

From: [Amy Minor \(She/Her\)](#)
To: nmesfo@fws.gov
Cc: [Robert Sun](#); [Michelle Rome \(She/Her\)](#); [Jill Caverly](#)
Subject: NRC Request for Concurrence with Endangered Species Act Determinations for the Homestake Evapotranspiration Cover Project (Consultation Code: 2024-0058743)
Date: Wednesday, June 26, 2024 10:36:00 AM
Attachments: [Homestake IPaC Report ML24164A182.pdf](#)
[Homestake Reference List.pdf](#)
[Homestake ESA Determinations Table.pdf](#)



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

Dear New Mexico Ecological Services Field Office:

The purpose of this email is to notify you of the U.S. Nuclear Regulatory Commission (NRC) staff's determination that approval of the license amendment request (LAR) for Source Material License SUA-1471 for the Grants Reclamation Project (GRP) site in Cibola County, New Mexico, may affect but is not likely to adversely affect (NLAA) the Mexican wolf (*Canis lupus baileyi*), Mexican spotted owl (*Strix occidentalis lucida*), southwestern willow flycatcher (*Empidonax traillii extimus*), yellow-billed cuckoo (*Coccyzus americanus*), or the monarch butterfly (*Danaus plexippus*), and would have no effect on the pecos sunflower (*Helianthus paradoxus*) or the Zuni fleabane (*Erigeron rhizomatus*). This email describes the proposed action and summarizes the NRC staff's environmental review. This email also requests the U.S. Fish and Wildlife Service's (FWS) concurrence with the NRC staff's determinations pursuant to Section 7 of the Endangered Species Act of 1973, as amended (ESA).

Proposed Action

The NRC is reviewing the Homestake Mining Company's (HMC's) LAR that proposes a change to the cover on the top of the Large Tailings Pile (LTP). Specifically, HMC is seeking approval to replace the existing cover on the LTP with a revised evapotranspiration (ET) cover design and use material from the west borrow area. The licensee's submittal includes a Design Report and an Environmental Report (ER) and has proposed changes to license conditions 36A(3), 36B(1) and 37A (HMC 2023a) (Agencywide Documents Access and Management System (ADAMS) Accession No. [ML23222A171](#) package). The proposed action would be completed within a six-month period.

The LTP presently covers approximately 68.8 hectares (ha) (170 acres [ac]) and is approximately 30.5 meters (m) (100 feet [ft]) high (HMC 2023b). HMC proposes to install an ET cover with a 0.9-m (3-ft) thick radon barrier, a 0.9-m (3-ft) layer of growth media, and a vegetated 0.23-m (1-ft) thick gravel and organic matter erosion protection layer on the LTP surface (HMC 2023a). Soil and rock needed for the proposed LTP ET cover would be obtained from the north and west borrow areas, which are on land owned by HMC but are outside of the NRC-licensed boundary (figure 1). Excavation of the borrow areas would not exceed a depth of 3 m (10 ft) below ground surface. Excavated soil and rock would be sorted and stockpiled adjacent to each borrow area. Borrow and stockpile areas contain native vegetation on the ground surface, which would be cleared of brush, grass, woody stumps, and other debris prior to excavation. The topsoil in the borrow areas would be

stripped for later use in reclamation of the borrow areas. The rock needed for the erosion protection layer would be obtained from the rock stockpile located west of the LTP (figure 1).

HCM would construct temporary unpaved haul roads that would lead from the north and west borrow areas and from the rock stockpile to the LTP (figure 1). HMC would use 35-ton articulated haul trucks to move soil and rock between the borrow areas, the rock stockpile, and the LTP. HMC estimates that there would be 38 round trips each day during daylight hours for three months between the borrow areas and the LTP.

Once the borrow areas and haul roads are no longer needed to move soil and rock to the LTP, disturbed areas would be regraded, amended with compost 7.6 cm (3 in) deep, and reseeded with an approved seed mixture identified in the revegetation plan. The seeding season would be either March 1 to April 30 or October 1 to November 30. The estimated area of land disturbance under the proposed action not including the surface of the 68.8-ha (170-ac) LTP would be in the north and west borrow areas and stockpile areas (80 ha [198 ac]), the rock stockpile located west of the LTP (4 ha [10 ac]), and temporary haul roads from the borrow areas to the LTP (3.3 ha [8.3 ac]) (figure 1).

The revegetation plan and monitoring protocol for the ET cover are provided as part of HMC's submittal (HMC 2023a). The revegetation framework follows the Uranium Mill Tailings Radiation Control Act guidance from the Department of Energy (DOE) including appropriate overburden amendments, monitoring schedule, and success criteria.

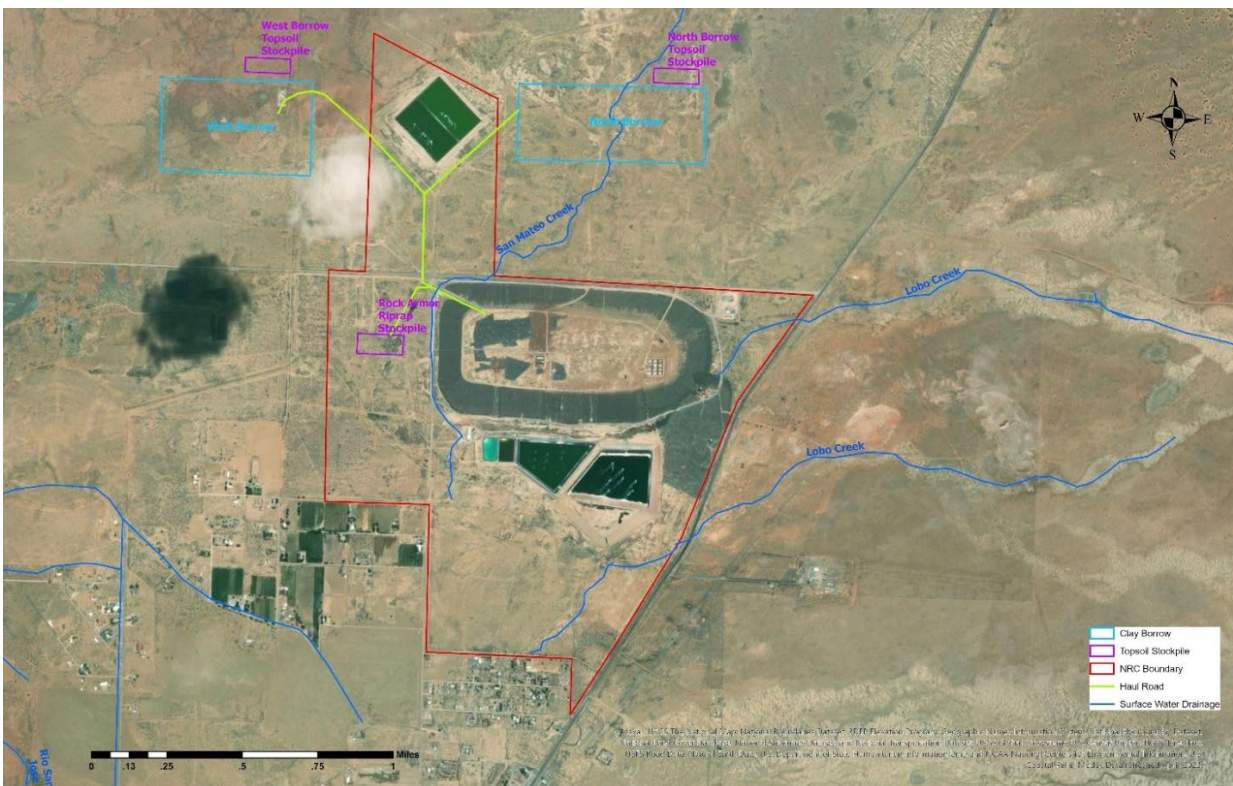


Figure 1 Proposed Action - Evapotranspiration Cover Project (HMC 2023a)

Environmental Assessment

In support of its review of the proposed action, the NRC staff is preparing an environmental assessment (EA) to comply with the National Environmental Policy Act of 1969, as amended

(NEPA), and the NRC's environmental regulations at 10 CFR Part 51 that implement NEPA. The draft EA addresses the environmental impacts of the proposed action and relevant alternatives to the proposed action. Once completed, the NRC will make the final EA publicly available online and will notice it in the *Federal Register*. The NRC anticipates issuing the final EA in October 2024.

Description of the GRP Site and Action Area

GRP Site

HMC operated the GRP site uranium milling operation from 1958 through 1990 under U.S. NRC Materials License SUA-1471. Located approximately 9 kilometers (km) [5.5 miles (mi)] north of the city of Grants and the village of Milan, New Mexico, the NRC-licensed boundary of the site encloses about 439 hectares (ha) [1,085 acres(ac)]. The GRP site processed ore from several local mines. Following extraction of the uranium, the tailings were discharged to two unlined tailings impoundments, the LTP and the small tailings pile.

Since 1990, the site has been in reclamation. Reclamation includes facility decommissioning, tailings impoundment area restoration, groundwater restoration and monitoring, and post-closure care and monitoring. To mitigate the impacts of seepage into the underlying aquifer from the unlined tailing impoundments, groundwater remediation is being conducted. HMC currently manages a groundwater Corrective Action Program (CAP), as defined by NRC License SUA-1471 and New Mexico Environment Department (NMED) Discharge Plan (DP), DP-200 (HMC 2023b). The CAP is a dynamic ongoing strategy that began in 1977 and was incorporated into the HMC license in 1988 as LC 35. The current groundwater restoration program is also under the oversight of the U.S. Environmental Protection Agency, Region VI Superfund Program. Under the CAP, HMC is restoring concentrations of constituents of concern (COCs) to levels that meet the accepted groundwater site standards for each COC in each aquifer, as required by the NRC license and the NMED DP (HMC 2023b).

Much of the GRP site has been disturbed over the last 50 years from uranium milling activities and the creation of tailings piles, evaporation and settling ponds, and groundwater restoration and monitoring activities. HMC states in the LAR (HMC 2023a) that in 1995 much of the GRP site was bladed and reseeded with a seed mixture consisting of western wheatgrass (*Pascopyrum smithii*), blue grama (*Bouteloua gracilis*), sand dropseed (*Sporobolus cryptandrus*), Indian ricegrass (*Achnatherum hymenoides*), alkali sacaton (*Sporobolus airoides*), and fourwing saltbush (*Atriplex canescens*). Other common plant species found within the GRP site include kochia (*Kochia* spp.), bottlebrush squirreltail (*Elymus elymoides*), Russian thistle (*Salsola tragus*), broom snakeweed (*Gutierrezia sarothrae*), three-awn (*Aristida* spp.), spike dropseed (*Sporobolus contractus*), galleta grasses (*Pleuraphis* spp.), greasewood (*Sarcobatus vermiculatus*), sand sage (*Artemisia filifolia*), and narrowleaf yucca (*Yucca angustissima*). Limited areas of saltcedar (*Tamarix ramosissima*) are present along the ephemeral San Mateo Creek.

Action Area

For the purposes of assessing the potential impacts of the proposed action on federally listed species, the NRC staff considers the action area to consist of the LTP, temporary haul roads, north and west borrow areas, the rock stockpile, and immediately adjacent lands to these features that could experience indirect effects such as dust and noise during the proposed action (figure 1). The action area effectively bounds the analysis of federally listed

species and critical habitats because only species and habitats that occur within the action area may be affected by the Federal action.

Below provides a general description of the terrestrial and aquatic resources that occur within the action area and an overview of best management practices and other proposed mitigations. The impact assessment for the seven species listed or proposed for listing under the ESA can be found in the enclosed table.

Terrestrial Resources

HMC's LAR states that the north borrow area and rock stockpile have been previously disturbed, but that the west borrow area and proposed temporary haul roads have not been previously disturbed (HMC 2023a). Excavation of the borrow areas would not exceed a depth of 3 m (10 ft) below ground surface. Once the borrow areas and haul roads are no longer needed to move soil and rock to the LTP, disturbed areas would be amended with compost and reseeded with an approved seed mixture identified in the revegetation plan (HMC 2023a). The LTP ET cover revegetation plan follows the Uranium Mill Tailings Radiation Control Act guidance from the Department of Energy (DOE).

Dust generation from LTP replacement activities and associated increased truck traffic would last a few months and would be a temporary adverse impact to wildlife. In addition to the described reseeded and revegetation plan, HMC would use best management practices (BMPs) to abate dust (HMC 2023a). These BMPs include:

- Using water or other approved dust control agents
- Enforcing speed limits on haul roads
- Placing aggregate on haul roads
- Developing an action plan to limit or modify borrow and hauling operations during high wind events
- Limiting borrow and haul activities to normal working hours (i.e. no night shifts)
- Sequence excavation and stockpiling activities to minimize wind erosion

These mitigation measures would limit fugitive dust that may settle on vegetation, which would otherwise render it undesirable to animals. These measures also would minimize erosion, runoff, and fugitive dust and prevent adverse impacts to terrestrial habitats. Indirect impacts from dust would be temporary and mitigated and not significant.

No perennial surface water is present at the action area although some surface water flows in channels after storm events. Although the San Mateo Creek drainage bisects the north borrow area, BMPs (e.g., diversion ditches, terraces, cofferdams, and berms) as part of a Storm Water Pollution Prevention Plan would be utilized to limit erosion and impacts to surface water during excavation and construction (HMC 2023a). Haul roads constructed in drainageways would have cross drainage such as ditches, structures, and culverts to minimize erosion (HMC 2023a). Concentrated water discharges would be directed into water courses that are stable or piped to stable outfall locations. These measures would minimize erosion and runoff and limit adverse impacts to terrestrial habitats.

Aquatic Resources

Potential for aquatic habitat in the project area occurs in San Mateo Creek. However, San Mateo Creek is an ephemeral arroyo and flows only after heavy precipitation events and cannot support aquatic habitat or species. The San Mateo Creek drainage enters the GRP

from the north and is diverted to the west by a channel created to and around the LTP (HMC 2023a). Aquatic or diverse riparian habitat and aquatic species are not present in the proposed project area, and there would be no effect to downstream aquatic resources from the LTP cover project.

ESA NLAA and No Effect Determinations

As part of its environmental review, the NRC staff evaluated impacts of the proposed action on federally listed species and critical habitats. The attached table displays the NRC staff's ESA findings for each federally listed species in the action area. No proposed or critical habitat occurs in the action area and therefore is not described in the attached table.

Request for Concurrence

The NRC staff requests your written concurrence with its NLAA determinations for the species identified in the attached table in accordance with 50 CFR 402.13(c) within 60 days. Please provide your response electronically to the following email addresses:

EndangeredSpecies@nrc.gov, Amy Minor at Amy.Hesterman@nrc.gov, and Jill Caverly at Jill.Caverly@nrc.gov.

Conclusion

Should you need to discuss the information in this email or if you require additional information concerning this project, please reach out to Amy Minor at Amy.Hesterman@nrc.gov.

Thank you,

Amy

Amy Minor

Environmental Project Manager
U.S. Nuclear Regulatory Commission
Phone: 817-200-1454

IPaC Consultation Code: 2024-0058743 (ADAMS No. ML24164A182)
Docket No.: 40-08903

CONCURRENCE					
OFFICE	PM:EPMB2:REFS	PM:EPMB2:REFS	BC:ETRB1:REFS	OGC(NLO)	BC:EPMB2:REFS
NAME	JCaverly	AHesterMinor	MRome	PJehle	RSun
DATE	6/24/2024	6/25/2024	6/25/2024	6/14/2024	6/25/2024
OFFICIAL RECORD COPY					

Homestake Evapotranspiration Cover License Amendment Request

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50 CFR Part 402, Subpart B. *Code of Federal Regulations*, Title 50, *Wildlife and Fisheries*, Part 402, "Domestic Licensing of Production and Utilization Facilities," Subpart B, Interagency Cooperation—Endangered Species Act of 1973, as Amended. Joint Regulations (United States Fish and Wildlife Service, Department of the Interior and National Marine Fisheries Service, National Oceanic and Atmospheric Administration, Department of Commerce); Endangered Species Committee Regulations. Washington, D.C.: U.S. Government Printing Office.

HMC (Homestake Mining Company). 2023a. "Homestake Mining Company of California – Grants Reclamation Project – Request for Amendment to License No. SUA-1471 for the Large Tailings Pile Evapotranspiration Cover Design." Grants, New Mexico: Homestake Mining Company. ADAMS No. [ML23222A171](#) package.

HMC (Homestake Mining Company of California and Hydro-Engineering, LLC [HMC and Hydro-Engineering]). 2023b. "2022 Annual Monitoring Report / Performance Review, In Accordance with Nuclear Regulatory Commission Docket No. 40-8903, License No. SUA-1471, and New Mexico Environment Department DP-200 Ground Water Discharge Plan." ADAMS No. [ML23095A166](#).

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Species	Federal Status ^(a)	Determination
FWS Jurisdiction		
<p style="text-align: center;">Mexican wolf (<i>Canis lupus baileyi</i>)</p>	<p style="text-align: center;">FE</p>	<p>May Affect But Is Not Likely to Adversely Affect (NLAA). The primary threats to this species include human-caused mortality, extinction risk due to small population size, and genetic issues (FWS 2017). The action area is located approximately 8 kilometers (km) (5 miles [mi]) north of Interstate 40 and is not located within the Mexican Wolf Experimental Population Area (FWS 2022). Mexican wolves have not been observed in the action area or its vicinity. Earlier studies suggest that Mexican wolves were associated with montane woodlands characterized by sparsely to densely forested mountainous terrain and adjacent grasslands in habitats found at elevations from 1,219 to 1,524 meters (m) (4,500 to 5,000 feet [ft]) above sea level, and likely avoided semi-desert grasslands similar to those found in the action area that provide little cover, food, or water (Brown 1983). The New Mexico Department of Game and Fish (NMDFG) depicts that the nearest predicted habitat to the action area for this species is located over 8 km (5 mi) southwest of the GRP site (NMDGF 2024a). The large tailings pile covers approximately 68.8 hectares (ha) (170 acres [ac]) and covers more than half of the action area. The entire large tailings pile is enclosed by a fence that excludes livestock grazing that may attract wolves and would prevent wolves from entering most of the action area (HMC 2023). Literature indicates that the potential of a Mexican wolf entering the action area is very low because the site is located more than 88.5 km (55 mi) away from the closest pack’s home range (FWS 2022). However, wolves could potentially transit the perimeter of the GRP site when foraging or migrating. Wolves would most likely be attracted to the undeveloped evergreen forest that is located within 8 km (5 mi) of the action area. If Mexican wolves were to enter the action area, wolves could experience direct impacts during the proposed project from collisions with site vehicles or construction equipment. Collision hazards and increased noise disturbances would remain similar to the ongoing operation and maintenance activities at the site. HMC plans to maintain, modify, or use newer equipment to limit excessive operating noise (HMC 2023). Wolves may be attracted to the livestock that graze in the action area vicinity. The NRC staff determined that the Homestake ET cover project would not result in long-term behavioral changes in Mexican wolves that would be able to be meaningfully measured, detected, or evaluated, and therefore, would be discountable due to the unlikely occurrence within the action area and minimal direct or indirect impacts due to the current use as an industrial site. Therefore, the NRC staff concludes that the proposed action <i>may affect but is not likely to adversely affect</i> the Mexican wolf.</p>

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Species	Federal Status ^(a)	Determination
Mexican spotted owl (<i>Strix occidentalis lucida</i>)	FT	<p>NLAA. The primary threats to this species include deforestation from large scale wildland fires and timber-management practices (FWS 2024a). Mexican spotted owls have not been observed in the action area (HMC 2023). The NMDFG (2024b) indicated that the nearest predicted habitat to the action area for this species is located approximately 24 km (15 mi) east and west of the action area. Owls could potentially transit the action area when foraging or migrating or use an evaporation pond for drinking water. The primary concerns for this species related to the Homestake ET cover project would be indirect effects from increased noise, lights, and human disturbance. Other potential stressors that owls could experience during the proposed action include collisions with vehicles and equipment, and dispersion of prey species. Indirect impacts such as noise and human activity associated with the Homestake ET cover project would last no longer than six months and would remain similar to the ongoing operation and maintenance activities at the site. Collision hazards would remain similar to the ongoing operation and maintenance activities at the site, which have not resulted in any reported takes of this species. Shrubland areas are typically important communities that support prey base such as rodents and small mammals for predators. Planned disturbances in the action area vegetative community would diminish prey habitat value and could decrease available prey species. Other undeveloped higher-quality foraging habitat is located immediately to the northwest, north, and east of the action area. HMC's LAR provides a detailed revegetation plan and monitoring protocol for the disturbed areas that follows the Uranium Mill Tailings Radiation Control Act guidance from the Department of Energy (DOE) (HMC 2023). Revegetation activities could support some owl prey species within one year and NRC staff concludes that the reduction of prey species would not impact available foraging habitat for owls in the long-term because of the availability of nearby habitat, project activities would last less than 6 months, and the robust revegetation and monitoring plan. Thus, the NRC staff determined that the Homestake ET cover project would not result in long-term behavioral changes in owls that would be able to be meaningfully measured, detected, or evaluated. Therefore, any potential impacts would be minor and so discountable. The NRC staff concludes that the proposed action <i>may affect but is not likely to adversely affect</i> the Mexican spotted owl.</p>
southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	FE	<p>NLAA. The primary threats to this species include degradation of riparian areas from water diversion, livestock grazing, cowbird parasitism, and recreational development (USDA 2019). The southwestern willow flycatcher has not been observed in the action area (HMC 2023). Riparian habitats that support necessary nesting vegetation are not present in the action area. The New Mexico Department of Game and Fish (NMDFG) depicts that the nearest predicted habitat to the action area for this species is located along the Rio Grande River south of Albuquerque, New Mexico, approximately 112.6 km (70 mi) southeast of the GRP site (NMDGF 2024c). This species could potentially transit habitat within the action area when foraging or migrating (FWS 2024b). Suitable habitat for nesting does not occur within the action area. Potential impacts to this species related to the Homestake ET cover project would be increased noise, lights, collision with equipment, vehicles, and structures, and human disturbance. Indirect impacts such as noise and human activity associated with the Homestake ET cover project would last no longer than six months. Collision hazards that could cause direct impacts and indirect impacts from human activity (e.g. increased noise and lights) would remain similar to the ongoing operation and maintenance activities at the site. No takes from these activities have been reported at the GRP site. Activities with the potential to cause direct or indirect impacts associated with the</p>

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		Homestake ET cover project would last no longer than six months (HMC 2023). Due to the low likelihood for the species to occur within the action area, the low level and likelihood for impacts to occur, and the short duration of activities associated with the proposed action area, the NRC staff determined that the Homestake ET cover project would not result in long-term behavioral changes to this species that would be able to be meaningfully measured, detected, or evaluated, and therefore, would be discountable. Therefore, the NRC staff concludes that the proposed action <i>may affect but is not likely to adversely affect</i> the southwestern willow flycatcher.
yellow-billed cuckoo (<i>Coccyzus americanus</i>)	FT	NLAA. The primary threats to this species include habitat loss and degradation from altered watercourse hydrology and natural stream processes, livestock overgrazing, encroachment from agriculture, conversion of native habitat to predominantly nonnative vegetation, and sedimentation of riparian habitat; poor water quality; and, to a lesser extent, effects of invasive species and the effects of climate change (FR 85 57816). The yellow-billed cuckoo has not been observed in the action area (HMC 2023). The New Mexico Department of Game and Fish (NMDFG) depicts that the nearest predicted habitat to the action area for this species is located along the Rio Grande River north and south of Albuquerque, New Mexico. approximately 112.6 km (70 mi) east of the GRP stie (NMDGF 2024d). This species could potentially transit habitat within the action when foraging or migrating (FWS 2024c). No habitat within the action area is suitable for nesting. The primary concerns for this species related to the Homestake ET cover project would be increased noise, lights, collision with equipment, vehicles, and structures, and human disturbance. Indirect impacts such as noise and human activity associated with the Homestake ET cover project would last no longer than six months. Activities with the potential to cause direct impacts such as collision hazards and indirect impacts from human activity such as increased noise and lights would remain similar to the ongoing operation and maintenance activities at the site. No takes from these activities have been reported at the GRP site. Due to the low likelihood for the species to occur within the action area, the low level and likelihood for impacts to occur, and the short duration of activities associated with the proposed action area, the NRC staff determined that the Homestake ET cover project would not result in long-term behavioral changes in this species beyond those resulting from current day-today operations at the GRP site that would be able to be meaningfully measured, detected, or evaluated, and therefore, would be discountable. Therefore, the NRC staff concludes that the proposed action <i>may affect but is not likely to adversely affect</i> the yellow-billed cuckoo.
monarch butterfly (<i>Danaus plexippus</i>)	FC	NLAA. Because the monarch is a candidate for federal listing, the ESA does not require the NRC to consult with the FWS or to receive concurrence from the FWS regarding this species. Nonetheless, the NRC staff requests the FWS's comments on the monarch butterfly. Several factors affect the conservation of this species to include habitat alteration, herbicide use, drought, and climate change (FWS 2024d). The Monarch butterfly may transit the action area due to the presence of suitable habitat next to the action area. Direct impacts to approximately 534.5 hectares (216.3 acres) of potential habitat may occur during excavation and digging activities on the LTP and borrow areas and during land clearing for the haul roads. Indirect impacts such as noise and human activity associated with the Homestake ET cover project would last no longer than six months and be similar to current levels. Herbicide use for grounds maintenance is a common practice at reclamation

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Species	Federal Status ^(a)	Determination
		<p>site to manage noxious and invasive plant species. Monarchs are sensitive to chemicals in herbicides and may be indirectly affected if herbicides are applied in the action area. HMC's LAR provides a detailed revegetation plan and monitoring protocol for the disturbed areas that follows the Uranium Mill Tailings Radiation Control Act guidance from the DOE (HMC 2023). Revegetation activities could provide monarchs with foraging habitat and necessary breeding host plants (i.e. milkweed) within one spring growing season. The LAR states that herbicides may be used for weed management if noxious weeds identified during annual vegetation surveys present an obstacle to achieving performance criteria for the modified LTP cover. Herbicide application would be done by a licensed contractor in accordance with all applicable laws and regulations and all label instructions would be strictly followed. Continued preservation of the existing natural areas on lands immediately adjacent to the action area would provide unimpacted habitat for monarch butterflies as long as those areas remain undisturbed, and herbicides are not applied there. Monarchs would only have the potential to occur in the action area seasonally and infrequently. Should noise or activity disturb monarchs, they could temporarily avoid the area and find higher-quality habitat nearby. Although reestablishing suitable habitat on disturbed areas may require longer than six months, most of the land surrounding the action area is undeveloped and could provide available suitable habitat until the vegetation is reestablished within the action area. For these reasons, NRC staff determined that the Homestake ET cover project would not result in long-term behavioral changes in butterflies that would be able to be meaningfully measured, detected, or evaluated, and therefore, would be discountable. Therefore, the NRC staff concludes that the proposed action <i>may affect but is not likely to adversely affect</i> the monarch butterfly.</p>
pecos sunflower (<i>Helianthus paradoxus</i>)	FT	<p>No Effect. This species requires distinct wetlands that are alkaline in nature and often present as seeps, springs or ciénegas that have been wetlands for a long time and are dominated by mostly sedges and rushes (EMNRD 2024, New Mexico Rare Plant Technical Council 2024a). Ciénegas have high rates of evaporation and often have surface crusts of alkali or salt deposits on the surface. This species would not survive within the action area where piping is present, and the land surface may be wetted from pumping activities (EMNDRD 2024). The NRC staff determined that no suitable habitat for the pecos sunflower occurs in the action area. Therefore, the pecos sunflower would not be present in the action area and the Homestake ET cover project would have no effect on this species.</p>
Zuni fleabane (<i>Erigeron rhizomatus</i>)	FT	<p>No Effect. This species is known to occur in two locations in New Mexico: the Zuni Mountains in McKinley County, the Datil/Sawtooth Mountains in northern Catron County (Roth and Sivinski 2014, New Mexico Rare Plant Technical Council 2024b). Preferred habitat for this species is nearly barren detrital clay hillsides with soils derived from shales of the Chinle or Baca formations on north or east-facing moderate to steep slopes in open pinyon-juniper woodlands and ponderosa pine forests at elevations from 2,200 to 2,400 m (7,300 to 8,300 ft) above sea level. The NRC staff determined that no suitable habitat for the Zuni fleabane occurs in the action area. Therefore, the Zuni Fleabane would not be present in the action area and the Homestake ET cover project would have no effect on this species.</p>

^(a) Indicates protection status under the Endangered Species Act. FC = candidate for federal listing; FE = federally endangered; FT = federally threatened

References

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NMDGF (New Mexico Department of Game and Fish). 2024b. “Mexican Spotted Owl.” <<https://bison-m.org/booklet.aspx?SpeciesID=041375>> (Accessed 23 April 2024)

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