EAGLE CREEK MULTI-SPECIES CONSERVATION BENEFIT AGREEMENT WITH FREEPORT MINERALS CORPORATION, A SUBSIDIARY OF FREEPORT-MCMORAN INC., FOR EAGLE CREEK, ARIZONA

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This Conservation Benefit Agreement (Agreement) is made by and between Freeport Minerals Corporation and its affiliates Freeport-McMoRan Morenci Inc. and the Morenci Water & Electric Company (collectively, the Permittee) and the U.S. Fish and Wildlife Service (USFWS), hereinafter collectively called the "Parties."

I. BACKGROUND

The Permittee operates the Morenci Mine, near the town of Clifton, in Greenlee County Arizona. In support of its operations, the Permittee owns land along Eagle Creek, and holds certain water rights on the stream, as more particularly described below. These land and water rights are also used for municipal water service and related uses in the vicinity of the mine.

In 2010, the USFWS issued a proposed rule to revise the critical habitat of the spikedace and loach minnow. In response to the proposed critical habitat, the Permittee prepared and submitted a management plan to the USFWS entitled Spikedace and Loach Minnow Management Plan: Eagle Creek and San Francisco River, Greenlee and Graham County, Arizona (October 21, 2011) (Management Plan), and requested that portions of Eagle Creek and the San Francisco River be excluded from the final critical habitat designation. In the Management Plan, the Permittee committed to undertake certain conservation actions to benefit the spikedace and loach minnow and other native aquatic species in Eagle Creek and the lower San Francisco River, and committed to submit to the USFWS a Safe Harbor Agreement (now called a Conservation Benefit Agreement) and an application for an Enhancement of Survival Permit (EOS permit) under Section 10(a)(1)(A) of the Endangered Species Act of 1973, as amended,16 U.S.C. 1531 *et seq.* (ESA), and it's implementing regulations (50 CFR. §§ 17.22(c) and 17.32(c)) based on the Management Plan.

In the final rule revising critical habitat, issued in 2012 (77 FR 10810), the USFWS excluded from critical habitat the portions of Eagle Creek that flow through the land owned by the Permittee, as well as the portions of the creek that flow through the San Carlos Reservation. In addition, the USFWS excluded from critical habitat the portion of the lower San Francisco River that flows through land owned by the Permittee near the Town of Clifton. The exclusion of the Permittee's land from these portions of the stream was based on the Permittee's commitments in the Management Plan, as well as the Permittee's history of conservation actions for spikedace and loach minnow, in addition to conservations actions for the southwestern willow flycatcher on other properties in Arizona and New Mexico.

As discussed in greater detail below, since 2012, the Permittee has proceeded with the conservation actions described in its Management Plan, including the planning and design of a fish barrier to protect spikedace, loach minnow, and other native aquatic species in the upper portion of Eagle Creek. The Permittee has applied for an EOS permit for the proposed conservation actions and ongoing land and water uses along portions of Eagle Creek, as described in this Agreement, and in accordance with their Management Plan.

II. PURPOSE OF AGREEMENT

The purpose of this Agreement is to provide a plan to implement conservation actions to protect and enhance habitat for spikedace (*Meda fulgida*), loach minnow (*Tiaroga cobitis*), Gila chub (*Gila intermedia*), roundtail chub (*Gila robusta*) and narrow-headed gartersnake (*Thamnophis rufipunctatus*) in the upper portion of Eagle Creek and its tributaries, as more particularly described below. This Agreement is intended to comply with the ESA and the applicable ESA Section 10 (a) implementing regulations at 50 CFR §§ 17.22 and 17.32. This Agreement is also intended to support the issuance of an EOS permit to the Permittee under Section 10(a)(1)(A) of the ESA, 16 USC § 1539(a)(1)(A).

Under this Agreement, and in compliance with the Permittee's Management Plan, the Permittee will undertake and fund the conservation actions described below. These conservation actions are intended to protect and enhance habitat on portions of Eagle Creek for aquatic species listed under the ESA, thereby aiding in their recovery and providing a net conservation benefit. In addition, this Agreement is intended to establish a framework for cooperation and coordination with the USFWS in connection with resource conservation actions based on adaptive management principles, at a total cost to Permittee of up to $2,100,000, to protect and enhance habitat for the species.

When signed, this Agreement will serve as the basis for an EOS permit under ESA Section 10(a)(1)(A) for the incidental take of covered, listed species by the Permittee associated with implementation of the conservation actions and proposed monitoring as well as ongoing land and water uses on the enrolled property, fully described below, subject to the terms and conditions included herein. As explained below, the Parties anticipate that the maximum level of take authorized under this Agreement and EOS permit is unlikely to be realized.

This Agreement addresses only Eagle Creek. Freeport will work with the USFWS to identify suitable conservation measures for the San Francisco River, which has considerably different ecological characteristics and presents different conservation challenges than Eagle Creek.

III. THE COVERED SPECIES

A. Identification and Description

The listed species that are covered by this Agreement are:

1. Spikedace (*Meda fulgida*), endangered with Critical Habitat.

2. Loach minnow (*Tiaroga cobitis*), endangered with Critical Habitat.

3. Gila chub (*Gila intermedia*), endangered with Critical Habitat.

4. Narrow-headed gartersnake (*Thamnophis rufipunctatus*), threatened with Critical Habitat.

These species are collectively called the Covered Species. A brief summary of each Covered Species is provided below.

Spikedace. The spikedace was listed as a threatened species in 1986. Its listing status was changed to endangered in 2012 (77 FR 10810). New critical habitat also was designated for the species at that time.

The spikedace is a small (3 inches [in] or 7.6 centimeters [cm] long), slim fish with silvery sides and a "spike" on the dorsal fin. Breeding males are a brassy golden color. Historically, the species was found in most rivers and streams in the Gila River Basin upstream of Phoenix, typically at elevations below 6,000 feet. Spikedace occupy moderate to large perennial streams and inhabit moderate to fast velocity waters over gravel and rubble substrates. Recurrent flooding helps the spikedace maintain its competitive edge over invading exotic species.

Much of the spikedace's historic habitat in the Gila River Basin has been destroyed as a result of damming, channel alteration, riparian zone modification and destruction, channel downcutting, water diversions and groundwater pumping; and by the introduction and spread of nonnative predatory and competitive species. Present populations are geographically isolated and generally inhabit the upstream ends of their historical range, in streams with few or no nonnative fish species.

Loach minnow. The loach minnow was listed as a threatened species in 1986. Its listing status was changed to endangered in 2012 (77 FR 10810). New critical habitat also was designated for the species at that time.

The loach minnow is a small (less than 3 in (8 cm) long), slender, elongated fish. It is olive colored, with darker, irregular spotting along sides and dull white spots at the base of the dorsal and caudal fins. Breeding males develop vivid red-orange markings. The loach minnow is a bottom dweller of small to large perennial creeks and rivers, typically in shallow turbulent riffles with cobble substrate, swift currents, and filamentous algae below 8,000 feet in elevation. Like spikedace, recurrent flooding is important in maintaining quality habitat.

Loach minnows once were common throughout much of the Gila River Basin. However, the majority of the species' historic habitat has been destroyed as a result of damming, channel alteration, riparian zone modification and destruction, channel downcutting, water diversion and groundwater pumping; and by the introduction and spread of nonnative predatory and competitive species. Present populations are geographically isolated and inhabit the upstream ends of their historical range in streams with few or no nonnative fish species.

Gila Chub. The Gila chub was listed as endangered with critical habitat in 2005 (70 FR 66664). At that time, it was recognized as a separate species. It is a small-finned, deep-bodied, chunky member of the minnow family (*Cyprinidae*) that ranges from dark olive green to silvery with a lighter belly. They feed primarily on aquatic insects and algae, and are often occupy pools in smaller streams, cienegas, and artificial impoundments ranging in elevation from 2,000 to 5,500 feet. Gila chub are secretive, preferring quiet deeper waters, especially pools, or remaining near cover including terrestrial vegetation, boulders, and fallen logs.

Recently, there has been a taxonomic revision of the fish that have historically been classified as Gila chub. Based upon analyses of genetic and morphological data, the Gila chub is no longer

recognized as a distinct taxonomic entity but rather is actually within the roundtail chub (*Gila robusta*) species (82 FR 16981). Nonetheless, the Gila chub remains listed under the ESA with critical habitat. The USFWS developed a Species Status Assessment (SSA) for the lower Colorado River Distinct Population Segment (DPS) of the roundtail chub (USFWS 2022), along with a 12-month finding (87 FR 19657). In the 12-month finding, USFWS determined that listing the roundtail chub DPS was not warranted at that time, and that we should consider removing Gila chub from protections of the ESA, however the Gila chub currently remains listed. This Agreement covers the fish species in Eagle Creek that have been historically classified as Gila chub and are now considered to be roundtail chub.

Historically, chub that occurred in upper Eagle Creek above the Willow Creek confluence were classified as Gila chub while those below the Willow Creek confluence, including the Sheep Wash area, were classified as roundtail chub (Bagley and Marsh 1997, Minckley and DeMarais 2000, Voeltz 2002, Marsh et al. 2004, Marsh & Associates 2009, Minckley and Marsh 2009, Coleman 2010, Marsh & Associates 2011, 2012, and 2013, Dowling et al. 2015). Since this Agreement is being prepared prior to possible proposed delisting of the Gila chub based on the taxonomic revisions discussed above, the discussion of Gila and roundtail in this Agreement relies on the traditional geographic distinction of chub in Eagle Creek.

Narrow-headed gartersnake. The narrow-headed gartersnake was listed as threatened in 2014 (79 FR 38678). Critical habitat was designated for this species in 2021 (86 FR 58474). The narrow-headed gartersnake is a small to medium-sized species that reaches a maximum of 44 inches in length. It is one of the most aquatic of the gartersnakes, and is strongly associated with clear, rocky streams using predominantly pool and riffle habitat that includes cobbles and boulders. The most significant threat to the narrow-headed gartersnake is nonnative species, particularly predatory, nonnative fish in the families *Centrarchidae* and *Ictaluridae*, which compete with and prey upon both the gartersnake and its native prey species. Nonnative crayfish also compete with the gartersnake and prey upon the neonatal size class in addition to creating excessive siltation of the stream bottom, which affects reproduction of prey species and hunting success for the gartersnake.

Historically, narrow-headed gartersnakes occupied perennial drainages across the Mogollon Rim from northern and eastern Arizona, southeast into southwestern New Mexico. Existing sampling data suggest that perhaps only three populations of narrow-headed gartersnakes are considered relatively dense where the species remains somewhat reliably detected: 1) Tularosa River (New Mexico); 2) Middle Fork Gila River (New Mexico); and 3) Oak Creek/West Fork Oak Creek (Arizona). Information on other populations is less certain due to lack of survey data and ineffectiveness of existing survey methodologies in detecting this species. During the late 1980s, narrow-headed gartersnakes maintained a high-density population in Eagle Creek, documented by some of the highest catch rates per unit effort ever reported for the species, particularly downstream of the proposed barrier site discussed herein. Since that time, survey effort has declined precipitously as well as records. In 2013, a single adult was detected near Sheep Wash (Ehlo et al. 2013).

Narrow-headed gartersnakes specialize on native fish as their primary prey. Consequently, the conservation actions benefitting native species that the Permittee will implement pursuant to this

Agreement will also benefit the narrow-headed gartersnake by maintaining their prey base and limiting predation and competition.

B. Critical Habitat for Covered Species

Critical habitat has been designated along portions of Eagle Creek for the Covered Species. Critical habitat has been designated for the loach minnow and the spikedace from the Permittee's diversion dam in Section 23, Township 4 North, Range 28 East, upstream to the confluence of Eagle Creek and East Eagle Creek in Section 20, Township 2 North, Range 28 East but excluding the Permittee's land and land within the San Carlos Apache Reservation (77 FR 10810).

Critical habitat has been designated for the Gila chub on upper Eagle Creek and East Eagle Creek, extending from Eagle Creek's confluence with an unnamed tributary in the southwest quarter of Section 31, Township 1 North, Range 28 East, upstream to the headwaters of East Eagle Creek just south of Highway 191 in Section 28, Township 3 North, Range 28 East (70 FR 66664).

Critical habitat has been designated for the narrow-headed gartersnake along Eagle Creek. This critical habitat consists of 84 acres (34 hectares) beginning approximately 0.25 mile (0.39 kilometer [km]) upstream of the Eagle Creek and Big Dry Creek confluence and continuing downstream for two miles (4 km) (85 FR 23608). The majority of the designated critical habitat is on Federal lands, with approximately 0.4 acres (0.2 hectares) on private land.

IV. THE ENROLLED PROPERTY

The enrolled property for the purpose of this Agreement consists of portions of the Permittee's land and water rights along and in the vicinity of Eagle Creek. The enrolled property and related rights are described below.

A. Eagle Creek Land and Water Rights

A map depicting the Permittee's land ownership along and in the vicinity of Eagle Creek is attached to this Agreement as **Figure 1 (Appendix A)**. The enrolled property covered by this Agreement is located along Eagle Creek, identified on **Figure 1 (Appendix A)** as "FMC Private Land." This land begins at approximately river mile 1 (i.e., 1 mile (1.6 km) upstream from Eagle Creek's confluence with the Gila River) and continues upstream a distance of slightly more than 20 river miles (32.2 km). It also includes parcels located at river mile 42, between river mile 47 and 48, near river mile 49, and near river mile 52. These lands collectively represent the Covered Area for purposes of this Agreement. The Permittee also owns several parcels of land in upper Eagle Creek at river mile 42, between river mile 47 and 48, near river mile 49, and near river mile 52. These lands collectively represent the Covered Area for purposes of this Agreement. The Permittee does not conduct any activities on the parcels in upper Eagle Creek, and the parcels are vacant except for a single residence and outbuildings between river miles 46.5 and 49.5, which are located along an ephemeral portion of portion of the creek that only supports flows during spring runoff and following heavy precipitation events.

The Permittee diverts water into Eagle Creek at two locations: Willow Creek and well fields east of the creek. Water is diverted from the Black River and transported to Eagle Creek via Willow Creek, entering Eagle Creek at approximately river mile 44.2. In addition, the Permittee pumps

groundwater from two well fields within bedrock aquifers east of Eagle Creek. Groundwater from the Bee Canyon Well Field is discharged into the Bee Canyon channel, which flows into Big Dry Creek, which in turn flows into Eagle Creek near river mile 42.2. Groundwater from the Mud Springs Well Field flows by gravity through a 22-inch diameter HDPE pipe approximately 5 miles (8 km) to a concrete discharge box near Eagle Creek where it is released into Eagle Creek near river mile 43, approximately one mile (1.6 km) south of the confluence of Willow Creek and Eagle Creek. These water releases further augment stream flow below the Willow Creek confluence. The Permittee does not own any property along Eagle Creek at the confluences of Willow Creek or Bee Canyon and does not conduct any management activities in these areas.

The Permittee intends to continue to transport and divert water as described above for the foreseeable future. It is possible that, in the future, the Permittee may alter the manner in which it diverts and transports water including potentially installing pipelines or other infrastructure to transport water for its operations. However, at this time the Permittee has no proposals to alter its water transportation and diversion facilities and associated infrastructure in the vicinity of Eagle Creek except as may be required to ensure the continued diversion and delivery of water as described above. As noted above, these activities would all occur below the barrier to be constructed above Willow Creek.

The Permittee owns a land parcel at river mile 11.5 on which they operate a pump station and associated infrastructure. The infrastructure at this site includes a pipeline that conveys water from a settling pond to a storage tank, a storage tank, an overhead pipeline that conveys water from the storage tank over Eagle Creek to pump stations and an above ground pipeline that returns excess water from the storage tank into Eagle Creek. At present, the Permittee does not conduct any activities other than periodic maintenance and, as needed, repair of the pump station (located inside a building), the diversion dam, pipelines, and other associated infrastructure. In the future, more extensive activities may be required, such as replacement of aged facilities or upgrades to ensure adequate operating capacity.

No mining occurs on the Permittee's lands along Eagle Creek, and the Permittee does not conduct any other activities on its lands along lower Eagle Creek.

Based on discussions with the USFWS and Bureau of Reclamation (Reclamation), a fish barrier to protect the Covered Species and their habitat in upper Eagle Creek is planned on the Permittee's land at river mile 51.1 (the fish barrier site), which is the most upstream parcel of the Permittee's land. This parcel extends an additional 3,000 feet upstream of the fish barrier. The Permittee does not currently, and will not in the future, conduct any activities above the constructed barrier. Reclamation may conduct some activities on this parcel for fish barrier maintenance, as needed. Any effects to species due to Reclamation activities will be addressed in the ESA Section 7 compliance for Reclamation and accompanying biological opinion, 16 U.S.C. § 1536, rather than in this Agreement.

B. Anticipated Incidental Take

Given the current status of the Covered Species in Eagle Creek below the proposed fish barrier site (see Baseline Determination, below at Section V), incidental take is currently unlikely to occur. Nevertheless, if the Covered Species are present, they could be incidentally taken as a consequence

of the Permittee's management actions and its land and water use activities within the Covered Area. In addition, the likelihood of incidental take may increase if populations of Covered Species increase above the fish barrier or if Covered Species are reintroduced and re-establish above the fish barrier on Eagle Creek (or tributaries, such as East Eagle Creek). If such reintroduction or re-establishment were to occur, this would create the possibility that individuals of the Covered Species may move or be washed downstream into areas within the Covered Area containing the Permittee's facilities and other infrastructure. In that event, individuals of the Covered Species could become entrained in the Permittee's water diversion and pumping facilities, resulting in deaths or injuries.

In addition, the Permittee anticipates engaging in operations/maintenance-related construction activities within the Covered Area downstream of the proposed fish barrier during the term of this Agreement. Within the Covered Area, the Permittee may repair or replace portions of its existing water infrastructure and related facilities along Eagle Creek and may construct additional water transportation and diversion facilities along the stream in the future to ensure the continued availability of water for the Permittee's mining and mineral processing operations and for municipal uses. These activities may result in increased sedimentation, adverse impacts to stream substrates, and changes in stream morphology that can harm fish and their eggs and have other adverse impacts on individuals of the Covered Species that are present near the activity.

As set forth below, the Permittee agrees that it will not remove the fish barrier on Eagle Creek, which is an integral part of the Permittee's conservation actions under this Agreement. Consequently, the condition of the upper portion of Eagle Creek will not be returned to the baseline. Accordingly, this Agreement need not include a description of steps that may be taken to return the property to the baseline condition and measures to reduce effects to the covered species. 50 CFR 17.22(c)(1)(vii).

V. BASELINE DETERMINATION

The following section describes the baseline conditions of the Covered Species in Eagle Creek. It describes the physical characteristics of the stream and the existing levels of the stream's occupancy by the Covered Species and other fish species.

Spikedace, loach minnow, Gila chub, and narrow-headed gartersnakes are difficult to adequately monitor due to low detection probabilities, inefficiencies in sampling, small body size of the fishes during all or parts of their life cycle, and fluctuations in population numbers. For narrow-headed gartersnakes, detection is also difficult because they are generally only observed when surface active. In addition, for all species, surveys often occur within limited spatial areas as a sample of larger areas, and access to some areas is limited by landownership. For these reasons, this Agreement utilizes acres or river miles of suitable habitat as a surrogate for determining baseline and net conservation benefit for each of the species.

A. Characteristics and Background

Eagle Creek begins near Robinson Mesa, south of the Mogollon Rim in east-central Arizona, where several smaller streams join East Eagle Creek. Eagle Creek flows south to join the Gila River southwest of Clifton, a distance of approximately 60 miles (96.6 km) (see **Figure 1**). Flow

characteristics of Eagle Creek are variable. The upper portion of Eagle Creek is perennial where the stream passes through mountainous terrain and is likely bedrock controlled. Upon entering a broader alluvial valley, which begins near river mile 49, the creek becomes seasonally intermittent. At the downstream end of this valley, Willow Creek discharges into Eagle Creek near river mile 44, and Eagle Creek is again perennial and remains perennial to its confluence with the Gila River.

Eagle Creek has been extensively surveyed, including annual surveys from 1989 through 2023. Techniques used to sample fish were electrofishing, seine nets, baited minnow traps, dip nets, and hook and line. Summary tables and charts of fish data collected during this period are provided in BIOME (2024, Appendix A).

The portion of Eagle Creek downstream of Willow Creek, including the Sheep Wash area, is dominated by nonnative fish. In particular, three nonnative species – smallmouth bass (*Micropterus dolomieu*), green sunfish (*Lepomis cyanellus*), and channel catfish (*Ictalurus punctatus*) – are common in this stream segment and show an upward trend in numbers collected during recent surveys. Green sunfish, red shiner (*Cyprinella lutrensis*), and mosquito fish (*Gambusia affinis*) are the most abundant species, and channel catfish and yellow bullheads (*Ameiurus natalis*) being the least abundant species.

Conversely, the portion of Eagle Creek upstream of Willow Creek is dominated by native fish. As stated above, there is a broad alluvial valley immediately above the confluence of Willow Creek where Eagle Creek is seasonally intermittent for approximately 3 miles (4.8 km) before re-appearing where the basin narrows just above the Willow Creek confluence. Above this intermittent stream segment, longfin dace (*Agosia chrysogaster*), speckled dace (*Rhinichthys osculus*), desert sucker (*Pantosteus clarki*), and Sonoran sucker (*Catostomus insignis*) are common, and nonnative species are rare. The upper reach of Eagle Creek also has several tributaries that likely harbor native fish, including East Eagle Creek, Wet Prong Creek, and Middle Prong Creek.

The intermittent reach of Eagle Creek, located immediately upstream of Willow Creek, appears to limit encroachment of nonnative fish into the upper reach of the creek and its tributaries, at least during drier periods. However, the seasonally intermittent nature of this flow, particularly during wetter periods (e.g., during periods of snow melt and monsoon seasons with above-normal precipitation), could provide nonnatives, especially red shiner, access to the upper reach of the creek.

Between the intermittent reach of Eagle Creek and the proposed fish barrier site, there are approximately 2.5 miles (4.0 km) of perennial flow. Within this area, the Permittee owns two disjunct parcels of land of approximately 600 linear feet (183 meters) of stream (between the proposed barrier site and the downstream edge of one parcel) and 1,050 linear feet (45.7 meters) (between the lower boundary of the second parcel to the intermittent reach), for a total of approximately 1,650 feet (503 meters) of wetted area.

B. Spikedace Baseline

Early collections by Miller in 1950 did not identify spikedace in Eagle Creek, and no spikedace were collected during surveys in the 1970s and early 1980s (Marsh *et al.* 1990). For a brief period

in the 1980s, spikedace were collected. Bestgen (1985 as cited in Marsh *et al.* 1990) reported that 12 juvenile spikedace were caught in Eagle Creek in 1985. In 1987, 398 spikedace were caught from Sheep Wash downstream to the Permittee's diversion dam, and one spikedace was caught below the diversion dam (Marsh *et al.* 1990). No spikedace were captured above Sheep Wash in 1987 (Papoulias *et al.* 1989). In 1989, two spikedace were caught in Eagle Creek. All spikedace detections occurred below the Willow Creek confluence. There are no spikedace records from tributary streams to Eagle Creek. The Arizona Game and Fish Department (AGFD) and Reclamation completed sampling in Eagle Creek for environmental DNA (eDNA) in 2017, 2019, and 2021. Samples were collected at 23 locations between the Eagle Creek and East Eagle Creek confluence and Knight Canyon. No spikedace were detected in these eDNA sampling efforts. Determining the number of spikedace present in an area is difficult due to limited access to some habitat within Eagle Creek, the low number of spikedace present within the stream, their small body size, and fluctuations in populations for the species from one year to the next.

Since 1989, no spikedace have been captured during annual surveys of Eagle Creek (Biome 2024). The USFWS believes that spikedace may persist, but in numbers too low for annual survey efforts to detect or in areas where access is limited by landownership. From the fish barrier site downstream to an intermittent area at river mile 49, the Permittee owns approximately 1,650 linear feet (503 meters) on which limited management occurs or will occur. From river mile 49 downstream to the Willow Creek confluence, we anticipate that spikedace are not likely to be present as evidenced by the lack of recent detections. This is likely due in part to the seasonally intermittent flows in this area. From the Willow Creek confluence downstream to its confluence with the Gila River, it is unlikely that spikedace regularly occur due to the substantial increase in nonnative species that compete with and prey on spikedace during the past two decades and based on the absence of the species in recent surveys.

There are 8.4 stream miles (13.5 km) of suitable spikedace habitat in upper Eagle Creek above the proposed fish barrier. Currently, upstream migration of nonnative species is precluded only by an intermittent stretch of river near river mile 49, which can be hydrologically connected during periods of flow. Therefore, there is currently no protection of suitable spikedace habitat and the baseline for spikedace is 0 stream miles (0 km) of protected habitat on the Permittee's property. Section IX below provides a conclusion on net conservation benefits for spikedace due to protection of upper Eagle Creek.

C. Loach Minnow Baseline

Miller made a single collection of loach minnow in Eagle Creek in 1950, when 12 adults were caught (early collections by Miller in 1950 as cited in Marsh *et al.* 2003). Marsh *et al.* (2003) reported that despite intensive sampling efforts since the 1970s, no loach minnow were collected until the mid-1990s. At that time, Marsh *et al.* (2003) documented four years of occurrence of loach minnow in the upper portion of Eagle Creek, near Honeymoon Campground (near river mile 57), from 1994 to 1997. They found 10 adults in 1994, 12 adults in 1995, three adults in 1996, and two adults in 1997. The AGFD and Reclamation completed sampling in Eagle Creek for environmental DNA (eDNA) in 2017, 2019, and 2021. Samples were collected at 23 locations between the Eagle Creek and East Eagle Creek confluence and Knight Canyon. No loach minnow were detected in these eDNA sampling efforts. No loach minnow records exist for tributaries to Eagle Creek. Determining the number of loach minnow present in a given area is difficult due to

their small size and behavior of hiding under protective cover during daylight (Marsh et al. 2003). Limited access to some habitat within Eagle Creek and the low number of individuals present within the stream also hamper detection efforts. For Eagle Creek, loach minnow went undetected for a 44-year period (1950 to 1994) before being rediscovered (Marsh et al. 2003), which illustrates the difficulty in detecting the species.

Since 1997, no loach minnow have been captured during annual surveys of Eagle Creek (Biome 2024). The USFWS believes that loach minnow may persist in Eagle Creek, but in numbers too low for annual survey efforts to detect or in areas where access is limited by landownership. At present, loach minnow are likely confined to the upper reach of the Eagle Creek and its tributaries, such as East Eagle Creek, where few nonnative fish species are present to compete with and prey on loach minnow, and where the majority of loach minnow detections have occurred in the past. From the fish barrier site downstream to river mile 49, there is one loach minnow record from 1994. The Permittee owns approximately 1,650 linear feet (503 meters) in this area, on which limited management occurs or will occur. From river mile 49 downstream to the Willow Creek confluence, we anticipate that loach minnow are not likely to be present as evidenced by the lack of detections in recent and past surveys. This is likely due in part to the seasonally intermittent flows in this area. From the Willow Creek confluence downstream to its confluence with the Gila River, it is unlikely that loach minnow regularly occur due to the substantial increase in nonnative species during the past two decades and based on the absence of the species in recent surveys.

There are 8.4 stream miles (13.5 km) of suitable loach minnow habitat in upper Eagle Creek above the proposed fish barrier. Currently, upstream migration of nonnative species is precluded only by an intermittent stretch of river near river mile 49, which can be hydrologically connected during periods of flow. Therefore, there is currently no protection of suitable loach minnow habitat and the baseline for loach minnow is 0 stream miles (0 km) of protected habitat on the Permittee's property. Section IX below provides a conclusion on net conservation benefits for spikedace due to protection of upper Eagle Creek.

D. Gila Chub Baseline

Gila chub have been occasionally collected during annual surveys in upper Eagle Creek. In 1987, and then from 1989 through 1995, no Gila chub were collected in Eagle Creek. Beginning in 1996 and continuing through 2009, Gila chub were occasionally collected during survey efforts, with the most of these collections occurring in the upper portion of the creek and its tributaries. After 2009, Gila chub were not captured during survey efforts in upper Eagle Creek until 2015 and 2016, when AGFD and WestLand captured chub near the Honeymoon Campground, approximately 6 miles (9.7 km) upstream of the proposed fish barrier site (AGFD unpublished data 2015, 2016; WestLand Resources 2016). No Gila chub were captured in 2017 and 2018, but in 2019 a single chub was captured approximately 0.5 miles (0.8 km) below the proposed fish barrier site (Marshall 2020). In 2020, a single Gila chub was captured near Honeymoon Campground (Kesner et al. 2020) and 110 were captured in the same area in November (Hickerson et al. 2021). Gila chub have never been detected in East Eagle or Chitty creeks, which are both tributaries to upper Eagle Creek.

Eagle Creek is considered occupied by Gila chub from the Willow Creek confluence upstream to the confluence of East Eagle Creek. From the fish barrier site downstream to an intermittent area

at river mile 49, the Permittee owns approximately 1,650 linear feet (503 meters) on which limited management occurs or will occur. At present, Gila chub would likely be found in the upper reach of the creek and its tributaries, such as East Eagle Creek (which has been designated critical habitat for the species), where there are few nonnative fish. From River mile 49 downstream to the Willow Creek confluence, we anticipate that Gila chub could be present, but in low numbers, likely due in part to the seasonally intermittent flows in this area. Due to the lack of recent detection and the predominance of nonnative species that compete with and prey on Gila chub through much of the area downstream of the proposed fish barrier site, we are not able to conclude with reasonable certainty that take of Gila chub is currently likely to occur.

There are 22.4 stream miles (36.0 km) of potential Gila chub habitat in upper Eagle Creek above the proposed fish barrier. Currently, upstream migration of nonnative species is precluded only by an intermittent stretch of river near river mile 49, which can be hydrologically connected during periods of flow. Therefore, the baseline for Gila chub is 0 stream miles (0 km) of protected habitat on the Permittee's property. Section IX below provides a conclusion on net conservation benefits for spikedace due to protection of upper Eagle Creek.

E. Narrow-Headed Gartersnake Baseline

The narrow-headed gartersnake is historically known from Eagle Creek based upon observations in 1934 (n=2), 1964 (n=1), 1983 (n=2), 1987 (several), 1988 (n=1), and 1991 (n=1). In 1987, Fernandez and Rosen (1996) conducted a comprehensive survey along a total of 21 stream miles (33.8 km) across lower, middle, and upper Eagle Creek. Rosen observed a total of 29 narrow-headed gartersnakes all located in lower and middle Eagle Creek. Based on these results, Rosen concluded that while an eight-mile (12.9-km) reach of middle Eagle Creek supported a relatively high density of narrow-headed gartersnakes, the species was "rare to absent" in the upper half of Eagle Creek.

In 2004 and 2005, Holycross conducted narrow-headed gartersnake surveys at three sites previously surveyed by Rosen in upper (Honeymoon Campground), middle (P-Bar Ranch), and lower (Morenci pumping station) Eagle Creek. No narrow-headed gartersnakes were detected during a cumulative survey effort of 138 hours of visual encounter surveys and 19,660 trap-hours (Holycross et al. 2006). The only observation of narrow-headed gartersnake along Eagle Creek since 1991 was the incidental detection of a single adult near Sheep Wash in 2013 (Ehlo et al. 2013). There are no records of narrow-headed gartersnake in tributaries to Eagle Creek.

No gartersnakes have been observed during annual fish surveys that have been conducted at multiple sampling sites in lower, middle, and upper Eagle Creek since the 1980s. Narrow-headed gartersnakes are difficult to adequately monitor due to low detection probabilities and because they are generally only observed if surface active. In addition, surveys often occur within limited spatial areas as a sample of larger areas. Detecting gartersnakes is also exacerbated when they are present in low numbers. In addition, the history of records for this species includes gaps in records for various streams of over 50 years, with the first species records for some streams occurring in the 2000s. This underscores the species' demonstrated ability to elude detection for multiple decades particularly in under-samples streams. Narrow-headed gartersnakes are also difficult to detect due to their tendency to shelter out of sight and to blend into their environment. For Eagle Creek, there is adequate flow in the Creek as well as a native prey base. Combined with detections over time,

as well as a lack of gartersnake-specific monitoring, we anticipate that narrow-headed gartersnakes are likely present at Eagle Creek as a very low-density population" (Appendix A in USFWS 2013).

To better determine a baseline for purposes of this Agreement, we analyzed the potential number of gartersnake home ranges within the project area by applying results from research that determined gartersnake home range size (Nowak 2006, Jennings and Christman 2012). This research found a maximum home range size of 5.5 acres (2.2 hectares). Buffering 8.4 miles (13.5 km) of Eagle Creek above the fish barrier by 100 meters to incorporate streamside habitat, we determined that there is a maximum of 682 acres (276 hectares) of streamside habitat that would be above the proposed barrier, equating to a maximum of 124 potential home ranges. Not all of this area is on the Permittee's lands, but the barrier would protect the river and associated riparian habitat above the barrier regardless of land ownership. Also, we recognize that not all areas incorporated in the 124 potential home ranges above the barrier are suitable for gartersnakes and that some may be highly suitable and others less so or not suitable. As noted above, we anticipate that gartersnakes are likely present at Eagle Creek as a very low-density population. While we recognize that additional surveys are also needed, we anticipate that habitat suitability also affects population density. In addition, there are approximately 4,060 acres (1643 hectares) below the barrier, with 1,894 acres (766.5 hectares) on the Permittee's lands, equating to a potential maximum of 344 home ranges. This area is occupied by multiple nonnative fish species which serve as prey as well as prey on and compete with narrow-headed gartersnakes (Fleharty 1967, M. Lopez, pers. comm. 2010). As with those portions of Eagle Creek above the barrier, we recognize that not all acres of habitat are equally suitable for gartersnakes and that some reaches may be highly suitable and others less so or not suitable.

Based on the information above, there are approximately 468 home ranges along Eagle Creek both above and below the proposed fish barrier. There is currently no protection for gartersnake home ranges along Eagle Creek above the proposed fish barrier; therefore, the baseline for gartersnake is 0 protected home ranges on the Permittee's property. Section IX below provides a conclusion on net conservation benefits for narrow-headed gartersnakes due to protection of upper Eagle Creek.

VI. CONSERVATION ACTIONS BENEFITTING THE COVERED SPECIES

A. Biological Goals and Objectives

The biological goal of the Agreement is to provide and facilitate construction of a fish barrier on the Enrolled Property that will serve as a biological refugia for the Covered Species within Eagle Creek upstream of the fish barrier site. The fish barrier will be constructed following timeframes developed by Reclamation.

B. Overview of the Permittee's Commitments

As set forth below, the Permittee agrees to perform the following conservation actions, which are anticipated to provide a net conservation benefit, as more fully described below, to the Covered Species as well as other native aquatic species in Eagle Creek.

The Permittee has agreed to spend up to $2,100,000 over the next 10 years to investigate, design, and construct a fish barrier on Eagle Creek that will protect and enhance aquatic habitat for the

Covered Species. The fish barrier will prevent nonnative species from moving upstream into the upper portion of the creek, protecting the Covered Species and their habitat.

The Permittee also will develop and implement a three-year monitoring program to detect the presence of other types of nonnative invasive crayfish within the upper reach of Eagle Creek, and investigate the practicability and cost of actions to suppress the populations of these species in the upper segment of Eagle Creek, above the fish barrier Site.

In addition, the Permittee will undertake a monitoring program on its land along Eagle Creek. This program will include annual surveys on Eagle Creek for the Covered Species as well as other fish species, which can be used to inform future conservation and management activities, assisting in the recovery of the Covered Species. Additional details of the proposed monitoring program can be found in section VII below.

C. Coordination Process for the Eagle Creek Fish Barrier Project

The conservation actions that will be funded and implemented by the Permittee for Eagle Creek pursuant to this Agreement are intended to be compatible and consistent with the goals and actions contemplated in the Native Fishes Program (USFWS et al. 2022). The Native Fishes Program is directed by the USFWS and Reclamation, in cooperation with the New Mexico Department of Game and Fish and AGFD. It is funded primarily by Reclamation. Its mission is to "undertake and support conservation actions (recovery and protection) for Federal/State-listed or candidate fish species native to the Gila River basin by implementing existing and future recovery plans for those fishes." The Native Fishes Program's strategic plan identifies a long-term vision and the goals and actions that are expected to be accomplished by the program in the current five-year period.

To ensure compatibility with this program and to create an effective public-private partnership that will assist in conserving the Covered Species, the activities undertaken by the Permittee in connection with the design and construction of the fish barrier will be subject to coordination with and review by the USFWS and Reclamation, with the goal of ensuring that the fish barrier will be consistent with the goals of the Native Fishes Program five-year plan. If deemed necessary, the fish barrier and any related conservation activities on Eagle Creek may be submitted by the USFWS to the Native Fishes Program Technical Committee for review and comment.

D. Investigation and Construction of Fish Passage Barrier on Eagle Creek

1. Previous Investigation of Fish Barrier Sites

In 2009, the Permittee conducted a preliminary investigation regarding the feasibility of constructing a fish barrier on Eagle Creek. As previously explained, fish survey data show that the portion of Eagle Creek above the Willow Creek confluence is dominated by native fish while the portion of the creek below the Willow Creek confluence is dominated by nonnatives. While the existing diversion dam operated by the Permittee on Eagle Creek acts as a barrier to prevent the upstream movement of nonnative fish from the Gila River, nonnative species are well established above the diversion dam. Consequently, the Permittee focused its efforts on identifying a suitable fish barrier location above the Willow Creek confluence that will protect the

upper portion of Eagle Creek and its tributaries. A field inspection of upper Eagle Creek was conducted in October 2009 to identify potential fish barrier sites. At that time 10 locations above the Willow Creek confluence were evaluated as potential fish barrier sites.

In its Management Plan, the Permittee committed to further investigate the construction of a fish barrier on Eagle Creek. The Permittee proposed to spend up to $1,500,000 to design and construct a fish barrier on the upper reach of Eagle Creek. The financial commitment for Eagle Creek was based on the approximate cost of fish barriers constructed by Reclamation on Aravaipa Creek, which is a similarly sized stream, adjusted for inflation.

In accordance with its Management Plan, during 2012 and 2013 the Permittee inspected potential fish barrier locations on Eagle Creek with biologists and engineers from the USFWS and Reclamation. The potential locations for a fish barrier were refined and a preferred location was identified based on land ownership and topography. The preferred location identified during these visits was located on a Permittee-owned parcel of land shown on attached **Figure 2 (Appendix A)**, which contains the fish barrier site. Reclamation staff then completed a preliminary analysis of the feasibility of constructing a fish barrier at that site. Two configuration/construction methods were evaluated at a conceptual level using unit pricing data from two recently constructed fish barriers.

In 2016 and 2023, the Permittee contracted WestLand Engineering & Environmental Services to complete a cultural resources inventory of the area of potential effects (15 acres [6.1 hectares]) for the preferred barrier location and potential staging areas (Hooper and Buckles 2016; Van Gijlswijk 2023). Reclamation was designated as the lead Federal agency for compliance with the National Historic Preservation Act (NHPA) pursuant to 36 CFR § 800.2(a)(2). The cultural resource inventories resulted in the identification of one historic property (AZ W:11:34[ASM]) and one in-use, historic road (Eagle Creek Road) that is unevaluated for listing in the National Register of Historic Places. A buffered avoidance zone would be enforced during implementation around site AZ W:11:34(ASM) using a temporary construction fence that would be removed after work is complete. No work is proposed on Eagle Creek Road. With these avoidance measures in place, Reclamation has determined the undertaking will have no adverse effect to historic properties in consultation with the Arizona State Historic Preservation Office (SHPO) and Native American Tribes. The SHPO concurred with this finding on April 5, 2024 (SHPO-2024-0288 [174252]).

In summary, based on the Permittee's investigation of Eagle Creek and coordination with the USFWS and Reclamation biologists, the consensus view is that (1) the construction of a fish barrier on the upper portion of Eagle Creek would provide substantial conservation benefits for the Covered Species and other native aquatic species; (2) the Fish Barrier Parcel, shown on **Figure 2 (Appendix A),** is a viable location for the barrier that merits further investigation; and (3) given the estimated cost of constructing the fish barrier on the upper portion of Eagle Creek, the Permittee should proceed to design and construct that fish barrier.

2. Eagle Creek Fish Barrier Design and Construction

The Permittee previously developed a preliminary work plan for the construction of the fish barrier at the location on Eagle Creek identified on **Figure 2 (Appendix A)**. The preliminary work plan was submitted to the USFWS for review and comment.

The Permittee is collaborating with Reclamation on fish barrier planning, design, permitting, National Environmental Policy Act (NEPA) compliance, NHPA compliance, construction, and long-term operations and maintenance. In October 2023, Reclamation, USFWS, and the Permittee entered into a Memorandum of Understanding (MOU) that set forth the parties' responsibilities relative to the fish barrier. A copy of the MOU is attached hereto as **Exhibit 1, Appendix B**. In accordance with the terms of the MOU, the Permittee's responsibilities include:

1. Providing Reclamation with topographic and land survey data of the property including the proposed location of the fish barrier site and upstream and downstream conditions.

2. Providing Reclamation with access to the Proposed Site for the purpose of conducting such geotechnical investigations as Reclamation deems necessary to support their engineering design.

3. Providing construction equipment, such as a backhoe and drilling equipment, and operators, as may be reasonably required to assist Reclamation site investigation work.

4. Reviewing the final engineering design, construction specifications and expected costs, and notifying Reclamation whether they are acceptable or whether modifications need to be made.

5. Providing reasonable assistance with permitting and environmental compliance, including NEPA and NHPA, that is determined to be necessary. This assistance may include such tasks as providing data and reviewing and commenting on draft documents.

6. Cooperating with Reclamation during site investigations and construction activities including providing access for site investigations, engineering, construction, and other activities that may be necessary.

7. Granting Reclamation an easement that is sufficient to enable construction and operation and maintenance of the fish barrier, including the reasonable right of access to Permittee's adjoining private land for the purpose of carrying out such responsibilities, including fish monitoring.

8. Contributing up to $2,100,000 towards the cost of fish barrier construction.

Reclamation's responsibilities include:

1. Conducting site analysis and investigations (e.g., scour and HEC-RAS modeling) as may be reasonably required and completing preliminary engineering design and planning for the construction of the fish barrier.

2. NEPA and NHPA compliance for fish barrier construction and issuance of an EOS permit.

3. Providing the parties copies of any required NEPA and NHPA documents including technical reports, data, analyses and draft and final documents.

4. Acquiring all permits and other approvals necessary for fish barrier construction.

5. Constructing the fish barrier.

6. Contributing up to $4,500,000 towards fish barrier construction costs.

7. Conducting and funding all post-construction fish barrier O&M activities.

E. Exotic Species Removal Study

Besides the well-documented adverse effects of nonnative fish species on native fish, nonnative crayfish (*Orconectes virilis*) adversely impact the Covered Species and other native aquatic species. To address this nonnative species, the Permittee will develop and implement a three-year study to monitor crayfish within the upper portion of Eagle Creek and investigate the practicability and cost of removal actions to suppress the populations of crayfish in the upper reach of Eagle Creek above the fish barrier site.

The Permittee has agreed to conduct a three-year crayfish eradication study. At the end of the three-year study, the results of the investigation and an assessment of the efficacy of removal actions will be completed and reviewed with the USFWS and the Native Fishes Program Technical Committee. The results of the study will inform future management actions to remove nonnative species within Eagle Creek, in addition to providing valuable data and information of use to the Native Fishes Program.

VII. ANNUAL MONITORING AND REPORTING

A. Annual Covered Species Surveys

The Permittee will conduct annual surveys on Eagle Creek for the Covered Species of fish and submit the results of such surveys to the USFWS and to the Native Fishes Technical Committee for the 50-year duration of the Agreement. The Permittee will retain qualified, authorized biologists to conduct the surveys.

Fish surveys on Eagle Creek will occur at a minimum of 15 permanent sample locations on land owned or controlled by the Permittee, including those previously included in monitoring completed by Marsh et al., as described in the Feeport-McMoran Corporation management plan for Eagle Creek and the San Francisco River (Freeport 2011). This monitoring tracks fish community composition both above and below the barrier. Tracking nonnative fishes above the barrier would allow managers to determine if nonnatives have somehow moved over or around the barrier or have been unlawfully translocated upstream of the barrier, so that they can react in a timely manner and remove nonnatives as needed. This monitoring will also allow project managers to determine whether or not the 124 narrow-headed gartersnake home ranges, 8.4 miles (13.5 km) of spikedace and loach minnow suitable habitat, and 15.7 miles (25.3 km) of Gila chub suitable habitat, established as the area to be protected by the fish barrier for the Covered Species, remain nonnative free.

Once every five years, for the 50-year duration of the Agreement, selected sites will be sampled for fish using a three-pass depletion method (Lockwood and Schneider 2000, Medina *et al.* 2005, 2006) or alternative methods as indicated by the best available techniques (e.g., Peterson *et al.* 2004) to obtain best estimates of fish abundance and species composition. Study sections will be

blocked on upper and lower ends with block nets (mesh size 1/8") to prevent fish escape. Fish sampling will be in sequence, progressing from a downstream to upstream direction. Fish will be collected using backpack DC electrofishing units, seines, dipnets, and trammel nets as appropriate to habitat conditions. Units of effort expressed as time and rate of electric current expended will be recorded to establish a comparative basis for fish abundance across sample sites. All fish captured will be held in 5-gallon buckets for rapid processing and returned to the stream. Every fish will be identified to species and measured for length. Approximately 10 to 20 fish of each species, depending on availability, will be weighed to obtain a size-weight estimation equation. All data will be recorded on standardized forms and analyzed for report preparation.

Fish sampling conducted between the major five-year sampling efforts described above will utilize a single pass methodology to reduce stress and mortality. While dependent on habitat complexity, previous studies by Medina (2008) in Mangas Creek indicate that single pass sampling efforts result in capture of about 50 percent of the fish captured in a three-pass depletion survey. This ratio will be adjusted based upon actual experience within each of the habitat types sampled and used to provide a range of population from the lowest, most conservative estimate to the potential upper limit for each species captured.

Although not required by the Agreement, the Permittee has agreed to allow access, with prior notice, to conduct surveys for narrow-headed gartersnake to enhance knowledge about the species distribution and habitat use within Eagle Creek.

B. Compliance Monitoring

The Permittee will be responsible for the monitoring and reporting as specified in this Agreement and fulfillment of its provisions, including: verification of baseline maintenance, implementation of agreed-upon conservation actions, a description of management actions taken, and incidental take authorized by the permit.

The Permittee will grant the USFWS, or another agreed-upon party, reasonable access to the Permittee's land along or in the vicinity of Eagle Creek for the purpose of monitoring the implementation of any conservation actions committed to in the Agreement. The USFWS will provide notice to the Permittee at least 15 days prior to such site visits, except in the case of an emergency, in which event the USFWS shall provide such notice as may be practicable under the circumstances. The USFWS and its representatives shall be accompanied by a representative of the Permittee. Entry upon the Permittee's land by the USFWS and its representatives and agents shall be at the USFWS' own risk and expense.

C. Incidental Take Monitoring

The Permittee will be responsible for recording and monitoring incidental take for the duration of the Agreement. Where it appears likely that an activity could result in the take of a Covered Species, as assessed through river miles or potential home ranges, within the portions of Eagle Creek as described above, the Permittee must give the USFWS notice at least 45 days prior to commencing such activity and provide the USFWS with a reasonable opportunity to capture and relocate any remaining Covered Species individuals from the area to be impacted, except in

response to emergency situations. The Permittee will also notify USFWS of any incidental take observed and/or reported.

D. Neighboring Landowners

Neighboring lands to the Covered Area include both Federal and private property upstream of the fish barrier. Portions of Eagle Creek upstream of the fish barrier location are currently considered occupied by the Covered Species and are within designated critical habitat for spikedace, loach minnow, and Gila chub. It is anticipated that implementation of the Agreement will prevent movement of nonnative organisms into all stream reaches upstream of the barrier that currently are occupied primarily by native species, including neighboring lands, and that they will remain occupied by the Covered Species.

E. Annual Reporting

The Permittee will provide an annual report to the USFWS discussing its implementation of this Agreement, including any changes from baseline conditions for the Covered Species. This report will provide a brief narrative statement discussing the status of implementing the conservation actions set forth above and discuss anticipated implementation of the conservation actions during the upcoming year (noting any anticipated deviations). The report will also address any new information or other circumstances affecting the Covered Species, and suggest changes to the conservation actions for consideration by the USFWS, if appropriate. The report for each calendar year will be provided to the USFWS on or before April 1 of the following calendar year.

The USFWS may request updates at other times concerning the progress of the Permittee's conservation actions under this Agreement, including activities relating to the investigation and construction of the fish barrier. The Permittee will cooperate with the USFWS, and promptly provide notice to the USFWS of any significant developments or unforeseen circumstances that may affect the Permittee's activities. The Permittee also will promptly report any Covered Species' mortalities, injuries and diseases that are observed.

VIII. FUNDING

The Permittee agrees to be responsible for funding the conservation actions described above, subject, however, to the $2,100,000 limit on costs associated with construction of the fish barrier on Eagle Creek set forth above. The Permittee, in its discretion, may elect to pursue financial support or other assistance from other entities. In addition, the Permittee may elect to involve other entities in the implementation and performance of any of the foregoing conservation actions, on such terms and conditions as may be acceptable to the Permittee. However, the Permittee will remain responsible for ensuring that the conservation actions are implemented unless otherwise agreed to by the USFWS. As noted above, Reclamation will be responsible for a portion of the costs associated with constructing the fish barrier on Eagle Creek, as well as the operation, maintenance, and repair of the fish barrier following its construction.

IX. NET CONSERVATION BENEFIT

The conservation actions described hereinabove, when implemented, will provide a net conservation benefit to the Covered Species. Net conservation benefit under the ESA's

implementing regulations means "the cumulative benefit provided through implementation of a conservation benefit agreement that is designed to improve the existing baseline condition of a covered species by reducing or eliminating threats, or otherwise improving the status of covered species, minus the adverse impacts to covered species from ongoing land or water use activities and conservation measures, so that the condition of the covered species or the amount or quality of its habitat is reasonably expected to be greater with implementation of the agreement than without it." 50 CFR § 17.3. The actions described herein will contribute directly or indirectly to the recovery of the Covered Species by precluding the advancement of non-native species above the fish barrier into areas currently dominated by native fish species. The likelihood of competition with and predation by non-native species will be reduced, allowing natives to remain and potentially expand in the portions of Eagle Creek above the fish barrier.

The presence of nonnative fish has long been viewed as the primary issue to be resolved in order to preserve and protect native fish populations in the southwest. Minckley and Marsh (2009) stated this point succinctly:

> It would seem a logical and easily implemented conservation strategy to simply provide native fishes with places to live that do not have non-native fishes. Indeed, a growing number of case histories demonstrate unequivocally that native fishes survive, grow, reproduce, and recruit to establish stable or expanding populations where non-native fishes are absent. Examples of such places represent a spectrum of habitat size and complexity … and perhaps most importantly [include] streams that have been isolated by natural or constructed barriers, renovated to eliminate non-natives, and restored of their native fishes.

There is general agreement that the construction of barriers preventing the movement of nonnative fish can play an essential role in the conservation of native species. Two reports that specifically reviewed fish barriers in the Gila River basin concluded that barriers are often the only feasible technology to segregate and protect imperiled native fish (Carpenter and Terrell 2005, Clarkson and Marsh 2010). To date, barriers have been constructed on the Blue River, Aravaipa Creek, Bonita Creek, Fossil Creek, Hot Springs Canyon, Spring Creek (Oak Creek drainage), and at Cottonwood Spring, and Reclamation has proposed barriers on Sheehy Spring, Sonoita Creek, O'Donnell Creek, Redfield Canyon, Spring Creek (Tonto Creek drainage), and the Verde River (USFWS 2008).

Downstream drift of fish larvae past the barrier could result in some losses to upstream populations, as they would be unable to move back upstream past the fish barrier. Drift of native larval fishes in streams and rivers of the Colorado River basin is a common phenomenon, but varies greatly among species (Bestgen et al. 1985; Valdez et al. 1985; Robinson et al. 1998; Remington 2002). Bestgen et al. (1985) determined that the majority of larval drift distances were short. Similarly, downstream transport of fishes during floods could also result in some losses of fishes below the barrier; however, native fishes are generally adapted to avoid the worst hydraulic conditions of flood events, and resist downstream transport (Minckley and Meffe 1987). Consequently, it is anticipated that the losses of fish to drift and downstream transport would be minimal, and would be exceeded by losses of fish due to predation by and competition with nonnative fishes if the fish barrier is not constructed.

The Permittee has committed to spend up to $2,100,000 to complete the Eagle Creek fish barrier to benefit the Covered Species in Eagle Creek. The proposed fish barrier on Eagle Creek will prevent the upstream movement of nonnative organisms into stream reaches that currently are occupied primarily by native species. In addition, by coordinating with the USFWS and with the Native Fishes Program for completion of the fish barrier and proposed monitoring, additional programmatic benefits for the Covered Species can be achieved in the upper Gila River Basin. The Permittee's agreement to implement a robust monitoring program and investigate the removal of invasive crayfish in the upper reach of Eagle Creek, also will benefit the Covered Species by providing data on native and nonnative species in the upper Gila River Basin.

Because of the difficulty in detecting species such as spikedace, loach minnow, Gila chub and narrow-headed gartersnake, using habitat as a surrogate measure for assessing effects of this Agreement, including beneficial effects, is justified. Under the Agreement, barrier construction would be completed resulting in protection of 8.4 stream miles (13.5 km) of Eagle Creek as well as tributaries above the barrier. This equates to 8.4 miles (13.5 km) of suitable loach minnow and spikedace habitat in Eagle Creek, and 22.4 miles (36.0 km) of suitable Gila chub habitat in Eagle Creek and East Eagle Creek beyond current conditions upstream of the barrier. No changes in habitat protection would occur below the barrier, meaning current conditions there would remain the same for the 51.1 miles (82.2 km) of stream habitat downstream of the barrier.

Similarly, for narrow-headed gartersnake, there are approximately 468 potential home ranges along Eagle Creek. As noted above, we anticipate that not all of the habitat is of equal quality or suitability for gartersnakes, and the low-density population of gartersnakes known to be present on Eagle Creek at this time likely indicates that some of this area is not suitable. However, there is currently no protection for gartersnake in any of these home ranges, and barrier construction would result in protection of 8.4 (13.5 km) stream miles, equating to 682 acres (276 hectares) of narrow-headed gartersnake habitat, or approximately a maximum of 124 potential gartersnake home ranges along Eagle Creek that are not protected at present. No changes in habitat protection would occur below the barrier, meaning current conditions there would remain the same for 1,894 acres (766.5 hectares) of riparian habitat, or approximately a maximum of 344 potential gartersnake home ranges.

While the Permittee anticipates continuing to engage in operations and maintenance-related construction activities within the Covered Area downstream of the proposed fish barrier which may have adverse effects to the four Covered Species, spikedace, loach minnow, and Gila chub are likely present in Eagle Creek only in low numbers, and only in the upper reaches of the stream due to the presence of nonnative species in lower portions of the stream. Gartersnakes are also likely present in Eagle Creek as a very low-density population. Following barrier construction, it is possible that any of the four Covered Species may increase in number, and that individuals may be present downstream of the barrier. For the fish species, we anticipate this would likely occur only if small numbers of individuals move downstream over the barrier into areas where management activities would occur. For these reasons, we anticipate that few individuals of any of the four Covered Species are likely to be present and, therefore, any ongoing management activities are likely to result in effects to only small numbers of individuals.

Of benefit to all species, the Permittee has committed to leaving the barrier in place, even if they elect to discontinue this Agreement. Barrier construction is costly, and may not occur without

participation of the Permittee through this Agreement. Because the barrier will remain in place in perpetuity, we anticipate there will be long-term benefits to spikedace, loach minnow, Gila chub, and narrow-headed gartersnake through habitat protection provided by the proposed fish barrier. In addition, ongoing monitoring will continue to provide information on the Covered Species which will help inform future management decisions that may help lead to their recovery.

In summary, we anticipate that habitat conditions for those portions of Eagle Creek below the proposed fish barrier would remain the same, but that losses of individuals of the four Covered Species as a result of ongoing management actions are anticipated to be minimal. The conservation actions under this Agreement will result in improved protection of 8.4 miles (13.5 km) and associated habitat for the four Covered Species upstream of the barrier which are currently unprotected. We therefore conclude that conservation actions taken by the Permittee under this Agreement will result in a net conservation benefit to the Covered Species. These activities satisfy the requirements of a Conservation Benefit Agreement under 50 CFR § 17.22(c), and support the issuance of an EOS permit under ESA Section 10(a)(1)(A) for the incidental take of Covered Species that may result from the Permittee's land and water uses that may affect Eagle Creek within the Covered Area.

X. AUTHORIZED INCIDENTAL TAKE

The Permittee owns or otherwise controls significant land and water rights on Eagle Creek within the Covered Area that are utilized or may be utilized in the future in connection with the Morenci Mine, as more particularly described above in Section IV. In connection with these activities, the Permittee may incidentally take members of the Covered Species in the portion of Eagle Creek within the Covered Area below the fish barrier site.

The EOS permit will authorize the Permittee to incidentally take the Covered Species in connection with the activities identified in the Agreement and other lawful land and water uses. The area in which incidental take is authorized on and along Eagle Creek is limited to the portion of the Covered Area below (downstream of) the fish barrier site (see **Figure 2, Appendix A**). Incidental take is not authorized upstream of the fish barrier site on Eagle Creek.

As explained in Section V above, detecting species such as spikedace, loach minnow, Gila chub and narrow-headed gartersnake is difficult due to cryptic behavior, small size, and low numbers of individuals. In such situations, surrogate habitat metrics can replace direct observations of effects. *See* 50 CFR § 402.14(i)(1)(i). We are therefore using habitat as a surrogate measure to assess effects of this Agreement as well as incidental take. Specifically, we are using stream miles for spikedace, loach minnow, and Gila chub, and potential home ranges for gartersnakes. Currently, there is no protection of Eagle Creek from further invasion by nonnative aquatic species. Under the Agreement, the constructed barrier would result in protection of 8.4 stream miles (13.5 km) above the barrier, as well as tributary streams, which equates to 8.4 miles (13.5 km) of suitable loach minnow and spikedace habitat along mainstem Eagle Creek and 22.4 miles (36.0 km) of Gila chub suitable habitat along Eagle Creek and its tributary East Eagle Creek, as well as 682 acres of narrow-headed gartersnake habitat, or approximately 124 potential gartersnake home range areas along Eagle Creek. No incidental take, assessed in the form of stream miles for spikedace, loach minnow and Gila chub and as potential home range sizes for narrow-headed gartersnake, will be authorized above the barrier by the Permittee.

The portions of Eagle Creek where incidental take will be authorized are downstream of the barrier, and include 51.1 miles (82.2 km) of Eagle Creek. This portion of the Creek is currently considered unoccupied by spikedace, loach minnow, and Gila chub, and occupied at likely low levels by narrow-headed gartersnake as it is dominated by nonnative predatory and competitive fish. As long as the conservation actions described above are implemented, and as long as take is not exceeded, the Permittee is authorized to continue its current land and water uses, undertake new ones, and make any other lawful use of its land and water rights within the Covered Area below the barrier, as described above, even if such use results in effects to stream miles or potential home ranges.

We have determined above that the baseline for each of the Covered Species is 0 miles (0 km) of protected habitat. The maximum amount of protected habitat that can be incidentally taken pursuant to this Agreement and the Section 10(a)(1)(A) permit will be no more than the baseline established through this Agreement. Thus, the net impact of take authorized is, at most, a return to current, baseline conditions within the portion of Eagle Creek within the Covered Area.

Where it appears likely that an activity could result in the take of a Covered Species, as assessed through river miles or potential home ranges, within the portions of Eagle Creek described above, the Permittee must give the USFWS notice at least 45 days prior to commencing such activity and provide the USFWS with a reasonable opportunity to capture and relocate any remaining Covered Species individuals from the area to be impacted except in response to emergency situations. No previous notice to the USFWS will be necessary if the action is required to protect public health, safety, or welfare; however, notice of such an event will be provided within 72 hours of any emergency response activities that likely resulted in take. In such event, the Permittee agrees to cooperate with and assist the USFWS to the extent reasonably practicable, including providing access to the Permittee's land.

XI. LANDOWNER ASSURANCES

These assurances authorize the Permittee to alter or modify the use of the enrolled property within the Covered Area, even if such alteration or modification results in the incidental take of Covered Species to such an extent that the take returns the portion of Eagle Creek downstream of the fish barrier site to the original baseline condition. Incidental take of all individuals below the barrier is authorized; however, it is anticipated that this will be low numbers of individuals due to the presence of nonnative fish species present in these portions of Eagle Creek. These assurances are conditioned on the Permittee complying with its obligations in this Agreement and in the associated EOS permit. However, the assurances apply only to this Agreement, only if the Agreement is being properly implemented, and only with respect to the species covered by the Agreement and its associated EOS permit.

XII. CHANGED CIRCUMSTANCES AND UNFORSEEN CIRCUMSTANCES

A. Changed Circumstances

Changed circumstances are defined in 50 CFR § 17.3 as circumstances affecting a species or geographic area covered by the Agreement that can reasonably be anticipated by the Permittee and

the USFWS and that can be planned for (e.g., the listing of new species, or a flood or other natural catastrophic event in areas prone to such events).

1. Newly Listed Species

If any species becomes listed during the term of the EOS permit that is not addressed as a Covered Species in the Agreement, it will not be covered by the permit and will not be treated as a Covered Species. If there is the potential for take of a newly listed species, discussions with the USFWS should occur to determine take avoidance measures and whether those measures can be implemented. The Permittee will consider amending the Agreement to request addition of the newly listed species to the permit, at its discretion.

2. Flood Event

Floods are a natural occurrence that sometimes occur particularly during the summer monsoon season. However, the magnitude and duration of floods are very difficult to predict. In extreme cases, they can destroy or significantly modify riparian areas that are occupied by Covered Species. In addition, extreme flooding could damage or destroy the fish barrier (although this is not anticipated). In the event of a flood that causes the loss of a population of Covered Species in the portion of Eagle Creek within the Agreement area, or destroys or damages the fish barrier, the Permittee will meet with the USFWS to determine whether any terms of the conservation program need to be modified to incorporate the changes caused by a large flood.

3. Drought

Drought is another unpredictable natural event. This uncertainty is compounded by climate change, which may alter the frequency and/or duration of droughts. Drought reduces stream flows and the extent of perennial stream available as habitat for the Covered Species. In the event that extreme drought seriously impacts the habitat available for Covered Species, the Permittee will consult with the USFWS on appropriate measures that could be implemented to reduce the chance of extirpation of Covered Species. Measures that may be considered include allowing access for the salvage of Covered Species from drying portions of the stream.

B. Unforeseen Circumstances

Unforeseen circumstances are defined in 50 CFR § 17.3 as changes in circumstances that affect a species or geographical area covered by the SHA that could not reasonably be anticipated by plan developers and the USFWS at the time of the SHA's negotiation and development and that result in a substantial and adverse change in status of the Covered Species.

In case of an unforeseen event, the Permittee will immediately notify the USFWS staff assigned as the principal contact for the Agreement. In determining whether such an event constitutes an unforeseen circumstance, the USFWS shall consider whether the circumstances or event was anticipated by the Permittee and the USFWS at the time this Agreement was prepared. The parties may also take into account the following factors: size of the current range of the affected species; percentage of range affected by the Agreement; percentage of range conserved by the Agreement; ecological significance of that portion of the range affected by the Agreement; level of knowledge about the affected species and the degree of specificity of the species' conservation program under the Agreement; and whether failure to adopt additional conservation measures would appreciably reduce the likelihood of survival and recovery of the affected species in the wild. The USFWS

will have the burden of demonstrating that unforeseen circumstances exist, using the best scientific and commercial data available, and the findings must be clearly documented.

If the Service determines that additional conservation and mitigation measures are necessary to respond to the unforeseen circumstances where the Agreement is being properly implemented, the additional measures must be as close as possible to the terms of the Agreement and must be limited to modifications within the Agreements conservation program. Additional conservation and mitigation measures shall not involve the commitment of additional land or financial compensation or restrictions on the use of land or other natural resources otherwise available for development or use under original terms of the Agreement without the consent of the Permittee. In such circumstances, the Parties may agree to revise the Agreement's baseline conditions to reflect the new circumstances, rather than terminate the Agreement.

C. Post-Review Discovery Clause for Unanticipated Cultural Resources Disturbance

In the event that previously unreported cultural resources are encountered during ground-disturbing activities, all work must immediately cease within 100 feet (30 meters) until a qualified archaeologist has documented the discovery and evaluated its eligibility for the Arizona or National Register of Historic Places in consultation with the lead agency, the SHPO, and Tribes, as appropriate. Work must not resume in this area without approval of the lead agency.

If human remains are encountered during ground-disturbing activities, all work must immediately cease within 100 feet (30 meters) of the discovery and the area must be secured. The Arizona State Museum, lead agency, SHPO, and appropriate Tribes must be notified of the discovery. All discoveries will be treated in accordance with NAGPRA (Public Law 101-601; 25 U.S.C. 3001-3013) or Arizona Revised Statutes (A.R.S. § 41-844 and A.R.S. § 41-865), as appropriate, and work must not resume in this area without authorization from ASM and the lead agency.

XIII. OBLIGATIONS OF THE USFWS

The USFWS agrees to cooperate with and assist the Permittee in implementing the conservation actions described above, as may be reasonably requested by the Permittee. Such assistance may include, but is not limited to:

1. Providing technical assistance, to the maximum extent practicable, when requested by the Permittee.

2. Assisting the Permittee in connection with submissions to and meetings with the Native Fish Program Technical and Policy Committees.

3. Assisting the Permittee, to the maximum extent practicable, in securing permits and other authorizations from Federal and State agencies, as may be necessary to implement the conservation actions.

4. Notifying the Permittee of other fisheries and wildlife management and conservation activities that may be undertaken in the watershed of Eagle Creek that

may affect Permittee's land and water uses, and coordinating with Permittee, to the maximum extent practicable, regarding such activities and their potential impacts on the Permittee's activities.

5. Ensuring, to the best of its ability, that permits are issued in a timely manner to qualified biologists contracted by the Permittee to conduct annual fish surveys and other conservation actions.

XIV. OBLIGATIONS OF THE PERMITTEE

The Permittee agrees to implement the conservation actions on the terms and conditions described above. The Permittee is working cooperatively with Reclamation on the design, permitting and construction of the fish barrier, in accordance with the MOU (**Exhibit 1, Appendix B)**. Obligations of the Permittee include, but are not limited to:

1. The Permittee will spend up to $2,100,000 to construct a fish barrier on Eagle Creek to protect and enhance aquatic habitat for the Covered Species, as more particularly described hereinabove.

2. The Permittee will develop and implement a three-year monitoring program to detect the presence of nonnative crayfish within the upper reach of Eagle Creek and investigate the practicability and cost of actions to suppress the populations of these species in the upper reach of Eagle Creek, as more particularly described hereinabove.

3. The Permittee will undertake a monitoring program on Eagle Creek, as more particularly described hereinabove.

4. The Permittee will provide annual reports to the USFWS on Covered Species mortalities, injuries, or diseases observed on the enrolled property.

5. The Permittee will be the responsible party for any incidental take that occurs in and along Eagle Creek downstream of the fish barrier site, which incidental take is caused by Permittee's activities. The Permittee will notify the USFWS 45 days in advance of any planned management activity that is reasonably anticipated to result in the take of members of the Covered Species on the enrolled property; and provide the USFWS the opportunity to capture and/or relocate any potentially affected Covered Species, as more particularly provided above.

6. The Permittee will notify the USFWS of any change to the enrolled property's management, including prior notification for returning the enrolled property to baseline conditions; and identify the actions that would result in changed management or return to baseline conditions, as more particularly described above.

7. The Permittee will conduct monitoring and reporting in compliance with this Agreement necessary to document maintenance of baseline conditions.

8. The Permittee will grant the USFWS, or another agreed-upon party, reasonable access to the Permittee's land along or in the vicinity of Eagle Creek, as provided above.

9. The Permittee will provide Reclamation with topographic and land survey data of the property including the proposed location of the fish barrier site and upstream and downstream conditions.

10. The Permittee will provide Reclamation with access to the Proposed Site for the purpose of conducting such geotechnical investigations as Reclamation deems necessary to support their engineering design.

11. The Permittee will provide construction equipment, such as a backhoe and drilling equipment, and operators, as may be reasonably required to assist Reclamation site investigation work.

12. The Permittee will review of the final engineering design, construction specifications and expected costs, and notify Reclamation whether they are acceptable or whether modifications need to be made.

13. Subject to USFWS issuance of an EOS permit under Section 10(a)(1)(A) of the ESA and approval of the Agreement, the Permittee will grant Reclamation access to the fish barrier site sufficient to construct, operate, and maintain the fish barrier. This includes reasonable access to the Permittee's adjoining private land for the purpose of carrying out such responsibilities, including fish monitoring.

14. The Permittee will provide assistance in permitting and environmental compliance, including NEPA, that is determined to be necessary. This assistance may include such tasks as providing data and reviewing and commenting on draft documents.

15. The Permittee will cooperate with Reclamation during site investigations and construction activities including providing access to Reclamation and its contractors for site investigations, engineering, construction, and other items that may be necessary.

In addition to the obligations of USFWS and the Permittee, and as set forth in the MOU, Reclamation is separately responsible for the construction of the fish barrier, including its design and related engineering work, and will be responsible for any project costs in excess of $2,100,000, including the costs of project design, constructing the fish barrier, and permitting and NEPA and NHPA compliance. Following completion of the fish barrier, Reclamation, or its designee, will be responsible for the repair and maintenance of the fish barrier.

XV. EFFECTIVE DATE AND DURATION OF AGREEMENT

This Agreement will become effective on the date on which the Section (10)(a)(1)(A) permit is issued to the Permittee, and it will remain in effect for a period of 50 years. Given the time for implementation of the conservation actions, the USFWS estimates that it may take at least five

years to fully reach a net conservation benefit for the Covered Species, although some level of benefits will occur within a much shorter time period (e.g., ecological monitoring will begin immediately). The 50-year duration of this agreement is considered sufficient to complete the fish barrier or, if necessary, fully implement alternative conservation actions, thereby obtaining the anticipated conservation benefits through the protection and enhancement of habitat for the Covered Species. This Agreement and associated Section (10)(a)(1)(A) permit may be renewed or reissued by means of a written amendment that is approved by the Parties.

XVI. MODIFICATIONS

A. Imposition of Additional Requirements

After approval of this Agreement, the USFWS may not impose any new requirements or conditions on, or modify any existing requirements or conditions applicable to, the Permittee or any successor in interest to the Permittee, to mitigate or compensate for changes in the conditions or circumstances of any of the Covered Species or enrolled property except as provided in 50 CFR §§ 17.22(c)(5) and 17.32(c)(5).

B. Modification of the Agreement

Either party may propose modifications or amendments to this Agreement, as provided in 50 CFR § 13.23, by providing written notice to, and obtaining the written concurrence of, the other Party. Such notice shall include a statement of the proposed modification, the reason for it, and its expected results. The Parties will use their best efforts to respond to proposed modifications within 60 days of receipt of such notice. Proposed modifications will become effective upon the other Party's written concurrence. Any such modification must provide or assist in providing a net conservation benefit to the Covered Species in accordance with 50 CFR § 17.22(c)(5)(ii).

C. Amendment of the Permit

The Section (10)(a)(1)(A) permit may be amended to accommodate changed circumstances in accordance with all applicable legal requirements, including but not limited to the ESA, the NEPA, and the USFWS permit regulations at 50 CFR Part 13 and 50 CFR Part 17. The party proposing the amendment shall provide a statement describing the proposed amendment and the reasons for it.

D. Termination of the Agreement

The Permittee may terminate this Agreement upon 30 days prior written notice to the USFWS, provided that the baseline conditions have been maintained and the USFWS is provided an opportunity to relocate affected species within 60 days of that notice. As provided for in regulations for the issuance of enhancement of survival permits (see 50 CFR § 17.3, definition of net conservation benefit include threats under the property owners control and89 FR 26070), the Permittee may terminate this Agreement prior to the Agreement's expiration date due to circumstances out of the Permittee's control. In such event, and except as provided below with respect to the fish barrier site, the Permittee may return the enrolled property to baseline conditions even if the expected net conservation benefits have not been realized. The Permittee also may terminate the Agreement at any time for any other reason, but termination for reasons other than

circumstances out of the Permittee's control, such as those associated with a force majeure event, shall extinguish the Permittee's authority to take species under the permit.

The foregoing notwithstanding, the Permittee will not remove the fish barrier and any related improvements that have been constructed on Eagle Creek to benefit Covered Species in accordance with this Agreement and the Management Plan. The Permittee agrees to cooperate with the USFWS, Reclamation, and the members of the Native Fishes Program as may be reasonably required to provide an appropriate arrangement for the long-term operation and maintenance of such improvements for the benefit of the Covered Species.

E. Additional Actions

Nothing in this Agreement will be construed to limit or constrain the USFWS, any Federal, State, local or Tribal government agency, or a private entity from taking additional actions at its own expense to protect or conserve any of the Covered Species.

F. Permit Suspension or Revocation

The USFWS may suspend or revoke this permit for cause in accordance with the laws and regulations in force at the time of such suspension or revocation. The USFWS also, as a last resort, may revoke the EOS permit pursuant to 50 CFR §§ 17.22(c)(9) and 17.32(c)(9) if continuation of permitted activities would likely result in jeopardy to any Covered Species or directly or indirectly alter designated critical habitat such that it appreciably diminishes the value of that critical habitat for both the survival and recovery of a listed species. Prior to revocation, the USFWS will exercise all possible measures to remedy the situation.

XVII. MISCELLANEOUS

A. Duty to Cooperate

The Parties will work cooperatively as may be necessary to further the purposes of this Agreement. However, nothing in this Agreement shall limit the ability of Federal and State conservation authorities to perform their lawful duties and conduct investigations as authorized by statute and by court guidance and direction.

B. Dispute Resolution

The Parties agree to work together in good faith to resolve any disputes, using dispute resolution procedures agreed upon by all Parties.

C. Remedies

Subject to the dispute resolution requirements set forth above, each party shall have all remedies otherwise available to enforce the terms of the Agreement and the permit, except that no Party shall be liable in damages for any breach of this Agreement, any performance or failure to perform an obligation under this Agreement, or any other cause of action arising from this Agreement.

D. Succession and Transfer

This Agreement shall be binding on and shall inure to the benefit of the Parties and their respective successors and transferees, in accordance with applicable regulations (50 CFR §§ 13.24 and 13.25). The rights and obligations under this Agreement shall run with the enrolled property and are transferable to subsequent non-Federal property owners pursuant to 50 CFR § 13.25. The EOS permit issued to the Permittee also will be extended to the new owner(s). As a party to the original agreement and permit, the new owner(s) will have the same rights, including the original baseline, and obligations with respect to the enrolled property as the original owner. The new owner(s) also will have the option of receiving Agreement assurances pursuant to 50 CFR §§ 17.22(c)(5) and 17.32(c)(5) by signing a new Agreement and receiving a new permit. The Permittee shall notify the USFWS of any transfer of ownership, so that the USFWS may contact the new owner, explain the baseline responsibilities applicable to the property, and seek to interest the new owner in signing the existing Agreement or a new one to benefit listed species on the property. Assignment or transfer of the permit shall be governed by the USFWS regulations in force at the time.

E. Adaptive Management

This Parties agree to utilize adaptive management to address any new information or circumstances that may affect the Covered Species on their habitat on Eagle Creek. Adaptive management allows for mutually agreed upon changes to the Agreement's conservation actions in response to changing conditions or new information. If the conservation actions do not yield the expected results and appear ineffective, then conservation actions can be changed or alternative activities undertaken to achieve those expected results. Decisions related to adaptive management will be based primarily on an evaluation of the compliance and biological monitoring results detailed in the annual reports. Possible adaptive management responses may include the Permittee facilitating and allowing access for the re-establishment or augmentation of the Covered Species in Eagle Creek above the proposed barrier if annual survey data suggests that upstream populations of the Covered Species are not increasing. In addition, adaptive management may include the Permittee facilitating and allowing access for chemical renovation of Eagle Creek above the proposed barrier if annual survey data suggests that upstream nonnative fish populations are increasing and adversely affecting the Covered Species.

The effectiveness of all conservation actions and monitoring methods will be periodically reviewed and evaluated by the USFWS using an adaptive management approach. Based on such evaluation, appropriate modifications to monitoring and conservation actions may be made to ensure their scientific rigor and efficacy. In the event of a minor modification, such as changes to the manner in which annual surveys for the Covered Species are conducted, the USFWS and the Permittee will work collaboratively to address such modifications. In the event of a major modification to this Agreement, which may be triggered by new information that is foundational to the concepts underlying this Agreement, the USFWS may request that the Agreement be amended to address this information. However, in such instance, the USFWS may require additional measures of the Permittee only if such measures are limited to modifications within conserved habitat areas controlled by the Permittee, if any, for the affected species and must maintain the original terms of the Agreement to the maximum extent possible. In accordance with 50 CFR §§ 17.22(c)(5) and 17.32(c)(5), such additional conservation measures will not involve the commitment of additional land, water or funding by the Permittee, or involve additional

restrictions on the use of land, water, or other natural resources otherwise available for development or use under the original terms of this Agreement without the consent of the Permittee.

F. No Third-Party Beneficiaries

This Agreement does not create any right or interest in any member of the public or any other person or entity as a third-party beneficiary, nor shall it authorize anyone not a party to this Agreement to maintain a suit for personal injuries or damages pursuant to the provisions of this Agreement or to otherwise enforce any term or obligation herein. The duties, obligations, and responsibilities of the Parties to this Agreement with respect to third parties shall remain as imposed under existing law.

G. Notices and Reports

Unless the Parties agree to modify the manner of submitting notice and reports, any notices and reports, including monitoring and annual reports, required by this Agreement shall be delivered to the persons listed below, as appropriate:

To the Permittee:

Environmental Manager
Freeport-McMoRan Morenci Inc.
4521 U.S. Highway 191
Morenci, Arizona 85540
(928) 865-6669

And to:

Senior Director, Corporate and Environmental Affairs
Freeport-McMoRan Inc.
333 North Central Ave.
Phoenix, AZ 85004-2189

To the USFWS:

Field Supervisor
Arizona Ecological Services Office
U.S. Fish and Wildlife Service
9828 North 31st Avenue, #C3
Phoenix, Arizona 85051
(602) 242-0210

And a copy of the cover letter (only) to:

U.S. Fish and Wildlife Service
Division of Environmental Review – HCP Permits
P.O. Box 1306, Room 6034
Albuquerque, NM 87103
fw2_hcp_permits@fws.gov

H. Counterparts

This Agreement may be signed in counterparts.

I. Availability of Funds

Implementation of this Agreement is subject to the requirements of the Anti-Deficiency Act and the availability of appropriated funds. Nothing in this Agreement will be construed by the Parties to require the obligation, appropriation, or expenditure of any funds from the U.S. Treasury. The Parties acknowledge that the USFWS will not be required under this Agreement to expend any Federal agency's appropriated funds unless and until an authorized official of that agency affirmatively acts to commit to such expenditures as evidenced in writing.

XVIII. AUTHORITIES

Sections 2, 7, and 10 of the ESA authorize the USFWS to enter into this Agreement. The terms of this Agreement shall be governed by and in accordance with applicable Federal law. Nothing in this Agreement is intended to limit the authority of the USFWS to fulfill its responsibilities under Federal laws. All activities undertaken pursuant to this Agreement or its accompanying permit must be in compliance with all applicable State and Federal laws and requirements.

XIX. OTHER REQUIREMENTS OF SECTION 10

Section 10(d) of the ESA provides that the USFWS may grant permits authorizing the taking of endangered species under Section 10(a)(1)(A) only if it finds that: "(1) such exceptions were applied for in good faith, (2) if granted and exercised will not operate to the disadvantage of such endangered species, and (3) will be consistent with the purposes and policy set forth in Section 2 of this Act." This Agreement helps satisfy those requirements.

[SIGNATURES FOLLOW ON THE NEXT PAGE]

IN WITNESS WHEREOF, THE PARTIES HERETO have executed this Agreement to be in effect as of the date that the USFWS issues the Section 10(a)(1)(A) Enhancement of Survival Permit associated with this Agreement.

For Permittee:

William Cobb Digitally signed by William Cobb Date: 2025.08.12 12:03:27 -07'00'

_____ Date:_____

William Cobb
Vice President & Chief Sustainability Officer
Freeport Minerals Corporation

For the USFWS:

LESTON JACKS Digitally signed by LESTON JACKS Date: 2025.08.06 08:28:19 -05'00'

_____ Date: _____

Regional Director
U.S. Fish & Wildlife Service

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Voeltz, J.B. 2002. Roundtail chub (*Gila robusta)* status survey of the lower Colorado River basin. Nongame and Endangered Wildlife Program Technical Report 186. Arizona Game and Fish Department, Phoenix, Arizona.

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APPENDIX A – FIGURES

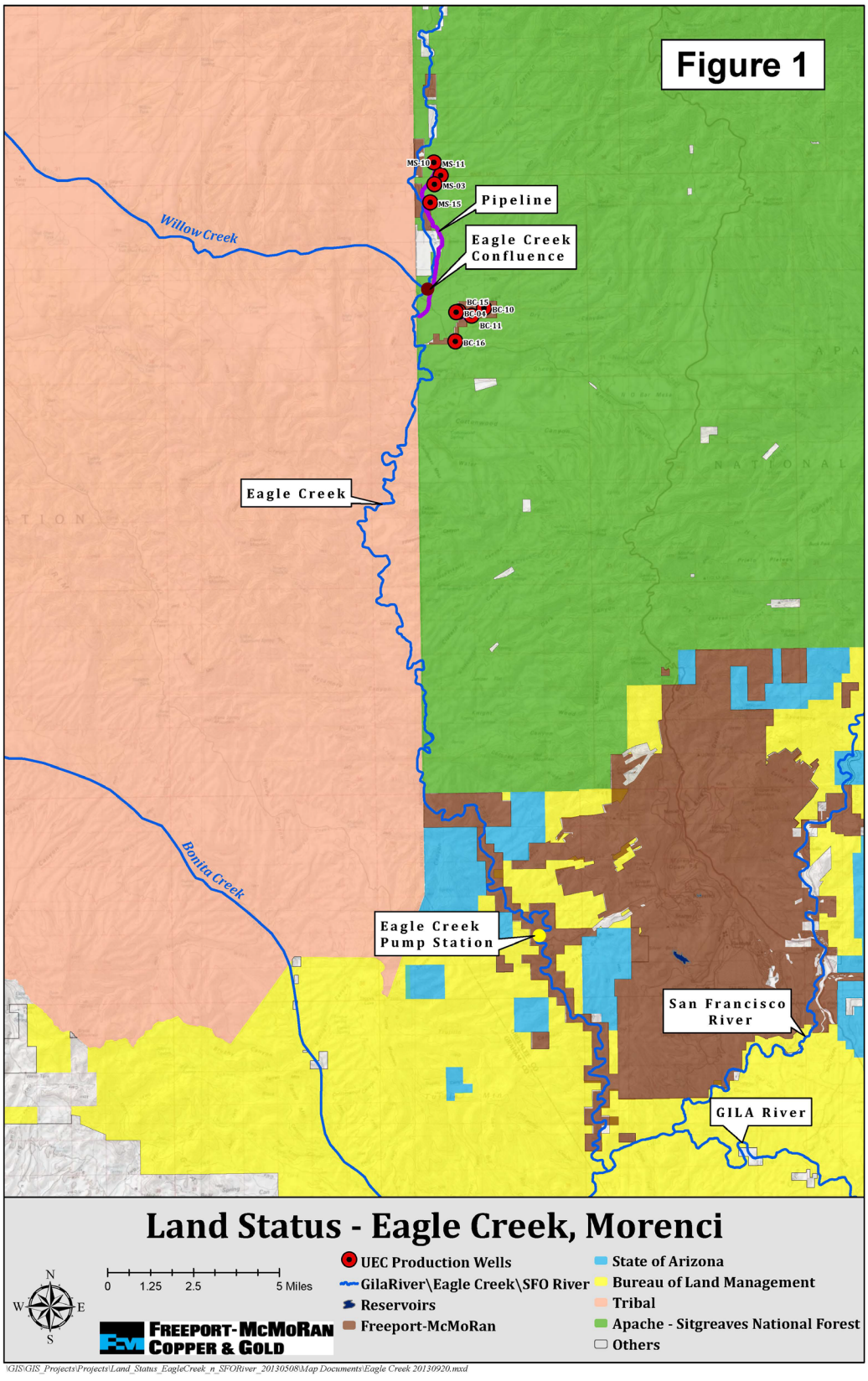


Figure 1. Applicant land and infrastructure along Eagle Creek.

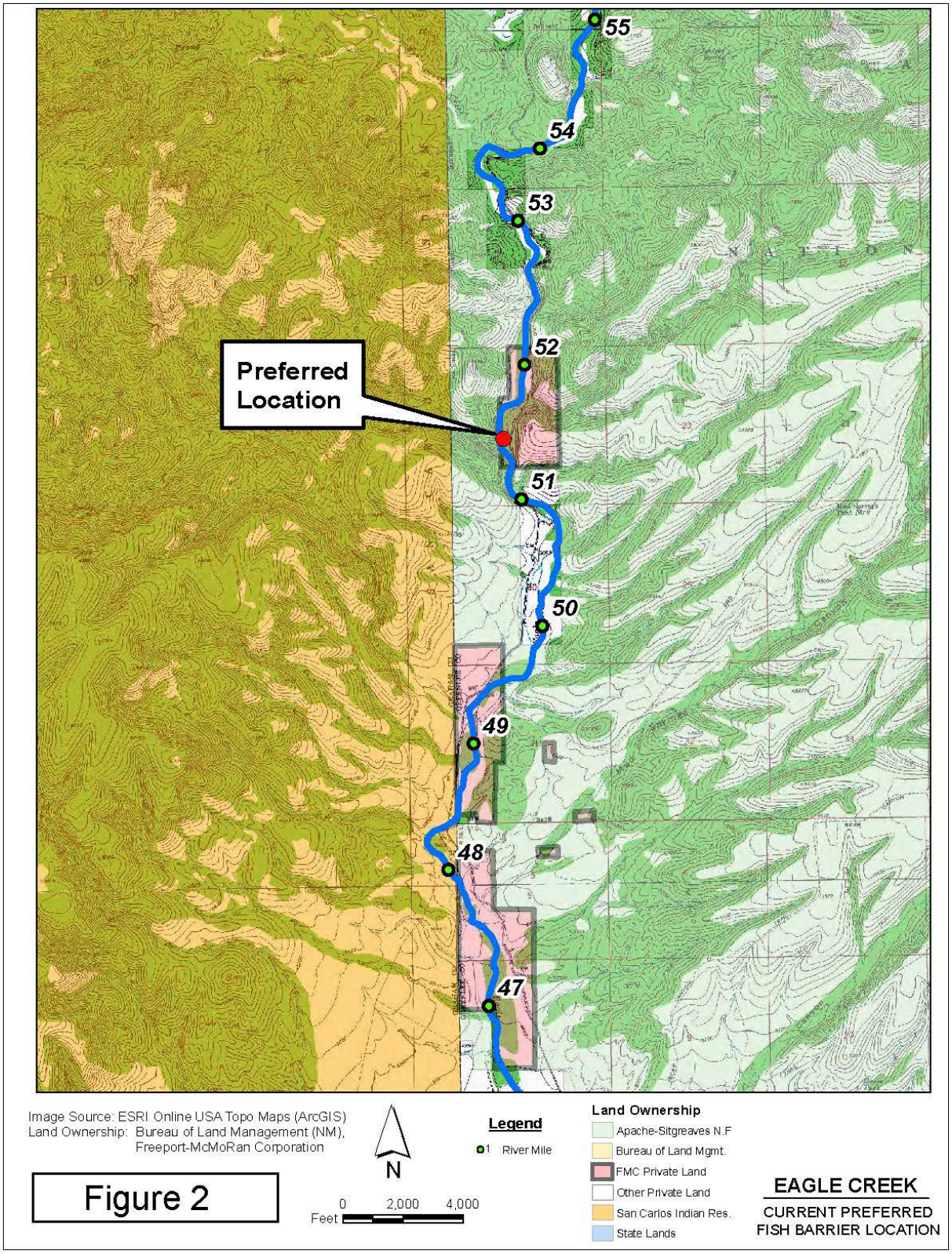


Figure 2. Preferred location of nonnative fish barrier, on Applicant's land at Eagle Creek, Arizona.

APPENDIX B – EXHIBITS

Memorandum of Understanding
Between
United States Department of the Interior
Bureau of Reclamation, Fish and Wildlife Service
and
Freeport Minerals Corporation
for
Planning and Implementation of the
Eagle Creek Fish Barrier Project

I. Purpose and Objectives of the Project

The purpose of this Memorandum of Understanding (MOU) is to formalize an ongoing cooperative relationship between the Bureau of Reclamation (Reclamation), U.S. Fish and Wildlife (USFWS), and Freeport Minerals Corporation and its affiliates Freeport-McMoRan Morenci Inc. and the Morenci Water & Electric Company (collectively referred to herein as Freeport), (individually referred to herein as a "Party" and collectively as "Parties"). Specifically, this MOU seeks to describe fully the relationship between the Parties in connection with evaluation of the financial and technical feasibility of constructing and maintaining a fish barrier on Eagle Creek, known as the Eagle Creek Fish Barrier Project (Project), including completion of necessary environmental compliance and decision making. As set forth below, Eagle Creek is a stream in eastern Arizona that is a tributary to the Gila River and crosses land owned by Freeport and its affiliates, and on which Freeport holds certain water rights associated with its mining operations.

The objective of this MOU is to allow the Parties to coordinate on evaluating the financial and technical feasibility, and, if determined feasible, the construction and future maintenance, of a concrete fish barrier on upper Eagle Creek to protect the native aquatic community against possible future upstream incursions of nonnative fish and other aquatic species. The Project would provide substantial conservation benefits to native aquatic species, including those listed under the Endangered Species Act (ESA), and their critical habitats. Separate to this MOU, but related to Freeport's commitment to investigate, and if feasible, construct the project, Freeport and USFWS would enter into a Safe Harbor Agreement and Freeport would obtain an Enhancement of Survival permit pursuant to Section 10 of the ESA.

The specific purposes of this MOU are to:

1. Affirm each Party's support for and commitment to the Project, subject to certain conditions;

2. Provide a framework for cooperation and coordination among the Parties to ensure successful completion of the Project in a timely, efficient, transparent, and thorough manner; and

3. Describe the respective roles and responsibilities of the Parties in the Project planning and implementation processes.

II. Background on Eagle Creek and its Fish Community

Although habitat destruction and alteration have had profound negative impacts on native fishes in the American Southwest over the past 100 years, predation and competition from nonnative fishes and other aquatic species are considered the most consequential threats to their conservation and recovery. The cumulative impact of physical and biological stressors to aquatic habitats has resulted in a pattern where healthy native fish communities often persist only in the upper reaches of streams and smaller tributaries, where they are isolated from nonnatives. Consequently, the physical separation of native and nonnative fishes in these tributary systems via the emplacement of fish barriers to prevent native/nonnative interactions has become a primary management tool to assist with recovery of native fishes.

Eagle Creek's headwaters are near Robinson Mesa, south of the Mogollon Rim in east-central Arizona. From there, the creek flows south to join the Gila River southwest of Clifton, Arizona. Flow characteristics of Eagle Creek are variable. The upper reach of Eagle Creek is perennial where the stream passes through mountainous terrain, and surface flow is likely bedrock controlled. Upon entering a broader valley, the creek becomes seasonally intermittent. At the downstream end of this valley, Willow Creek discharges into Eagle Creek, and Eagle Creek is again perennial and remains perennial to its confluence with the Gila River.

Eagle Creek's natural flow is augmented both by flows of imported water from the inter-basin transfer of Central Arizona Project exchange water at the Black River Pump Station, which flows though Willow Creek into Eagle Creek, and with groundwater imported from Freeport's wells completed within bedrock aquifers and discharged into Eagle Creek a short distance below the Willow Creek confluence.

Eagle Creek's fish community has been extensively surveyed, including annual surveys from 1989 through 2020. Survey results can be categorized by considering three stream reaches. The Lower Reach is the stream segment that begins at the Gila River and extends upstream to Freeport's diversion dam, a distance of approximately 13 river miles. The Middle Reach extends upstream from the diversion dam to the Willow Creek confluence, a distance of approximately 30 river miles. The Upper Reach extends from Willow Creek to the East Eagle Creek confluence, a distance of approximately 16 miles. The Lower Reach of Eagle Creek is dominated by nonnative fishes. In particular, smallmouth bass, green sunfish, red shiner, mosquitofish, and channel catfish are common in these segments. The Middle Reach has a mixed assemblage of nonnative fishes and native species that includes roundtail chub, speckled dace, longfin dace, Sonora sucker, and desert sucker. The Upper Reach is exclusively occupied by native fish species.

Prior surveys of Eagle Creek have detected three federally-listed species of native fish – spikedace, loach minnow, Gila chub, one candidate species – roundtail chub, and the federally-listed narrow-headed gartersnake. However, spikedace has not been detected since 1989 and loach minnow has not been detected since 1997. Additionally, environmental DNA samples collected in 2019 were negative for both species. If currently present in Eagle Creek, these fishes are likely confined to the Middle and/or Upper Reaches of the creek, where few nonnative species are present. In addition, they may be present in tributaries to the Upper Reach, including East Eagle Creek, Wet Prong Creek and Middle Prong Creeks. Gila chub and roundtail chub were both detected in 2020

surveys. Narrow-headed gartersnakes were last detected in Eagle Creek in 2013 but are presumed present.

Critical habitat has been designated for loach minnow and spikedace on Eagle Creek. On Eagle Creek, the designation extends from Freeport's diversion dam in Section 23, Township 4 North, Range 28 East, upstream to the confluence of East Eagle Creek in Section 20, Township 2 North, Range 28 East, excluding all lands owned by Freeport and lands within the San Carlos Reservation. Critical habitat has been designated for the Gila chub on upper Eagle Creek and East Eagle Creek, extending from the confluence with an unnamed tributary in the southwest quarter of Section 31, Township 1 North, Range 28 East, upstream to the headwaters of East Eagle Creek just south of Highway 191 in Section 28, Township 3 North, Range 28 East. Critical habitat is proposed for the narrow-headed gartersnake in Eagle Creek, including 84 acres (34 hectares) along 2 stream miles (4 stream kilometers) (86 FR 58474; USFWS 2021).

The exclusion of Freeport's land from the critical habitat designation for loach minnow and spikedace was the direct result of Freeport's commitment to the UFWS to undertake certain conservation measures for the benefit of the species as set forth in a management plan developed by Freeport dated October 21, 2011 (the Management Plan). The Management Plan contemplates the investigation and, if feasible, the construction of a fish passage barrier on Eagle Creek at a cost not to exceed $1,500,000. Freeport's commitment is subject to USFWS entering into a Safe Harbor Agreement with Freeport covering both of these waters and adjoining land, and issuing Freeport an enhancement of survival permit under Section 10(a)(1)(A) of the ESA for loach minnow, spikedace, Gila chub/roundtail chub, and narrow-headed gartersnakes, which may be amended to cover additional native aquatic species that are listed in the future.

Based on investigation of Eagle Creek and coordination with USFWS and Reclamation biologists, the consensus view is (1) the construction of a fish barrier on the Upper Reach of Eagle Creek would provide substantial conservation benefits for native fish species (including listed species and their critical habitats) and other native aquatic species, and (2) the barrier location shown on Attachment 1 is a viable and preferred location.

III. Authorities

The cooperative relationship established through this MOU shall be subject to and governed by all applicable statutes, regulations, and policies, including the ESA, the National Environmental Policy Act (NEPA), and the FWS's regulations implementing the ESA and NEPA, and Reclamation's planning regulations and guidelines.

Reclamation is authorized to enter into and engage in the activities described in this MOU under various federal laws, including the Reclamation Act of 1902, Pub. L. 57-161, as amended, the Colorado River Basin Project Act of 1968, Pub. L. 90-537, as amended, the ESA, the Fish and Wildlife Coordination Act, 16 U.S.C. § 661, et seq. ("FWCA"), and the Arizona Water Settlements Act of 2004, Pub. L. 108-451, as amended.

The USFWS is authorized to enter into and engage in the activities described in this MOU under various federal laws, including the FWCA, the ESA, and the Fish and Wildlife Act of 1956, 16 U.S.C. § 742 et seq., among other authorities.

Freeport owns land along Eagle Creek and holds water rights for municipal and industrial purposes. The proposed fish barrier site is located on land owned by Freeport. Freeport represents that it has authority to enter into and engage in the activities described in this MOU. As stated, Freeport's objective in entering into and performing this MOU is to enter into a Safe Harbor Agreement with USFWS and obtain an Enhancement of Survival (EOS) permit pursuant to Section 10(a)(1)(A) of the ESA.

IV. Roles and Responsibilities of the Parties

A. General

The Parties will cooperate and work together in furtherance of the Project, including sharing their respective expertise for design, planning and construction of the fish barrier and in obtaining any necessary permits and approvals required to construct and maintain the fish barrier. Within the areas of their jurisdiction or special expertise, the Parties agree to undertake and perform the actions set forth in Subsections B, C, and D below. In addition, each of the Parties agrees to:

1. Participate in the planning process in good faith and make all reasonable efforts to resolve disagreements;

2. Complete its respective Project tasks and responsibilities as identified in Subsections B, C, and D, below;

3. Fund its own expenses associated with the Project relative to their obligations, as described below; and

4. Upon mutual agreement between Freeport and Reclamation, and if it would result in a cost savings to the construction contract, Freeport may use its own resources to supply certain items required by the Final Designs and Specifications. If Freeport supplies items under this clause, the Parties shall agree to a reasonable supply or operating cost for those items which shall then be credited to Freeport's obligations under Section IV(B)(8). Such agreed-to items and the respective credits shall be incorporated in this MOU by amendment.

B. Freeport Responsibilities

Freeport will be responsible for the following aspects of the Project:

1. Freeport will provide Reclamation with topographic and land survey data of the property including the proposed location of the fish barrier site ("Proposed Site") and upstream and downstream conditions.

2. Freeport will provide Reclamation with access to the Proposed Site for the purpose of conducting such geotechnical investigations as Reclamation deems necessary to support their engineering design.

3. Freeport will provide construction equipment, such as a back-hoe and drilling equipment, and operators, as may be reasonably required to assist Reclamation's site investigation work.

4. Upon receipt of the final engineering drawings and specifications, Freeport will promptly conduct a review of the final engineering design, construction specifications and expected costs, and notify Reclamation whether they are acceptable or whether modifications need to be made.

5. Freeport will provide reasonable assistance to aid Reclamation with permitting and environmental compliance, including NEPA, that is determined to be necessary. This assistance may include such tasks as providing data and reviewing and commenting on draft documents.

6. Freeport will cooperate with Reclamation during site investigations and construction activities including providing access to Reclamation and its contractors for site investigations, engineering, construction, and other activities that may be necessary.

7. Prior to construction, Freeport will grant Reclamation a license and easement in a form acceptable to Reclamation that is sufficient to enable construction, operation, and maintenance (O&M) of the fish barrier, including the reasonable right of access to Freeport's adjoining private land for the purpose of carrying out such responsibilities.

8. Notwithstanding the foregoing, Freeport will contribute $2,100,000 towards the cost of fish barrier construction.

C. Reclamation Responsibilities

Reclamation will be responsible for the following aspects of the Project:

1. Reclamation will be responsible for designing the fish barrier and will conduct site analysis and investigations (e.g., scour and HEC-RAS modeling) as may be reasonably required and completing preliminary engineering design and planning.

2. Reclamation will be the lead agency for NEPA documentation for the proposed fish barrier construction and for USFWS issuance of an EOS permit. Reclamation will coordinate with USFWS to ensure the necessary information is included in the NEPA documents for their issuance of an EOS permit. Reclamation will provide the parties copies of any required NEPA documents including technical reports, data, analyses and draft and final documents.

3. Reclamation will be the lead agency on the analysis needed for ESA section 7 compliance for the fish barrier construction and will provide the USFWS all information necessary, including the biological assessment, for preparation of the biological opinion.

4. Reclamation will acquire all other permits and approvals required for fish barrier construction.

5. Reclamation will be responsible for construction of the fish barrier and will contribute up to $6,300,000 towards construction costs.

6. Following construction of the fish barrier, Reclamation (or its designee) will be responsible for all O&M associated with the fish barrier.

D. USFWS Responsibilities

USFWS will be responsible for the following aspects of the Project:

1. USFWS will provide technical assistance, to the maximum extent practicable, when requested by Reclamation or Freeport.

2. USFWS will assist Freeport with the development of the SHA and EOS permit application.

3. As a Cooperating Agency, USFWS will assist Reclamation with NEPA compliance for the construction of the fish barrier and the issuance of an EOS permit.

4. If all issuance criteria have been met, USFWS will approve the SHA and issue an EOS permit in accordance with the terms of the SHA and specific terms and conditions of the authorizing EOS permit.

5. USFWS will prepare a biological opinion pursuant to Section 7(b) of the ESA that addresses construction of the fish barrier and issuance of the EOS permit.

6. USFWS will issue all appropriate findings in compliance with NEPA and the NEPA implementing regulations, covering the Service's decision to approve or disapprove Freeport's application for an EOS permit and associated SHA.

V. Cooperation

The Parties are committed to the successful construction of the fish barrier, which is expected to provide substantial conservation benefits to native fishes and other aquatic species, including federally-listed species, and agree to work cooperatively to ensure Project completion. In the event the total costs associated with the construction of the fish barrier exceed $8,400,000, the Parties agree to consult in good faith to revise this MOU in a manner that allows construction of the fish barrier to be completed and that satisfies their respective obligations under the ESA.

VI. Limits on Responsibility

A. Nothing in this MOU alters, limits, expands, or supersedes the authorities and responsibilities of a Party on any matter within its jurisdictions.

B. Nothing in this MOU shall require a Party to perform any act beyond its legal authority or in violation of any legal requirement.

C. Nothing in this MOU shall require the Parties to assume any obligations or expend any sum in excess of authorizations and appropriations available or in excess of funding amounts referenced herein.

D. Each Party retains all immunities and defenses provided by law with respect to any action based on or occurring as a result of this MOU.

E. Nothing in this MOU is intended to modify Freeport's rights and obligations under the proposed Safe Harbor Agreement. In the event of a conflict between Freeport's obligations under this MOU and Freeport's Safe Harbor Agreement, the Parties acknowledge that the Safe Harbor Agreement shall be controlling.

VII. Designated Representatives

Each Party will designate a representative and an alternate representative, as described in Attachment 2, to ensure coordination among the Parties during implementation of the MOU. Each Party may change its representative at any time by providing written notice to the other Parties.

VIII. Administration of the MOU

A. Approval: This MOU becomes effective upon the last signature date of the authorized officials of the Parties.

B. Amendment: This MOU may be amended through a written agreement, signed and dated, of all signatories.

C. Termination: If not terminated earlier, this MOU will terminate five years from the date of the last signature below. Any Party may terminate this MOU by providing thirty (30) days' written notice to the other Party; however, the Parties mutually agree to attempt in good faith to resolve their differences in a manner that furthers the intent of this MOU prior to electing to terminate. Upon termination of the MOU, all responsibilities pursuant to this MOU shall cease. The foregoing notwithstanding, Reclamation (or its designee) shall remain responsible for all O&M associated with the fish barrier, as provided in Section IV(C)(5).

D. Notices: All written notices concerning this MOU shall be delivered in person or sent by certified mail, return receipt requested, to the Parties as follows:

To Freeport:

Environmental Manager
Freeport-McMoRan Morenci Inc.
4521 North U.S. Highway
Morenci, AZ 85540

and

Senior Director, Corporate Environmental Affairs
Freeport-McMoRan Inc.
333 North Central Avenue
Phoenix, AZ 85004

To Bureau of Reclamation:

Area Manager
Bureau of Reclamation, Phoenix Area Office
6150 West Thunderbird Road
Glendale, AZ 85306

To USFWS:

Field Supervisor
Arizona Ecological Services Office
9828 North 31st Avenue
Phoenix, AZ 85051

E. Other Agreements: This MOU in no way restricts the Parties from participating in similar activities with other public or private agencies, organizations, or individuals.

F. Compliance with Applicable Law: All work performed pursuant to this MOU shall be in compliance with all applicable state and federal laws and regulations.

G. Governing Law: The construction, validity, performance, and effect of this entire MOU shall be governed by the laws of the United States of America.

H. No Agency Relationship: Unless expressly provided by law, personnel or volunteers of one party shall not be considered to be agents or employees of any other party for any purpose, and no joint venture or principal-agent relationship shall be deemed to exist.

I. Integration: This MOU constitutes the entire agreement between the Parties pertaining to the subject matter herein and accurately sets forth the rights, duties, and obligations of each Party. All prior or contemporaneous agreements and understandings, oral or written, are hereby superseded and merged herein. The provisions of this MOU may be abrogated, modified, rescinded, or amended in whole or in part only by mutual written consent executed by the Parties.

J. Severability: In the event that any provision of this MOU or portion thereof is held invalid, illegal, or unenforceable, such provision or portion thereof shall be severed from this MOU and shall have no effect on the remaining provisions of this MOU, which shall remain in full force and effect.

K. Non-Binding Agreement: This MOU is not final agency action or a contract and creates no right, benefit, or trust responsibility, substantive or procedural, enforceable at law or equity. Thus, this MOU does not impose legally binding requirements on the Parties nor does it create a legal right of action for the Parties or any third party.

L. Expenditure of Funds: Nothing in this MOU shall obligate the Parties to expend or transfer any funds. Specific work projects or activities that involve transfer of funds, services, or property must be independently authorized, and are subject to the execution of a separate written agreement and contingent upon the availability of appropriated funds. This MOU does not provide such authority. Negotiation, execution, and administration of each such agreement must comply with all applicable statutes and regulations.

M. Members of Congress: Pursuant to 41 U.S.C. 22, no United States member of, or United States delegate to, Congress shall be admitted to any share or part of this MOU, or benefits that may arise there from, either directly or indirectly.

N. Freedom of Information Act (FOIA): Public access to this MOU and federal records relating to this MOU will be governed by the Freedom of Information Act, 5 U.S.C. § 552, et seq., and the Department of the Interior's associated regulations, 43 C.F.R. §§ 2.1-2.290. The foregoing notwithstanding, nothing contained herein shall subject Freeport, and Freeport's agents, employees and contractors, to disclosure of their records, unless those records have been shared with USFWS or Reclamation or their contractors.

O. Public Relations Coordination: All press releases and/or marketing materials created by any party must be approved by USFWS and Reclamation before distribution to the public.

P. Authorized Representatives: By signature below, the Parties certify that the individuals listed in this document as representatives of the individual Parties are authorized to act in their respective areas for matters related to this MOU.

IX. Signatories

The Parties hereto have executed this MOU on the dates shown below.

U.S. Bureau of Reclamation
6150 West Thunderbird Road
Glendale, AZ 85306

SEAN HEATH Digitally signed by SEAN HEATH Date: 2023.10.25 10:55:51 -07'00'

Acting For Alexander B. Smith, Area Manager

Date 10/25/23

Freeport Minerals Corporation
333 North Central Avenue
Phoenix, AZ 85004

William Cobb, Vice President

Date 10/05/2023

U.S. Fish and Wildlife Service
Arizona Ecological Services Office
9828 North 31st Avenue, Suite C3
Phoenix, AZ 85051

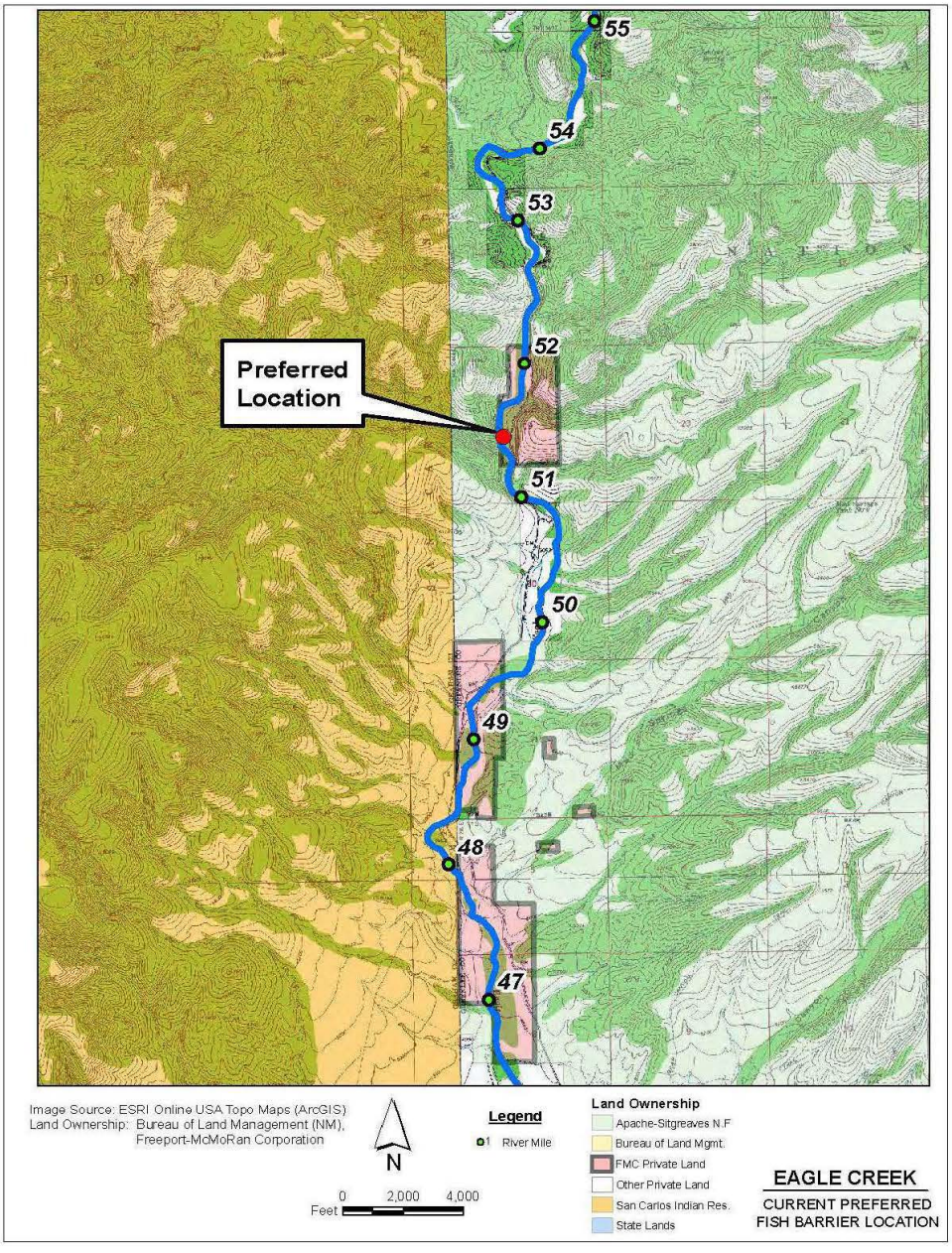
HEATHER WHITLAW Digitally signed by HEATHER WHITLAW Date: 2023.10.20 10:54:49 -07'00'

Heather Whitlaw, Field Supervisor

Date 10/20/2023

Attachment 1

Proposed Project Site



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Attachment 2

Cooperator Representatives

U.S. Bureau of Reclamation

Primary Representative: Dominic Graziani
Backup Representative: Kent Mosher

U.S. Fish and Wildlife Service

Primary Representative: Mark Lamb
Backup Representative: Mary Fugate

Freeport-McMoRan Morenci Inc.

Primary Representative: Brent Fletcher
Backup Representative: Terry Enk