

## U.S. Fish and Wildlife Service

# Final Environmental Assessment

for the Issuance of an Eagle Take Permit for Robinson Mine

## Nevada

## Prepared by:

U.S. Fish and Wildlife Service, Pacific Southwest Region Division of Migratory Bird Management U.S. Department of the Interior 2800 Cottage Way, W-1916, Sacramento, CA 95825 Contact: <fw8\_eaglepermits@fws.gov>, 916-414-6509

February 2021

## TABLE OF CONTENTS

| 1.0 | Intro | oduction  | 1  |
|-----|-------|---|----|
|     | 1.1   | Purpose and Need  | 2  |
|     | 1.2   | Authorities   | 2  |
|     | 1.3   | Background  | 2  |
|     | 1.4   | Scoping, Consultation, and Coordination                               |    |
|     | 1.5   | Tribal Coordination   | 4  |
| 2.0 | Altei | natives   | 5  |
|     | 2.1   | Applicant Alternative   | 5  |
|     |       | 2.1.1 Compensatory Mitigation   |    |
|     |       | 2.1.2 Monitoring and Adaptative Management                            |    |
|     |       | 2.1.3 Minimization Measures   |    |
|     | 2.2   | U.S. Fish and Wildlife Service Alternative                            |    |
|     |       | 2.2.1 Compensatory Mitigation   |    |
|     |       | 2.2.2 Monitoring and Adaptative Management                            |    |
|     |       | 2.2.3 Minimization Measures   |    |
|     |       | 2.2.4 Detection and Reporting   |    |
|     | 2.3   | No Action Alternative   | 7  |
|     | 2.4   | Other Alternatives Considered but Not Evaluated in this Environmental | _  |
|     |       | Assessment  |    |
|     |       | 2.4.1 Deny Permit Alternative   |    |
| 3.0 | Affe  | cted Environment  | 9  |
|     | 3.1   | Golden Eagles   |    |
|     |       | 3.1.1 Project Area Habitat  | 9  |
|     |       | 3.1.2 Project Area Eagle Population                                   | 10 |
|     |       | 3.1.3 Territories Within the Project's Plan Boundary                  |    |
|     |       | 3.1.4 Project Eagle Population Stressors                              |    |
|     | 3.2   | Bald Eagles   |    |
|     | 3.3   | Migratory Birds   |    |
|     | 3.4   | Species Listed under the Endangered Species Act                       |    |
|     | 3.5   | Cultural and Socio-economic Interests                                 |    |
|     | 3.6   | Climate Change  | 15 |
| 4.0 | Envi  | ronmental Consequences  | 16 |
|     | 4.1   | Applicant Alternative   | 16 |
|     |       | 4.1.1 Direct and Indirect Effects                                     |    |
|     |       | 4.1.2 Cumulative Effects  |    |
|     | 4.2   | U.S. Fish and Wildlife Service Alternative                            | 20 |
|     |       | 4.2.1 Direct and Indirect Effects                                     |    |
|     |       | 4.2.2 Cumulative Effects  |    |
|     | 4.3   | No Action Alternative   |    |
|     |       | 4.3.1 Direct and Indirect Effects                                     |    |
|     | 4.4   | Comparison of Effects of Alternatives                                 | 23 |

i

| 5.0                          | 5.0 Mitigation   |  |  |  |
|------------------------------|--|--|--|--|
| 6.0                          | List of Preparers and Reviewers  |  |  |  |
| 7.0                          | References   |  |  |  |
| TABL                         | ES   |  |  |  |
| Table 3 Table 4              | 3-2 Territories within the Project Area  |  |  |  |
| FIGU                         | RES  |  |  |  |
| Figure<br>Figure<br>Figure   | 1-2 Authorized and Proposed Facilities   |  |  |  |
| APPE                         | NDICES   |  |  |  |
| Appen<br>Appen<br>Appen      | dix B Local Area Population Analysis Results for Applicant Alternative   |  |  |  |
| ACRO                         | ONYMS AND ABBREVIATIONS  |  |  |  |
| APLIC<br>BLM<br>BMP<br>CFR   | Bureau of Land Management Best Management Practice Code of Federal Regulations   |  |  |  |
| Eagle<br>EA<br>ECP           | Environmental Assessment Eagle Conservation Plan   |  |  |  |
| EIS<br>EMU<br>EPM            | Environmental Impact Statement  Eagle Management Unit  Environmental Protection Measure  Endengaged Spacies Act of 1072, as amended                  |  |  |  |
| ESA<br>IAPP<br>LAP           | Endangered Species Act of 1973, as amended Industrial Artificial Pond Permit Local Area Populations  Political Mine Plan of Operations have derived. |  |  |  |
| Mine a mph NDOV              | Miles Per Hour  Nevada Department of Wildlife  |  |  |  |
| NEPA<br>NHPA<br>PEIS<br>Plan | •  |  |  |  |

**Project** 

Robinson Mine

**Project area** Robinson Mine Plan of Operations Boundary and a Surrounding 10-mile

Radius

REA Resource Equivalency Analysis
RNMC Robinson Nevada Mining Company
Service United States Fish and Wildlife Service

**TSF** Tailings Storage Facility

U.S. United States

**U.S.C.** United States Code

## 1.0 Introduction

This Environmental Assessment (EA) has been prepared to analyze the environmental consequences of the United States (U.S.) Fish and Wildlife Service (Service) issuing an incidental take permit for the take of golden eagles (Aquila chrysaetos) associated with the Liberty Pit Expansion at the Robinson Mine (Project) pursuant to the National Environmental Policy Act (NEPA) (42 United States Code [U.S.C.] §§ 4321–4347). Issuance of an eagle take permit by the Service for take that is incidental to otherwise lawful activities under the Bald and Golden Eagle Protection Act (Eagle Act) (16 U.S.C. §§ 668–668d and 50 Code of Federal Regulations [CFR] § 22.26) constitutes a discretionary federal action that is subject to NEPA. This EA assists the Service in ensuring compliance with NEPA, and in making a determination as to whether any "significant" impacts could result from the analyzed actions that would require preparation of an Environmental Impact Statement (EIS). This EA evaluates the effects of alternatives for the Service's decision whether to issue an eagle take permit. In this EA, the Service is proceeding under the expired Council on Environmental Quality regulations, pursuant to 40 CFR § 1506.13 which provides "the regulations in this subchapter apply to any NEPA process begun after September 14, 2020. An agency may apply the regulations in this subchapter to ongoing activities and environmental documents begun before September 14, 2020."

The Eagle Act authorizes the Service to issue eagle take permits only when the take is compatible with the preservation of each eagle species, defined as "consistent with the goals of maintaining stable or increasing breeding populations in all eagle management units and the persistence of local populations throughout the geographic range of each species" (USFWS 2016a).

The Applicant, Robinson Nevada Mining Company (RNMC), is requesting Eagle Act take coverage for resource development or recovery operation activities associated with the Project. RNMC is an affiliate of Robinson Holdings (USA) Ltd., a wholly-owned subsidiary of KGHM International Ltd. The Applicant has requested a 30-year incidental take permit for golden eagles under the Eagle Act for the Project.

The Applicant is requesting a permit for the take of four golden eagle nests that constitute one golden eagle breeding territory over a period of 30 years from the date of issuance of the permit for the Project. This EA evaluates whether issuance of the eagle territory take permit will have significant impacts on the existing human environment. "Significance" under NEPA is defined by regulation at 40 CFR § 1508.27, and requires short- and long-term consideration of both the context of a proposal and its intensity.

This proposal conforms with, and carries out, the management approach analyzed in, and adopted subsequent to, the Service's Programmatic Environmental Impact Statement (PEIS) for the Eagle Rule Revision, December 2016 (USFWS 2016a). Accordingly, this EA tiers to the PEIS. Project-specific information not considered in the PEIS will be considered in this EA, as

described below. Based on this Project-specific analysis and application of the criteria provided in the PEIS, the Service has determined that an EA is the appropriate level of review.

## 1.1 Purpose and Need

The need for this federal action is a decision on an eagle incidental take permit application from RNMC. The decision must comply with all applicable regulatory requirements and be compatible with the preservation of eagles.

## 1.2 Authorities

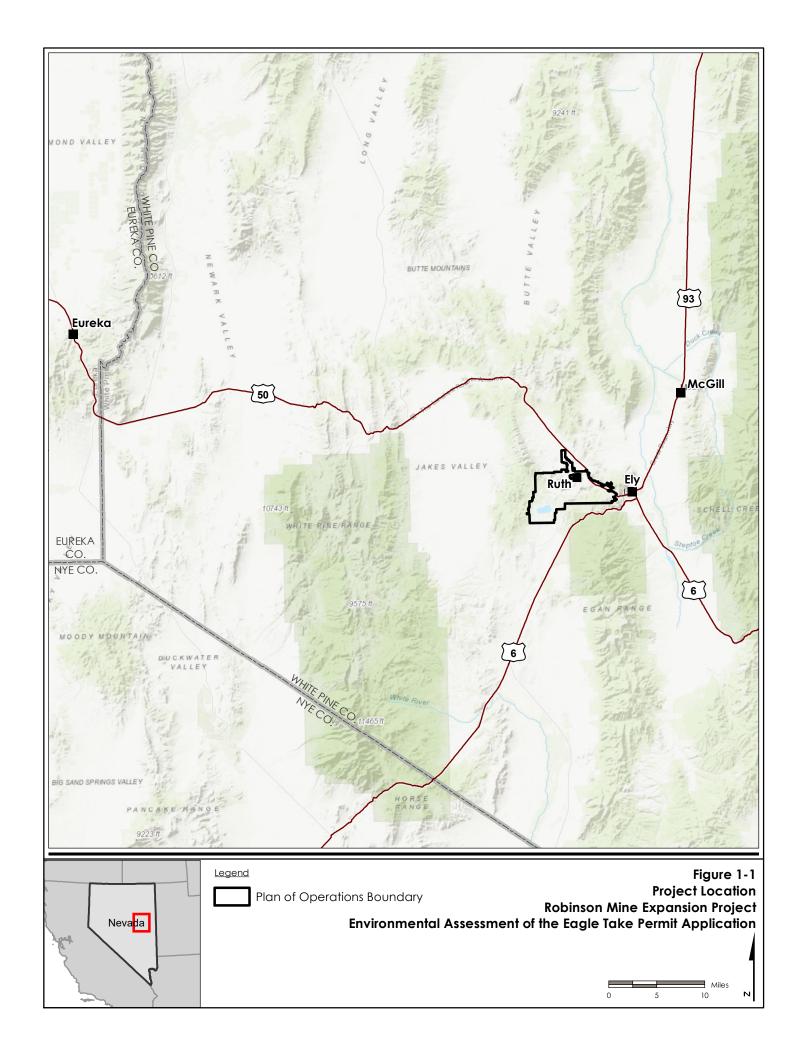
Service authorities are codified under multiple statutes that address management and conservation of natural resources from many perspectives, including, but not limited to the effects of land, water, and energy development on fish, wildlife, plants, and their habitats. This analysis is based on the Eagle Act (16 U.S.C. §§ 668–668e) and its regulations (50 CFR Part 22). The PEIS (USFWS 2016a) has a full list of authorities that apply to this action (USFWS 2016a: Section 1.6, pages 7-12), which are incorporated by reference here.

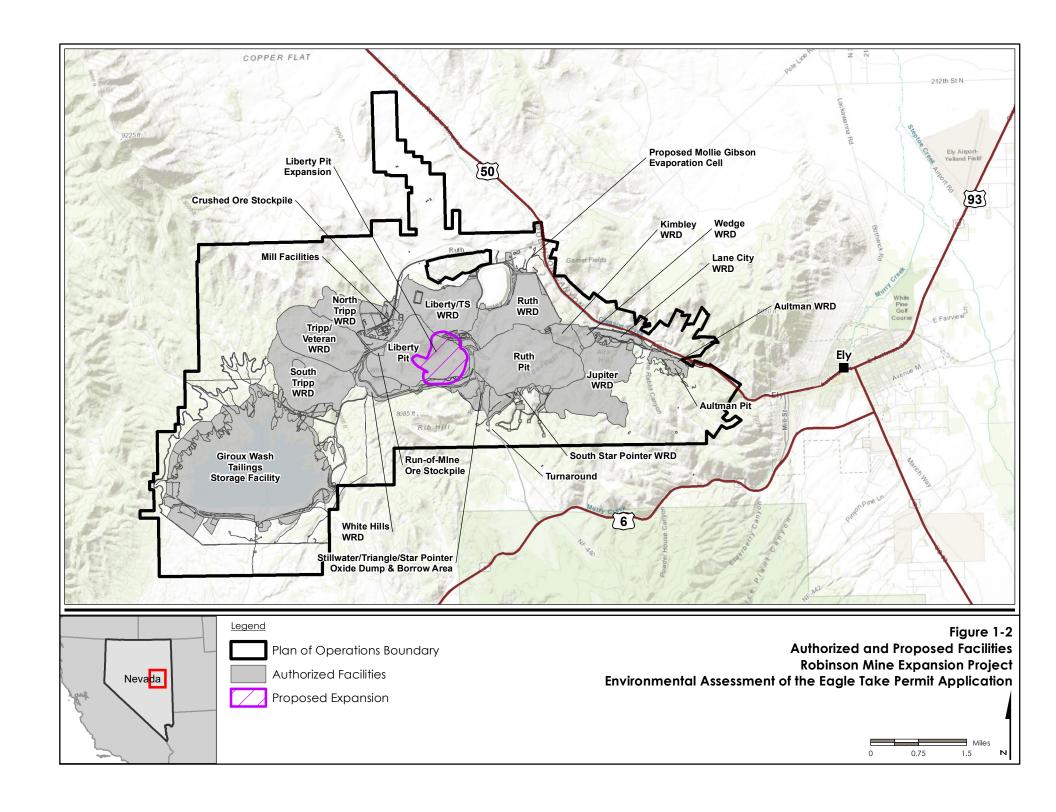
## 1.3 Background

RNMC currently operates the Robinson Mine, an open pit copper mine, as authorized by the Bureau of Land Management (BLM) Ely District Office in White Pine County, Nevada, approximately seven miles west of Ely, Nevada (**Figure 1-1**). The Robinson Mine consists of open pits, waste rock dumps, tailings impoundment facilities, mill and flotation circuits, gold heap leach and process facilities, and support facilities including evaporation cells, ponds, and pipelines. The Project lies within the Egan Range in the central portion of White Pine County, in east-central Nevada.

RNMC is currently mining the Ruth pit complex and mining is scheduled to be completed in 2024. In order to meet the planned future mining sequence, the Robinson Mine performed stepout drilling around the Liberty East-West Saddle to obtain information for future development. The drilling information indicated a mineral resource that could be mined economically as the Liberty Pit Expansion (**Figure 1-2**).

Within the Liberty Pit Expansion area, four nests (LP-01-A, LP-02-A, LP-03-A, and LP-04-A) are located on manmade features (i.e., existing pit highwalls) that would be excavated for minerals extraction with the expansion of the Robinson Mine. The location of the ore body that occurs immediately beneath and around the nests, as well as the economic factors that contribute to the profitable extraction of the minerals contained therein, are such that nest removal is unavoidable.





The Project area (Robinson Mine Plan of Operations [Plan] boundary and a surrounding 10-mile radius) includes various rock outcrops and pit highwalls that are identified as potential eagle nesting areas. Shrub communities directly north of the Project and in valleys surrounding the Project provide valuable foraging habitat. Limited water sources and very little riparian habitat are present in the Project area. In addition, there are a number of paved and non-paved roads located in the Project area that provide carrion for eagles and represent potential high value scavenging habitat.

Golden eagles were found to occupy the Project area and therefore eagle nest aerial and ground surveys have been conducted within the Project area from 2016 to present. Information on eagles in the Project area is elaborated on in **Section 3.0** (Affected Environment) below.

## 1.4 Scoping, Consultation, and Coordination

This EA incorporates by reference the scoping performed for the PEIS (Chapter 6, page 175) (USFWS 2016a).

This EA was made public for 30 days to solicit public comments, from December 5, 2020 to January 4, 2021. The USFWS received no public comments on the draft EA.

## 1.5 <u>Tribal Coordination</u>

Tribal participation is an integral part of the NEPA and the National Historic Preservation Act (NHPA) process, as well as a key component of determining whether to issue an eagle take permit. Cultural and religious concerns regarding eagles were analyzed in the PEIS (USFWS 2016a), and tribal consultation already conducted for the PEIS (USFWS 2016a) is incorporated by reference into this EA. The PEIS (USFWS 2016a) identified tribal coordination as an important issue for subsequent analysis, given the cultural importance of eagles to the tribes. In accordance with Executive Order 13175, Consultation and Coordination with Tribal Governments (65 Federal Register 67249, Nov. 9, 2000), the NHPA Section 106 (36 CFR Part 800) and the Service's Native American Policy, the Service consults with Native American tribal governments whenever actions taken under the authority of the Eagle Act may affect tribal lands, resources, or the ability to self-govern. This coordination process is also intended to ensure compliance with the American Indian Religious Freedom Act.

To initiate consultation with Tribes regarding potential issuance of an eagle take permit, the Service sent letters to five (5) federally-recognized tribal governments located within 109 miles (the natal dispersal distance of golden eagles thought to adequately define the local area population of the eagles) of the Project, informing them of the received permit application and preparation of this EA and offering the opportunity for formal consultation regarding potential issuance of the permit. Comments from Tribes are also encouraged and welcomed during the 30-day comment period on the EA.

## 2.0 Alternatives

## 2.1 Applicant Alternative

Under the Applicant Alternative, the Service would issue a long-term incidental eagle take permit, with associated conditions, to the Applicant for the reoccurring loss of annual productivity from four golden eagle nests constituting one golden eagle territory, as allowed by regulation. The permit duration would be 30-years (i.e., the maximum amount of time that can be permitted) to cover the life of mine and reclamation. The Applicant would implement all measures required by other agencies and jurisdictions to conduct the activity at this site, including applicant-committed measures.

## 2.1.1 Compensatory Mitigation

Mitigation at a 1.2:1 ratio, in the form of power pole retrofits, would offset impacts and contribute to the preservation of eagles associated with the take of one territory (Liberty Pit Territory). The amount of compensatory mitigation required has been determined through the Service's Golden Eagle Resource Equivalency Analysis (REA) (USFWS 2018). Compensatory mitigation for the loss of reproduction at one territory is capped at 11 years (USFWS 2016b), and would address the annual loss of 0.59 eagles, for a total of 6.49 eagles per territory removed. As such, RNMC would contribute to a USFWS-approved fund or an approved in-lieu fee program in an amount equal to the power pole retrofit for either:

- 224.47 poles (10 years of avoided loss from retrofits); or
- 97.69 poles (30 years of avoided loss from retrofits).

## 2.1.2 Monitoring and Adaptative Management

Post-construction monitoring and adaptive management best management practices (BMPs) would be implemented over the life of the mine. RNMC would monitor golden eagle territories for occupancy within the Plan boundary.

#### 2.1.3 Minimization Measures

RNMC has implemented several measures and would continue to implement the measures to minimize impacts to golden eagles at the Robinson Mine including: vehicle speed limits; employee awareness/training programs; carcass management; construction of new power line per the Avian Power Line Interaction Committee (APLIC) guidance; chemical exposure management methods; and landfill management measures.

## 2.2 U.S. Fish and Wildlife Service Alternative

Under the U.S. Fish and Wildlife Service Alternative, in addition to the actions discussed in the Applicant Alternative the Service would authorize up to five years of annual loss of productivity

from disturbance to one additional territory, as allowed by regulation. The additional territory take would be used at the discretion of the Applicant, in coordination with the Service, and would be based on the decision criteria outlined in the Robinson Mine Decision Flowchart (**Appendix A**). The Applicant would implement all measures required by other agencies and jurisdictions to conduct the activity at this site, including applicant-committed measures. The permit would also require implementation of all conservation measures and commitments described in **Section 2.1** for the Applicant Alternative.

The additional five years of incidental take under this alternative is based on the likelihood that over the 30-year term of the permit, golden eagles could build new nests within the Project area potentially from eagles holding a territory other than the Liberty Pit pairs.

## 2.2.1 Compensatory Mitigation

Under the U.S. Fish and Wildlife Service Alternative, compensatory mitigation would differ from the Applicant Alternative. If the permit is issued, any and all loss of eagle productivity would be fully offset with required compensatory mitigation annually at a ratio of 1:1, by retrofits of power poles at high risk for electrocution of eagles within the Eagle Management Unit (EMU). In addition, compensatory mitigation would be required of the permit holder (if the permit is issued) for an experimental mitigation effort, at a ratio of 0.2:1, such as experimental treatment of nestling parasites while the young eagles are in a nest and are not capable of flight. As such, RNMC would contribute funds to the National Fish and Wildlife Foundation or directly to an ongoing study for assistance in treating golden eagle nests for Mexican chicken bugs (Haematosiphon inodorus) or other parasites if they are identified as a concern. The Service considers this a viable option for mitigation, as recent scientific studies found that treating young eagles for the protozoan parasite, Trichomonas gallinae, was effective and increased nest site productivity (Kochert et al. 2018). Current and emerging threats of disease and ectoparasites have the potential to negatively affect golden eagle productivity (MacColl et al. 2017). If the Proponent chooses to contract directly with an electric utility for the power pole retrofits, then at least one-third of the power poles would be retrofit at the 30-year standard.

To meet the mitigation requirement for power pole retrofits for the loss of one territory, RNMC would contribute to a USFWS-approved fund or an approved in-lieu fee program in an amount equal to the power pole retrofit (1:1 ratio) for either:

- 187.06 poles (10 years of avoided loss from retrofits); or
- 81.41 poles (30 years of avoided loss from retrofits).

In years when the additional annual loss of one territory (up to five years total, over the life of the permit) is utilized, RNMC would contribute towards the 0.2:1 ratio for experimental research and use a USFWS-approved fund or an approved in-lieu fee program in an amount equal to the power pole retrofit (1:1 ratio), using either:

- 19.63 poles (10 years of avoided loss from retrofits); or
- 8.54 poles (30 years of avoided loss from retrofits).

## 2.2.2 Monitoring and Adaptative Management

Monitoring and adaptive management would be implemented by RNMC as described in **Section 2.1.2** for the Applicant Alternative.

## 2.2.3 Minimization Measures

Minimization measures would be implemented by RNMC as described in **Section 2.1.3** for the Applicant Alternative.

## 2.2.4 Detection and Reporting

RNMC would implement an eagle nest site reporting and detection system as described in **Section 2.1.4** for the Applicant Alternative.

## 2.3 No Action Alternative

Under the No Action Alternative, the Service would take no further action on RNMC's permit application. The Service must take action on the permit application, determining whether to deny or issue the permit. This alternative is considered because Service policy requires evaluation of a No Action Alternative and it provides a clear comparison of any potential impacts to the human environment from the Applicant and U.S. Fish and Wildlife Service alternatives.

The No Action Alternative in this context analyzes predictable outcomes of the Service not issuing a permit. Under the No Action Alternative, the Project would likely continue to operate without a Permit being issued. Thus, for purposes of analyzing the No Action Alternative, we assume that the Applicant would implement all measures required by other agencies and jurisdictions to conduct the activity at this site, but the conservation measures proposed in the Permit application package would not be required. The Applicant may choose to implement some, none, or all of those conservation measures. Under this alternative, it is assumed that the Applicant would take some reasonable steps to avoid taking eagles, but RNMC would not be protected from enforcement for violating the Eagle Act should take of an eagle occur.

## 2.4 Other Alternatives Considered but Not Evaluated in this Environmental Assessment

The Service considered other alternatives based on communication with the Applicant but concluded that these alternatives did not meet the purpose and need, were impracticable for the Applicant to carry out, or did not adequately address the risk of take at the Project. Therefore, the Service did not assess the potential environmental impacts of those alternatives. Below is a summary of the alternatives considered but eliminated from further review.

## 2.4.1 Deny Permit Alternative

Under this alternative, the Service would deny the permit application because the Applicant falls under one of the disqualifying factors and circumstances denoted in 50 CFR §13.21, the application fails to meet all regulatory permit issuance criteria and required determinations listed in 50 CFR §22.25–22.26, or because the Service determined that the risk to eagles is so low that a take permit is unnecessary.

The Service's permit issuance regulations at 50 CFR § 13.21(b) set forth a variety of circumstances that disqualify an Applicant from obtaining a permit. None of the disqualifying factors or circumstances denoted in 50 CFR § 13.21 apply to RNMC. The Service next considered whether the Applicant meets all issuance criteria for the type of permit being issued. For eagle take permits, those issuance criteria are found in 50 CFR §§ 22.25 (a)(b) and 22.26(f). RNMC's application meets all the regulatory issuance criteria and required determinations (50 CFR §§ 22.25 -- 22.26) for eagle take permits.

When an Applicant for an eagle take permit is not disqualified under 50 CFR § 13.21 and meets all the issuance criteria of 50 CFR §22.26, denial of the permit is not a reasonable option. Therefore, this alternative, denial of the permit, was eliminated from further consideration.

## 3.0 Affected Environment

This section describes the current status of the environmental resources and values that are affected by the alternatives.

## 3.1 Golden Eagles

General information on the population trends, distribution, and habitat of golden eagles are detailed in Sections 3.3 and 3.4 of the PEIS (USFWS 2016a). This section more specifically describes the golden eagle population in the Project area.

## 3.1.1 Project Area Habitat

The Project lies within the Egan Range in the central portion of White Pine County, in east-central Nevada. Golden eagle nesting habitat includes cliff and rock outcrops in the Egan Range to the north, surrounding, and south of the Project, the Sheep Creek Range to the east, and within the multiple open pits with highwalls within the Project area. Mountainous areas that include ridgeline and tops of slopes oriented perpendicular to prevailing winds or near ridge crests of cliff edges are features that are conducive to slope soaring and are attractive features for eagles. Saddles or low points on ridge lines or near riparian corridors may serve as flight paths.

Pinyon-juniper woodland directly adjacent to the Project provides limited nesting and foraging habitat for golden eagles. Shrub communities directly north of and in valleys surrounding the Project provide valuable foraging habitat. The potential foraging value of the various habitat types present in the Project area has not been quantified, but in general, the Inter-Mountain Basins Big Sagebrush Shrubland, Great Basin Xeric Mixed Sagebrush Shrubland, and Inter-Mountain Basins Montane Sagebrush Steppe communities provide habitat for a greater variety of potential golden eagle prey species than the Great Basin Pinyon-Juniper Woodland community.

Limited water sources and very little riparian habitat are present in the Project area; however, RNMC has placed water tanks and guzzlers off-site for wildlife. RNMC manages the Giroux Wash Tailings Storage Facility (TSF) on-site, which is a feature that contains open water and since 2009, no avian mortalities have been recorded in association with the TSF. RNMC maintains a Class III permitted landfill, which does attract foraging avian species. The landfill is covered weekly with at least six inches of soil and internal policy is not to dispose of food waste in the landfill, thereby decreasing the potential for occurrences of avian scavengers.

In addition to the presence of migrating and resident wildlife, livestock grazing occurs in the area and wild/feral horses are present, all representing potential sources of carrion. In addition, there are a number of paved and non-paved roads located in the Project area that provide carrion for eagles and represent potential high value scavenging habitat.

## 3.1.2 Project Area Eagle Population

Annual golden eagle aerial and ground surveys have been conducted in the Project area from 2016 to present. The survey area has remained the same since surveys began in 2016. The total number of nests surveyed has increased annually from 2016 to 2019. A summary of golden eagle nest surveys from 2016 to 2019 is presented in **Table 3-1**.

Table 3-1 Summary of Nest Surveys from 2016 to 2019

| Year                                       | 2016 | 2017 | 2018 | 2019 |
|--|------|------|------|------|
| Total Nests Surveyed                       | 44   | 67   | 74   | 78   |
| Total Golden Eagle Nests                   | 17   | 31   | 27   | 30   |
| Occupied <sup>1</sup> Golden Eagle Nests   | 9    | 13   | 8    | 6    |
| Unoccupied <sup>2</sup> Golden Eagle Nests | 8    | 18   | 19   | 24   |

Occupied Nest – A nest used for breeding in the current year by a pair.

In addition, the golden eagle nesting territories for the Robinson Mine were delineated based on the 2016 through 2019 dataset. A total of 16 distinct territories were delineated based on proximity of nests to one another, concurrent occupancy of adjacent nests, alternating occupancy (from year to year) of adjacent nests, and nearest available quality nesting substrate obtained from surveys and monitoring at the Project. Of the territories delineated for the Project, 10 were occupied in 2016, 13 were occupied in 2017, eight were occupied in 2018, and six were occupied in 2019, with an average occupancy rate from 2016 to 2019 of 59 percent. **Table 3-2** summarizes the golden eagle territories and occupancy status within the Project area.

<sup>&</sup>lt;sup>2</sup> Unoccupied Nest – Those nests not selected by raptors for use in the current nesting season.

Table 3-2 Territories within the Project Area

| Territory                          | Identified Nests Within the<br>Territory                      | 2016<br>Occupancy<br>Status | 2017<br>Occupancy<br>Status | 2018<br>Occupancy<br>Status | 2019<br>Occupancy<br>Status |
|------------------------------------|---|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Duck Creek Territory               | DC-01-A, DC-01-B  | Unoccupied                  | Occupied                    | Occupied                    | Unoccupied                  |
| Deadman Gulch<br>Territory         | DG-01-A   | Unoccupied                  | Unoccupied                  | Unoccupied                  | Unoccupied                  |
| Egan Range Territory #1            | ER-01-A, ER-02-A  | Occupied                    | Occupied                    | Unoccupied                  | Unoccupied                  |
| Egan Range Territory #2            | ER-05-A, ER-06-A  | Occupied                    | Occupied                    | Unoccupied                  | Unoccupied                  |
| Egan Range Territory #3            | LC-03-A, NSC-01-A   | N/A                         | Occupied                    | Unoccupied                  | Occupied                    |
| Gleason Creek<br>Territory         | GLC-01-A, GLC-02-A  | Occupied                    | Occupied                    | Occupied                    | Occupied                    |
| Hercules Gap<br>Territory          | HG-01-A, HG-01-B  | Occupied                    | Occupied                    | Occupied                    | Occupied                    |
| Liberty Pit Territory <sup>1</sup> | LP-01-A, LP-02-A, LP-03-<br>A, LP-04-A                        | Unoccupied                  | Occupied                    | Occupied                    | Unoccupied                  |
| Mosier Canyon<br>Territory #1      | MC-02-A, MC-02-B, MC-02-C, MC-03-A, MC-03-B, MC-03-C, MC-07-A | Occupied                    | Occupied                    | Occupied                    | Unoccupied                  |
| Mosier Canyon<br>Territory #2      | MC-04-A, MC-04-B, MC-<br>05-A                                 | Occupied                    | Occupied                    | Unoccupied                  | Unoccupied                  |
| Mosier Canyon<br>Territory #3      | MC-01-A, MC-06-A  | Unoccupied                  | Unoccupied                  | Unoccupied                  | Unoccupied                  |
| Open Canyon<br>Territory           | OC-01-A, OC-02-A, RDC-<br>01-A                                | Occupied                    | Occupied                    | Unoccupied                  | Unoccupied                  |
| Peacock Spring<br>Territory        | PS-01-A, PS-02-A  | Occupied                    | Occupied                    | Occupied                    | Occupied                    |
| Rattlesnake Canyon<br>Territory    | RC-01-A, RC-01-B, RC-01-<br>C, RC-01-D, RC-01-E               | Occupied                    | Occupied                    | Occupied                    | Occupied                    |
| Saxton Peak Territory              | SP-01-A, SP-02-A, SP-02-B                                     | Occupied                    | Occupied                    | Occupied                    | Occupied                    |
| Tank Spring Territory              | TS-01-A, TS-01-B  | Unoccupied                  | Unoccupied                  | Unoccupied                  | Unoccupied                  |

<sup>&</sup>lt;sup>1</sup> Subject to take

N/A = Not Available

Average annual productivity in the Project area has ranged from 0.5 to 1.38 fledged young per occupied (in-use) territory, with the average productivity from 2016 to 2019 being 1.1 fledged young. The Project area fledging rates from 2016 through 2018 were similar to the range of fledging rates in other populations, while the 2019 value was below this range.

## 3.1.3 Territories Within the Project's Plan Boundary

Two territories occur within the Project's Plan boundary (Mine area), including the Liberty Pit (subject to take) and Saxton Peak territories. Over the four-year survey period, territories within the Mine area had an average occupancy rate of 75 percent, compared to 50 percent for territories outside the Mine area. The range of fledged young per occupied territory within the Mine area is consistent with the territories outside the Mine area. The average productivity per

territory within the Mine area was 1.6; the fledged young per territory for the territories outside the Mine area over the same period was 1.0.

## **Liberty Pit Territory**

The Liberty Pit Territory includes four nests subject to take, LP-01-A, LP-02-A, LP-03-A, and LP-04-A, and is located immediately adjacent to the Liberty Pit Expansion highwall within the Plan boundary. This territory was occupied in 2017 and 2018 (nest LP-01-A was occupied by golden eagles in 2017 and nest LP-04-A was occupied by golden eagles in 2018). The nearest golden eagle nests to the Liberty Pit nests are the Saxton Peak nests, SP-01-A, SP-02-A, and SP-02-B, which are approximately four miles east. The Liberty Pit and Saxton Peak nests were simultaneously occupied in 2017 and 2018; therefore, the Saxton Peak nests are not part of the Liberty Pit Territory.

The Liberty Pit Territory has been occupied twice in the last four years (2017 and 2018) giving it an overall occupancy rate of 50 percent, which is nearly the same as the average occupancy rate of territories outside the Mine area (49 percent). The Liberty Pit Territory average productivity is 1.5, which is greater than the average of 1.0 for territories outside the Mine area.

## **Saxton Peak Territory**

The Saxton Peak Territory includes three nests, which occur in the eastern portion of the Plan boundary. This territory was occupied in 2016, 2017, 2018, and 2019. The next nearest nests are the Liberty Pit nests, LP-01-A, LP-02A, LP-03-A, and LP-04-A, which are approximately four miles west. The Liberty Pit nests and the Saxton Peak nests were simultaneously occupied in 2017 and 2018.

The Saxton Peak Territory has been occupied during each of the four years it has been surveyed, giving it an occupancy rate of 100 percent. This is greater than the average occupancy rate of territories outside the Mine area (49 percent). The average productivity is 1.75, which is greater than the average of 1.0 for territories outside the Mine area.

## 3.1.4 Project Eagle Population Stressors

## **Active Mining Operations**

Active mining operations include exploration, drilling, blasting, excavation, hauling, etc. Risks to golden eagles include unintentional disturbance from activity near nest sites, such as noise and visual sources from mining and exploration activities and vehicular traffic on roads. Other risks include nesting on highwalls of active pits, which may cause nest abandonment due to the mining operations (blasting and excavating) within the pit.

## **Mine Processing**

RNMC uses a variety of hazardous materials, such as fuels and reagents, in mining and processing activities. Areas that pose a potential risk to eagles include the Juniper Pond, Giroux Wash TSF, Weary Flats Heap Leach Industrial Artificial Ponds, and Mollie Gibson Pond. RNMC has several permits in place to manage the transport and use of hazardous chemicals used on site. Reagents are transported, transferred from trucks to containers and containment areas, used, and disposed of according to federal and state regulations.

To minimize the potential for wildlife mortality due to chemical exposure, areas potentially containing hazardous materials that could be toxic to wildlife and domestic animals are fenced and covered (i.e., netting, bird balls, etc.) to prevent access, as required by the Project's Nevada Department of Wildlife (NDOW) Industrial Artificial Pond Permits (IAPPs). Covering and fencing installed to prevent access by wildlife are monitored routinely to check for breaches. Areas managed under IAPPs are monitored frequently to check the condition of the wildlife exclusion features and to search for evidence of wildlife mortalities.

## **Roads**

Mobile equipment (i.e., vehicles) used in operations at the Project or traveling to or from the Project could strike and injure or kill wildlife. Road-killed wildlife may attract scavenging eagles, which in turn could be injured or killed by vehicle collision. RNMC has speed limits placed on equipment operating at the Project (10 miles per hour [mph] unless otherwise posted, 25 mph for haulage equipment, and 35 mph for light vehicles on haul roads). Although outside of RNMC's control, the greater risk for vehicle mortality is on area roads outside of the Mine (e.g., U.S. Highway 50), due to higher speeds and additional traffic.

## **Utilities**

Electrical utility infrastructure present on the Project includes power poles, power lines and guy wires, transformers, and substations. These utilities present risks to eagles from electrocution and collision. Electrical transmission and distribution lines that do not include sufficient spacing between energized lines or between energized lines and ground wires represent an electrocution hazard to large birds. In the *Final Environmental Assessment Robinson Mine Expansion Project* (BLM 2016), RNMC committed to constructing new power lines per APLIC guidelines and to marking guy wires that support the relocated weather station with appropriate flags or tags to minimize collision hazards for avian species.

## 3.2 Bald Eagles

Bald eagles (*Haliaeetus leucocephalus*) are known to occur in the region, but are not expected to be affected by construction, operations, and maintenance of the Project; therefore, disturbance and loss of territory of bald eagles are not expected to result from the Project.

## 3.3 Migratory Birds

A variety of migratory birds have been identified in the Mine area (BLM 1994, 2016, 2019); however, issuance of the proposed permit is not anticipated to affect one or more species of migratory birds. Additionally, impacts to migratory birds were fully analyzed in the PEIS (USFWS 2016a); there are no additional impacts to migratory birds anticipated.

## 3.4 Species Listed under the Endangered Species Act

There are no federally threatened or endangered species listed under the Endangered Species Act of 1973, as amended (ESA) (16 U.S.C. §§ 1531–1544), or potential habitat, within the Mine area (BLM 1994, 2016, 2019). The Service's decision regarding an eagle take permit would not alter the physical footprint of the Project and therefore would not alter the Project impacts to federally threatened and endangered species in the Project area. However, under the Applicant Alternative and the U.S. Fish and Wildlife Service Alternative, required compensatory mitigation in the form of retrofitting electric power poles to offset authorized take of golden eagles under an eagle take permit has the potential to cause effects to ESA-listed species in the area(s) where retrofitting is completed. Section 7 of the ESA requires Federal agencies to consult to "insure that any action authorized, funded, or carried out" by them "is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of [critical] habitat" (16 U.S.C. § 1536(a)(2)). As discussed above in the environmental consequences to golden eagles section of this document, the compensatory mitigation sites for retrofitting of power poles to offset any authorized eagle take under an eagle take permit have not yet been identified. Once the compensatory mitigation sites would be selected, the Service would conduct an internal Section 7 Consultation and further analyze and address potential effects to ESA-listed species at the location of the power poles that would be retrofitted. The Service anticipates that adverse effects to listed species would be avoidable by timing retrofits to avoid sensitive seasons, and/or through the use of other species-specific avoidance measures. However, if the determination of the Section 7 Consultation was that adverse effects were likely to occur to listed species, the Service would prepare additional NEPA documentation to supplement this EA.

## 3.5 Cultural and Socio-economic Interests

Bald and golden eagles are important symbols of U.S. history and sacred to many Native American cultures. Some Native American cultures utilize eagles, eagle feathers, and other eagle parts for religious practices and cultural ceremonies. Outside of rituals and practices, wild eagles as live beings are deeply important to many tribes (Lawrence 1990, as cited by USFWS 2016a). Numerous tribes confirmed the importance of wild eagles during scoping and tribal consultation for the PEIS. We contacted five (5) tribes, each twice, prior to preparing this EA; two Tribes contacted us but none provided comment or requested formal consultation for this EA.

## 3.6 Climate Change

Climate change was considered in the PEIS (USFWS 2016a; Section 3.9, page 144) and is incorporated by reference here. Climate change is not analyzed further in this EA.

## 4.0 Environmental Consequences

This section summarizes the effects on the environment of implementing the alternatives. The discussion of overall effects to the environment of the eagle take permit program is provided in the PEIS (USFWS 2016a) and is incorporated by reference here. This section of this EA analyzes only the effects that were not analyzed in the PEIS (USFWS 2016a) that may result from the issuance of an eagle take permit for this Project.

The Alternatives would not impact cultural or socioeconomic interests beyond the impacts already discussed in the PEIS (USFWS 2016a). Therefore, cultural and socioeconomic interests will not be further analyzed in this EA.

## 4.1 Applicant Alternative

In determining the significance of effects of the Project on eagles, the Service screened the Applicant Alternative of issuing an eagle take permit for the take of golden eagles against the analysis provided in the PEIS (USFWS 2016a) and the Service's 2016 report, *Bald and Golden Eagles Population Demographics and Estimation of Sustainable Take in the United States*, 2016 *Update* (USFWS 2016b). The Service assessed Project effects to eagles at the project, local, and regional scales.

## 4.1.1 Direct and Indirect Effects

#### **Golden Eagles**

Under the Applicant Alternative, the Applicant is requesting authorization for disturbance to and loss of annual productivity from one golden eagle breeding pair during the period of up to 30 years from the date of the issuance of the permit. This alternative would authorize removal of all four existing nests in the Liberty Pit territory outside of the breeding season. The location of the ore body occurs beneath and around the nests and the pit walls must be laid back to create safe access to the ore body. If selected, the Applicant Alternative would authorize take resulting from the from the loss of annual reproduction from one golden eagle breeding pair.

This alternative would have a direct impact to the golden eagles in the breeding pair through the removal of all their known nests, and from disturbance from mining activities (e.g., drilling and blasting) in close proximity to any future nests that may be built, thus causing potential negative impacts to golden eagle breeding and nesting activities.

Disturbance of the Liberty Pit golden eagle territory is assumed to result in loss of annual productivity (i.e., number of young reared) from that territory. The Service uses an estimate of 0.59 golden eagle young fledged per occupied nesting territory per year (USFWS 2016c) to estimate loss of annual productivity. One territory means 1 \* 0.59 = 0.59 golden eagle young of lost annual productivity. Compensatory mitigation for the total loss of reproduction resulting

from the loss of one territory is capped at 11 years (USFWS 2016b), for a total of 6.49 eagles per territory removed.

Along with the monitoring and minimization measures outlined in **Section 2.1**, the Applicant would provide compensatory mitigation to offset the proposed take. To determine the amount of mitigation required, the Service's Golden Eagle REA was used (USFWS 2018). The values described above are directly entered into the REA to calculate the required compensatory mitigation to offset disturbance of the breeding pair.

Based on the updated Eagle Act permit regulations, a compensatory mitigation ratio of 1.2 to 1 is used, which achieves a net benefit to golden eagle populations, ensuring that regional eagle populations are maintained, consistent with the preservation standard of the Eagle Act despite indications of declines in golden eagle populations (USFWS 2016a). The Service uses electric utility power pole retrofitting to offset authorized take of golden eagles. Electrocutions from power poles is known to be a major cause of eagle mortality. Power poles can be retrofitted by verified methods (such as insulating or covering electrical components or modifying pole elements to increase the distance between electrical components) to reduce the risk of electrocution to eagles, with the maintenance and efficacy of retrofits confirmed through post-installation inspections and monitoring. The effects of retrofitting power poles have been quantified "per eagle", allowing use of the REA to calculate the number of power pole retrofits needed to offset the authorized take of golden eagles (USFWS 2013).

Using the REA, the Applicant would offset the take of golden eagles at the Project by contributing to a Service-approved fund or an approved in-lieu fee program in the amount equal to retrofitting approximately 23.55 poles (avoided loss from retrofits maintained and effective for up to 10 years) or 10.25 poles (avoided loss from retrofits maintained and effective for up to 30 years) per year of loss. Compensatory mitigation for the loss of reproduction resulting from the loss of one territory is capped at a maximum of 11 years (USFWS 2016b). Over 11 years, retrofitting would address approximately 224.47 poles (avoided loss from retrofits maintained and effective for up to 10 years) or 97.69 poles (avoided loss from retrofits maintained and effective for up to 30 years). The final power pole number depends on the on the type and expected longevity of each retrofit. As the implementation of compensatory mitigation would fully offset the estimated take for the Project, and would provide additional net benefit to eagle populations, there would be no significant negative impacts to eagle populations from issuing an eagle take permit under the Applicant Alternative.

The Eagle Act regulations require compensatory mitigation to be conducted in the same EMU in which the take occurs. The Project is located in the Pacific Flyway EMU. The site(s) of power poles to be retrofitted has not yet been determined but would be in the Pacific Flyway EMU.

In addition, the Applicant Alternative incorporates adaptive management and minimization measures as described in **Section 2.1**. The proposed Applicant-committed measures would be implemented to further reduce the risk of Project-related injury or mortality hazards to eagles within the Mine area.

The Applicant Alternative meets the purpose and need as it is consistent with the Eagle Act and its regulations and adequately addresses the risk of take at the Project.

## **Bald Eagles**

Take of bald eagles is not expected to occur at this Project and take of bald eagles would not be permitted. Bald eagles in the region may benefit from avoidance and minimization measures established to reduce the risk to golden eagles. Bald eagles may also benefit from compensatory mitigation actions provided to offset the take of golden eagles under the Applicant Alternative.

## **Migratory Birds**

Effects to migratory birds have been analyzed in the PEIS (USFWS 2016a), and those analyses are incorporated by reference here.

## **Species Listed under the Endangered Species Act**

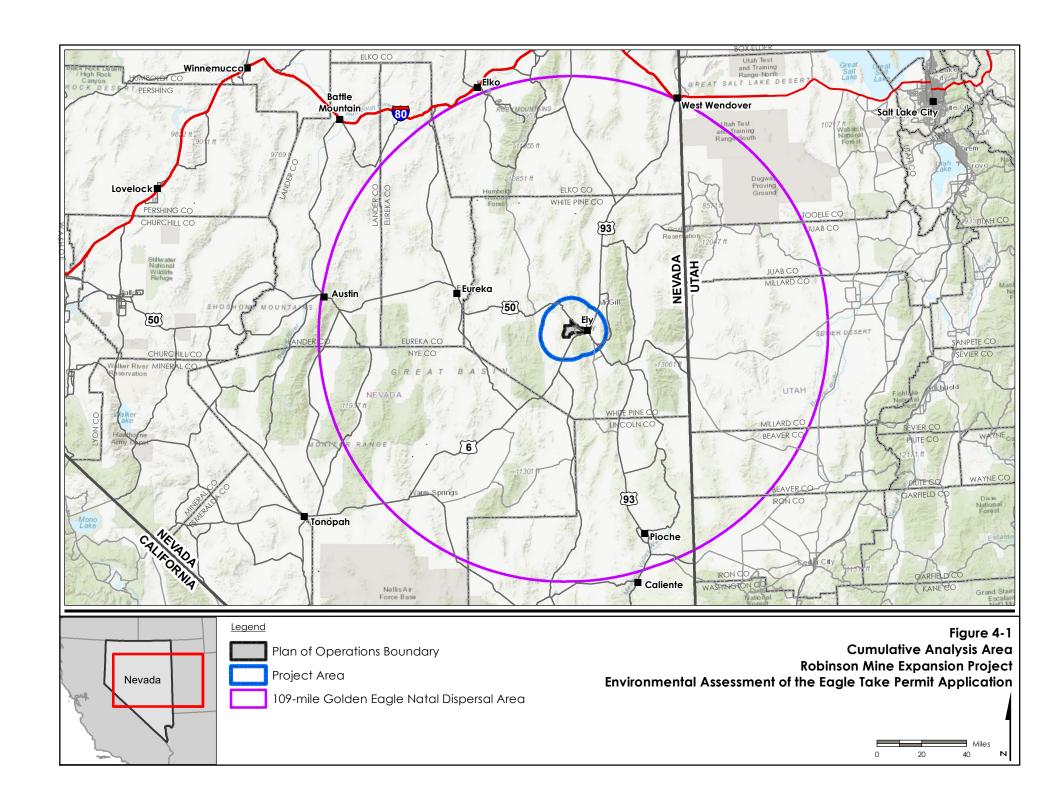
Although no federally threatened or endangered species or potential habitat have been identified within the Mine area, previous NEPA for the Project has analyzed and addressed any potential impacts to these species and their habitat (BLM 1994, 2016, 2019).

## 4.1.2 Cumulative Effects

Cumulative impacts are defined as incremental impacts of the action on the environment when added to other past, present, and reasonably foreseeable future actions. The geographic extent of for the analysis of cumulative impacts is within a 175-kilometer (109-mile) radius surrounding the Project, which represents the average natal dispersal distance of golden eagles and is also defined as the local area population (LAP) (**Figure 4-1**) (USFWS 2016a).

There is incomplete information available regarding the level of unpermitted golden eagle take in the region; thus, golden eagle take in the past, present, and foreseeable future is not fully known. Over the past 19 years, the Service knows of 123 golden eagles killed by a variety of causes (**Appendix B**), which equates to approximately 6.47 golden eagles killed per year. This annual unpermitted take is approximately 0.82 percent of the LAP.

One permit has been previously issued within the LAP (Permit #41502C) which authorized the loss of golden eagle productivity at three golden eagle territories each year for an estimated annual take of 1.77 eagles. Overlap of take from pending permit applications (Permit #75100D and #75819D) within the LAP for this Project is approximately 3.54 estimated eagles per year (**Appendix B**).



Permitted take from past, present, and foreseeable future projects combined with unpermitted take totals 12.37 eagles per year, or 1.57 percent of the LAP (**Appendix B**). If this permit were issued, cumulative take would be below the allowable five percent benchmark (39.35 eagles) for the LAP, and therefore would not significantly impact the LAP. Additionally, the loss of productivity authorized by this permit-application 20776D (if issued) would be fully offset by the compensatory mitigation that would be provided by the permit holder.

## 4.2 U.S. Fish and Wildlife Service Alternative

Analysis of this alternative is similar to that conducted for the Applicant Alternative.

## 4.2.1 Direct and Indirect Effects

## **Golden Eagles**

Under the U.S. Fish and Wildlife Service Alternative, the Service would authorize disturbance to and loss of annual productivity from one golden eagle breeding pair during the period of up to 30 years from the date of the issuance of the permit and disturbance to one additional breeding pair for up to five years. If selected, the U.S. Fish and Wildlife Alternative would authorize the disturbance to and loss of annual productivity from one golden eagle breeding pair for 30 years and one golden eagle breeding pair for five years.

This alternative would impact the golden eagles in the breeding pairs through the presence of drilling and blasting in close proximity to their nests, thus causing potential negative impacts to golden eagle breeding and nesting activities. Removal of the Liberty Pit nests is assumed to result in loss of annual productivity (i.e., number of young reared) from that territory for a total of 11 years. Disturbance to one additional territory would result in the loss of annual productivity for up to five years.

Under the U.S. Fish and Wildlife Service Alternative, compensatory mitigation would differ from the Applicant Alternative under the eagle incidental take permit. Under this alternative, if the permit is issued, any and all loss of eagle productivity would be fully offset with required compensatory mitigation annually at a ratio of 1:1 by retrofits of power-poles at high-risk for electrocution of eagles within the Pacific Flyway EMU. In addition, compensatory mitigation would be required of the permit holder (if the permit is issued) for an experimental mitigation effort, at a ratio of 0.2:1.

Using the REA and a 1:1 mitigation ratio, the Applicant would offset the take of golden eagles by contributing to a Service-approved fund or an approved in-lieu fee program in the amount equal to retrofitting approximately 19.63 poles (avoided loss from retrofits maintained and effective for up to 10 years) or 8.54 poles (avoided loss from retrofits maintained and effective for up to 30 years) per year of loss. Compensatory mitigation for the loss of reproduction resulting from the loss of one territory is capped at a maximum of 11 years (USFWS 2016b) and would address approximately 187.06 poles (avoided loss from retrofits maintained and effective

for up to 10 years) or 81.41 poles (avoided loss from retrofits maintained and effective for up to 30 years) for the loss of the Liberty Pit territory. Up to five years of annual loss of productivity for one additional territory, on an annual basis, would also be authorized. The Robinson Mine decision flowchart (**Appendix A**) shows the process that will be used to determine anticipated disturbance take is authorized by the permit. Additionally, RNMC would contribute funds to the National Fish and Wildlife Foundation or directly to an ongoing study for assistance in treating golden eagle nests for Mexican chicken bugs or other parasites if they are identified as a concern. As the implementation of compensatory mitigation would fully offset the estimated take for the Project, and would provide additional net benefit to eagle populations, there would be no significant negative impacts to eagle populations from issuing an eagle take permit under the U.S. Fish and Wildlife Service Alternative.

In addition, the U.S. Fish and Wildlife Service Alternative incorporates adaptive management and minimization measures as described in **Section 2.1**. The proposed Applicant-committed measures would be implemented to further reduce the risk of Project-related injury or mortality hazards to eagles within the Project boundary.

The U.S. Fish and Wildlife Service Alternative meets the purpose and need as it is consistent with the Eagle Act and its regulations and adequately addresses the risk of take at the Project.

## **Bald Eagles**

Take of bald eagles is not expected to occur at this Project and take of bald eagles would not be permitted. Bald eagles in the region may benefit from avoidance and minimization measures established to reduce the risk to golden eagles. Bald eagles may also benefit from compensatory mitigation actions provided to offset the take of golden eagles under the U.S. Fish and Wildlife Service Alternative.

## **Migratory Birds**

Effects to migratory birds have been analyzed in the PEIS (USFWS 2016a), and those analyses are incorporated by reference here.

## **Species Listed under the Endangered Species Act**

Although no federally threatened or endangered species or potential habitat have been identified within the Mine area, previous NEPA for the Project analyzed and addressed any potential impacts to these species and their habitat (BLM 1994, 2016, 2019).

## 4.2.2 Cumulative Effects

Cumulative effects of the U.S. Fish and Wildlife Service Alternative would be similar to those described for the Applicant Alternative but would be slightly greater with the potential for up to five years of additional loss of productivity from one territory.

In years when the additional take is utilized (up to five total years), permitted take from past, present, and foreseeable future projects combined with unpermitted take would total 12.96 eagles per year, or 1.64 percent of the LAP (**Appendix C**). If this permit were issued, cumulative take would be below the allowable five percent benchmark (39.35 eagles) for the LAP, and therefore would not significantly impact the LAP. Additionally, the loss of productivity authorized by this permit-application 20776D (if issued) would be fully offset by the compensatory mitigation that would be provided by the permit holder.

In years when the additional loss of productivity is not utilized, cumulative take would be the same as described for the Applicant Alternative (**Appendix B**).

## 4.3 No Action Alternative

## 4.3.1 Direct and Indirect Effects

Even though the Service would take no action on the permit application under the No Action Alternative, the Project would likely continue to operate without authorization for take of eagles. Should take of eagles occur under the No Action Alternative, the Applicant would be in violation of the Eagle Act. Under this alternative, direct impacts of the Project on the golden eagle population are anticipated to be removal of four golden eagle nests, constituting one golden eagle territory. This take would not be offset by compensatory mitigation; therefore, the risk to eagles is expected to be higher under this alternative as compared to the Applicant Alternative and the U.S. Fish Wildlife Service Alternative.

This alternative does not meet the purpose and need for the action because, by regulation (50 CFR § 13.21), when in receipt of a completed application, the Service must either issue or deny a permit to the Applicant. The No Action Alternative also does not meet the purpose of and need for the action because it would result in adverse, unmitigated effects to golden eagles described above, effects that are not compatible with the preservation of golden eagles.

#### **Bald Eagles**

The Applicant did not apply for take authorization for bald eagles, nor is take of bald eagles expected to occur at this Project. However, under the No Action Alternative, benefits that bald eagles might also incur from minimization measures established under a golden eagle take permit to reduce the risk to golden eagles, as well as from compensatory mitigation actions provided to offset the take of golden eagles, would not occur.

## **Migratory Birds**

Any incidental benefits to migratory birds from minimization measures and compensatory mitigation required under an eagle take permit would not be realized under the No Action Alternative. RNMC would continue to implement EPMs to reduce potential impacts to migratory birds.

## **Species Listed under the Endangered Species Act**

Any potential incidental effects to federally threatened and endangered species from compensatory mitigation required under an eagle take permit would not be realized under the No Action Alternative (see **Section 3.4**).

## 4.4 <u>Comparison of Effects of Alternatives</u>

The main differences when comparing the Applicant Alternative and the U.S. Fish and Wildlife Service Alternative to the No Action Alternative are the compensatory mitigation requirements to offset the permitted take under the Applicant and U.S. Fish and Wildlife Service Alternatives and the level of concurrent and post-construction monitoring that would occur (**Table 4-1**). No compensatory mitigation would be required, and the level of golden eagle nest monitoring would be reduced under the No Action Alternative. The level of take is the same under the Applicant Alternative and No Action Alternative and greater under the U.S. Fish and Wildlife Service Alternative.

The Applicant Alternative and U.S. Fish and Wildlife Service Alternative are likely to have no significant impacts on golden eagles as there is no unmitigated take and they meet all regulatory requirements and meet the conservation standard set forth in the 2016 PEIS (USFWS 2016a).

**Table 4-1** Comparison of the Alternatives

|                               | Applicant Alternative – Issue<br>Permit  | U.S. Fish and Wildlife<br>Service Alternative –<br>Issue Permit  | No Action<br>Alternative                          |
|-------------------------------|--|--|---|
| Eagle Take Levels             | One territory over 30 years.   | One territory over 30 years and one additional territory for up to five years.   | One territory over 30 years.                      |
| Avoidance and<br>Minimization | RNMC has implemented several measures and would continue to implement the measures to minimize impacts to golden eagles at the Project including: vehicle speed limits; employee awareness/training programs; carcass management; construction of new power line per the APLIC guidance; chemical exposure management methods; and landfill management measures. | Same as detailed under the Applicant Alternative.  | Same as detailed under the Applicant Alternative. |
| Compensatory<br>Mitigation    | Retrofitting of power poles (1.2:1) to offset the loss of 6.49 golden eagles over the 30-year permit term.   | Retrofitting of power poles (1:1) and experimental research (0.2:1) to offset the loss of one golden eagle territory over the 30-year permit term and up to five years of annual loss of productivity for one territory. | None provided.                                    |

 Table 4-1
 Comparison of the Alternatives (cont.)

|   | Applicant Alternative – Issue<br>Permit   | U.S. Fish and Wildlife<br>Service Alternative –<br>Issue Permit   | No Action<br>Alternative  |
|---|---|---|---|
| Detection and<br>Reporting                    | RNMC would implement an eagle nest site reporting and detection system to ensure that environmental personnel adhere to the appropriate actions should a nest be identified.  | Would be the same as detailed under the Applicant Alternative.  | RNMC would continue to complete inspections/detection as required by their NDOW IAPPs.  |
| Unmitigated Eagle<br>Take                     | None.   | None.   | One golden eagle<br>territory over the 30-<br>year term of the<br>permit.   |
| Adaptive<br>Management                        | RNMC would coordinate with the Service regarding any concerning golden eagle activity, such as if any additional occupied golden eagle nests beyond what was identified in 2018 are identified within the Robinson Mine Plan boundary. RNMC would also review all future mine projects during the planning stage and identify potential risks these future projects may have on the area golden eagle population. | Would be the same as detailed under the Applicant Alternative.  | None.   |
| Data<br>Collection/Monitoring                 | RNMC would conduct a prenesting survey before March to determine breeding activity in the survey area. RNMC would also document any Project-related mortality, including monitoring the alignments of power lines for electrocuted birds within the Plan boundary, and monitoring hazardous waste-containing facilities for any failures of the mine's exclusion system until the end of mine life.               | Would be the same as detailed under the Applicant Alternative. The pre-nesting survey would determine if the additional take would be needed. | RNMC currently has a monitoring and reporting system for incidents related to wildlife mortality as part of the IAPPs, as required by the NDOW and would continue this monitoring and reporting system under the No Action Alternative. |
| Company Liability<br>for Eagle Take           | None.   | None.   | Yes.  |
| Meets Eagle Act<br>Regulatory<br>Requirements | Yes.  | Yes.  | No.   |

## 5.0 Mitigation

The Applicant Alternative and the U.S. Fish and Wildlife Service Alternative incorporates measures to minimize impacts to the maximum degree practicable, as required by regulation. To ensure that regional eagle populations are maintained consistent with the preservation standard, regulations require that any golden eagle take that cannot practicably be avoided and is above EMU take limits must be offset by compensatory mitigation at a 1.2 to 1 ratio. As golden eagle take limits for all EMUs were determined to be zero (USFWS 2016a), compensatory mitigation is necessary to offset any authorized take of golden eagles. **Section 4.1** and **4.2** provides details of the compensatory mitigation measures that would be completed under the Applicant Alternative and the U.S. Fish and Wildlife Service Alternative, respectively.

## 6.0 List of Preparers and Reviewers

- Stephen Fettig, Project Manager, U.S. Fish and Wildlife Service
- Kim Carter, NEPA Specialist, Stantec Consulting Services Inc.
- Jason Trook, GIS Specialist, Stantec Consulting Services Inc.
- Dulcy Engelmeier, Technical Editor, Stantec Consulting Services Inc.

## 7.0 References

- 16 United States Code (U.S.C.) § 668. Title 16 Conservation; Chapter 5a Protection and Conservation of Wildlife; Subchapter II Protection of Bald and Golden Eagles; Section (§) 668 Bald and Golden Eagles. Available online: <a href="http://uscode.house.gov">http://uscode.house.gov</a>
- 40 Code of Federal Regulations (CFR) § 1508.27. Title 40 Protection of Environment; Chapter V Council on Environmental Quality; Part 1508 Terminology and Index; Section (§) 1508.27 Significantly. Available online: <a href="https://www.ecfr.gov">https://www.ecfr.gov</a>
- 42 United States Code (U.S.C.) §§ 4321-4347. Title 42 the Public Health and Welfare; Chapter 55 National Environmental Policy; Subchapters I (Policies and Goals) and II (Council on Environmental Quality); Sections (§§) 4321-4347. Available online: <a href="http://uscode.house.gov">http://uscode.house.gov</a>
- 43 Code of Federal Regulations (CFR) 46. 2008. Title 43 Public Lands: Interior; Part 46 Implementation of the National Environmental Policy Act of 1969. 43 CFR 46. [73 Federal Register (FR) 61314, October 15, 2008, unless otherwise noted.]. Available online: <a href="http://www.gpo.gov/fdsys/pkg/CFR-2011-title43-vol1/pdf/CFR-2011-title43-vol1-part46.pdf">http://www.gpo.gov/fdsys/pkg/CFR-2011-title43-vol1/pdf/CFR-2011-title43-vol1-part46.pdf</a>
- 50 Code of Federal Regulations (CFR) § 13.21. Title 50 Wildlife and Fisheries; Chapter I United States Fish and Wildlife Service, Department of the Interior; Subchapter B Taking, Possession, Transportation, Sale, Purchase, Barter, Exportation, and Importation of Wildlife and Plants; Part 13 General Permit Procedures; Section (§) 13.21 Issuance of permits. Available online: <a href="https://www.ecfr.gov">https://www.ecfr.gov</a>
- 50 Code of Federal Regulations (CFR) § 22. Title 50 Wildlife and Fisheries; Chapter I United States Fish and Wildlife Service, Department of the Interior; Subchapter B Taking, Possession, Transportation, Sale, Purchase, Barter, Exportation, and Importation of Wildlife and Plants; Part 22 Eagle Permits. Available online: <a href="https://www.ecfr.gov">https://www.ecfr.gov</a>
- 81 Federal Register (FR) 91494. 2016. Eagle Permits; Revisions to Regulations for Eagle Incidental Take and Take of Eagle Nests. Vol. 81, No. 242. December 16, 2016. pp 91494-91554. Available online: <a href="https://www.federalregister.gov/">https://www.federalregister.gov/</a>
- Bureau of Land Management (BLM). 1994. Final Environmental Impact Statement. Robinson Project. U.S. Department of the Interior. Bureau of Land Management. Ely District Office, Nevada. September 1994.
- Bureau of Land Management (BLM). 2016. Final Environmental Assessment. Robinson Mine Expansion Project. U.S. Department of the Interior. Bureau of Land Management. Ely District Office, Nevada. December 2016.
- Bureau of Land Management (BLM). 2019. Final Environmental Assessment. Keystone Overdumping Amendment. U.S. Department of the Interior. Bureau of Land Management. Bristlecone Field Office, Nevada. January 2019.

- MacColl, E., K. Vanesky, J.A. Buck, B.M. Dudek, C.A. Eagles-Smith, J.A. Heath, G. Herring, C. Vennum, and C.J. Downs. 2017. Correlates of Immune Defenses in Golden Eagle Nestlings. JEZ-A: Ecological and Integrative Physiology. 327(5), 243-253.
- Kochert, M.N., K. Steenhof, C. Pozzanghera and J.A. Heath. 2018. Monitoring of Golden Eagle Nesting Territory Occupancy and Reproduction in the Morley Nelson Snake River Birds of Prey National Conservation Area, Owyhee Survey Area, and Comparison Survey Areas, Idaho. 2011-16: U.S. Geological Survey Administrative Report, 22 p.
- United States Fish and Wildlife Service (USFWS). 2013. Eagle Conservation Plan Guidance. Module 1 Land-based Wind Energy, Version 2. 103pp.
- United States Fish and Wildlife Service (USFWS). 2016a. Programmatic Environmental Impact Statement for the Eagle Rule Revision. United States Department of the Interior Fish and Wildlife Service. December 2016.
- United States Fish and Wildlife Service (USFWS). 2016b. Bald and Golden Eagles. Population Demographics and Estimation of Sustainable Take in the United States, 2016 Update. United States Department of the Interior Fish and Wildlife Service. April 2016.
- United States Fish and Wildlife Service (USFWS). 2016c. Eagle Permits; Revisions to Regulations for Eagle Incidental Take and Take of Eagle Nests. Action: Final rule. 50 CFR Parts 13 and 22. December 16, 2016.
- United States Fish and Wildlife Service (USFWS). 2018. Golden Eagle (GOEA) Resource Equivalency Analysis: A Mitigation Framework for Permitted Takes of Golden Eagle Disturbance at Nests. Version Date: October 22, 2018.

# **APPENDIX A**

# **Eagle Nest Decision Flowchart for Robinson Mine**

New, Unexpected Golden Eagle Nest Found in Project Area

# Appendix A: Eagle Nest Decision Flowchart for Robinson Mine

## **Introduction:**

For Robinson Mine, the current application is for removal of four GOEA nests with the permanent loss of one territory (Liberty Pit Territory). A second GOEA territory has three nests and is approximately 4 miles to the east (Saxton Peak Territory).

## Issue / problem:

During the 30-year life of the permit, it is likely that GOEA will build new nests in unforeseeable locations within the Project Area (i.e., Plan of Operations Boundary). The mine will have to determine how to appropriately deal with these new nests.

## **Objective:**

Show the decision process for removing (or not removing) new nests. This decision process is part of the Service's NEPA analysis of impacts.



Five years of disturbance (sequential or otherwise) at one additional territory is covered under the USFWS Alternative. A new permit application is required, for disturbance take exceeding these five seasons.

Does on-the-ground monitoring document >1 GOEA territory within the Project Area?

No No application required. This new application would not be covered by the pending 2020 EA.

Apply for a modification (amendment) to the

existing permit for removal of the new nest when

not in use. This modification would be covered

by the pending 2020 EA.

## Key:

Questions in dark blue
No action decisions in green
New Permit application needed in yellow
Amendment application needed in robin-egg blue

# **APPENDIX B**

# Local Area Population Analysis Results for Applicant Alternative

# Appendix B. Results of the Golden Eagle Local Area Population (LAP) Analysis for Applicant Alternative for Robinson Mine Nest Disturbance Application 20776D.

### **Focal Project: Robinson Mine**

| Predicted Eagle Take (Annual) | 0.59 |
|-------------------------------|------|
|-------------------------------|------|

### Local Area Population (LAP) Estimates by Local Area Density Unit (LADU):

| Focal Project Density Unit Estimated Number of E |        |
|--|--------|
| Robinson Mine – Great Basin                      | 787.07 |
| Robinson Mine LAP (total)                        | 787.07 |
| 5% LAP Benchmark                                 | 39.35  |

### **Permitted Projects with Overlapping LAPs:**

| Project ID           | Estimated<br>Annual Take | % Overlap<br>with Focal<br>Project | Acres of Overlap | Amount of<br>Overlapping<br>Take |
|----------------------|--------------------------|------------------------------------|------------------|----------------------------------|
| Project 41502C       | 0.59                     | 4.51%                              | 1681.37          | 0.03                             |
| Project 41502C       | 0.59                     | 4.47%                              | 1667.98          | 0.03                             |
| Project 41502C       | 0.59                     | 4.49%                              | 1673.21          | 0.03                             |
| All Projects (Total) | 1.77                     | _                                  |                  | 0.09                             |

### Pending (Reasonably Foreseeable) Eagle Permit Applications in the LAP:

| Pending Project ID           | Estimated<br>Annual Take | Percent Overlap<br>with Focal<br>Project | Overlapping Area (Square Miles) | Amount of<br>Overlapping<br>Take |
|------------------------------|--------------------------|--|---------------------------------|----------------------------------|
| Project 75100D               | 1.77                     | 33.38%                                   | 12449.57                        | 0.59                             |
| Project 75819D               | 1.77                     | 41.61%                                   | 15518.87                        | 0.74                             |
| Pending Applications (Total) | 3.54                     |  |                                 | 1.33                             |

### **Known Unpermitted Take Summary**

| Golden Eagle Mortality Cause                             | Number of Eagles | Reported Years |  |
|--|------------------|----------------|--|
| Collision  | 1                | 2012-2012      |  |
| Collision with Vehicle                                   | 6                | 2002-2019      |  |
| Collision with Wind Turbine                              | 9                | 2012-2015      |  |
| Collision with Wire                                      | 2                | 2016-2018      |  |
| Collision/Electrocution                                  | 2                | 2018-2020      |  |
| Electrocution  | 63               | 2002-2020      |  |
| Shot   | 7                | 2007-2020      |  |
| Trauma   | 17               | 2013-2017      |  |
| Trauma: Poisoned (Pesticide)                             | 2                | 2014-2015      |  |
| Trauma: Trapped  | 1                | 2003-2003      |  |
| Unknown  | 13               | 2012-2018      |  |
| Total Unpermitted Take = 123 golden eagles over 19 years |                  |                |  |
|  |                  |                |  |

**Annual Average Unpermitted Take** = 123 golden eagles over 19 years **Annual Average Unpermitted Take** = 6.47 golden eagles/year

### Summary of Permitted and Unpermitted Take in the LAP

| Cumulative Take Results        | Number of Eagles<br>(Annual) | Percent of LAP |
|--------------------------------|------------------------------|----------------|
| Permitted Take                 |                              |                |
| Total Overlapping Take         | 1.77                         | 0.22%          |
| Focal Project Predicted Take   | 0.59                         | 0.075%         |
| Pending Applications           | 3.54                         | 0.45%          |
| Unpermitted Take               | 6.47                         | 0.82%          |
| Total Take                     | 12.37                        | 1.57%          |
| LAP Benchmark (for comparison) | 39.35                        | 5.0%           |

### **APPENDIX C**

## Local Area Population Analysis Results for the U.S. Fish and Wildlife Service Alternative

## Appendix C. Results of the Golden Eagle Local Area Population (LAP) Analysis for U.S. Fish and Wildlife Service Alternative for Robinson Mine Nest Disturbance Application 20776D.

### **Focal Project: Robinson Mine**

| Predicted Eagle Take (Annual) | 1.18 |
|-------------------------------|------|
|-------------------------------|------|

### Local Area Population (LAP) Estimates by Local Area Density Unit (LADU):

| Focal Project Density Unit  | Estimated Number of Eagles |
|-----------------------------|----------------------------|
| Robinson Mine – Great Basin | 787.07                     |
| Robinson Mine LAP (total)   | 787.07                     |
| 5% LAP Benchmark            | 39.35                      |

### **Permitted Projects with Overlapping LAPs:**

| Project ID           | Estimated<br>Annual Take | % Overlap<br>with Focal<br>Project | Acres of Overlap | Amount of<br>Overlapping<br>Take |
|----------------------|--------------------------|------------------------------------|------------------|----------------------------------|
| Project 41502C       | 0.59                     | 4.51%                              | 1681.37          | 0.03                             |
| Project 41502C       | 0.59                     | 4.47%                              | 1667.98          | 0.03                             |
| Project 41502C       | 0.59                     | 4.49%                              | 1673.21          | 0.03                             |
| All Projects (Total) | 1.77                     |                                    |                  | 0.09                             |

### Pending (Reasonably Foreseeable) Eagle Permit Applications in the LAP:

| Pending Project ID           | Estimated<br>Annual Take | Percent Overlap<br>with Focal<br>Project | Overlapping Area<br>(Square Miles) | Amount of<br>Overlapping<br>Take |
|------------------------------|--------------------------|--|------------------------------------|----------------------------------|
| Project 75100D               | 1.77                     | 33.38%                                   | 12449.57                           | 0.59                             |
| Project 75819D               | 1.77                     | 41.61%                                   | 15518.87                           | 0.74                             |
| Pending Applications (Total) | 3.54                     |  |                                    | 1.33                             |

### **Known Unpermitted Take Summary**

| Golden Eagle Mortality Cause                                 | Number of Eagles | Reported Years |  |
|--|------------------|----------------|--|
| Collision  | 1                | 2012-2012      |  |
| Collision with Vehicle                                       | 6                | 2002-2019      |  |
| Collision with Wind Turbine                                  | 9                | 2012-2015      |  |
| Collision with Wire  | 2                | 2016-2018      |  |
| Collision/Electrocution                                      | 2                | 2018-2020      |  |
| Electrocution  | 63               | 2002-2020      |  |
| Shot   | 7                | 2007-2020      |  |
| Trauma   | 17               | 2013-2017      |  |
| Trauma: Poisoned (Pesticide)                                 | 2                | 2014-2015      |  |
| Trauma: Trapped  | 1                | 2003-2003      |  |
| Unknown  | 13               | 2012-2018      |  |
| Total Unpermitted Take = 123 golden eagles over 19 years     |                  |                |  |
| Annual Average University of Take - C 47 golden cogles (veer |                  |                |  |

**Annual Average Unpermitted Take** = 6.47 golden eagles/year

### Summary of Permitted and Unpermitted Take in the LAP

| Cumulative Take Results        | Number of Eagles<br>(Annual) | Percent of LAP |
|--------------------------------|------------------------------|----------------|
| Permitted Take                 |                              |                |
| Total Overlapping Take         | 1.77                         | 0.22%          |
| Focal Project Predicted Take*  | 1.18                         | 0.15%          |
| Pending Applications           | 3.54                         | 0.45%          |
| Unpermitted Take               | 6.47                         | 0.82%          |
| Total Take                     | 12.96                        | 1.64%          |
| LAP Benchmark (for comparison) | 39.35                        | 5.0%           |

<sup>\*</sup>In years when the additional territory loss is utilized (up to five total years over the life of the permit).



U.S. Fish and Wildlife Service

### Finding of No Significant Impact

for the Issuance of an Eagle Take Permit for Robinson Mine

### Nevada

### Prepared by:

U.S. Fish and Wildlife Service, California-Great Basin Region Division of Migratory Bird Management U.S. Department of the Interior 2800 Cottage Way, W-2606, Sacramento, CA 95825 Contact: <fw8\_eaglepermits@fws.gov>, 916-414-6509

February 2021

### Introduction

The U.S. Fish and Wildlife Service (Service) received an application from Robinson Nevada Mining Company (Applicant) requesting eagle take coverage under the Bald and Golden Eagle Protection Act (Eagle Act) (16 United States Code [U.S.C.] §§ 668–668d and 50 Code of Federal Regulations [CFR] § 22.26) for incidental take of eagles at the Robinson Mine (Project). The Project is an expansion of the Liberty Pit to mine a mineral resource. Within the Liberty Pit expansion area, four nests (LP-01-A, LP-02-A, LP-03-A, and LP-04-A) are located on manmade features (i.e., existing pit highwalls) that would be excavated for minerals extraction. The Project is located approximately seven miles west of Ely, Nevada in White Pine County. The Applicant requested a 30-year incidental eagle take permit (permit) for the reoccurring loss of breeding productivity at one golden eagle (Aquila chrysaetos) territory in the vicinity of the Project. Issuance of a permit by the Service for take that is incidental to otherwise lawful activities under the Eagle Act constitutes a discretionary Federal action that is subject to the National Environmental Policy Act (NEPA; 42 U.S.C. §§ 4321–4347). In accordance with the NEPA, we prepared an Environmental Assessment (EA) analyzing the environmental consequences of issuing a permit for the take of golden eagles associated with the Project, as well as two alternatives to this proposed action. This EA assists the Service in ensuring compliance with the NEPA and in making a determination as to whether any "significant" impacts to the environment not previously analyzed under the Service's Programmatic Environmental Impact Statement for the Eagle Rule Revision, December 2016 (USFWS 2016a) could result from the analyzed actions, which would require preparation of an Environmental Impact Statement (EIS). "Significance" under NEPA is addressed by regulation 40 CFR § 1508.27, and requires short- and long-term consideration of both the context of a proposal and its intensity.

The Service's purpose in considering the proposed action of issuing an eagle incidental take permit is to fulfill our authority under the Eagle Act (16 U.S.C. §§ 668–668e) and its regulations (50 CFR § 22). Applicants, whose otherwise lawful activities may result in take of eagles, can apply for eagle incidental take permits so that their projects may proceed without potential violations of the Eagle Act. The Service may issue eagle take permits for eagle take that is associated with, but not the purpose of, an activity. Such permits can be issued by the Service when the take that is authorized is compatible with the Eagle Act preservation standard; it is necessary to protect an interest in a particular locality; and it is associated with, but not the purpose of, the activity; and it cannot be practicably avoided (50 CFR §§ 22 and 81 Federal Register 91494).

The need for this federal action is a decision on an eagle incidental take permit application from Robinson Nevada Mining Company that is in compliance with all applicable regulatory requirements set forth under the Eagle Act in 50 CFR § 22.

### Alternatives Considered

In the EA, the Service fully analyzed three potential alternatives, summarized below, to respond to the Applicant's request for an incidental eagle take permit.

### **Applicant Alternative**

Under the Applicant Alternative, the Service proposes to issue a 30-year incidental eagle take permit, with associated conditions, to Robinson Nevada Mining Company for reoccurring loss of annual productivity from one golden eagle territory equating to 6.49 young fledged estimated lost from the eagle population. The permit would require implementation of all conservation measures and commitments described in the Applicant's submitted permit application.

### U.S. Fish and Wildlife Service Alternative

Under the U.S. Fish and Wildlife Service Alternative, the Service proposes to issue a 30-year incidental eagle take permit, with associated conditions, to Robinson Nevada Mining Company for reoccurring loss of annual productivity from one golden eagle territory equating to 6.49 young fledged estimated lost from the eagle population and up to five years of reoccurring loss of annual productivity to one golden eagle territory from disturbance, equating to 2.95 young fledged estimated lost from the eagle population. The permit would require implementation of all conservation measures and commitments described in the Applicant's submitted permit application.

### No Action Alternative

Under the No-Action Alternative, the Service would take no further action on Robinson Nevada Mining Company's eagle take permit application.

### **Public Comment and Tribal Coordination**

The Service published both the EA on the Service's Pacific Southwest Region webpage<sup>1</sup> for a 30-day public comment period from December 5, 2020 to January 4, 2021.

The Service sent two letters to each of five (5) federally-recognized tribal governments located within the vicinity of the Project, informing them of the application and inviting them to contact the Service if they wish to consult on this permit request. The Service sent a second letter to inform Tribes that the EA and draft Finding of No Significant Impact are available, and encouraged and welcomed comments during the 30-day public review and comment period on the EA. The USFWS received no public or tribal comments.

FINDING OF NO SIGNIFICANT IMPACT

<sup>&</sup>lt;sup>1</sup> https://www.fws.gov/cno/conservation/MigratoryBirds/EaglePermits.html

### **Selected Alternatives**

Based on review of the analyses detailed in the EA, the Service would select either the Applicant Alternative or the U.S. Fish and Wildlife Alternative; the selected alternative will be discussed in the Decision Record. If the Applicant Alternative is selected, the Service would issue a 30-year incidental eagle take permit to Robinson Nevada Mining Company for reoccurring loss of annual productivity from one golden eagle territory. If the U.S. Fish and Wildlife Service Alternative is selected, the Service would issue a 30-year incidental eagle take permit to Robinson Nevada Mining Company for reoccurring loss of annual productivity from one golden eagle territory and up to five years of reoccurring loss of annual productivity for an additional golden eagle territory lost from the eagle population with the requirement to implement all conservation measures and commitments described in the EA.

Take of golden eagles would occur under all three alternatives; however, the Applicant Alternative and the U.S. Fish and Wildlife Service Alternative fully offset the take with required compensatory mitigation, which would not occur under the No Action Alternative.

The Applicant Alternative and the U.S. Fish and Wildlife Service Alternative are consistent with the purpose and need for this federal action and is in compliance with all statutory (16 U.S.C. § 668) and regulatory requirements (50 CFR § 22.26 and 50 CFR § 13.21), including the criteria codified for permit issuance (50 CFR § 22.26(f)).

### Significance Criteria

Regulations of the NEPA define significance criteria for consideration by federal agencies (40 CFR § 1508.27). Below, the Service examines these criteria for the Applicant Alternative and the U.S. Fish and Wildlife Service Alternative.

### **Context**

NEPA requires consideration of the significance of an action in several contexts, such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action. For instance, in the case of a site-specific action, significance would usually depend on the effects in the locale rather than in the world as a whole. Both short- and long-term effects are relevant in accordance with 40 CFR § 1508.27(a). For purposes of analyzing the alternatives, the appropriate context for potential impacts associated with the Project is local and regional because the Project does not affect statewide or national resource values. The context of the Applicant Alternative and the U.S. Fish and Wildlife Service Alternative points to no significant environmental impact considering the following (as discussed in the EA):

• The Applicant would offset golden eagle take through compensatory mitigation. This would ensure that the impacts of issuing an eagle take permit on the local and regional golden eagle populations would be less than significant.

- Bald eagles and migratory birds may benefit from reduced electrocution risk due to the mitigation (power pole retrofitting) provided under the eagle take permit.
- Authorizing incidental eagle take is not expected to have effects to species protected by
  the Endangered Species Act (ESA) at the Project facility. As described in the EA, the
  Service will evaluate the proposed mitigation site once the location is selected. The
  Service anticipates that adverse effects to species listed under the ESA would be
  avoidable, however if there is potential for impacts to species listed under the ESA, the
  Service would conduct an additional NEPA analysis.

### **Intensity**

The term "intensity" refers to the severity of a proposed action's impact on the environment. In determining the intensity of an impact, the NEPA regulations direct federal agencies to consider ten specific factors, each of which is discussed below in relation to the Applicant Alternative and the U.S. Fish and Wildlife Service Alternative for the Project.

1) Impacts can be both beneficial and adverse and a significant effect may exist regardless of the perceived balance of effects.

While consideration of the intensity of Project impacts must include analysis of both beneficial and adverse effects, only a significant adverse effect triggers the need to prepare an EIS (40 CFR § 1508.27). The potential beneficial effects and adverse impacts of the Applicant Alternative and the U.S. Fish and Wildlife Service Alternative are discussed briefly below.

**Beneficial Effects.** As described in the EA, the Applicant Alternative and the U.S. Fish and Wildlife Service Alternative include power pole retrofitting as mitigation for take of eagles. Such retrofits are anticipated to protect eagles from electrocution. Pole retrofits are also expected to benefit other raptors that may be susceptible to electrocution. For the Applicant Alternative, the number of retrofits to be done for mitigation was calculated at a 1.2:1 ratio; these avoided eagle electrocutions will more than offset Project-related take of eagles, thereby benefiting the eagle population as a whole. For the U.S. Fish and Wildlife Service Alternative, compensatory mitigation was calculated at a 1.2:1 ratio, with retrofits equating to 1:1 and experimental research equating to 0.2:1.

**Adverse Effects.** Adverse effects have been mitigated under the Applicant and U.S. Fish and Wildlife Service Alternative. Under the Applicant Alternative and the U.S. Fish and Wildlife Service Alternative, annual loss of productivity for one golden eagle territory would occur from the removal of four nests for the Liberty Pit expansion. Under the U.S. Fish and Wildlife Alternative, additional annual loss of productivity for one golden eagle territory could occur for up to five years.

2) The degree to which the selected alternative will affect public health or safety.

The Applicant Alternative and the U.S. Fish and Wildlife Service Alternative would include mitigating eagle take by retrofitting power poles to prevent eagle electrocutions. As eagle and other raptor electrocutions on power poles can start fires, decreasing eagle and other raptor electrocutions could benefit human safety by reducing fire risk.

3) Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wilderness, wild and scenic rivers, or ecologically critical areas.

The Service evaluated whether or not to issue an eagle take permit to the Applicant, therefore only potential impacts to eagles and effects of eagle take on cultural practices were considered in the EA analyses. Thus, the Service concluded issuing an eagle take permit for the Applicant Alternative or the U.S. Fish and Wildlife Service Alternative would not impact unique characteristics of the geographic area.

4) The degree to which the effects on the quality of the human environment are likely to be highly controversial.

No effects of the Applicant Alternative or the U.S. Fish and Wildlife Service Alternative were identified as highly controversial. As a factor for determining within the meaning of 40 CFR § 1508.27(b)(4) whether to prepare a detailed EIS, controversy is not equated with the existence of opposition to a use. The NEPA implementation regulations (43 CFR § 46.30) define controversial as "circumstances where a substantial dispute exists as to the environmental consequences of the proposed action and does not refer to the existence of opposition to a proposed action, the effect of which is relatively undisputed."

5) The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.

The Applicant provided information on the eagles in the Project vicinity, reducing uncertainty in understanding Project impacts to eagles. This surveying and monitoring provides certainty in the Service's assessment of the risk to eagles from the Project. Monitoring required under the Applicant Alternative and the U.S. Fish and Wildlife Service Alternative would also increase certainty in our assessment of the risks to eagles.

6) The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.

Issuance of an eagle take permit for the Project does not set precedent for, or automatically apply, to other eagle take permit applications the Service is reviewing or could review in the future. Each permit request will be evaluated on a case-by-case basis. Therefore, the selection of the Applicant Alternative or the U.S. Fish and Wildlife Service Alternative does not establish precedents for future actions or represent a decision in principle about a future action. Moreover, this Project would not limit the

Service's discretion when processing future eagle take permit applications under the Eagle Act's permitting regulations.

7) Whether the action is related to other actions with individually insignificant but cumulatively significant impacts--which include connected actions regardless of land ownership.

The EA analyzes cumulative effects on golden eagles as required by NEPA (40 CFR § 1508.8) and the Eagle Act's permitting regulations (50 CFR § 22). Under 50 CFR § 22.26, when reviewing a permit application, the Service is required to evaluate and consider effects of take permits on eagle populations at three scales: (1) the eagle management unit/bird conservation region, (2) local area, and (3) Project area. The EA considered cumulative effects. We incorporated data provided by the Applicant, our own data on permitted take and other documented eagle mortalities, and additional available information on population-limiting effects, in determining cumulative impacts to golden eagles. There are no significant adverse cumulative effects contributed under the Applicant Alternative or the U.S. Fish and Wildlife Service Alternative.

8. The degree to which the action may adversely affect districts, sites, highways, structures, or other objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.

Eagles and their feathers are revered and considered sacred in many Native American traditions. The Project, including the take of eagles, is not expected to interfere with cultural practices and ceremonies related to eagles or to affect Native Americans' ability to obtain or use eagle feathers. Moreover, eagle feathers that are found will be sent to our national eagle repository and, if in good condition, will be made available for these practices. Therefore, we do not anticipate any adverse effect on cultural practices.

9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973, or the degree to which the action may adversely affect a species proposed to be listed as endangered or threatened or proposed critical habitat.

Because the golden eagle is not a federally listed species, issuance of an eagle take permit would not adversely affect an endangered or threatened species or its habitat. While retrofitting power poles would likely benefit other raptor species, none of these species is protected under the ESA.

10. Whether the action threatens a violation of federal, state, or local law requirements imposed for the protection of the environment.

Neither the Applicant Alternative or the U.S. Fish and Wildlife Service Alternative would violate any federal, state, or local law.

### **Finding of No Significant Impact**

The Service's Migratory Bird Program concludes from the analysis conducted in the EA and the information provided above that neither the Applicant Alternative or the U.S. Fish and Wildlife Service Alternative would trigger significant impacts on the environment based on criteria established by regulations, policy, and analysis. Analyses of impacts were conducted at the Project, local, and regional scales, and direct, indirect, and cumulative effects were assessed. The Applicant Alternative or the U.S. Fish and Wildlife Service Alternative, unlike the No Action Alternative, is unlikely to have significant impacts on eagles because there is mitigated take of eagles, cumulative effects are addressed, and the Applicant Alternative and the U.S. Fish and Wildlife Service Alternative meets the Eagle Act's preservation standard (16 U.S.C. § 668a; 50 CFR § 22.3) and all regulatory requirements (50 CFR § 22.26).

Based on the findings discussed herein, we conclude that neither the Applicant Alternative or the U.S. Fish and Wildlife Service Alternative would be a major federal action and either would result in no significant impacts to the environment, individually or cumulatively with other actions in the general area. This determination is based on the rationale that the significance criteria, as defined by the Council on Environmental Quality (40 CFR § 1508.27) have not been met. "Significantly" as used in NEPA requires considerations of both context and intensity. No environmental effects meet the definition of significance in context or intensity as defined in 40 CFR § 1508.27. Therefore, preparation of an EIS to further analyze possible effects is not required pursuant to Section 102(2)(c) of NEPA, and our environmental review under NEPA is concluded with this finding of no significant impact. Our Decision regarding the issuance of this permit will be announced on the Service's Pacific Southwest Regional website at: http://www.fws.gov/cno/conservation/MigratoryBirds/EaglePermits.html.

Thomas Leeman
Deputy Chief, Migratory Bird Program
California-Great Basin Region
U.S. Fish and Wildlife Service