
| Long-legged myotis | <i>Myotis volans</i> | SS |
| Lowland leopard frog | <i>Rana yavapaiensis</i> | WSCA |
| Mexican garter snake | <i>Thamnophis eques</i> | WSCA |
| Northern gray hawk | <i>Asturina nitida maxima</i> | SS, WSCA |
| Pocketed free-tailed bat | <i>Nyctinomops femorosaccus</i> | SS |
| Rosy boa | <i>Lichanura trivirgata</i> | SS |
| Texas horned lizard | <i>Phrynosoma cornutum</i> | SS |
| Tumamoc globeberry | <i>Tumamoca macdougalii</i> | SS, SR |
| Western burrowing owl | <i>Athene cunicularia hypugea</i> | SS |
| Yellow-billed cuckoo | <i>Coccyzus americanus occidentalis</i> | C, WSCA |
| Species Unlikely to Occur | | |
| Allen's (Mexican) big-eared bat | <i>Idionycteris phyllotis</i> | SS |
| American peregrine falcon | <i>Falco peregrinus anatum</i> | WSCA |
| Arizona giant sedge | <i>Carex spissa var. ultra</i> | SS |
| Bartram's stonecrop | <i>Graptopetalum bartramii</i> | SS, SR |
| Beautiful shiner | <i>Cyprinella formosa</i> | T, WSCA |
| Black-tailed prairie dog | <i>Cynomys ludovicianus</i> | C, WSCA |
| California brown pelican | <i>Pelicanus occidentalis</i> | E |
| Cactus ferruginous pygmy-owl | <i>Glaucidium brasilianum</i> | E, WSCA |
| California leaf-nosed bat | <i>Macrotus californicus</i> | SS, WSCA |
| Canelo hills ladies' tresses | <i>Spiranthes delitescens</i> | E, HS |
| Cave myotis | <i>Myotis velifer</i> | SS |
| Chiricahua leopard frog | <i>Rana chiricahuaensis</i> | T, WSCA |
| Chuckwalla | <i>Sauromalus obesus</i> | SS |
| Cochise pincushion cactus | <i>Coryphantha robbinsorum</i> | T, HS |
| Desert sucker | <i>Catostomus (Pantosteus) clarki</i> | SS |
| Gentry Indigobush | <i>Dalea tentaculoides</i> | SS, HS |
| Gila chub | <i>Gila intermedia</i> | PE, WSCA |

Table E-4. Special Interest Species Potentially Occurring on the Lehner Property, Cochise County, Arizona

| Species' Common Name | Scientific Name | Status* |
|--|--|----------|
| Huachuca milk vetch | <i>Astragalus hypoxylus</i> | SS |
| Huachuca water umbel | <i>Lillaeopsis schaffneriana</i> ssp. <i>recurva</i> | E, HS |
| Huachuca springsnail | <i>Pyrgulopsis thompsoni</i> | C |
| Huachuca golden aster | <i>Heterotheca rutteri</i> | SS |
| Jaguar | <i>Panthera onca</i> | E |
| Lemmon fleabane | <i>Erigeron lemmonii</i> | C |
| Loach minnow | <i>Tiaroga cobitis</i> | T, WSCA |
| Longfin dace | <i>Agosia chrysogaster</i> | SS |
| Mexican gray wolf | <i>Canis lupus baileyi</i> | E, WSCA |
| Mexican spotted owl | <i>Strix occidentalis lucida</i> | T, WSCA |
| Mexican long-tongued bat | <i>Choeronycteris mexicana</i> | SS, WSCA |
| Mountain plover | <i>Charadrius montanus</i> | PT |
| New Mexican ridge-nosed rattlesnake | <i>Crotalus willardi obscurus</i> | T, WSCA |
| Northern aplomado falcon | <i>Falco femoralis</i> | E, WSCA |
| Occult little brown bat | <i>Myotis lucifugus occultus</i> | SS |
| Ocelot | <i>Leopardus (Felis) pardalis</i> | E, WSCA |
| Ramsey canyon leopard frog | <i>Rana subaquavocalis</i> | CA, WSCA |
| Santa Cruz striped agave | <i>Agave parviflora</i> ssp. <i>parviflora</i> | SS, HS |
| Santa Cruz beehive cactus | <i>Coryphantha recurvata</i> | SS, HS |
| Small-footed myotis | <i>Myotis ciliolabrum</i> | SS |
| Sonora tiger salamander | <i>Ambystoma tigrinum stebbinsi</i> | E, WSCA |
| Sonora sucker | <i>Catostomus insignis</i> | SS |
| Sonoran desert tortoise | <i>Gopherus agassizii</i> | SS, WSCA |
| Southwestern willow flycatcher | <i>Empidonax traillii extimus</i> | E, WSCA |
| Speckled dace | <i>Rhinichthys osculus</i> | SS |
| Spikedace | <i>Meda fulgida</i> | T, WSCA |
| Spotted bat | <i>Euderma maculatum</i> | SS, WSCA |
| Texas purple spike | <i>Hexalectris warnockii</i> | SS, HS |
| Underwood's mastiff bat | <i>Eumops underwoodi</i> | SS |
| White-faced ibis | <i>Plegadis chihi</i> | SS |
| Whooping crane | <i>Grus americana</i> | E |
| Yaqui catfish | <i>Ictalurus pricei</i> | T, WSCA |
| Yaqui chub | <i>Gila purpurea</i> | E, WSCA |
| Yaqui topminnow | <i>Poeciliopsis occidentalis sonoriensis</i> | E, WSCA |
| Likelihood of Occurrence is Unknown | | |
| Balloonvine | <i>Cardiospermum corindum</i> | SS |
| Chisos Mountain coralroot | <i>Hexalectris revoluta</i> | SS |

Table E-4. Special Interest Species Potentially Occurring on the Lehner Property, Cochise County, Arizona

| Species' Common Name | Scientific Name | Status* |
|---------------------------------------|--|---------|
| Cocherell's striate disc | <i>Discus shemeki cockerelli</i> | SS |
| Dallhouse spleenwort | <i>Asplenium (Ceteracach) dalhousiae</i> | SS |
| Santa Rita Mountains chlorochroan bug | <i>Chlorochroa rita</i> | SS |

*Status Key: E = Federal Endangered; T = Federal Threatened; PE = Proposed Endangered; C= Candidate; SS = BLM Sensitive Species; WSCA = Wildlife of Special Concern in Arizona (AGFD 1996); SR = Salvage Restricted (under Arizona Native Plant Law); HS = Highly Safeguarded.

Source: SWCA 1996d.

Biological Resources

Vegetation on the property consists primarily of irrigated cotton fields and fallow, abandoned fields. Along major irrigation ditches, tall Fremont cottonwood trees provided windbreaks and wildlife habitat. Dense hedges of mesquite, tamarisk, blue paloverde and catclaw acacia surround most of the fields on the south, east, and west sides along fences. Mesquite, lens scale, catclaw acacia, desert ironwood, desert willow and burro brush are abundant in undisturbed flats and washes, forming a Mesquite-mixed tree Association. The original native vegetation over most of the flat is gone. Most likely it was either a Mesquite-mixed tree Xeroriparian Woodland Association or, at least in part, a Cottonwood-willow Riparian Woodland Association grading into Mesquite-mixed tree Xeroriparian Woodland. Vegetation on the surrounding ridges is typical of western examples of Saguaro-Paloverde association of the Arizona Upland division of the Sonoran Desertscrub biome. Plant species observed in this association included saguaro, foothills paloverde, creosote bush, ocotillo, barrel cactus, teddy bear cholla, buckhorn cholla, beavertail cactus, brittlebush, range ratany, white bursage, and hedgehog cactus (SWCA 1996d).

Wildlife observed on the property included western whiptail lizard, house sparrow, mourning dove, black phoebe, western kingbird, house finch, red-winged blackbird, brown-headed cowbird, Gambel's quail, white-winged dove, Gila woodpecker, western kingbird, ladder-backed woodpecker, purple martin, greater roadrunner, red-tailed hawk, turkey vulture, northern harrier, black-tailed jackrabbit, desert cottontail, and Harris' antelope squirrel. Tracks, droppings, and feeding damage of feral burros were abundant, and several burros were seen adjacent to the property. Bat droppings on a building porch indicate that this structure is frequently used as a night roost, probably by pallid bats (SWCA 1996d).

Of 34 special interest species identified by federal and state agencies as potentially occurring on the Lincoln Ranch property, 25 are considered likely to occur with some regularity, and the remaining eight are unlikely to occur (Table E-5).

Cultural Resources

Based on an ASM files check, no intensive surveys and no recorded archaeological sites are known within one mile of the Lincoln Ranch property. Results from archaeological projects in the general area (e.g., Rogge 1994) indicate that sites tend to be sparse in this part of Arizona. During a recent, brief archaeological reconnaissance, one Historical period site (the stamp mill and an associated ditch) on the property and one

just off the property (the mine complex) were noted and considered to be eligible for inclusion in the National Register (SWCA 1996a). The ranch headquarters may also include elements that are of historical and architectural interest.

Socioeconomic Resources

This property, taxed Agricultural/Ranch land, generated \$3,602 in private property taxes for La Paz County in 1996. Currently, there is an agricultural lease agreement in place for this property that yields \$30,000 per lease-year to PD.

Table E-5. Special Interest Species Potentially Occurring on the Lincoln Ranch Property, La Paz County, Arizona

| Species' Common Name | Scientific Name | Status* |
|--|---|----------|
| Species That May Occur | | |
| Allen's (Mexican) big-eared bat | <i>Idionycteris phyllotis</i> | SS |
| American peregrine falcon | <i>Falco peregrinus</i> | WSCA |
| Bald eagle | <i>Haliaeetus leucocephalus</i> | T, WSCA |
| Big free-tailed bat | <i>Nyctinomops macrotis</i> | SS, WSCA |
| Bonytail chub | <i>Gila elegans</i> | E, SS |
| California brown pelican | <i>Pelicanus occidentalis</i> | E |
| California leaf-nosed bat | <i>Macrotus californicus</i> | SS, WSCA |
| Cave myotis | <i>Myotis velifer</i> | SS |
| Chuckwalla | <i>Sauromalus obesus</i> | SS |
| Desert rosy boa | <i>Charina trivirgata gracia</i> | SS |
| Ferruginous hawk | <i>Buteo regalis</i> | WSCA |
| Loggerhead shrike | <i>Lanius ludovicianus</i> | SS |
| Long-legged myotis | <i>Myotis volans</i> | SS |
| Lowland leopard frog | <i>Rana yavapaiensis</i> | WSCA |
| MacNeill sooty wing skipper | <i>Hesperopsis gracieae</i> | SS |
| Mountain plover | <i>Charadrius montanus</i> | PT, SS |
| Occult little brown bat (Arizona myotis) | <i>Myotis lucifugus occultus</i> | SS |
| Razorback sucker | <i>Xyrauchen texanus</i> | E, SS |
| Sonoran desert tortoise | <i>Gopherus agassizii</i> | SS WSCA |
| Southwestern willow flycatcher | <i>Empidonax traillii extimus</i> | E, WSCA |
| Spotted bat | <i>Euderma maculatum</i> | SS |
| Western burrowing owl | <i>Athene cunicularia hypugea</i> | SS |
| Western red bat | <i>Lasiurus blossevillii</i> | WSCA |
| White-faced ibis | <i>Plegadis chihi</i> | SS |
| Yellow-billed cuckoo | <i>Coccyzus americanus occidentalis</i> | C, WSCA |
| Yuma Clapper Rail | <i>Rallus longirostris yumanensis</i> | E, SS |

Table E-5. Special Interest Species Potentially Occurring on the Lincoln Ranch Property, La Paz County, Arizona

| Species' Common Name | Scientific Name | Status* |
|--|---|----------|
| Species Unlikely to Occur | | |
| Banded Gila monster (only pops. N&W of Colorado River) | <i>Heloderma suspectum cinctum</i> | SS |
| Desert pupfish | <i>Cyprinodon macularius</i> | E, WSCA |
| Fringed myotis | <i>Myotis thysanodes</i> | SS |
| Gila topminnow | <i>Poeciliopsis occidentalis occidentalis</i> | E, WSCA |
| Longfin dace | <i>Agosia chrysogaster</i> | SS |
| Mexican long-tongued bat | <i>Choeronycteris mexicana</i> | SS, WSCA |
| Small-footed myotis | <i>Myotis ciliolabrum</i> | SS |
| Scaly sand food | <i>Pholisma arenaria</i> | SS |

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