5.18.2021

Dustin Czapla
Environmental Protection Specialist
Division of Mining, Reclamation and Safety

RE: Blue Creek Staging Area, File No M-2021-016 Special 111 Operation

Mr. Czapla,

Please find below and attached to this email support and answers to the Adequacy Review 01 letter dated April 7th, 2021.

1. Rule 6.3.2 Exhibit B Section (a)– Please see attached photos of two test pits excavated on each end of the proposed borrow area. The photos show topsoil depth ranging from 12"-16". The proposed borrow material is a clayey loam with glacial rock deposited within the material. No shelf rock or shale was encountered in either test pit dug to a depth of 16'. Please find attached a soils map and soils report from the NRCS with the AOI for the property.

2. Rule 6.3.2 Exhibit B Section (d)– The local Gunnison CPW was contacted about the project. CPW has decided not to formally comment on the project. They have reviewed the application and no comment has been made. Cornerstone Materials LLC hired a local wildlife biologist to review the application, visit the site and make their professional recommendation for our project's potential impact to the wildlife. Please see their letter attached to this submittal.

3. Rule 6.3.3 Exhibit C-Mining Section (b) – please see on map E-2 the location of salvaged and stored topsoil to be used for reclamation. The topsoil will be stored and stabilized in accordance with DRMS Rule 3.1.9 (1)

4. Rule 6.3.4 Exhibit D – Reclamation Plan Section (1)(b): The maximum gradient of the reclaimed slopes (horizontal; vertical) will be no steeper than a 3:1. Please see map E-2 for final grading contours of the borrow area.

5. Pursuant to Rule 6.3.4 (1) © (iii) Please see attached seed mix that has been approved for the DOT US 50 Blue Creek Canyon Project. We have also reached out to the NPS and attached is the email addresses their concerns.

Sincerely,

Zane Luttrell
-General Manager-
Cornerstone Materials LLC
(970) 249-8780 **Office**
(970) 252-1265 **Fax**

5.18.2021

Dustin Czapla
Environmental Protection Specialist
Division of Mining, Reclamation and Safety

RE: Blue Creek Staging Area, File No M-2021-016 Special 111 Operation

Test Pit Photos:

Map Unit Description

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this report, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named, soils that are similar to the named components, and some minor components that differ in use and management from the major soils.

Most of the soils similar to the major components have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Some minor components, however, have properties and behavior characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. All the soils of a series have major horizons that are similar in composition, thickness, and arrangement. Soils of a given series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Additional information about the map units described in this report is available in other soil reports, which give properties of the soils and the limitations, capabilities, and potentials for many uses. Also, the narratives that accompany the soil reports define some of the properties included in the map unit descriptions.

Gunnison Area, Colorado, Parts of Gunnison, Hinsdale, and Saguache Counties

YpE—Youman-Passar loams, 5 to 30 percent slopes

Map Unit Setting

National map unit symbol: jqg7
Elevation: 8,000 to 10,500 feet
Mean annual precipitation: 20 to 24 inches

Mean annual air temperature: 34 to 37 degrees F
Frost-free period: 50 to 70 days
Farmland classification: Not prime farmland

Map Unit Composition

Youman and similar soils: 55 percent
Passar and similar soils: 30 percent
Minor components: 3 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Youman

Setting

Landform: Valleys, alluvial fans
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from sedimentary rock over alluvium derived from rhyolite over rhyolitic alluvium derived from tuff

Typical profile

H1 - 0 to 12 inches: loam
H2 - 12 to 60 inches: clay loam

Properties and qualities

Slope: 5 to 30 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: High (about 9.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Ecological site: R048AY250CO
Hydric soil rating: No

Description of Passar

Setting

Landform: Ridges
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Colluvium and/or slope alluvium derived from tuff and/or rhyolite

Typical profile

A - 0 to 10 inches: loam
Bt1 - 10 to 15 inches: clay loam
Bt2 - 15 to 36 inches: extremely stony clay
Bt3 - 36 to 42 inches: extremely stony clay loam
C - 42 to 60 inches: extremely stony clay loam

Properties and qualities

Slope: 5 to 30 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.07 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 5.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: D
Ecological site: R048AY250CO
Hydric soil rating: No

Minor Components

Alluvial land, wet

Percent of map unit: 3 percent
Landform: Depressions
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

Parlin

Percent of map unit:
Hydric soil rating: No

Ruby

Percent of map unit:
Hydric soil rating: No

Rock outcrop

Percent of map unit:
Hydric soil rating: No

Youman

Percent of map unit:

Hydric soil rating: No

Data Source Information

Soil Survey Area: Gunnison Area, Colorado, Parts of Gunnison, Hinsdale, and Saguache Counties
Survey Area Data: Version 13, Jun 9, 2020

BIO-Logic inc
Natural Resource Consultants

125 Colorado Avenue, Suite B
Montrose, Colorado 81401
970.240.4374
www.bio-geo.com

Dustin Czapla
Environmental Protection Specialist
Colorado Division of Mining Reclamation and Safety

17 May 2021

RE: Blue Creek Staging Area Wildlife Impact Assessment

Dear Mr. Czapla:

Introduction

Cornerstone Materials LLC are proposing to develop a 19.93-acre portion of a 35-acre parcel owned by B&L Land Company LLC in Gunnison County into a staging and mining area for the sole purpose of supporting the Little Blue Creek Federal Highway Project. The parcel is located within the Little Blue Creek Highway Project limits on the north side of US Highway 50 next to the CDOT Maintenance Shed and 30 miles southwest of the city of Gunnison (Figure 1). As part of their application process, a wildlife impact assessment was completed to assess potential impacts from the proposed activity to wildlife. Cornerstone Materials hired BIO-Logic, Inc. to complete the assessment. This letter transmits our methods and findings.

Methods

On 15 May 2021, a BIO-Logic biologist visited and walked the entire the property, taking photos and notes on vegetation communities present, wildlife activity and sign, and any natural or human-caused disturbances. Prior to the field review, we reviewed the following sources of information for the project area:

- U.S. Fish and Wildlife Service (USFWS) Trust Resources List for the project area
- Colorado Parks and Wildlife Threatened and Endangered List
- CPW Species Activity Mapping spatial data

The property location and aerial imagery are shown in Figures 1-2. Photographs are attached.

Results

Environmental Setting and Existing Conditions

The proposed Blue Creek Staging Area property is bordered by private land on the east, National Park Service on the north and Colorado Department of Transportation on the west and south. Parcel lines obtained from Gunnison County are depicted in Figures 1 and 2. The property borders the north side of US Highway 50 and is located east of the new CDOT Maintenance Shop property (Photos 1-2). The long parcel runs north and down into the canyon managed by the National Park Service. A transmission line and associated access road crosses the property from east to west (Figure 2 and Photo 3).

The property generally slopes to the north and eventually falls off steeply into the canyon. Vegetation is characterized by a montane sagebrush-steppe community transitioning into montane mesic mixed conifer forest on the northern extent. (Figure 2; Photos 1-4). The sagebrush steppe is thin and sparse in areas with shallow and rocky soils and is more dense and taller in areas with deeper soils. There are scattered Rocky Mountain juniper (*Juniperus scopulorum*) and Gambel oak (*Quercus gambelii*) in a few areas within sagebrush but nearly all trees including Douglas fir (*Pseudotsuga menziesii*) and some aspen (*Populus tremuloides*) are situated in the northern quarter of the property outside the proposed permit boundary. An ephemeral drainage swale accepts runoff from a culvert under Hwy 50 and directs surface flows during snowmelt and storm events down the property on the western margin. This area supports mesic meadow vegetation in some areas including shrubby cinquefoil (*Potentilla fruticosa*)(Photo 4).

The parcel has been utilized for rangeland grazing of livestock in the past and is fenced on the north and west sides. A 115kV transmission line on wooden H-structures and an associated dirt access road crosses the property from east to west in the northern half of the parcel. U.S Highway 50 and associated historical highway route now serving as a frontage road serves as the southern border of the property. An electrical distribution line parallels the frontage road and provides power to the site. There are no structures on the property.

Special Status Wildlife Species

Special status animal species with potential to occur on the property according to Colorado Parks and Wildlife (CPW) Species Activity Mapping include the federally threatened and state endangered **Canada lynx** (*Lynx canadensis*) and the federally threatened **Gunnison sage-grouse** (*Centrocercus minimus*).

Canada Lynx

The mixed conifer forest on the extreme northern end of the property is located inside CPW-mapped *potential habitat* for lynx. Lynx primary habitat consists generally of higher elevation spruce-fir forest or mesic mixed-conifer forest, with secondary habitat consisting of aspen forest.

The small piece of mapped *potential habitat* on the property could be used occasionally for traveling lynx and movement cover and this area would not be affected by the proposed Staging Area plan. Any impacts from the project to lynx use of adjacent potential habitat on National Park managed lands are expected to be undetectable.

Gunnison sage-grouse

The property is mapped as *historical habitat* by CPW for Gunnison sage-grouse and birds may have used the area prior to human development. Occupied habitat is mapped at over 2 miles to the east of the property on Pine Creek Mesa. Due to the high level of human disturbance around the property the area is likely not suitable for Gunnison sage-grouse. The immediate proximity of Hwy 50, the CDOT maintenance shop, multiple residential developments as well as electrical distribution and transmission lines make habitat at the site unsuitable and no impacts to the species are expected.

<u>Big Game</u>

CPW maps the property as inside **elk** (*Cervus canadensis*) summer, winter range and severe winter range, and inside **mule deer** (*Odocoileus hemonius*) summer and winter range. The area along Hwy 50 is mapped as a known highway crossing area for both species. CPW also maps the area as **moose** (*Alces alces*) summer range.

Elk and deer scat was observed on the property, but mostly confined to the northern quarter of the property where forest security cover exists. Game trails and tracks indicate movement use east and west in the northern extent of the property along the canyon rim and out of sight from the proposed Staging Area due to topography. Big game likely use the property for forage and for movement north and south between Blue Mesa to the south and Soap Mesa to the north however use of the property by these big game species is likely already limited by human activity associated with residential and CDOT development. Construction and mining activity at the Staging Area will not be conducted during winter during critical times for wintering big game. Nonetheless, development of the proposed Staging Area will result in additional habitat

conversion however some habitat value will be retained post reclamation. Ungulate movements in the area may be shifted as a result of the temporary disturbance. However, due to the short duration of this project (2-3 years) these impacts are unlikely to detectably affect the population status of elk and deer in the area but will temporarily add to cumulative impacts to big game species from increased development in the area.

Other Wildlife

Various small wildlife species including fossorial mammals and migratory birds likely use the habitat on the proposed Staging Area site. While these species may be displaced during the temporary life of this Staging Area, most wildlife use is concentrated in the northern quarter of the overall property where no surface impacts will take place.

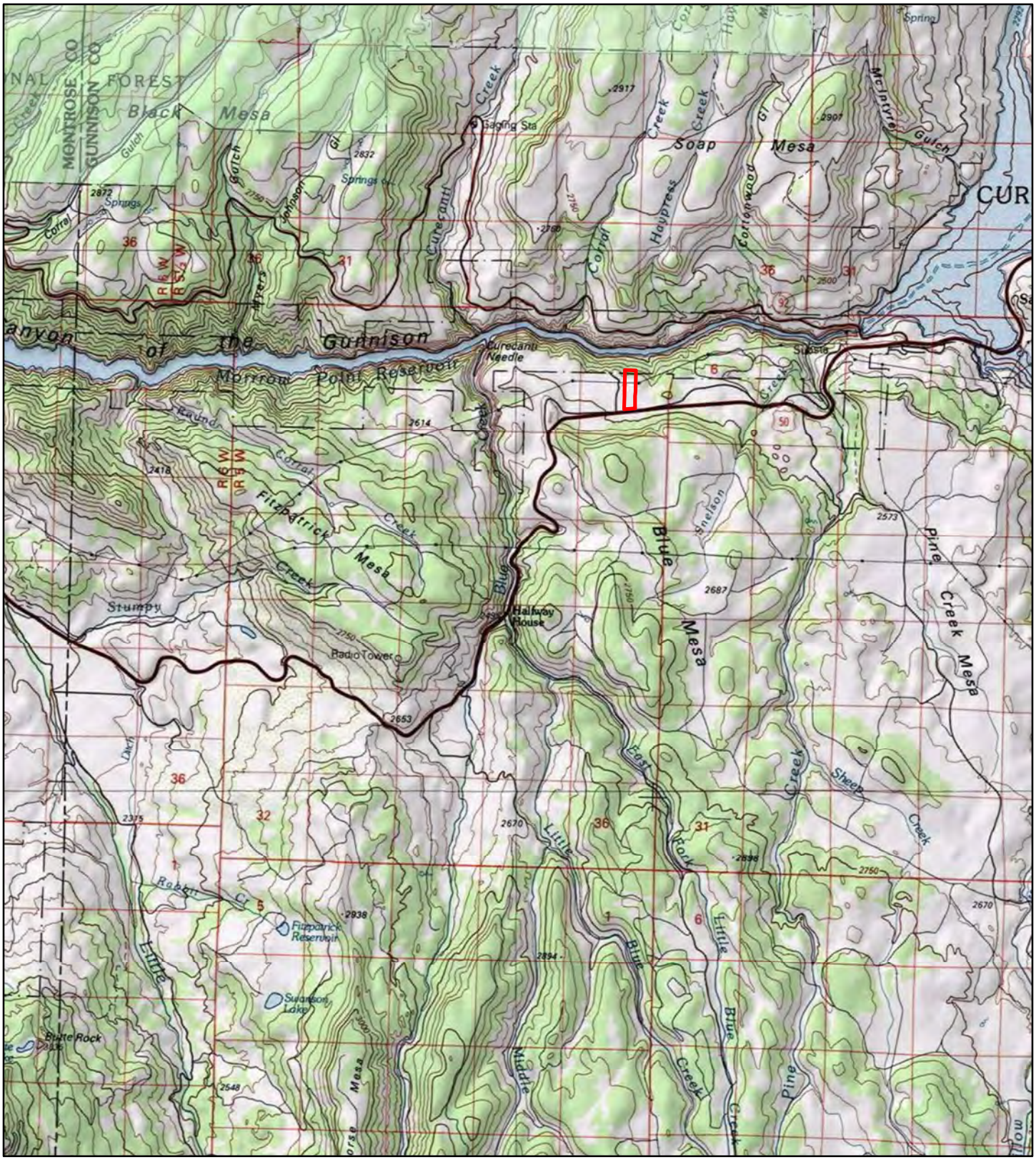
Summary

Any impacts to wildlife species as a result of the development of this proposed Staging Area are expected to be minor and temporary in nature. Further, this activity is not expected to cause any detectable impacts to the population status of any of the species discussed here.

Post mining reclamation after the Little Blue Creek Canyon Highway Project is completed will re-establish vegetative cover for an agricultural land use and is expected to be compatible with big game use. Due to the final grading and reclamation plan, some areas of mesic meadow below the site may be lost post mining due to not allowing surface runoff to exit the site.

Sincerely,

Jim Le Fevre
Wildlife Biologist



Base Map Source:
NGS 2D Topographic Map

Proposed Blue Creek Staging Area
Wildlife Assessment

Figure 1
Site Location Overview

N
1:100,000
0 0.5 1 Miles

BIO-Logic, Inc.
125 Colorado Avenue, Suite B
Montrose, CO 81401
(970) 240-4374, www.bio-geo.com

Basemap Source:
ESRI composite aerial image,
Aerial photos taken summer 2019

Legend

- Proposed Blue Creek Staging Area
- US Hwy 50

N

1:4,000

0 1,000 Feet

Proposed Blue Creek Staging Area
Wildlife Assessment

Figure 2
Property Aerial

BIO-Logic, Inc.
125 Colorado Avenue, Suite B
Montrose, CO 81401
(970) 240-4374, www.bio-geo.com

Photo 1. Looking northwest at the frontage road entrance to the Proposed Blue Creek Staging and Mining Area. A new CDOT Maintenance Shop sits adjacent to the site on the west and Hwy 50 and an electric distribution line borders the site on the south.

Photo 2. Looking north at the Proposed Blue Creek Staging and Mining Area. The Little Blue Canyon Highway Project construction contractor has begun to utilize the upper section of the staging area. An electric distribution line and fence run parallel to the site's southern boundary.

Photo 3. A view east from the northwestern corner of the Proposed Blue Creek Staging and Mining Area boundary. A 115kV transmission line and associated maintenance road cross the property east to west. No surface disturbance will occur north of the line where the tree-lined slope falls into the canyon, which is an area important for big game cover and movement.

Photo 4. A mesic swale directs snowmelt and stormwater off the parcel in the Northwest corner. Areas with deeper soils support mesic species such as cinquefoil (*Potentilla fruticosa*) and various grass and forb species. These mesic areas downhill of the permit boundary may dry up over time as a result of mining plan surface water detention.

Class 3, Finish 5, soft temper prior to weaving into the mesh. Use wire with a minimum tensile strength of 60,000 psi when tested in accordance with ASTM A 370.

(b) Wire Mesh Fasteners. Furnish C-ring type fasteners composed of high tensile, galvanized wire with a wire diameter of 0.120 inches, an open diameter of 1½-inches and a closed inside dimension of 9/16-inches. Galvanize all fasteners conforming to ASTM A641 for zinc coatings, ASTM A764 for chemical and mechanical specifications; and to ASTM E8/MPT 2004 for tensile strength requirements.

(c) Wire mesh lacing wire. Furnish 9 gauge zinc coated wire conforming to ASTM A 641. If PVC coated system is selected, furnish 9 gauge PVC coated wire that matches selected color.

(d) Hardware Furnish wire rope clips that meet Federal Specification FF-C-450; wire rope thimbles that meet Federal Specification FF-T-276B; and, shackles and swivels that meet Federal Specification RR-C-271D. Provide wire rope clips, thimbles, shackles, and swivels sized for wire rope diameters of 1-inch, ¾-inch, 9/16-inch, and/or 5/16-inches. Galvanize all other hardware according to AASHTO M 232 (ASTM A153). Repair any damaged galvanizing according to Subsection 563.08(c).

(e) Mesh Anchors. Refer to Subsection 722.03 Rock Bolts and Dowels.

(f) Wire Rope. Refer to Subsection 709.03.

Section 713. — ROADSIDE IMPROVEMENT MATERIAL

713.04 Seed. Add the following:

Use the following seed mix:

Junegrass- 5% (PLS)
Sandberg bluegrass- 14%
Western wheatgrass- 10%
Indian ricegrass- 11%
Slender wheatgrass- 15%
Blue grama- 7%
Scarlet globemallow- 2%
Arizona fescue- 15%
Utah sweetvetch- 5%
Galleta- 7%
Aspen daisy- 1%

713.06 Plant Material. Add the following:

(f) Willow Stakes. Harvest or furnish willow stakes conforming to the following:

April 13, 2021

RE: Blue Creek Staging Area, File No M-2021-016 Special 111 Operation

Ms. Deanna Greco,
Superintendent
Curecanti National Recreation Area

Ms. Greco,

Thank you for speaking with me yesterday, this letter is a summary of what we spoke about regarding the National Park Service's concerns with our 111 State Mining Application.

- ***Archeological Resources***
  - The disturbance limits will not exceed 1,464 LF from the southern property line running due North towards the National Park. This will leave approximately a 1,000 LF of undisturbed ground between our site and the shared property line with the National Park. We have walked the area and found the only man-made changes to the proposed site to be the barbed wire fence on the southern and western boundary lines.
- ***Hydrological Processes***
  - Cornerstone Materials has been issued a General Permit to discharge stormwater with CDPHE. **Our Permit Number is COR412262.** The water that we will be using on the project will be for dust control. We typically spray water on the roads and gravel crusher to keep the dust to a minimum (which is regulated through our Air Quality Permit). The water evaporates for the most part. If there is a storm water event or if our water truck has a failure, the water will travel to a settling pond where we will test the water to meet standards required in the **COR412262 Permit** before it is discharged into the natural drainage system on the property. Fuel and oils are stored in double wall containment systems for spill protection as well.
- ***Vegetation***
  - We would appreciate a recommend seed mix from the NPS for our site. The NPS has likely spent a lot of time seeing what works for the area and we would incorporate that experience into our reclamation plan. We will maintain a strict weed control program and mitigate weed issues promptly.
- ***Wildlife***
  - We have reached out to the local CPW office for a recommendation of best practices for working with the wildlife native to the site. We are planning on working during the summer months and possibly into the early fall with our crushing operation. We will likely not be working during the spring or winter when some wildlife can have negative impacts resulting from the construction activities. We look forward to the comments and hopefully we can implement them. I can provide a copy when we receive it.
- ***Visitor Use and Experience***
  - We have worked on many US Forest Service Projects and other jobs that are sensitive to the public perception of what we are doing. We will do our best to orient stockpiles for visual appeal and noise control. Once we build a stockpile, the noise and dust impacts are often shielded from the public. We do understand that this is a beautiful area of Colorado and we will be responsible neighbors to restore that beauty at the completion of the project. We have asked for 19 acres in the plan, if we only

Sincerely,

Zane Luttrell
-General Manager-
Cornerstone Materials LLC
(970) 249-8780 **Office**
(970) 252-1265 **Fax**

CC: Dustin Czapla - DRMS