

Draft Environmental Assessment

Design/Build of New Administration Building and Quail Facility at Buenos Aires National Wildlife Refuge



November 2024

Prepared by

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1.0 PURPOSE FOR PROPOSED ACTION

1.1 Introduction

The U.S. Fish and Wildlife Service (Service) is proposing to construct a new building (New Administration Building) as well as a new quail breeding facility (Quail Facility) at the Buenos Aires National Wildlife Refuge (BANWR; refuge). These actions will help fulfill the Service's mission to conserve, protect, and enhance populations of wildlife, plants, and their habitats, while providing wildlife-oriented recreational and educational opportunities for the public (Figure 1).

The new Quail Facility will provide much-needed and updated infrastructure to help meet one of the refuge's goals in conserving the endangered masked bobwhite quail (*Colinus virginianus ridgwayi*). A New Administration Building will help improve the continued administration and management of the refuge which provides habitats or potential habitats for several other listed species. Construction of the New Administration Building will also include the demolition of the existing and outdated administration building.

This Environmental Assessment (EA; 2025-0007963-NEPA-001) is being prepared to evaluate the effects associated with this proposed action and complies with the National Environmental Policy Act (NEPA) in accordance with Council on Environmental Quality regulations (40 CFR 1500-1509) and Department of the Interior (43 CFR 46; 516 DM 8) and U.S. Fish and Wildlife Service (550 FW 3) regulations and policies. NEPA requires examination of the effects of proposed actions on the natural and human environment.

1.2 Background

National wildlife refuges are guided by the mission and goals of the National Wildlife Refuge System (NWRS), the purposes of an individual refuge, Service policy, and laws and international treaties. Relevant guidance includes the National Wildlife Refuge System Administration Act (NWRSA) of 1966, as amended by the National Wildlife Refuge System Improvement Act (NWRZIA) of 1997, Refuge Recreation Act of 1962, and selected portions of the Code of Federal Regulations and Fish and Wildlife Service Manual.

The refuge was established on August 1, 1985 "...to conserve (A) fish or wildlife which are listed as endangered species or threatened species...or (B) plants..." 16 U.S.C. 1534 (Endangered Species Act of 1973) and for the "...development, advancement, management, conservation, and protection of fish and wildlife resources..." 16 U.S.C. 742f(a)(4) (Fish and Wildlife Act of 1956). The primary purpose of the refuge is to provide habitat for threatened and endangered plant and wildlife species, with emphasis on the endangered masked bobwhite quail.

The mission of the NWRS, as outlined by the NWRSA, as amended by the NWRZIA (16 U.S.C. 668dd et seq.), is:

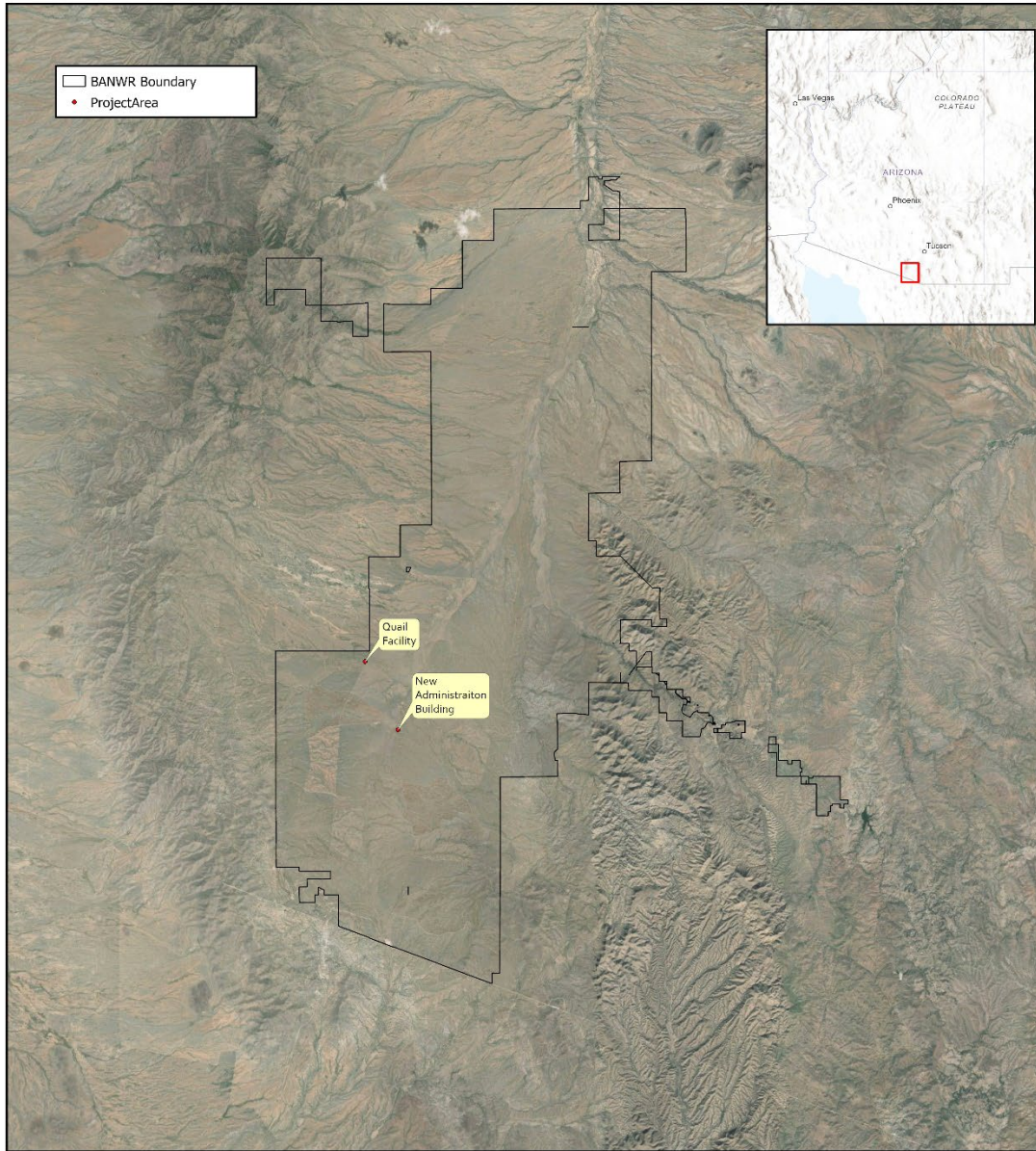
"...to administer a national network of lands and waters for the conservation, management and, where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans."



U.S. Fish & Wildlife Service

Buenos Aires National Wildlife Refuge Pima County, Arizona

Proposed New Masked Bobwhite Quail Rearing Facility and Administration Building



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Figure 1: BANWR vicinity and project area locations.

The “Recovery Plan for the Masked Bobwhite Quail” (USFWS 1978, 1995) recommended that the Buenos Aires Ranch be purchased for the reestablishment of the species. Congress approved the \$4,900,000 needed to purchase the central part of the ranch under the authority of the Endangered Species Act (ESA) of 1973 and the Fish and Wildlife Act of 1956. Since the ranch owners would only sell the entire ranch, an additional \$4,000,000 was approved in 1984. The purchase was finalized in August 1985 when Buenos Aires National Wildlife Refuge was officially established in the Altar Valley of Pima County, Arizona. Approximately 21,000 acres were received in fee title and 90,000 acres were in state leases. Additional parcels were later acquired including land along Arivaca Creek and in Brown Canyon totaling 117,424 acres (USFWS, 2010).

1.3 Purpose and Need for the Proposed Action

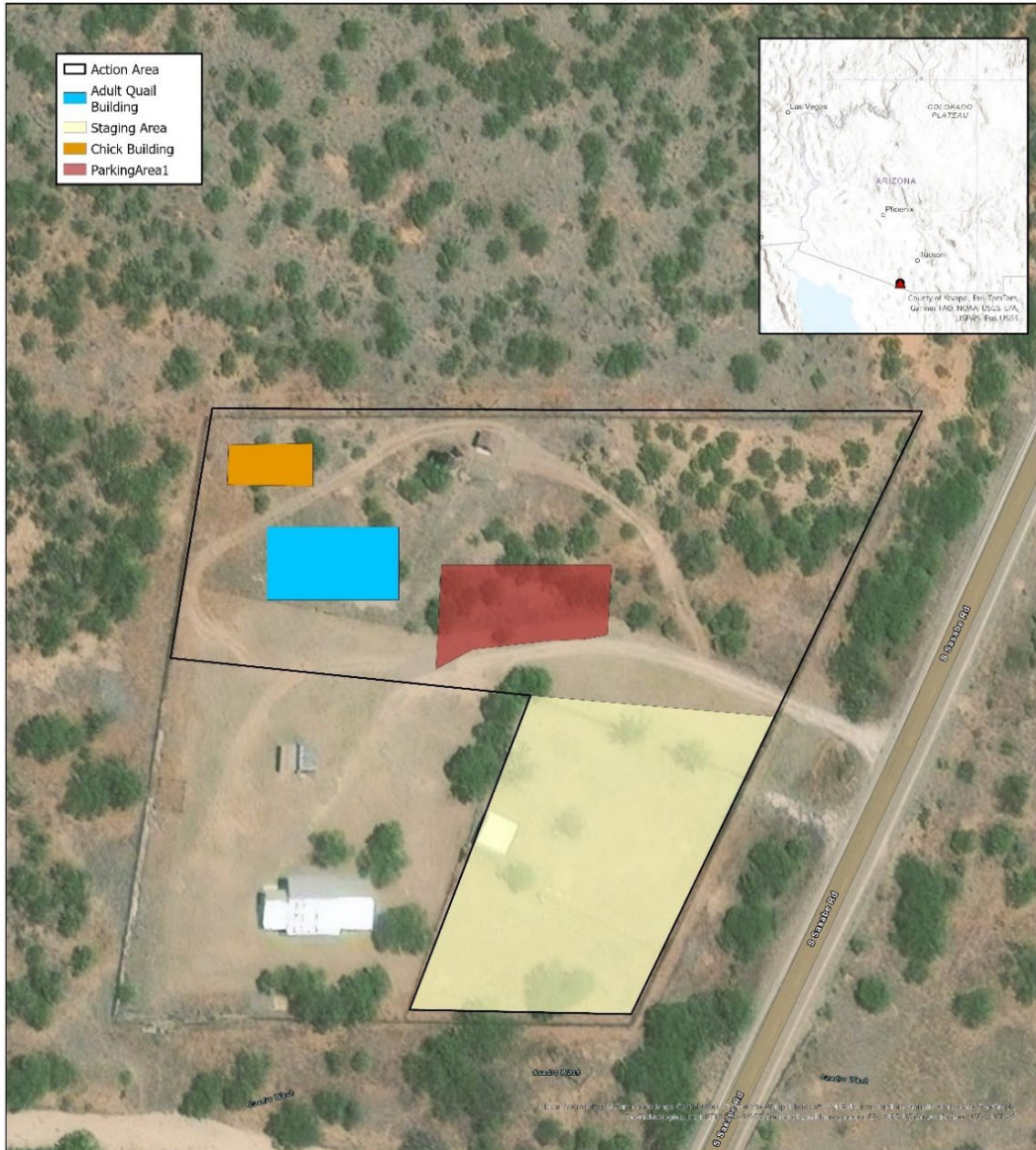
The proposed action is to design and build a new Quail Facility as well as a New Administration Building at the Buenos Aires Wildlife Refuge, Pima County, Arizona. The project will occur at two distinct locations on the refuge. The Quail Facility portion of the project includes constructing two buildings within the footprint of a disturbed area on refuge lands (Figure 2). Meanwhile, the New Administration Building portion of this projects consists of the demolition of one existing building and construction of a new building. The purpose of these actions is to provide the necessary infrastructure for the refuge to meet its goals in recovering the masked bobwhite quail, and also to provide administration facilities that will improve the management of the refuge.

The proposed action (Quail Facility) is needed because the current quail breeding facilities are inadequate to meeting the refuge goals. The current quail breeding facilities are located several miles away near Arivaca, Arizona. Constructing new breeding facilities at a more centralized location on refuge grounds will increase project efficiency while providing new and updated facilities for quail breeding, greatly improving the Service’s ability to meet its goals of species recovery.

The new quail facility will consist of two separate buildings (the “chick” and the “adult” buildings) totaling approximately 8,000 square feet (Figure 2). The function of the quail facility is to house the masked bobwhite quail (MBQ) genetic breeders (about 250 adults), produce, incubate, hatch viable eggs, and to then care for (approximately 300) chicks. The facility would also house 200 juveniles. Design and construction will include all necessary dry and wet utilities, such as, HVAC and control systems, electric, data, radio, security, plumbing, and wastewater.

The other proposed action (New Administration Building) is needed because the current facilities are uninhabitable and a liability for the refuge. The new administration building will be constructed at the refuge’s Main Campus and includes the demolition of the existing administration building, which is approximately 1,400 square feet (Figure 3). Demolition of the existing administration building will include asbestos abatement. The building is in disrepair and a hazard and is no longer meeting its intended use, which was to provide office space for refuge administration.

The New Administration Building will be constructed west of the existing parking and picnic area (Figure 3). The New Administration Building is to be approximately 5,000 square feet heated, and the building design and construction shall include all necessary utilities, to include but not limited to, HVAC and control systems, electric, telephone, data, radio, security systems, plumbing, and wastewater connections and facilities.



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Figure 1453-01

Figure 2: Detail of proposed Quail Facility action area.



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Figure 3: Proposed administration building (and demolition of existing admin building) at the main campus of BANWR.

1.4 Regulatory Compliance

This EA was prepared by the Service and represents compliance with applicable Federal statutes, regulations, Executive Orders, and other compliance documents, including the following:

Cultural Resources

- American Indian Religious Freedom Act, as amended, 42 U.S.C. 1996 – 1996a; 43 CFR Part 7
- Antiquities Act of 1906, 16 U.S.C. 431-433; 43 CFR Part 3
- Archaeological Resources Protection Act of 1979, 16 U.S.C. 470aa – 470mm; 18 CFR Part 1312; 32 CFR Part 229; 36 CFR Part 296; 43 CFR Part 7
- National Historic Preservation Act of 1966, as amended, 16 U.S.C. 470-470x-6; 36 CFR Parts 60, 63, 78, 79, 800, 801, and 810
- Paleontological Resources Protection Act, 16 U.S.C. 470aaa – 470aaa-11
- Native American Graves Protection and Repatriation Act, 25 U.S.C. 3001-3013; 43 CFR Part 10
- Executive Order 11593 – Protection and Enhancement of the Cultural Environment, 36 Fed. Reg. 8921 (1971)
- Executive Order 13007 – Indian Sacred Sites, 61 Fed. Reg. 26771 (1996)

Fish & Wildlife

- Bald and Golden Eagle Protection Act, as amended, 16 U.S.C. 668-668c, 50 CFR 22
- Endangered Species Act of 1973, as amended, 16 U.S.C. 1531-1544; 36 CFR Part 13; 50 CFR Parts 10, 17, 23, 81, 217, 222, 225, 402, and 450
- Fish and Wildlife Act of 1956, 16 U.S.C. 742 a-m
- Lacey Act, as amended, 16 U.S.C. 3371 et seq.; 15 CFR Parts 10, 11, 12, 14, 300, and 904
- Migratory Bird Treaty Act, as amended, 16 U.S.C. 703-712; 50 CFR Parts 10, 12, 20, and 21
- Executive Order 13186 – Responsibilities of Federal Agencies to Protect Migratory Birds, 66 Fed. Reg. 3853 (2001)

Natural Resources

- Clean Air Act, as amended, 42 U.S.C. 7401-7671q; 40 CFR Parts 23, 50, 51, 52, 58, 60, 61, 82, and 93; 48 CFR Part 23
- Wilderness Act, 16 U.S.C. 1131 et seq.
- Wild and Scenic Rivers Act, 16 U.S.C. 1271 et seq.
- Executive Order 13112 – Invasive Species, 64 Fed. Reg. 6183 (1999)

Water Resources

- Federal Water Pollution Control Act of 1972 (commonly referred to as Clean Water Act), 33 U.S.C. 1251 et seq.; 40 CFR Parts 303, 307, 308, 313, 402
- Safe Drinking Water Act of 1974, 42 U.S.C. 300f et seq.; 40 CFR Parts 141-143
- Executive Order 11988 – Floodplain Management, 42 Fed. Reg. 26951 (1977)

The NWRSA mandates the Secretary of the Interior in administering the National Wildlife Refuge System to (16 U.S.C. 668dd(a)(4)):

- Provide for the conservation of fish, wildlife, and plants, and their habitats within the NWRS;
- Ensure that the biological integrity, diversity, and environmental health of the NWRS are maintained for the benefit of present and future generations of Americans;
- Ensure that the mission of the NWRS described at 16 U.S.C. 668dd(a)(2) and the purposes of each refuge are carried out;
- Ensure effective coordination, interaction, and cooperation with owners of land adjoining refuges and the fish and wildlife agency of the States in which the units of the NWRS are located;
- Assist in the maintenance of adequate water quantity and water quality to fulfill the mission of the NWRS and the purposes of each refuge;
- Monitor the status and trends of fish, wildlife, and plants in each refuge.

2.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION ALTERNATIVE

The chapter discusses the alternatives for the construction of a new Quail Facility and New Administration Building at Buenos Aires NWR.

2.1 Alternative A: No Action Alternative

Under the No Action Alternative, the refuge would not design and build a New Administration Building nor construct a new Quail Facility. The refuge would also not demolish the existing administration building. Without these actions, the refuge would not be able to meet the recovery goals identified in the Masked Bobwhite Quail Recovery Plan (USFWS 1978, 1995) due to the space limitations and poor air quality resulting from inappropriate air ventilation at the existing quail facility. Without a New Administration Building, refuge staff will continue to use inadequate and temporary office spaces currently deployed at the refuge. In addition, the existing administration building will remain in place and continue to fall into disrepair, increasing the hazards to both refuge staff and visitors. Any demolition and new construction in the future has the potential to increase costs as this building will continue to deteriorate over time.

2.2 Alternative B: Proposed Action

Under the Proposed Action Alternative (Preferred Alternative), the refuge would demolish the existing administration building then design/build a New Administration Building nearby at the Main Campus of the refuge as well as design/building a new Quail Facility on refuge lands.

The Quail Facility will consist of two separate buildings totaling approximately 8,000 square feet (Figure 2). The “Chick” and the “Adult” buildings. The proposed facility will house the masked bobwhite quail genetic breeders (about 250 adults), produce, incubate, hatch viable eggs, and to then care for (approximately 300) chicks. The facility would also house 200 juveniles. Design and construction shall include all necessary dry and wet utilities, such as, HVAC and control systems, electric, data, radio, security, plumbing, wastewater, and water delivery. Construction of the quail facilities occurs on refuge land. No current structures exist in the proposed location.

The existing administration building, slated for demolition, is approximately 1,400 square feet and is located near the visitor’s center of the refuge. Demolition of the building will include asbestos abatement. The New Administration Building will be constructed on the current footprint of the

parking and picnic area of the Main Campus (Figure 3). The New Administration Building is expected to be approximately 5,000 square feet. Design/build of the New Administration Building will include all necessary utilities, such as, HVAC and control systems, electric, telephone, data, radio, security systems, plumbing, wastewater connections and water delivery.

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This section describes resources that would be affected and the effects of each alternative described in the previous section. For the purpose of development of this EA to evaluate the effects of the Proposed Action, as compared to the No Action Alternative (no design/build of new facilities), all resources within the physical environment, biological resources, and socioeconomic, as well as archeological, cultural, and historic resources were considered in this analysis as to how they might be affected by the demolition of existing building and design/build of new facilities. However, the focus of the analysis of environmental consequences is on resources for which impacts could be more than negligible and therefore considered an “affected resource” or are otherwise important as related to the Proposed Action.

The Buenos Aires National Wildlife Refuge lies within the Altar Valley watershed in southern Arizona. The refuge consists of approximately 183.5 square miles (117,500 acres) that are surrounded by the Las Sierrita mountains and Las Guijas mountains to the northeast and east respectively, the San Luis Mountains to the southeast, and the Boboquivari Mountains creating the western border of the refuge. The elevation within the extremely diverse mixture of habitats within this landscape ranges from about 7,730-feet at Baboquivari Peak in Brown Canyon to 3,500-feet on the refuge grasslands. While the refuge consists primarily of arid grassland habitats, portions of the refuge also includes the riparian and wetlands of Arivaca Creek and Arivaca Ciénega and the uplands and high-elevation habitat of Brown Canyon.

The vegetation on the refuge is dominated by velvet mesquite. Historically, mesquite (*Prosopis* spp.) was considered to be rare in the Altar Valley. However, today it dominates as the overstory woody plant species and has displaced native grasses in over 75 percent of the Altar Valley. Other woody plant species commonly found in these areas include snakeweed (*Gutierrezia microcephala*), fairyduster (*Calliandra eriphylla*) and burroweed (*Isocoma tenuisecta*). In addition to the wide spread distribution of Lehman’s lovegrass (*Eragrostis lehmanniana*), other grass species commonly found include dropseeds (*Sporobolus* spp.), grammas (*Bouteloua* spp.), threeawns (*Aristida* spp.), Arizona cottontop (*Digitaria californica*), and plains lovegrass (*Eragrostis intermedia*).

The refuge supports a wide variety of animals common to the desert southwest. Approximately 325 bird species, 57 species of mammals, and 53 species of reptiles and amphibians occur on the area. Besides the aforementioned masked bobwhite quail, other species of interested that occur in the Valley include Chiricahua leopard frog (*Lithobates chiricahuensis*), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), lesser long-nosed bat (*Leptonycteris c. yerbabuena*), and Pima pineapple cactus (*Coryphantha sheeri robustispina*). See Appendix A: Intra-Service Section 7 Biological Evaluation Form for more details on listed species that occur near the action area.

The refuge attracts local, national, and international visitors and provides some local employment. There are economic resources beneficial to local communities through wildlife-dependent

recreational activities such as hunting, birdwatching, and photography. Through the combination of recreational offerings to visitors to the area and the ongoing rise in nature-based tourism, the refuge creates a significant source of income for southern Arizona. In this way the refuge is providing a visible indicator of the economic benefits provided through preservation. The unique species and their habitats draw visitors to the area, and the educational and recreational opportunities provided lengthens the time visitors spend in the area.

3.1 Affected Environment and Environmental Consequences by Resource

This section analyzes the environmental consequences of the action on each affected resource, including direct and indirect effects.

Impact Types:

- *Direct effects* are those that are caused by the action and occur at the same time and place.
- *Indirect effects* are those that are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.
- *Cumulative impacts* result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions.

This EA includes the written analyses of the environmental consequences on a resource only when the impacts on that resource could be more than negligible and therefore considered an “affected resource” or are otherwise considered important as related to the proposed action. Any resources that will not be more than negligibly impacted by the action and have been identified as not otherwise important as related to the proposed action have been dismissed from further analyses.

3.1.1 Threatened and Endangered Species and Other Special Status Species

There are twelve species listed as threatened or endangered under the Endangered Species Act (ESA) of 1973 (as amended) that occur, or have potential to occur, on the refuge: Sonoran pronghorn (*Antilocapra americana sonoriensis*), jaguar (*Panthera onca*), ocelot (*Leopardus pardalis*), California least tern (*Sternula antillarum bowni*), masked bobwhite quail, Cactus ferruginous pygmy-owl (*Glaucidium brasilianum cactorum*), Southwestern willow flycatcher (*Empidonax traillii extimus*), western yellow-billed cuckoo, Sonoyta mud turtle (*Kinosternon sonoriense longifemorale*), Chiricahua leopard frog, Gila topminnow, Pima pineapple cactus, Arizona eryngo (*Eryngium sparganophyllum*), and monarch butterfly (*Danaus plexippus*). Only the Chiricahua leopard frog has designated critical habitat within or near the refuge action areas.

- **Sonoran pronghorn** (threatened; experimental population, non-essential) is one of five recognized subspecies of American pronghorn (*Antilocapra americana*). The Chihuahuan subspecies (*Antilocapra americana mexicana*) was introduced to the refuge in 1987 and still persists to this day. The grassland-obligate species, Sonoran pronghorn, historically occurred on the refuge and were nearly extirpated throughout its range in the southwest following a severe drought in 2002 (USFWS 2010). Currently this subspecies is not known to occur on the refuge. The nearest experimental population of Sonoran pronghorn occur west of the refuge on the Cabeza Prieta and Kofa national wildlife refuges.

- **Jaguar** (endangered) were first listed as endangered in 1997. This is a wide-ranging species that relies on extension corridors to connect with breeding populations in Sonora, Mexico. Although the species has not been documented on the refuge, several sightings have been reported in the vicinity, including Brown Canyon. While their main habitat is the tropical rainforest, they can be found in arid areas including desert-scrub, lowland desert and mesquite grasslands. Between 1996 and 2015, five individual jaguars were documented in the United States in southern Arizona and southwestern New Mexico. Critical habitat was designated for jaguars in the U.S. in 2014 (Figure 4). The primary threats to the jaguar's survival include loss of habitat, depletion of prey species, and illegal killing by humans (USFWS 2016).
- **Ocelot** (endangered) is a medium sized, long tailed, spotted cat, was listed as endangered in 1982 throughout its range in the western hemisphere, including southern Texas and southern Arizona. Designation of critical habitat did not occur as it was deemed not in the best interests of the conservation of the species. Between 2009 and 2015, five individual ocelots (four live and one dead) were detected in Arizona (USFWS 2016). Ocelots utilize a variety of habitat types including thornscrub and semi-arid vegetation, as well as grasslands. Primary threats to the ocelot include habitat conversion, fragmentation, and loss due to human population growth and development (Nowak 1991). Illegal hunting is also a threat to their survival.
- **Masked bobwhite quail** (endangered) was first listed as endangered in June, 1970. This grassland-obligate species is currently restricted to three sites in North America. The refuge serves as the lone site in the United States and the other two sites occur on private lands in Sonora, Mexico (Kuvlesky 1999). The species was first listed as endangered due to habitat loss and destruction of much of southern Arizona's grasslands (Wilson 1976). The Service first implemented masked bobwhite quail reintroduction efforts in 1985 and these efforts continue to play a vital role in the mission of the refuge. Current reintroduction efforts have resulted in a small wild population of masked bobwhite concentrated in several areas of the semi-desert grassland units on the refuge.
- **Cactus ferruginous pygmy-owl** (threatened) is a small bird, approximately 6.75 in long; is reddish brown overall, with a cream-colored belly streaked with reddish brown. Regardless of the season, the pygmy-owl is primarily diurnal with crepuscular tendencies. Pygmy-owls are found in a variety of vegetation communities, including Sonoran desertscrub and semidesert grasslands in Arizona and northern Sonora, thornscrub and dry deciduous forests in southern Sonora south to Michoacán, and Tamaulipan brushland in northeastern Mexico and live oak forest in Texas. The pygmy-owl is found in semi-open areas of thorny scrub and woodlands in association with giant cacti, scattered patches of woodlands in open landscapes, mostly dry woods, and evergreen secondary growth (König 1991). A natural population of cactus ferruginous pygmy-owls is known to occur on north-east portions of the BANWR in the vicinity of Ted Tank and recent releases of captive reared pygmy-owls over the past two years has occurred on the southwest border of the BANWR (La Oso Ranch).
- **Western yellow-billed cuckoo** (threatened) is migratory and arrives on the refuge during the breeding season, approximately June–August. They require structurally complex riparian habitats with tall trees and a dense woody vegetative understory. The main threat to the species is loss of habitat, especially riverside habitat (Halterman et al. 2015). It can be found

within different areas of the refuge including the Arivaca Ciénega and Arivaca Creek. Critical habitat for this species is located on the refuge (Figure 4).

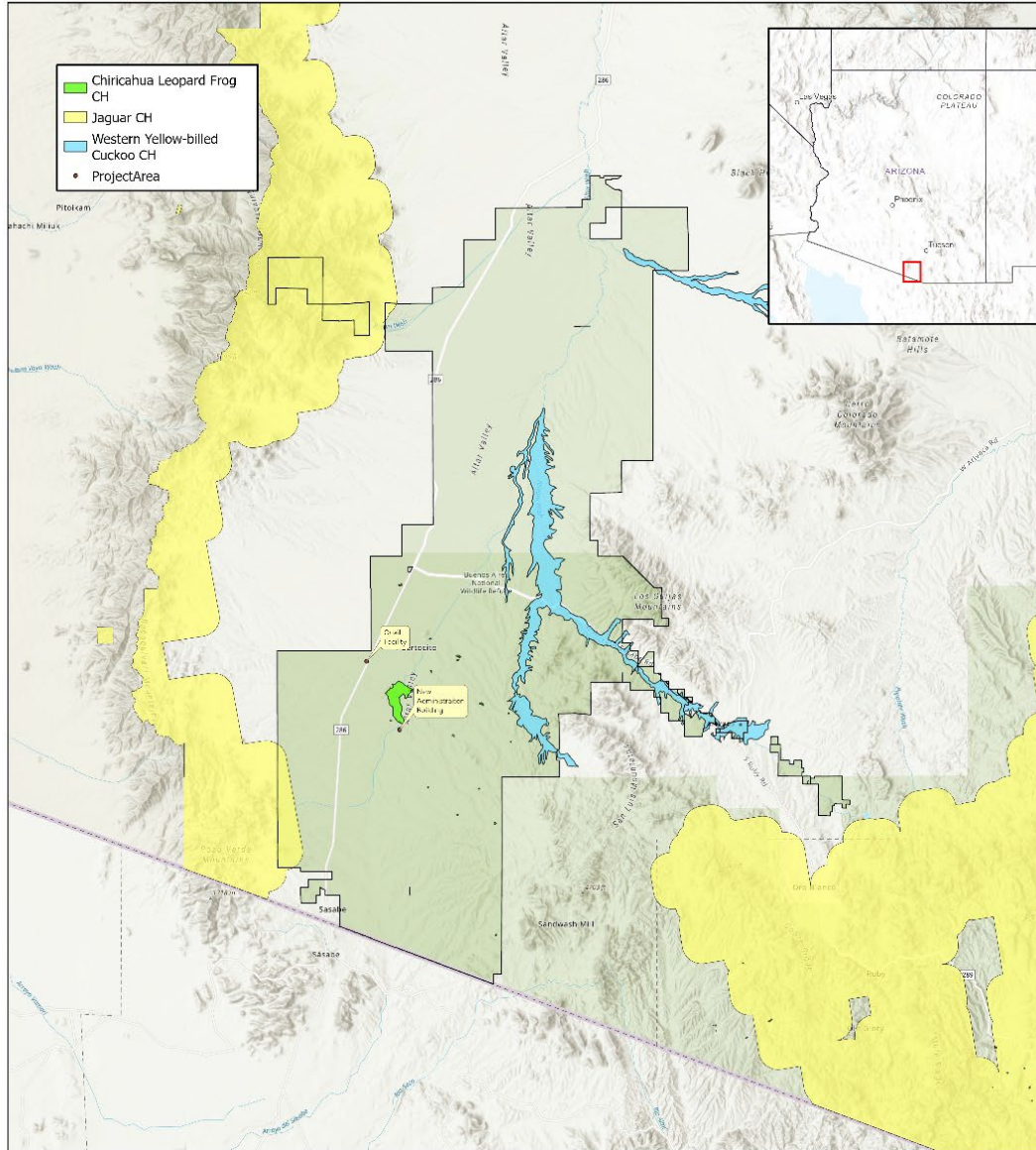
- **California least tern** (endangered) occurs primarily in California but may occur in different parts of Arizona where habitat components are adequate. Transient migrants occur more frequently and have recently been documented in westernmost Arizona (USFWS 2022). Migration occurs July–August.
- **Southwestern willow flycatcher** (endangered) is migratory and requires dense riparian habitats with cottonwood or willow and tamarisk with nearby persistent water in the form of streams, pools, or ciénegas for breeding. They migrate to wintering grounds in Central America by the end of September. There is no breeding habitat on the refuge due to altered hydrology in Arivaca Creek and the Arivaca Cienega and an absence of tamarisk. The refuge might provide stopover habitat during fall migration between breeding grounds to the north and wintering grounds to the south.
- **Sonoyta mud turtle** (endangered) is a medium-sized aquatic turtle found in permanent water sources like ponds, pools, or streams. This turtle is known only from the Rio Sonoyta drainage, including Quitobaquito Spring on Organ Pipe Cactus National Monument and therefore unlikely to occur on the refuge.
- **Chiricahua leopard frog** (threatened) occur in permanent waters in ponds, tanks, ciénegas (wet meadows), and small streams provide habitat. The species was first identified on the refuge in 1994 and can occur in many earthen ponds across the refuge. These frogs are particularly vulnerable to predation and competition by non-native fish, bullfrogs, and crayfish in their habitats. The spread of a *chytridomycete* skin fungi to leopard frog habitats has also decimated populations. The species was first listed as threatened in 2000 with critical habitat established in 2012 (USFWS 2007). Critical habitat for this species is located on the refuge (Figure 4).



U.S. Fish & Wildlife Service

Buenos Aires National Wildlife Refuge Pima County, Arizona

Project Areas and Critical Habitat at BANWR



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Scale: NAD83

Figure 4: Action area (New Administration Building and Quail Facility) in proximity to critical habitat at BANWR.

- **Pima pineapple cactus** (PPC; endangered) are a small, low profile cactus that occur in very specific habitat types throughout the semi-desert grassland unit of the refuge. This cactus can be found in the lower Sonoran Desert scrubland, desert-grassland and the transition area between the two. Less than 8,000 PPC are known to still exist. As existing PPC are sparsely dispersed, they struggle to reproduce as they do not self-pollinate (USFWS 2018). A small number of known PPC grow in very specific habitat throughout the refuge.
- **Arizona eryngo** (endangered) are flowering plants found in ciénegas or wetlands in the International Four Corners Region of Arizona and New Mexico, United States and Sonora and Chihuahua, Mexico. There are no known plants on the refuge.
- **Monarch butterfly** (Candidate species) migrate along the riparian corridor of the Colorado River in the fall and are regularly observed on refuge lands. They have also been observed during the winter as close as the city of Lake Havasu in February 2013 (Morris et al. 2015).

Alternative A: No Action Alternative

Under the No Action Alternative, construction of new Quail Facility and New Administration Building and demolition of existing existing administration building would not occur. Refuge staff would also continue to utilize temporary office spaces at refuge headquarters at the expense of the Service. The existing administration building would remain standing in place with occasional and as-needed expensive maintenance implemented to avoid increasing hazards to staff and visitors. The quail breeding program at the refuge would continue to be hampered by using the existing, inadequate facilities.

Alternative B: Proposed Action

Under this alternative (preferred), temporary and minor impacts to wildlife may be expected during the construction phase of the project to threatened and endangered species and other special status species. The Service has conducted an informal Intra-Service Section 7 Consultation with the Arizona Ecological Services Field Office. Pursuant to D.O. 194, the Service has determined that there will be “no effect” on jaguar, ocelot, Sonoran pronghorn, California least tern, Pima pineapple cactus, Sonoyta mud turtle, Gila topminnow, and Arizona eryngo. The project “may affect, but is not likely to adversely affect” western yellow-billed cuckoo, southwestern willow flycatcher, masked bobwhite, Chiricahua leopard frog, cactus-ferruginous pygmy-owl, and monarch butterfly. See Appendix A for documentation of the Intra-Service Section 7 Consultation.

None of the Federally-listed species were observed or are likely to occur within the action area due to a lack of suitable habitat availability and connectivity to suitable habitat. There is some potential that bird and bat species may pass by or through the Action Area. However, these species are highly mobile and can easily avoid any potential conflicts during project activities.

Critical habitat for Chiricahua leopard frog occurs approximately 300m from the action area and will not be adversely-affected by project activities.

3.1.2 Other Wildlife and Aquatic Species

The refuge supports a wide variety of wildlife common to the desert southwest. Approximately 325 bird species, 57 species of mammals, and 53 species of reptiles and amphibians occur on the refuge

or within the surrounding area of the Altar Valley. See Appendix B for list of Species of Greatest Conservation Need (SGCN) that occur on the refuge.

Mammals

The refuge is home to more common mammals including the desert-dwelling kangaroo rat (*Dipodomys* spp.), antelope jackrabbit (*Lepus alleni alleni*), American pronghorn, javelina (*Tayassu tajacu*), coyote (*Canis latrans*) white-nosed coati (*Nasua narica*), ringtail cat (*Bassariscus astutus*), bobcat (*Lynx rufus*), and mountain lion (*Puma concolor*). Mule deer (*Odocoileus hemionus*) range throughout the lower elevations of the refuge.

Birds

There is an outstanding variety of bird life with approximately 325 species of birds documented on the refuge or the surrounding valley. Upland game birds include Gambel's quail (*Callipepla gambelii*), Mearns's quail (*Cyrtonyx montezumae*), and scaled quail (*Callipela squamata*), and both the mourning dove (*Zenaida macroura*) and white-winged dove (*Z. asiatica*). Many raptor species occur here including American kestrel (*Falco sparverius*), red-tailed hawk (*Buteo jamicensis*), Cooper's hawk (*Accipiter cooperii*), western screech owl (*Otus kennicotti*), and great horned owl (*Bubo virginianus*). Winter raptors known to occur on the refuge include ferruginous hawk (*Buteo regalis*) and northern harrier (*Circus cyaneus*). Waterfowl, shorebirds, and wading birds are present on and near the lakes and ponds during periods of heavy rainfall. Some species that occur include eared (*Podiceps nigricollis*) and pied-billed grebes (*Podilymbus podiceps*), gadwall (*A. strepera*), northern shoveler (*A. clypeata*), and cinnamon teal (*A. cyanoptera*), western sandpiper (*Calidris mauri*), solitary sandpiper (*Tringa solitaria*), and common snipe (*Gallinago gallinago*). A variety of bird species reaching their northernmost distribution limits in southern Arizona occur on or near the grasslands as local residents, sparse residents, or transients, including crested caracara (*Polyborus plancus*), gray hawk (*Buteo nitidus*), white-tailed kite (*Elanus caeruleus*), and the green kingfisher (*Chloroceryle americana*).

Reptiles and Amphibians

The refuge and surrounding environs provide habitat for a large variety of reptiles and amphibians. Surveys of tanks and ponds indicate the presence of tiger salamanders (*Ambystoma tigrinum cf. mavortium*) and ranid frogs (*Rana* spp.). American bullfrog (*Rana catabeiana*) has been introduced to the area and can occupy many aquatic habitats though removal at a variety of valley wetlands has been very successful in eradicating the species from the Altar Valley. A number of aridland amphibians populations found in the valley include the narrow-mouthed toad (*Gastrophryne olivacea*), Sonoran green toad (*Bufo retiformis*), burrowing tree frog (*Pternohyla fodiens*), and the western barking frog (*Hylactophryne augusti*). Reptile species include the regal horned lizard (*Phrynosoma solare*), western banded gecko (*Coleonyx variegatus*), saddle leaf-nosed snake (*Phyllorhynchus brown*), and four species of rattlesnakes (*Crotalus* spp.). Some of the unique or more rare reptile species include the Gila monster (*Heloderma suspectum*), Sonoran desert tortoise, and Arizona mud turtle (*Kinosternon flavescens arizonense*).

Fish

Arivaca Creek supported several species of fish, including the red-eared sunfish (*Lepomis microlophus*), large-mouth bass (*Micropterus salmoides*), and mosquitofish (*Gambusia affinis*). There is some thought that the Gila topminnow and desert pupfish (*Cyprinodon macularius*) may have occurred historically on the refuge. Non-native fishes have also been widely introduced in stock-

watering tanks throughout Arizona. An aquatic habitat survey conducted in 1985 resulted in finding a total of five species of non-native fishes, all collected from existing watering tanks located on the wildlife refuge. These include the fathead minnow (*Pimephales promelas*), black bullhead catfish (*Ictalurus melas*), yellow bullhead catfish (*I. natalis*), large-mouth bass, and the mosquitofish. Several endangered razorback suckers (*Xyrauchen texanus*) and bonytail chubs (*Gila elegans*) were stocked in refuge tanks as part of a reintroduction effort during the late 1980s though their status is currently unknown.

Alternative A: No Action Alternative

Under the No Action Alternative, construction of the Quail Facility and New Administration Building and demolition of existing existing administration building would not occur. Refuge staff would also continue to utilize temporary office spaces at refuge headquarters at the expense of the Service. The existing administration building would remain standing in place with occasional and as-needed expensive maintenance implemented to avoid increasing hazards to staff and visitors. The quail breeding program at the refuge would continue to be hampered by inadequate facilities.

Alternative B: Proposed Action

Under this alternative (preferred), construction of the Quail Facility and New Administration Building and demolition of existing existing administration building would occur. As a result of these actions only temporary and minor impacts to wildlife and other aquatic species may be expected during the construction phase of the project.

3.1.3 Vegetation and Habitat

The action areas are located within Chihuahuan-Sonoran semi-desert grassland habitat type, a distinct vegetation community of subtropical, fire-maintained communities that historically occupied the Altar and Santa Cruz Valleys of southeastern Arizona. These habitats occur at elevations ranging from 3,200 to 5,000 feet with precipitation averaging 12 to 16 inches per year. Vegetation includes mesquite, catclaw acacia, palo verde, fourwing saltbush, sideoats grama, black grama, plains lovegrass, and Arizona cottontop (USDA/NRCS 2008).

Unsustainable livestock management and recurring drought conditions have helped transform some of these areas to the mesquite/grassland that is present today in place of the original grasslands (USFWS 2003). Riparian areas, wetlands, and Madrean woodlands, which are found on portions of the refuge, do not occur near the action area, therefore would not be affected by the proposed actions.

Alternative A: No Action Alternative

Under the No Action Alternative, construction of the Quail Facility and New Administration Building and demolition of existing existing administration building would not occur. Refuge staff would also continue to utilize temporary office spaces at refuge headquarters at the expense of the Service. The existing administration building would remain standing in place with occasional and as-needed expensive maintenance implemented to avoid increasing hazards to staff and visitors. The quail breeding program at the refuge would continue to be hampered by inadequate facilities.

Alternative B: Proposed Action

Under this alternative (preferred), minor impacts are expected to vegetation as a result of the proposed action. The Service has conducted an Intra-Service Section 7 consultation and determined that there will be “no effect” on Pima pineapple cactus or Arizona aryngo as the species do not occur at or near

either of the proposed action areas. Refuge biologists will inspect the action area prior to construction to confirm neither species are present.

3.1.4 Geology and Soils

Soil on the refuge originates from a broad, north trending basin bounded on the east and west by rugged mountains which rise abruptly from the desert floor. Elevations range from 3,000 to 4,000 feet. Soils in the valley belong to the White House-Bernardino-Caralampi Association, comprised of soils of more than 60 inches in depth.

Alternative A: No Action Alternative

Under the No Action Alternative, construction of the Quail Facility and New Administration Building and demolition of existing administration building would not occur. Refuge staff would also continue to utilize temporary office spaces at refuge headquarters at the expense of the Service. The existing administration building would remain standing in place with occasional and as-needed expensive maintenance implemented to avoid increasing hazards to staff and visitors. The quail breeding program at the refuge would continue to be hampered by inadequate facilities.

Alternative B: Proposed Action

Under this alternative, project activities will result in minor and long-term impacts to the surficial soils. Due to the relatively small footprint required for the proposed development, there will be minimal disturbance associated with grading and construction for the project. During site development, appropriate Best Management Practices (BMPs) will be implemented as required by applicable Federal, State, and local rules and regulations, in order to minimize the potential for soil loss and subsequent water quality impacts from construction activities. The majority of displaced topsoil will be reused at the building site, as they are useful in landscaping applications.

Minimal impacts to the geology of the site are expected to occur as a result of excavations into the shallow sub-soils for foundations and/or footings. Use of drilling and trenching equipment may result in localized soil compaction and mixing of the soil horizon. However, given the localized nature of these disturbances, potential impacts from such activities on geology and soils are expected to be minimal.

3.1.5 Water Resources

The Brawley Wash watershed encompasses a majority of the Buenos Aires NWR in the southern part of Altar Valley, in southeastern Arizona. The Brawley Wash watershed flows northward toward Pinal County where it joins the Santa Cruz River. Flood risks vary throughout the watershed, but shallow sheet flow flooding is the dominant type of flooding. Both proposed project areas are located in the Puertocito Wash which is a subwatershed in the headwaters of the Brawley Wash watershed (Figure 5).

The proposed New Administration Building is sited on a small hill elevated approximately 40 feet above an unnamed wash downstream of Mormon Lake (Figure 6) and upstream of Aguirre Lake.

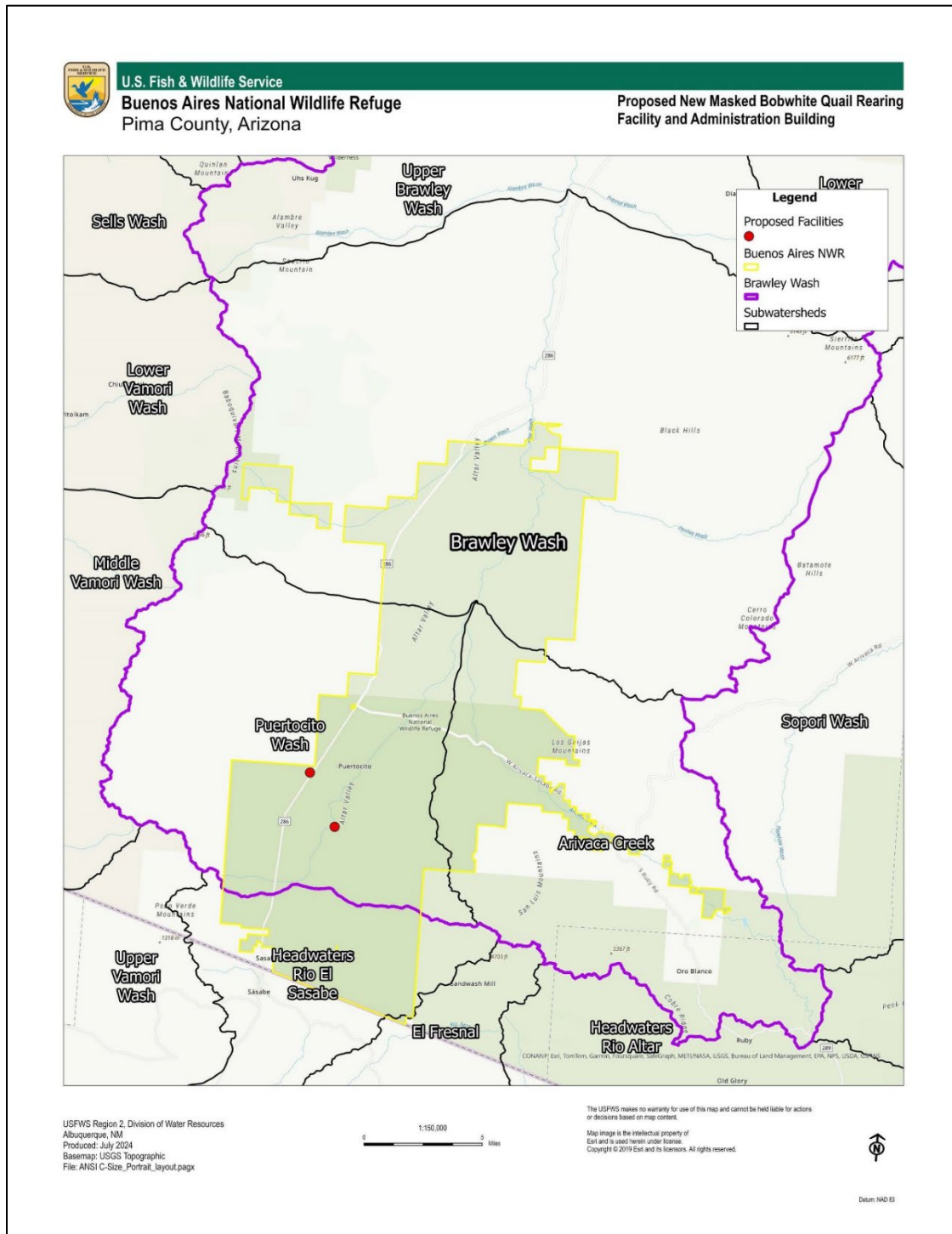


Figure 5: Watershed and vicinity map.

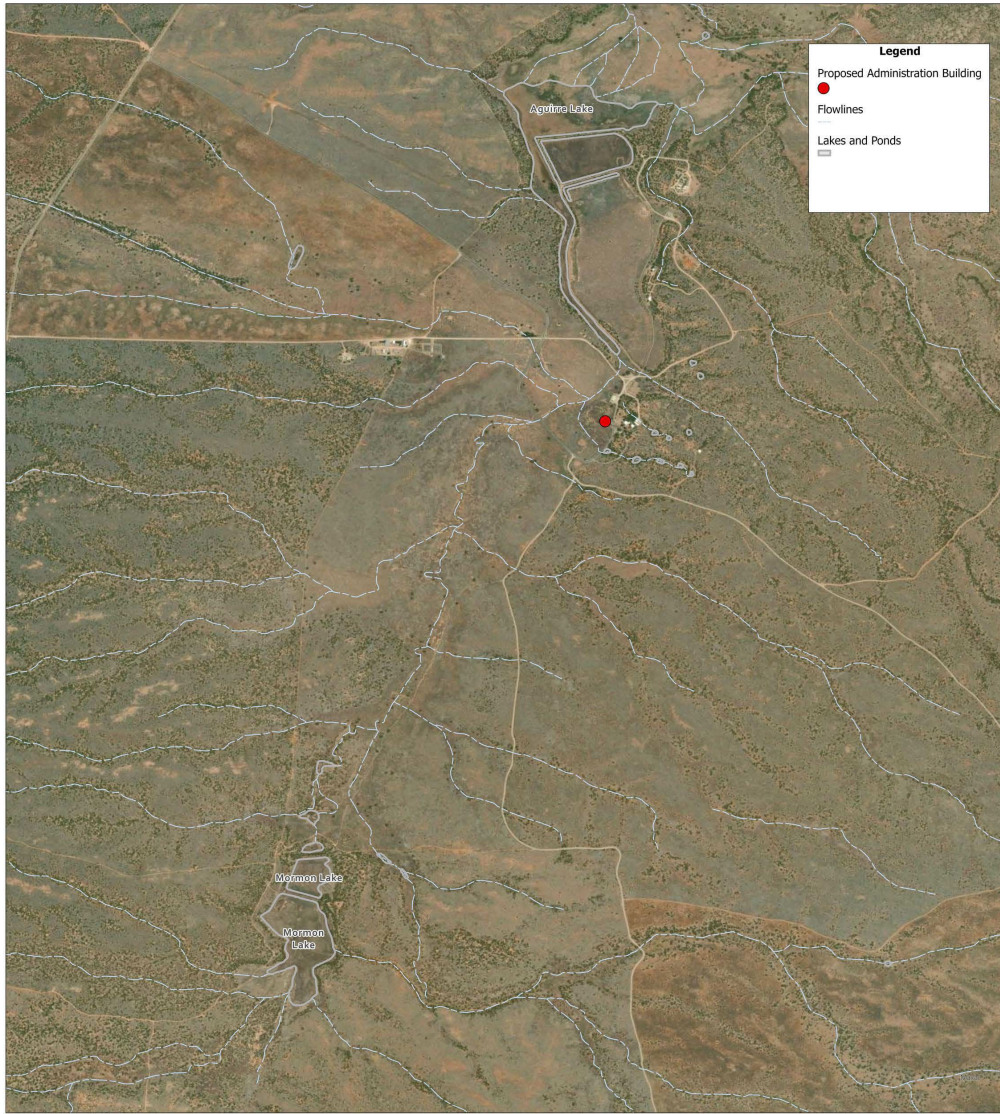
Operation of the land was focused on ranching in the 1850s when lakes and cattle ponds were constructed. While the infrastructure for Mormon Lake and Aguirre Lake are largely inoperable today, and the impoundments are breached, the remnant structures still impact how flow moves on the landscape today (Figure 7). The “lakes” remain dry unless there is an active flood or rain event. During these events, the lakes affect flow paths and drainage time, but do not hold water. The 1996 unpublished Annual Narrative Report states that Aguirre Lake near headquarters has not received

enough runoff to fill since January 1993 and that the only permanent water in the Altar Valley is the Arivaca Ciénega and along Arivaca Creek.



Figure 6: Mormon Lake taken facing South from the berm dividing Mormon Lake upper and lower (02/29/24).

The FEMA Flood Insurance Rate Map (FIRM) are the flood maps that provide the basis for community floodplain management regulations and flood insurance requirements. The FIRM only simulates the 1% annual chance exceedance event, also known as the 100-year storm, which has a 1 in 100 chance of occurring in a given year. The 2011 FIRM 04019C4600L encompassing the Buenos Aires NWR shows flood zones for unincorporated areas that have not been updated since the 1999 Flood Insurance Study (FIS). The 1999 FIS defined flood zones in this area based on a study completed in 1979 which relied on approximate methods based on flood boundary maps and topographic maps. From the limited methodology described in the 1999 FIS, Mormon Lake was assumed to capture the full upstream flow and was consequently not mapped for flood risk (Figure 8). Given that Mormon Lake is currently breached in several locations and cannot hold all upstream flow, the FIRM does not account for the additional 9.5 square miles of terrain that generates flow in the area upstream of Mormon Lake today. The approximate methodology and significant



Legend

- Proposed Administration Building
- Flowlines
- Lakes and Ponds

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Figure 7: Watershed vicinity map for the proposed New Administration Building.

changes to the watershed since the 1979 study mean the FIRM cannot accurately represent current flood risk; the FIRM was created without a detailed study and is out of date. It is likely that flood risk has increased, and the inundation boundaries shown in the FIRM could be exceeded.

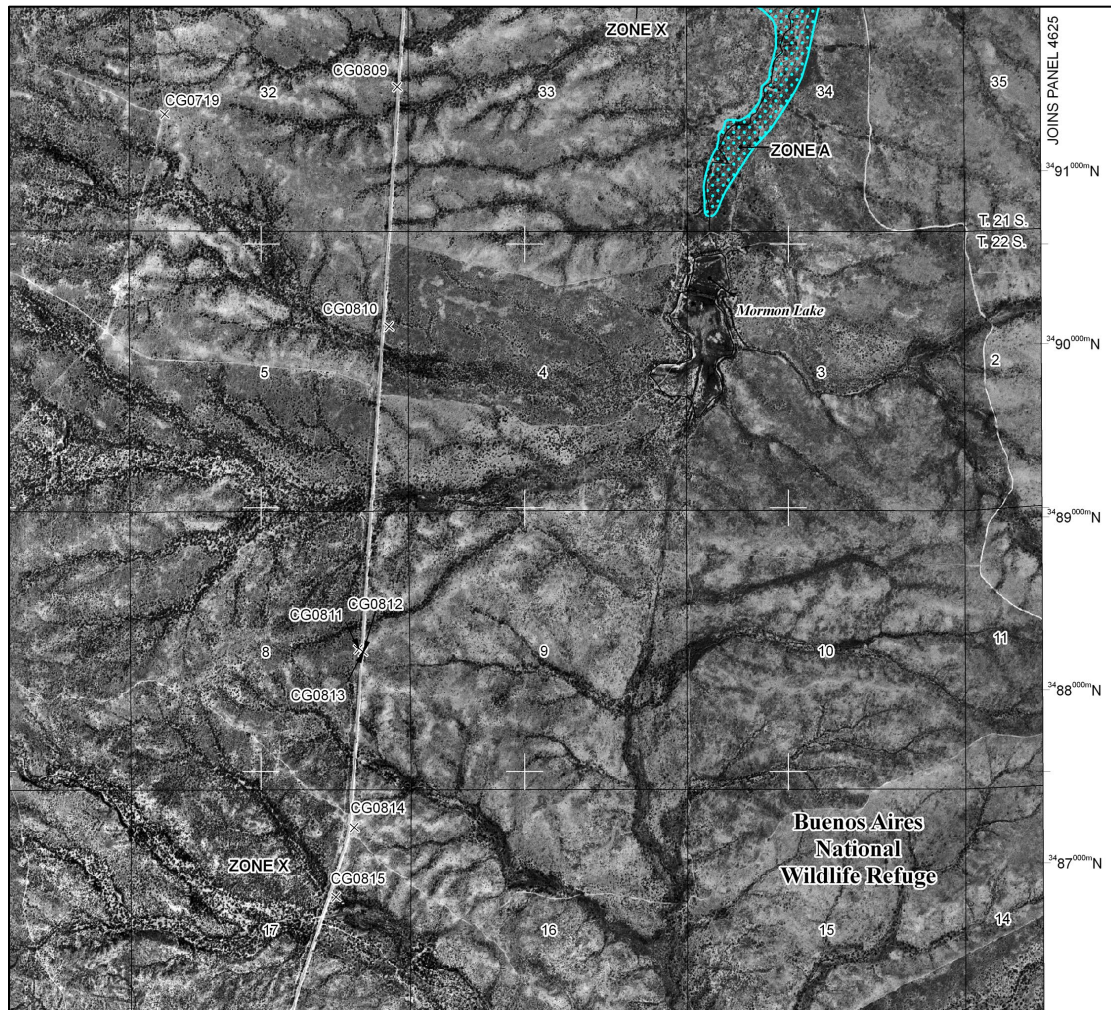


Figure 8: Excerpt from FIRM 04019C4600L showing unmapped drainage for Mormon Lake

Based on the age of the current FIRM and its lack of robust data to support the current floodplain inundation boundary, along with our knowledge of current water control conditions on the landscape, the New Administration Building and the Quail Facility and its associated leach field might be built in the floodplain if the regulatory floodplain were remapped under current conditions. Building in a regulatory floodplain requires compliance with Executive Order (EO) 11988. Construction of a leach field in the regulatory floodplain also triggers compliance with EO 11988 and is further regulated by the Arizona Administrative Code (ACC) Title 18 – Environmental Quality, Chapter 9 Department of Environmental Quality – Water Pollution Control, requiring setbacks from washes (ACC R18-9-A312).

Alternative A: No Action Alternative

Under the No Action Alternative, demolition of the existing administration building, and construction of the New Administration Building and Quail Facility would not occur. There would be no changes to water resources at the refuge.



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Figure 9: Proposed Administration Building map with 100-year FEMA Floodplain.

Alternative B: Proposed Action

This alternative may impact refuge water resources. The proposed New Administration Building may have impacts to surface flow drainage. The Quail Facility includes a leach field that could have impacts on water quality for both drinking water, surface water, and groundwater if subjected to flooding events. Grading done for construction of the Quail Facility buildings and associated parking lot will affect on-site drainage, drainage for a tributary of Bailey Wash, and Bailey Wash during high flow events.

While risks to water quality do exist and impacts to local drainage are recognized, the construction sites associated with this alternative do not fall within the current regulatory floodplain. Therefore, the project does not conflict with Executive Order (EO) 11988. Furthermore, all relevant local, state, and federal construction codes will be complied with during completion of this project.

3.1.6 Air Quality

Due to its rural character and distance from major metropolitan areas (the closest is Tucson, Arizona about 50 miles to the northeast) the air quality in the Altar Valley where the refuge is located is considered excellent. In Arizona, the Arizona Department of Environmental Quality (ADEQ) monitors two general categories of air quality across the state: (1) criteria pollutants (including carbon monoxide, nitrogen dioxide, ozone, sulfur dioxide, lead, and particulate matter); and (2) visibility (which is measured in connection with the state's scenic values). Of the criteria pollutants, ozone and particulate matter (both 10 microns [μm] and 2.5 μm in size) are monitored in Pima County.

Alternative A: No Action Alternative

Under the No Action Alternative, demolition of the existing administration building and construction of the New Administration Building and Quail Facility would not occur. There would be no changes to air quality at the refuge.

Alternative B: Proposed Action

Under the preferred action, demolition of the existing administration building and construction of the New Administration Building will require clearing and grading. Construction of the new Quail Facility will also require clearing and grading at a site that is currently disturbed. During the proposed actions, emissions from internal combustion engines and generation of dust from the vehicles involved with earthmoving activities could temporarily increase levels of some pollutants. There may also be emissions from fugitive dust associated with vehicles using unpaved roads, windblown dust from areas not covered by vegetation, material handling, etc.

Operations at the refuge are not considered to be a source of air emissions and no air quality permits are required for the development of the proposed project. The implementation of appropriate BMPs to control soil erosion and dust (i.e. dust abatement) should minimize releases of fugitive emissions to the atmosphere. It is expected that construction contractors will properly maintain their fleet of vehicles/equipment so that carbon monoxide, ozone-producing chemicals, and other emissions are kept to a minimum. Impacts to air quality are expected to be short-term and minor. BMPs will also be followed during demolition of the existing administration building.

3.2 Cultural, Social and Economic Resources

3.2.1 Visitor Use and Experience

Visitor use and experience is tied directly to lands managed as part of the refuge. The refuge is open to the public for activities that are compatible with wildlife conservation, including hunting, fishing, wildlife watching, photography, interpretation, and education. The refuge offers dry campgrounds, public restrooms at the visitor center, parking areas, signage, and hiking trails at the headquarters.

Alternative A: No Action Alternative

Under the No Action Alternative, demolition of the existing administration building and construction of the New Administration Building and Quail Facility would not occur. There would be no changes to the current visitor use and experience at the refuge.

Alternative B: Proposed Action

Under this alternative (preferred), only minor impacts to visitor use and/or experience are expected. Short-term, temporary access interruptions to the visitor center and public restrooms in addition to increased construction associated traffic may be experienced during the construction phase of the New Administration Building. However, the limited access will be mitigated, when possible, by re-directing the visitor flow of traffic and providing up-to-date public notifications regarding visitor center and restroom hours of operation and temporary closures. No other impacts to public use activities are anticipated. Construction of the new Quail Facility will not affect visitor use and experience as this area will be closed to the public.

3.2.2 Cultural Resources

Except for a handful of studies prior to refuge construction projects, Buenos Aires NWR lands have not been comprehensively surveyed for archaeological sites. Prehistoric site potential is high, dating back 11,000 years with the historic era supporting a rich and diverse Pima-speaking culture which later included the Athabaskan-speaking Apache. Beginning in the 1800s, the Altar Valley began to experience the establishment of ranches.

The portion of the project replacing the existing administration building is within the boundaries of the Buenos Aires Ranch Headquarters Historic District and will result in the removal of the existing administration building structure in order to build the New Administration Building and create a courtyard interpretive area adjacent to the existing Visitor's Center. The New Administration Building will be constructed within a new footprint outside of the Historic District. The Service, in accordance with Section 106 of the National Historic Preservation Act (NHPA), has completed a Class III cultural resource inventory to supplement an older survey previously conducted. The Service plans to mitigate impacts to the historic district from the demolition of the existing administration building through a Memorandum of Agreement with Arizona State Historic Preservation Officer (SHPO), federally recognized tribes, and interested parties as necessary and will continue to consult as necessary.

Alternative A: No Action Alternative

Under the No Action Alternative, construction of new Quail Facility and New Administration Building and demolition of the existing administration building would not occur. Refuge staff would also continue to utilize temporary office spaces at refuge headquarters at the expense of the Service. The existing administration building would remain standing in place with occasional and as-needed expensive maintenance implemented to avoid increasing hazards to staff and visitors. The quail breeding program at the refuge would continue to be hampered by inadequate facilities._____

Alternative B: Proposed Action

Under this alternative (preferred), construction of a New Administration Building and demolition of the existing administration building will occur. These actions will occur at the refuge's Main Campus which is also considered a Historic District. In consultation with the AZ SHPO, the proposed mitigation measures would include: Historic American Buildings Survey (HABS) level documentation of the existing administration building, archaeological monitoring of earth disturbing activities within the historic district during demolition, on-site interpretation of the Buenos Aires Ranch within the newly landscaped area within the historic district, a landscape-level assessment report on the ranching history within Altar Valley and the relationship of outlying ranching properties to the Buenos Aires Ranch, and architectural review by AZ SHPO of the proposed New Administration Building design to ensure the design is complementary to the historic district.

3.2.3 Infrastructure

Utilities

The use of an on-site well is considered the most practical method of obtaining water for the project as there is no public water available nearby. On-site wells are currently used for the rest of the facility. No irrigation system is planned for the proposed building site. The site was identified within a service area for electricity with TRICO. The heating and air conditioning system will require a 3-phase power supply, which will be installed as a part of the Proposed Action.

The majority of the proposed action area for the New Administration Building is currently developed with lighting, parking lots, visitor center, and the existing Buenos Aires NWR headquarters building. The following utility providers currently service the existing refuge facility:

Electricity: TRICO
Water: Refuge wells
Sewage: On-site Septic System
Solid Waste: Republic Services
Fuel Oil: Synergy
Propane: Ferrellgas
Phone/Internet: TDS/Lumen

Flood Risk

As previously described, the 100-year floodplain conditions have changed since it was last mapped in 1999 such that the flood risk for infrastructure has likely increased. While both the New Administration Building and the Quail Facility with its associated leach field are not sited within the current FEMA floodplain, due to the proximity to the floodplain the Quail Facility is at risk of flooding. In addition, grading done for construction of the Quail Facility buildings and associated parking lot may affect on-site drainage. Erosion was identified across the fence line directly west of the proposed Quail Facility (Figures 10-11). The erosion is due to an unstable slope caused by a ditch west of the property that was dug between 1996 and 2003 according to Google satellite imagery. The ditch was likely constructed to prevent flow from impacting the developed area since it is in the natural flowpath. The ditch is currently not maintained and was created for an unknown frequency of event. Therefore, the design life and effectiveness of the feature is unknown. The flowpaths may eventually reestablish and impact the Quail Facility as both the flowpaths upstream and downstream

of the ditch are incising due to unstable slope. If erosion mitigation is not considered in design, long term effects could include undermining of the buildings and associated developments.

The New Administration Building site is located approximately 40 feet in elevation above the arroyo bed, providing some protection from flooding. However, flood risk still exists for this facility. Flowpaths are located on either side of the hill where the New Administration Building will be constructed with 5- to 10-foot grade control “check” structures placed in series (Figure 12). The grade control structures were likely constructed to maintain a stable slope and prevent high velocity flow from causing erosion to the roads for the administration complex. As the check structures are not maintained and were created for an unknown frequency of event, the design life of the structures is unknown. These flowpaths may eventually impact the administration complex roads by creating additional erosion and head cutting in the drainage system.

Alternative A: No Action Alternative

Under the No Action Alternative, demolition of the existing administration building and construction of the New Administration Building and Quail Facility would not occur. No new or modified infrastructure would be constructed.

Alternative B: Proposed Action

Under this alternative (preferred), the refuge is expected to continue using existing utility providers and minimal changes in utility use would occur as a result of the proposed project. Installation of an underground 3-phase power line will be required. Construction of the proposed administration building will require the installation of new septic systems.

Flood risk will be mitigated as much as possible through the use of necessary and effective construction design features that will be determined during the design phase of this project.



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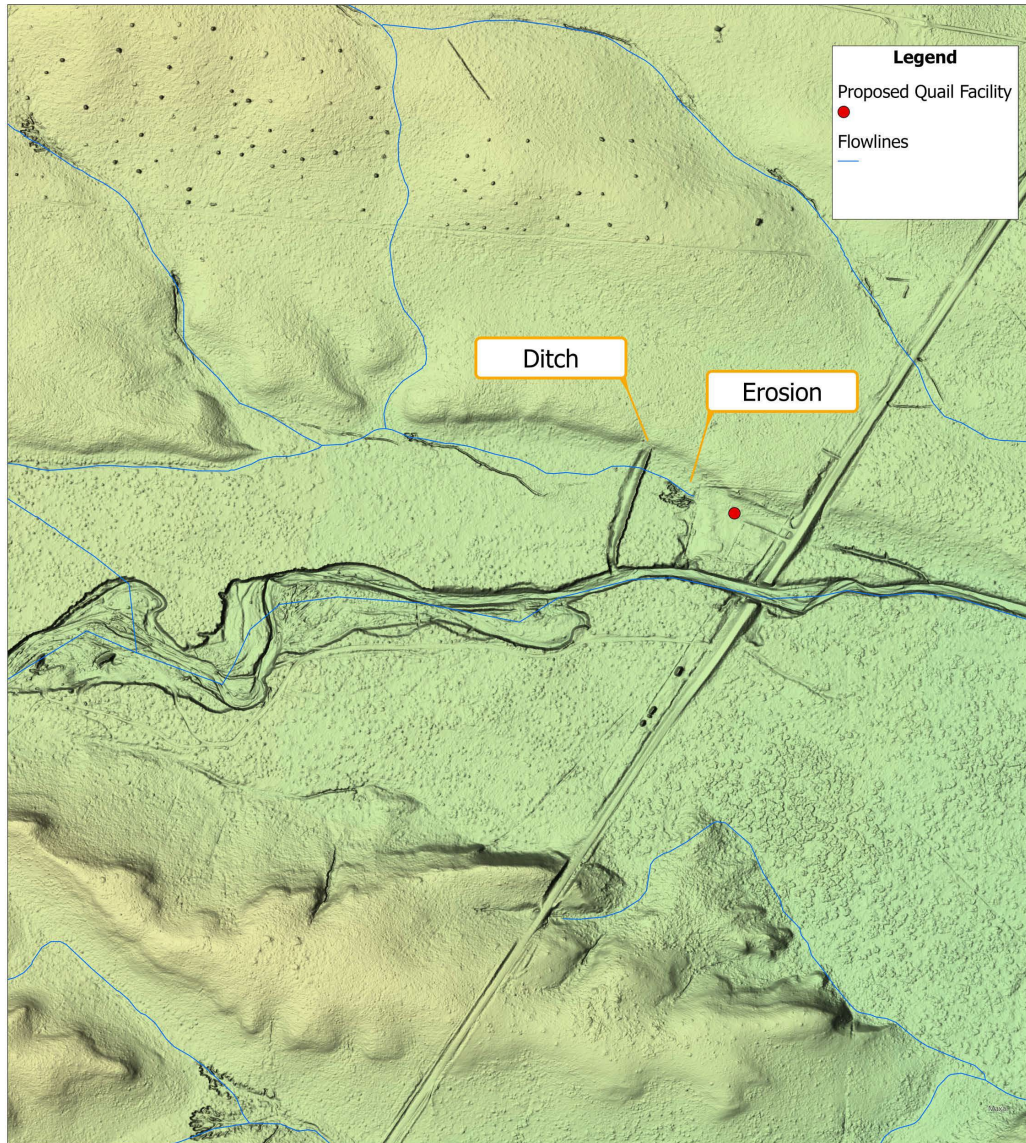


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Figure 10: Proposed Quail Facility map with 100-yr FEMA Floodplain.



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Figure 11: Quail Facility elevation map.



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Miles

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Figure 12: Proposed New Administration Building hillshade topography map.

3.2.4 Socioeconomics

According to the latest U.S. Census, the population of Pima County in 2020 was estimated at 1,043,433. Census data indicated a 12.8 percent unemployment rate for the county in 2020, 25.5 percent in the “educational services and health care” sector, and 11.8 percent in retail trade. Commerce within close proximity to the proposed administration building site was primarily identified as agricultural (ranching and small farms). The total expected construction cost for the project is \$10 million.

The proposed development of the project areas are within the boundaries of the existing refuge. These areas currently consist of a building and infrastructure supporting refuge operations surrounded by semi-arid grassland habitats. There are no residences and/or occupants in these areas outside of refuge staff. There are currently 5 full-time employees working at the refuge (fully staffed is approximately 10 full-time employees).

Alternative A: No Action Alternative

Under the No Action Alternative, demolition of the existing administration building and construction of the New Administration Building and Quail Facility would not occur and there would be no impacts to the resident population in the area.

Alternative B: Proposed Action

Under the preferred alternative, no impacts to the resident population of the area are expected. Short-term, temporary jobs may be created during the construction phases of the proposed project, but there will only be limited opportunities to create permanent jobs, as the general maintenance and operations of these areas likely will be conducted by existing refuge staff or contracted. The new facility will not add additional full-time Service employees to the building site. No noticeable changes to the neighborhood makeup and/or demographic characteristics of the area are expected as a result of the proposed project.

3.2.5 Environmental Justice

Executive Order 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations) requires that Federal projects consider whether the project would have an adverse effect on minority or low-income populations.

Alternative A: No Action Alternative

Under the No Action Alternative, demolition of the existing administration building and construction of the New Administration Building and Quail Facility would not occur and there would be no impacts on minority and/or low-income populations in the refuge area.

Alternative B: Proposed Action

The proposed action areas are located within the boundaries of the refuge, currently in operation. Based on the nature of the development, the proposed action at the refuge will have no effect on the local population and will not disproportionately affect minority and/or low-income populations. A very low potential for controversy is expected associated with the proposed project.

3.2.6 Indian Trust Resources

There are no known Indian Trust Resources on the refuge.

Alternative A: No Action Alternative

Under the No Action Alternative, demolition of the existing administration building and construction of the New Administration Building and Quail Facility would not occur. Therefore there would be no impacts to Indian Trust Resources.

Alternative B: Proposed Action

Under this alternative (preferred), there would be no negative impacts since there are no known Indian Trust Resources on the refuge. There are no reservations or ceded lands present. Because resources are not believed to be present, no impacts are anticipated to result from implementation of either alternative for the projects proposed in this EA.

3.3 Assessment of Cumulative Impacts

Cumulative impacts are defined as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions” (40 CFR 1508.7).

The Service has considered the cumulative impacts from the proposed action. That is, the Service has considered the incremental impacts from the proposed action cumulatively with past, present, and reasonably foreseeable future actions in the nearby area. The project under consideration in this EA involves the demolition of one building (existing administration building) totaling 1,400 square feet. Proposed actions also include the construction of a New Administration Building totaling approximately 5,000 square feet, as well as the construction of a new Quail Facility (approximately 8,000 sq. ft.). All demolition and construction activities will occur within the footprint of the refuge’s Main Campus (New Administration Building) or in currently-disturbed areas (Quail Facility). No wetlands or protected species will be impacted by the proposed actions. The removal of the building from the historical district will be mitigated as described in section 3.2.2. Other environmental criteria evaluated resulted in a finding of minimal, short-term effects or no effects.

The proposed actions for the New Administration Building will require the conversion of approximately 0.50 acres of lower-quality grassland habitat within at the refuge’s Main Campus. Favorable impacts focus on the park-like setting of a refuge providing an aesthetically-pleasing facility that represents a long-term preservation of the natural environment and land use compatible with the rural character of the area. Adverse impacts include the loss of one building of the Buenos Aires Ranch Headquarters Historic District (existing administration building), minor losses of the edge and disturbed grassland habitat, as well as site preparation activities with a potential for short-term soil erosion issues associated with the development of the property.

The proposed actions for the new Quail Facility will require the conversion of approximately 1.0 acre of currently disturbed and low-quality grassland edge habitats. Construction will occur in an area that is already fenced and one that had been previously disturbed for infrastructure installation associated with one previous and one existing structure. The construction will occur in a project area that is not visible by the public nor open to visitors due to biosecurity measures to protect the federally-endangered species housed in the facility.

On-going activities within the action area under the proposed action will not compromise the Federal Clean Air Act, Clean Water Act, or the Endangered Species Act. Executive Order 11988 Floodplain

Management may be violated with the proposed action. There are no foreseeable activities adjacent to the action areas that would significantly alter existing conditions or affect life history requirements of local wildlife or have negative repercussions on other natural or cultural resources.

3.4 Summary of Analysis

The purpose of this EA is to briefly provide sufficient evidence and analysis for determining whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI).

Alternative A: No Action Alternative

Under the No Action Alternative, demolishing the existing administration building and not constructing a New Administration Building at the refuge's Main Campus would not occur. In addition, the refuge would not design and build a new bobwhite Quail Facility. Without constructing a new Quail Facility, the refuge would not be able to meet the recovery goals identified in the Masked Bobwhite Recovery Plan (USFWS 1978, 1995) due to the space limitations and poor air quality resulting from inappropriate air ventilation at the existing quail facility. Without a building a New Administration Building, refuge staff will continue to use inadequate and temporary office spaces and the existing administration building will remain in place and continue to fall into disrepair, increasing the hazards to both refuge staff and visitors.

Alternative B: Proposed Action

Under the Proposed Action Alternative (preferred), the refuge would demolish the existing administration building then build a New Administration Building nearby at the Main Campus of the refuge. The refuge will also construct a new Quail Facility. These actions facilitate improved administration and management of the refuge, provide a safer environment for staff and visitors alike, while also providing necessary infrastructure for the refuge to meet its goals in recovering the masked bobwhite quail.

Resources that were analyzed in this EA and determined that project activities have potential to adversely affect are summarized below, along with a description of conservation measures and other actions that can be implemented to avoid or reduce these effects:

- *Threatened and Endangered Species:* As a result of the Intra-Service Section 7 Consultation that was conducted, it was determined that project activities "may affect, but not likely to adversely affect" five listed species, including western yellow-billed cuckoo, southwestern willow flycatcher, masked bobwhite, Chiracahua leopard frog, and cactus ferruginous pygmy owl. During project activities, conservation measures will be taken to avoid adverse effects to these species, including limiting access to work areas to established roads, surveying for species prior to project activities commencing, and limiting project activities to daylight hours.
- *Geology and Soils:* Best management practices will be implemented prior to project activities in order to prevent soil loss and water quality impacts.
- *Water Resources:* Implement regular testing of water supply at both proposed sites to ensure the leach fields do not impact groundwater or drinking water. Ensure all federal actions are taken outside of the regulatory floodplain and all new assets are developed outside of the regulatory floodplain.

- *Air Quaility*: During project activities, BMPs will be implemented, specifically dust abatement, to ensure air quaility is not affected.
- *Visitor Use and Experience*: Minor and short-term impacts will affect the visitor experience at the Main Campus of the refuge while the New Administration Building is being constructed. In order to mitigate these effects, refuge staff will install signage to safely direct traffic and parking, as well as provide any notifications of any temporary closures such as restroom facilities.
- *Cultural Resources*: In conjunction with AZ SHPO, mitigation measures will be implemented to reduce any effects to these resources that might occur at the Main Campus (demolition of old admin building and construction of New Administration Building). Mitigation measures include: Historic American Building Survey, archeological monitoring of ground disturbing activities, on-site interpretation of the Buenos Aires Ranch, a landscape-level assessment report on the ranching history of the area, and an archeological review by AZ SHPO of the New Administration Building design to ensure it complements the Historic District of the refuge.
- *Infrastructure*: Flood risk as a result of building near the existing regulatory floodplain will be mitigated as much as possible through the use of necessary and effective construction design features that will be determined during the design phase of this project.

4.0 Consultation, Coordination, and Document Preparation

This document was prepared by Division of Planning, U.S. Fish and Wildlife Service, Albuquerque, NM in July 2024.

4.1 Consultations

4.1.1 Compliance with Section 7 of the Endangered Species Act

Under section 7 of the ESA, action agencies (here, the Secretary of the Interior) must ensure that any action authorized, funded, or carried out by the agency is not likely to jeopardize the continued existence of any listed threatened or endangered species or result in the destruction or adverse modification of critical habitat (16 U.S.C. 1536). Threatened and endangered species along with other species given special federal conservation status were analyzed in compliance with the ESA in an Intra-Service Section 7 consultation process with the Service’s Tucson Ecological Services office. The results of those analyses and consultation can be found in Appendix A. Although this type of action that has no long-term effects on listed species or critical habitat, it was determined by the Service, and concurred with by the USFWS Ecological Services program, that the proposed action “may affect but is not likely to adversely affect” the protected species found there.

4.1.2 Compliance with Section 106 of the National Historic Preservation Act

The proposed action will have an adverse effect on the Buenos Aires Ranch Headquarters Historic District. This adverse effect is being addressed through a Memorandum of Agreement between USFWS and the Arizona SHPO that will mitigate these adverse effects to historic properties as defined in the National Historic Preservation Act (as amended). The proposed action would have no effect to the physical integrity or use of sacred sites under Executive Order 13007.

4.1.3 Government-to-Government Consultation with Tribes

The refuge manager for Buenos Aires NWR emailed letters and sent letter via postal service on May 31, 2023 and June 16, 2023, advising the leadership of the Tribes listed below of the proposed action and inviting comment on this EA. Representatives from the following Tribes were notified of the proposed actions: Ak-Chin Indian Community, Fort Sill Apache Tribe of Oklahoma, Gila River Indian Community of the Gila River Indian Reservation, Hopi Tribe of Arizona, Pascua Yaqui Tribe of Arizona, Salt River Pima-Maricopa Indian Community, San Carlos Apache Tribe of the San Carlos Reservation, Tohono O’odham Nation, and the White Mountain Apache Tribe of the Fort Apache Reservation. Comments received from Tribes are found in Appendix C.

4.2 Public Outreach

This EA will be made available for 30-day public review and comment from November 15, 2024 to December 15, 2024 on the refuge website (<https://www.fws.gov/refuge/buenos-aires>) and public notice will be posted at the Sasabe and Arivaca post offices and on three kiosks within the refuge. The refuge will also encourage its partners to comment through electronic mail announcements. Any member of the public submit can submit comments via email to r2_plancomments@fws.gov or to request either printed or electronic copies. Comments may also be sent to Buenos Aires NWR, P.O. Box 109, Sasabe, AZ 85633.

5.0 REFERENCES

- Halterman, M.D., M.J. Johnson, J.A. Holmes and S.A. Laymon. 2015. A Natural History Summary and Survey Protocol for the Western Distinct Population Segment of the Yellow-billed Cuckoo: U.S. Fish and Wildlife Techniques and Methods, 45 p.
- Howell, P. E., Hossack, B. R., Muths, E., B. Sigafus, B. H., and Chandler, R. B. 2016. Survival Estimates for Reintroduced Populations of the Chiricahua Leopard Frog (*Lithobates chiricahuensis*). *Copeia* 104:824–830.
- Kuvlesky, Dr. William. 1999. U.S. Fish and Wildlife Service, Buenos Aires National Wildlife Service. Establishing grazing systems to protect and manage masked bobwhite habitat in Sonora, Mexico [Final Report].
- Morris, G.M., C. Kline, and S.M. Morris. 2015. Status of *Danaus Plexippus* Population in Arizona. *Journal of the Lepidopterists' Society* 69(2), 91–107
- Nowak, R. M. 1991. Walker's mammals of the world. Fifth edition. Vols. I and II. Johns Hopkins Univ. Press, Baltimore. 1629 pp.
- U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS). 2008. Brawley Wash – Los Robles Wash Watershed – Arizona (Altar Wash – Brawley Wash Watershed) Rapid Watershed Assessment.
- U.S. Fish and Wildlife Service (USFWS). 1978. Masked Bobwhite Recovery Plan. U.S. Fish and Wildl. Serv., Albuquerque, New Mexico. 24 pp.
- USFWS. 1995. Masked bobwhite (*Colinus virginianus ridgwayi*) Recovery Plan. Albuquerque, New Mexico. 82 pp.
- USFWS. 2003. Buenos Aires National Wildlife Refuge Final Comprehensive Conservation Plan. Albuquerque, New Mexico. 229 pp.
- USFWS. 2007. Chiricahua Leopard Frog (*Rana chiricahuensis*) Recovery Plan. U.S. Fish and Wildlife Service, Southwest Region, Albuquerque, NM. 149 pp. +Appendices A-M.
- USFWS. 2010. Endangered and threatened wildlife and plants: Establishment of a nonessential experimental population of Sonoran pronghorn in southwestern Arizona. *Federal Register* 75(23):5732-5745.
- USFWS. 2010. Buenos Aires National Wildlife Refuge Habitat Management Plan. Sasabe, Arizona. 118 pp.
- USFWS.2012. Listing and designation of critical habitat for the Chiricahua leopard frog. *Federal Register* 77(54):16324-16424.

USFWS. 2016. Recovery Plan for the Ocelot (*Leopardus pardalis*), First Revision. U.S. Fish and Wildlife Service, Southwest Region, Albuquerque, New Mexico.

USFWS. 2022. "California least tern." Arizona Ecological Services Field Office. Accessed January 3, 2023
<https://ecos.fws.gov/ecp/species/8104#:~:text=General%20Information,yellow%20bill%2C%20and%20yellowish%20feet.>

Wilson, R. 1976. Cattle died by the thousands. Ariz. Rep. New. 10-17-76, Ariz. Days Sec. p. 48.

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APPENDIX A: Intra-Service Section 7 Biological Evaluation Form

INTRA-SERVICE SECTION 7 BIOLOGICAL EVALUATION FORM

Originating Person: Richard Albers

Email: rich_albers@fws.gov

Telephone Number: 520-823-4251 x 103

Date: June 12, 2024

IPaC Project Code: 2023-0090796

Region: Southwest (Region 2)

Service Program: Refuges

Refuge: Buenos Aires National Wildlife Refuge

Name of Project: Design/Build of New Quail Facility and Administration Building

I. **Listed/Pertinent Species and Habitat:**

For this evaluation, Buenos Aires National Wildlife Refuge (refuge) used the Information and Planning and Consultation (IPaC) database, an on-line database managed by the U.S. Fish and Wildlife Service (Service), to identify threatened and endangered species, including for purposes of this Biological Evaluation. Note, however, that this database is updated regularly, approximately every 90 days, therefore it is possible that the specific threatened and endangered species identified as present on or near the refuge may change between the finalization of this Biological Evaluation and its publication and/or between finalization and the reading of this document.

a. **Listed species and/or their critical habitat within the project area:**

Mammals:

Jaguar (*Panthera onca*) — Endangered

Ocelot (*Leopardus [=Felis] pardalis*) — Endangered

Sonoran pronghorn (*Antilocapra americana sonoriensis*) — Experimental Population

Birds:

Masked bobwhite (*Colinus virginianus ridgwayi*) — Endangered

Cactus ferruginous pygmy-owl (*Glaucidium brasilianum cactorum*) — Threatened

Western yellow-billed cuckoo (*Coccyzus americanus*) — Threatened

California least tern (*Sterna antillarum browni*) — Endangered

Southwestern willow flycatcher (*Empidonax traillii extimus*) — Endangered

Fishes:

Gila topminnow (*Poeciliopsis occidentalis*) — Endangered

Amphibians:

Chiricahua leopard frog (*Rana chiricahuensis*) — Threatened

Reptiles:

Sonoyta mud turtle (*Kinosternon sonoriense longifemorale*) — Endangered

Insects:

None

Flowering Plants:

Pima pineapple cactus (*Coryphantha scheeri var. robustispina*) — Endangered

Arizona eryngo (*Eryngium sparganophyllum*) — Endangered

b. Proposed species and/or critical habitat within the action area:

There are no critical habitats within the action area.

c. Candidate species within the action area:

Monarch butterfly (*Danaus plexippus*) — Candidate

II. Geographic area or station name and action:

Station Name: Buenos Aires National Wildlife Refuge in Pima County, AZ.

Action: The U.S. Fish and Wildlife Service (Service) is proposing to construct a new administration building within an existing footprint, and construct a new masked bobwhite breeding facility at the Buenos Aires National Wildlife Refuge (NWR; refuge). These actions will also include the demolition of one existing administration building at the Main Campus of the refuge. This project will assist with the recovery of various federally-listed threatened and endangered species and to fulfill the Service’s mission to conserve, protect, and enhance populations of wildlife, plants, and their habitats.

III. Location: Figure 1

a. Ecoregion Number and Name: No. 7, Lower Colorado River

b. County and State: Pima County, AZ

- c. **Section, Township, Range:** Administration Building - S27, T21, R8E; Breeding Facility - S16, T21, R8E
- d. **Distance (miles) and direction to nearest town:**
The refuge headquarters is located approximately eleven miles northeast of Sasabe, AZ, and twenty-five miles west of Arivaca, AZ, in Pima County, AZ.

e. Species/habitat occurrence:

Jaguar (endangered) is a wide-ranging species that relies on extension corridors to connect with breeding populations in Sonora, Mexico. They can be found in arid areas including desert-scrub, lowland desert and mesquite grasslands. Between 1996 and 2015, five individual jaguars were documented in the United States in southern Arizona and southwestern New Mexico. Although the species has not been documented on the refuge, several sightings have been reported in the vicinity, including Brown Canyon. Critical habitat was designated for jaguars in the U.S. in 2014.

Ocelot (endangered) is a medium sized, long tailed, spotted cat, and was listed as endangered in 1982 throughout its range in the western hemisphere, including southern Texas and southern Arizona. Designation of critical habitat did not occur as it was deemed not in the best interests of the conservation of the species. Between 2009 and 2015, five individual ocelots (four live and one dead) were detected in Arizona (USFWS 2016a). Ocelots utilize a variety of habitat types including thornscrub and semi-arid vegetation, as well as grasslands (Nowak 1991). The species has not been documented on the refuge.

Sonoran pronghorn (threatened) are found exclusively in the Lower Colorado River Valley and the Arizona Upland subdivisions of the Sonoran Desert scrub biome and currently occur in southwestern Arizona and northwestern Sonora, Mexico. They require large expanses of contiguous habitat to make these movements and to persist in the harsh desert environment. They also require quality forage, access to water, a mosaic of suitable vegetation structure, and minimal human disturbance (USFWS 2016b). Although the refuge is within the historic range of the Sonoran pronghorn, Chihuahuan pronghorn (*Antilocapra americana mexicana*) have been introduced onto the refuge.

Masked bobwhite quail (endangered) was first listed as endangered in June, 1970. This grassland-obligate species is currently restricted to three sites in North America. One site is the refuge and the other two possible sites occur on private lands in Sonora, Mexico (Kuvlesky et al. 2000). The Service first implemented masked bobwhite quail reintroduction efforts in 1985 and these efforts continue to play a vital role in the mission of the refuge. Current reintroduction efforts have resulted in a small wild population of masked bobwhite concentrated in several areas of the semi-desert grassland units on the refuge.

Cactus ferruginous pygmy-owl (threatened) is a small bird, approximately 6.75 in long; is reddish brown overall, with a cream-colored belly streaked with reddish brown.

Regardless of the season, the pygmy-owl is primarily diurnal with crepuscular tendencies. Pygmy-owls are found in a variety of vegetation communities, including Sonoran desertscrub and semidesert grasslands in Arizona and northern Sonora, thornscrub and dry deciduous forests in southern Sonora south to Michoacán, and Tamaulipan brushland in northeastern Mexico and live oak forest in Texas. The pygmy-owl is found in semi-open areas of thorny scrub and woodlands in association with giant cacti, scattered patches of woodlands in open landscapes, mostly dry woods, and evergreen secondary growth (König 1991). A natural population of cactus ferruginous pygmy-owls is known to occur on north-east portions of the BANWR in the vicinity of Ted Tank and recent releases of captive reared pygmy-owls over the past two years has occurred on the southwest border of the BANWR (La Oso Ranch).

Western yellow-billed cuckoo (threatened) is migratory and arrive on the refuge during the breeding season, approximately June–August. They require structurally complex riparian habitats with tall trees and a dense woody vegetative understory. The main threat to the species is loss of habitat, especially riverside habitat (Haltermann et al. 2015). It can be found within different areas of the refuge including the Arivaca Ciénega and Arivaca Creek. Critical Habitat was designated on May 21, 2021 (86 FR 20798 21005).

Southwestern willow flycatcher (endangered) is migratory and requires dense riparian habitats with cottonwood or willow and tamarisk with nearby persistent water in the form of streams, pools, or ciénegas for breeding. They migrate to wintering grounds in Central America by the end of September. There is no breeding habitat on the refuge due to altered hydrology in Arivaca Creek and the Arivaca Cienega and an absence of tamarisk. The refuge might provide stopover habitat during fall migration between breeding grounds to the north and wintering grounds to the south.

California least tern (endangered) occurs primarily in California but may occur in different parts of Arizona along the Colorado River corridor, where habitat components are adequate. Transient migrants occur more frequently and have recently been documented in westernmost Arizona. Migration occurs July–August. In 2009, two pair of least terns nested in Glendale, Arizona (USFWS 2020). The species has not been documented on the refuge.

Sonoyta mud turtle (endangered) is a medium-sized aquatic turtle found in permanent water sources like ponds, pools, or streams. This turtle is known only in the Rio Sonoyta drainage, including Quitobaquito Spring on Organ Pipe Cactus National Monument and therefore unlikely to occur on the refuge.

Chiricahua leopard frog (threatened) occur in permanent waters in ponds, tanks, ciénegas, and small streams provide habitat. The species was first identified on the refuge in 1994 and can occur in many earthen ponds across the refuge. The species

was first listed as threatened in 2000 with critical habitat established in 2012 (USFWS 2012a).

Pima pineapple cactus (PPC; endangered) are a small, low profile cactus that occur in very specific habitat types throughout the semi-desert grassland unit of the refuge. This cactus can be found in the lower Sonoran Desert-scrubland, desert- grassland and the transition area between the two, which are habitat types that are common on the refuge. Less than 8,000 PPC are known to still exist. A small number of known PPC grow in very specific habitat throughout the refuge.

Arizona eryngo (endangered) are flowering plants found in ciénegas or wetlands in the International Four Corners Region of Arizona and New Mexico, United States and Sonora and Chihuahua, Mexico. There are no known plants on the refuge.

Monarch butterfly (*candidate*) is globally distributed throughout 90 countries, islands, and island groups. In the U.S., there are two main populations: the eastern and western (divided by the Rocky Mountains). In southeastern Arizona, monarchs migrate in March–April and again between September – November. The species is also known to overwinter in Arizona (Morris et al. 2015). Monarchs will utilize *Asclepias subverticillata* as the primary host plant and as many of three generations of monarch can occur in a breeding season (Morris et al. 2015).

IV. Description of proposed action

Under the Proposed Action, the Service would design and build three new buildings as well as the demolition of another outdated building at two distinct action areas on the Buenos Aires National Wildlife Refuge (Figure 1). The first action area consists of the demolition of the existing administration building and construction of a new administration building (Figure 2). The second action area is the design and build of a new quail breeding facility, which includes two free standing buildings of unequal size as well as a parking area (Figure 3). New construction and demolition for the administration buildings will be on/within the existing footprint within the Main Campus of the refuge. Construction of the quail facility will occur on disturbed refuge lands currently used for staff housing and storage. The purpose of these actions is to improve the administration and management of the refuge, while also providing necessary infrastructure for the refuge to meet its goals in recovering the masked bobwhite quail.

The existing administration building, which is approximately 1,400 square feet, is slated to be demolished (Figure 2). The building poses a health hazard to staff and visitors and for these reasons have not been used by refuge staff for several years. The building is in disrepair and no longer meeting its intended use, which was to provide office space for refuge administration. Demolition will remove any potential health and safety hazards to staff or the public. Construction of the new administration building will greatly improve

the refuge staff's ability to administer and manage the refuge, both for natural resources as well as improving the visitor experience.

The new administration building will be constructed at the existing parking and picnic area known as Manager's Hill at the refuge's Main Campus (Figure 2). The new administration building is to be approximately 5,000 square feet, and the building design and construction shall include all necessary utilities, to include but not limited to, HVAC and control systems, electric, telephone, data, radio, security systems, plumbing, wastewater connections, and water delivery infrastructure.

Another part of this proposed action includes the construction of a new quail rearing facility. This project area occurs along Highway 286, approximately 2.2 miles from the demolition/construction activities for the new administration building at the refuge's Main Campus (Figure 1). The quail rearing facility will consist of two separate buildings (the "chick" and the "adult" buildings) totaling approximately 8,000 square feet (Figure 3). A parking area of approximately 2,500 square feet will also be developed.

The function of the quail facility is to house the masked bobwhite quail (MBQ) genetic breeders (about 250 adults), produce, incubate, hatch viable eggs, and to then care for chicks (approximately 300 individuals). The facility would also house approximately 200 juveniles. Design and construction shall include all necessary dry and wet utilities, such as, HVAC and control systems, electric, data, radio, security, plumbing, and wastewater.

All project activities are expected to last 1.5 years from when the project commences in late 2024 and be completed by October 2026. All construction activities will occur during a typical work week schedule, 8am to 5pm, Monday through Friday. Sites will be accessed by existing highways and refuge roads. Staging areas for equipment will be designated at both sites and be located in previously-disturbed areas (Figures 2 and 3). Large equipment expected to be used for this project includes earth moving-equipment will be utilized initially to prepare the site (i.e. front-end loader and backhoe). No chemicals are scheduled to be used within the action areas and Best Management Practices will be implemented.

If no action is taken, the refuge would not design and build a new administration building nor construct a new quail rearing facility. The existing administration building will remain in place and will continue to fall into disrepair, increasing the hazards to both refuge staff and visitors. Any demolition and new construction delayed into the future has the potential to increase costs as both buildings will continue to deteriorate over time. Furthermore, refuge staff will still be required to use the temporary office spaces currently deployed at the refuge. Current quail facilities will still be used although they no longer meet standards to enable the refuge to successfully pursue its mission.

Determination of effects:

a. Explanation of effects of the action on species and critical habitats in items III.

Jaguar

Range-wide, jaguars are mostly found in tropical and sub-tropical zones. In the southwestern United States, the more open, dry habitat may be marginal in terms of water, cover, and prey densities, which may help limit population expansion northward. Jaguars have been documented both northwest and east of the refuge, and although none have been observed on the refuge itself, it is possible that individual jaguars have utilized refuge lands while travelling between more desirable habitats. Small portions of designated critical habitat are found on the refuge, but several miles away from the proposed action areas (Figure 4).

Conservation Measures:

- Refuge will impose a 25-mph speed limit, for all vehicles.
- Although construction activities will occur over several months, actions will be confined to daylight hours and to the specified project sites. The species can easily avoid construction efforts by moving away from the area during work periods.

Determination:

- No Effect

Reasoning:

- The action area is within the range of species but there is no suitable habitat within the action area. Any critical habitat is more than 7 miles from the action area. Furthermore, conservation measures are taken to avoid impacts to species.

Ocelot

In Arizona, the ocelot is known from Cochise, Gila, Graham, Pima, Pinal, and Santa Cruz counties. There is no critical habitat designated for this species on BANWR. While unconfirmed sightings of this cat have been reported on BANWR, and recent observations and/or trail camera photographs have been confirmed in Arizona, there remains no confirmation of ocelots on the refuge.

Conservation Measures:

- Refuge will impose a 25-mph speed limit, for all vehicles.
- Although construction activities will occur over several months, actions will be confined to daylight hours and to the specified project sites. The species can easily avoid construction efforts by moving away from the area during work periods.

Determination:

- NoEffect

Reasoning:

- The action area is within the range of species but there is no suitable habitat within the action area. Furthermore, conservation measures are taken to avoid impacts to species.

Sonoran Pronghorn

Presently, the Sonoran pronghorn are reduced to five populations with three of those located in the U.S. with the remaining two occurring in northwestern Sonora, Mexico. The U.S. populations are confined just east of State Highway 85 and south of U.S. Interstate 8 on the Cabeza Prieta NWR, Organ Pipe Cactus National Monument, Kofa NWR, and the Barry M. Goldwater Range. Although historic accounts indicate the eastern distributional limit of Sonoran pronghorn likely extended to the area between the Baboquivari Mountains and the Santa Cruz River near the refuge, the Arizona Game and Fish Department has introduced Chihuahuan pronghorn onto the refuge in the Altar Valley, which excludes the possibility of any future plans to reintroduce the Sonoran pronghorn into the Valley.

Conservation Measures:

- The refuge will impose a 25-mph speed limit, for all vehicles to reduce potential effects to pronghorn.

Determination:

- No Effect

Reasoning:

- The action area is within the historic range of species but there are no Sonoran pronghorn within the action area. The Arizona population is classified as an experimental population under the Endangered Species Act (ESA).

Masked Bobwhite

The masked bobwhite's geographic distribution includes Sonora, Mexico and south-central Arizona at elevations up to 4,000 feet elevation, with the northern limit of its historic range being the Altar Valley in Arizona. On the refuge, these birds are most likely to utilize valley bottoms, and least likely to utilize upland foothills, Brown Canyon, and riparian habitats. There is no critical habitat designated for this species on the refuge.

Conservation Measures:

- Refuge will communicate with refuge biology and quail recovery telemetry program to ensure no known individuals are in the project area.
- Although construction activities will occur over several months, actions will be confined to daylight hours and to the specified project sites. The species can easily avoid construction efforts by moving away from the area during work periods.

Determination:

- May affect, but not likely to adversely affect

Reasoning:

- The action area is within the range of species, but the designated construction sites are outside of known quail locations. Conservation measure taken to ensure minimal and acceptable impacts to species will be in place.

Cactus Ferruginous Pygmy-owl

Cactus ferruginous pygmy-owls that are present in the action area during construction activities could be affected by noise disturbance from staff and associated equipment use. The activities of the staff using heavy equipment may result in disturbing cactus ferruginous pygmy-owls, forcing additional movements out of preferred habitats, exposing them to increased risk of predation and increased energy use. Further, project equipment use is expected to create noise at approximately 85 dBA at 25 ft (Blomberg & Trezza 2021). Without topographic or other environmental factors, noise will attenuate with distance by 6 dBA (for hard ground) for every doubling of distance (WDOT 2020). Noise levels would be less than 69 dBA, a threshold used for other noise sensitive listed species (specifically the Mexican spotted owl) at 158 ft from project activities a distance easily avoidable by cactus ferruginous pygmy-owls that may be present. Further, cactus ferruginous pygmy-owls would not need to travel far (2,387 ft; 0.45 miles) from the activity location to remain in ambient noise levels (45.4 dBA, average for Pusch Ridge wilderness, Santa Catalina Mountains, Arizona [Schoenecker & Krausman 2002]) to completely avoid noise disturbance from the proposed project. Given this, the potential noise disturbance effects to local cactus ferruginous pygmy-owls from equipment are insignificant. Furthermore, the species is closely associated with saguaro cactus that it utilizes for nesting. These cacti only occur at the extreme northern and southern ends of the refuge, several miles away from the proposed action area.

Species Conservation Measures:

- Although construction activities will occur over several months, actions will be confined to daylight hours and to the specified project sites, including staging areas and access points. No preferred habitats occur in the action area. The species can easily avoid construction efforts by moving away from the area during work periods. Project sites are free of trees and cacti utilized by cactus ferruginous pygmy-owls, ensuring no habitat destruction or disturbance occurs.

Determination:

- May affect, but not likely to adversely affect

Reasoning:

- The action area is within the range of species but there is no suitable habitat within the action area.

Western Yellow-billed Cuckoo

The western yellow-billed cuckoo breeds primarily in riparian woodlands, and may occur from sea level to 7,000 feet in elevation. In the Southwestern United States, the species may utilize narrower and more sparsely vegetated riparian habitat to breed. Proposed critical habitat occurs on the refuge in portions of Arivaca Creek, including Arivaca Ciénega (Figure 4).

Yellow-billed cuckoo in the project area during construction activities could be affected by noise disturbance from staff and equipment use associated with project activities. The activities of the staff using heavy equipment may result in disturbing individuals, forcing additional movements out of preferred habitats, exposing them to increased risk of predation and increased energy use. Further, project equipment use is expected to create noise at approximately 85 dBA at 25 ft (Blomberg & Trezza 2021). Without topographic or other environmental factors, noise will attenuate with distance by 6 dBA (for hard ground) for every doubling of distance (WDOT 2020). Noise levels would be less than 69 dBA, a threshold used for other similar noise-sensitive listed species (specifically the Mexican spotted owl) at 158 ft from project activities, a distance easily avoidable by yellow-billed cuckoo that may be present. Further, yellow-billed cuckoo would not need to travel far (2,387 ft; 0.45 miles) from the activity location to remain in ambient noise levels (45.4 dBA, average for Pusch Ridge wilderness, Santa Catalina Mountains, Arizona [Schoenecker & Krausman 2002]) to completely avoid noise disturbance from the proposed project. Given this, the potential noise disturbance effects to yellow-billed cuckoo from equipment are insignificant.

Species Conservation Measures:

- Although construction activities will occur over several months, actions will be confined to daylight hours and to the specified project sites. The species can easily avoid construction efforts by moving away from the area during work periods.
- Action areas are free of trees and other riparian habitats utilized by yellow-billed cuckoo, ensuring no habitat destruction or disturbance occurs.

Species Determinations:

- May affect, but not likely to adversely affect

Species Reasoning:

- The action areas are within the range of species, but the construction sites will not result in any tree manipulation or removal within the species' critical habitat nor habitat that would be desirable to the species, minimizing any potential adverse effects to yellow-billed cuckoo.

California Least Tern

California least tern occur primarily in California along the coast but may migrate over marsh or riverine habitats of Arizona where habitat components are adequate. However, these habitat conditions do not occur on or near the refuge.

Conservation Measures:

- Project activities target areas that do not contain suitable habitat for the California least tern.

Determination:

- No effect

Reasoning:

- The California least tern is a species which breeds in the United States only along the immediate coast of California from San Francisco Bay south to the Mexican border. It uses unfrequented sandy beaches close to estuaries and coastal embayments and is an exclusive fish-eater. Given the location that this project will occur does not provide suitable roosting nor foraging habitat, there will be no affect by project activities.

Southwestern Willow Flycatcher

There is no breeding habitat for southwestern willow flycatchers on the refuge due to altered hydrology and the lack of salt cedar (*Tamarisk* spp.). There might be habitat on the refuge used for stopovers while migrating from north of the refuge to wintering habitat south of the refuge.

Southwestern willow flycatchers in the project area during construction activities could be affected by noise disturbance from staff and equipment use associated with project activities. The activities of the staff using heavy equipment may result in disturbing southwestern willow flycatchers, forcing additional movements out of temporary stopover habitats, exposing them to increased risk of predation and increased energy use. Further, project equipment use is expected to create noise at approximately 85 dBA at 25 ft (Blomberg & Trezza 2021). Without topographic or other environmental factors, noise will attenuate with distance by 6 dBA (for hard ground) for every doubling of distance (WDOT 2020). Noise levels would be less than 69 dBA, a threshold used for other similar noise-sensitive listed species (specifically the Mexican spotted owl) at 158 ft from project activities, a distance easily avoidable by southwestern willow flycatchers that may be present. Further, southwestern willow flycatchers would not need to travel far (2,387 ft; 0.45 miles) from the activity location to remain in ambient noise levels (45.4 dBA, average for Pusch Ridge wilderness, Santa Catalina Mountains, Arizona [Schoenecker & Krausman 2002]) to completely avoid noise disturbance from the proposed project. Given this, the potential noise disturbance effects to southwestern willow flycatchers from equipment are insignificant.

Conservation Measures:

- Although construction activities will occur over several months, actions will be confined to daylight hours and to the specified project sites. The species can easily avoid construction efforts by moving away from the area during work periods.
- Action areas are free of dense stands of trees utilized by southwestern willow flycatchers, ensuring no habitat destruction or disturbance occurs.

Determination:

- May affect, but not likely to adversely affect

Reasoning:

- The action areas are within the range of species and along migration paths, but the construction sites will not result in any tree manipulation or removal within the species' critical habitat nor habitat that would be desirable to the species, minimizing any potential adverse effects to southwestern willow flycatchers.

Sonoyta Mud Turtle

The Sonoyta mud turtle is an isolated, native endemic distributed within the Rio Sonoyta basin in Arizona and Sonora, Mexico. The species requires shoreline without insurmountable rock or artificial vertical barriers to allow movement between wetted sites, between aquatic habitat and terrestrial nest sites, and between aquatic habitat and estivation sites. The Sonoyta mud turtle critical habitat totals 12.3 acres (5 ha) and is solely located at Organ Pipe Cactus National Monument, approximately 140 miles from the project area.

Conservation Measures:

- Project activities target areas that do not contain suitable habitat for Sonoyta mud turtle.

Determination:

- No Effect

Reasoning:

- Although the refuge is considered part of the historic range for Sonoyta mud turtle, the species has not been recorded on the refuge.

Chiricahua Leopard Frog

This species is at the westernmost extent of its range in the Altar Valley, and range-wide exists in small, scattered populations throughout much of southern Arizona, southwest New Mexico, and much of northern Mexico. It utilizes a variety of wetland habitats, including earthen stock tanks on BANWR. During wet seasons, Chiricahua leopard frogs (CLF) are capable of long-distance travel across the otherwise dry landscape, a survival adaptation that provides for both population and genetic dispersal. Critical habitat for this species exists near the action area on BANWR in the Chiricahua Leopard Frog Critical

Habitat Buenos Aires Central Unit, an area surrounding refuge headquarters with Chongo Tank to the north and Carpenter Tank to the south, and in a wetland (Garcia Tank) located in the southeast portion of the refuge (Figure 4). The action area lies approximately 0.35 miles away from the critical habitat for the species (Figure 5).

Conservation Measures:

- Although construction activities will occur over several months, actions will be confined to daylight hours and to the specified project sites. The species can easily avoid construction efforts by moving away from the area during work periods.
- Project activities will not occur in CLF critical habitat nor in the vicinity of drainages or referred wetland habitat.

Determinations:

- May affect, but not likely to adversely affect

Reasoning:

- Although CLF critical habitat and isolated populations are found the action areas on the refuge, the potential for a population of CLF at the construction sites is low given their location on dry land and away from flood areas. Since project activities would be restricted from the edges and away from riparian corridors, maintaining suitable habitat available for CLF, there will be no effect to CLF from project activities.

Monarch Butterfly

The monarch butterfly is a candidate species and not yet listed or proposed for listing. Monarch butterflies in eastern and western North America represent the ancestral origin for the species worldwide. The species exhibit long-distance migration and overwinter as adults at forested locations in Mexico and California. Adult monarch butterflies feed on nectar from a wide variety of flowers. Reproduction is dependent on the presence of milkweed, the sole food source for larvae (Ackery and Vane-Wright 1984).

Determination:

- May affect, but not likely to adversely affect

Reasoning:

- The action area is within the range of species but there is no suitable habitat within the action area.

Pima Pineapple Cactus

The Pima pineapple cactus occurs in widely scattered, low density populations in the grassland areas of the refuge, where it seems to be found mostly in relatively flat areas characterized by gravelly soil. A GIS model was created to predict occurrence of the cacti within the refuge units, and this dynamic model has been successfully used to determine where to expect cacti within burn units.

Conservation Measures:

- Refuge will survey the construction areas for PPC prior to beginning earth disturbance.
- Access to work areas will be on established roads with any overland travel corridors with no known occurrences of PPC.

Determination:

- No effect

Reasoning:

- The action area is within the range of species but PPC are not present within the footprint of the project areas. Furthermore, conservation measures are taken to avoid impacts to species.

Arizona Eryngo (endangered)

Arizona eryngo are not known to occur on the refuge. Where the species occurs, found in wet cienegas and other wetland environments. There are no wetlands within the project area.

Conservation Measures:

- Access to work areas will be on established roads with any overland travel corridors with no known occurrences of Arizona eryngo

Determination:

- No Effect

Reasoning:

- The action area is within the historic range of species but Arizona eryngo are not present within the footprint of the project areas.

V. Effect determination and response requested

Summary Table:

Anticipated Effects	Determination	Species/Critical Habitat
---------------------	---------------	--------------------------

<p><i>No Effect</i></p>	<p>This determination is appropriate when the proposed project will not directly or indirectly affect (neither negatively nor beneficially) individuals of listed/proposed/candidate species or designated/proposed critical habitat of such species.</p>	<ul style="list-style-type: none"> • Ocelot • Jaguar • Sonoyta mud turtle • California least tern • Pima pineapple cactus • Arizona eryngo
<p><i>May Affect, but Not Likely to Adversely Affect</i></p>	<p>This determination is appropriate when the proposed project is likely to cause insignificant, discountable, or wholly beneficial effects to individuals of listed species and/or designated critical habitat.</p>	<ul style="list-style-type: none"> • Western yellow-billed cuckoo • Southwestern willow flycatcher • Masked bobwhite • Chiricahua leopard frog • Cactus ferruginous pygmy-owl
<p><i>May Affect and Likely to Adversely Affect</i></p>	<p>This determination is appropriate when the proposed project is likely to adversely impact individuals of listed species and/or designated critical habitat.</p>	<ul style="list-style-type: none"> • None
<p><i>May affect but Not Likely to Jeopardize candidate or proposed species/critical habitat</i></p>	<p>This determination is appropriate when the proposed project may affect, but is not expected to jeopardize the continued existence of a species proposed for listing or a candidate species, or adversely modify an area proposed for designation as critical habitat.</p>	<ul style="list-style-type: none"> • None
<p><i>Likely to Jeopardize candidate or proposed species/critical habitat</i></p>	<p>This determination is appropriate when the proposed project is reasonably expected to jeopardize the continued existence of a species proposed for listing or a candidate species, or adversely modify an area proposed for designation as critical habitat.</p>	<ul style="list-style-type: none"> • None

Non-Ecological Services Program Signatory Authority:

Name, Position, and Date: RICHARD ALBERS Digitally signed by RICHARD ALBERS
Date: 2024.07.29 12:55:16 -0700, Refuge Manager

On April 17, 2008, the Deputy Director issued DO 194, which extended authority delegation for Intra-Service ESA section 7 consultation determinations. The DO extended authority delegation for informal Intra-Service section 7 consultation determinations from the ES program to officers in non-ES programs at the Regional Director’s discretion. The purpose of extending authority delegation is to streamline the consultation process. On August 30, 2019, Region 2 extended this authority to additional non-ES programs, including the National Wildlife Refuge System. Thus, non-ES programs are delegated authority to forgo consultation with ES for “may affect, not likely to adversely affect” determinations. The responsibilities of ES and the non-ES program are outlined in *Southwest Regional Guidance: Delegating Authority for Intra-Service Section 7 Consultation Determinations*.

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VI. Figures

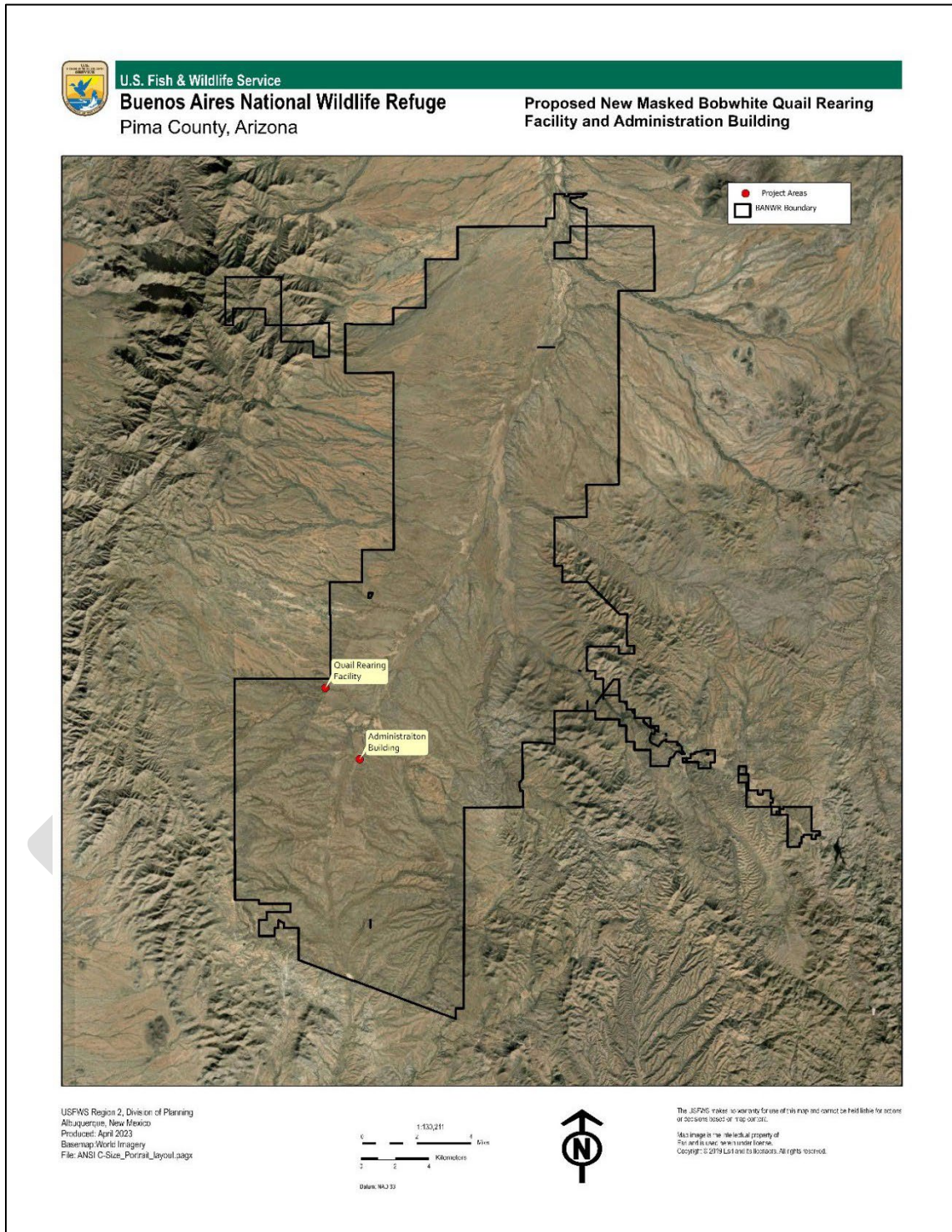


Figure 1: BANWR vicinity and project area locations.



USFWS Region 2, Division of Planning
 Albuquerque, New Mexico
 Produced: April 2024
 Basemap: World Imagery
 File: ANSI C-Size Portrait layout.pptx

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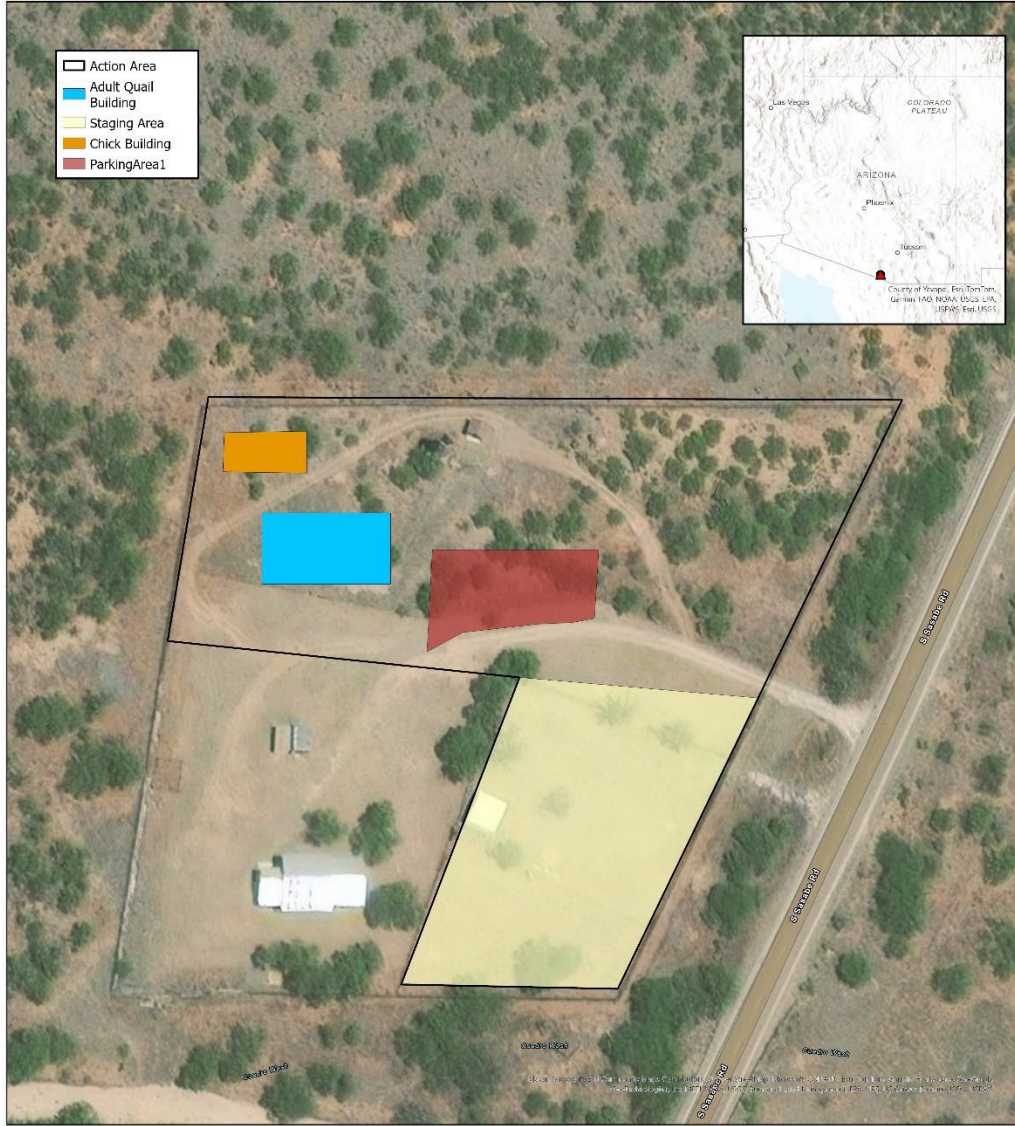


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Doc#: 194333

Figure 2: Main Campus of BANWR, including project footprint of new administration building and demolition of existing administration building.



USFWS Region 2, Division of Planning
 Albuquerque, New Mexico
 Produced: April 2024
 Basemap: World Imagery
 File: ANSI C-Size_Portrait_Layout.pptx

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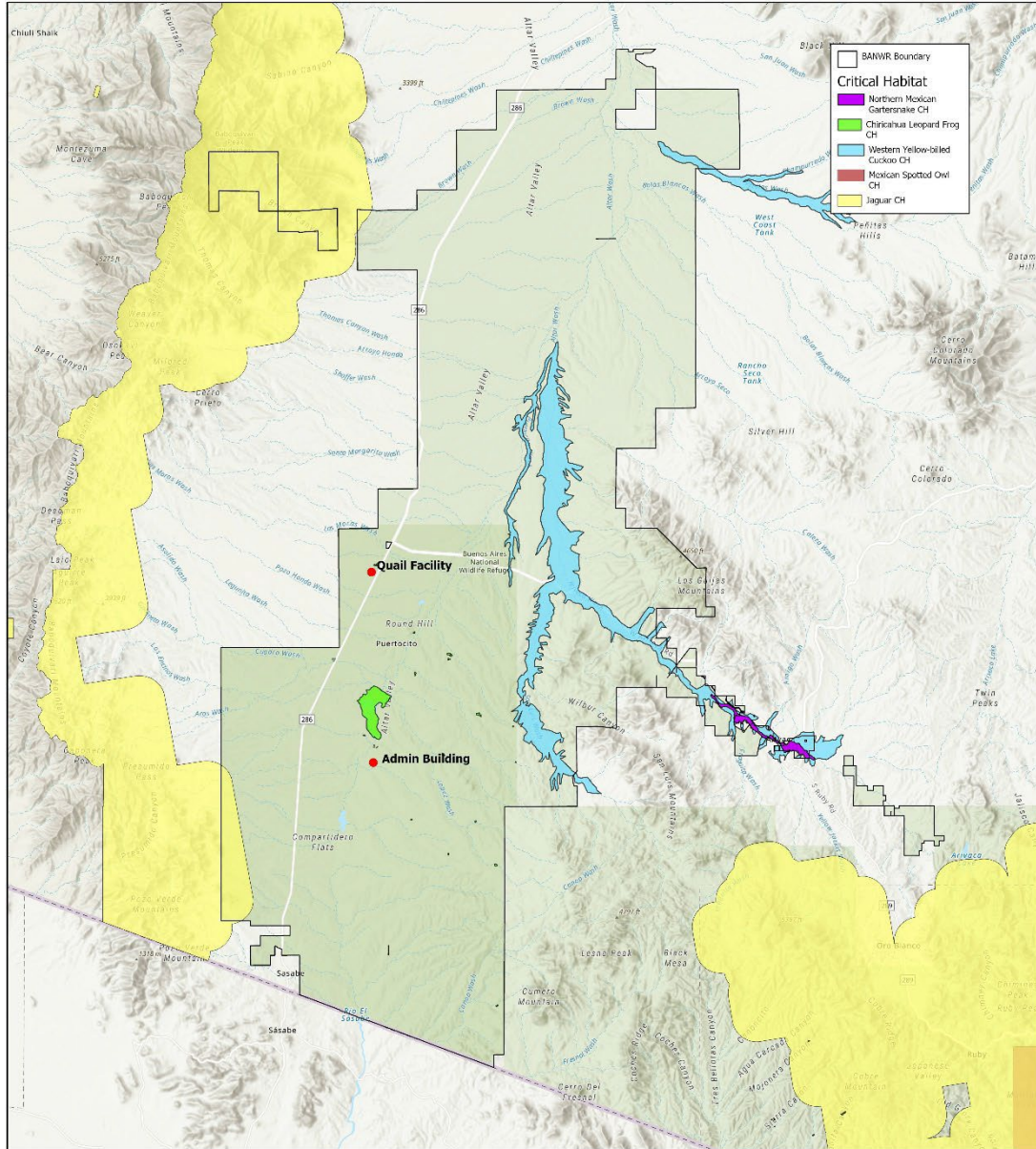
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Figure 5: Detail of Quail Breeding Facility action area.

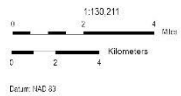


U.S. Fish & Wildlife Service
Buenos Aires National Wildlife Refuge
 Pima County, Arizona

Locations of New Admin Building and Quail Facility in Proximity to Critical Habitat



USFWS Region 2, Division of Planning
 Albuquerque, New Mexico
 Produced: April 2023
 Basemap: World Imagery
 File: ANS1 C-Size_Porrait_layout.pax



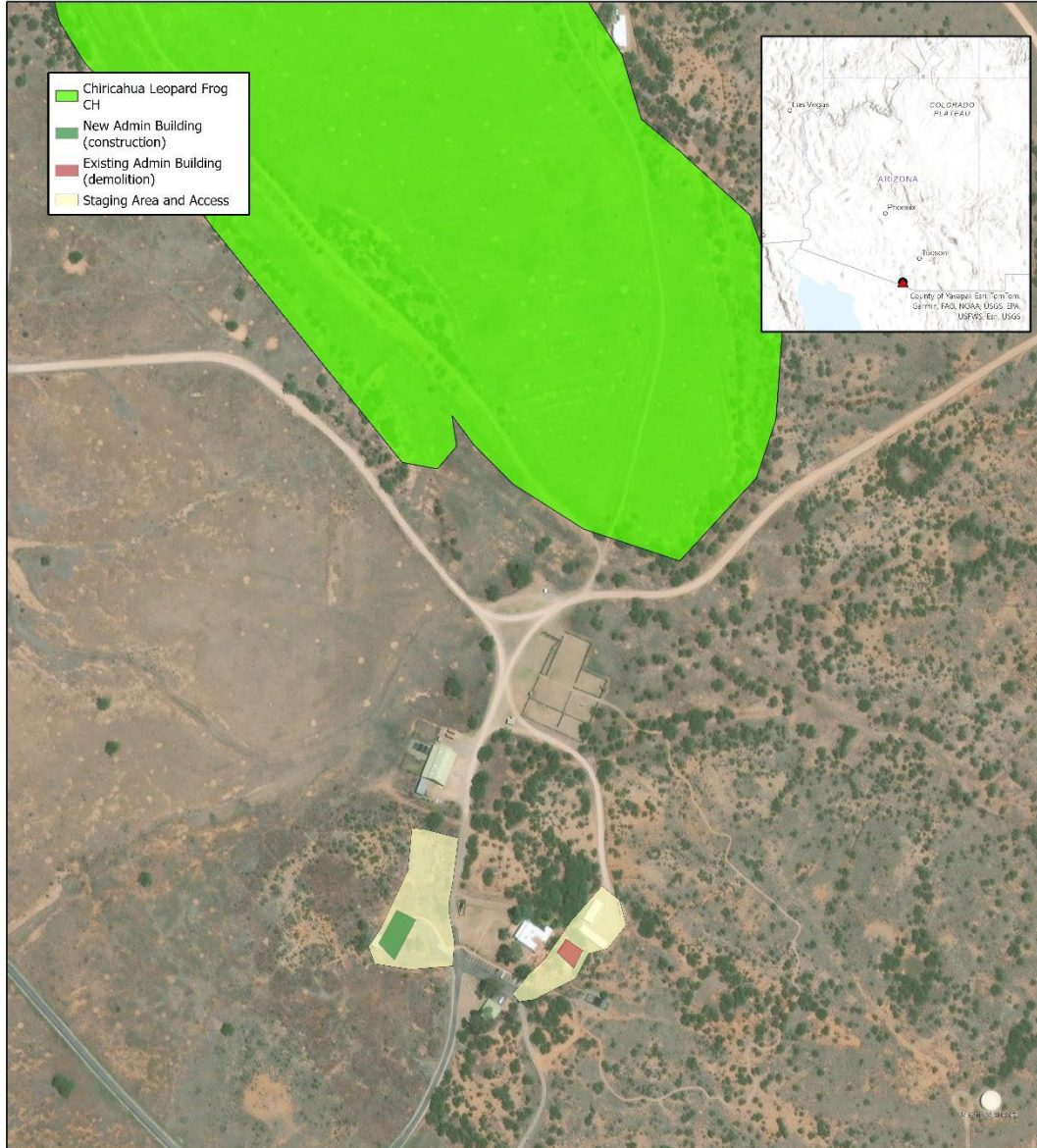
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Figure 4: Action area (Admin Building and Quail Facility) in proximity to Critical Habita at BANWR.



U.S. Fish & Wildlife Service
Buenos Aires National Wildlife Refuge
 Pima County, Arizona

Action Area at BANWR Main Campus



USFWS Region 2, Division of Planning
 Albuquerque, New Mexico
 Produced: April 2024
 Basemap: World Imagery
 File: ANSI C-Size_Portrait_layout.pagx

0 0.03 0.07 0.13 Miles



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Date: 4/10/24

Figure 5: Detail of action area in proximity to Chiricahua leopard frog critical habitat.

VII. Literature Cited

- Ackery and R.I. Vane-Wright British Museum (Natural History), 1984, *Oryx*, 19(3), 183-184.
doi:10.1017/S0030605300025497
- Allen, J.A. 1886. The masked bobwhite (*Colinus ridgwayi*) in Arizona. *Auk* 3:275-276.
- Blomberg L, Trezza D. 2021. The Evolution of Quiet Lawn Mowers and Their Impact on Community Noise and Hearing Conservation. Pages 4896–4902 INTER-NOISE and NOISE-CON Congress and Conference Proceedings. Institute of Noise Control Engineering, Reston, Virginia, United States.
- Brennan, Thomas C. and Andrew T. Holycross. 2006. A Field Guide to the Amphibians and Reptiles in Arizona. Phoenix, AZ: Arizona Game and Fish Department.
- Morris, G.M., C. Kline, and S.M. Morris. 2015. Status of *Danaus Plexippus* Population in Arizona. *Journal of the Lepidopterists' Society* 69(2), 91–107.
- Halterman, M., M.J. Johnson, J.A. Holmes and S.A. Laymon. 2015. A Natural History Summary and Survey Protocol for the Western Distinct Population Segment of the Yellow-billed Cuckoo: U.S. Fish and Wildlife Techniques and Methods. 45 pp
- Kuvlesky, W. P., Jr., S. A. Gall, S. J. Dobrott, S. Tolley, F. S. Guthery, S. A. DeStefano, N. King, K. R. Nolte, N. J. Silvy, J. C. Lewis, G. Gee, G. Camou Luders, and R. Engel- Wilson. 2000. The status of endangered masked bobwhite recovery in the United State and Mexico. *Proceedings of the National Quail Symposium* 4:42–57.
- Nowak, R. M. 1991. Walker's mammals of the world. Fifth edition. Vols. I and II. Johns Hopkins Univ. Press, Baltimore. 1629 pp.
- Schoenecker K.A., and Krausman P.R. 2002. Human Disturbance in Bighorn Sheep Habitat, Pusch Ridge Wilderness, Arizona. *Journal of the Arizona-Nevada Academy of Science* 34(1):63–68.
- U.S. Fish and Wildlife Service (USFWS). 2009. "California least tern: General species information." Arizona Ecological Services Field Office. Accessed February 16, 2021.
<https://www.fws.gov/southwest/es/arizona/CALeastTern.html>.
- U.S. Fish and Wildlife Service. 2012a. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Chiricahua Leopard Frog. *Federal Register* 77:16324–16424.
- U.S. Fish and Wildlife Service. 2016a. Recovery Plan for the Ocelot (*Leopardus pardalis*), First Revision. Pages 1–273. Recovery Plan. Region 2 (Southwest), U.S. Fish and Wildlife Service, Albuquerque, New Mexico, United States.
- U.S. Fish and Wildlife Service. 2016b. Recovery Plan for the Sonoran Pronghorn (*Antilocapra americana sonoriensis*), Second Revision. Pages 1–346. Recovery Plan. Region 2 (Southwest), U.S. Fish and Wildlife Service, Albuquerque, New Mexico, United States.

U.S. Fish and Wildlife Service. 2020a. 5-year Review for the California Least Tern: Summary and Review. Page 8. Region 8 (Pacific Southwest), U.S. Fish and Wildlife Service, Carlsbad, California, United States.

Washington State Department of Transportation (WDOT). 2020. Construction Noise Impact Assessment. Pages 1–95. Number: Chapter 7, Biological Assessment Preparation Manual. Washington State Department of Transportation, Olympia, Washington, United States.

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APPENDIX B: Arizona Species of Greatest Conservation Need (SGCN) and Documented within Action area

Scientific Name	Common Name	SGCN Tier
<i>Agave parviflora</i> ssp. <i>parviflora</i>	Santa Cruz Striped Agave	NA
<i>Ammodramus savannarum</i> <i>ammolegus</i>	Arizona grasshopper sparrow	2
<i>Aspidoscelis stictogramma</i>	Giant Spotted Whiptail	2
<i>Centronyx bairdii</i>	Baird's Sparrow	2
<i>Colinus virginianus ridgwayi</i>	Masked Bobwhite	1
<i>Coryphantha scheeri</i> var. <i>robustispina</i>	Pima Pineapple Cactus	NA
<i>Gastrophryne mazatlanensis</i>	Sinoloan Narrow-mouthed Toad	2
<i>Glaucidium brasilianum</i> <i>cactorum</i>	Cactus Ferruginous Pygmy-owl	1
<i>Lepus alleni</i>	Antelope Jackrabbit	2
<i>Lobelia fenestralis</i>	Leafy Lobelia	NA
<i>Poeciliopsis occidentalis</i> <i>occidentalis</i>	Gila Topminnow	1
<i>Rana chiricahuensis</i>	Chiricahua Leopard Frog	1

APPENDIX C: Public and Tribal Scoping Letters



White Mountain Apache Tribe
Office of Historic Preservation
PO Box 1032
Fort Apache, AZ 85926
Ph: (928) 338-3033 Fax: (928) 338-6055

To: Rich Albers – Refuge Manager, Buenos Aires National Wildlife Refuge
Date: June 08, 2023
Re: *Proposed construction of two facilities at the Buenos Aires National Refuge*

.....

The White Mountain Apache Tribe Historic Preservation Office appreciates receiving information on the project dated: May 31, 2023. In regards to this, please refer to the following statement(s) below.

Thank you for allowing the White Mountain Apache tribe the opportunity to review and respond to the above proposed construction of two facilities at the Buenos Aires National Wildlife Refuge, in Sasabe, Pima County, Arizona.

Please be advised, we have reviewed the consultation letter and the information provided, we have reviewed the information provided and determined the proposed project will have a *“No Adverse Effect”* on the tribe traditional cultural properties and/or historic properties.

Thank you for early tribal engagement and consultation, and continued collaborations in protecting and preserving places of cultural and historical importance.

Sincerely,

Mark Altaha

White Mountain Apache Tribe – THPO
Historic Preservation Office



Received from Tribal Admin 08/21/23
E-mailed 08/16/23 (date)
Scanned 08/16/23 (date)

SAN CARLOS APACHE TRIBE
Historic Preservation & Archaeology Department
P.O. Box 0
San Carlos Arizona 85550
Tel. (928) 475-5797, apachevern@yahoo.com

Tribal Consultation Response Letter

Date: June 21, 2023
Contact Name: Richard Albers (609) 335-0814/rich_albers@fws.gov
Company: United States Department of the Interior Fish and Wildlife Service – Buenos Aires NWR
Address: P.O. Box 109 Sasabe, AZ 85633
Project Name/#: Proposing construction of two facilities at the Buenos Aires National Wildlife Refuge

Dear Sir or Madam:

Under Section 106 and 110 of the National Historic Preservation Act, we are replying to the above referenced project. Please see the appropriate marked circle, including the signatures of Vernelda Grant, Tribal Historic Preservation Officer (THPO), and the concurrence of the Chairman of the San Carlos Apache Tribe:

- NO INTEREST/NO FURTHER CONSULTATION/NO FUTURE UPDATES**
We defer to the Tribe located nearest to the project area.
- CONCURRENCE WITH REPORT FINDINGS & THANK YOU**
- REQUEST ADDITIONAL INFORMATION**
I require additional information in order to provide a finding of effect for this proposed undertaking, i.e. Project description ___ Map ___ Photos ___ Other _____
- NO EFFECT**
I have determined that there are no properties of religious and cultural significance to the San Carlos Apache Tribe that are listed on the National Register within the area of potential effect or that the proposed project will have no effect on any such properties that may be present.
- NO ADVERSE EFFECT**
Properties of cultural and religious significance within the area of effect have been identified that are eligible for listing in the National Register for which there would be no adverse effect as a result of the proposed project.
- ADVERSE EFFECT**
I have identified properties of cultural and religious significance within the area of potential effect that are eligible for listing in the National Register. I believe the proposed project would cause an adverse effect on these properties. Please contact the THPO for further discussion.

We were taught traditionally not to disturb the natural world in a significant way, and that to do so may cause harm to oneself or one's family. Apache resources can be best protected by managing the land to be as natural as it was in pre-1870s settlement times. Please contact the THPO, if there is a change in any portion of the project, especially if Apache cultural resources are found at any phase of planning and construction. Thank you for contacting the San Carlos Apache Tribe, your time and effort is greatly appreciated.

DIRECTOR/THPO: 08/04/23
Vernelda J. Grant, Tribal Historic Preservation Officer Date

CONCURRENCE: _____
Terry Rambler, Tribal Chairman Date

AK-CHIN INDIAN COMMUNITY



42507 W. Peters & Nail Road · Maricopa, Arizona 85138 Telephone: (520) 568-1000 · Fax: (520) 568-1001

July 19, 2023

Richard Albers, Refuge Manager
FISH AND WILDLIFE SERVICE
BUENOS AIRES NWR
P.O. Box 109
Sasabe, AZ 85633

Dear Mr. Albers,

The Ak-Chin Indian Community received a letter regarding the US fish and Wildlife Service seeking input from Tribes and other interested parties regarding the proposed project listed. The service is proposing construction of two facilities at the Buenos Aires National Wildlife Refuge that will assist with the recovery of various federally-listed threatened and endangered species and to fulfill the Service's mission to conserve, protect, and enhance populations of wildlife, plants and their habitats.

After review, the Ak-Chin Indian Community has no comment and defers all comments to the Tohono O'odham Nations Tribal Historic Preservation Office located in Sells, Arizona.

Should you have any questions, please contact Ms. Elaine F. Peters, Him-Dak Director, at 520-568-1350 or the Cultural Resources Office at 520-568-1365.

Sincerely,

Robert Miguel, Chairman
Ak-Chin Indian Community

APPENDIX D: Cultural Resource Coordination

MEMORANDUM OF AGREEMENT BETWEEN THE U.S. FISH & WILDLIFE SERVICE AND

THE ARIZONA STATE HISTORIC PRESERVATION OFFICER PURSUANT TO 36 CFR PART 800 REGARDING THE BUENOS AIRES NATIONAL WILDLIFE REFUGE BUILDING AND INFRASTRUCTURE IMPROVEMENT PROJECT IN SASABE, PIMA COUNTY, ARIZONA

WHEREAS, the U.S. Fish and Wildlife Service (FWS), Buenos Aires National Wildlife Refuge plans to carry out the Building and Infrastructure Improvement Project at the Buenos Aires National Wildlife Refuge (Undertaking) pursuant to the National Wildlife Refuge Administrative Act (16 U.S.C. 668dd et seq); and

WHEREAS, the undertaking consists of demolishing the existing Old Administrative Building and redesigning the landscape in and around the building's former footprint within the boundary of the Buenos Aires Ranch Headquarters Historic District, as well as construct a new Administrative Office Building adjacent to and outside of the district boundary. In addition, a new breeding facility for the masked bobwhite quail (Quail Breeding Facility) will be constructed at the Bailey location located 2.3 miles northwest of the historic district in an area that was found to be clear of historic properties (this activity is referred to herein as the "Project"); and

WHEREAS, the proposed Project will be located on land owned and administered by the FWS, and is therefore a federal undertaking and this memorandum of agreement (Agreement) is being developed pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended, 54 U.S.C. 306108, and pursuant to 36 CFR Part 800, the Advisory Council on Historic Preservation (ACHP)'s regulations implementing Section 106; and

WHEREAS, the FWS has established the Project's Area of Potential Effects (APE) as defined at 36 CFR § 800.16(d), as the construction footprint for the redesigned landscape including the location of the Old Administration Building within the historic district where infrastructure and building demolition will take place, the construction footprint of the new Administrative Office and the Quail Breeding Facility (outside the historic district), as well as construction access and staging areas for a total of approximately 4.10 acres with 0.68 acres of that total located within the historic district as shown in Attachment 1 (attached hereto and incorporated by reference). Actions within the historic district will be limited to the footprint of the Old Administration Building; and

WHEREAS, the FWS has identified and recorded cultural resources within the APE, pursuant to 36 CFR § 800.4, and those findings have been documented in the reports titled "A Class III Cultural Resources inventory of 190 Acres on the Buenos Aires National Wildlife Refuge, Pima County, Arizona" prepared by Harris Environmental Group, Inc. (Tenen 2022), and "Addendum Report: A Class III Cultural Resources Inventory of 190 Acres on the Buenos Aires National Wildlife Refuge, Pima County, Arizona" prepared by FWS (MacDonell 2023); and

WHEREAS, the surveys identified the Buenos Aires Ranch Headquarters Historic District (AZ DD:6:73[ASM]), which encompasses 7.4 acres bounded by the Cook House to the South, the staff parking area and access road on the East, Aguirre Lake Road and the Quail Barn on the West, and the road intersection just below Aguirre Lake on the North, and currently consists of five structures, one check dam (not relocated), one corral, and an artifact concentration. The Buenos Aires Ranch Headquarters Historic District has been determined to be eligible for inclusion in the National Register of Historic Places at the local level of significance under Criteria A and B for its association with Arizona ranching history and its association with Pedro Aguirre, Jr, an individual important to Arizona history, who established the ranch in the 1880's and resided on the property. Arizona State Historic Preservation Officer (SHPO) concurred with this determination of eligibility on correspondence dated February 7, 2023 and June 7, 2023 (File #SHPO-2022-1115(167290) and (169789)); and

WHEREAS, the FWS has evaluated effects associated with the Project and following consultation with the SHPO via teleconference and through formal correspondence has determined that construction of the Project constitutes an adverse effect to the Buenos Aires Ranch Headquarters Historic District, and SHPO concurred with a formal determination of adverse effect on February 7, 2023, and June 7, 2023 (File #SHPO-2022-1115(167290) and (169789)); and

WHEREAS, the FWS has developed this Agreement to resolve adverse effects to the Buenos Aires Ranch Headquarters Historic District for this undertaking (demolition of the Old Administration Building and construction of a new Administrative Building adjacent to the District) through the development of minimization and mitigation measures in accordance with 36 CFR §§ 800.6(b) and 800.6(c); and

WHEREAS, the SHPO is authorized to enter into this Agreement in order fulfill its role of advising and assisting federal agencies in carrying out their responsibilities under Sections 101 and 106 of the NHPA (36 CFR §§ 800.2[c][1][i] and 800.6[b]), and SHPO is a signatory to this AGREEMENT; and

WHEREAS, the FWS has consulted with Ak-Chin Indian Community, Fort Sill Apache Tribe, Gila River Indian Community, Hopi Tribe, Pascua Yaqui Tribe of Arizona, Salt River Pima-Maricopa Indian Community, San Carlos Apache Tribe, Tohono O'odham Nation, and the White Mountain Apache Tribe, pursuant to 36 CFR § 800.2(c)(2)(ii)(A)-(F), regarding the effects of the Undertaking on historic properties and has modified the project design to remove demolition of another structure within the historic district (the Cook House) based on their feedback and has invited them to sign this Agreement as concurring parties; and

WHEREAS, the FWS shall seek and consider the views of the public in a manner that reflects the nature of the undertaking and its potential effects on historic properties as well as the likely interest of the public in the effects on historic properties. The FWS shall use its procedures under the National Environmental Policy Act of 1969 (NEPA) to solicit information and concerns about historic properties from members of the public. The FWS shall ensure that an appropriate level of public involvement is provided in accordance with 36 CFR § 800.2(d)(3) and will consider comments or objections by members of the public in a timely manner.

WHEREAS, in accordance with 36 CFR § 800.6(a)(1), the FWS has notified the ACHP of its adverse effect determination with specified documentation, and the ACHP has chosen not to participate in the consultation pursuant to 36 CFR § 800.6(a)(1)(iii) (letter dated 19 July 2024); and

NOW, THEREFORE, the FWS and the SHPO agree that the Undertaking shall be implemented in accordance with the following stipulations in order to take into account the effects of the Project on historic properties.

STIPULATIONS

The FWS shall ensure that the following stipulations are implemented:

I. ROLES AND RESPONSIBILITIES

The signatories agree that the FWS is the lead agency for administering and implementing this Agreement. These responsibilities include, but are not limited to, consulting and coordinating with the consulting parties, conducting Government-to-Government consultation with the consulting Tribes, overseeing all cultural resources work, assembling all submissions to the consulting parties including cultural resources monitoring and reporting; and seeking SHPO concurrence with all agency compliance decisions. It is anticipated that monitoring and associated documentation, while being overseen by the FWS, would be completed by a qualified contractor.

II. PROFESSIONAL QUALIFICATIONS

All work standards and professional qualification carried out pursuant to this Agreement shall meet the *Secretary of the Interior's (SOI) Standards for Archaeology and Historic Preservation*, as per Section 112(a)(1)(A) of the NHPA and § 800.2(a)(1) of the implementing regulations.

III. CONSTRUCTION VARIANCE REVIEW PROCESS

All construction needs cannot be anticipated in advance, and areas subject to direct or indirect effects, including areas required for additional workspace (e.g., access roads, additional staging areas, ancillary facilities, detours) may be identified as work progresses.

- A. Throughout the Undertaking, FWS shall determine whether revisions to the scope of work or other modifications to the Undertaking will require modification of the APE.
- B. If necessary FWS shall define an appropriate, revised APE and will inform all consulting parties of the revised APE within 15 days of its establishment and will provide consulting parties a 15 calendar-day review period to comment. This period may run consecutively to, concurrently with, or be combined with other consultation efforts.

- C. Should modification of the APE be necessary, FWS shall ensure that the revised APE has been surveyed for cultural resources in its entirety or arrange to have such done.
- D. The results of additional inventories will be prepared in accordance with professional standards.
- E. The FWS shall:
 - i. Evaluate the adequacy of the existing and/or newly prepared reports.
 - ii. Make determinations of NRHP eligibility.
 - iii. Assess the potential effects of the Undertaking on any newly identified historic properties (and/or NRHP-contributing features) within the APE.
 - iv. Develop an approach to the treatment of newly identified, potentially affected historic properties, either through extant plans or other means.
 - v. Consult with all consulting parties on NRHP eligibility determinations, findings of effect, and any proposed approach to treatment. This may occur consecutively to, concurrently with, or be combined with other consultation efforts.

IV. RESOLUTION OF ADVERSE EFFECTS

- A. Pursuant to 36 CFR § 800.6(a), this Agreement commits the FWS to measures to resolve adverse effects to historic properties. The measures discussed below focus on the Buenos Aires National Wildlife Refuge Headquarters Historic District, including the treatment and documentation of NRHP-contributing features of the Historic district.
- B. Additional measures are provided for protection and documentation of any unanticipated discoveries. The FWS shall ensure all construction documents and/or contracts include applicable provisions, and herein commits to the following:
 - 1. Historic American Building Survey (HABS) Level II Documentation of the Old Administration Building.
 - 2. Creation of a landscape assessment report that will inform a new interpretive exhibit to enhance the understanding of the significance of the Buenos Aires Ranch and its role within the context of regional historic ranching.
 - 3. On-site visitor interpretation on the history of the Buenos Aires Ranch Headquarters.
 - 4. Continued consultation based with SHPO regarding new building design.
 - 5. Cultural resources monitoring of construction activities within the historic district.

V. HISTORIC DISTRICT TREATMENT

A. HABS Level II Documentation

- 1. The project will include Level II HABS documentation of the Old Administration Building prior to demolition. Level II HABS Documentation consists of:

- a) Drawings: select existing drawings, where available, may be photographed with large-format negatives or photographically reproduced on vellum in accordance with the U.S. Copyright Act, as amended
 - b) Photographs: photographs with large-format negatives of exterior and interior views, or historic views where available and produced in accordance with the U.S. Copyright Act, as amended
 - c) Written Data: history and description following the standard outline format.
2. Documentation will be prepared in accordance with the HABS Guidelines available at: <https://www.nps.gov/subjects/heritagedocumentation/guidelines.htm>
 3. For this project, select existing photographs, drawings, maps, or other figures, if legible when reproduced on 8.5" x 11" paper, may be included in an appendix or appendices as appropriate and in accordance with the U.S. Copyright Act (as amended), instead of on large-format negatives. Born-digital images documenting the site may also be included in an appendix, but will not replace the requirement for large-format photograph as detailed in the Guidelines. Written data will follow the standard outline format.
 4. Documentation preparer/s will have or be supervised by someone who has demonstrated professional training and experience equivalent to the Secretary of the Interior's Professional Qualifications Standards available at <https://www.nps.gov/articles/sec-standards-prof-quals.htm> in historical research and writing; architectural and engineering analysis and description and drawings production; and large-format, film photography and processing; as applicable to their role/s in preparation.
 5. Preparation of HABS documentation will be coordinated in advance with the National Park Service's Denver Office Heritage Partnerships Program (HPP). Late-version draft documentation will be provided to HPP and comments addressed in a final draft/s. Following HPP acceptance, final documentation will be provided to HPP for transmittal to the Library of Congress. HPP contact information is available at <https://www.nps.gov/hdp/regions.htm>.
 6. No physical impacts related to the construction project will occur until documentation has been accepted in writing by HPP.
 7. Final digital and/or hard copies of the documentation, exempting the original negatives transmitted through HPP to the Library of Congress, shall be offered to the Arizona SHPO following HPP approval.

B. Landscape Report

FWS will conduct a landscape level assessment report of the ranching history and assessment of outlying ranching properties within Buenos Aires National Wildlife Refuge within the Historic Ranching Context documents created by SHPO. This document will

be created in accordance with the Secretary of Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes (<https://www.nps.gov/crps/tps/landscape-guidelines/index.htm>) and *Preservation Brief #36: Protecting Cultural Landscapes*. This document will include historical research and identification of potential historic properties within the landscape, inventory and documentation of existing conditions, site analysis and evaluation of integrity and significance of identified properties, and development of a preservation approach and treatment plan including a strategy for ongoing maintenance.

C. Interpretive Panels

In cooperation with consulting parties, FWS will create and install an interpretive exhibit panel on the history of the Buenos Aires Ranch Headquarters within the historic district. This display will be informed by the Landscape Report. At minimum it will include a map of the original live-work area design, a background history on the Ranch and its role within the context of historic ranching in the Altar Valley and will utilize historic photographs and details from primary sources as applicable.

D. Review of Building Design

1. FWS will coordinate review of the New Administration Building draft design plans and landscape design at the location of the Old Administration Building with the Historic Architect at SHPO in order to ensure the work is complementary to the historic district in design and form prior to design approval. Consideration will be given to the Secretary of the Interior's Standards for the Treatment of Historic Buildings for proposed work, including guidelines for appropriate design adjacent to the boundaries of an historic district.
2. FWS will coordinate review of construction project plans with the SHPO.

E. Archaeological Monitoring

1. All ground disturbing construction activities within the Buenos Aires Ranch Headquarters Historic District will be monitored by a SOI qualified archaeological monitor.
2. The archaeological monitor shall coordinate with the agency official and the construction contractor to complete HABS Level II documentation of the Old Administration Building prior to demolition activities. This coordination must also include scheduling to ensure that an archaeological monitor is on site during all earth disturbing activities within the historic district boundaries (building demolition and associated earthwork).
3. The monitor will be present during all earth disturbing activities within the historic district. Monitors will maintain a safe distance from equipment but will visually inspect excavated areas. At the discretion of the monitoring archaeologist, excavation or other ground disturbing activities must be halted any time a suspected

archaeological feature or deposit is encountered. Excavations must remain halted in the area of discovery until the archaeologist can determine the nature, extent, and age of the archaeological deposit. If the initial examination determines the deposit may have sufficient integrity and content to be considered potentially eligible for nomination to the National Register of Historic Places, all further excavations in the vicinity of the deposit must be halted until a complete eligibility determination can be made.

4. In the event that previously unreported cultural resources (historic era features, intact prehistoric cultural deposits or features, or diagnostic prehistoric artifacts) are encountered during ground disturbing activities, all work must immediately cease within 100 feet and the discovery must be reported to the FWS Regional Archaeologist. The FWS Regional Archaeologist will then notify the SHPO and the Tribes, as appropriate, of the discovery and a qualified archaeologist must then document the discovery and evaluate its eligibility for the National Register of Historic Places in consultation with the FWS Regional Archaeologist, the SHPO, and Tribes as appropriate. Work must not resume in this area until documentation and evaluation are complete and authorization from the FWS Regional Archaeologist is received.
5. If human remains are encountered during ground disturbing activities, all work must immediately cease within 100 feet of the encounter and the area must be secured and the FWS Archaeologist contacted. FWS will notify the SHPO and appropriate Tribes of the encounter. All encounters will be treated in accordance with the Native American Graves Protection and Repatriation Act (NAGPRA) and work must not resume in this area without authorization from the FWS Regional Archaeologist.

VI. POST REVIEW DISCOVERIES

The FWS shall ensure that all construction documents include the following provisions:

- A. If previously unidentified historic properties or unanticipated effects to historic properties are discovered during construction activities, the contractor shall immediately halt all activity within a 100-foot radius of the discovery, notify the FWS of the discovery, and implement interim measures to protect the finding(s) in place.
- B. Immediately upon receipt of the notification required in Stipulation VI.A of this document, the FWS shall:
 - i. Inspect the site to determine the extent of the discovery and ensure that construction activities have halted.
 - ii. Clearly mark the area of the discovery.
 - iii. Implement additional measures, as appropriate, to protect the discovery from looting and vandalism.
 - iv. Have a qualified subject matter expert (archeologist, historic landscape architect, historic architect, etc., as appropriate) inspect the construction

site to determine the extent of the discovery and provide recommendations regarding its NRHP eligibility and treatment.

- v. Depending on recommendations from the qualified subject matter expert after discussion with FWS cultural resources personnel, for resources that could potentially be eligible for the NRHP the FWS will notify AZ SHPO and Tribes. Notification will include a description of the finding and the measures that have been implemented to comply with Stipulations VI.B.1-4 of this document.

VII. ANNUAL REVIEW OF AGREEMENT AND REPORTING

- A. Each year following the execution of this Agreement until it expires or is terminated, the FWS will compose an annual letter report (Annual Report) to review the progress under this Agreement and associated treatment measures. The Annual Report will include an update on project schedule, status, and any ongoing cultural resources monitoring or mitigation activities, discovery situations, proposed future actions, or outstanding tasks to be completed under this Agreement. Consulting parties will have 30 calendar days to review the Annual Report and provide comments to the FWS, who will then address the comments. The FWS will share the report with consulting parties to this Agreement and ask if parties are interested in attending a virtual annual meeting.
- B. If an annual meeting is requested by consulting parties, the FWS will address the comments on the annual report to develop the meeting agenda. The meeting shall include a discussion of construction progress, any scheduling changes proposed, any problems encountered, associated findings for any disturbances or enhancements to historic properties, identification of any new discoveries, and any disputes and objections received in FWS's efforts to carry out the terms of this Agreement.
- C. Within 14 days after the annual meeting, the FWS will summarize the meeting, including proposed action items and how they are to be addressed, in a letter to consulting parties. Consulting parties will have 20 days to review and comment on the meeting notes and, if necessary, provide the FWS with any edits to the meeting notes. If changes are needed, the FWS will produce revised meeting notes within 30 days of receipt of comments and will provide the final notes to the consulting parties.
- D. The contract documentation/interpretive materials developed as mitigation and outlined in Stipulation IV (A through E) above will be provided for review and comment by SHPO and consulting parties.
Deliverable products will include:
 - 1. Level II HABS documentation for the structure to be demolished in the historic district.
 - 2. A Landscape Level historic context/assessment report of the Buenos Aires/Altar Valley Historic Ranching Landscape
 - 3. Interpretive panels for display in the new courtyard area

4. An archaeological monitoring report for construction activities within the Buenos Aires Ranch Headquarters Historic District.
 - B. The FWS will submit all documentation related to the undertaking (e.g., HABS documentation, the cultural landscape assessment report, the monitoring report, etc.) to the consulting parties for review and comment, unless stipulated elsewhere in this MOA. Consulting parties shall have thirty (30) days from receipt to provide written comments. If a party does not comment on a submittal during this time period, the FWS will follow-up by telephone or e-mail with the party. If, after such reasonable and good faith efforts to reach an unresponsive consulting party, there has still been no response, the FWS will proceed to the next step prescribed by this MOA.
 - C. Following the review of the final draft reports, the FWS will prepare final reports / deliverables. The final reports will be submitted as described below:
 - (1) Digital and/or hard copies of the reports with any appendices will be provided to SHPO and any consulting parties according to their preference.
 - (2) The FWS will retain two hard copies of the reports for archival purposes, as well as a digital copy of the reports in PDF format. A copy of any archival photographs will also be retained and curated by the FWS as part of its permanent collection.
 - (3) Reporting will be completed no later than two (2) years following the commencement of recording activities.

VIII. DISPUTE RESOLUTION

Should any signatory or concurring party to this Agreement object at any time to any actions proposed or the manner in which the terms of this Agreement are implemented, the FWS shall consult with such party to resolve the objection. If the FWS determines that such objection cannot be resolved, the FWS will:

- A. Forward all documentation relevant to the dispute, including the FWS' proposed resolution, to the ACHP. The ACHP shall provide FWS with its advice on the resolution of the objection within thirty (30) days of receiving adequate documentation. Prior to reaching a final decision on the dispute, the FWS shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP, signatories, and concurring parties, and provide them with a copy of this written response. The FWS will then proceed according to its final decision.
- B. If the ACHP does not provide its advice regarding the dispute within the thirty (30) day time period, FWS may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, FWS shall prepare a written response that takes into account any timely comments regarding the dispute from the signatories and consulting parties to the MOA and provide them and the ACHP with a copy of such written response.

C. The FWS will be responsible for carrying out all other actions subject to the terms of this Agreement that are not the subject of the dispute.

IX. OBJECTIONS BY THE PUBLIC

At any time during implementation of the measures stipulated in this Agreement, should an objection to any such measure or its manner of implementation be raised by a member of the public regarding historic preservation, the FWS shall take the objection into account and consult as needed with the SHPO, or the ACHP, to determine how best to address the objection.

X. DURATION

This Agreement will expire if its terms are not carried out within five years from the date of its execution. Prior to such time, FWS may consult with the other signatories to reconsider the terms of the Agreement and amend it in accordance with Stipulation XI, below.

XI. AMENDMENTS

This Agreement will be amended when such an amendment is agreed to in writing by all signatories. The amendment will be filed with the ACHP and go into effect on that date.

XII. TERMINATION

If any signatory to this Agreement determines that its terms will not or cannot be carried out, that party shall immediately consult with the other signatories to attempt to develop an amendment per Stipulation XI, above. If within thirty (30) days an amendment cannot be reached, any signatory may terminate the Agreement upon written notification to the other signatories.

Once the Agreement is terminated, and prior to work continuing on the undertaking, FWS must either (a) execute an Agreement pursuant to 36 CFR § 800.6 or (b) request, take into account, and respond to the comments of the ACHP under 36 CFR § 800.7. FWS shall notify the signatories as to the course of action it will pursue.

XIII. ANTI-DEFICIENCY ACT

The FWS's obligations under this Agreement are subject to the availability of appropriated funds, and the stipulations of this Agreement are subject to the provisions of the Anti-Deficiency Act. The FWS shall make reasonable and good faith efforts to secure the necessary funds to implement this Agreement in its entirety. If compliance with the Anti-Deficiency Act alters or impairs the FWS's ability to implement the stipulations of this agreement, the FWS shall consult in accordance with the amendment and termination procedures found at Stipulations XI and XII of this agreement.

XIV. COUNTERPART SIGNATURES

This Agreement may be executed in counterparts, each of which shall be deemed an original and all of which together shall constitute one and the same instrument. If using counterpart signatures, only one signature per page is permitted.

XV. MISCELLANEOUS

- A. Other Relationships or Obligations: This Agreement shall not affect any preexisting or independent relationships or obligations.
- B. Severability: If any provision of this Agreement is determined to be invalid or unenforceable, the remaining provisions shall remain in force and unaffected to the fullest extent permitted by law and regulation.

Execution of this Agreement by the FWS and SHPO and implementation of its terms evidence that the FWS has taken into account the effects of this undertaking on historic properties and afforded the ACHP an opportunity to comment.

DRAFT

SIGNATURE PAGE
MEMORANDUM OF AGREEMENT
BETWEEN THE U.S. FISH & WILDLIFE SERVICE
AND
THE ARIZONA STATE HISTORIC PRESERVATION OFFICER
PURSUANT TO 36 CFR PART 800 REGARDING THE BUENOS AIRES NATIONAL
WILDLIFE REFUGE BUILDING AND INFRASTRUCTURE IMPROVEMENT
PROJECT IN SASABE, PIMA COUNTY, ARIZONA

SIGNATORY PARTY:
U.S. FISH AND WILDLIFE SERVICE, SOUTHWEST REGION

Amy Lueders
Regional Director

Date

SIGNATURE PAGE
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BETWEEN THE U.S. FISH & WILDLIFE SERVICE
AND
THE ARIZONA STATE HISTORIC PRESERVATION OFFICER
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WILDLIFE REFUGE BUILDING AND INFRASTRUCTURE IMPROVEMENT
PROJECT IN SASABE, PIMA COUNTY, ARIZONA

SIGNATORY PARTY:
ARIZONA STATE HISTORIC PRESERVATION OFFICER

Kathryn Leonard
State Historic Preservation Officer

Date

DRAFT

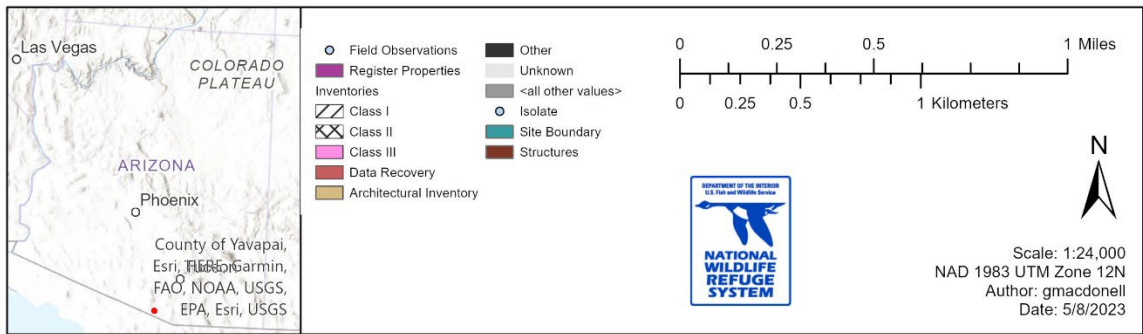
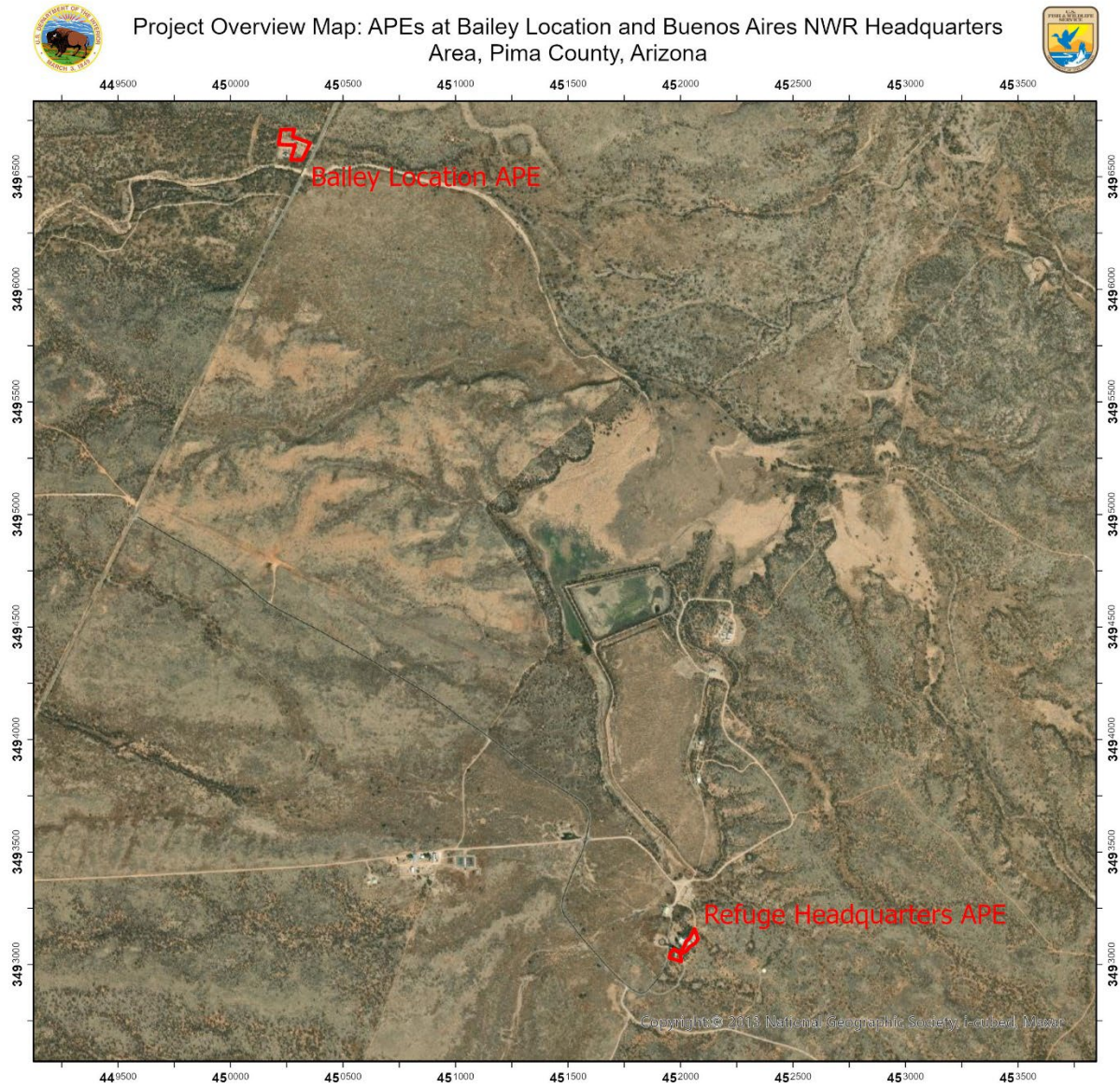
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PROJECT IN SASABE, PIMA COUNTY, ARIZONA

CONCURRING PARTY:

Date

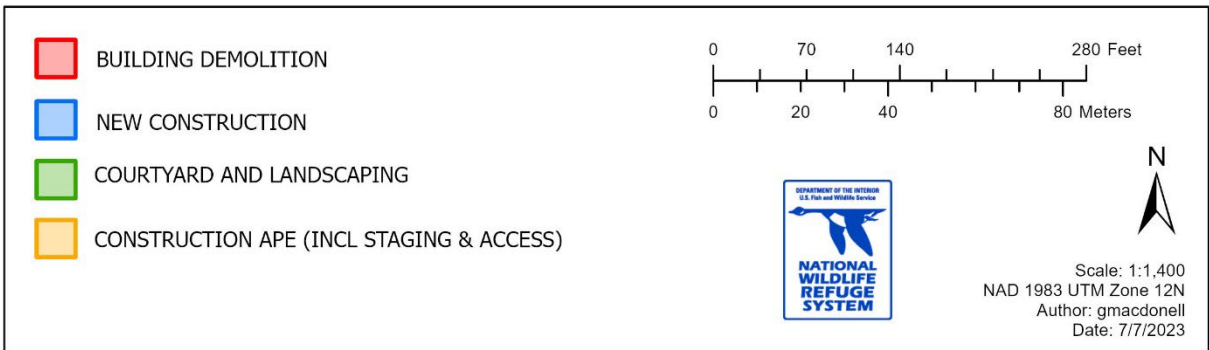
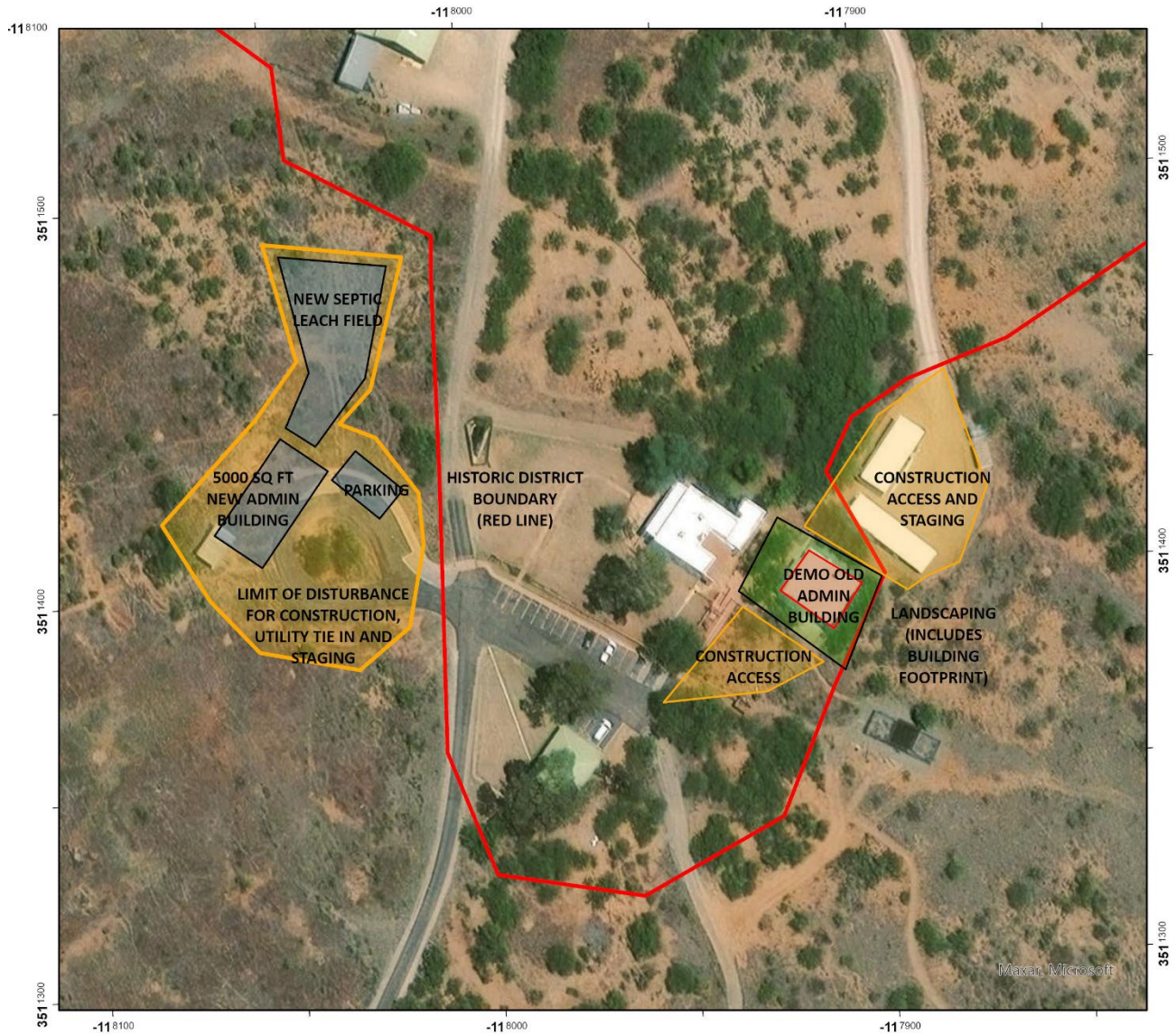
DRAFT

ATTACHMENT 1





Headquarters Area Site Plan, Buenos Aires NWR, Pima County, Arizona





Katie Hobbs
Governor

ARIZONA STATE PARKS & TRAILS

Bob Broscheid
Executive Director



February 7, 2023

Mr. George MacDonell, Regional Archaeologist / RHPO
U.S. Fish and Wildlife Service, Region 2
PO Box 1306
Albuquerque, NM 87103

Re: Pima County; Buenos Aires National Wildlife Refuge (BANWR) Construction, Modernization, and Demolition; Section 106 Review; US Fish and Wildlife Service (USFWS); SHPO-2022-1115(167290)

Dear Mr. MacDonell:

Thank you for consulting with our office for review of the technical reports, *Class III Cultural Resources Inventory of 190 acres on the Buenos Aires National Wildlife Refuge* (Tenen and Doak 2022) and *Class III Cultural Resource Inventory for the Bailey House Quail Facility* (MacDonnell 2022). Although the Tenen and Doak report was previously sent to our office, no determinations of eligibility or finding of effect were provided by USFWS, and the project was put on hold prior to SHPO issuing any comments. The undertaking consists of construction of a breeding facility for the masked bobwhite quail and of a modern administrative office, improving and modernizing facilities, and demolishing the existing Administrative building, the Cook House, the Friends House, the Honnas House, the Montana House (Main), the Montana Cowboy House, and the Montana House (North). Landscaping redesign would also occur, and parking areas would be improved. The USFWS plans to use federal funds for infrastructure improvements at BANWR, and this review is conducted pursuant to Section 106 of the National Historic Preservation Act (NHPA), 54 U.S.C. § 306108 and its implementing regulations, 36 CFR Part 800.

After review of USFWS’s letter, we request an expanded definition of the Area of Potential Effects (APE) that identifies all areas that could be affected by the undertaking. Specifically, the APE should encompass:

- the dimensions of the quail breeding facility
- the footprint of the proposed landscaping and parking improvements
- The footprint of building demolition, including any construction access, staging and/or stockpiling areas

Please provide a plan view map and/or aerial photograph indicating the dimensions of these elements.

The building determinations of eligibility were reviewed by Dr. William Collins, SHPO’s Historic Properties Program Manager, who has the following comments:

State Historic Preservation Office, 1110 W. Washington Street, Suite 100, Phoenix, AZ 85007 | 602-542-4009 | AZStateParks.com/shpo
Managing and conserving Arizona’s natural, cultural and recreational resources for the benefit of the people, both in our parks and through our partners.

ATTACHMENT 2

1. SHPO concurs that the Buenos Aires Ranch Headquarters Historic District is eligible. However, on p. 27, Tenen and Doak recommend that Feature 1, a brick building, is noncontributing because “It does not add to the district’s sense of place.” The feature dates to the period of significance and is in good condition and integrity issues are not readily apparent. Please provide a photograph of Feature 1 to assist us in our review.
2. We also suggest that the evaluation look at the BANWR as a ranching landscape (see the Modern Cattle Ranching Context, pp. F.91-93), encompassing the entirety of the BANWR. The spread of features from various ranches, perhaps themselves not individually significant, may convey an important story of land use in southern Arizona, just as the spread of small prehistoric features conveys the more distant past.
3. We recommend a re-evaluation of the Honnas Site, the Montana Site, and the Friends House utilizing the cattle ranching context presented in the Multiple Property Documentation Form (MPDF), “Cattle Ranching in Arizona in the Modern Era, 1945-1970.” That document would provide a more appropriate context for evaluating these properties. The document can be accessed here:
<https://arizonacontent.usdirect.com/storage/gallery/0004/0051/AE86C852D347464DBB653046968732A8/Cattle%20Ranching%20In%20Arizona%201945-1970%20MPDF.pdf>.

Until the resources are evaluated in a more appropriate context, we cannot concur with all of USFWS’s determinations of eligibility and cannot concur that “demolition of the five non-eligible buildings that has been proposed (Friends House, Honnas House, and three Montana buildings) should have no impact on eligible historic properties.” However, we do concur that the undertaking would result in an Adverse Effect to the Historic District and that an agreement document should be prepared to guide resolution of the Adverse Effect.

Please note that Appendix B, the Historic Property Inventory Forms, was not included in USFWS’s submission. Please update the forms as appropriate based on our comments and submit them with the revised report.

We look forward to reviewing the revised report and participating in the preparation of an agreement document. We appreciate your cooperation in complying with historic preservation requirements for federal undertakings. Please contact Caroline Klebacha at 602.542.7620, or via e-mail at cklebacha@azstateparks.gov, if you have any questions or concerns.

Sincerely,



Erin Davis, M.A.
Archaeological Compliance Specialist
State Historic Preservation Office



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Post Office Box 1306
Albuquerque, New Mexico 87103



Kathryn Leonard
State Historic Preservation Officer
Arizona State Parks & Trails
1110 W Washington St, Suite 100
Phoenix, AZ 85007

07 JUN 2023

RE: Building and Infrastructure Improvement at Buenos Aires National Wildlife Refuge (BANWR) (SHPO-2022-1115(167290))

Dear Ms. Leonard:

The U.S. Fish and Wildlife Service is continuing our consultation on the proposed building and infrastructure project at BANWR. The undertaking has now been refined to only encompass the following actions: construction of a new breeding facility for the masked bobwhite quail (two buildings and a gravel parking area at the Bailey Location), as well as construction of a modern administrative office, landscaping and a parking area within the Buenos Aires Ranch Headquarters Historic District (Figure 1). Actions would also include demolition of two contributing features within the historic district – the Old Administration Building and the Cook House.

This letter and its attachments are meant to address the issues identified in your response (dated 7 February 2023) to our initial Section 106 consultation letter on the project. Please find enclosed a copy of *Addendum Report: Class III Cultural Resources Inventory of 190 acres on the Buenos Aires National Wildlife Refuge* (Enclosure A) completed by George MacDonell to supplement the earlier report completed by Harris Environmental Group. This report includes further details on the two Areas of Potential Effect for the proposed project at the Bailey Location Quail facility (Figure 2) and at the Refuge Headquarters area (Figure 3). This report includes dimensions of proposed building construction as well as footprints of the building demolition, construction access and staging areas as well as the locations of proposed landscaping and parking improvements.

In addition, this report includes a thorough description of Feature 1 (Figure 4), the pumphouse (a small brick structure) at Site AZ DD:6:73 (ASM) (the Buenos Aires Ranch Headquarters Historic District). As described in the report, this feature was found to be a recent reconstruction (1994) on an existing concrete pad and the FWS has made the following determinations with regard to eligibility within the Eligible National Register district at AZ DD:6:73 (ASM):

<i>Feature Number</i>	<i>Feature Description</i>	<i>NRHP Eligibility Recommendation</i>
1	Pumphouse (small brick structure)	Non-contributing (rebuilt)
2	Ranch House (Visitor Center Building)	Contributing, not individually eligible
3	Ranch Outbuilding (Old Administrative Bldg)	Contributing, not individually eligible
4	Cook House (Biology Bldg)	Contributing, not individually eligible
5	Check dam (not relocated)	N/A
6	Wooden corral	Contributing, not individually eligible
7	Quail Barn	Contributing, not individually eligible

As requested in your response, copies of the Arizona Historic Property Inventory Forms for the buildings discussed in the Harris Report are included as Attachment B. Based on the need for additional evaluation of these properties within the appropriate context of historic cattle ranching in Arizona, no work will be conducted at the Friends House, Honnas House, Montana House (Main), Montana Cowboy House, or Montana House (North). Additionally, no work is now proposed within the Visitor Center Building (Feature 2) as part of this project.

Finally, an initial draft copy of a Memorandum of Agreement (MOA) regarding resolution of adverse effects (Attachment C) is included for your review in order to initiate further coordination. Proposed mitigation measures described in the MOA include HABS level documentation of the Cook House and Old Administrative Buildings, on-site interpretation of the Buenos Aires Ranch within the newly landscaped area within the historic district, a landscape level assessment report on the ranching history within Altar Valley and the relationship of outlying ranching properties to the Buenos Aires Ranch (with the goal of assessing the eligibility of these outlying structures), and architectural review by AZ SHPO of the proposed new Administrative Building design to ensure the design is complementary to the historic district.

As part of the planning process for this project, several alternatives were considered including rehabilitation of the historic structures as well as total avoidance of impacts to the historic buildings. The main considerations that led to the proposed action as currently designed included the structural integrity and environmental hazards of the two buildings themselves, the refuge's mission to limit human disturbance within the natural habitat, and the proximity of existing infrastructure to support the project. As a consequence, actions will be designed to minimize impacts to the historic district through appropriate design (including AZ SHPO review) of the new building construction and landscaping. Finally, impacts will be mitigated through HABS documentation of the two structures that are proposed for demolition, interpretation at the site, and development of a larger landscape review of outlying portions of the refuge within an appropriate historic context.

Given that this action will have an *adverse effect to historic properties* on the Buenos Aires Ranch Headquarters Historic District, the FWS seeks your concurrence on the eligibility of Feature 1 (the rebuilt pumphouse) within the Buenos Aires Ranch Headquarters Historic District.

We also seek your comments regarding the attached draft Memorandum of Agreement regarding a resolution of adverse effects to the Buenos Aires Ranch Headquarters Historic District. FWS has also initiated tribal consultation on the project and will continue to provide tribes with information regarding the proposed action and offer them participation in the agreement document. FWS will also notify the ACHP of the MOA and invite their participation. We look forward to working with you and other interested parties as this project moves forward. If you have any questions regarding this project, please contact USFWS Regional Archaeologist, George MacDonell, by email at george_macdonell@fws.gov or by phone at (505) 248-7396.

Sincerely,

George MacDonell
Regional Archaeologist / RHPO
US Fish and Wildlife Service, Region 2

SHPO has reviewed the additional information provided in the letter, addendum report, historic property inventory form, and draft MOA.

1. FWS has removed the Friends House, Honnas House, Montana House (Main), Montana Cowboy House, Montana House (North), and Visitor Center from the scope of this undertaking. SHPO concurs with the changes to the scope and APE. If the scope changes and/or the historic buildings are added as an additional component of this undertaking, please continue consultation with our office.

2. SHPO concurs that Feature 1 is not eligible for inclusion in the NRHP and is non-contributing to the historic district.

**3. The addendum report is adequate. We have one comment:
- Pg 4 indicates that a map of the Buenos Aires Ranch Headquarters Historic District will be shown as Figure 2, but is not included in the report. Please add the missing figure, update the figure numbers, and resubmit the report for our records.**

4. We have reviewed the draft MOA and have provided our comments in the attached Word document.

Please let us know if you have any questions.



**Caroline Klebacha, M.A.
State Historic Preservation Office
July 6, 2023**

(ACHP Correspondence)

ATTACHMENT 3



Advisory Council on Historic Preservation
Electronic Section 106 Documentation Submittal System (e106) Form
MS Word format

Send to: e106@achp.gov

Please review the instructions at www.achp.gov/e106-email-form prior to completing this form. Questions about whether to use the e106 form should be directed to the assigned ACHP staff member in the Office of Federal Agency Programs.

I. Basic information

1. Purpose of notification. Indicate whether this documentation is to:

- Notify the ACHP of a finding that an undertaking may adversely affect historic properties
- Invite the ACHP to participate in a Section 106 consultation
- Propose to develop a project Programmatic Agreement (project PA) for complex or multiple undertakings in accordance with 36 C.F.R. 800.14(b)(3)
- Supply additional documentation for a case already entered into the ACHP record system
- File an executed MOA or PA with the ACHP in accordance with 800.6(b)(iv) (where the ACHP did not participate in consultation)
- Other, please describe

2. ACHP Project Number (If the ACHP was previously notified of the undertaking and an ACHP Project Number has been provided, enter project number here and skip to Item 7 below):

N/A

Name of federal agency (If multiple agencies, list them all and indicate whether one is the lead agency):

United States Fish and Wildlife Service (Region 2) – Buenos Aires National Wildlife Refuge

3. Name of undertaking/project (Include project/permit/application number if applicable):

Building and Infrastructure Improvement at Buenos Aires National Wildlife Refuge (BANWR)

4. Location of undertaking (Indicate city(s), county(s), state(s), land ownership, and whether it would occur on or affect historic properties located on tribal lands):

City: Buenos Aires NWR (VIC Sasabe)

County: Pima County

State: Arizona

Land Ownership: Federal (U.S. Fish and Wildlife Service)

Tribal Lands: No

ADVISORY COUNCIL ON HISTORIC PRESERVATION
401 F Street NW, Suite 308 E Washington, DC 20001-2637
Phone: 202-517-0200 □ Fax: 202-517-6381 □ achp@achp.gov □ www.achp.gov

6. Name and title of federal agency official and contact person for this undertaking, including email address and phone number:

Agency Official: Rich Albers, Refuge Manager
 Email: rich_albers@fws.gov
 Phone: 520-823-4251

Contact Person: George MacDonell, Regional Historic Preservation Officer
 Email: george_macdonell@fws.gov
 Phone: 505-248-7396

II. Information on the Undertaking*

7. Describe the undertaking and nature of federal involvement (if multiple federal agencies are involved, specify involvement of each):

The USFWS proposes to demolish the Existing Administration Building within the Buenos Aires Ranch Headquarters Historic District, a structure that is not individually Eligible but which contributes to the NRHP Eligibility of the historic district. Construction of a New Administration Building will take place in an area outside of (but adjacent to) the historic district.

8. Describe the Area of Potential Effects (APE):

The area of potential effects (APE) for this undertaking is approximately 1.72 acres with 0.68 acres of that total located within the historic district. This includes the demolition of the Existing Administration Building (the existing building footprint) as well as the New Administration Building construction footprint and includes all roads, parking area, landscaping, utility tie ins, and construction access and staging. Portions of the current project are proposed in the southern portion of the Ranch Headquarters Historic District (ASM Site AZ DD:6:73). The project is funded in whole by the USFWS and is entirely located on USFWS property.

9. Describe steps taken to identify historic properties:

In preparation for a number of possible infrastructure improvement projects, the USFWS contracted Harris Environmental in 2022 to identify and record historic properties that may be affected by project activities and to help guide options for project designs. Harris inventoried 190 acres in seven separate parcels adjacent to existing infrastructure including buffer zones. The FWS has identified and recorded cultural resources including contributing properties within the historic district and within the APE, pursuant to 36 CFR § 800.4, and those findings have been documented in the reports titled "A Class III Cultural Resources inventory of 190 Acres on the Buenos Aires National Wildlife Refuge, Pima County, Arizona" prepared by Harris Environmental Group, Inc dated May 2022, and "Addendum Report: A Class III Cultural Resources Inventory of 190 Acres on the Buenos Aires National Wildlife Refuge, Pima County, Arizona" prepared by USFWS dated June 2023.

The Buenos Aires Ranch Headquarters Historic District (ASM Site AZ DD:6:73) has been determined to be eligible to the National Register of Historic Places at the local level of significance under Criteria A and B for its association with Arizona ranching history and its association with Pedro Aguirre, Jr, an individual important to Arizona history, who established the ranch in the 1880's and resided on the property. Arizona SHPO concurred with this determination of eligibility on February 7, 2023 (File #

SHPO-2022-1115(167290))

The Harris inventory resulted in documentation of four sites (including the historic district at the Buenos Aires Headquarters). A total of 13 buildings across the Refuge were analyzed and none of the buildings were found to be individually Eligible to the NRHP. However, four of the buildings were determined to contribute to the eligibility of the Buenos Aires Ranch Headquarters Historic District, including the Existing Administration Building. In addition, 12 Isolated Occurrences were identified. Details regarding sites and isolated occurrences are included in the Harris report and subsequent Section 106 correspondence between USFWS and the AZ SHPO.

10. Describe the historic property (or properties) and any National Historic Landmarks within the APE (or attach documentation or provide specific link to this information):

The entire Buenos Aires Ranch Headquarters Historic District covers a 7.4 acre space defined by the Cook House to the South, the staff parking area and access road on the East, Aguirre Lake Road and the Quail Barn on the West, and the road intersection just below Aguirre Lake on the North and currently consists of five structures, one check dam (not relocated), one corral, and an artifact concentration. The Buenos Aires National Wildlife Refuge was established in 1985 on the former Buenos Aires Ranch and covers an area of 177,464 acres in the Altar Valley primarily for the protection and reintroduction of the masked bobwhite quail and to restore the natural landscape for native plants and animals. The FWS has adaptively reutilized several buildings within the historic Ranch Headquarters area as a Visitor Center and Administrative Area but seeks to address limitations of the current infrastructure in terms of structural, safety, connectivity, and maintenance issues. The building currently identified for demolition is the Existing Administration Building. This building suffers from structural issues including water damage and is no longer able to function as the Administrative Office for the Refuge.

The Administration Building is a one-story flat roof Post-War Pueblo style building that was constructed in the mid-twentieth century and is located near the historic ranch headquarters. It has two large garage door openings on the south side that have been enclosed and is believed to have been constructed for that purpose originally. The building is constructed on a cement foundation and is constructed of brick with a stuccoed exterior. It is not considered individually eligible to the NRHP but contributes to the eligible Headquarters historic district.

The Buenos Aires Ranch Headquarters Historic District is recorded as Site Number AZ DD:6:73 (ASM). And has been determined Eligible to the National Register of Historic Places. The Existing Administration Building is the only structure within the historic district that will be affected by the proposed project. All features within the historic district are noted in the table below.

<i>Feature Number</i>	<i>Year of Construction</i>	<i>Feature Description</i>	<i>NRHP Eligibility</i>
		Buenos Aires Ranch Headquarters Historic District (Site # AZ DD:6:73 (ASM))	Eligible under criteria A & B
1	ca 1950, rebuilt 1994	Pumphouse (small brick structure)	Non-contributing (rebuilt)
2	ca 1888	Ranch House (Visitor Center Building)	Contributing, not individually eligible
3	ca 1950	Ranch Outbuilding (Old Administrative	Contributing, not individually

		Bldg)	eligible
4	1910	Cook House (Biology Bldg)	Contributing, not individually eligible
5	unknown	Check dam (not relocated)	N/A
6	ca 1888	Wooden corral	Contributing, not individually eligible
7	1941	Quail Barn	Contributing, not individually eligible

11. Describe the undertaking's effects on historic properties:

The USFWS proposal will demolish the Existing Administration Building (a former ranch outbuilding/garage from the 1950's) that was determined to contribute to the eligibility of the historic district. Removal of the structure proposed for demolition will result in the removal of an unsafe structure, hazardous materials and maintenance liabilities that are incompatible with the Refuge mission and return the area to a more natural state of vegetation. A New Administration Building will be constructed outside of (but adjacent to) the historic district in an area that was found to have no historic properties in order to facilitate refuge management.

12. Explain how this undertaking would adversely affect historic properties (include information on any conditions or future actions known to date to avoid, minimize, or mitigate adverse effects):

The USFWS has determined that this undertaking will adversely affect the integrity of the Buenos Aires Ranch Headquarters Historic District and constitutes a finding of an *adverse effect to historic properties*. The Arizona SHPO has concurred with the determinations of eligibility and the determination of an adverse effect by the proposed project activities.

In order to mitigate this adverse effect, the USFWS in consultation with AZ SHPO and our partners will develop and implement a Memorandum of Agreement to mitigate adverse effects to the Historic District. Proposed mitigation measures described in the MOA include HABS Level II documentation of the Existing Administrative Building, on-site interpretation of the Buenos Aires Ranch within the historic district, archaeological monitoring of construction activities within the historic district boundary, a landscape level assessment report on the ranching history within Altar Valley and the relationship of outlying ranching properties to the Buenos Aires Ranch (with the goal of assessing the eligibility of these outlying structures), and architectural review by AZ SHPO of the proposed new Administrative Building design to ensure the design is complementary to the adjacent historic district.

13. Provide copies or summaries of the views provided to date by any consulting parties, Indian tribes or Native Hawai'ian organizations, or the public, including any correspondence from the SHPO and/or THPO.

(Also see attached documentation)

Consultation with AZ SHPO is ongoing regarding the project. In September 2022 FWS sent an initial letter to SHPO regarding the undertaking. In January 2023 FWS sent a letter to SHPO with eligibility determinations and effects determinations. SHPO responded on 7 February 2023 with a request for additional information. FWS provided additional information to SHPO including an addendum report addressing the noted shortcomings. SHPO then concurred with the APE, Determination of Effects and report adequacy on 7 JUL 2023 and reviewed an MOA first draft. Consultation and coordination with AZ SHPO on the MOA is ongoing.

Letters regarding the project were provided to Tribes and the most significant response came from the Tohono O'odham Nation and the Pascua Yaqui Tribe. They would both like to be included in the development of interpretive information and a landscape level report that are proposed as mitigation. Both Tribes expressed concern on an earlier proposal that would have included demolition of the Cook House, causing the project proposal to be revised to preserve the Cook House. In addition, both tribes will be invited to be MOA signatories. The following is a summary of tribal consultation responses:

Ak Chin Indian Community – no concerns

Fort Sill Apache Tribe – no response

Gila River Indian Community – no response

Hopi Tribe – no response

Pascua Yaqui Tribe- asked for additional information regarding the historic buildings (provided). They would like to be consulted in the landscape report and interpretation mitigation to ensure a tribal perspective is included in those products. Concern with initial proposal to demolish Cook House.

Salt River Pima-Maricopa Indian Community – no response

San Carlos Apache Tribe – concurrence

Tohono O'odham Nation - asked for additional information regarding the historic buildings (provided). They would like to be consulted in the landscape report and interpretation mitigation to ensure a tribal perspective is included in those products. Concern with initial proposal to demolish Cook House.

White Mountain Apache Tribe - concurrence

III. Additional Information

14. Please indicate the status of any consultation that has occurred to date, including whether there are any unresolved concerns or issues the ACHP should know about in deciding whether to participate in consultation.

Tribal consultation during project development – The original project proposal was to demolish two buildings within the historic district (the Existing Administration Building and the Cook House, with the Cook House location originally proposed as the location for the New Administration Building). White Mountain Apache Tribe and San Carlos Apache Tribe had no concerns with the original proposal. However, discussions with the Tohono O'odham Nation and Pascua Yaqui Tribe revealed that historically tribal members often utilized the Cook House when working seasonally on the Buenos Aires Ranch. Given this concern, the project plans were changed in order to preserve the Cook House and move the footprint of the New Administration Building outside of the historic district (see attached).

Arizona State Historic Preservation Office: Concurrence on National Register District Eligibility determination (SHPO-2022-1115(167290) dated 7 FEB 2023

Arizona State Historic Preservation Office: Follow up on additional request for information and review of draft MOA (SHPO 2022-1115(169789) dated 6 JUL 2023

Memorandum of Agreement to Resolve Adverse Effects: On-going. USFWS and SHPO will continue to coordinate to implement this MOA.

15 Does your agency have a website or website link where the interested public can find out about this project and/or provide comments? Please provide relevant links:

This project is still in the planning stage and a Project website will be available to the public during the subsequent NEPA phase.

16. Is this undertaking considered a “major” or “covered” project listed on the Federal Infrastructure Projects Permitting Dashboard? If so, please provide the link:

This project is not covered on the Federal Infrastructure Projects Permitting Dashboard

The following are attached to this form (check all that apply):

- Section 106 consultation correspondence
- Maps, photographs, drawings, and/or plans
- Additional historic property information
- Consulting party list with known contact information
- Other: Tribal correspondence regarding the Cook House, Draft MOA in development with AZ SHPO