United States Department of the Interior

OFFICE OF SURFACE MINING
RECLAMATION AND ENFORCEMENT
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MEMORANDUM CO-0106

DATE: December 10, 2020

TO: King II Mine Letter to the File

FROM: Erica Trent, Natural Resources Specialist ERICA TRENT Digitally signed by ERICA TRENT Date: 2021.01.06 10:42:30 -07'00'

RE: Endangered Species Act Section 7 Consultation for Determination of Effects for Federal Leases COC-78825 Mining Plan Decision Document at the King II Mine, La Plata County, Colorado

In accordance with the Mineral Leasing Act of 1920 and the Surface Mining Control and Reclamation Act of 1977, the Office of Surface Mining Reclamation and Enforcement Western Region (OSMRE) is required to review all new mining plans, or mining plan modifications submitted to the State's coal mining regulatory authority, that propose to mine federal coal. OSMRE is the agency responsible for making a recommendation to the Assistant Secretary of Land and Minerals Management to approve, disapprove, or approve with conditions the proposed mining plan or mining plan modification. In accordance with the Mineral Leasing Act of 1920 (MLA), The DOI Assistant Secretary for Land and Minerals Management must approve the Project before any mining and reclamation can occur on lands containing leased federal coal. GCC Energy, LLC (GCCE) operates the King Coal Mine which consists of the King I & II Mines under two permits. Permit No. C-1981-035 issued by the state of Colorado Division of Reclamation, Mining and Safety in accordance with the approved Colorado State Coal Regulatory Program (30 CFR Part 906) and Permit CO-106C issued by the Office of Surface Mining Reclamation and Enforcement under the Federal Indian Lands Program (30 C.F.R. Chapter VII, Subchapter E), and 30 C.F.R. § 783 and § 784.

The King II Mine is located approximately 4 miles southwest of the town of Hesperus, Colorado. It produces on average 629,785 tons of coal per year. Room and pillar mining at the King Coal Mine began in 1938 and was mined until 2009 from a single mine portal. GCCE acquired ownership of the King Coal Mine in 2005 from National King Coal, LLC. The King II Mine portal was constructed in 2007, approximately 2 miles southwest of the King Coal Mine, and shares the same surface facilities as the King I Mine. The current state mine permit authorizes some mine refuse disposal from the King II operations at the King I site. The amount of remaining recoverable federal coal authorized for removal within the currently approved federal mining plan is approximately 2.3 million tons. The Project proposes to add approximately 2,462 acres and 9.5 million tons of Federal coal to the approved Federal mining plan. The proposed mining plan modification would not change the average annual production rate of the surface mining operation (629,785 tons) or the maximum allowed annual production rate (1.3 million tons) for the life of the underground mining operation.

OSMRE analyzed the effects of mining operations at the King II Mine on threatened and endangered species, and their critical habitat. This analysis is to meet Federal agency requirements under the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.) and OSMRE Federal regulations at 30 CFR 746.13 (c) and 816.97. In September 2019, OSMRE published the Environmental Assessment *Dunn Ranch Area Lease-By-Application and Mine Plan Modification, DOI-BLM-CO-S010-2019-0003-EA* that analyzed the potential effects of the Project to the human environment.

Consultation History

OSMRE consulted with the U.S. Fish and Wildlife Service (USFWS) regarding Section 7 of the Endangered Species Act. The USFWS received the request for re-initiation of section 7 on April 29, 2019 and replied with a concurrence letter on April 29, 2019. In their letter, the FWS concurred that additional activities within Federal lease COC-78825 does not change their original concurrence that the proposed actions may affect but are not likely to adversely affect the Rio Grande silvery minnow (*Hybognathus amarus*) and its critical habitat, greenback cutthroat trout (*Oncorhynchus clarki stomias*), Colorado pikeminnow (*Ptychocheilus lucius*) and it critical habitat, and the razorback sucker (*Xyrauchen texanus*) and its critical habitat. The Service agrees that additional impact areas do not provide habitat for the New Mexico jumping mouse (*Zapus hudsonius luteus*) and southwestern willow flycatcher (*Empidonax traillii extimus*) and, therefore, the proposed action is unlikely to result in take of these species.

Description of Permit Area

The King II underground mine is located in the Hay Gulch area. The area has historically been used by European settlers for ranching and prior to that by Native Americans for hunting and gathering. The current land uses of the permit area include rangeland, fish and wildlife habitat and undeveloped land. The average temperature at the project area is 43.4ºF with lows around 30ºF and highs around 56ºF. The average yearly rain fall is around 18.19 inches with average annual snowfall of 89 inches.

The geologic formations outcropping in the area are the Cliff House Formation of the Cretaceous Mesa Verde Group and the overlaying Quaternary alluvial deposits. Elevations within the permit area range from approximately 7,300 feet to approximately 8,200 feet and is drained predominately by the Hay Gulch Irrigation Ditch and alkali Gulch and by ephemeral drainages with variable gradients. Surface water flows within these drainages occur as a result of seasonal spring runoff and summer/fall storm events. The Hay Gulch irrigation ditch runs from northeast to southwest on the north side of County Road 20 within and adjacent to the project area. The San Juan Basin has very limited groundwater development. The Cliff House Sandstone is of marine origin, composed of irregular lenticular ledges of hard, fine to medium grained calcareous sandstone in softer argillaceous fine sandstone, mudstone and silty shale, and is dry. The Menefee Formation is where the coal resides and has been found to be dry. The Point Lookout Sandstone is below the Menefee Formation and may or may not contain water, but it will not be affected by mining.

The soils range from shallow (less than 20 inches), poorly developed units derive from interbedded sandstone and shale to deep (greater than 40 inches) eolian derivatives. Shallow soils are associated with numerous rock outcrops. Umbarg soils are found within the level colluvial deposits between the bordering side slopes of the drainage basin. These are fine-loamy, mixed mesic Cumulic Haplustolls and

are deep and moderately well drained. Archuleta-Sanchez Complex is located on the northwest facing side slope along the east drainage basin arm. The rest is comprised of 45 percent Archuleta loam and 30 percent Sanchez, a very stony sandy clay loam. The rest is composed of clay, loams, and rock.

The project area support two vegetation communities, pinyon juniper woodland on rocky, shallow, xeric soils and rabbitbrush/big sage mixed shrubland on level colluvial bottom lands between the side slopes. The most prominent shrubs include Gamble oak, Mountain mahogany, and Utah serviceberry. Other shrubs found in the area include Antelope bitterbrush, Squaw-apple, and Green ephedra. Scattered pinyon pine and Utah juniper occur on more xeric sites, while scattered ponderosa pine and Douglas fir are found on more mesic sites. Understory species include bluegrass, western wheatgrass, bottlebrush squirreltail, yucca and, various species of milkvetch.

Analysis Process

The current USFWS list of T&E species that may occur in La Plata County, Colorado includes two additional species threatened Mexican Spotted Owl (*Strix occidentalis lucida*) and candidate Chapin Mesa Milkvetch (*Astragalus schmolliae*) with no critical habitat for either species.

Mexican Spotted Owl

The Mexican Spotted owl is medium sized with dark eyes and no ear tufts, brownish in color and heavily spotted with white or beige. Spotted owls are residents of old-growth or mature forests that possess complex structural components (uneven aged stands, high canopy closure, multi-storied levels, high tree density). The owl is frequently associated with mature mixed-conifer (Douglas-fir, White fir, Limber pine or Blue spruce, ponderosa pine, and Gambel oak), and riparian forests (various species of broadleaved deciduous trees and shrubs) within canyons.

Canyons with riparian or conifer communities are very important components. Owls are also found in canyon habitat dominated by vertical-walled rocky cliffs within complex watersheds, including tributary side canyons. Rock walls with caves, ledges, and other areas provide protected nest and roost sites. Canyon habitat may include small isolated patches or stringers of forested vegetation including stands of mixed-conifer, Ponderosa pine, Pine-oak, Pinyon-juniper, and/or riparian vegetation in which owls regularly roost and forage. Owls are usually found in areas with some type of water source (i.e., perennial stream, creeks, and springs, ephemeral water, small pools from runoff, reservoir emissions). Even small sources of water such as small pools or puddles create humid conditions. Also, conversation with the USFWS revealed that canyons are the most important habitat for Mexican Spotted owls and that the owls have been sighted in canyons without many trees.

Roosting and nesting habitats exhibit certain identifiable features, including large trees (those with a trunk diameter of 12 inches or more (i.e., high tree basal area)), uneven aged tree stands, multi-storied canopy, a tree canopy creating shade over 40 percent or more of the ground (i.e., moderate to high canopy closure), and decadence in the form of downed logs and snags (standing dead trees). Canopy closure is typically greater than 40 percent.

Owl foraging habitat includes a wide variety of forest conditions, canyon bottoms, cliff faces, tops of canyon rims, and riparian areas. The owl occupies a broad geographical area but does not occur

uniformly throughout its range. Instead, the owl occurs in disjunct localities that correspond to isolated mountain systems and canyons.

Chapin Mesa Milkvetch

Chapin Mesa milkvetch are herbaceous forbs in the pea family that live for several years, retreating underground (with or without above ground biomass) during the winter months. It has a compound leaf with 11-20 leaflets joined to the rachis (midrib). The foliage and stems are covered in short hairs. Chapin Mesa milkvetch grows to 30 to 60 cm tall. Its flowers are creamy white and clustered along a main stem which has an upright habit. The fruit pod grows to about 4 cm in length, is pendulous, covered in short stiff hairs, has distinct dorsal and ventral sides, and is usually slightly decurved. The root consists of a taproot that is 40 cm or longer and cannot survive if the taproot is severed. The habitat for Chapin Mesa milkvetch is dense piñon-juniper woodland of mesa tops in the Mesa Verde National Park, and the Ute Mountain Ute Park. Found in both sunny and shaded locations, it prefers deep, reddish loess soils and is generally less common near cliff edges and in ravines where the soil is shallower.

Chapin Mesa milkvetch plants emerge in early spring and usually begin flowering in late April or early May. Flowering continues into early or mid-June. Fruit pods will appear late May lasting through June. The pods, while still attached to the plant, will split releasing 18-20 seeds per pod. Chapin Mesa milkvetch seem most content during growing seasons that follow wet winters. Insect pollination is vital to the Chapin Mesa milkvetch existence because the flower pedals are so tightly closed that wind cannot be a pollinating agent.

<u>Determinations of Effect</u>

Based on the information listed above, OSMRE has determined that the Project will have the following effect:

Mexican Spotted Owl

- since there are no canyons with communities of mixed conifer and deciduous trees found near the GCCE mining area, the King II Mine, Federal Indian land permit CO-0106C and DRMS state permit C-1981-035 mining activities will have **no effect** on the continued existence of the Mexican spotted owl.

Chapin Mesa Milkvetch

- since suitable habitat that would not support the Chaplin Mesa milkvetch does not exist at the GCCE mining area, the King II Mine, Federal Indian land permit CO-0106C and DRMS state permit C-1981-035 mining activities will have **no effect** on the continued existence of the Chapin Mesa milkvetch