

# **Environmental Assessment**

## **Withdrawal of 2,598 acres of Bill Williams River National Wildlife Refuge for Refuge Purposes**

**February 2023**

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## **1.0 PURPOSE FOR PROPOSED ACTION**

### **1.1 Introduction**

The U.S. Fish and Wildlife Service (Service) has applied for, and the Deputy Secretary has proposed, a public land withdrawal for 2,598 acres of public lands located within the Bill Williams River National Wildlife Refuge (NWR), under the authority of section 204 of the Federal Land Policy and Management Act of 1976, as amended (43 U.S.C. 1714; FLPMA). Under the 1976 amendments to the National Wildlife Refuge Administration Act (NWRAA), which provides that land once added to the Refuge System remain part of the System “unless otherwise specified by Act of Congress” (16 U.S.C. 668dd[a][6]), the lands have been National Wildlife Refuge System (NWRS) lands since they were originally withdrawn for refuge purposes by Public Land Order (PLO) No. 6044 (81 FR 49869, Oct. 8, 1981).

The proposed withdrawal of 2,598 acres for refuge purposes would facilitate continued management of these acres as part of the Bill Williams River Unit of the NWRS. The proposed withdrawal would preclude surface entry from any new mining claims for 1,464 acres of the 2,598 acres of land within the refuge that would otherwise be open to entry under the U.S. mining laws. The General Mining Act of 1872, as amended [30 United States Code (USC) 22–54] (Mining Law), allows for the exploration and mining of certain minerals and establishment of mining claims by U.S. Citizens on federal public lands, unless an area is withdrawn from mineral entry.

The proposed withdrawal of 1,464 acres from the U.S. mining laws would protect these lands within the Bill Williams River NWR from any possibility of future mining claims and associated mining-related activities, thus protecting wildlife and wildlife habitat for which the refuge was established. If mining activities were to be allowed on NWRS lands, it would destroy habitat necessary for the refuge to meet the purposes for which it was established. For the remaining 1,134 acres proposed for withdrawal, the land would not be subject to appropriation under the general land laws, since the United States owns only the surface estate for these acres.

This Environmental Assessment (EA) 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 (CEQ) regulations (40 CFR 1500-1509) and Department of the Interior (43 CFR 46; 516 DM 8) and the Service (550 FW 3) regulations and policies. NEPA requires examination of the effects of proposed actions on the quality of the human environment.

### **1.2 Background**

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

The mission of the NWRS, as outlined by the NWRSA, as amended by the NWRSIA (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.”*

The Bill Williams River NWR (refuge) was established on January 22, 1941, as a part of Havasu Lake NWR by Executive Order 8647 as mitigation for wildlife habitat lost due to the creation of the Hoover and Parker dams. That order established the area “...as a refuge and breeding ground for migratory birds and other wildlife...and is suitable...for incidental fish and wildlife oriented recreational developments, the protection of natural resources, and conservation of endangered species or threatened species.” (USFWS 1994, pg. 12). In 1964 the area became the Bill Williams Unit of Havasu NWR. In 1981 the Bill Williams unit was separated from Havasu refuge and given status as a distinct refuge, now known as the Bill Williams River National Wildlife Refuge.

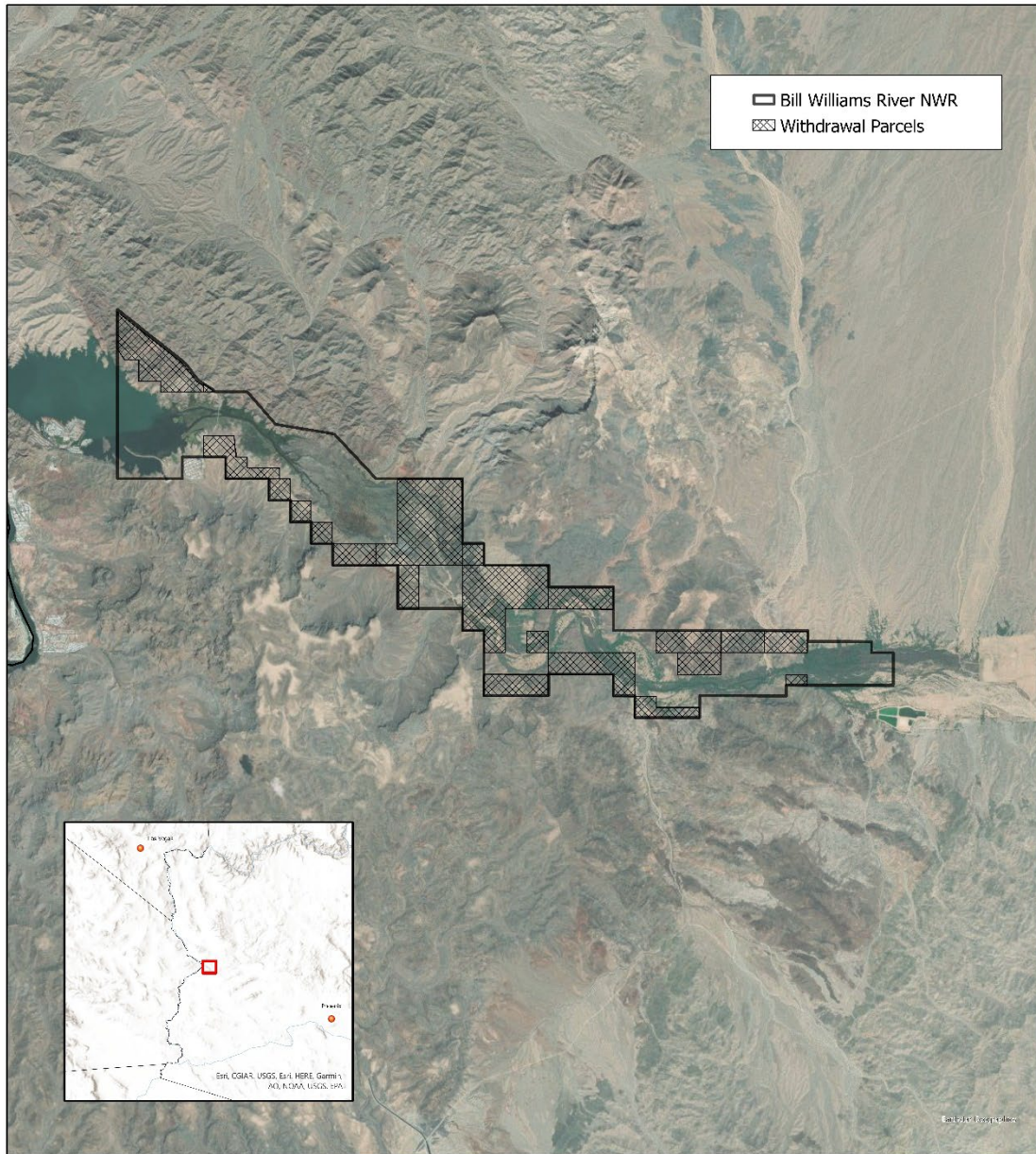
The refuge, located in La Paz and Mohave counties in far western Arizona, is comprised of 6,055 acres of open water, marsh and other wetlands, riparian floodplain and terrace woodlands, upland desert habitats and the associated office compound (Figure 1). Originally, what is now the refuge, consisted of 1,748 acres which included an arm of Lake Havasu, the cattail marsh at the delta and adjacent areas at the confluence of the Bill Williams and Colorado rivers. The historic delta and confluence of the two rivers was inundated by the construction of Parker Dam and the resulting formation of Lake Havasu. In 1977, 1,574 acres were acquired for the refuge by The Nature Conservancy (TNC) from Arizona Ranch and Metal along the corridor of the Bill Williams River upstream of the delta. In 1981, PLO No. 6044 (as corrected) expanded the refuge by withdrawing and reserving an additional 2,781 acres of public lands, to include the 2,598 acres of this current proposal, which under withdrawal brought the refuge to its current extent.

PLO No. 6044, which expired in 2021, inadvertently included areas of U.S. Bureau of Reclamation acquired lands, which are not subject to withdrawal, so the current proposal excludes these Reclamation lands. In 2021, the Bureau of Land Management (BLM) issued the Service a Cooperative Management Agreement for these previously withdrawn 2,598 acres to facilitate the Service’s continued management of these refuge lands including wildlife access to the river, pending a decision by the Secretary of the Interior regarding the proposed withdrawal.



**U.S. Fish & Wildlife Service**  
**Bill Williams River National Wildlife Refuge**  
 Mohave County and La Paz County, Arizona

**Public Lands Order 6044 - Bureau of Land Management  
 Withdrawal and Application Map**



USFWS Region 2, Division of Planning  
 Albuquerque, New Mexico  
 Produced: January 2023  
 Basemap: World Imagery  
 File: ANSI C-Size\_Portrait\_layout.pagx

0 2 mi  
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 Datum: NAD 83 1:61,346



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**Figure 1. Bill Williams River NWR and vicinity.**

### **1.3 Purpose and Need for the Proposed Action**

The purpose and need for the proposed action is to support continued management of these 2,598 acres of public lands as part of the refuge, and to preclude any new location or entry under the U.S. mining laws on these lands. The proposed withdrawal of these lands would preclude surface entry from any new mining claims for 1,464 acres of these lands, thus protecting these acres within the refuge from the possibility of mining and associated activities. This withdrawal is needed to protect listed species that are dependent on the refuge, such as the federally-listed southwestern willow flycatcher (*Empidonax trailii extimus*), Yuma Ridgway's rail (*Rallus obsoletus*), northern Mexican gartersnake (*Thamnophis eques megalops*), razorback sucker (*Xyrauchen texanus*), and bonytail chub (*Gila elegans*). The refuge also provides habitat for several important game species and sportfish, including javelina (*Pecari tajacu*), Eurasian collared dove (*Streptopelia decaocto*), desert bighorn sheep (*Ovis canadensis nelsoni*), and smallmouth bass (*Micropterus dolomieu*).

As mentioned above, in 1981, PLO No. 6044 withdrew 2,598 acres of public lands for a 40-year term under section 204 of FLPMA, as an addition to the refuge. Although PLO No. 6044 expired in 2021, under the NWRSA, lands added to the Refuge System by withdrawal remain in the Refuge System unless otherwise specified by Act of Congress (16 U.S.C. 668dd[a][6][B]). Although these lands are currently part of the NWRS per the NWRSA, the Deputy Secretary has proposed a succeeding new 99-year term withdrawal of these lands under FLPMA, to ensure their protection from appropriation under the general land laws, including, for the 1,464 of the acres where the United States owns the mineral estate, location and entry under the U.S. mining laws, to facilitate their management for refuge purposes.

For the lands identified as “Federal Surface & Subsurface Lands” in Figure 2, the Service has applied for these public lands be withdrawn from all forms of appropriation under the public land laws, including the United States mining laws (30 U.S.C., Ch. 2), but not the mineral leasing and geothermal leasing laws, for use and administration by the Service for wildlife refuge purposes. The refuge would remain open to other compatible uses allowable within the refuge.

The NWRSA mandates the Secretary of the Interior in administering the NWRS 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; and
- Monitor the status and trends of fish, wildlife, and plants in each refuge.

### **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**

- Coastal Zone Management Act of 1972, 16 U.S.C. 1451 et seq.; 15 CFR Parts 923, 930, 933
- Federal Water Pollution Control Act of 1972 (commonly referred to as Clean Water Act), 33 U.S.C. 1251 et seq.; 33 CFR Parts 320-330; 40 CFR Parts 110, 112, 116, 117, 230-232, 323, and 328
- Rivers and Harbors Act of 1899, as amended, 33 U.S.C. 401 et seq.; 33 CFR Parts 114, 115, 116, 321, 322, and 333
- Safe Drinking Water Act of 1974, 42 U.S.C. 300f et seq.; 40 CFR Parts 141-148
- Executive Order 11988 – Floodplain Management, 42 Fed. Reg. 26951 (1977)
- Executive Order 11990 – Protection of Wetlands, 42 Fed. Reg. 26961 (1977)

## 2.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION ALTERNATIVE

Two alternatives were considered in this analysis: the No Action Alternative and the Proposed Action, as described below.

### 2.1 Alternative A: No Action Alternative

Under this No Action Alternative, these 2,598 acres would remain as part of the refuge per NWRSA 16 U.S.C. 668dd(a)(6)(B) but would not be withdrawn under FLPMA from appropriation under the public land laws, including location and entry from the U.S. mining laws for 1,464 of these acres. This would increase the potential for private individuals and/or companies to submit mining claim applications to the BLM to mine areas within the refuge boundary. The 1,464-acre area where the Federal government has subsurface ownership would also remain open to mineral entry from new potential mining claims. The no action alternative would prevent the Service from meeting its recovery mission and stated purpose of the refuge.

In October 2021, the previous withdrawal of lands reserved for the wildlife refuge purposes per PLO No. 6044 as corrected, expired. Under the current no action alternative, 2,598 acres of refuge lands would no longer have the certainty with respect to the status on these lands going forward.

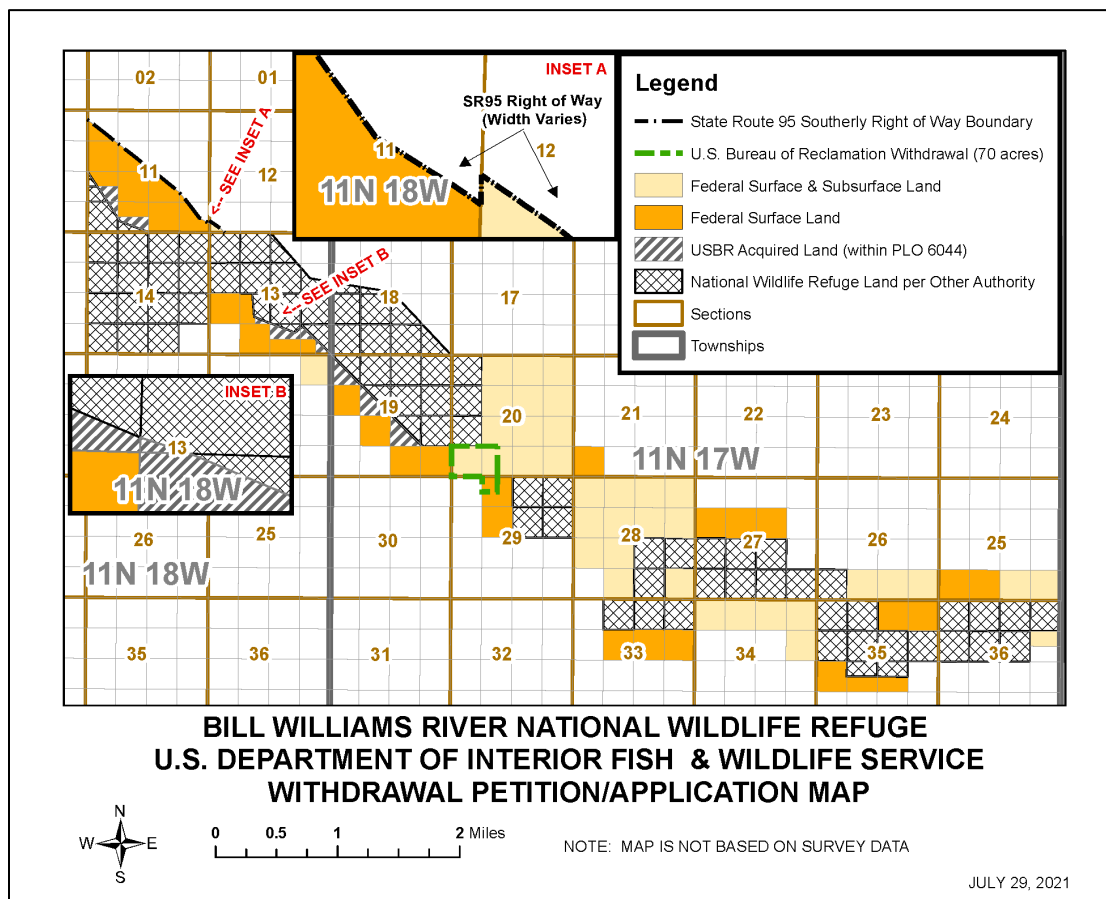


Figure 2. Withdrawal parcels at the Bill Williams River NWR.



## **2.2 Alternative B: Proposed Action**

The withdrawal application consists of 2,598 acres of public lands, of which 1,464 acres of public lands where the Federal government owns both the surface and subsurface mineral estate as well as 1,134 acres where the Federal government only owns the surface estate (Figure 2). Under this alternative, the Service proposes to withdraw a total of 2,598 acres of public lands, of which 1,464 acres of minerals from development, for a proposed 99-year term. The purpose of the withdrawal is to provide protection for listed wildlife species and sensitive habitats that the refuge was established to protect.

The proposed action is based on the projection that allowing mining on the refuge would be contradictory to the purposes for which the refuge was established. Mining activities have the potential for detrimental impacts on the variety of wildlife species, including listed, game, and non-game species. Mining activities also have the potential for adverse impacts to the sensitive habitat found throughout the refuge, including riparian areas and wetlands, which offer important stopover habitats for migratory birds and waterfowl. Any type of mining activity on the refuge would not provide the long-term protection necessary to ensure the continued existence of habitat and accompanying endangered species. Withdrawing these lands and potential mining activities would ensure these lands could still be used for the refuge's purpose.

The Secretary of the Interior would withdraw these lands from location and entry under the U.S. mining laws, where the Federal government owns the subsurface estate to conserve the land for management as part of the Bill Williams River NWR located in La Paz and Mohave counties in Arizona.

## **3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES**

This section describes resources that would be affected and the effects of each alternative on the entire 2,598-acre withdrawal area of the refuge. All potential resources within the physical environment, biological resources, and socioeconomic, as well as archeological, cultural, and historic resources were considered in this analysis. Resources such as wilderness values were not considered because there is no wilderness, or wilderness study areas in or near the approved acquisition boundary of the refuge.

This EA includes the written analyses of the environmental consequences, including direct and indirect effects, 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 such as floodplains and wetlands.

Impacts are based on what the American Geoscience Institute has described as four main mining methods: underground, open surface (pit), placer, and in-situ mining (AGI 2022):

- Underground mines are more expensive and are often used to reach deeper deposits.
- Surface mines are typically used for more shallow and less valuable deposits.

- Placer mining is used to sift out valuable metals from sediments in river channels, beach sands, or other environments.
- In-situ mining, which is primarily used in mining uranium, involves dissolving the mineral resource in place then processing it at the surface without moving rock from the ground.

The method used depends on the type of mineral resource that is mined, its location at or beneath the surface, and whether the resource is worth enough money to justify extracting it. Each mining method also has varying degrees of impact on the surrounding landscape, including the unique watershed, riparian area and sensitive desert environment that exists on the refuge. Potential impacts are also based on associated infrastructure consistent with mining activities such as but not limited to additional road access, electricity, power lines, water access, etc.

#### Impact Types:

- *Direct effects* are those which are caused by the action and occur at the same time and place.
- *Indirect effects* are those which 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.

The withdrawal application consists of 2,598 acres of public lands, of which 1,464 acres of public lands where the Federal government owns both the surface and subsurface mineral estate as well as 1,134 acres where the Federal government only owns the surface estate (Figure 2). The area of the refuge proposed for withdrawal encompasses both sides of the Bill Williams River in La Paz and Mohave Counties in far western Arizona. The affected environment (reasonably foreseeable environmental trends and planned actions) provides the baseline for evaluation and comparison between alternatives and provides the decision makers with information needed to select an appropriate course of action.

#### *Existing Non-Refuge Uses*

The proposed withdrawal would be subject to valid existing rights, and there are several public and private entities that have authorized uses within the proposed withdrawal area. These existing uses pre-date the recently expired withdrawal (PLO No. 6044) and may not be affected by any new withdrawal. Additionally, these existing uses are summarized in the EA entitled *Proposed Land Additions to the Bill Williams Unit of the Havasu National Wildlife Refuge* (October 1977) that was prepared for the PLO No. 6044 withdrawal application. These uses are included in Appendix B.

### **3.1 Environmental Consequences of the Proposed Action**

This section describes resources that would be affected and the potential effects from mining-related activities such as prospecting/exploration, development, production, and reclamation that could occur under each alternative on the entire 2,598-acre withdrawal boundary of these refuge

lands. Impacts of mining-related activities analyzed include direct, indirect, and cumulative impacts to resources.

### 3.1.1 Threatened and Endangered Species and Other Special Status Species

There are six species listed as threatened or endangered under the Endangered Species Act (ESA) of 1973 (as amended) on the refuge: southwestern willow flycatcher, western yellow-billed cuckoo, Yuma Ridgway's rail, bonytail chub, razorback sucker, and northern Mexican gartersnake. The southwestern willow flycatcher and bonytail chub all have designated critical habitat within or near the refuge. California least tern (*Sternula antillarum bowni*) are uncommon and only migrate through the refuge.

- 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 Mohave County (USFWS 2022). Migration occurs July–August.
- Southwestern willow flycatcher (endangered) is migratory and inhabit the refuge during the breeding season, approximately May–August. This species is generally found in cottonwood/willow and tamarisk vegetative communities in riparian areas.
- 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.
- Yuma Ridgway's rail (endangered) can be found in freshwater and brackish marshes or stream sides. Within these habitats, they are associated with dense emergent wetland vegetation. The species requires a wet substrate (sandbar, mudflat) that supports cattail and bulrush stands of moderate to high density, adjacent to shorelines. Yuma Ridgway's rails may be found in those areas of the Bill Williams River Delta and along the river corridor where this type of habitat exists. It is possible that some of these rails are present year-round and breeding season is generally from mid-March–September. There is currently no proposed critical habitat for Yuma Ridgway's rail.
- Bald eagle (*Haliaeetus leucocephalus*) was delisted in 2007. However, they retain protection under the Migratory Bird Treaty Act, the Bald and Golden Eagle Protection Act, the Lacey Act, the Airborne Hunting Act, and the general provisions of Arizona Revised Statutes, Title 17. In Arizona, most bald eagle nesting habitat is found in the central part of the state along the Salt and Verde rivers. Bald eagles are typically found where there are large trees or cliffs near water with abundant prey and they are expected to be present on the refuge in the winter.
- Razorback sucker (endangered) occur in riverine and lacustrine areas, generally in backwaters rather than fast-moving waters. These fish are found year-round in the Colorado River and in the Bill Williams River Delta.

- Bonytail chub (endangered) is the rarest of the endemic big-river fishes of the Colorado River. Their habitat in the Colorado River basin consists of warm, swift, turbid rivers, as well as reservoirs in the lower basin. Critical habitat includes the northern boundary of Havasu NWR to Parker Dam, including Lake Havasu in Mohave County, Arizona.
- Northern Mexican gartersnake (threatened) are found in both standing and running water habitats (lotic and lentic) that include ciénegas and stock tanks, as well as river habitat that includes pools and backwaters. They forage along the banks of waterbodies, feeding primarily upon native fish and adult and larval frogs. The species may also supplement its diet with earthworms, leeches, and vertebrates such as lizards, small rodents, salamanders, tree frogs, leopard frogs, and toads. The gartersnake typically hibernates underground in the winter months and is active during the breeding season April–October. Multiple individuals have been documented at Planet Ranch just east of the refuge, so it is possible they are also within refuge boundaries where surface water is present.
- Monarch butterfly (*Danaus plexippus*; 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 (no withdrawal), mining activities could potentially occur within the refuge boundaries. Mining-related activities would have the potential to cause loss of habitat and impacts to listed species, including mortality, disruption of nesting and spawning activities, and increased disturbance and displacement due to increased human presence and noise. Mining-related activities could lead to pollutants and increased sedimentation into the Bill Williams River, which would lead to mortality of listed fish species as well as contaminating spawning activities decreasing reproductive efforts on listed fish species. Increased use of the area or improved access could also result in increased mortality and/or disturbance.

#### **Alternative B: Proposed Action**

Under the Proposed Action, 2,598 acres land of the refuge would be withdrawn for refuge purposes, of which 1,464 of these acres being withdrawn from location and entry under the U.S. mining laws, where the Federal government owns the subsurface estate. New mining claims, and the potential mining related activities associated with any new claims, would not take place within the above-mentioned 1,464 acres of federal subsurface lands within the withdrawal area. As a result, there would be no impacts from mining related activities on federally-listed species or state-listed species of greatest conservation need or their habitat.

#### *3.1.2 Other Wildlife and Aquatic Species*

The presence of water in the Bill Williams River and the large amount of riparian habitat make this area an oasis within the surrounding desert environment. The Bill Williams River basin is recognized statewide in Arizona for its wildlife species diversity. The presence of 357 species of

birds, 57 mammal species, 34 reptile species, and 7 amphibian species have been documented in the basin. Wildlife found on the refuge include a diversity of listed species, sensitive nongame species, and a host of game species and sportfish.

### Birds

Species of waterfowl, marsh birds, and shorebirds frequent small bodies of water along the Bill Williams River and the Lake Havasu portion of the refuge. Raptors, such as peregrine falcon (*Falco peregrinus*) and osprey (*Pandion haliaetus*), are found throughout the Bill Williams River basin. Passerine species found at the refuge include gilded flicker (*Colaptes chrysoides*), Bendire's thrasher (*Toxostoma bendirei*), and loggerhead shrike (*Lanius ludovicianus*), among many others. Important game birds include Gambel's quail (*Callipepla gambelii*) and white-winged dove (*Zenaida asiatica*).

### Mammals

Notable mammals found at the refuge include desert bighorn sheep, along with American beaver (*Castor canadensis*), and mountain lion (*Puma concolor*). Bat species found on the refuge include western red bat (*Lasiurus blossevillii*) and pale Townsend's big-eared bat (*Corynorhinus townsendii pallescens*).

### Fish

Surveys in the past of the rivers and creeks above Alamo Lake (Santa Maria, Little Sandy, and Burro Creek) determined that several native fish species were present, including desert sucker (*Catostomus clarkii*) and longfin dace (*Agosia chrysogaster*).

### Amphibians and Reptiles

Typical of deserts, this is a numerous and diverse group of organisms. Diversity is especially increased on the refuge due to the variety of habitats, most notably wetland and riparian areas. The lowland leopard frog (*Rana yavapaeiensis*), which is on the edge of its range in the lower Colorado River valley, along with the Sonoran desert tortoise (*Gopherus morafkai*) have been documented on the refuge. The area is also home to Gila monster (*Heloderma suspectum*), Sonora mud turtle (*Kinosternon sonoriense sonoriense*), and Sonoran desert toad (*Incilius alvarius*).

### **Alternative A: No Action Alternative**

Under the no action alternative there is higher potential for future mining activities on the refuge, as location and entry of new claims would not be precluded. Based on the four mining-related activities of prospecting/exploration, development, production, and reclamation both direct and indirect impacts would be anticipated on wildlife and aquatic species. Mining-related activities would be detrimental to a vast variety of wildlife residing on the refuge with emphasis on fisheries and riparian-dependent species and their habitat. Direct effects of mining-related activities could result in loss of habitat as well as the potential for both mortality and increased disturbance. Indirect effects of mining-related activities include increased sedimentation rates that could leach unnaturally high concentrations of some chemicals, such as, but not limited to, arsenic, sulfuric, and mercury over a significant range of surface or subsurface area.

### **Alternative B: Proposed Action**

A withdrawal as proposed in section 2.2 would prevent the location and entry of new mining claims, thereby reducing the likelihood of mining related activities. Therefore, there would be no adverse impacts on wildlife and aquatic species or their habitat from potential mining activities associated with any new mining claims on federal lands within the proposed withdrawal area.

### 3.1.3 Vegetation and Habitat

Vegetation on the refuge is comprised of floodplain, upland, wetland, riparian, and open water species typical to the lower Sonoran Desert. Vegetative communities on the refuge include one of high management concern that could be affected by the proposed action, consisting of a handful of high-density, mature cottonwood and willow gallery forests. Cottonwood and willow can be found throughout the refuge's floodplain in low densities with salt cedar, honey mesquite, screwbean mesquite (*Prosopis pubescens*), arrowweed (*Pluchea sericea*), and quailbush (*Atriplex lentiformis*) in higher densities. Native upland habitat would consist predominantly of mesquite (*Prosopis* sp.), palo verde (*Parkinsonia* sp.), desert ironwood (*Olneya tesota*), and various cacti and succulents. Aquatic vegetative communities found at the refuge are primarily sago pondweed (*Stuckenia pectinate*), spiny naiad (*Najas marina*), and southern naiad (*Najs guadalupensis*).

Due to prolonged drought and the arrival of the salt cedar leaf beetle (*Diorhabda elongate*) in 2017, a large portion of the salt cedar on the refuge, which has been encroaching and outcompeting native vegetation such as cottonwood and willow, experienced a rapid die-off. Consequently, a large portion of the riparian vegetation along the river corridor is dead and presents a fire hazard. Wildfire is a high management concern for the refuge.

#### Riparian Areas

For wildlife, the riparian vegetation bordering the Bill Williams River is the most important habitat feature. Historically, towering closed canopy cottonwood-willow gallery forest occurred along the main river corridor with mesquite bosque along the upper terraces. Approximately 2,300 acres of this riparian habitat have been cleared on Planet Ranch for agricultural purposes. Some of the cottonwood-willow forest remain on the refuge, and good potential exists for a variety of salt cedar control and re-vegetation projects both in the river bottoms and in portions of the fallow cropland.

#### Dry Washes and Desert Uplands

Many dry washes in the area support significantly more vegetation than the surrounding drier desert upland. As with other areas in the arid desert, the availability of water is the determining factor controlling the distribution of plant species on the refuge. Scant rainfall combined with well-drained, sometimes steep slopes, puts the availability of moisture at a real premium for plants. There are numerous plant species typical of the Sonoran and Mohave desert uplands including littleleaf palo verde (*Parkinsonia microphylla*), brittlebrush (*Encelia farinosa*), creosote bush (*Larrea tridentata*), and ocotillo (*Fouquieria splendens*). Cacti, including giant saguaro (*Carnegiea gigantea*), barrel (*Ferocactus* sp.), pincushion (*Mammillaria* sp.), and prickly pear and cholla (*Opuntia* sp.) are common in these uplands. Typical desert wash species in this area include ironwood, blue palo verde (*Parkinsonia florida*), wolfberry (*Lycium parishii*), acacia (*Acacia* sp.), and chuckwalla's delight (*Bebbia juncea*).

### **Alternative A: No Action Alternative**

Absent a withdrawal, mining-related activities initiated from new mining claims could result in adverse impacts to vegetation including vegetation of special management concern. Vegetation of the lower Sonoran Desert such as cacti and associated succulent species are sensitive to disturbance and would be impacted by mining and mining activities. Likewise, vegetative species associated with riparian areas, such as cottonwood and willow species, could also be adversely affected by mining activities. These activities have the potential to disturb habitat conditions (through vegetation removal and trampling/crushing) and introduce invasive species that could out-compete very sensitive desert and riparian vegetation. Riparian areas, like that of the Bill Williams River, are inundated with invasive salt cedar, which increases fuel loads and the potential for wildfire. Increased human activity, including mining, has the potential to elevate wildfire risk in these sensitive areas.

### **Alternative B: Proposed Action**

A withdrawal as proposed would prevent the location and entry of new mining claims, thereby reducing the likelihood of mining-related activities. Therefore, there would be no impacts on vegetation and habitat from potential mining activities associated with any new mining claims on federal lands within this area. In this proposed action alternative, no mining on 1,464 acres would take place with proposed land and mineral withdrawal. There would be no impacts from mining related activities on vegetation within the proposed withdrawal area.

#### *3.1.4 Geology and Soils*

The soils on the Colorado River floodplain that comprise much of the refuge are typically saline. The salinity is the result of accumulated salts from alluvial deposits and subsequent evaporation of soil moisture and lack of flooding which historically occurred on the Lower Colorado River. Rainfall is not sufficient to leach these salts below the plant root zone, therefore, a continuing accumulation of salts occurs. These salts are primarily calcium, sodium, magnesium, chloride, and sulfate. Excessive toxic salts in the soil can delay or prevent seed germination, decrease available water capacity, interfere with plant growth, and impede the movement of air and water through the soil.

Soil erosion, or the displacement of soil through processes such as rainfall, water flow, or wind, eliminates topsoil from an environment, depleting nutrients, reducing soil moisture, and subsequently preventing the establishment of native vegetation.

Foot traffic on moderate to high-use trails or other human activities may lead to decreases in aboveground biomass, or vegetation, and increases the rate of soil erosion (Whitcotton et al., 2000). Soil compaction from informal trails can create paths for overland water flow during rainstorms, enhancing the rate of erosion.

Based on a review of existing literature, United States Geological Survey (USGS) geological map, and field observation of the proposed withdrawal areas, it has been determined that these lands have moderate potential for the occurrence of locatable minerals and saleable minerals, with low potential for the occurrence of leasable minerals (BLM 2023). The review concluded that the moderate and low mineral potential should not be considered a limiting factor in executing the proposed action.

**Alternative A: No Action Alternative**

Absent a withdrawal, mining-related activities initiated based on new mining claims could result in the development of geologic resources but could have adverse impacts to soils. Mining and mining-associated activities could result in soil loss and increased potential for erosion. Un-natural soil conditions could arise through soil disturbance of mining activities, increase in use and construction of roads, and associated infrastructure established to maximize mining activities. These types of soil disturbing activities could introduce invasive species and promote conditions favorable to invasive species that can eventually outcompete native vegetation.

**Alternative B: Proposed Action**

A withdrawal as proposed would prevent the location and entry of new mining claims, thereby reducing the likelihood of mining related activities. Therefore, there would be no impacts on geology or soils from potential mining activities associated with any new mining claims on federal lands within this proposed withdrawal area.

*3.1.5 Water Resources*

The Bill Williams River Basin drainage area covers approximately 5,373 square miles in west-central Arizona. The Bill Williams River proper measures approximately 50 miles in length, covers approximately 1,109 square miles. Approximately 5.3 miles consists of water impounded above Alamo Dam. Downstream of Alamo Dam, the river flows approximately 45 miles before reaching its confluence with the Colorado River at Lake Havasu (USFWS, 2011).

Although a good portion of the Bill Williams River is periodically dry, portions of it are a perennial stream, providing a valuable year-round water source for wildlife. As in any river system, this type of habitat is subject to change in response to erosion and deposition, and the riverbed itself shifts each year, depending upon flows. Marsh wetlands found throughout the Bill Williams River bottoms consist of scattered pockets of cattail, sedge, smartweed, watercress, and other wetland plant species where the existence of eddies, backwaters, depressions, and beaver ponds allow their development. Although these types of wetlands are common throughout the riverine system where surface water is present, their existence is dynamic. Too little flow can cause portions of the river to go subsurface, drying up these wetlands. On the other hand, too much flow can destroy these wetlands through erosion and siltation, and promote invasive species such as salt cedar.

Projected annual growth rates for Arizona are higher than the national average (Arizona Commerce Authority 2020). By 2050, an additional 73,000 people are expected to live in Mohave County, AZ, bringing the total population to around 292,000 (Arizona Commerce Authority 2020). This population growth will continue to place stress on local waterbodies. Increasing populations in the region will likely increase the abundance of boats on the Lower Colorado River and tributaries. The increase of boat traffic may cause increased litter, fluid leaks/spills, and sediment disturbance to refuge waterways.

**Alternative A: No Action Alternative**

Absent a withdrawal, mining related activities initiated based on new mining claims could result in degradation of water quality and quantity on the refuge and in the surrounding watershed.



Mining-related activities could increase sedimentation rates and potentially leach unnaturally high concentrations of some chemicals, such as, but not limited to arsenic and mercury over a significant range of surface or subsurface area. This could lead to contamination of surface water and adverse impacts to ground water through leaching into the soil. Mining can also lead to large amounts of water produced from mine drainage, mine cooling, aqueous extraction and other mining processes which increases the potential for these chemicals to contaminate ground and surface water. Furthermore, mining activities can rely on local groundwater, reducing these important resources and resulting in the drawdown of local aquifers.

### **Alternative B: Proposed Action**

A withdrawal as proposed would prevent the location and entry of new mining claims, thereby reducing the likelihood of mining-related activities. Therefore, there would be no impacts on water resources from potential mining activities associated with any new mining claims on federal lands within this area. Since mining activities related to new mining claims would be precluded, no additional use of water resources that could appreciably disturb or damage the land and impact surface and groundwater resources are expected. As the Bill Williams River NWR is controlled and regulated under Refuge System requirements, existing water resources are preserved, and water quality is protected. Finally, the proposed withdrawal would not require any additional water resources for refuge purposes.

#### *3.1.6 Air Quality*

The refuge is within a designated Class II Clean Air Area, as are many NWRs, by the Clean Air Act. This means that limited sources of pollution can be permitted on and near the refuge so long as the levels of particulate, matter, sulfur dioxide, and nitrogen dioxide do not exceed the class II increments.

### **Alternative A: No Action Alternative**

Absent a withdrawal, mining-related activities initiated by new mining claims could result in degradation of air quality on the refuge and beyond. This could occur through the increase of the amount of dust (from travel on unpaved roads and soil removal/moving activities) and emissions from vehicle engines and the use generators for power.

### **Alternative B: Proposed Action**

A withdrawal as proposed would prevent the location and entry of new mining claims, thereby reducing the likelihood of mining related activities. Therefore, there would be no new impacts on air quality from potential mining activities associated with any new mining claims on federal lands within the proposed withdrawal area.

## **3.2 Cultural, Social and Economic Resources**

### *3.2.1 Visitor Use and Experience*

Visitor use and experience is tied directly to lands owned or managed by 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 estimates approximately 90,000 visitors per year. Visitors engage in a variety of recreational activities, including, but not limited to, hunting (estimated 14 visits), fishing (estimated 20,000 visits), boating (estimated 10,000 visits), environmental education and interpretation (estimated 18,850 visits), wildlife observation (estimated 21,012 visits), and wildlife photography (estimated 15,000 visits).

The refuge is currently expanding its visitor services program to reach a greater number of community members, with a focus on engaging visitors who are interested in wildlife observation, wildlife photography, and environmental education. While the number of visitors to the refuge will likely increase, the proportion of types of recreation that take place on the refuge is expected to remain stable into the future. Expansion of the visitor services program is expected to have a foreseeable positive impact on visitor use and experience.

#### **Alternative A: No Action Alternative**

Absent a withdrawal, mining-related activities initiated based on new mining claims could result in adverse impacts to visitor use and experience on the refuge. Mining-related activities would be detrimental to a vast variety of species residing on the refuge with emphasis on riparian-dependent species, which are the primary attractants of visitors to the refuge. Under this alternative, there would also be impacts to the aesthetic resources of the refuge along with decreased values of habitat quality that can result in impacts to habitat and disturb wildlife. These impacts could eventually lead to decreased visitation since the primary reason for coming to the refuge is to participate in wildlife-dependent recreation activities.

#### **Alternative B: Proposed Action**

A withdrawal as proposed would prevent the location and entry of new mining claims, thereby reducing the likelihood of mining-related activities. Therefore, there would be no impacts on refuge land and to visitor use or visitor experience from mining related activities associated with any new mining claims on federal lands within the proposed withdrawal area.

### *3.2.2 Cultural Resources*

Prior to western colonization and the forced removal of some regional Tribes, the indigenous peoples of the Bill Williams River area, which include the Mojave, Chemehuevi, Yavapai, Havasupai, Hualapai, and Quechan, were hunter-gatherers and floodplain farmers (Garces 1965; Thiel and Wright 2018). The Bill Williams River, named Hahcuchapah by the Chemehuevi and Hahwealhamook by the Quechan, is frequently referenced in many of the Tribes' origin stories (Thiel and Wright 2018).

Prior to the construction of Alamo Dam as a flood-control structure in 1968, the Bill Williams River frequently experienced floods exceeding 50,000 cubic feet per second. This dramatic floodplain disturbance most likely removed any historic or pre-historic cultural resources in the floodplain and there is little evidence left of indigenous cultures on the landscape, but scattered petroglyphs, geoglyphs, or possible sleeping circles can be found in the uplands throughout the Bill Williams and Colorado River basins.

Although two former homesteads are located within the boundaries of the refuge, the only remainder of these original settlements is a small graveyard in the uplands of the former Esquerra Ranch. Other features were eliminated in the 1960s when the irrigation system was improved by landowners. Historic settlements that were associated with the river boat landings near the mouth of the Bill Williams River are underwater in Lake Havasu. The dynamic nature of the floodplain before Alamo Dam was built removed the rest of the structures or artifacts from earlier eras that were located in the floodplain.

#### **Alternative A: No Action Alternative**

Absent a withdrawal, mining-related activities initiated based on new mining claims could result in impacts to undocumented cultural or historical sites on the refuge. Any mining-related activities could damage or destroy undocumented sites through mining operations, including construction of roadways, staging areas, and other forms of ground disturbance. Each of these individual permitted undertakings would require cultural resource inventory and consultation with Tribes and the State Historical Preservation Office (SHPO) for concurrence with Section 106 of the National Historic Preservation Act.

#### **Alternative B: Proposed Action**

A withdrawal as proposed would prevent the location and entry of new mining claims, thereby reducing the likelihood of mining related activities. Therefore, there would be no impacts to cultural resources from mining related activities associated with any new mining claims on federal lands within the proposed withdrawal area.

### *3.2.3 Infrastructure*

The refuge is generally divided into three different types of habitat: upland Sonoran/Mojave Desert (2,911 acres), active floodplain/surrounding riparian vegetation (2,959 acres), and cattail marsh/open water (450 acres). Maintaining these habitats requires more intensive management practices using encompassing methods such as chemical and mechanical removal of invasive species, and prescribed fire. There is ongoing riparian habitat restoration activity occurring in the riparian zone, with some restoration work also being considered for the Sonoran/Mojave upland areas. Roadways help facilitate this restoration and habitat management. Presently, the refuge is bisected by more than three miles of public roads maintained by La Paz County. The road historically ran eight miles, from west to east, through the refuge. In recent years, flooding has limited public accessibility to the road, which runs through an active floodplain. Several miles of primitive hiking trails are also located within the proposed action area.

#### **Alternative A: No Action Alternative**

No infrastructure, besides roads and hiking trails, is present on the 2,598-acre withdrawal area. If mining-related activities were to occur within the refuge area, there would be a potential need for additional roads and utilities to access mining sites, which could impact refuge resources.

#### **Alternative B: Proposed Action**

A withdrawal as proposed would prevent the location and entry of new mining claims, thereby reducing the likelihood of mining related activities. Therefore, there would be no impacts to refuge infrastructure from mining related activities within the proposed withdrawal area.

### 3.2.4 Socioeconomics

Bill Williams River NWR is located near the small community of Parker in La Paz County, AZ, which has a population of 3,121 people, with a median household income of \$52,708 ± \$13,845. Lake Havasu City in Mohave County, AZ, is the nearest large town and has a population of approximately 54,000 people, with a median household income of \$66,050 ± \$3,137 (U.S. Census Bureau 2018). The local area is primarily undeveloped desert, but tourism is a major component of the local economy. The mild winter climate brings visitors to the area. The refuge is located 134 miles from Yuma, AZ, 173 miles from Phoenix, AZ, and 174 miles from Las Vegas, NV, which are the nearest major cities in the region.

While the refuge does not collect specific economic data for visitors to the refuge, according to the 2017 Banking on Nature report (Caudell and Carver 2019), refuge visitors across the nation contribute \$3.2 billion of sales in local economies. As this spending flowed through the economy, more than 41,000 people were employed and \$1.1 billion in employment income was generated. Members of the public who live locally as well as visitors from other areas enjoy the recreational opportunities the refuge has to offer, which adds to the local economy.

As noted in section 3.1.4 Geology and Soils, based on a review of existing literature, USGS geological map, and field observation of the proposed withdrawal areas, it has been determined that these lands have moderate potential for the occurrence of locatable minerals and saleable minerals, with low potential for the occurrence of leasable minerals (BLM 2023). The review concluded that the moderate and low mineral potential should not be considered a limiting factor in executing the proposed action.

#### **Alternative A: No Action Alternative**

Absent a withdrawal, mining related activities initiated based on new mining claims could occur on the refuge. The Service recognizes the importance of the mining industry in Arizona and recognizes that restricting the location of new mining claims under a withdrawal could have potential impacts to local economies and employment in the surrounding communities, and that absent such a withdrawal no restrictions would occur. Any impacts to socioeconomics from mining-related activities associated with new mining claims would be dependent on size and duration of such mining related activities.

Visitors to the refuge that are participating in recreational activities, such as hunting, fishing, and wildlife watching, have potential to significantly contribute to the local economy. Absent a withdrawal, there could be impacts from mining related activities associated with new mining claims, affecting the aesthetic resources of the refuge along with decreased habitat quality and increased disturbances to wildlife. These impacts could eventually lead to decreased visitation since the primary reason for coming to the refuge is to participate in wildlife-dependent recreational activities.

#### **Alternative B: Proposed Action**

A withdrawal as proposed would prevent the location and entry of new mining claims, thereby reducing the likelihood of mining-related activities. Therefore, there would be no impacts to the

integrity of refuge habitats and no impacts to the recreational values supported by the wildlife and their habitats from mining-related activities associated with any new mining claims on federal lands within the proposed withdrawal area.

### *3.2.5 Environmental Justice*

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, requires all Federal agencies to incorporate environmental justice into their missions by identifying and addressing disproportionately high or adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities.

The Service has not identified any potential high and adverse environmental or human health impacts from this proposed action or any of the alternatives. Minority or low-income communities would not be disproportionately affected by any impacts from either of the alternatives.

### *3.2.6 Indian Trust Resources*

No Indian Trust Assets have been identified in area of the refuge proposed for withdrawal . There are no reservations or ceded lands present. Because no Indian Trust resources are present, no impacts are anticipated to result from implementation of either alternative described in the 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 withdrawal. 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. Relevant actions are those that similarly withdraw or reserve land and restrict development of mineral resources. In the proposed action, 2,598 acres would be withdrawn for refuge purposes, to include 1,464 acres within the proposed withdrawal area that would be restricted from development of certain mineral resources related to new mining claims. No other actions that would add to the total area withdrawn or restricted from development of mineral resources in this area of Arizona are reasonably foreseeable at this time.

Ongoing activities within the project area under the proposed action do not approach compromising the Federal Clean Air Act, Clean Water Act, or the ESA. There are no foreseeable activities adjacent to the withdrawal area that would significantly alter existing conditions or affect life history requirements of local wildlife or have negative repercussions on other natural or cultural resources.

## **4.0 CONSULTATION, COORDINATION AND DOCUMENT PREPARATION**

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

## **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 Phoenix Ecological Services office. The results of those analyses and consultation can be found in Appendix A.

Overall, it was determined by the Service, and concurred with by the USFWS Ecological Services program, that the proposed withdrawal in support of conserving those lands and waters and their associated habitats and wildlife “may affect but is not likely to adversely affect” the protected species found there.

The BLM Arizona State Office and Colorado River District Office provided review of this EA in coordination to prepare the public land order requesting the withdrawal of 2,598 acres of public lands of which 1,464 acres of mineral within the Bill Williams River NWR, subject to valid existing rights.

### **4.1.2 Compliance with Section 106 of the National Historic Preservation Act**

A withdrawal as proposed would not result in any effects to cultural resources as defined in the National Historic Preservation Act (as amended), as no ground disturbing activities would occur that could adversely affect the integrity of a historic property. The withdrawal would have no effect to the physical integrity or use of sacred sites under Executive Order 13007. The proposed action is the type of activity that does not have the potential to cause effects on historic properties under 36 CFR 800.3(a)(1), as amended. As such, the Service has not initiated formal consultation under 36 CFR 800.

### **4.1.3 Government-to-Government Consultation with Tribes**

The refuge manager for Bill Williams River NWR sent a letter on January 14, 2023, advising the leadership of the Tribes listed below of the proposed action and inviting comment on the proposed withdrawal and this EA. The following Tribes were notified: Colorado River Indian Tribes, Chemehuevi Indian Tribe, Fort Mojave Indian Tribe, Hopi Tribe of Arizona, Hualapai Tribe, Havasupai Tribe, Yavapai Apache Nation, and Yavapai-Prescott Indian Tribe.

## **4.2 Public Outreach**

The BLM published a Notice of Proposed Withdrawal in the *Federal Register* ([86 FR 56287](#)) on behalf of the Deputy Secretary of the Interior on October 8, 2021 (<https://www.fws.gov/refuge/bill-williams-river>). Publication of this notice initiated a 90-day public comment period and invited members of the public to request a public meeting in

connection with the proposal. No meetings were requested. Notices were published in two newspapers on October 20<sup>th</sup>, 2021, the *Parker Pioneer* and the *Today's News Herald*. In addition, the BLM published a news release for the withdrawal application on the BLM AZ website: <https://www.blm.gov/press-release/deputy-secretary-interior-proposes-withdrawal-protection-bill-williams-river-national>. Two comments were received from that effort. Both comments supported the withdrawal of lands.

To solicit public review and comment on this EA, the refuge sent notices to area newspapers that have wide local distributions, posted notice at the refuge visitor center, and posted the EA in its entirety on the refuge website at <https://www.fws.gov/refuge/bill-williams-river>.

This EA was made available in draft for public comment from February 22, 2023, through March 8, 2023. Comments should have been mailed to Bill Williams River NWR, 60911 Hwy. 95, Parker, AZ 85344, or sent via email to **r2\_plancomments@fws.gov**. To be considered in the final documents, all comments should have been received by March 8, 2023.

#### **4.3 Cooperating Agencies**

BLM Arizona State Office and Colorado River District Office cooperated with the Service in preparation of the EA in conjunction with preparation of the decision file for review and decision making by the Secretary of the Interior on the Service's application for the withdrawal of 2,598 acres of public lands within the Bill Williams River NWR, subject to valid existing rights.

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## **APPENDIX A: EXISTING NON-REFUGE USES**

### Arizona Electric Power Cooperative

The Arizona Electric Power Cooperative (AEPC) has a 69-kilowatt (kv) transmission line (AZA16574) that crosses a small portion of the proposed withdrawal area. This right-of-way was previously identified in the EA for the prior withdrawal as a U.S. Bureau of Reclamation transmission line (PHX080802). The right-of-way was reassigned to AEPC in 1982.

### Arizona Public Service

The Arizona Public Service (APS) utility company has three electric transmission lines within the proposed withdrawal area. APS has a 69kv transmission line (AZA37287) that crosses approximately two miles of the mid-section of proposed withdrawal area and has a 12kv transmission line (AZA38169) that crosses a small portion of the far easterly portion of the withdrawal area. The EA for the prior withdrawal states that maintenance of the 69kv transmission line “will have little, if any, influence on refuge operations.”

### Arizona Ranch and Metals Corporation

The Arizona Ranch and Metals Corporation has use of a water facility right-of-way (AZA35132) for a well and irrigation ditch for the Planet Ranch area located northerly of the refuge boundary.

### Arizona State Highway Department

The Arizona State Highway Department has road rights-of-way (AZAR34500/AZAR35926) for Highway 95, which crosses the westerly portion of the refuge, and provides the primary access to the refuge for the visiting public.

### La Paz County

La Paz County has approximately three miles of road rights-of-way for several unpaved roads that the County maintains within the refuge. Planet Ranch Road (AZA37523), Mineral Mine Road (AZA37181), and Shea Road (AZA23854) all pre-date the prior 40-year expired withdrawal. The EA for the expired prior withdrawal identifies these roads as Yuma County maintained roads. The prior withdrawal’s 40-year term began in 1981, and the northerly portion of then Yuma County was incorporated as La Paz County in 1983, resulting in a transfer of those refuge lands within Yuma County to La Paz County. As a result, the road rights-of-way granted to Yuma County within the refuge were reassigned to La Paz County in 1983.

### PMC Powdered Metal Company

A water pump line right-of-way (AZAR32610) was issued to a private entity for less than 1.5 miles of the proposed withdrawal area in 1964. The EA for the prior expired withdrawal states that “this line would have no significant impact on refuge operations.”

### U.S. Bureau of Reclamation

As identified in the expired PLO No. 6044, the U.S. Bureau of Reclamation has a 70-acre overlapping withdrawal (Secretarial Order, July 8, 1919) within the proposed withdrawal area that “will remain withdrawn for so long as needed by the Bureau of Reclamation as a material source.”

The U.S. Bureau of Reclamation Lower Colorado Region Yuma Area Office has recently indicated that there remains a need for Bureau access to this material source.