

## **Revised v2 Exhibits**

# **Hardrock/Metal Mining Regular (112) Application**

**Prepared for: Colorado Division of Reclamation, Mining and Safety**

March 17, 2025

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## **Supporting Documents**

1. Geotechnical Exhibit for the West Side Placer Project  
*[RULE\\_6.5\\_Geotechnical\\_Stability\\_Exhibit.pdf](#)*
2. Sage-Grouse Management Supplemental Exhibit for the West Side Placer Project  
*[Sage-grouse-Management-Plan.pdf](#)*
3. Custom Soil Resource Report for Carbon County Area, Wyoming, Moffat County Area, Colorado, and Sweetwater County Area, Wyoming  
*[supporting-document-soils-report.pdf](#)*
4. West Side Placer, Permit No. M-2016-081, REVISED-Notice of Surety Increase (SI-1)  
*[supporting-document-surety-increase.pdf](#)*

## 6.4.1 EXHIBIT A – Legal Description

### (A) Legal Description

The West Side Placer exists on ground legally described as:

Township 12 North, Range 94 West, 6th Principal Meridian:

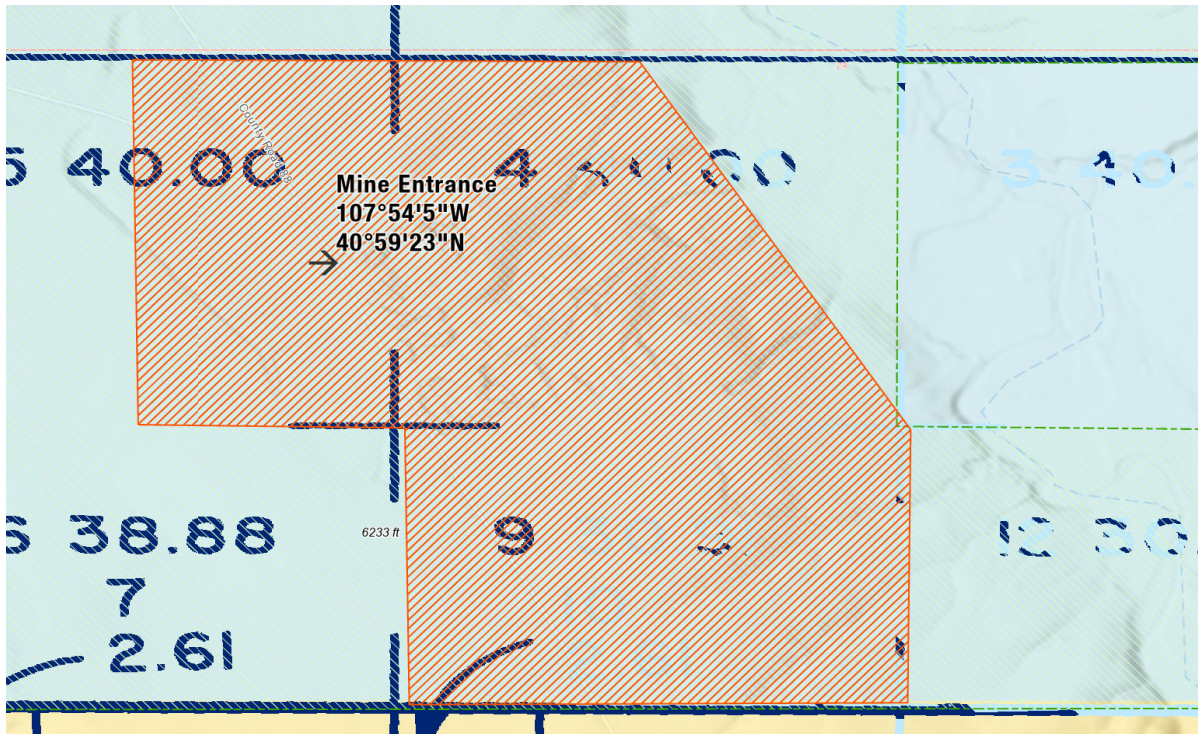
- Section 24:
- Lot 4: The Northwest quarter (NW 1/4), Southwest quarter (SW 1/4), and Southeast quarter (SE 1/4), totaling three-fourths of Lot 4.
- Lot 5: The eastern half (E 1/2).
- Lot 9: Entire lot.

The West Side Placer project spans 80 acres of land exclusively owned by the Colorado State Land Board.

### (B) Mine Entrance

The mine entrance is located at 107°54'5"W and 40°59'23"N WGS 84.

MINE ENTRANCE MAP

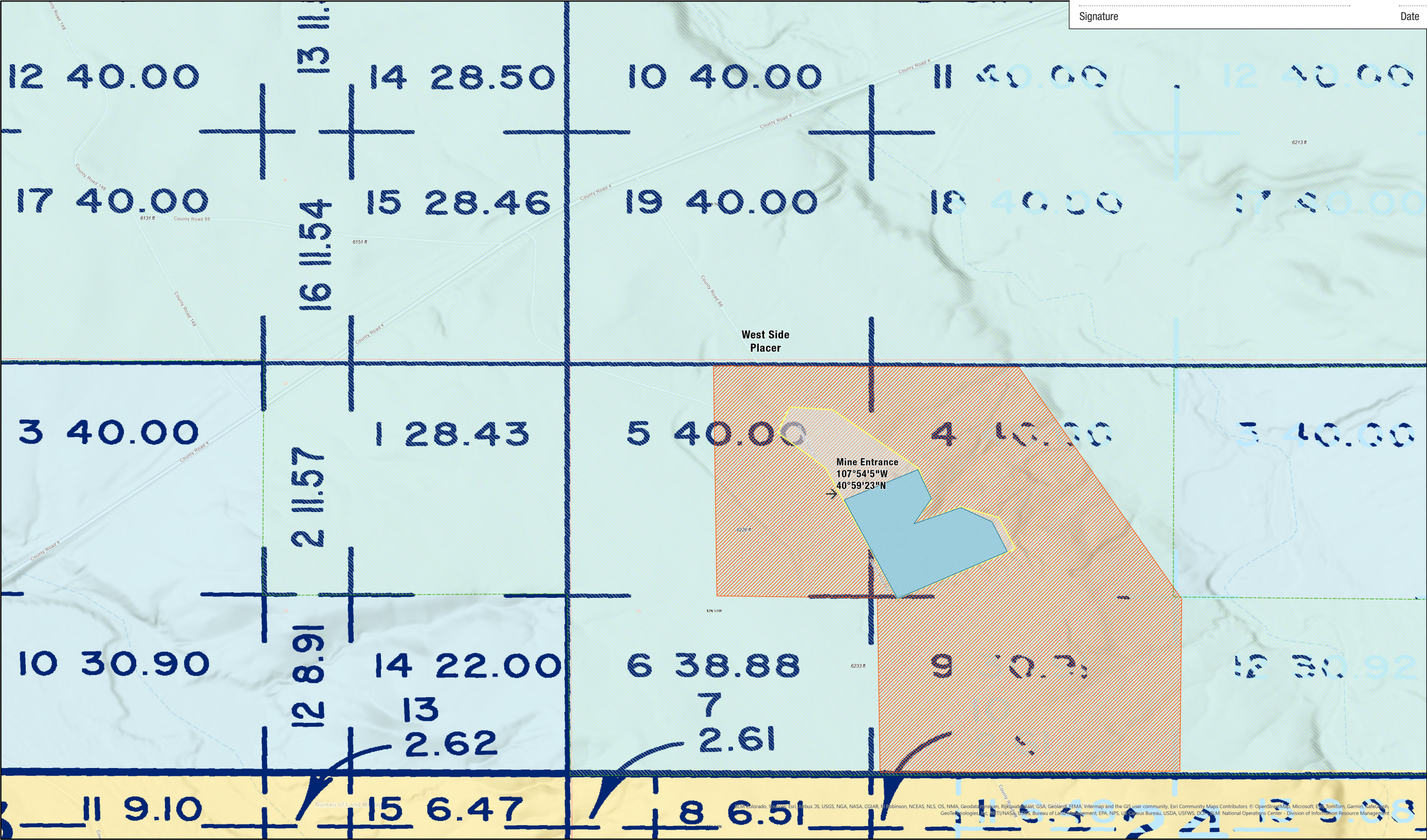


### (J) Maps Index



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Date .....

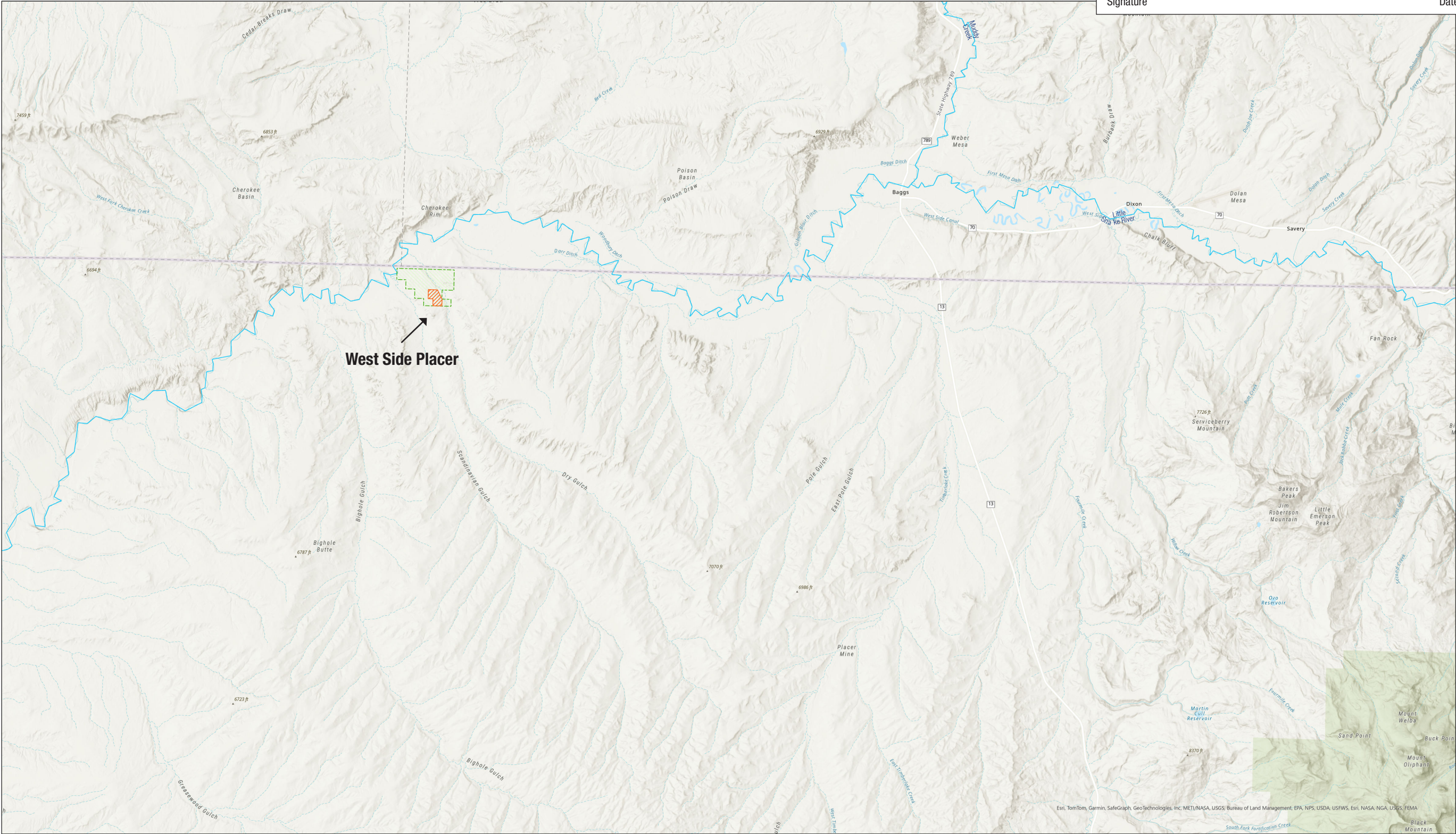


6.4.1 EXHIBIT A  
Exhibit Map

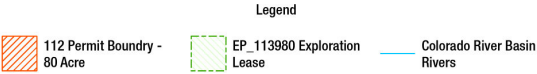
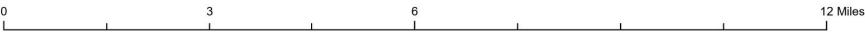


Signature

Date



6.4.2 EXHIBIT B  
Index Map





## 6.4.3 EXHIBIT C – Pre-mining and Mining Plan Map(s) of Affected Lands

### (A) All Immediately Adjoining Surface Owners Of Record

The West Side Placer project is entirely surrounded by the United States Bureau of Land Management land, as indicated in map 6.4.3 *EXHIBIT - General Exhibit Map*.

### (B) The Name and Location of All Creeks, Roads, Buildings, Oil And Gas Wells and Lines, And Power And Communication Lines On The Area Of Affected Land And Within Two Hundred (200) Feet.

See map 6.4.3 *EXHIBIT C - General Exhibit Map*.

### (C) The Existing Topography

See map 6.4.3 *EXHIBIT C - Topography*.

### (D) The Total Area to Be Involved in The Operation.

The total project area encompasses 80 acres.

### (E) The Type of Present Vegetation Covering the Affected Lands

The West Side Placer project site is situated within a low sagebrush steppe ecosystem typical of high desert regions in Moffat County, Colorado. Vegetation primarily consists of low-growing Wyoming big sagebrush (*Artemisia tridentata wyomingensis*), around 12 inches in height, interspersed with resilient grasses such as bluebunch wheatgrass (*Pseudoroegneria spicata*) and Indian ricegrass (*Achnatherum hymenoides*), as well as sparse forbs like western yarrow (*Achillea millefolium*) and lupine (*Lupinus spp.*). Rubber rabbitbrush (*Ericameria nauseosa*) is also present, contributing to the diversity of drought-tolerant shrubs in the area. These plants are adapted to the area's arid conditions, high elevation, and well-drained loamy sand soils.

See map 6.4.3 *EXHIBIT C - Vegetation*.

## (F) Water Information

There is no flowing water at the project site itself. The mining operations are designed to avoid the Dry Gulch area, where an occasional flow of water may occur. Water necessary for project operations will be supplied by an on-site well, drilled to a depth of 200 feet, under Well Permit #80109 issued by the Office of the State Engineer, Colorado Division of Water Resources. This approach ensures that the project minimizes any potential impacts on local hydrology while aligning with sustainable water management practices.

The following suite of maps provides a comprehensive overview of the West Side Placer project's hydrological and geological landscape.

### Map 6.4.7 EXHIBIT G - Major Alluvial Aquifers

Map identifies primary alluvial aquifers in the region, showing the project's proximity to significant groundwater resources relevant to project operations.

### Map 6.4.7 EXHIBIT G - Major Alluvial and Sedimentary Bedrock Aquifers (Colorado Plateaus Region)

Map details sedimentary bedrock aquifers within the Colorado Plateaus, essential for understanding water availability at depth below the project area.

### Map 6.4.7 EXHIBIT G - Major Alluvial and Sedimentary Bedrock Aquifers (Laramide Basins)

Map shows aquifers associated with Laramide Basin formations, indicating potential groundwater sources within these geological structures.

### Map 6.4.7 EXHIBIT G - Managed Aquifer Recharge Zones

Map highlights managed or potential aquifer recharge areas, guiding sustainable water use strategies for project operations.

### Map 6.4.7 EXHIBIT G - Critical Watershed Areas

Map identifies critical watershed zones vital to regional hydrology, with regulatory and environmental considerations for water use and watershed protection.

## (G) Show The Owner's Name, Type of Structures, And Location of All Significant, Valuable, And Permanent Man-Made Structures Contained on The Area of Affected Land And Within Two Hundred (200) Feet of The Affected Land.

There are no man-made structures within two hundred feet of the project.

See 6.4.3 EXHIBIT C - General Exhibit Map.

## (H) Soils Information

This Soil Exhibit provides a detailed assessment of soil resources across the 80-acre West Side Placer project in Moffat County, Colorado. Based on field evaluations and consultation with the Natural Resources Conservation Service (NRCS), this exhibit includes a map (6.4.3 EXHIBIT C - Soils) illustrating the types, thicknesses, and distribution of soils across the affected land.

The dominant soil type is sandy loam with a thickness of 6 to 18 inches, underlain by a denser subsoil of compacted clay and sandstone inclusions. This topsoil layer, with its moderate organic matter and drainage properties, is suitable for stockpiling and later use in reclamation efforts. Its texture and nutrient profile support native plant species, essential for restoring the landscape post-mining. Range production studies estimate an average annual forage yield of 400 to 800 pounds per acre under normal conditions, providing additional insights into soil productivity for supporting native vegetation and forage for wildlife in reclaimed areas.

See Map 6.4.3 EXHIBIT C - Soils and Map 6.4.3 EXHIBIT C - Range Production (Normal Year).

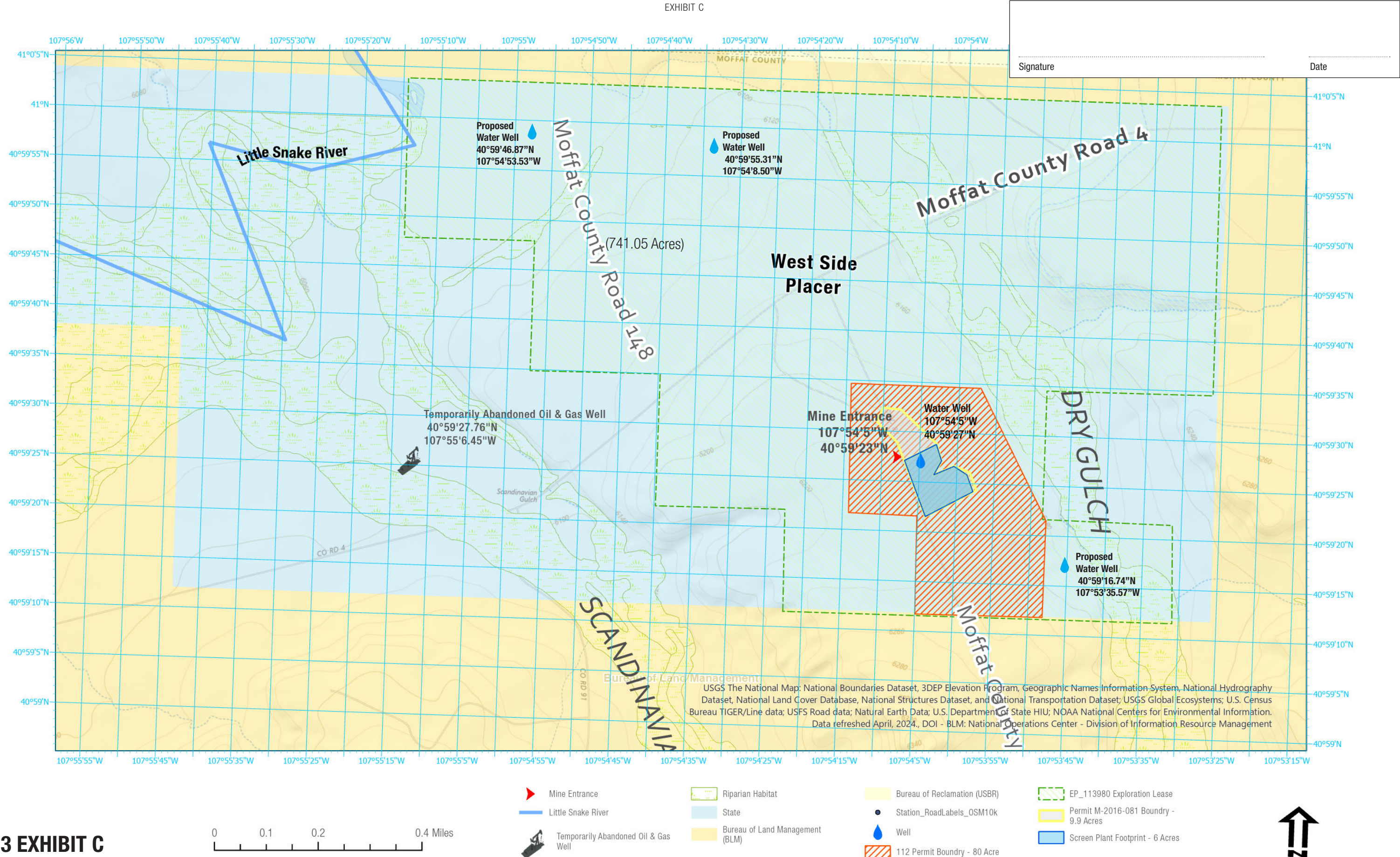
## (I) Aerial Photos

AuPt Industries will commission aerial photography prior to any disturbance on the 112-permitted ground. Aerial photographs will be documented annually and submitted in the Annual Report to the DRMS.

## (J) Maps Index

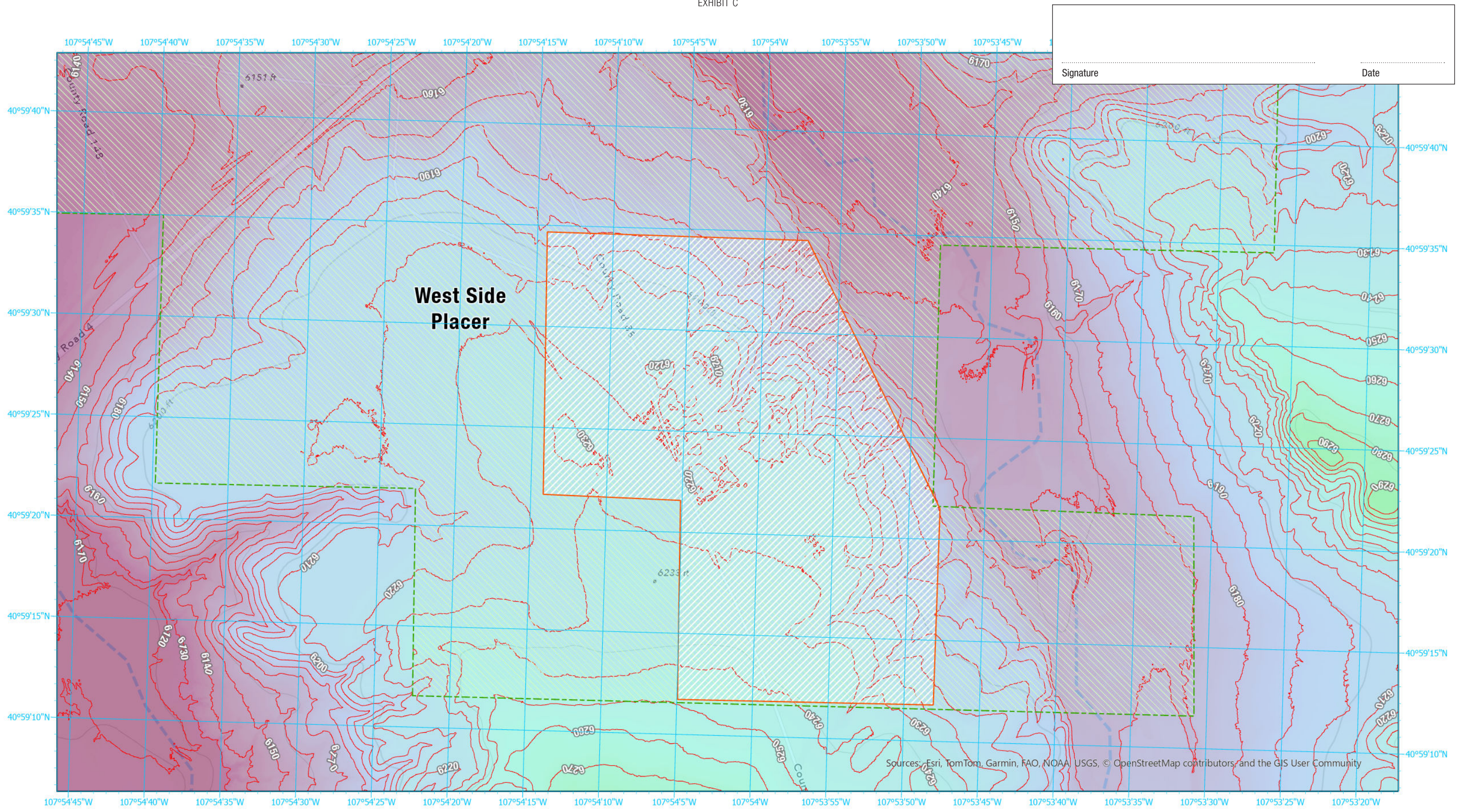
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2. Map 6.4.3 EXHIBIT C - Topography	Page 8
3. Map 6.4.3 EXHIBIT C - Vegetation	Page 9
4. Map 6.4.3 EXHIBIT C - Soils	Page 15
5. Map 6.4.3 EXHIBIT C - Range Production (Normal Year)	Page 16
6. Map 6.4.3 EXHIBIT C - Ecological Zones	Page 17





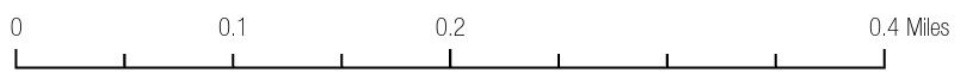
6.4.3 EXHIBIT C  
General Exhibit Map



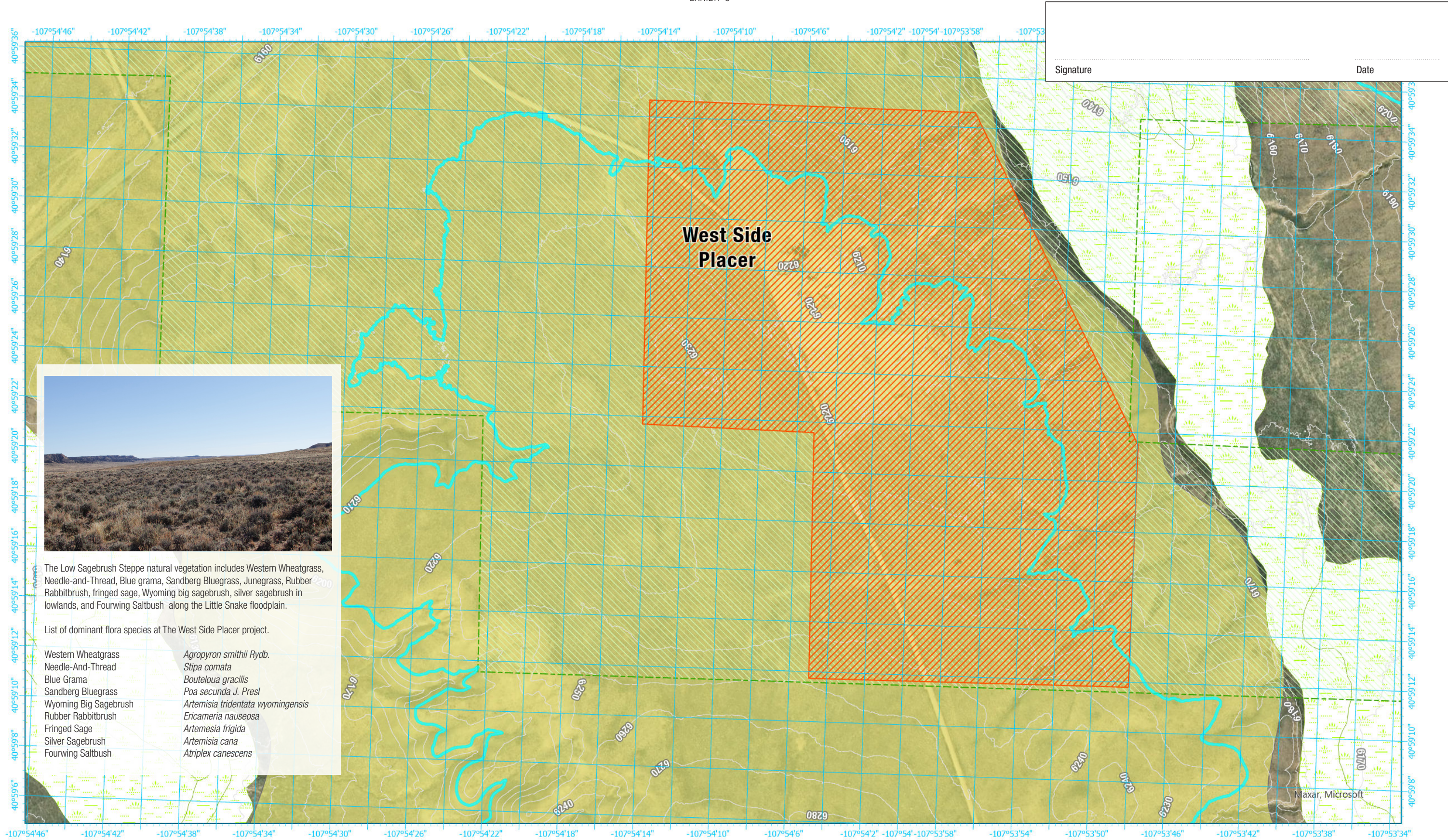


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6.4.3 EXHIBIT C  
Topography







6.4.3 EXHIBIT C  
Vegetation





6.4.3 EXHIBIT C  
Soils

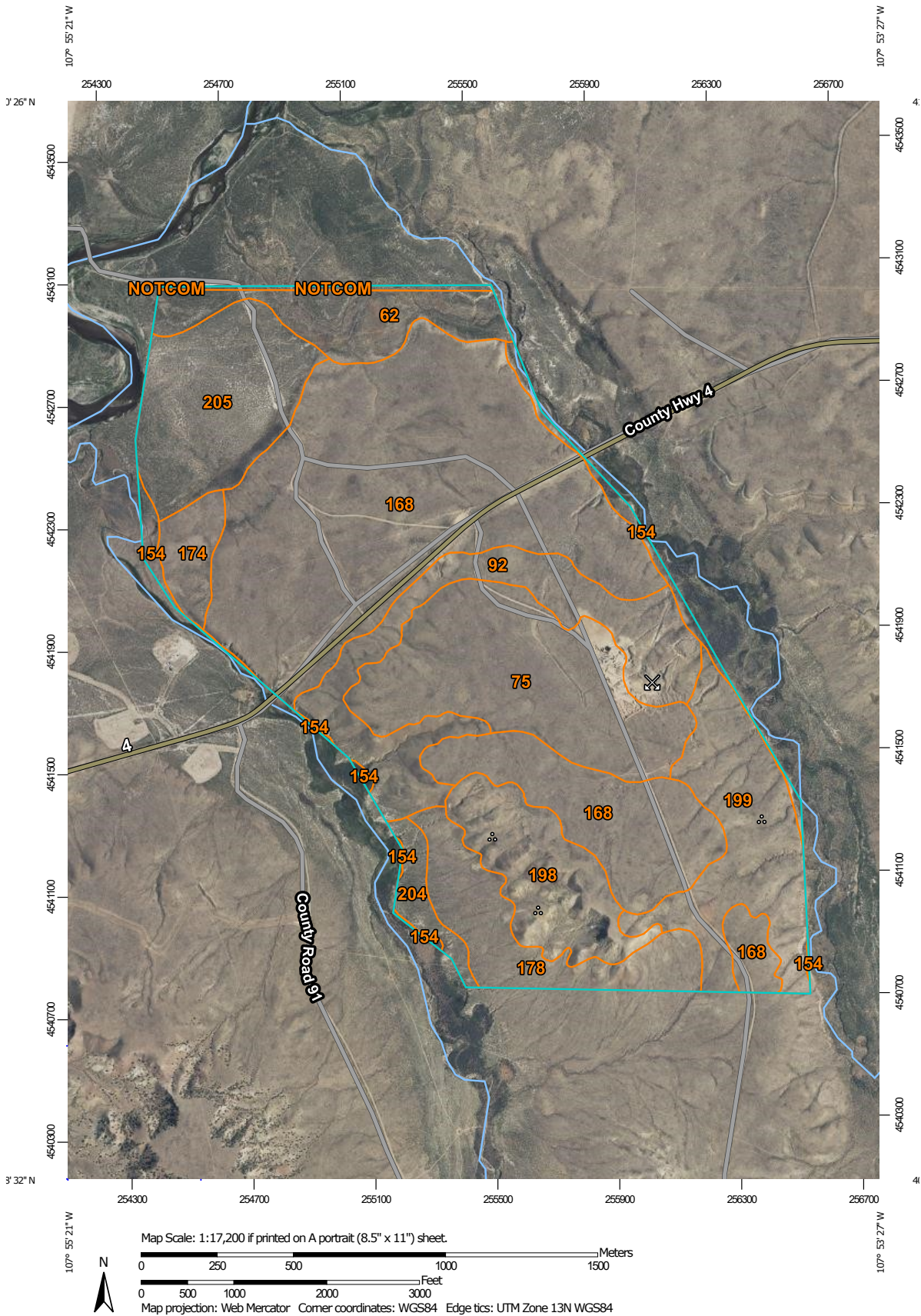


EXHIBIT C

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Map Unit Polygons

Soil Map Unit Lines

Soil Map Unit Points

Special Point Features

Blowout

Borrow Pit

Clay Spot

Closed Depression

Gravel Pit

Gravelly Spot

Landfill

Lava Flow

Marsh or swamp

Mine or Quarry

Miscellaneous Water

Perennial Water

Rock Outcrop

Saline Spot

Sandy Spot

Severely Eroded Spot

Sinkhole

Slide or Slip

Sodic Spot

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

Spoil Area

Spoil Area

Stony Spot

Very Stony Spot

Wet Spot

Other

Special Line Features

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at scales ranging from 1:24,000 to 1:31,700.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL:  
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Carbon County Area, Wyoming  
Survey Area Data: Version 18, Sep 6, 2023

Soil Survey Area: Moffat County Area, Colorado  
Survey Area Data: Version 16, Aug 22, 2023

Soil Survey Area: Sweetwater County Area, Wyoming  
Survey Area Data: Version 10, Sep 6, 2023

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 9, 2020—Jul 11, 2020

Signature

Date

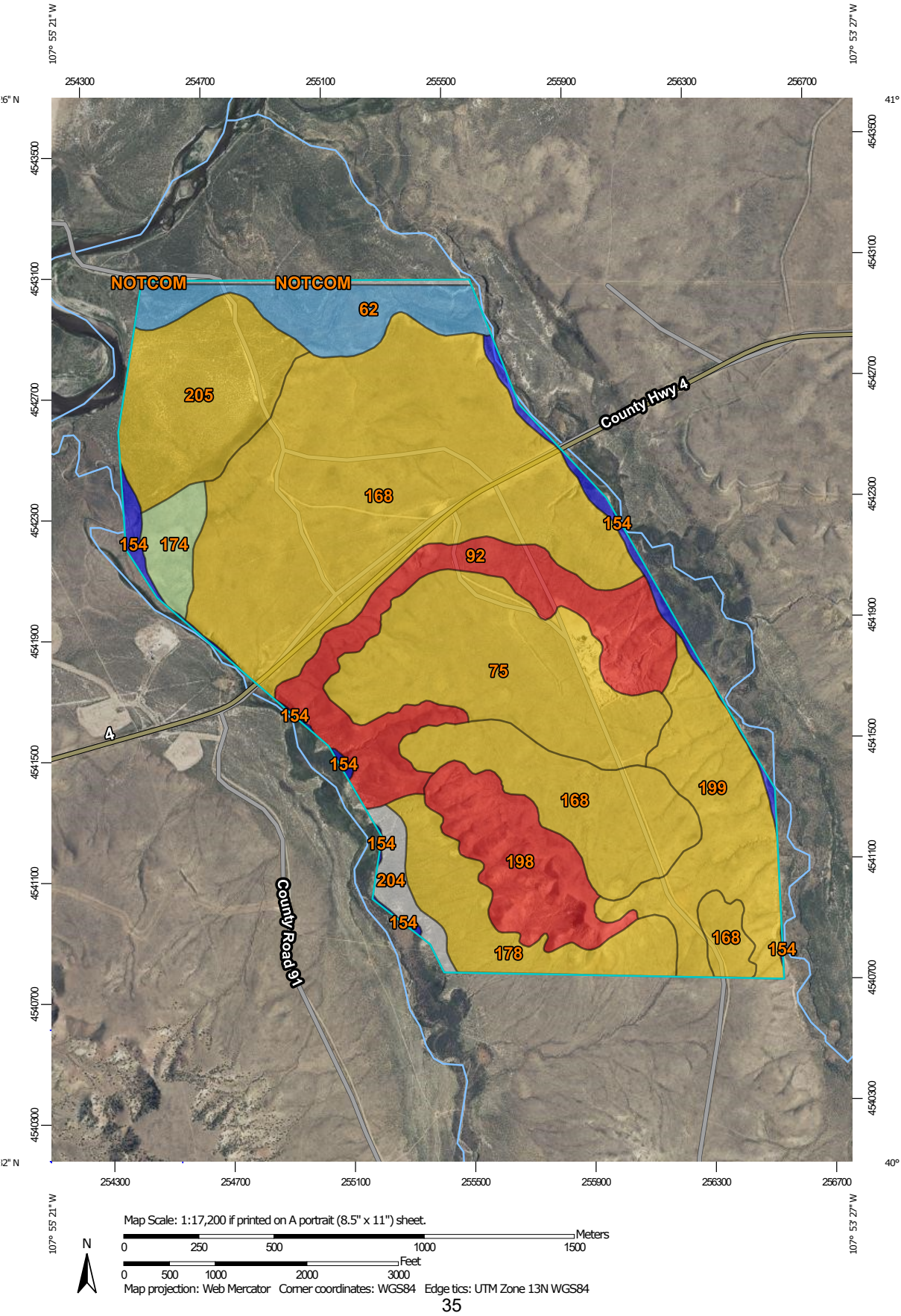
Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
NOTCOM	No Digital Data Available	3.8	0.5%
Subtotals for Soil Survey Area		3.8	0.5%
Totals for Area of Interest		807.3	100.0%

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
62	Eghelm loamy fine sand, 0 to 3 percent slopes	40.5	5.0%
75	Fonce sandy loam, 1 to 8 percent slopes	102.0	12.6%
92	Grimm-Ustic Torriorthents, shallow complex, 15 to 45 percent slopes	76.4	9.5%
154	Quealman sand, 0 to 3 percent slopes	15.7	1.9%
168	Ruedloff sandy loam, 1 to 8 percent slopes	304.1	37.7%
174	Ryark-Maybell complex, 1 to 12 percent slopes	15.6	1.9%
178	Simanni-Ruedloff complex, 1 to 10 percent slopes	46.2	5.7%
198	Torriorthents-Rock outcrop, shale complex, 30 to 75 percent slopes	49.9	6.2%
199	Torriorthents-Torripsammets complex, 12 to 40 percent slopes	72.1	8.9%
204	Typic Natrargids, 0 to 5 percent slopes	11.7	1.5%
205	Uffens fine sandy loam, 0 to 3 percent slopes	69.0	8.6%
Subtotals for Soil Survey Area		803.4	99.5%
Totals for Area of Interest		807.3	100.0%

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
NOTCOM	No Digital Data Available	0.1	0.0%
Subtotals for Soil Survey Area		0.1	0.0%
Totals for Area of Interest		807.3	100.0%





MAP LEGEND

- Area of Interest (AOI)**
- Area of Interest (AOI)
- Soils**
- Soil Rating Polygons**
- <= 250
  - > 250 and <= 525
  - > 525 and <= 688
  - > 688 and <= 1350
  - > 1350 and <= 1800
  - Not rated or not available
- Soil Rating Lines**
- <= 250
  - > 250 and <= 525
  - > 525 and <= 688
  - > 688 and <= 1350
  - > 1350 and <= 1800
  - Not rated or not available
- Soil Rating Points**
- <= 250
  - > 250 and <= 525
  - > 525 and <= 688
  - > 688 and <= 1350
  - > 1350 and <= 1800
  - Not rated or not available
- Water Features**
- Streams and Canals
- Transportation**
- Rails
  - Interstate Highways
  - US Routes
  - Major Roads
  - Local Roads
- Background**
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at scales ranging from 1:24,000 to 1:31,700.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL:  
Coordinate System: Web Mercator (EPSG:3857)

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Signature

Date

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
NOTCOM	No Digital Data Available	3.8	0.5%
Subtotals for Soil Survey Area		3.8	0.5%
Totals for Area of Interest		807.3	100.0%

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
62	Eghelm loamy fine sand, 0 to 3 percent slopes	40.5	5.0%
75	Fonce sandy loam, 1 to 8 percent slopes	102.0	12.6%
92	Grimm-Ustic Torriorthents, shallow complex, 15 to 45 percent slopes	76.4	9.5%
154	Quealman sand, 0 to 3 percent slopes	15.7	1.9%
168	Ruedloff sandy loam, 1 to 8 percent slopes	304.1	37.7%
174	Ryark-Maybell complex, 1 to 12 percent slopes	15.6	1.9%
178	Simanni-Ruedloff complex, 1 to 10 percent slopes	46.2	5.7%
198	Torriorthents-Rock outcrop, shale complex, 30 to 75 percent slopes	49.9	6.2%
199	Torriorthents-Torripsamments complex, 12 to 40 percent slopes	72.1	8.9%
204	Typic Natrargids, 0 to 5 percent slopes	11.7	1.5%
205	Uffens fine sandy loam, 0 to 3 percent slopes	69.0	8.6%
Subtotals for Soil Survey Area		803.4	99.5%
Totals for Area of Interest		807.3	100.0%

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
NOTCOM	No Digital Data Available	0.1	0.0%
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This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

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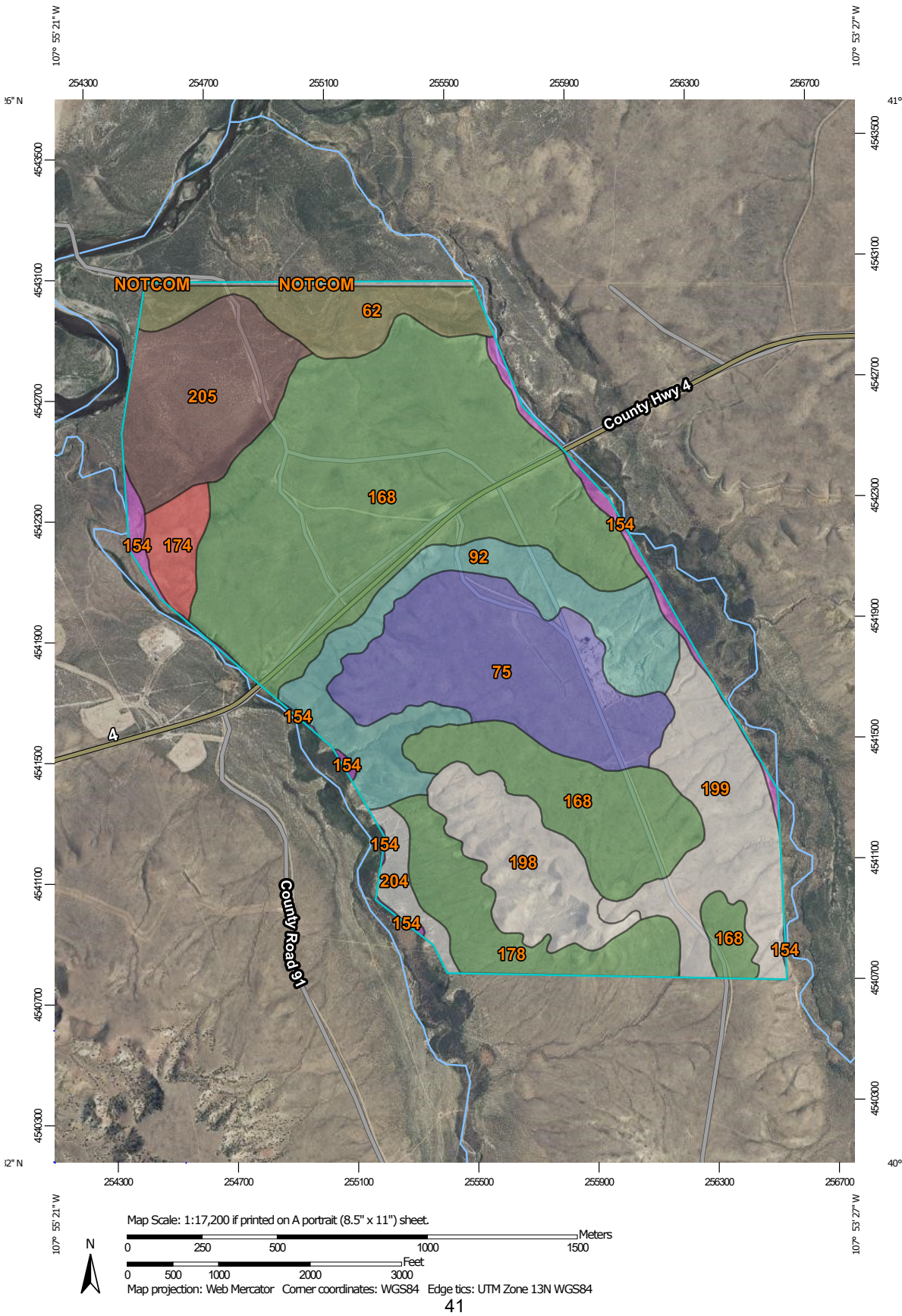
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Survey Area Data: Version 16, Aug 22, 2023

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6.4.3 EXHIBIT C  
Range Production (Normal Year)





### 6.4.3 EXHIBIT C

## Ecological Zones

### MAP LEGEND

- Area of Interest (AOI)**
  - Area of Interest (AOI)
- Soils**

**Soil Rating Polygons**
  - R034AY112WY
  - R034AY140WY
  - R034AY150WY
  - R034AY298CO
  - R034AY424CO
  - R034BY009UT
  - R034BY012UT
  - Not rated or not available

**Soil Rating Lines**
  - R034AY112WY
  - R034AY140WY
  - R034AY150WY
  - R034AY298CO
  - R034AY424CO
  - R034BY009UT
  - R034BY012UT
  - Not rated or not available

**Soil Rating Points**
  - R034AY112WY
  - R034AY140WY
  - R034AY150WY
  - R034AY298CO
- Water Features**
  - Streams and Canals
- Transportation**
  - Rails
  - Interstate Highways
  - US Routes
  - Major Roads
  - Local Roads
- Background**
  - Aerial Photography
- R034AY424CO
  - R034BY009UT
  - R034BY012UT
  - Not rated or not available

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Soil Survey Area: Sweetwater County Area, Wyoming  
Survey Area Data: Version 10, Sep 6, 2023

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Signature

Date

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Subtotals for Soil Survey Area		3.8	0.5%
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168	Ruedloff sandy loam, 1 to 8 percent slopes	304.1	37.7%
174	Ryark-Maybell complex, 1 to 12 percent slopes	15.6	1.9%
178	Simanni-Ruedloff complex, 1 to 10 percent slopes	46.2	5.7%
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Totals for Area of Interest		807.3	100.0%

## 6.4.4 EXHIBIT D – Mining Plan

### (A) Description of The Method(s) of Mining to Be Employed

The West Side Placer will employ placer mining methods. This includes the digging, moving ore, processing ore, returning ore to the active mining block and reclaiming.

Mining activities will take place in five-acre blocks, with no more than three blocks disturbed at one time. Typically, one block is actively being mined, one is being stripped in preparation for mining, and one is in reclamation. Including the six-acre footprint for the processing plant, within the already disturbed 9.9 acres from the current 110 permit. The maximum total of 29.9 acres will be disturbed at any given time.

The following methods will sequentially employ when mining; refer to *Table D.(A).1*.

#### (1) Prepping The Mining Block

##### 1. Documentation

A gps survey will be run on each mining block, marking out corner configurations for the block to be mined. Coordinates will be recorded and documented. Site photography will be used to document pre-mining state of each block.

##### 2. Physical Prep of Mining Block

A bulldozer will be used for the systematic stripping of topsoil across each 5-acre mining block. The bulldozer is tasked with removing a layer of topsoil, ranging from 8 to 16 inches in depth. Once removed, the topsoil will be carefully stockpiled along the perimeter of the mining block. This strategic placement aids in preserving the topsoil for future reclamation purposes. The topsoil removal process within a 24-hour period for each mining block (Three eight-hour shifts).

#### (2) Mining of the Ore Body

The ore body is situated directly beneath the topsoil layer. The excavator or scraper will systematically works its way downward, gradually creating a vertical wall along the interface of the ore body. This methodical approach ensures controlled excavation and stability of the mine walls. The excavation will advance methodically towards the far end of the mining block. A maximum of 20 acres (4 mining blocks) of the mining will be exposed for stripping, excavation and reclamation at any given time. Each block will be mined in approximately a month or less.

##### 1. Moving of Ore to Processing Plant

Haul trucks or scrapers will be used to move ore from the active mining block to the processing plant. County roads and temporary haul roads will be used to move ore from the active mining block to processing plant.

##### 2. Processing Plant

The primary function of the processing plant is to efficiently sort and concentrate excavated material, producing

products that will undergo further off-site processing for precious metals, rare earth elements, and other industrial streams. The processing facility may operate within an industrial tent, which provides sound buffering, weather protection, and consistent performance. This tent will not be a permanent structure and will not require a concrete foundation.

### **3. Return of Processed Ore to Active Mining Block**

Following the processing plant, the treated ore will be stacked in preparation for transportation. The stacked ore will then be reloaded onto haul trucks or scrapers and returned back to the active mining block. The return and deposition of the ore will progress methodically towards the direction of the active excavation wall within the pit. This directional approach ensures that the pit is refilled in a manner that is both orderly and efficient, aligning with the overall mining strategy and aiding in land rehabilitation efforts.

### **(3) Grading and Contouring of Mined Block**

After mining activities are completed, a dozer is used to grade the returned processed ore to match the original topographic contour of the site as closely as possible. This step is essential for restoring the physical appearance and functionality of the landscape. Lidar technology will be utilized to create detailed maps of the original topographic profile of the mining site. These maps serve as a reference to ensure accurate grading and restoration of the land to its pre-mining state.

### **(4) Return of Topsoil Over Mined Block**

Once the grading is complete, the next step involves covering the graded area with topsoil that was stockpiled before or during the mining process. This topsoil is spread evenly over the area to create a suitable medium for vegetation growth. It's a critical step in the reclamation process, as it restores the soil layer, which is necessary for plant life and helps to prevent erosion.

### **(5) Seeding and Imprinting of Mining Block**

The seeding of the reclaimed mining block is scheduled for specific times of the year either in October or April. These periods are chosen based on the climatic conditions that are most favorable for seed germination and growth. The seeds used for this process are part of an approved seed mix. Areas that are compacted, are ripped before seeding. A seeder is used to evenly distribute the seeds across the mining block. Following this, an imprinter is used to texture the block. An imprinter creates patterns or indentations in the soil surface. The texturing acts as a windbreak, reducing the likelihood of seeds being blown away and improved moisture retention. These features improve the chances of seed establishment by providing a micro-environment that is conducive to seed germination and growth.

The goal is to reduce the environmental footprint of mining activities and rehabilitate the land for future use, focusing particularly on promoting the regrowth of natural vegetation and the restoration of a stable ecosystem. These do not include post-mining monitoring that is addressed in Exhibit E.



## EXHIBIT D

TABLE D.(A).1 THE METHOD OF MINING TO BE EMPLOYED






Stage	Mining Task			Time
1	<b>Prepping of Ore Body in The Mining Block</b>		Stripping and stockpiling of topsoil. A dozer will be used to methodically push topsoil ranging from 8" - 16" in thickness to an appropriate edge of a mining block.	Less than seven days
2	<b>Mining of the Ore Body</b>	General	Combined use of excavator, haul truck, scraper and loader to systematically excavate the ore body. An excavator will creating a vertical wall and progress towards the far end of the block. Haul trucks or scrapers will move ore to processing plant.	Less than one month per block
		Moving of Ore to Processing Plant	County roads and temporary haul roads will be used to move ore from the active mining block to the processing plant. Haul trucks or scrapers will be used to used in this phase.	<i>Continuous with the mining of the block.</i>
		Processing Plant	Screening, magnetic and gravity separation of excavated material. Concentrated product will be shipped offsite.	<i>Continuous with the mining of the block.</i>
		Return of Processed Ore to Active Mining Block	Use of haul truck and scrapers to return ore to active mining block. County roads and temporary haul roads will be used to return the ore to the active mining block. The processed ore will systematically be replaced from the far end of the worked pit progressing towards the active wall of the mining block.	<i>Continuous with the mining of the block.</i>
3	<b>Grading and Contouring of Mined Block</b>		A dozer will be used to grade and contour returned processed ore back to original grade and contour. Lidar mapping will be used to record evaluational profiles of before and after states to ensure consistency with premined profile.	Less than seven days
4	<b>Return of Topsoil Over Mined Block</b>		Topsoil will be evenly spread over mined block. Wheel loader and/or a scraper will be used to distribute topsoil over the mined, graded and contoured block. A tractor will be used to rip and prepare topsoil for final seeding.	Less than seven days
5	<b>Seeding and Imprinting of Mining Block</b>		Use of Seeder and Imprinter: Evenly distribute seeds and texture the block. Schedule for seeding to occur in October or April.	One day per block



## (B) Earthmoving

The earthmoving tasks will use the equipment listed in *Table D.(B).1*.

TABLE D.(B).1 EARTHMOVING EQUIPMENT

Equipment Type	Model (or Equivalent)		Primary Function
Dozer	Caterpillar D8		<ul style="list-style-type: none"> <li>Clearing, leveling, and preparing sites within mining area</li> </ul>
Excavator	Caterpillar 352		<ul style="list-style-type: none"> <li>Excavate ore from mining block</li> <li>Load ore onto haul trucks</li> </ul>
Haul Truck	Komatsu HM400-5		<ul style="list-style-type: none"> <li>Transport ore to processing plant</li> <li>Return processed ore to mining block</li> </ul>
Scraper	Caterpillar 637 Scraper		<ul style="list-style-type: none"> <li>Move large volumes of soil and other materials on site</li> </ul>
Wheeled Loader	Caterpillar 972		<ul style="list-style-type: none"> <li>Feed ore into processing plant</li> <li>Load processed ore into haul trucks</li> <li>Load final products for off-site processing</li> </ul>

**(C) All Water Diversions And Impoundments**

The West Side Placer will use a dry-screening process that requires no water for mineral processing. Because no water is involved, there is no need for storage or settling ponds, which reduces potential environmental impacts and eliminates hazards associated with large-scale water impoundments.

## (D) The Size Of Area(s) To Be Worked At Any One Time

Mining will occur in blocks of 5-acre units. No more than 15 acres will be disturbed at any given time. See Image D.(D).1 for layout of 5-acre mining blocks. A total area of 79.9 acres will be exploited in this permit.

## (E) An Approximate Timetable To Describe The Mining Operation.

The following Table D.(E).1 - Mining Timetable describes the major components of the mining timeline. The majority of time will be spent continuously mining and reclaiming active mining blocks.

TABLE D.(E).1 - MINING TIMETABLE

Stage	Duration	Total Time
Set Up of Processing Plant - Set up of water systems, recovery systems, scrubbers, water well setup.	2 months per location	<b>Project Start</b>  <b>to</b>  <b>5 Years</b>
Prepping of Ore Body in the Mining Block (5 acres) - stripping of topsoil.	Less than one week per block	
Mining of the Ore Body (5 acres) - continuously mining and reclamation mining block.	Less than 6 months	
Grading of Mined Block and Covering with Stockpiled Topsoil	Less than one week per block	
Seeding and Imprinting of Mining Block	One day per block	
Post Mining Environmental Monitoring	Entire project length; 5 years post mining monitoring	<b>5 Years</b>
<b>Total Project Length</b>	Less than 5 years of mining; 5 years of post-mining environmental monitoring.	<b>10 Years</b>

**(F) Nature, Depth And Thickness of The Ore Body [ Confidential]**

The West Side Placer ore body is a surface deposit covered by a thin layer of topsoil. Topsoil averages 8” - 16” in depth. The thickness of the ore body varies from 6 to 80 feet, with an average depth of 30 feet. This deposit is situated on top of the Wasatch Formation, which is estimated to be approximately 1600 feet thick. Refer to Illustration D.(F).1 - Geologic Cross Section of The Ore Body at The West Side Placer and Table D.(F).1 - Ore Body.

ILLUSTRATION D.(F).1 -GEOLOGIC CROSS SECTION OF THE ORE BODY AT THE WEST SIDE PLACER

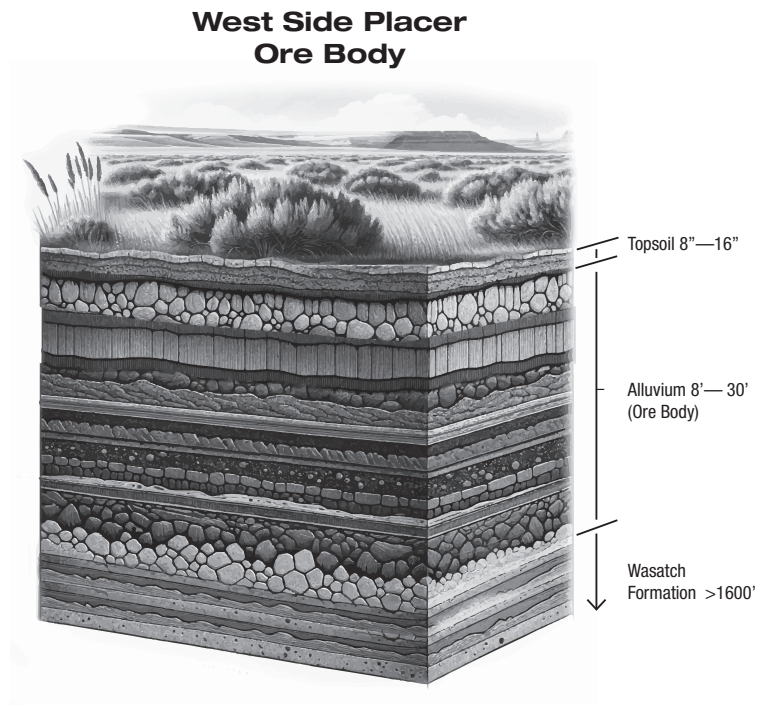


TABLE D.(F).1 - ORE BODY

Layer	Description	Thickness
<b>Topsoil Layer (Overburden)</b>	The topsoil layer above the alluvium is relatively shallow, ranging from 8 to 16 inches in depth. This is the layer of soil that is richest in organic material and is most fertile for plant growth.	8 to 16 inches
<b>Nature of the Ore Body</b>	The primary focus for the ore body at the West Side Placer is the alluvium layer, situated directly beneath the topsoil. This alluvium, derived from Eocene fossil beach and alluvial placers, likely began forming in the late Pliocene or Pleistocene epoch, with the age of mineralization cited as Quaternary. The depth of this layer averages 30 feet, but it varies significantly across the project area, ranging from 8 to 40 feet. Such variability in depth reflects the dynamic ancient water flows that deposited these sediments. Notably, the ore body within this alluvium is considered a surface ore body, which makes it relatively accessible for mining operations.	6 to 80 feet (average 30 feet)
<b>Underlying Geology</b>	Beneath the alluvium, the geological formation changes to Eocene sedimentary rocks, primarily of the Wasatch formation. The Wasatch Formation consists of a series of sedimentary rocks, including sandstones, mudstones, and conglomerates and can be several thousand feet in thickness.	Varies (Eocene sedimentary layer) typically ~ roughly 1600 feet. Averages 2000'.

## (G) Identify The Primary and Secondary Commodities to Be Mined/Extracted

Table D.(G).1, Primary and Secondary Commodities, provides a comprehensive list of the primary and secondary commodities intended for extraction at the West Side Placer. Critical minerals, as specified by the U.S. Geological Survey (USGS), are highlighted within this list due to their strategic importance to national security, economic stability, and technological advancement. These minerals are essential in the production of high-tech devices, renewable energy technologies, and advanced defense systems. The designation of these minerals as “critical” underscores their limited domestic availability and vulnerability to supply chain disruptions, making them a priority for responsible and sustainable extraction.

The inclusion of critical minerals in this project aligns with federal initiatives to bolster domestic supply, reducing dependence on foreign sources and ensuring a stable resource base for key industries.

TABLE D.(G).1 PRIMARY AND SECONDARY COMMODITIES - 1 of 3

Category	Product	Formula	Applications	Critical Mineral*
Primary	<b>Gold (Au)</b>  Gold, known for its rarity, malleability, ductility, and resistance to corrosion.	Au	<ul style="list-style-type: none"> <li>Jewelry: Gold's primary use is in jewelry-making due to its aesthetic appeal, resistance to tarnishing, and ability to be crafted into intricate designs. It has been used for centuries as a material for jewelry and ornamental objects.</li> <li>Finance and Investments: Gold is a significant financial asset, often used as a form of currency, in investment portfolios, and as a hedge against inflation and currency devaluation. Many central banks hold substantial gold reserves.</li> <li>Electronics: Gold's excellent conductivity and resistance to corrosion make it valuable in electronic components, such as connectors, switches, and relay contacts. It's used in cell phones, calculators, GPS units, and large servers, among other devices.</li> <li>Dentistry: Gold alloys are used in dentistry for fillings, crowns, bridges, and orthodontic appliances. Gold is bio-compatible, easy to work with, and provides a long-lasting dental restoration.</li> <li>Medicine: Gold compounds are used in some medical treatments, such as injections to treat rheumatoid arthritis. Gold's bio-compatibility also makes it suitable for implants and other medical devices.</li> <li>Aerospace: Due to its ability to conduct heat and electricity and resist corrosion and radiation, gold is used in spacecraft and satellites. Gold coated parts reflect infrared radiation and stabilize core temperatures of spacecraft.</li> </ul>	No
Primary	<b>Monazite</b>  A rare earth phosphate mineral, typically containing significant amounts of thorium, lanthanum, and cerium, among other rare earth elements.	(Ce,La,Nd,Th) (PO <sub>4</sub> ,SiO <sub>4</sub> )	<ul style="list-style-type: none"> <li>Source of Rare Earth Elements: Monazite is primarily valued for its concentration of rare earth elements (REEs). These REEs are critical in the manufacture of a wide range of high-tech products, electronics, and strategic applications.</li> <li>Electronics and Magnets: REEs extracted from monazite are crucial in the production of powerful permanent magnets used in electric motors, wind turbines, computer hard drives, and audio equipment. Neodymium and praseodymium, in particular, are used in the manufacture of neodymium-iron-boron (NdFeB) magnets, which are among the strongest types of permanent magnets.</li> <li>Aerospace and Defense: The REEs from monazite are used in aerospace and defense applications, including jet engine components, guidance systems, and other advanced materials that require properties such as high strength-to-weight ratio and resistance to high temperatures.</li> <li>Catalysis: Certain REEs from monazite, like cerium, are used as catalysts in petroleum refining and automotive catalytic converters.</li> <li>Glass and Ceramics: Monazite is sometimes used in the production of glass and ceramics, both as a source of REEs and for its thorium content, which helps increase the refractive index in specialty glasses.</li> <li>Nuclear Industry: Thorium extracted from monazite is a potential fuel for nuclear reactors, particularly in thorium-based nuclear power, which is an area of growing interest due to thorium's abundance and safety benefits over uranium.</li> <li>Lighting: Some REEs from monazite are used in lighting applications, including phosphors in fluorescent lamps.</li> <li>Medical Equipment: REEs are used in medical imaging devices and in the production of medical equipment.</li> </ul>	Yes

## EXHIBIT D

TABLE D.(G).1 PRIMARY AND SECONDARY COMMODITIES - 2 of 3

Category	Product	Formula	Applications	Critical Mineral*
Secondary	<b>Titanium Minerals</b> (ilmenite, euxenite, columbite and rutile)	(Fe,Ti)2O3 (Y, Ca, Ce, U, Th)(Nb, Ta, Ti 2)O 6 TiO2	<ul style="list-style-type: none"> <li>Titanium Metal Production: The primary use of titanium minerals is in the production of titanium metal, which is known for its high strength, light weight, and corrosion resistance. Titanium metal is used in aerospace applications for aircraft components and space vehicles, as well as in military equipment.</li> <li>Pigments: Titanium dioxide (TiO2) is widely used as a white pigment in paints, coatings, plastics, and paper due to its high refractive index, which gives it excellent light-scattering properties. It provides whiteness and opacity to these products.</li> <li>Welding Rod Coatings: Titanium minerals are used in welding rod coatings, where they help stabilize the arc during welding and improve the properties of the weld.</li> <li>Cosmetics and Sunscreens: Titanium dioxide is used in cosmetics and sunscreens due to its ability to scatter ultraviolet (UV) light, providing protection from the sun's harmful rays.</li> <li>Aerospace and Defense: Due to its high strength-to-weight ratio and resistance to extreme temperatures, titanium is used in various aerospace and defense applications, including aircraft frames, engines, and armor plating.</li> <li>Medical Devices: Titanium's bio-compatibility makes it suitable for medical implants, such as hip and knee replacements, dental implants, and surgical instruments.</li> <li>Desalination Plants: Titanium is used in desalination plants for its corrosion resistance, particularly in parts exposed to seawater.</li> <li>Chemical Processing: In chemical processing industries, titanium is used for equipment such as heat exchangers, reactors, and piping systems, especially in environments that are corrosive or involve high temperatures.</li> <li>Automotive Applications: In high-end and performance vehicles, titanium is used for components like exhaust systems and engine parts, leveraging its strength and light weight.</li> </ul>	Yes
Secondary	<b>Garnet</b>	([Mg,Fe,Mn]3Al2(SiO4)3	<ul style="list-style-type: none"> <li>Abrasive Blasting Media: Garnet is widely used as an abrasive blasting material for surface preparation in industrial painting and coating applications. Its hardness and angular shape make it effective for removing rust, paint, and other coatings from metal, wood, and other surfaces.</li> <li>Water-jet Cutting: Garnet is a preferred abrasive for water-jet cutting machines, which use high-pressure water and garnet abrasives to cut a wide variety of materials including metal, stone, glass, and composites. Its sharp edges and hardness allow for precise and efficient cutting.</li> <li>Abrasive Powders: Garnet is ground into powders that are used as abrasives in sandpaper for woodworking and automotive industries. It's used for finishing and polishing purposes due to its effectiveness in smoothing surfaces.</li> <li>Filter Media: Garnet is used as a filtration media for both water and air filtration. Its chemical stability and high specific gravity make it effective in filtering out contaminants.</li> <li>Water-jet Looms: In textile industries, garnet is used in water-jet looms for the efficient and precise cutting of fabrics.</li> <li>Surface Preparation in Petrochemical Industries: Garnet is used for blast cleaning surfaces in the petrochemical industry, preparing them for painting or coating.</li> <li>Grinding Media: In some applications, garnet is used as a grinding media. Its hardness makes it suitable for grinding and sharpening metals. Abrasive materials</li> </ul>	No

## EXHIBIT D

TABLE D.(G).1 PRIMARY AND SECONDARY COMMODITIES - 3 of 3

Category	Product	Formula	Applications	Critical Mineral*
Secondary	<b>Magnetite</b>	Fe <sub>3</sub> O <sub>4</sub>	<ul style="list-style-type: none"> <li>Steel Production: Magnetite is a major source of iron, making it a crucial raw material in the production of steel. Its high iron content makes it a valuable ore for iron and steel industries.</li> <li>Water treatment</li> <li>Coal Washing: Magnetite is used in the coal washing process. Its magnetic properties enable the separation of coal from impurities. Coal particles are mixed with magnetite and water; the mixture is then subjected to a magnetic field which separates the coal from heavier impurities.</li> <li>Dense Media Separation: In dense media separation processes, magnetite is used as a dense medium. This is particularly common in mineral processing to separate minerals with different densities, a method often used for separating diamonds from other material.</li> <li>Magnetic Resonance Imaging (MRI): Due to its magnetic properties, magnetite nanoparticles are used as contrast agents in MRI scanning.</li> <li>Catalysis: Magnetite is used as a catalyst in certain chemical reactions, including the production of ammonia in the Haber process.</li> <li>Electronics and Magnetic Storage: Due to its ferromagnetic nature, magnetite is used in magnetic tapes and hard drives for data storage.</li> <li>Energy Storage: Research is being conducted on the use of magnetite in energy storage systems and as a material for building lithium-ion batteries.</li> <li>Soundproofing and Insulation: Magnetite's density makes it useful for soundproofing and as an insulating material in construction.</li> </ul>	No
Secondary	<b>Zircon</b>	ZrSiO <sub>4</sub>	<ul style="list-style-type: none"> <li>Ceramics Industry: Zircon is extensively used in the production of ceramics, particularly in the manufacture of tiles, sanitary ware, and tableware. It acts as an opacifier, imparting a white, opaque appearance and improved strength and toughness to ceramic products.</li> <li>Refractory Materials: Due to its high heat resistance, zircon is used in the production of refractory materials, like furnace linings and foundry molds. It is especially valuable in high-temperature applications where robust and heat-resistant materials are needed.</li> <li>Foundry Sands: Zircon's high thermal stability makes it an excellent material for use in foundry sands for casting metals. It can withstand the high temperatures of molten metal without breaking down, ensuring the precision and quality of cast metal products.</li> <li>Zirconium Production: Zircon is the primary source of zirconium metal, which has applications in nuclear reactors due to its low neutron absorption characteristics. Zirconium is also used in the production of super alloys and in various chemical applications due to its corrosion resistance.</li> </ul>	Yes

## (H) Expected Incidental Products

The secondary commodities mined at the West Side Placer project encompass a range of valuable materials. Titanium minerals, including ilmenite, euxenite, columbite, and rutile, are essential for producing titanium metal, widely used in aerospace, pigments, and medical devices. Garnet is primarily used as an abrasive in industrial blasting, water-jet cutting, and surface preparation. Magnetite serves as a crucial iron source for steel production and is used in coal washing, MRI contrast agents, and catalysis. Zircon plays a vital role in ceramics, refractory materials, and as a source of zirconium for nuclear reactors. Specialty sand finds application in glass-making, construction, filtration, and fracking, while gravel supports erosion control, landscaping, and foundational stability in construction. Road base, composed of gravel and sand, provides essential support in road construction, and clay is integral to ceramics, soil management, and numerous industrial applications. *Table D.(H).1 Expected Incidental Products* shows the list of incidental/secondary commodities to be mined and extracted.

TABLE D.(H).1 EXPECTED INCIDENTAL PRODUCTS - 1 OF 3

Category	Product	Formula	Applications	Critical Mineral*
Secondary	<b>Titanium Minerals</b> (ilmenite, euxenite, columbite and rutile)	(Fe,Ti)2O3 (Y, Ca, Ce, U, Th)(Nb, Ta, Ti 2)O 6 TiO2	<ul style="list-style-type: none"> <li>Titanium Metal Production: The primary use of titanium minerals is in the production of titanium metal, which is known for its high strength, light weight, and corrosion resistance. Titanium metal is used in aerospace applications for aircraft components and space vehicles, as well as in military equipment.</li> <li>Pigments: Titanium dioxide (TiO2) is widely used as a white pigment in paints, coatings, plastics, and paper due to its high refractive index, which gives it excellent light-scattering properties. It provides whiteness and opacity to these products.</li> <li>Welding Rod Coatings: Titanium minerals are used in welding rod coatings, where they help stabilize the arc during welding and improve the properties of the weld.</li> <li>Cosmetics and Sunscreens: Titanium dioxide is used in cosmetics and sunscreens due to its ability to scatter ultraviolet (UV) light, providing protection from the sun's harmful rays.</li> <li>Aerospace and Defense: Due to its high strength-to-weight ratio and resistance to extreme temperatures, titanium is used in various aerospace and defense applications, including aircraft frames, engines, and armor plating.</li> <li>Medical Devices: Titanium's bio-compatibility makes it suitable for medical implants, such as hip and knee replacements, dental implants, and surgical instruments.</li> <li>Desalination Plants: Titanium is used in desalination plants for its corrosion resistance, particularly in parts exposed to seawater.</li> <li>Chemical Processing: In chemical processing industries, titanium is used for equipment such as heat exchangers, reactors, and piping systems, especially in environments that are corrosive or involve high temperatures.</li> <li>Automotive Applications: In high-end and performance vehicles, titanium is used for components like exhaust systems and engine parts, leveraging its strength and light weight.</li> </ul>	Yes
Incidental / Secondary	<b>Garnet</b>	[Mg,Fe,Mn]3Al2(SiO4)3	<ul style="list-style-type: none"> <li>Abrasive Blasting Media: Garnet is widely used as an abrasive blasting material for surface preparation in industrial painting and coating applications. Its hardness and angular shape make it effective for removing rust, paint, and other coatings from metal, wood, and other surfaces.</li> <li>Water-jet Cutting: Garnet is a preferred abrasive for water-jet cutting machines, which use high-pressure water and garnet abrasives to cut a wide variety of materials including metal, stone, glass, and composites. Its sharp edges and hardness allow for precise and efficient cutting.</li> <li>Abrasive Powders: Garnet is ground into powders that are used as abrasives in sandpaper for woodworking and automotive industries. It's used for finishing and polishing purposes due to its effectiveness in smoothing surfaces.</li> <li>Filter Media: Garnet is used as a filtration media for both water and air filtration. Its chemical stability and high specific gravity make it effective in filtering out contaminants.</li> <li>Water-jet Looms: In textile industries, garnet is used in water-jet looms for the efficient and precise cutting of fabrics.</li> <li>Surface Preparation in Petrochemical Industries: Garnet is used for blast cleaning surfaces in the petrochemical industry, preparing them for painting or coating.</li> </ul>	No



## EXHIBIT D

TABLE D.(H).1 TABLE D.(H).1 EXPECTED INCIDENTAL PRODUCTS - 2 OF 3

Category	Product	Formula	Applications	Critical Mineral*
Incidental / Secondary	<b>Magnetite</b>	(Fe, Mn)Nb <sub>2</sub> O <sub>6</sub>	<ul style="list-style-type: none"> <li>Steel Production: Magnetite is a major source of iron, making it a crucial raw material in the production of steel. Its high iron content makes it a valuable ore for iron and steel industries. Water treatment</li> <li>Coal Washing: Magnetite is used in the coal washing process. Its magnetic properties enable the separation of coal from impurities. Coal particles are mixed with magnetite and water; the mixture is then subjected to a magnetic field which separates the coal from heavier impurities.</li> <li>Dense Media Separation: In dense media separation processes, magnetite is used as a dense medium. This is particularly common in mineral processing to separate minerals with different densities, a method often used for separating diamonds from other material.</li> <li>Magnetic Resonance Imaging (MRI): Due to its magnetic properties, magnetite nanoparticles are used as contrast agents in MRI scanning.</li> <li>Catalysis: Magnetite is used as a catalyst in certain chemical reactions, including the production of ammonia in the Haber process.</li> <li>Electronics and Magnetic Storage: Due to its ferromagnetic nature, magnetite is used in magnetic tapes and hard drives for data storage.</li> <li>Energy Storage: Research is being conducted on the use of magnetite in energy storage systems and as a material for building lithium-ion batteries.</li> <li>Soundproofing and Insulation: Magnetite's density makes it useful for soundproofing and as an insulating material in construction.</li> </ul>	
Incidental / Secondary	<b>Zircon</b>	ZrSiO <sub>4</sub>	<ul style="list-style-type: none"> <li>Ceramics Industry: Zircon is extensively used in the production of ceramics, particularly in the manufacture of tiles, sanitary ware, and tableware. It acts as an opacifier, imparting a white, opaque appearance and improved strength and toughness to ceramic products.</li> <li>Refractory Materials: Due to its high heat resistance, zircon is used in the production of refractory materials, like furnace linings and foundry molds. It is especially valuable in high-temperature applications where robust and heat resistant materials are needed.</li> <li>Foundry Sands: Zircon's high thermal stability makes it an excellent material for use in foundry sands for casting metals. It can withstand the high temperatures of molten metal without breaking down, ensuring the precision and quality of cast metal products.</li> <li>Zirconium Production: Zircon is the primary source of zirconium metal, which has applications in nuclear reactors due to its low neutron absorption characteristics. Zirconium is also used in the production of super alloys and in various chemical applications due to its corrosion resistance.</li> </ul>	Yes
Incidental / On-demand	<b>Specialty Sand (Spec Sand)</b>	SiO <sub>2</sub>	<ul style="list-style-type: none"> <li>Glass-making: One of the primary uses of high-purity silica sand is in the production of glass. It provides the essential SiO<sub>2</sub> (silicon dioxide) component of glass formula, which gives glass its transparency, strength, and thermal resistance.</li> <li>Foundry Sand: In metal casting, specialty sand is used as a molding material, known as foundry sand. Its high melting point and resistance to heat make it ideal for forming molds into which molten metal is poured.</li> <li>Oil and Gas Recovery (Frac Sand): In the hydraulic fracturing process used to extract oil and natural gas, specialty sand known as frac sand is used. It is pumped into wells to prop open fractures in rock layers, allowing oil or gas to flow out.</li> <li>Construction: Specialty sand is used in the construction industry for its strength and durability, particularly in the creation of concrete and asphalt.</li> <li>Water Filtration: Because of its uniform size and shape, specialty sand is used in water filtration systems. It helps to trap and filter out impurities from water, making it cleaner for consumption or use.</li> <li>Sports and Leisure: Specialty sands are used in sports fields, including golf courses (in bunkers) and in volleyball courts, for their consistent grain size and drainage properties.</li> <li>Landscaping: In landscaping, specialty sand is used for its aesthetic appeal and for soil aeration and drainage.</li> <li>Abrasives: High-grade silica sand is used as an abrasive in sandblasting and other abrasive tools, for cleaning and shaping surfaces.</li> <li>Glass Beads and Other Decoratives: Specialty sand can be processed into glass beads used for decorative and reflective purposes in road marking and other applications.</li> <li>Chemical Production: Specialty sand is used in the production of certain chemicals, where silica is a required component.</li> <li>Ceramics and Refractories: In the manufacturing of ceramics and refractory materials, specialty sands are used because of their high silica content and thermal properties. Civil engineering applications</li> </ul>	No
Incidental / On-demand	<b>Gravel</b>	Typically, gravel includes a mix of rock types and sizes, from small pebbles to larger stones. Common rock types found in gravel are:  Quartz Granite Basalt Limestone Sandstone	<ul style="list-style-type: none"> <li>Erosion and Drainage Control: Gravel is effective for controlling erosion and managing drainage. It's used in areas that require stabilization against water movement, and in settings where drainage is a concern, such as around structures without gutters.</li> <li>Landscaping and Decorative Purposes: In landscaping, gravel serves both functional and aesthetic purposes. It's used for creating walkways, as a mulch replacement in gardens, and for decorative effects in landscape design.</li> <li>Construction and Infrastructure: Gravel is a key component in the construction industry. It's used in making concrete, creating foundations for roads, mixing with asphalt, and filling construction sites. Gravel is also utilized in producing other construction materials like blocks, pipes, and bricks. In some instances, it's even used in blast furnaces as a flux material.</li> </ul>	No

TABLE D.(H).1 TABLE D.(H).1 EXPECTED INCIDENTAL PRODUCTS - 3 OF 3

Category	Product	Formula	Applications	Critical Mineral*
Incidental / On-demand	<b>Road Base</b>	Gravel & Sand	<ul style="list-style-type: none"> <li>Foundation material for road construction</li> </ul>	No
Incidental / On-demand	<b>Clay</b>	$Al_2Si_2O_5(OH)_4$	<ul style="list-style-type: none"> <li>Ceramic Industry: Clay minerals like kaolinites, micas, and smectites are fundamental in the ceramic industry. They are used to produce various ceramic products, including porcelain, fine ceramics, coarse ceramics, cements, electro-ceramics, tiles, and refractories.</li> <li>Construction Industry: In construction, clay is a key material for making bricks, cement, and concrete. These applications leverage the structural and binding properties of clay, making it a vital component in building materials.</li> <li>Soil Mechanics and Agriculture: Clay plays a significant role in soil mechanics and agriculture due to its ability to influence soil structure and fertility. It is also involved in addressing environmental problems related to soil management.</li> <li>Oil and Gas Industry: In the oil and gas sector, clay minerals are crucial in the origin, migration, and trapping of hydrocarbons. They are also used in petroleum cracking processes, where their catalytic properties are essential for refining hydrocarbons.</li> <li>Industrial Applications: The inertness, stability, and unique rheological properties of clays make them suitable for a wide range of industrial applications. Additionally, their reactivity and catalytic activity are exploited in various industrial processes. The major classes of clays used industrially include common clays, industrial kaolins, bentonites, and palygorskite-sepiolite clays.</li> </ul>	No

## (I) Explosives

No explosives will be used in this project.

## (J) Specify The Dimensions of Any Existing or Proposed Roads.

The following roads will be used in the operation. Refer to Table D.(J).1 Roads. These roads are shown on A.1 General Exhibit Map.

TABLE D.(J).1 ROADS

Road	Type	Dimensions	Description
Moffat County Road 4	Paved	40'	Will only be crossed, not used extensively. Mats placed across Road 4 for any tracked vehicle.
Moffat County Road 88	Dirt	20'x4000'	This road will be used for 4000 feet south.

### • Temporary Mining and Haul Roads

We will establish efficient paths leading to the processing plant, ensuring a maximum width of 20 feet and lengths of up to 1,300 feet. These paths will traverse mined blocks that have been covered with redeposited topsoil. When roads are no longer in use, they will be ripped to loosen compacted soil and prepared for final reclamation, which will include imprint seeding to promote vegetation growth.

### • Environmental Mitigation

We will implement track-out control mats, strategically placed at the entrances to County Road 88 and County Road 148 during peak operational periods. This measure is designed to protect County Road 4 from dirt and sediment carried by mining activities. West Side Placer will also be responsible for maintaining dirt roads throughout the operational phase to minimize environmental impact.

## 6.4.5 EXHIBIT E - Reclamation Plan

### (A) Description of The Type of Reclamation

The West Side Placer Project will implement Progressive Reclamation methods, continuously and systematically reclaiming land as mining operations advance, rather than postponing reclamation until the conclusion of all mining activities. This proactive approach involves several key stages to restore the land's natural ecosystem effectively and sustainably.

#### 1. Initial Reclamation Planning

Comprehensive site surveys and careful preparation of each mining block lay the foundation for effective reclamation, ensuring all land affected by mining will be efficiently restored.

#### 2. Stripping and Preservation of Topsoil

In this phase, the nutrient-rich topsoil is carefully stripped and preserved before mining activities commence. Long-term storage will be addressed by covering the topsoil with a geotextile layer or a cover seed crop to prevent erosion and maintain soil health.

#### 3. Mining Blocks and Returning Processed Ore

This stage involves the extraction of minerals, after which processed materials are returned to the mined areas, stabilizing the ground for future reclamation efforts.

#### 4. Grading and Spreading Stockpiled Topsoil

Once mining is completed in an area, the land is graded to restore its original contours. The stored topsoil is then redistributed over the graded area, readying it for vegetation.

#### 5. Seeding with Native Vegetation

A mixture of native seeds and shrubs is planted to re-establish the natural ecosystem. An imprint seeder will be used to ensure seeds make solid contact with the soil, improving germination and supporting robust growth.

#### 6. Noxious Weed Management

The West Side Placer Project will implement preventive and responsive strategies to manage noxious weed infestations. This includes regular monitoring, adaptive control methods, and post-mining restoration efforts, supported by thorough training for all personnel.

#### 7. Monitoring and Inspection

Annual surveys conducted by qualified technicians will monitor the success of reclamation efforts. Reports, including photographic documentation, will be submitted yearly to track progress and ensure compliance with reclamation goals.

## (B) A Comparison of The Proposed Post Mining Land Use.

Table E.(B).1, compares post-mining land use, including rangeland, wildlife habitat, and renewable energy. State Land Board has expressed that Wildlife Habitat as the intended post mining use.

See section 6.4.6, *EXHIBIT F – Reclamation Plan Maps*, for more information on post-mining land use and related maps.

TABLE E.(B).1

Post Mining Use	Purpose	Environmental Impact	Economic Impact	Sustainability
Rangeland	Livestock grazing and foraging	Restores vegetation and soil, risk of erosion and habitat destruction if overgrazed	Benefits through livestock, supports rural economies	Sustainable with proper management and conservation practices
Wildlife Habitat	Preserving and enhancing habitat for wildlife	Positive for biodiversity and ecological balance	Potential ecotourism, hunting, limited direct economic benefits	Highly sustainable, contributes to long-term environmental health

## (C) The Reclamation Plan

Reclamation at the West Side Placer will be a continuous process. This involves: Boundry GPS surveys and flagging. Photo documentation of pre-mining state, stockpiling topsoil, mining, returning ore to the active mining block, contouring, reapplying topsoil, seeding, and monitoring. AuPt Industries has already successfully implemented reclamation under their 110-2 permit with excellent results.

The mining operation is structured into distinct stages, each critical to the overall project.

### 1.0 Initial Reclamation Planning: Site Surveys and Mining Block Preparation

Activities that take place before mining of any ground.

Reclamation Step	Time Of Year	Expected Time-frame	Key Activities and Details	Equipment	Personnel	Deliverables/Outcomes
<b>1.1 Site Survey</b>	Year round	3 Weeks st the commencement of the project	<ul style="list-style-type: none"> <li>Photographic documentation of site.</li> <li>Flora and Fauna Surveys.</li> </ul>	<ul style="list-style-type: none"> <li>GPS Survey Equipment</li> <li>Photographic Equipment</li> <li>UAV</li> </ul>	<ul style="list-style-type: none"> <li>GPS technician and photographer</li> <li>Qualified biologist</li> </ul>	<ul style="list-style-type: none"> <li>Photos and GPS information will be logged into an online project database.</li> <li>Flora and Fauna report will be logged into on-line project database</li> </ul>
<b>1.2 Site preparation for processing plant</b>	Year-round	2 Months	<ul style="list-style-type: none"> <li>Document ground pre and post mining.</li> <li>Top-soil stripping and stockpiling.</li> <li>Level ground.</li> </ul>	<ul style="list-style-type: none"> <li>GPS Survey Equipment</li> <li>Photographic Equipment</li> <li>Dozer</li> <li>Scraper</li> <li>Loader</li> </ul>	<ul style="list-style-type: none"> <li>Site surveyor</li> <li>Mining crew</li> </ul>	<ul style="list-style-type: none"> <li>Ground ready for processing plant installation</li> </ul>
<b>1.3 Mining Block Survey</b>	Year Round	1 Day per block	<ul style="list-style-type: none"> <li>Flag corners of mining block</li> <li>Photo document site before any disruption</li> </ul>	<ul style="list-style-type: none"> <li>GPS Survey Equipment</li> <li>Photographic Equipment</li> <li>UAV</li> </ul>	<ul style="list-style-type: none"> <li>GPS technician</li> <li>Photographer</li> <li>Mining crew</li> </ul>	<ul style="list-style-type: none"> <li>Photos and GPS information will be logged into an on-line project database.</li> <li>Flagging of block corners</li> </ul>

## EXHIBIT E

1.4 Preparation of the Mining Block	Year-round	1 Week	<ul style="list-style-type: none"> <li>• Top-soil stripping and stockpiling.</li> <li>• Pre-mining mowing of blocks that will be worked during critical Sage Grouse period March 1 to July 15</li> </ul>	<ul style="list-style-type: none"> <li>• GPS Survey Equipment</li> <li>• Dozer</li> <li>• Scraper</li> <li>• Loader</li> </ul>	<ul style="list-style-type: none"> <li>• GPS technician</li> <li>• Mining crew</li> </ul>	<ul style="list-style-type: none"> <li>• Mining block ready to mine</li> <li>• Topsoil stockpiled</li> </ul>
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## 1. Site Survey

Photographic surveys will be conducted prior to any mining or mining-related construction activities. Boundaries of all mining blocks will be clearly marked and cataloged to establish a documented reference of the site's pre-mining conditions.

## 2. Site Preparation for Processing Plant

The processing plant will occupy a two-acre area. A bulldozer will be used to remove and stockpile the topsoil, which will then be protected from erosion by either planting native grasses or covering it with geotextile fabric. The site will be leveled and prepared for installing processing equipment and water storage facilities, with concrete foundations poured and set. To prevent environmental impact, areas likely to be exposed to moisture from processed ore will be equipped with runoff protection measures.

Photographic documentation will occur both before mining begins and after its completion, enabling assessment of environmental impact and ensuring compliance with environmental regulations.

## 3. Mining Block Survey

A photographic survey will be conducted before any mining or mine-related construction in each mining block. Boundaries for all active blocks will be defined and cataloged. These mining block surveys will be carried out progressively throughout the project.

## 4. Preparation of the Mining Block

The preparation process begins with delineating a 5-acre mining block, which will be surveyed using GPS and physically marked on the ground. The pre-mining state of each block will be photo-documented. The topsoil will then be stripped using a bulldozer and stockpiled along the block's perimeter to facilitate future restoration.

For blocks scheduled for mining during high-priority Sage Grouse habitat periods — specifically from March 1 to July 15, covering lekking, nesting, and breeding periods — vegetation will be mowed before March 1 to deter nesting.

Track-out mats will be installed, and road ingress and egress points prepared during this phase. State-of-the-art, low-noise equipment will be used to minimize disruption to surrounding habitats.

## 2.0 Proactive Measures Supporting Reclamation During Active Mining:

Reclamation Activities that take place before mining of any ground.

Reclamation Step	Time Of Year	Time-frame	Key Activities and Details	Equipment	Personnel	Deliverables/Outcomes
<b>2.0 Proactive Measures for Reclamation During Active Mining</b>	Year round	Up to 1 month of disturbance per mining block.	<p><b>2.1 Soil Management, Erosion and Sediment Control</b></p> <ul style="list-style-type: none"> <li><b>2.1.1 Topsoil Preservation:</b> Remove and stockpile topsoil separately for use in reclamation. Ensure it's stored in a way that maintains its fertility and structure.</li> <li><b>2.1.2 Surface Water Management:</b> Design drainage systems to manage surface water flow and reduce erosion potential.</li> <li><b>2.1.3 Dust and Erosion Reduction:</b> Track out mats for all major road entrances and exits. Reduction of dust with water spraying, Use of silt fencing and coir logs in critical areas.</li> <li><b>2.1.4 Erosion Control Plantings:</b> Establish quick-growing cover crops or grasses to control erosion and stabilize soil during and after mining.</li> </ul> <p><b>2.2 Vegetation Management - Noxious Weed Management</b></p> <ul style="list-style-type: none"> <li>Progressive Reclamation: Reclaim mined areas progressively by replanting native vegetation and stabilizing soil as sections of the mine are completed.</li> <li>Conduct a thorough assessment of the mine site to identify existing noxious weed species and their distribution.</li> <li>Educate all personnel on the identification of noxious weeds and the importance of weed management.</li> <li>Provide training on the best management practices (BMPs) for weed prevention and control.</li> <li>Create detailed maps showing the locations of noxious weed infestations.</li> <li>Use mowing, cutting, or hand-pulling to control weeds, especially for small infestations or in sensitive areas.</li> <li>Ensure that equipment is cleaned to prevent the spread of weed seeds.</li> </ul> <p><b>Wildlife Protection</b></p> <ul style="list-style-type: none"> <li>Habitat Preservation: Identify and protect key wildlife habitats during mining operations. Create wildlife corridors to allow safe movement of animals.</li> <li>Align operations to deal with The Migratory Bird Treaty Act, BLM's Greater Sage-Grouse Management Plans.</li> <li>Use of new rolling stock with low sound signatures.</li> <li>Bird spikes to prevent perching on high areas of the processing plant.</li> <li>Re-vegetation with Native Species: Use native plant species in reclamation to restore natural habitats and support local wildlife.</li> </ul> <p><b>Environmental Monitoring</b></p> <ul style="list-style-type: none"> <li>Regular Monitoring: Conduct regular environmental monitoring during mining.</li> <li>Education and Communication: Provide information and updates on reclamation efforts to stakeholders to build trust and support.</li> <li>Monitor air quality with Continuous Air Monitoring Stations.</li> </ul> <p><b>Regulatory Compliance</b></p> <ul style="list-style-type: none"> <li>Permitting and Approvals: Ensure all mining and reclamation activities comply with local, state, and federal regulations.</li> <li>Reporting: Maintain thorough documentation and reporting of reclamation activities and progress to regulatory authorities.</li> </ul>	<p><b>Soil Management, Erosion and Sediment Control</b></p> <ul style="list-style-type: none"> <li>Silt Fencing</li> <li>Geotextiles</li> <li>Erosion Control Blankets</li> <li>Coir Logs</li> <li>Track-out mats</li> </ul> <p><b>Vegetation Management - Noxious Weed Management</b></p> <ul style="list-style-type: none"> <li>Water Trucks</li> <li>Vegetative Barriers</li> <li>Windbreaks</li> <li>Dust Barriers</li> </ul> <p><b>Wildlife Protection</b></p> <ul style="list-style-type: none"> <li>New equipment</li> <li>Mowers</li> <li>Bird Spikes</li> </ul> <p><b>Environmental Monitoring</b></p> <ul style="list-style-type: none"> <li>Active environmental database for the project</li> <li>Air monitoring station</li> </ul>	<p><b>Soil Management, Erosion and Sediment Control</b></p> <ul style="list-style-type: none"> <li>Environmental Technician</li> <li>Mining Crew</li> </ul> <p><b>Vegetation Management - Noxious Weed Management</b></p> <ul style="list-style-type: none"> <li>Environmental Technician</li> <li>Mining Crew</li> </ul> <p><b>Wildlife Protection</b></p> <ul style="list-style-type: none"> <li>Environmental Technician</li> <li>Mining Crew</li> </ul> <p><b>Environmental Monitoring</b></p> <ul style="list-style-type: none"> <li>Environmental Technician</li> <li>Mining Crew</li> </ul> <p><b>Regulatory Compliance</b></p> <ul style="list-style-type: none"> <li>AuPT Management Team</li> <li>Environmental Technician</li> <li>Mining Crew</li> </ul>	<p><b>Soil Management, Erosion and Sediment Control</b></p> <ul style="list-style-type: none"> <li>Reduced erosion and sediment control</li> <li>Detailed log of all activities</li> </ul> <p><b>Vegetation Management - Noxious Weed Management</b></p> <ul style="list-style-type: none"> <li>Reestablishment of native species after mining</li> <li>Mowing of critical areas to prevent sage-grouse nesting and impact on migratory birds.</li> <li>Reduction and eradication of invasive plant-species.</li> <li>Reporting of all noxious weeds</li> <li>Detailed log of all activities</li> </ul> <p><b>Wildlife Protection</b></p> <ul style="list-style-type: none"> <li>Environmental Technician</li> <li>Mining Crew</li> </ul> <p><b>Environmental Monitoring</b></p> <ul style="list-style-type: none"> <li>AuPT Management Team</li> <li>Environmental Technician</li> <li>Mining Crew</li> </ul> <p><b>Regulatory Compliance</b></p> <ul style="list-style-type: none"> <li>AuPT Management Team</li> <li>Environmental Technician</li> <li>Mining Crew</li> </ul>

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<b>2.1 Soil Management, Erosion and Sediment Control</b>			<ul style="list-style-type: none"> <li>• <b>2.1.1 Topsoil Preservation:</b> Remove and stockpile topsoil separately for use in reclamation. Ensure it's stored in a way that maintains its fertility and structure.</li> <li>• <b>2.1.2 Surface Water Management:</b> Design drainage systems to manage surface water flow and reduce erosion potential.</li> <li>• <b>2.1.3 Dust and Erosion Reduction:</b> Track out mats for all major road entrances and exits. Reduction of dust with water spraying, Use of silt fencing and coir logs in critical areas.</li> <li>• <b>2.1.4 Erosion Control Plantings:</b> Establish quick-growing cover crops or grasses to control erosion and stabilize soil during and after mining.</li> </ul>	<ul style="list-style-type: none"> <li>• Silt Fencing</li> <li>• Geotextiles</li> <li>• Erosion Control Blankets</li> <li>• Coir Logs</li> <li>• Track-out mats</li> </ul>	<ul style="list-style-type: none"> <li>• Environmental Technician</li> <li>• Mining Crew</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced erosion and sediment control</li> <li>• Detailed log of all activities</li> </ul>
<b>2.2 Vegetation Management - Noxious Weed Management</b>			<ul style="list-style-type: none"> <li>• Progressive Reclamation: Reclaim mined areas progressively by replanting native vegetation and stabilizing soil as sections of the mine are completed.</li> <li>• Conduct a thorough assessment of the mine site to identify existing noxious weed species and their distribution.</li> <li>• Educate all personnel on the identification of noxious weeds and the importance of weed management.</li> <li>• Provide training on the best management practices (BMPs) for weed prevention and control.</li> <li>• Create detailed maps showing the locations of noxious weed infestations.</li> <li>• Use mowing, cutting, or hand-pulling to control weeds, especially for small infestations or in sensitive areas.</li> <li>• Ensure that equipment is cleaned to prevent the spread of weed seeds.</li> </ul>	<ul style="list-style-type: none"> <li>• Water Trucks</li> <li>• Vegetative Barriers</li> <li>• Windbreaks</li> <li>• Dust Barriers</li> </ul>	<ul style="list-style-type: none"> <li>• Environmental Technician</li> <li>• Mining Crew</li> </ul>	<ul style="list-style-type: none"> <li>• Reestablishment of native species after mining</li> <li>• Mowing of critical areas to prevent sage-grouse nesting and impact on migratory birds.</li> <li>• Reduction and eradication of invasive plant-species.</li> <li>• Reporting of all noxious weeds</li> <li>• Detailed log of all activities</li> </ul>
<b>2.3 Wildlife Protection</b>			<ul style="list-style-type: none"> <li>• Habitat Preservation: Identify and protect key wildlife habitats during mining operations. Create wildlife corridors to allow safe movement of animals.</li> <li>• Align operations to deal with The Migratory Bird Treaty Act, BLM's Greater Sage-Grouse Management Plans.</li> <li>• Use of new rolling stock with low sound signatures.</li> <li>• Bird spikes to prevent perching on high areas of the processing plant.</li> <li>• Re-vegetation with Native Species: Use native plant species in reclamation to restore natural habitats and support local wildlife.</li> </ul>		<ul style="list-style-type: none"> <li>• Environmental Technician</li> <li>• Mining Crew</li> </ul>	<ul style="list-style-type: none"> <li>• Integration of mining operations minimize effects on local wildlife population.</li> <li>• Protection for Sage Grouse and migratory birds.</li> <li>• Habitat Restoration</li> </ul>
<b>Environmental Monitoring</b>			<ul style="list-style-type: none"> <li>• Regular Monitoring: Conduct regular environmental monitoring during mining.</li> <li>• Education and Communication: Provide information and updates on reclamation efforts to stakeholders to build trust and support.</li> <li>• Monitor air quality with Continuous Air Monitoring Stations.</li> </ul>		<ul style="list-style-type: none"> <li>• AuPT Management Team</li> <li>• Environmental Technician</li> <li>• Mining Crew</li> </ul>	<ul style="list-style-type: none"> <li>• Early detection of possible environmental issues.</li> <li>• Documentation and base-lining of activity at mine site.</li> <li>• Environmental Data</li> </ul>
<b>Regulatory Compliance</b>			<ul style="list-style-type: none"> <li>• Permitting and Approvals: Ensure all mining and reclamation activities comply with local, state, and federal regulations.</li> <li>• Reporting: Maintain thorough documentation and reporting of reclamation activities and progress to regulatory authorities.</li> </ul>		<ul style="list-style-type: none"> <li>• AuPT Management Team</li> <li>• Environmental Technician</li> <li>• Mining Crew</li> </ul>	<ul style="list-style-type: none"> <li>• Compliance with regulatory bodies</li> </ul>

Mining operations will proceed throughout the year. Proactive steps for reclamation during mining will ensure a successful reclamation program. The following areas are addressed:

## 2.1 Soil Management, Erosion, and Sediment Control

Sustainable soil management and erosion control are essential for maintaining land quality during construction and mining activities. Key strategies include preserving topsoil for reclamation, implementing tailored surface water drainage systems to prevent erosion, and controlling dust through track-out mats and regular water spraying. Native grasses will be planted on disturbed areas to stabilize soil, support ecological health, and manage noxious weeds. Additionally, low-noise equipment will be utilized to minimize environmental impact, promoting long-term sustainability.

### 1. Topsoil Preservation

Effective soil management and erosion control are essential for sustainable land use. A primary strategy in this process is the preservation of topsoil. During construction and other land-disturbing activities, topsoil will be carefully removed and stockpiled separately to facilitate its reuse in reclamation efforts. Proper storage techniques, such as covering with geotextile fabric or establishing a protective cover crop, will maintain the soil's fertility and structure, preventing compaction or erosion during storage.

### 2. Surface Water Management

Surface water management is crucial for reducing erosion potential and preserving soil integrity. Designing tailored drainage systems to manage surface water flow will prevent erosion effectively. These systems will be adapted to the site's natural water flow patterns, with attention to mitigating effects of heavy rainfall. By channeling water away from vulnerable areas and regulating flow rates, these systems minimize soil erosion and sediment displacement, thereby protecting water quality in nearby streams and rivers by reducing sediment runoff.

### 3. Dust and Erosion Reduction

Dust and erosion control are vital components of soil management. Track-out mats will be installed at major road entrances, exits, and mining block entrances to reduce soil and dust transport off-site. Regular water spraying will control dust on exposed soil surfaces, improving air quality and visibility. In erosion-prone areas, physical barriers like silt fencing and coir logs will trap sediment and slow water flow, further mitigating erosion risks.

### 4. Erosion Control Plantings

Erosion control plantings are an effective soil stabilization method. Quick-growing cover crops or grasses will be established on bare or disturbed soil to provide immediate erosion protection. These plants help anchor soil with their root systems, reducing the risk of soil displacement by water or wind. Additionally, these plantings contribute organic matter to the soil, enhancing soil health and promoting biodiversity. By incorporating erosion control plantings into soil management practices, the project will foster resilient landscapes that support long-term environmental sustainability and reduce erosion and sedimentation impacts.

To further control dust, track-out mats will be used at roadways, mining block entrances, and the processing plant. State-of-the-art equipment with low sound emissions will also be employed in mining operations and the recovery plant to minimize environmental impact.



## 2.2 Vegetation Management - Noxious Weed Management

Effective noxious weed management is a critical component of the West Side Placer Project's reclamation plan. AuPt Industries, LLC, is dedicated to maintaining the ecological integrity of the site by using a multi-faceted, sustainable approach to control invasive plant species, particularly Halogeton. The primary goal is to prevent infestations from spreading and to restore the land with native vegetation. AuPt Industries prioritizes non-chemical methods and employs chemical control only as a last resort.

### 1. Prevention and Early Detection

The first line of defense in managing noxious weeds is prevention. Through early detection and prompt response, the project aims to limit the establishment and spread of invasive species. Prevention strategies include:

**Comprehensive Site Surveys:** Initial site surveys will identify areas at high risk for weed infestations, mapping existing populations of noxious weeds such as Halogeton. These surveys will be updated regularly to track changes over time.

**Clean Equipment Protocols:** To prevent accidental introduction of weed seeds, all equipment will be thoroughly cleaned before entering and exiting the site. This protocol reduces the risk of transporting seeds from one area to another.

### 2. Cultural Control: Promoting Native Vegetation

The establishment of native grasses and other suitable plant species plays a central role in weed prevention by creating a competitive vegetative cover that limits opportunities for weed colonization. Key practices include:

**Seeding with Native Grasses:** Disturbed areas will be reseeded with a mix of native grasses chosen for their resilience and ability to outcompete invasive species. This cover helps to stabilize soil, reduce erosion, and limit open areas where weeds might establish.

**Soil Health Management:** Maintaining soil health through proper topsoil handling and storage prevents the degradation of soil quality, ensuring conditions favorable for native vegetation rather than invasive species.

### 3. Mechanical Control: Manual and Physical Removal

When infestations occur, mechanical control methods will be the primary response. These methods include:

**Hand-Pulling and Cutting:** In smaller, sensitive areas, noxious weeds will be hand-pulled or cut to prevent seed production and spread. This method minimizes soil disturbance and protects the surrounding vegetation.

**Mowing and Targeted Clearing:** In more extensive areas where manual removal is impractical, mowing will be used to control weed growth while limiting soil disruption. Mowing will be carefully scheduled outside of peak seed-setting periods to reduce the risk of spreading seeds.

### 4. Monitoring and Adaptive Management

An adaptive management approach allows for flexibility in response to changing site conditions and weed populations. Regular monitoring ensures early detection and prompt management actions:

**Regular Inspections:** Qualified technicians will conduct inspections to assess weed control progress, identify any new

infestations, and document the effectiveness of current management practices.

**Data Collection and Analysis:** All data, including infestation locations, control measures taken, and observed outcomes, will be logged into an environmental database to inform future management strategies.

**Adjusting Techniques Based on Monitoring Data:** If infestations persist or new challenges arise, techniques will be adapted to optimize control and prevent further spread. For example, additional mechanical barriers may be deployed if wind or water erosion threatens to disperse seeds.

## **5. Preference for Non-Chemical Control**

AuPt Industries places a strong emphasis on avoiding chemical weed control to protect the local ecosystem and maintain soil health. Chemical methods will only be considered under strict conditions, and only if non-chemical measures prove ineffective. When herbicides are necessary:

**Selective, Targeted Application:** Herbicides will be applied in a focused manner, targeting specific infestations while avoiding impact on non-target species.

**Regulatory Compliance and Minimal Use:** All chemical treatments will comply with state and federal regulations, using the minimum effective dose to control persistent weeds.

## **6. Education and Training**

All personnel involved in the project will receive training on noxious weed identification, prevention practices, and proper control techniques. This includes:

**Weed Identification:** Personnel will be trained to recognize key invasive species such as Halogeton, allowing for early detection and rapid response.

**Best Management Practices (BMPs):** Training will cover BMPs for weed prevention, including cleaning protocols for equipment, handling methods for disturbed soil, and techniques for hand-pulling or cutting weeds.

## **7. Long-Term Commitment to Ecological Health**

As part of the reclamation plan, AuPt Industries is committed to the ongoing management of noxious weeds post-reclamation. This includes periodic monitoring and responsive actions to ensure the area remains free of invasive species and that native vegetation can thrive long after mining activities have ceased.

### 3.0 Post-Mining Reclamation, Site Restoration Steps and Monitoring

Once mining activities within a block are complete, a structured reclamation process is initiated to restore the land to its natural state. This approach includes grading, topsoil replacement, and seeding, all designed to reestablish the original contour, soil health, and vegetation cover. Conducted in sequential steps, each phase ensures the land is stabilized, nutrient-rich topsoil is replaced, and native vegetation is reintroduced to foster ecological resilience and prevent erosion. The following steps outline the specific activities undertaken to achieve effective site restoration.

#### 1. Grading of the Mined Block

After the mining of the block, the block is graded, a process that takes less than 7 days and is also conducted year-round. This stage involves grading the processed ore and returning the mined block to the pre-mining contour profile.

#### 2. Topsoil Replacement

The next step involves the replacement of topsoil, which is done year-round and typically completed within 7 days. The graded areas are covered evenly with the previously stockpiled topsoil, and any compacted areas are ripped to facilitate the restoration of vegetation.

#### 3. Seeding and Imprinting

Conducted in October and April, seeding and imprinting are crucial for preparing the topsoil to support new vegetation. This process, which takes one day per block, uses an imprinter to texture the topsoil and a seeder to distribute an approved seed mix.

### 4.0 Final Decommissioning of Plant, Facilities and Roads

At the project's conclusion, a six-month period will be dedicated to the thorough decommissioning of all mining-related equipment, facilities, and infrastructure. This process includes dismantling and removing machinery, processing plants, and support facilities, as well as restoring areas affected by these structures. All equipment will be cleaned, safely removed from the site, and disposed of or recycled in compliance with regulatory guidelines.

All temporary haul roads constructed for mining operations will be fully removed and reclaimed once they are no longer needed. Specifically, these roads will be decommissioned by regrading, spreading topsoil, and reseeded to ensure they blend seamlessly with the surrounding environment.

Photo documentation will occur throughout the decommissioning process to create a visual record of each step. This documentation will include images of equipment and facility removal, well plugging, road reclamation, and final site conditions, providing a comprehensive record to verify regulatory compliance and track progress toward restoration goals.

Currently, we anticipate using only one well under Permit #80109 for this project, but reserve the right to incorporate additional wells if needed. All wells used during the project will be constructed, operated, and, if necessary, plugged in accordance with industry best practices and all applicable regulations to prevent groundwater contamination or unintended water loss requirements.

Upon completion, a final inspection of the site will ensure that all safety, environmental, and regulatory standards have been met. The photo documentation will be submitted as part of the final reclamation report, providing a detailed visual account that supports the project's commitment to safety, environmental stewardship, and returning the land to a stable, natural state suitable for future use.

## 5.0 Reclamation Monitoring

Finally, the reclamation monitoring phase spans from the project start to five years post-mining. This continuous monitoring is essential to assess the success of the reclamation efforts, including vegetation establishment and noxious weed control, supported by regular documentation through photos and UAV mapping.

## 6.0 Summary Reclamation Table

Table E.(C).1, *Reclamation Plan* shows the reclamation process in 7 major steps.

TABLE E.(C).1 RECLAMATION PLAN

Step Number	Reclamation Step	Time Of Year	Expected Time-frame	Key Activities and Details	Equipment
1	Site preparation for processing plant	Year-round	2 Months	<ul style="list-style-type: none"> <li>Document ground pre and post mining</li> <li>Level ground</li> <li>Stockpile topsoil</li> </ul>	<ul style="list-style-type: none"> <li>Dozer</li> <li>Scraper</li> <li>Loader</li> <li>Lidar</li> </ul>
2	Prepping of ore body in the mining block	Year-round	24 Hours per 5 acre block	<ul style="list-style-type: none"> <li>Stripping of topsoil with a bulldozer</li> <li>Stockpiling topsoil along the mining block perimeter</li> </ul>	<ul style="list-style-type: none"> <li>Dozer</li> </ul>
3	Mining of block	Year-round	Continuous with mining	<ul style="list-style-type: none"> <li>Excavating ore from active mining block</li> <li>Transport of ore to processing plant</li> <li>Return processed ore from the processing plant and deposit progressing towards the active excavation wall</li> </ul>	<ul style="list-style-type: none"> <li>Haul trucks</li> <li>Excavator</li> <li>Loader</li> </ul>
4	Grading of mined block	Year-round	Less than 7 days	<ul style="list-style-type: none"> <li>Grading processed ore that has been redeposited in the active mining pit.</li> <li>Using lidar technology for land restoration</li> </ul>	<ul style="list-style-type: none"> <li>Dozer</li> <li>Scraper</li> <li>Loader</li> <li>Lidar</li> </ul>
5	Topsoil replacement	Year-round	Less than 7 days	<ul style="list-style-type: none"> <li>Covering graded area evenly with stockpiled topsoil</li> <li>Ripping compacted areas</li> </ul>	<ul style="list-style-type: none"> <li>Dozer</li> <li>Scraper</li> <li>Loader</li> </ul>
6	Seeding and imprinting of mining block	October, April	1 Day/block	<ul style="list-style-type: none"> <li>Imprinter used to texture topsoil for optimal growing conditions.</li> <li>Seeder using approved seed mix</li> </ul>	<ul style="list-style-type: none"> <li>Seeder,</li> <li>Imprinter</li> <li>Tractor</li> </ul>
7	Decommissioning of plant and facilities.	End of project	3 Months	<ul style="list-style-type: none"> <li>Removal of all mining related equipment and facilities.</li> <li>Plugging of all wells</li> </ul>	<ul style="list-style-type: none"> <li>Dozer</li> <li>Excavator,</li> <li>Loader.</li> </ul>
8	Reclamation monitoring	End of project	Continuous from project start to 5 years post mining.	<ul style="list-style-type: none"> <li>Monitoring of all reclamation efforts</li> <li>Documentation of reclamation (photo, uav mapping)</li> <li>Noxious weed treatment and control in accordance with GS</li> </ul>	<ul style="list-style-type: none"> <li>Camera</li> <li>Documentation</li> <li>Computer</li> <li>Database</li> </ul>

## (D) Re-vegetation Plan

Completed mining blocks will be seeded in October or April each year. These months are chosen due to the lower nighttime temperatures and moderate daytime temperatures, which provide optimal conditions for seeding at the site.

An imprint seeder will be used for texturing and seeding. No soil augmentation will be applied unless it is deemed necessary.

The approved and tested native seed and shrub mix from Permit No. M-2016-081 will be applied at a rate of 2 pounds Pure Live Seeds (PLS) per acre. This mix includes Indian Ricegrass, Bluebunch Wheatgrass, Thickspike Wheatgrass, Slender Wheatgrass, Basin Wildrye, Needle & Thread, and Rubber Rabbitbrush.

Re-vegetation monitoring will be conducted for five years following the completion of the project. Should any areas be insufficiently vegetated, appropriate measures will be taken. These may include fertilizing and additional re-vegetation augmentation as needed.

TABLE E.(C).1 RE-VEGETATION PLAN

Step	Activity	Expected time frame	Details	Equipment used
1	Prepping mined block	Under a week	<ul style="list-style-type: none"> <li>Contouring with a dozer using lidar mapping for original profile.</li> <li>Ripping compacted areas to loosen topsoil.</li> </ul>	<ul style="list-style-type: none"> <li>Dozer</li> </ul>
2	Reapplication of topsoil from stockpile	Under a week	<ul style="list-style-type: none"> <li>Redistributing stockpiled topsoil using a dozer and scraper.</li> </ul>	<ul style="list-style-type: none"> <li>Dozer</li> <li>Scraper</li> </ul>
3	Imprinting and seeding	8 Hours per 5-acre block	<ul style="list-style-type: none"> <li>Use of a seeder and imprinter for texturing and seeding.</li> <li>Seeding and imprinting to occur in October or April.</li> <li>Approved and tested seed mix</li> </ul>	<ul style="list-style-type: none"> <li>Tractor</li> <li>Seeder,</li> <li>Imprint roller</li> </ul>
4	Re-vegetation monitoring	5 Years	<ul style="list-style-type: none"> <li>Monitoring of re-vegetation</li> <li>Monitoring of all reclamation efforts</li> <li>Documentation of reclamation (photo, uav mapping)</li> </ul>	<ul style="list-style-type: none"> <li>Camera</li> <li>UAV</li> <li>Computer database</li> </ul>

## (E) A Plan Or Schedule Indicating How and When Reclamation Will Be Implemented

Table 6.4.4.-C Table E.(C).1 Re-vegetation Plan shows the plan on how reclamation will proceed. Reclamation will be an ongoing, continuous program during the entire lifespan of the mine.

### (I) An Estimate Of The Periods Of Time Which Will Be Required For The Various Stages Or Phases Of Reclamation.

Table E.(C).1, Reclamation Plan shows estimated periods of time that reclamation will proceed. Reclamation will be an ongoing, continuous program during the entire lifespan of the mine.

### (II) A Description Of The Size And Location Of Each Area to Be Reclaimed During Each Phase;

Mining will occur in 5 acre blocks. No more than 15 acres will be open at one time.

**(III) An Outline Of The Sequence In Which Each Stage Or Phase of Reclamation Will Be Carried Out.**

See *Table E.(C).1, Reclamation Plan*

**(IV) Demonstrate A Reasonably Foreseeable End Date**

80 acres of mineable ground will take approximately 5 years and will aim to cease by or before anuary 1, 2030; with an additional 5 years of ecological monitoring. Setting the final completion date as January 1, 2035.

**(F) Reclamation Descriptions**

**(i) Final grading**

Maximum slope of reclamation will be 5:1.

**(ii) Seeding**

Seeding to Occur in October and April each year. Seed to applied with imprinter/seeder combination see Image *E.(F).1 Imprint Seeder*. Seed mix application at a rate of 2 pounds Pure Live Seed (PLS) per acre. Approved Seed Mix see *Table E.(F).1 Seed Mix*.

**(iii) Fertilization**

At present, The West Side Placer Project has decided not to use any fertilizers in the reseeding and restoration processes to preserve the natural integrity of the soil and its existing nutrient balance. This approach aligns with our environmental sustainability goals and minimizes the risk of chemical runoff that could affect the surrounding ecosystems.

**Contingent Use of Fertilizers:**

- Should future assessments indicate a deficiency in essential soil nutrients that cannot be remediated by natural processes, we may consider the application of fertilizers. Any fertilizer used will comply with the best practices for environmental protection and adhere to Colorado's agricultural regulations. Only organic or other environmentally friendly fertilizers approved for use in Colorado will be considered to ensure they do not adversely affect the local flora and fauna.

This precautionary approach ensures that any future use of fertilizers will be judicious, scientifically justified, and closely monitored to maintain ecological balance and soil health.

**(iv) Re-vegetation**

No re-vegetation beyond imprint seeding with an approved seed mix will occur initially. Monitoring of the reclamation area will determine the need for additional measures, such as fertilizer application, mulching, or other relevant vegetation supports during the monitoring phase. These steps will be considered only if necessary to enhance plant establishment and ensure successful reclamation outcomes.

### (v) Topsoiling

Native topsoil, ranging from 8 to 16 inches in depth, will be carefully stockpiled for future use. Once mining operations within the block are complete, a dozer will restore the block to its original contour profile. The stockpiled topsoil will then be evenly redistributed across the contoured area, with mulching, fertilizing, and other soil amendments added if necessary to enhance soil quality and support successful vegetation regrowth.

TABLE E.(F).1 SEED MIX

Seed	Percent of Mix
Indian Ricegrass	20.13%
Bluebunch Wheatgrass	17.92%
Thickspike Wheatgrass	16.99%
Slender Wheatgrass	16.81%
Basin Wildrye	14.76%
Needle & Thread	5.97%
Rubber Rabbitbrush	3.39%

IMAGE E.(F).1 IMPRINT SEEDER

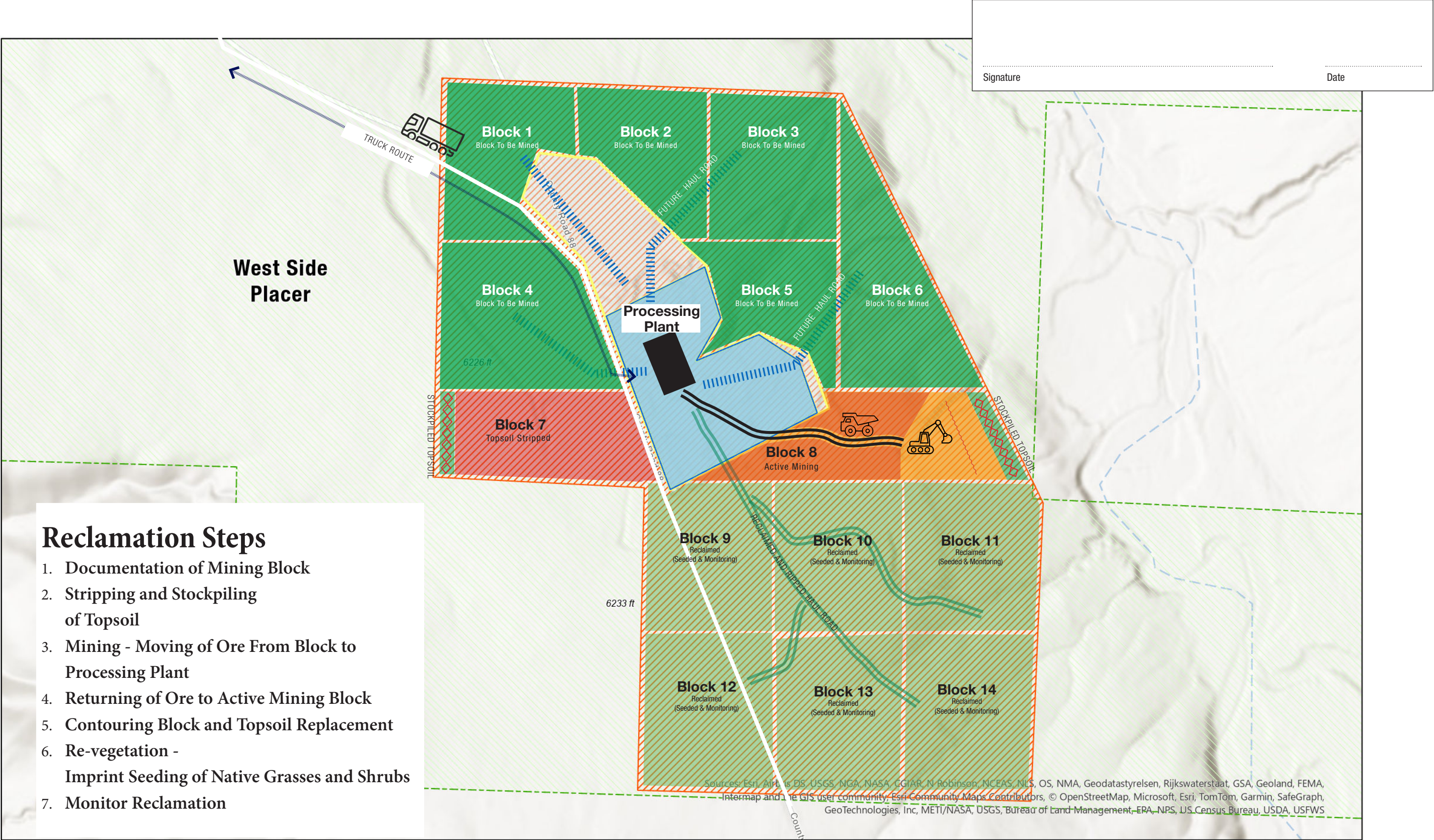


6.4.6 EXHIBIT F – Reclamation Plan Maps

(A) Maps

1.	6.4.6 EXHIBIT F - Reclamation Narrative Map	40
2.	6.4.6 EXHIBIT F - Post Mining Use: Rangeland	42
3.	6.4.6 EXHIBIT F - Post Mining Use: Wildlife Habitat	43





6.4.3 EXHIBIT F  
Reclamation Narrative  
Map



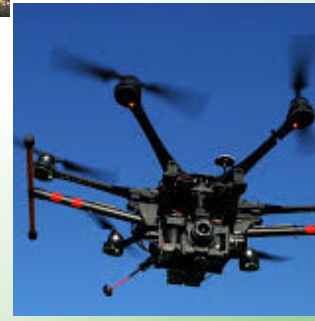


**6.4.3 EXHIBIT F  
Reclamation Narrative  
Map**

**6**  
Re-vegetation -  
Imprint Seeding of Native  
Grasses and Shrubs



**7**  
Monitor Reclamation



West Side Placer  
**Reclamation  
Cycle**

**1**  
Documentation of Mining Block



**2**  
Stripping and Stockpiling  
of Topsoil



**3**  
Mining - Moving of Ore From  
Block to Processing Plant



**4**  
Returning of Oversize Ore to Active Mining Block

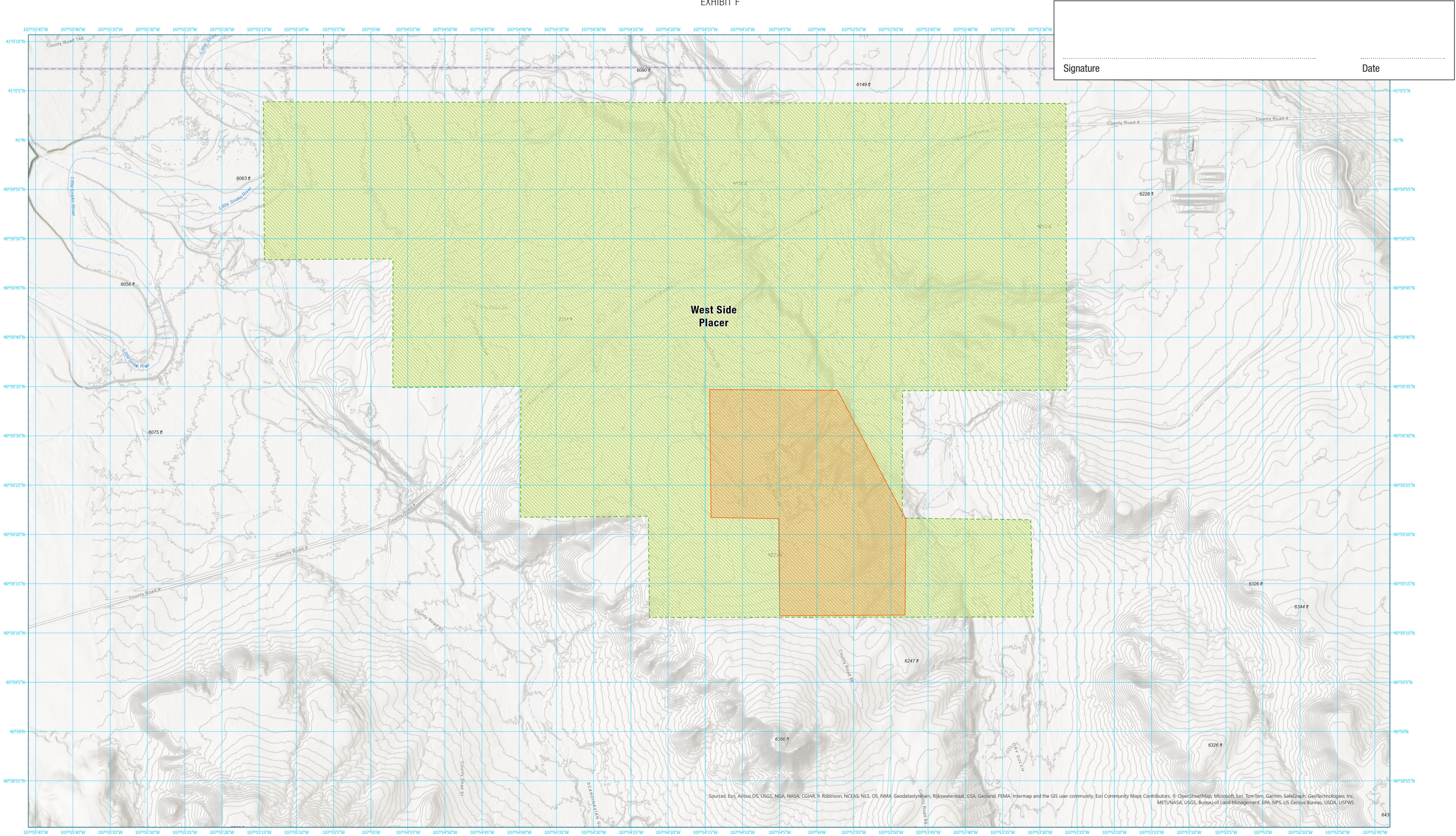


**5**  
Contouring Block and Topsoil Replacement

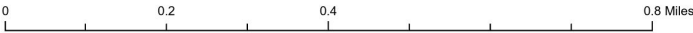


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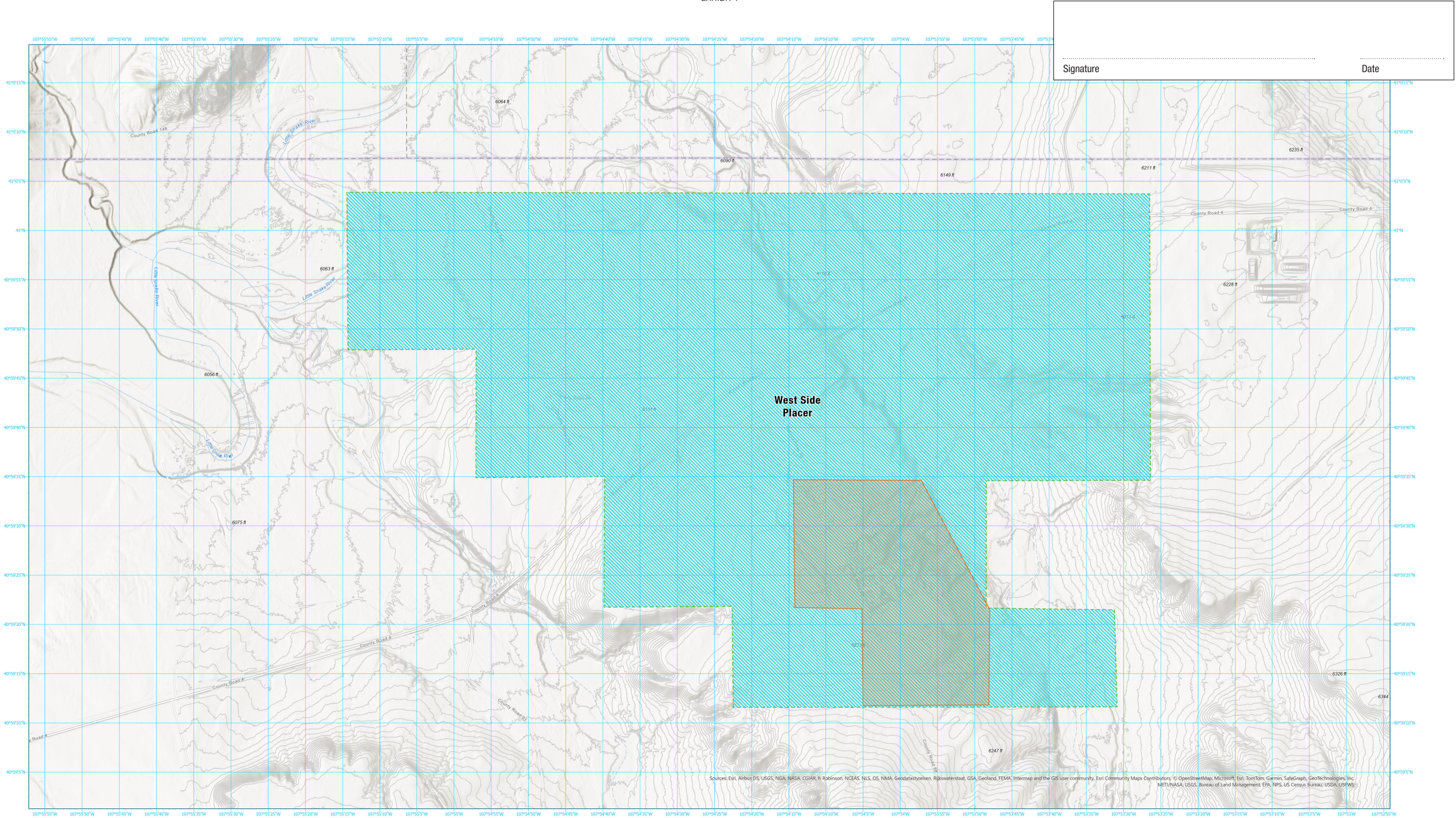




6.4.6 EXHIBIT F  
Post Mining Use: Rangeland







6.4.6 EXHIBIT F  
Post Mining Use: Wildlife Habitat



## 6.4.7 EXHIBIT G – Water Information

### (A) Locate On The Map (In Exhibit C) Tributary Water Courses, Wells, Springs, Stock Water Ponds, Reservoirs, And Ditches On The Affected Land And On Adjacent Lands Where Such Structures May Be Affected By The Proposed Mining Operations

See 6.4.3 Exhibit C - General Exhibit Map.

### (B) Demonstrate a Reasonably Foreseeable End Date Respecting Water Quality Treatment

No water is used in mineral processing for this project, so “water quality treatment” refers solely to stormwater BMPs (e.g., berms, ditches) that control sediment runoff. These measures will remain in place until final reclamation is approved, projected for 2040, or until the Division deems reclamation complete.

### (C) Identify All Known Aquifers

Table G.(C).1, *Known Aquifers* presents the major aquifers at the West Side Placer. These aquifers have been identified using data from the Colorado Geological Survey ON-010 Colorado Groundwater Atlas (Survey, 2021). Refer to (H) Maps.

Table G.(C).1 Known Aquifers

Aquifer Type	Subtype	Basin/Region	Aquifer	Map
Major Alluvial Aquifers		Yampa River Basin	Alluvial	H.1
			Watershed	
Sedimentary Bedrock Aquifers	Regional Aquifer Systems	Colorado Plateaus Region	Dakota Aquifer	H.2
			Entrada Aquifer	
			Mesaverde Aquifer	
			Navajo Aquifer	
	Structural Basin Aquifers	Laramide Basins	Sand Wash Basin	H.3

## (D) Water Discharge Management Plan

*Table G.(D).1- Water Discharge Management Plan* addresses runoff from disturbed areas, piled materials, and operating surfaces in disturbed areas. Minimal water will be used, primarily for dust control and essential operational needs.

TABLE G.(D).1- Water Discharge Management Plan

Plan Step	Component	Details
1	Mining Block Location	<ul style="list-style-type: none"> <li>Conduct an analysis of the geography and hydrology of the mining site.</li> <li>Identify water sources for mining and potential runoff areas.</li> <li>Consider the selection of the mining block's location with a focus on placing it to avoid all riparian habitats and other ecologically sensitive areas.</li> </ul>
2	Processing Plant Location	<ul style="list-style-type: none"> <li>Select sites with high water absorption and low run-off potential.</li> <li>Avoid steep pitches, select areas that are generally flat.</li> </ul>
3	Processing Plant Design	<ul style="list-style-type: none"> <li>A dry process avoiding issues associated with washing of material</li> <li>Any associated petrol chemicals will be stored in double containment.</li> </ul>
4	Processed Ore / Stacked material	<ul style="list-style-type: none"> <li>Selection of site based on high porosity, level ground.</li> <li>Construction of bermed embankments surrounding the stacked ore.</li> <li>Berms: berms surrounding stacked material will help redirect runoff away from sensitive areas and towards treatment or containment areas.</li> <li>Spill Prevention and Control: Implementing measures to prevent and control spills of oils, chemicals, or other contaminants that might mix with runoff.</li> </ul>
8	Monitoring, Inspection, and Documentation	<ul style="list-style-type: none"> <li>Rigorous monitoring of potential mining pollutants.</li> <li>Maintain detailed records of treatment and water quality.</li> </ul>
9	Post-Operation Water Management	<ul style="list-style-type: none"> <li>Plan for site reclamation and stabilization.</li> <li>Implement long-term water management strategies.</li> <li>Seal bore holes</li> </ul>
10	Regulatory Compliance and Reporting	<ul style="list-style-type: none"> <li>Adhere to Colorado mining and environmental regulations.</li> <li>Develop a reporting system for local, state and federal compliance.</li> </ul>
11	Emergency Response and Contingency Plans	<ul style="list-style-type: none"> <li>Develop a spill response plan.</li> <li>Procedures for notifying authorities in emergencies.</li> </ul>
12	Plan Review and Updates	<ul style="list-style-type: none"> <li>Schedule annual reviews.</li> <li>Adapt to new technologies, regulations, or environmental conditions.</li> </ul>

## (E) Water Requirements

EXHIBIT G

Table G.(E).1 - Water Requirements shows the water requirements for the primary mining phases.

TABLE G.(E).1- Water Requirements

Mining Phase	General	Water Usage	Ground Water Usage
Development	<ul style="list-style-type: none"><li>Water will be sourced from well Colorado well permit #80109.</li></ul>	Water will be used mainly for dust suppression and cleaning of equipment.	Less than 1 acre feet
Mining	<ul style="list-style-type: none"><li>Water will be sourced from well Colorado well permit #80109.</li></ul>	Water will be used mainly for dust suppression and cleaning of equipment.	Up to 25 acre-feet of groundwater will be used per annum.
Reclamation Phase	<ul style="list-style-type: none"><li>No water requirement</li></ul>	N/A	N/A

## (F) Sources Of Water To Supply The Project Water Requirements For The Mining Operation And Reclamation

Water necessary for the mining operation and reclamation activities will primarily be supplied by an on-site well, drilled to a depth of 200 feet, under Well Permit #80109 issued by the Office of the State Engineer, Colorado Division of Water Resources. This well will provide a reliable water source to meet project needs while adhering to regulatory standards.

### Potential Future Wells

While the project currently has only one permitted water well (Well Permit #80109), up to three additional wells may be drilled if operational or monitoring needs arise. Their approximate locations are shown in 6.4.3 EXHIBIT C – General Exhibit Map on page 7. The reclamation cost estimate in Exhibit L accounts for up to four total wells (including the existing well), ensuring sufficient financial coverage for proper plugging and abandonment if additional wells are ultimately constructed. If fewer than four wells are developed, the reclamation plan and associated costs will be adjusted accordingly.

Table g.(F).1- Water Sources shows the water requirements for the primary mining phases.

TABLE G.(F).1- Water Sources

Mining Phase	Water Source
Development	Well
Reclamation Phase	N/A

## (G) National Pollutant Discharge Elimination System (NPDES) Permit

The West Side Placer project is not required to obtain a National Pollutant Discharge Elimination System (NPDES) permit for its operation, as there will be no discharge of pollutants into any natural waterway or body of water. All water used in the mining and processing operations will be carefully managed on-site, with no external discharge that could impact surrounding water resources.

Any unused or excess water will be responsibly reintroduced into the aquifer in compliance with Colorado's Managed Aquifer Recharge (MAR) rules. This approach supports sustainable water use by replenishing groundwater resources without introducing contaminants. Adhering to MAR regulations ensures that water reintroduction does not negatively affect groundwater quality or availability for other users. By following these practices, the project demonstrates a commitment to environmental stewardship and regulatory compliance.

## **(H) Maps**

Water related maps.

1. 6.4.7 Exhibit G - Major Alluvial Aquifers	48
2. 6.4.7 Exhibit G - Major Alluvial Aquifers Sedimentary Bedrock Aquifers Colorado Plateaus Region	49
3. 6.4.7 Exhibit G - Major Alluvial Aquifers Sedimentary Bedrock Aquifers Laramide Basins	50
4. 6.4.7 Exhibit G - Managed Aquifer Recharge Map	51
5. 6.4.7 Exhibit G - Critical Watershed Area	52

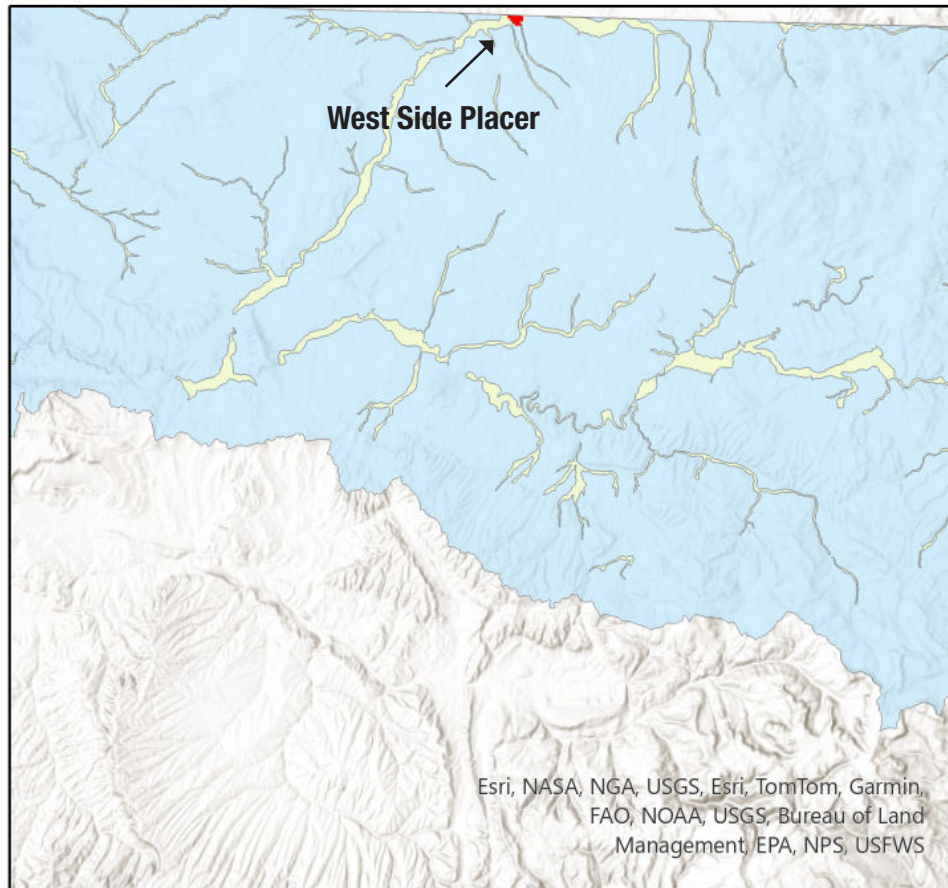


## 6.4.7 Exhibit G

### Major Alluvial Aquifers

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Date .....



0 5 10 20 Miles



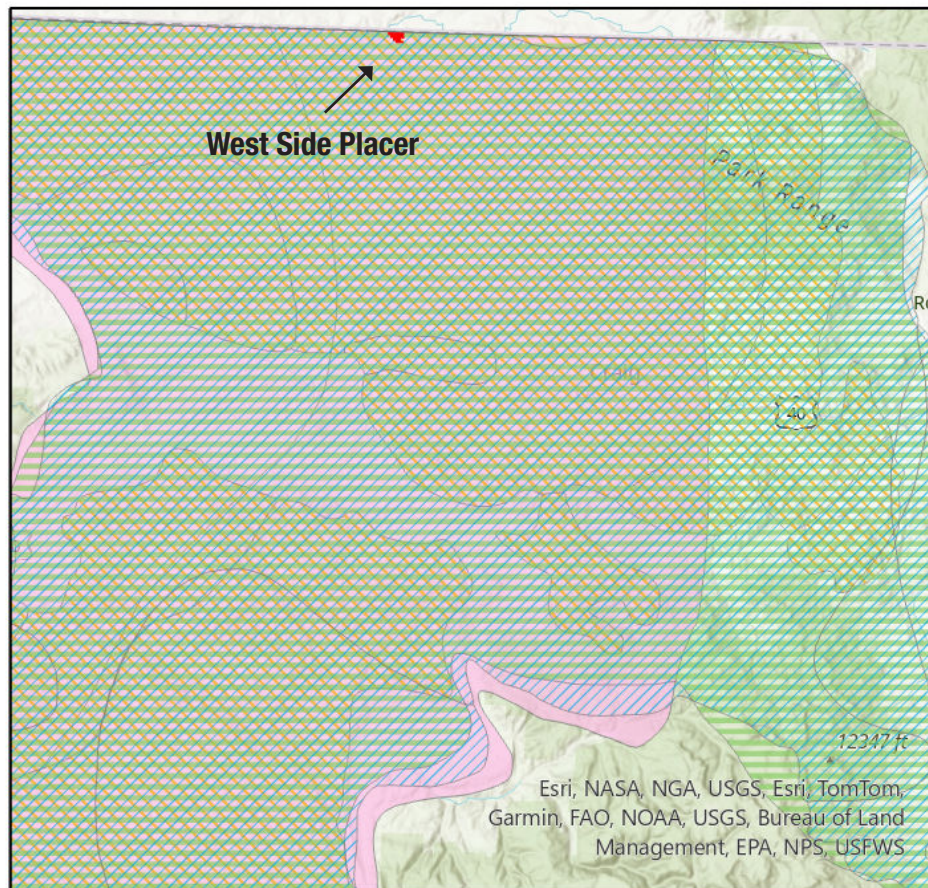
- West Side Placer - 112 Boarder
- Yampa River Alluvial Extent
- Yampa River Watershed Boundary

## 6.4.7 Exhibit G

### Major Alluvial Aquifers

### Sedimentary Bedrock Aquifers

### of The Colorado Plateau





## 6.4.7 Exhibit G

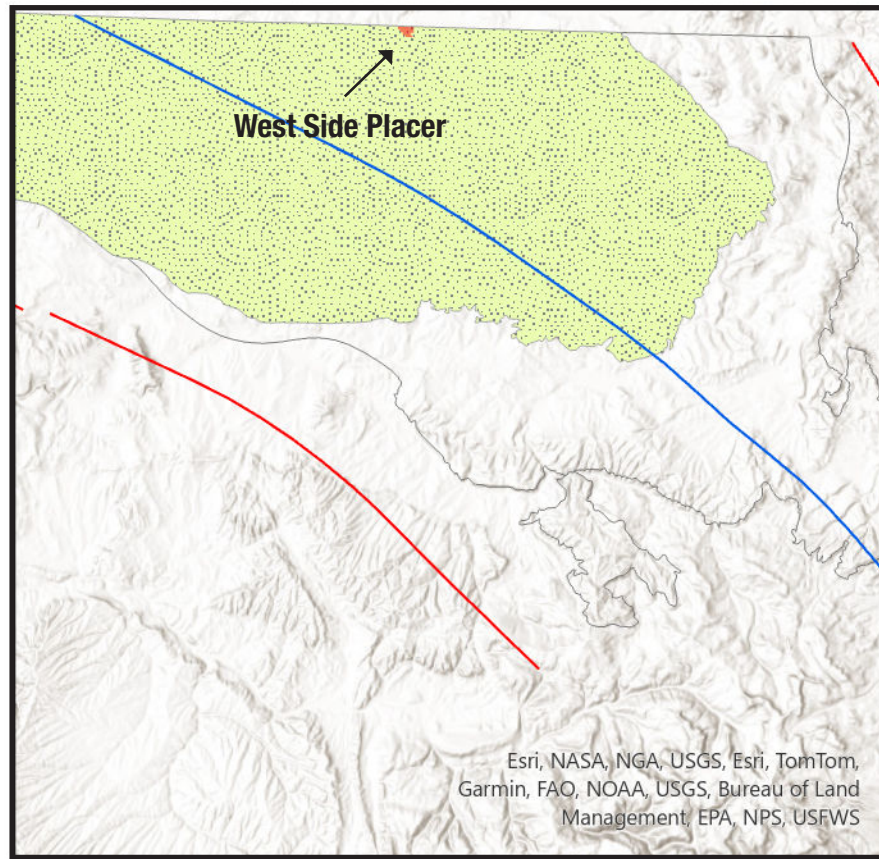
### Major Alluvial Aquifers

### Sedimentary Bedrock Aquifers

### of The Laramide Basins

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Date .....



0 5 10 20 Miles



West Side Placer - 112 Boarder

Sand Wash Basin Major Structures

Type

Basin

Uplift

shear zone

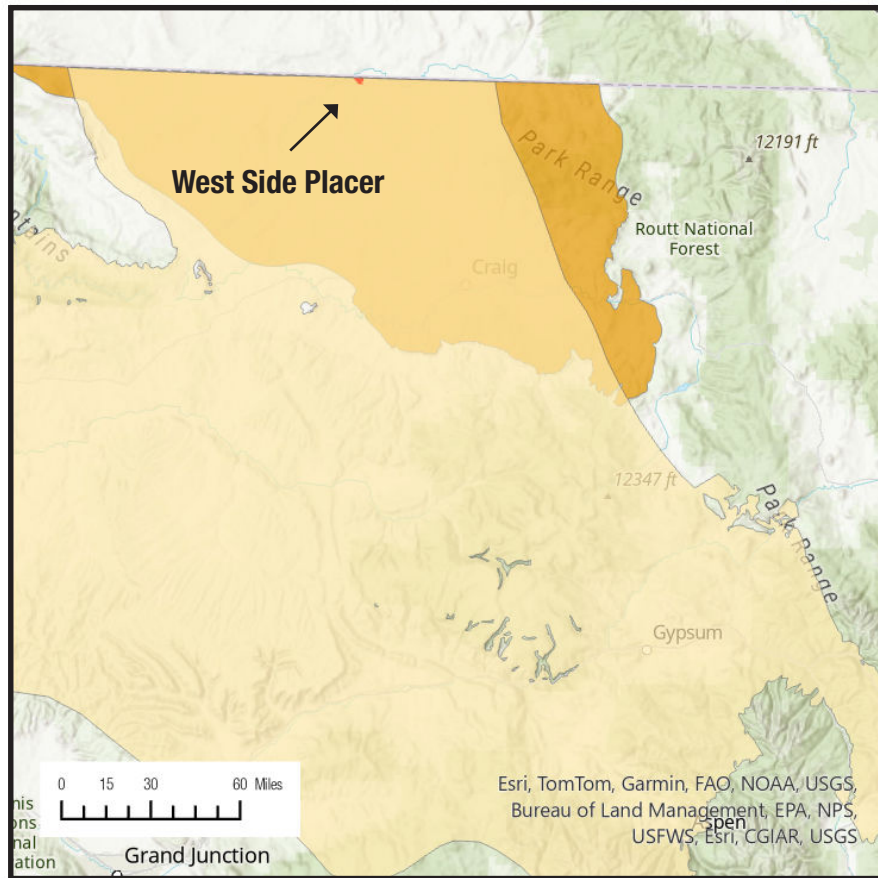
Sand Wash Basin Laramide Synorogenic Sediments

Sand Wash Basin Extent

## 6.4.7 Exhibit G Managed Aquifer Recharge

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Date .....



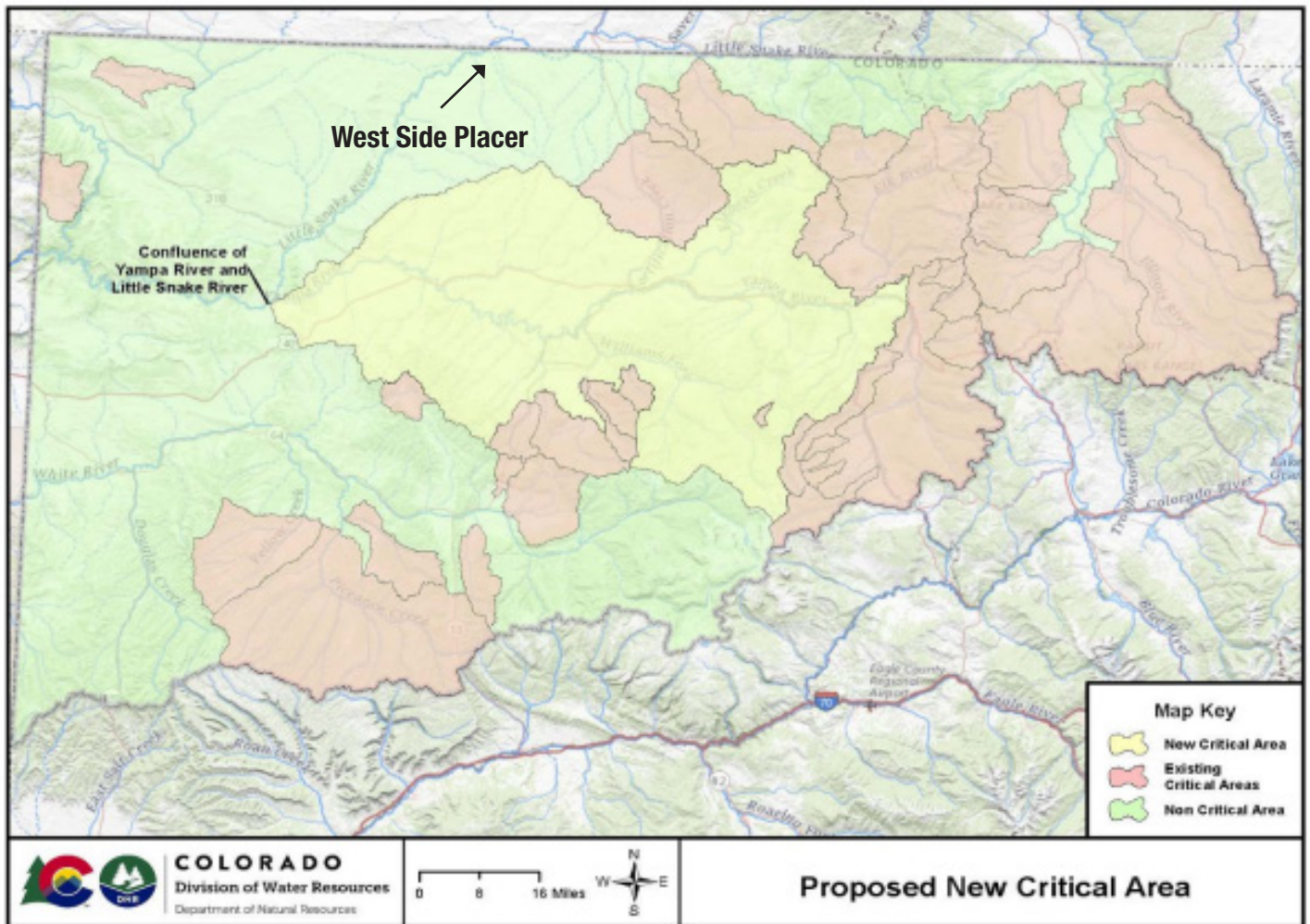
- West Side Placer - 112 Boarder
- Eagle Basin Central Colorado Trough MAR Potential
- Sand Wash Basin Aquifers MAR Potential



## 6.4.7 Exhibit G Critical Watershed Area

Signature .....

Date .....



*The West Side Placer is located outside proposed critical water area and in an unappropriated district.*

## 6.4.8 EXHIBIT H – Wildlife Information

### (A) Description Of The Significant Wildlife Resources On The Affected Land

The wildlife resources listed in *Table H.(A).1* were sourced from Colorado Parks and Wildlife listings, the Colorado State University Larval Fish Laboratory, and on-site observations.

TABLE H.(A).1

Species	Habitat and Characteristics	Estimated Population
<b>MAMMALS</b>		
Mule Deer <i>Odocoileus hemionus</i>	Common in the region, especially in the sagebrush steppe and mountainous areas.	Bears Ears Herd 27,703 2022
Elk <i>Cervus canadensis</i>	Often found in the higher elevations and mountainous terrain.	Bears Ears Herd 15,539 2022
Pronghorn <i>Antilocapra americana</i>	Adapted to the sagebrush steppe and open grasslands.	Great Divide Herd 17,891 2022
Coyote <i>Canis latrans</i>	Versatile predators that can be found in a variety of habitats.	N/A - commonly seen
<b>BIRDS</b>		
Sage Grouse <i>Centrocercus urophasianus</i>	Inhabits sagebrush areas, an iconic species of the region.	N/A
Golden Eagle <i>Aquila chrysaetos</i>	Often found in open landscapes and mountainous regions.	N/A - commonly seen
Mourning Dove <i>Zenaida macroura</i>	Common in grasslands and open areas.	N/A - commonly seen
Red-tailed Hawk <i>Buteo jamaicensis</i>	Frequently seen soaring over diverse habitats.	N/A - commonly seen
Common Poorwill <i>Phalaenoptilus nuttallii</i>	Commonly seen species	N/A - commonly seen
<b>REPTILES AND AMPHIBIANS</b>		
Bullsnake <i>Pituophis catenife</i>	Found in a variety of habitats. Exists at site	N/A - most commonly seen snake at site.
Western Terrestrial Garter Snake <i>Thamnophis elegans</i>	Found in a variety of habitats. Exists at site	N/A
Bullsnake <i>Pituophis catenifer</i>	Found in a variety of habitats. Exists at site	N/A - rarely seen
Prairie Rattlesnake <i>Crotalus viridis</i>	Found in a variety of habitats. Exists at site	N/A - most commonly seen snake at site.
<b>SMALL MAMMALS</b>		
Uinta Chipmunk <i>Neotamias umbrinus</i>	Inhabits coniferous forests and rocky areas.	N/A - occasionally seen
White-tailed Jackrabbit <i>Lepus townsendii</i>	Found in open areas and sagebrush steppe. Very common on site.	N/A - commonly seen
Bushy-tailed Woodrat <i>Neotoma cinerea</i>	Common in rocky habitats.	N/A - evidence at site
<b>FISH</b>		
Black Bullhead <i>Ameiurus mela</i>	Know species to inhabit the Little Snake River	N/A
Bluehead Sucker <i>Catostomas discobouls</i>	Know species to inhabit the Little Snake River	N/A
Common Carp <i>Cyprinus carpio</i>	Know species to inhabit the Little Snake River	N/A
Channel Catfish <i>Ictalurus punctatus</i>	Know species to inhabit the Little Snake River	N/A



## (B) Seasonal Use of The Area

The West Side Placer is a critical habitat for various wildlife species year-round. In winter, it offers refuge for Sage Grouse, detailed in the Sage Grouse maps. It's also a designated severe winter range for Elk, a winter conservation area for Mule Deer, and a winter concentration area for Pronghorn (map H.10). These habitats are crucial for the survival and well-being of these species. Recognizing the ecosystem's importance, collaborative efforts between West Side Placer and Colorado Parks and Wildlife are in place to ensure robust environmental protection. This partnership aims to foster harmonious coexistence with the diverse wildlife reliant on this area.

## (C) The Presence And Estimated Population Of Threatened Or Endangered Species From Either Federal or State Lists

The table *Table H.(C).1- Colorado Threatened, Endangered and Species of Concern* includes species classified as Federally Endangered (FE), Federally Threatened (FT), State Endangered (SE), State Threatened (ST), and State Special Concern (SC) based on the listings provided by Colorado Parks and Wildlife (CPW)<sup>4</sup>. Corresponding maps are listed in the map column.

TABLE H.(C).1- COLORADO THREATENED, ENDANGERED AND SPECIES OF CONCERN

Common Name	Scientific Name	Status*	Map	Occurrence /Population
<b>AMPHIBIANS</b>				
Boreal Toad	Bufo boreas boreas	SE	H.(E).1	Not at site
Couch's Spadefoot	Scaphiopus couchii	SC	H.(E).1	Not at site
Great Plains Narrowmouth Toad	Gastrophryne olivacea	SC	H.(E).1	Not at site
Northern Cricket Frog	Acris crepitans	SC	H.(E).1	Not at site
Northern Leopard Frog	Rana pipiens	SC	H.(E).1	Not at site
Plains Leopard Frog	Rana blairi	SC	H.(E).1	Not at site
Wood Frog	Rana sylvatica	SC	H.(E).1	Not at site
<b>REPTILES</b>				
Triploid Checkered Whiptail	Cnemidophorus neotesselatus	SC	H.(E).2	Not at site
Midget Faded Rattlesnake	Crotalus viridis concolor	SC	H.(E).2	Not at site
Longnose Leopard Lizard	Gambelia wislizenii	SC	H.(E).2	Not at site
Yellow Mud Turtle	Kinosternon flavescens	SC	H.(E).2	Not at site
Common King Snake	Lampropeltis getula	SC	H.(E).2	Not at site
Texas Blind Snake	Leptotyphlops dulcis	SC	H.(E).2	Not at site
Texas Horned Lizard	Phrynosoma cornutum	SC	H.(E).2	Not at site
Roundtail Horned Lizard	Phrynosoma modestum	SC	H.(E).2	Not at site
Massasauga	Sistrurus catenatus	SC	H.(E).2	Not at site
Common Garter Snake	Thamnophis sirtalis	SC	H.(E).2	Not at site
<b>BIRDS</b>				
American Peregrine Falcon	Falco peregrinus anatum	SC	H.(E).3	Not at site
Bald Eagle	Haliaeetus leucocephalus	SC	H.(E).3	In Vicinity - no aerie at site
Burrowing Owl	Athene cunicularia	ST	H.(E).3	Not at site
Columbian Sharp-Tailed Grouse	Tympanuchus phasianellus columbianus	SC	H.(E).3	Not at site
Ferruginous Hawk	Buteo regalis	SC	H.(E).3	In Vicinity
Greater Sage Grouse	Centrocercus urophasianus	SC	H.(E).3	Not at site
Greater Sandhill Crane	Grus canadensis tabida	SC	H.(E).3	In Vicinity

## EXHIBIT H

Common Name	Scientific Name	Status*	Map	Occurrence /Population
Gunnison Sage-Grouse	<i>Centrocercus minimus</i>	FT, SC	H.(E).3	In Vicinity - no leks at site
Least Tern	<i>Sterna antillarum</i>	SE	H.(E).3	Not at site
Lesser Prairie-Chicken	<i>Tympanuchus pallidicinctus</i>	FT, ST	H.(E).3	Not at site
Long-Billed Curlew	<i>Numenius americanus</i>	SC	H.(E).3	Not at site
Mexican Spotted Owl	<i>Strix occidentalis lucida</i>	FT, ST	H.(E).3	Not at site
Mountain Plover	<i>Charadrius montanus</i>	SC	H.(E).3	Not at site
Plains Sharp-Tailed Grouse	<i>Tympanuchus phasianellus jamesii</i>	SE	H.(E).3	Not at site
Piping Plover	<i>Charadrius melodus circumcinctus</i>	FT, ST	H.(E).3	Not at site
Southwestern Willow Flycatcher	<i>Empidonax traillii extimus</i>	FE, SE	H.(E).3	Not at site
Western Snowy Plover	<i>Charadrius alexandrinus</i>	SC	H.(E).3	Not at site
Western Yellow-Billed Cuckoo	<i>Coccyzus americanus</i>	SC, FT	H.(E).3	Not at site
Whooping Crane	<i>Grus americana</i>	FE, SE	H.(E).3	Not at site
<b>FISH</b>				
Arkansas Darter	<i>Etheostoma cragini</i>	ST	H.(E).5	Not at site
Bonytail	<i>Gila elegans</i>	FE, SE	H.(E).5	Not at site
Brassy Minnow	<i>Hybognathus hankinsoni</i>	ST	H.(E).5	Not at site
Colorado Pikeminnow	<i>Ptychocheilus lucius</i>	FE, ST	H.(E).5	Possible
Colorado River Cutthroat Trout	<i>Oncorhynchus clarki pleuriticus</i>	SC	H.(E).5	Not at site
Colorado Roundtail Chub	<i>Gila robusta</i>	SC	H.(E).5	Not at site
Common Shiner	<i>Luxilus cornutus</i>	ST	H.(E).5	Not at site
Flathead Chub	<i>Platygobio gracilis</i>	SC	H.(E).5	Not at site
Greenback Cutthroat Trout	<i>Oncorhynchus clarki stomias</i>	FT, ST	H.(E).5	Not at site
Humpback Chub	<i>Gila cypha</i>	FE, ST	H.(E).5	Not at site
Iowa Darter	<i>Etheostoma exile</i>	SC	H.(E).5	Not at site
Lake Chub	<i>Couesius plumbeus</i>	SE	H.(E).5	Not at site
Mountain Sucker	<i>Catostomus playthrynchus</i>	SC	H.(E).5	Possible
Northern Redbelly Dace	<i>Phoxinus eos</i>	SE	H.(E).5	Not at site
Plains Minnow	<i>Hybognathus placitus</i>	SE	H.(E).5	Not at site
Plains Orangethroat Darter	<i>Etheostoma spectabile</i>	SC	H.(E).5	Not at site
Rio Grande Chub	<i>Gila pandora</i>	SC	H.(E).5	Not at site
Rio Grande Cutthroat Trout	<i>Oncorhynchus clarki virginalis</i>	SC	H.(E).5	Not at site
Rio Grande Sucker	<i>Catostomus plebeius</i>	SE	H.(E).5	Not at site
Razorback Sucker	<i>Xyrauchen texanus</i>	FE, SE	H.(E).5	Not at site
Southern Redbelly Dace	<i>Phoxinus erythrogaster</i>	SE	H.(E).5	Not at site
Stonecat	<i>Noturus flavus</i>	SC	H.(E).5	Not at site
Suckermouth Minnow	<i>Phenacobius mirabilis</i>	SE	H.(E).5	Not at site
<b>MAMMALS</b>				
Black-Footed Ferret	<i>Mustela nigripes</i>	FE, SE	H.5	Not at site
Black-Tailed Prairie Dog	<i>Cynomys ludovicianus</i>	SC	H.5	Not at site
Botta's Pocket Gopher	<i>Thomomys bottae rubidus</i>	SC	H.5	Not at site
Gray Wolf	<i>Canis lupus</i>	SE, FE	H.5	Not at site
Grizzly Bear	<i>Ursus arctos</i>	FT, SE	H.5	Not at site
Kit Fox	<i>Vulpes macrotis</i>	SE	H.5	Not at site
Lynx	<i>Lynx canadensis</i>	FT, SE	H.5	Not at site
Northern Pocket Gopher	<i>Thomomys talpoides macrotis</i>	SC	H.5	Not at site
Preble's Meadow Jumping Mouse	<i>Zapus hudsonius preblei</i>	FT, ST	H.5	Not at site
River Otter	<i>Lontra canadensis</i>	ST	H.5	Possible



Common Name	Scientific Name	Status*	Map	Occurrence /Population
Swift fox	Vulpes velox	SC	H.5	Not at site
Townsend's Big-Eared Bat	Corynorhinus townsendii pallescens	SC	H.5	Not at site
Wolverine	Gulo gulo	SE	H.5	Not at site
<b>REPTILES</b>				
Triploid Checkered Whiptail	Cnemidophorus neotesselatus	SC	H.2	Not at site
Midget Faded Rattlesnake	Crotalus viridis concolor	SC	H.2	Not at site
Longnose Leopard Lizard	Gambelia wislizenii	SC	H.2	Not at site
Yellow Mud Turtle	Kinosternon flavescens	SC	H.2	Not at site
Common King Snake	Lampropeltis getula	SC	H.2	Not at site
Texas Blind Snake	Leptotyphlops dulcis	SC	H.2	Not at site
Texas Horned Lizard	Phrynosoma cornutum	SC	H.2	Not at site
Roundtail Horned Lizard	Phrynosoma modestum	SC	H.2	Not at site
Massasauga	Sistrurus catenatus	SC	H.2	Not at site
Common Garter Snake	Thamnophis sirtalis	SC	H.2	Not at site

## (D) General Effect During And After The Proposed Operation on The Existing Wildlife

The proposed mining activities at the site are anticipated to impact the local environment, but steps will be taken to minimize and mitigate these effects. High-value areas, specifically the major gulches, will be strategically avoided to preserve critical habitats, reducing the risk of permanent habitat loss. Temporary habitat disruption is expected near the mining site, but reclamation efforts are planned to restore or enhance these areas after mining concludes, supporting long-term ecological recovery.

Vegetation and soil disturbances may temporarily affect local food sources, especially in zones outside the gulches. Although this could alter food availability, post-mining reclamation will focus on restoring native vegetation, aiming to improve habitat quality and food sources over time.

Some changes to topography may influence migratory routes, though waterway impacts are not anticipated. Any indirect effects on wildlife movement will be carefully monitored, and mitigation strategies will be adjusted as necessary. Noise levels will increase during active mining, with some residual noise from infrastructure and maintenance activities. Increased human presence may lead to short-term wildlife behavioral changes, such as avoidance and limited interactions, but these effects are expected to subside significantly after operations cease.

TABLE H.(D).1- WILDLIFE GENERAL EFFECTS

Impact	During Operation	After Operation
Habitat Disruption	Temporary loss near mining site. Avoidance of high value habitat will be avoided ( along major gulches).	Potential permanent loss in some areas; ability to improve certain habitats.
Food Source Disruption	Temporary impact on vegetation and soil. High value food zones will be avoided ( along major gulches).	Long-term changes to available food sources. Potential for improved habitat after mining.
Interference with Migratory Routes	Direct impact on topography. Water ways will not be impacted.	Indirect impact through habitat alterations
Noise Disturbance	Significant noise from mining activities	Residual noise from infrastructure and maintenance
Increased Human Activity	Disturbance to wildlife behavior, avoidance	Continued disturbance, potential for human-wildlife conflicts

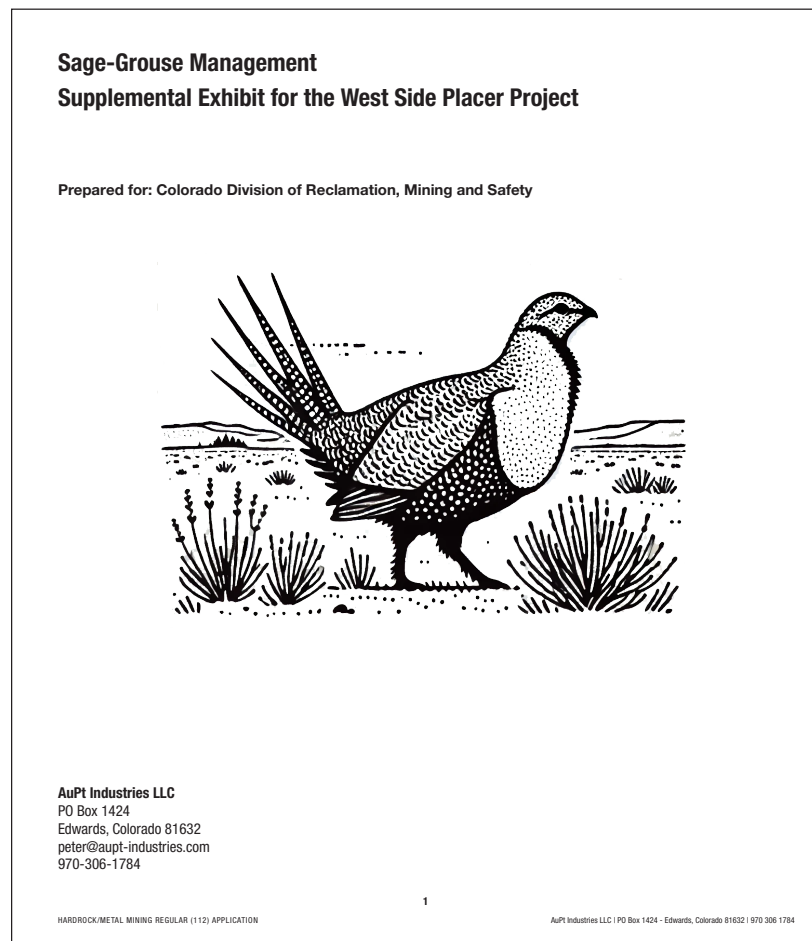
## (E) Sage-grouse

The West Side Placer lies within a designated Greater Sage-Grouse Habitat Management Area (HMA) under the Bureau of Land Management's (BLM) conservation framework. Specifically, it falls within areas classified as Priority Habitat Management Areas (PHMA) and General Habitat Management Areas (GHMA). PHMAs are high-value habitats essential for the survival and breeding of sage-grouse, while GHMAs support these populations with more flexible management.

To proactively address potential impacts on sage-grouse habitats, AuPt Industries has developed a Sage-Grouse Management Plan Supplement for the West Side Placer. This plan includes measures to avoid high-value habitats, such as seasonal restrictions on operations near breeding sites and post-mining habitat restoration efforts. By following the BLM's Greater Sage-Grouse Conservation Strategy, this approach aligns our reclamation and management efforts with federal conservation objectives.

This commitment supports long-term habitat preservation, contributing to the resilience of sage-grouse populations across the Greater Sage-Grouse Management Area.

See *Sage-Grouse Supplemental Exhibit for the West Side Placer Project*.





**(F) Maps**

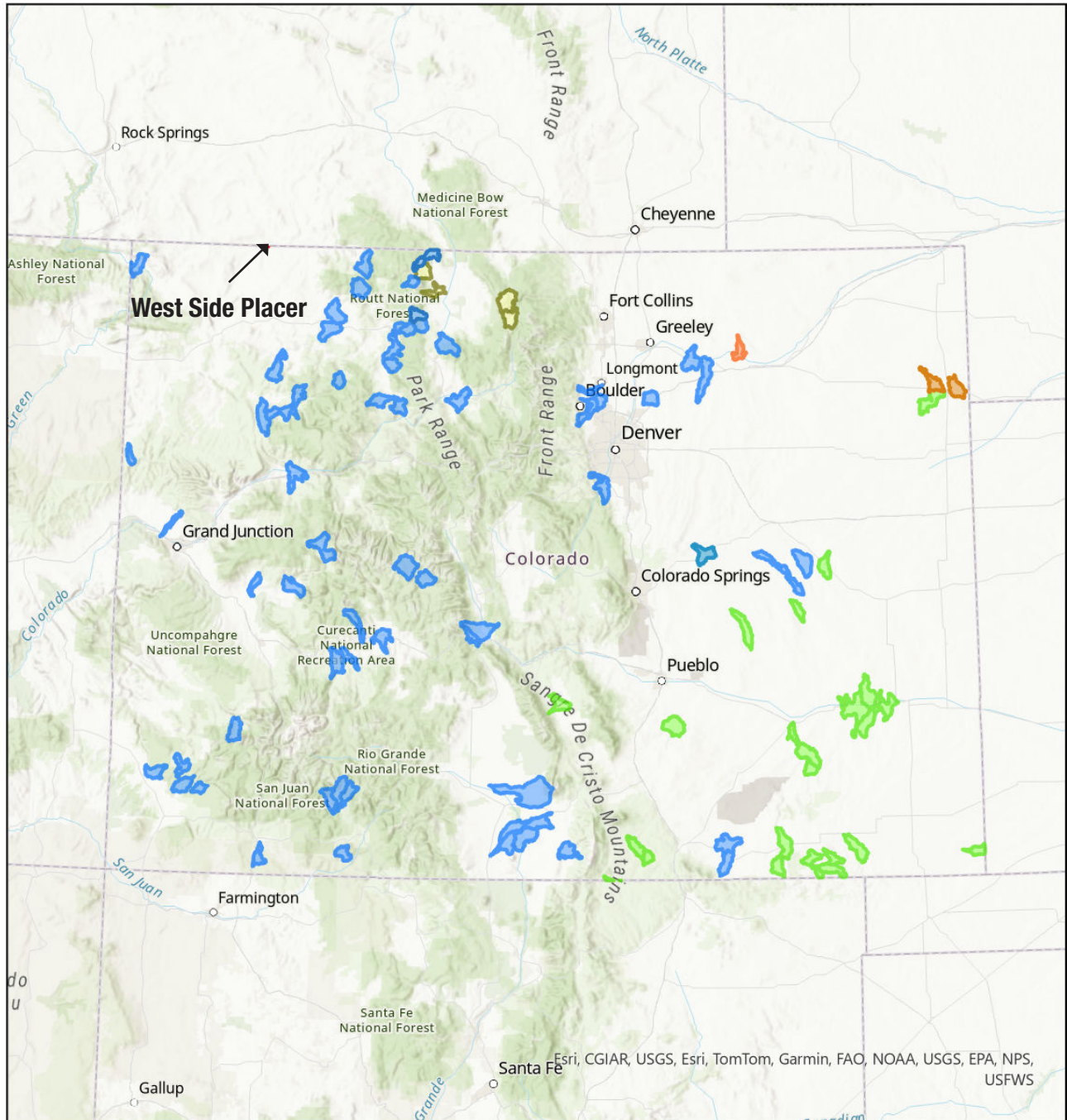
All maps are generated using the latest Public SAM Data from Colorado Parks and Wildlife.

1. 6.4.8 Exhibit H - Threatened And Endangered Species: Amphibians	59
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# 6.4.8 Exhibit H Colorado Threatened and Endangered Species: Amphibians

Signature

Date



0 25 50 100 Miles

- Blanchard's (Northern) Cricket Frog
- Northern Leopard Frog
- Plains Leopard Frog
- Wood Frog



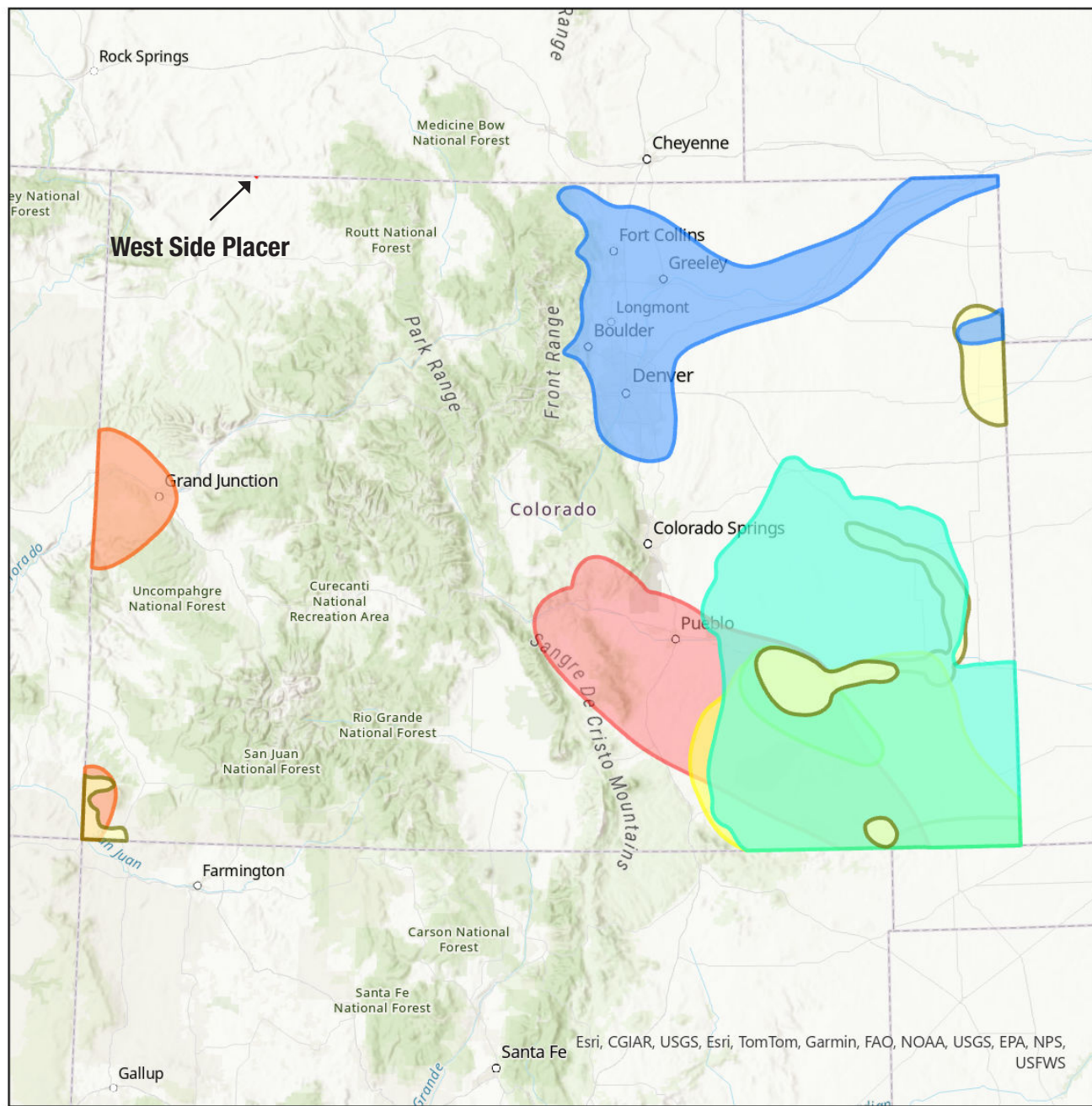


## 6.4.8 Exhibit H

### Colorado Threatened and Endangered Species: Reptiles

Signature

Date



0 25 50 100 Miles

Common Gartersnake Overall Range  
Common Kingsnake Overall Range  
Long-nosed Leopard Lizard Overall Range  
Massasauga Overall Range

Round-tailed Horned Lizard Overall Range  
Texas-horned Lizard Overall Range  
Triploid Checkered Whiptail Overall Range  
Yellow Mud Turtle Overall Range



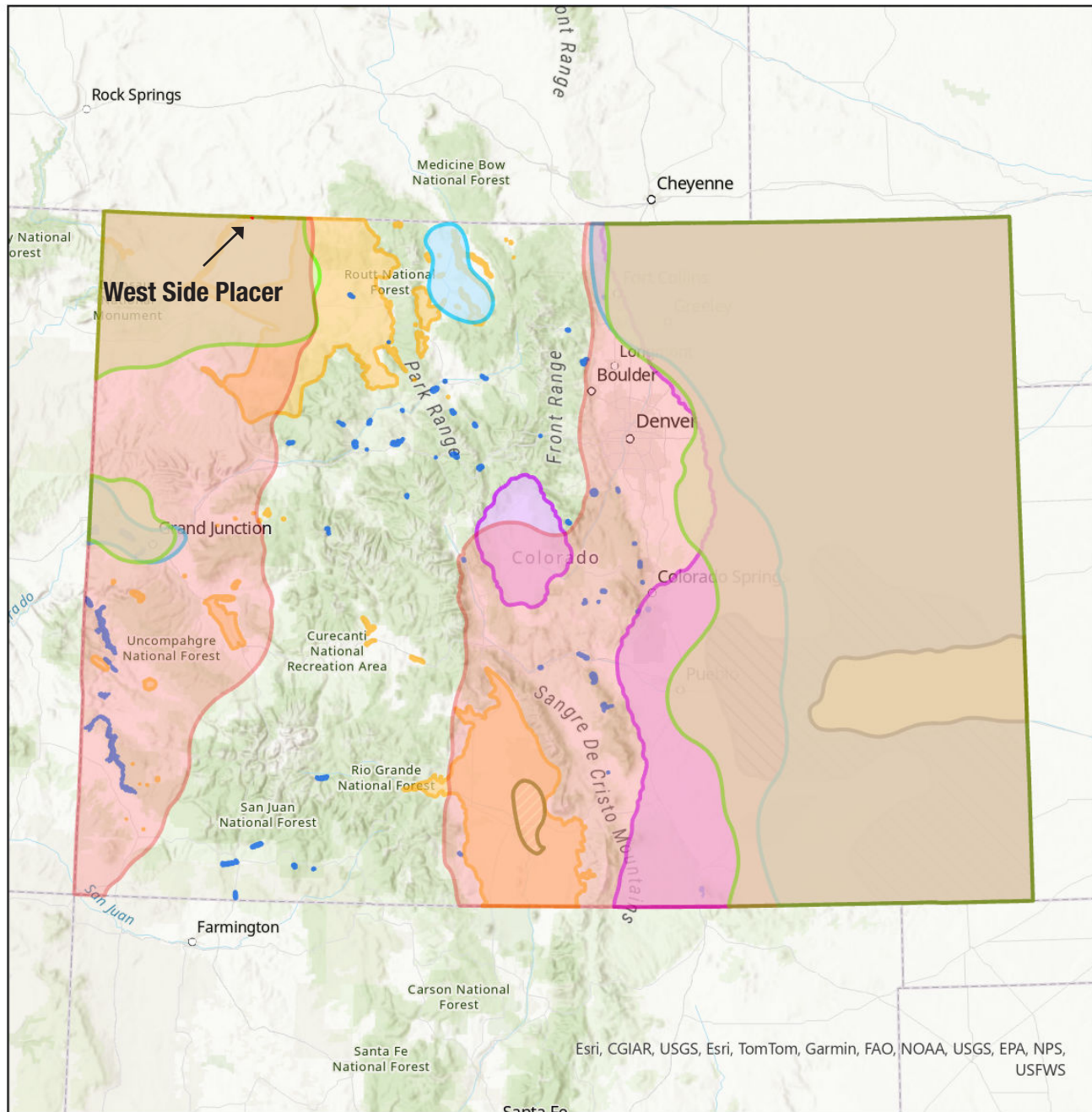
# 6.4.8 Exhibit H

## Colorado Threatened and Endangered Species: Birds

EXHIBIT H

Signature

Date



0 25 50 100 Miles

- Burrowing Owl
- Ferruginous Hawk
- Least Tern
- Long-billed Curlew
- Mountain Plover
- Piping Plover
- Western Snowy Plover
- Lesser Prairie Chicken
- Peregrine Falcon Nesting Area
- Sandhill Crane Overall Range





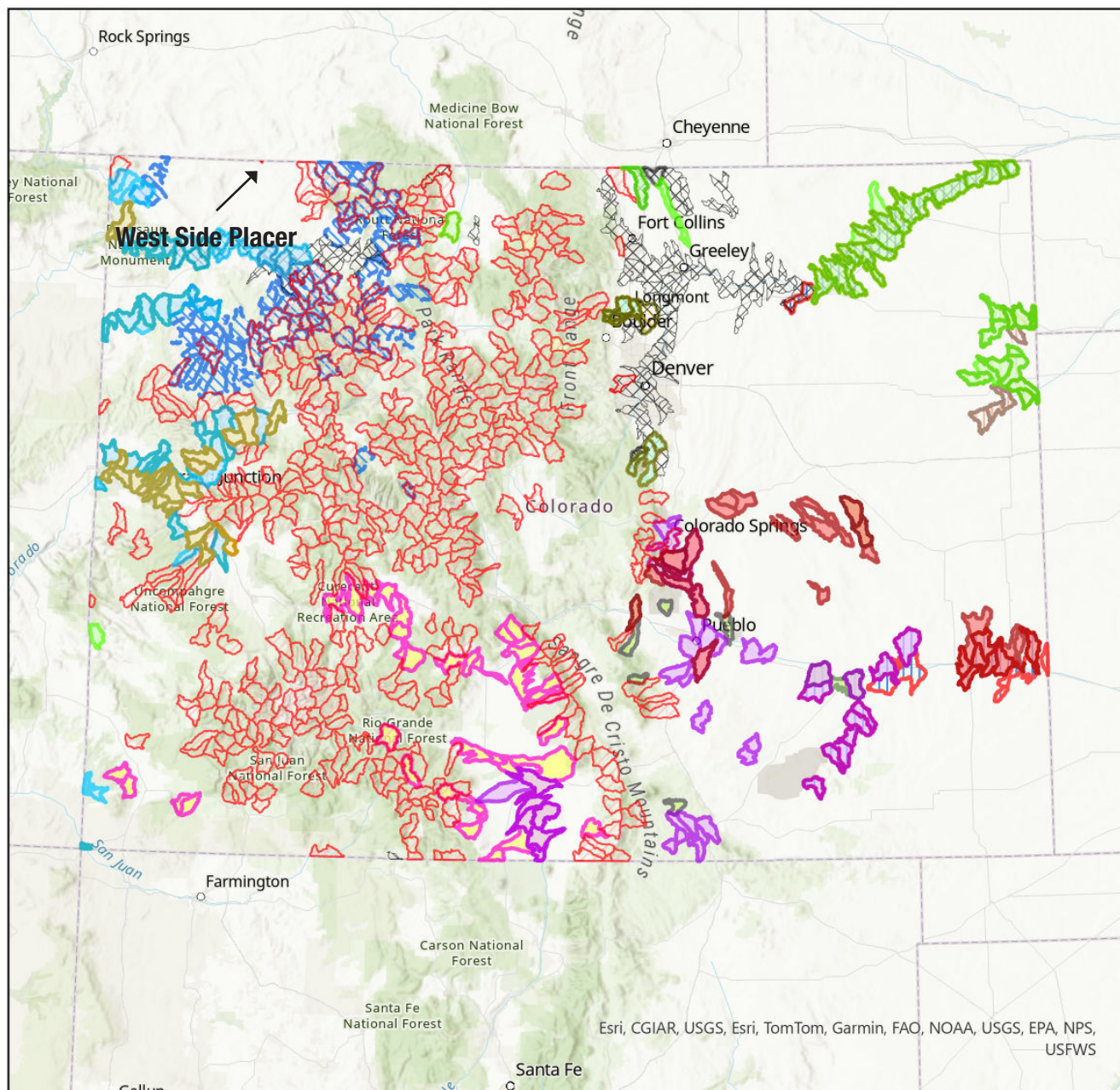
# 6.4.8 Exhibit H

## Colorado Threatened and Endangered Species: Fish

EXHIBIT H

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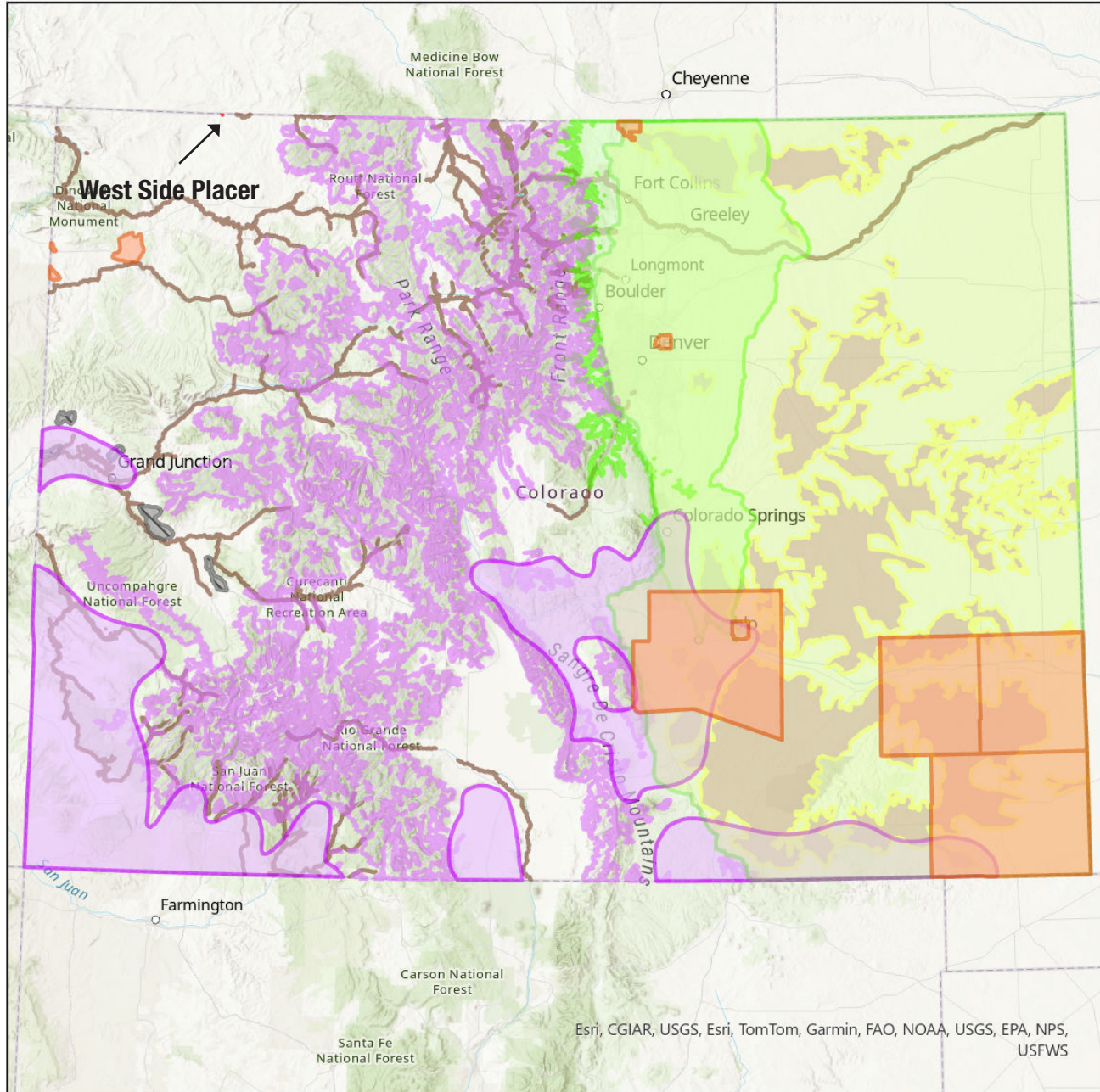


# 6.4.8 Exhibit H Colorado Threatened and Endangered Species: Mammals

EXHIBIT H

Signature

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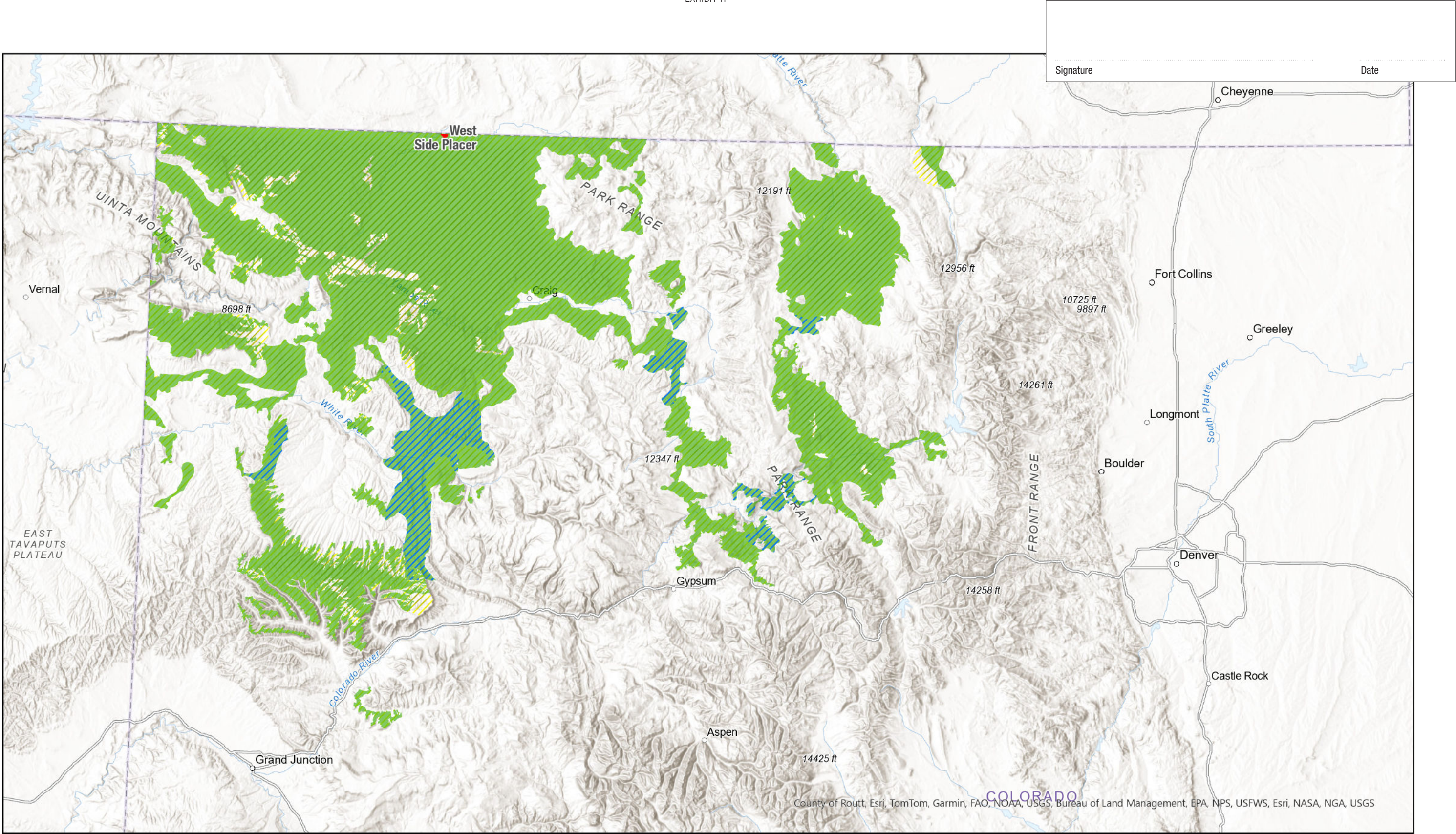
0 20 40 80 Miles

- Black-footed Ferret Management Area
- Black-tailed Prairie Dog
- Bottas Pocket Gopher
- Kit Fox

- Lynx
- Preble's Meadow Jumping Mouse
- River Otter
- Swift Fox

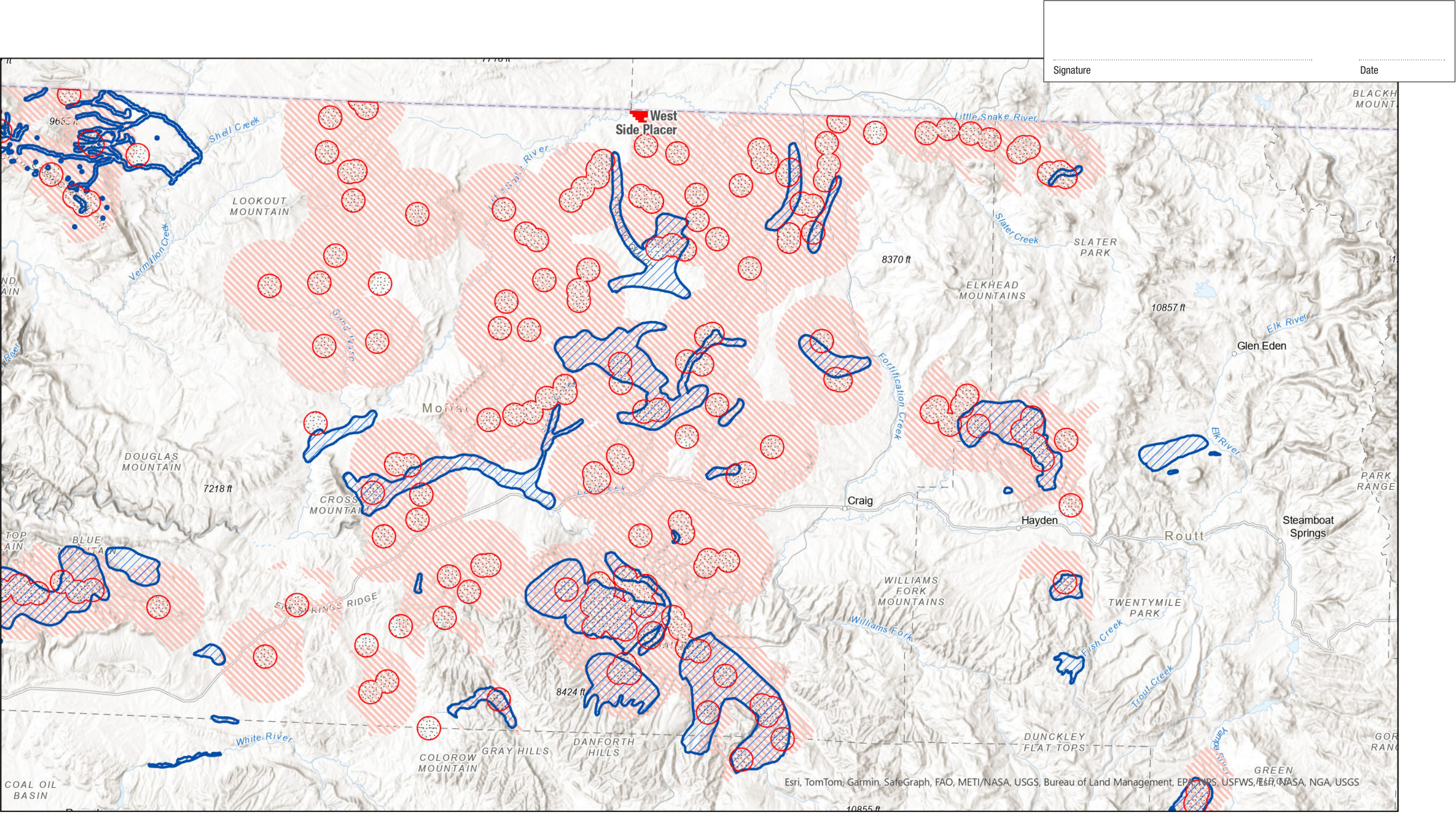




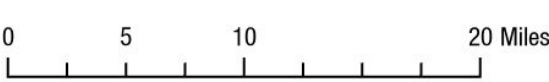


**6.4.8 Exhibit H**  
**Sage Grouse Priority Habitat,**  
**Linkages and Overall Range**

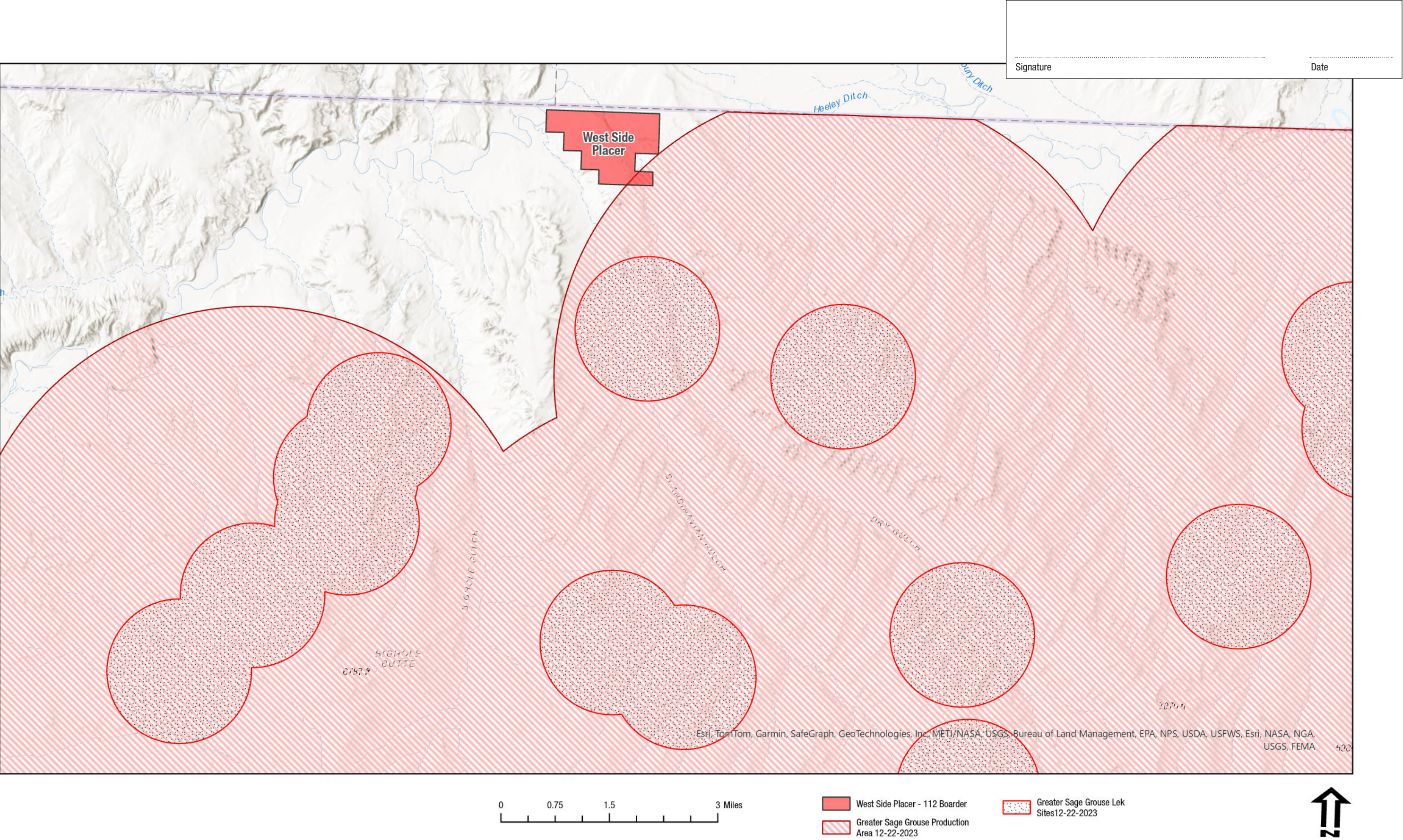




6.4.8 Exhibit H  
Sage Grouse Brood, Production Area  
and Lek Sites





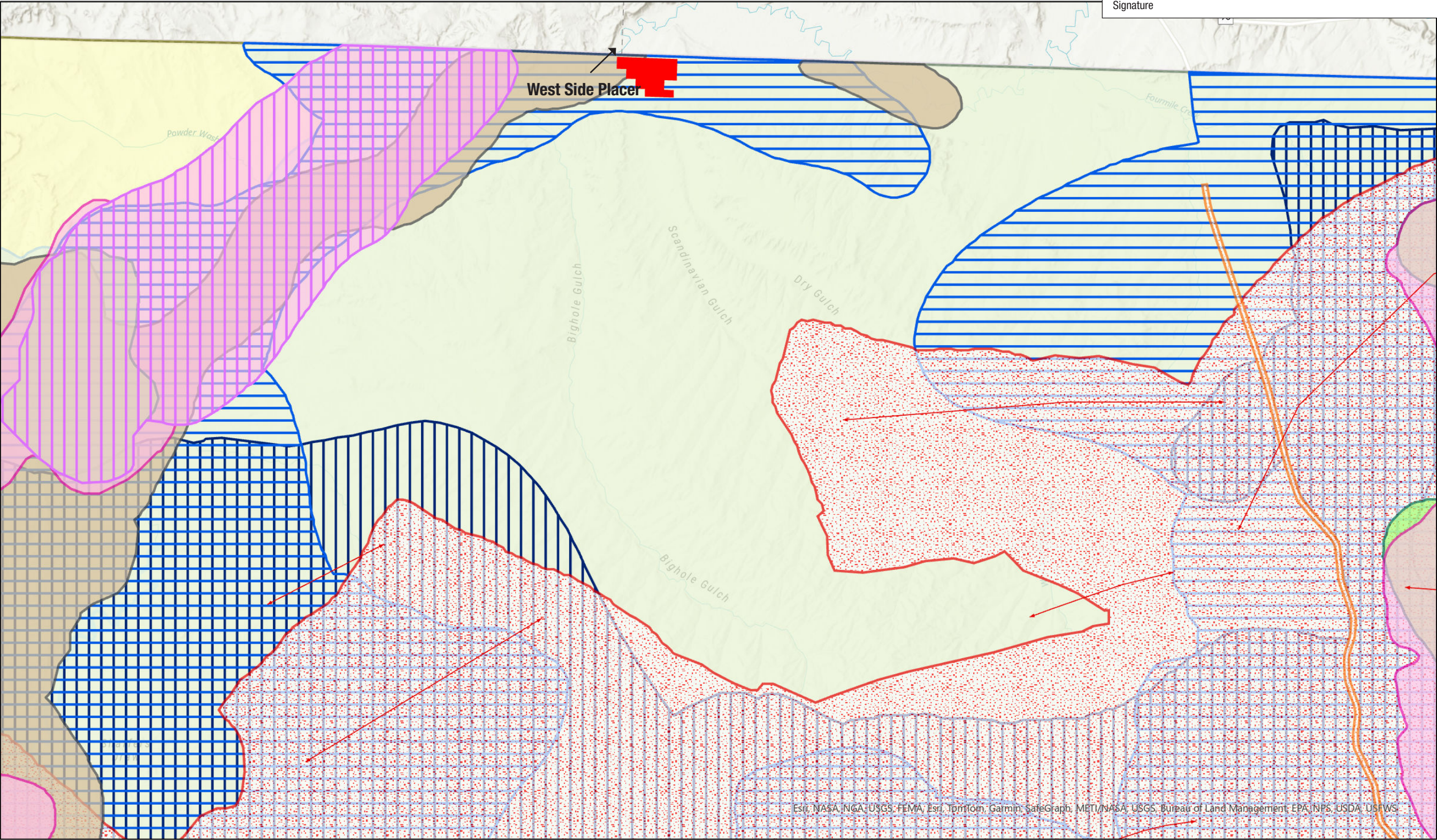


6.4.8 Exhibit H  
Sage Grouse Leks and Production Area

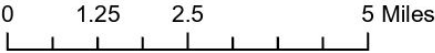


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6.4.8 Exhibit H  
Elk Map



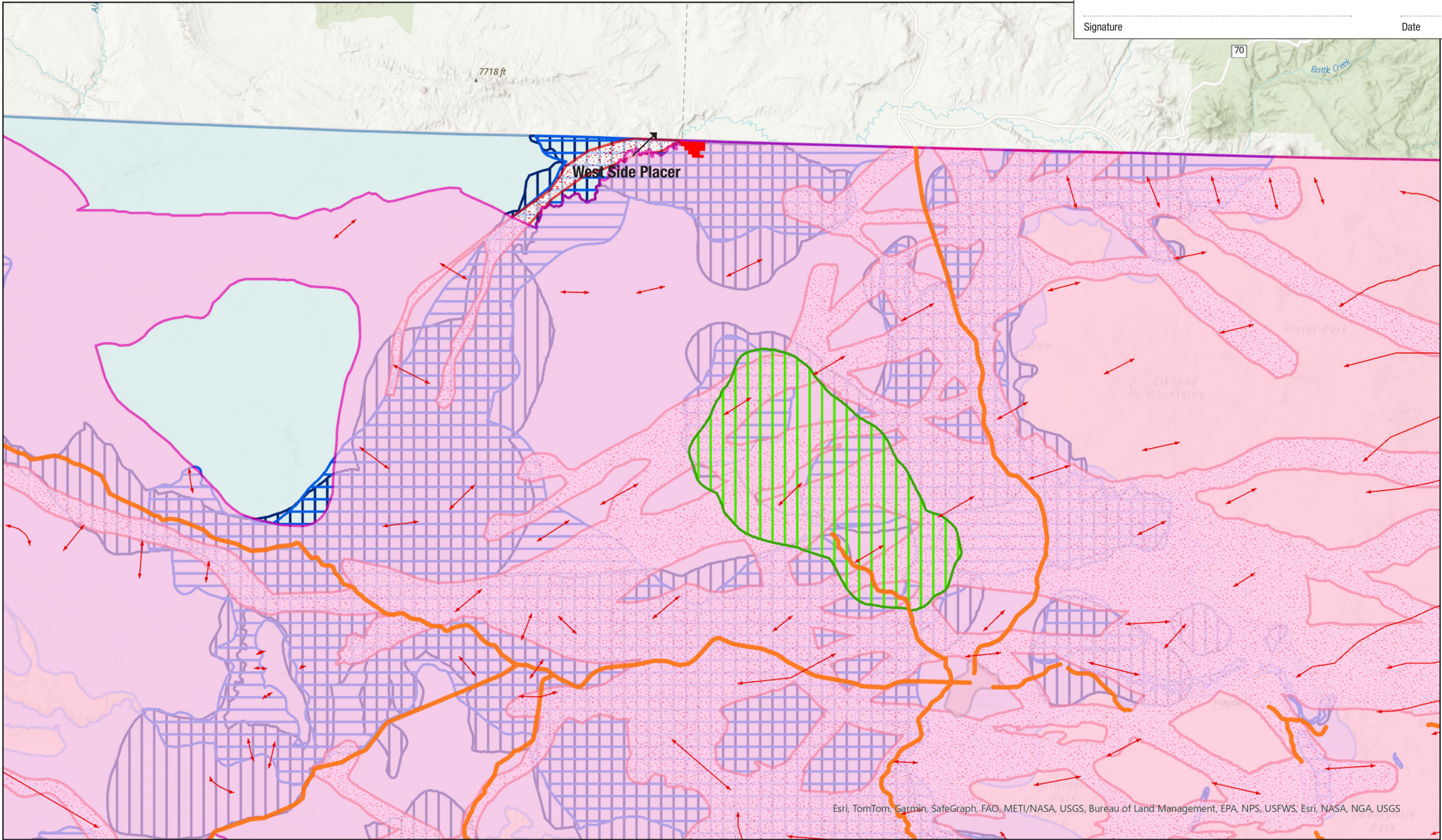
- |                                |                          |                           |               |
|--------------------------------|--------------------------|---------------------------|---------------|
| West Side Placer - 112 Boarder | Summer Range             | Migration Corridors       | Overall Range |
| Migration Patterns             | Production Area          | Severe Winter Range       |               |
| Highway Crossings              | Limited Use Area         | Winter Concentration Area |               |
| Summer Concentration Area      | Resident Population Area | Winter Range              |               |





Signature

Date



6.4.8 Exhibit H  
Mule Deer

0 3.5 7 14 Miles

West Side Placer - 112 Boarder  
Migration Patterns  
Highway Crossing

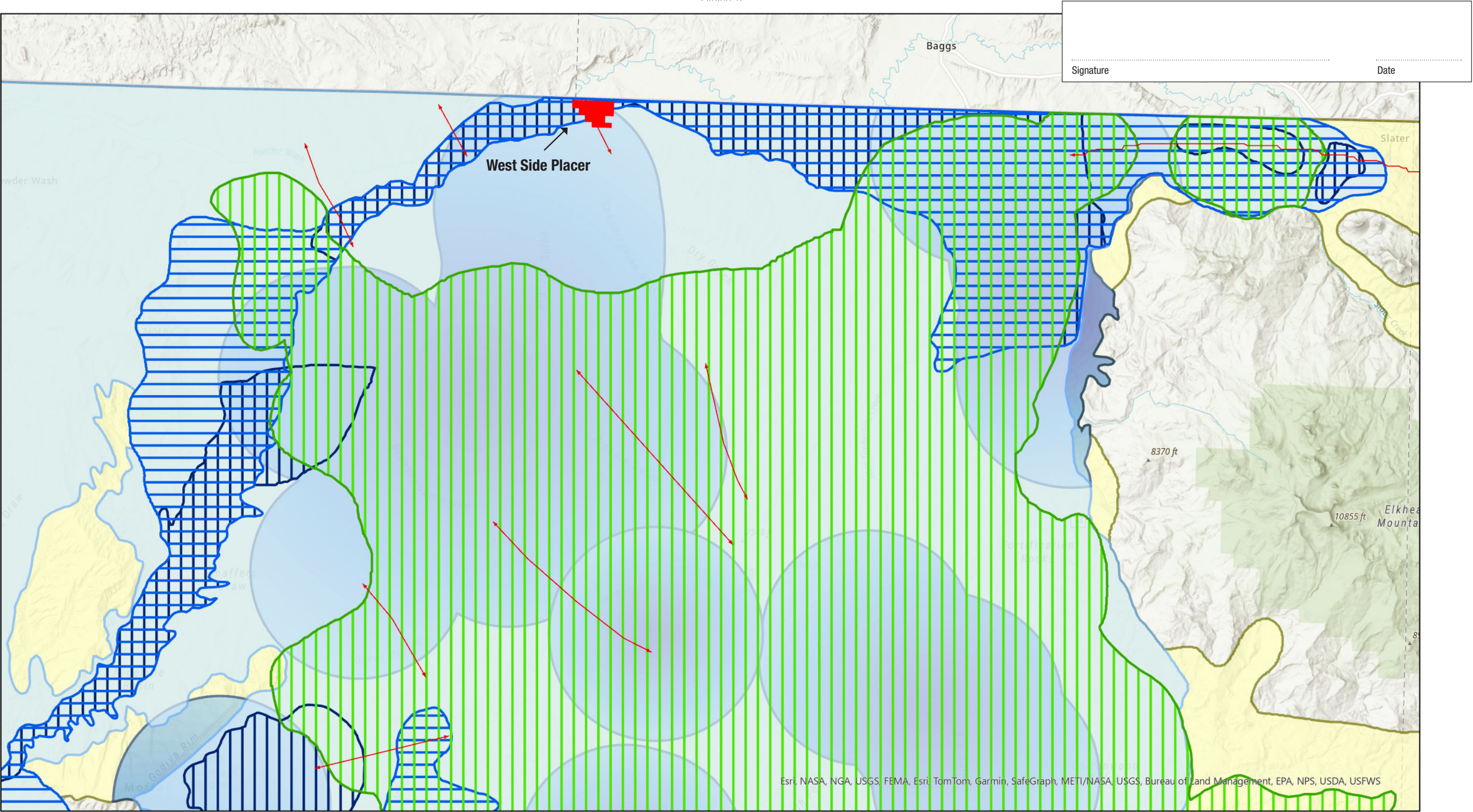
Concentration Area  
Summer Range  
Limited Use Area

Resident Population Area  
Migration Corridors  
Severe Winter Range

Winter Concentration Area  
Winter Range  
Overall Range



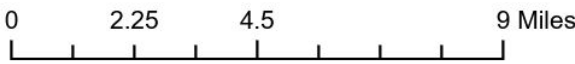




Signature

Date

6.4.8 Exhibit H  
Pronghorn



- West Side Placer - 112 Boarder
- Migration Patterns
- Concentration Area

- Limited Use Area
- Resident Population Area
- Migration Corridors
- Severe Winter Range

- Winter Concentration
- Winter Range
- Perennial Water
- Overall Range



## 6.4.9 EXHIBIT I – Soils Information

AuPt Industries initiated the development of a Custom Soil Resource Report in collaboration with the Natural Resources Conservation Service (NRCS) of the US Department of Agriculture in November 2023. To access the full document, kindly refer to the supporting document: *Custom Soil Resource Report for Carbon County Area, Wyoming, Moffat County Area, Colorado, and Sweetwater County Area, Wyoming*. The tables provided below showcase data extracted directly from the report, while comprehensive maps can be found at the specified locations:

- 6.4.3 EXHIBIT C – Soils
- 6.4.3 EXHIBIT C – Range Production (Normal Year)
- 6.4.3 EXHIBIT C – Ecological Sites

### (A) Soil Units

There are 11 different soil units defined in the affected area for the West Side Placer. *Table I.(A).1* shows soil units at the West Side Placer. See 6.4.3 EXHIBIT C – Soils and 6.4.9 EXHIBIT I - Soils Zones Soil Units.

TABLE I.(A).1

Map Unit Symbol	Soil Unit Name	Slope Range	Acres	Thickness	Percent of Total Area
168	Ruedloff sandy loam	1 to 8 percent slopes	304.1	20-40'	37.7%
75	Fonce sandy loam	1 to 8 percent slopes	102.0	8-20'	12.6%
92	Grimm-Ustic Torriorthents	15 to 45 percent slopes	76.4	12-30'	9.5%
199	Torriorthents-Torripsamments complex	12 to 40 percent slopes	72.1	8-20'	8.9%
205	Uffens fine sandy loam	0 to 3 percent slopes	69.0	2-8'	8.6%
62	Eghelm loamy fine sand	0 to 3 percent slopes	40.5	8-10'	5.0%
178	Simanni-Ruedloff complex	1 to 10 percent slopes	46.2	UNK	5.7%
198	Torriorthents-Rock outcrop, shale complex	30 to 75 percent slopes	49.9	0-4'	6.2%
154	Quealman sand	0 to 3 percent slopes	15.7	UNK	1.9%
174	Ryark-Maybell complex	1 to 12 percent slopes	15.6	20-40'	1.9%
204	Typic Natrargids	0 to 5 percent slopes	11.7	UNK	1.5%



## (B) Range Production (Normal Year)

*Table I.(B).1 Soil Units* provides details on range production units specifically at the West Side Placer. For a visual representation of the soil units over the affected ground, please refer to *Map 6.4.3 EXHIBIT C – Map 5 - Range Production (Normal Year)*.

TABLE I.(B).1

Map Unit Symbol	Map Unit Name	Percent of West Side Placer	Rating (lbs/acre/year)
168	Ruedloff sandy loam, 1 to 8 percent slopes	37.7%	425
75	Fonce sandy loam, 1 to 8 percent slopes	12.6%	450
92	Torriorthents-Torripsamments complex, 12 to 40 percent slopes	8.9%	390
199	Uffens fine sandy loam, 0 to 3 percent slopes	8.6%	495
205	Simanni-Ruedloff complex, 1 to 10 percent slopes	5.7%	525
62	Eghelm loamy fine sand, 0 to 3 percent slopes	5.0%	1350
178	Torriorthents-Rock outcrop, shale complex, 30 to 75 percent slopes	6.2%	150
198	Grimm-Ustic Torriorthents, shallow complex, 15 to 45 percent slopes	9.5%	250
154	Quealman sand, 0 to 3 percent slopes	1.9%	1800
174	Ryark-Maybell complex, 1 to 12 percent slopes	1.9%	688
204	Typic Natrargids, 0 to 5 percent slopes	1.5%	11.7

## (C) Maps

### 1. 6.4.9 EXHIBIT I - Soils Zones Soil Units

72

## EXHIBIT I

Date





## 6.4.10 EXHIBIT J – Vegetation Information

### (A) Descriptions Of Present Vegetation Types

To support effective reclamation and compliance with habitat conservation goals, Table J.(A).1 details the dominant plant species at the West Side Placer project, focusing on those essential for ecological stability and restoration. The vegetation includes Wyoming big sagebrush (*Artemisia tridentata wyomingensis*), which grows up to 18 inches and is foundational to the sagebrush steppe. Additionally, native grasses such as western wheatgrass (*Agropyron smithii*), needle-and-thread (*Stipa comata*), blue grama (*Bouteloua gracilis*), and Sandberg bluegrass (*Poa secunda*) thrive in this arid environment, with heights ranging from 12 to 36 inches, providing food and habitat structure for local wildlife.

Other significant species include rubber rabbitbrush (*Ericameria nauseosa*), fringed sage (*Artemisia frigida*), prickly pear cactus (*Opuntia polyacantha*), and pincushion cactus (*Escobaria vivipara*). Both cacti are well-adapted to the dry climate, contributing to soil stabilization and providing forage for wildlife. The prickly pear typically grows between 4 to 12 inches tall, while the pincushion cactus reaches heights of 1 to 6 inches.

This mix of native grasses, shrubs, and forbs is essential to supporting biodiversity, maintaining soil integrity, and restoring the natural ecosystem post-mining. This carefully managed vegetative composition aligns with the reclamation plan to foster a resilient landscape that meets conservation standards, particularly for sage-grouse and other sagebrush-dependent species.

TABLE J.(A).1

Common Name	Scientific Name	Height
Western Wheatgrass	<i>Agropyron smithii</i> Rydb.	12 to 36 inches
Needle-And-Thread	<i>Stipa comata</i>	12 to 36 inches
Blue Grama	<i>Bouteloua gracilis</i>	12 to 24 inches
Sandberg Bluegrass	<i>Poa secunda</i> J. Presl	12 to 36 inches
Wyoming Big Sagebrush	<i>Artemisia tridentata wyomingensis</i>	12 to 48 inches
Rubber Rabbitbrush	<i>Ericameria nauseosa</i>	24 to 36 inches
Fringed Sage	<i>Artemisia frigida</i>	24 to 36 inches
Silver Sagebrush	<i>Artemisia cana</i>	24 to 48 inches
Prickly Pear Cactus	<i>Opuntia polyacantha</i>	4 to 12 inches
Pincushion Cactus	<i>Escobaria vivipara</i>	1 to 6 inches

## (B) Relationship Of Present Vegetation Types To Soil Types

Table J.(B).1 presents the current vegetation types and their correlation with specific soil types across the West Side Placer project area. This table illustrates the influence of soil composition on plant distribution and the ecological characteristics of each soil unit. For example, Eghelm loamy fine sand (0-3% slopes) primarily supports basin big sagebrush (*Artemisia tridentata* ssp. *tridentata*) and Great Basin wildrye (*Leymus cinereus*), while Fonce sandy loam (1-8% slopes) provides a foundation for Wyoming big sagebrush (*Artemisia tridentata* ssp. *wyomingensis*) and prairie sandreed (*Elymus lanceolatus* ssp. *lanceolatus*).

Additionally, Grimm-Ustic Torriorthents soils (15-45% slopes) and Ruedloff sandy loam (1-8% slopes) contribute to the diversity of vegetation with a mix of gravelly green river and Great Divide Basin species, further detailed in 6.4.10 EXHIBIT J - Range Production, which illustrates the spatial distribution of these soils. Notable shrubs and grasses in these areas include rubber rabbitbrush (*Chrysothamnus viscidiflorus*) and western wheatgrass (*Pascopyrum smithii*), all of which contribute to the resilience and biodiversity of the site's sagebrush steppe ecosystem.

For a comprehensive view of these soil types and their ecological relevance, see Map 6.4.3 EXHIBIT C - Soils, which provides additional details on soil units and their distribution across the project area.

TABLE J.(B).1

Map Unit	Map Unit Name	Component Name (Percent)	Ecological Site	Dominant plant species	Acres in AOI	Percent of AOI
62	Eghelm loamy fine sand, 0 to 3 percent slopes	Eghelm (90%) Natrargids (5%) Youngston (5%)	R034BY009UT — Loamy Bottom (Basin Big Sagebrush)	Shrub (1) <i>Artemisia tridentata</i> ssp. <i>tridentata</i> Herbaceous (1) <i>Leymus cinereus</i>	40.5	5.0%
75	Fonce sandy loam, 1 to 8 percent slopes	Fonce (90%) Soils with sandy loam upper subsoils (5%) Soils with less than 15 percent calcium carbonate (3%) Soils with very gravelly upper subsoils (2%)	R034AY424CO — Loamy 7-10 PZ	Shrub (1) <i>Artemisia tridentata</i> ssp. <i>wyomingensis</i>  Herbaceous (1) <i>Elymus lanceolatus</i> ssp. <i>lanceolatus</i> (2) <i>Achnatherum hymenoides</i>	102.0	12.6%
92	Grimm-Ustic Torriorthents, shallow complex, 15 to 45 percent slopes	Grimm (50%) Ustic Torriorthents, shallow (40%) Moderately deep soils (10%)	R034AY112WY — Gravelly Green River and Great Divide Basins (Gr)		76.4	9.5%
154	Quealman sand, 0 to 3 percent slopes	Quealman (90%) Medium textured soils (5%) Soils with loamy sand and sand substratums (5%)	R034BY012UT — Sandy Bottom (Fourwing salbush)	Herbaceous Not specified Not specified (1) <i>Achnatherum hymenoides</i> (2) <i>Hilaria jamesii</i>	15.7	1.9%
168	Ruedloff sandy loam, 1 to 8 percent slopes	Ruedloff (85%) Gravelly surfaced soils on sloping to moderately steep break (5%) Kandaly (5%) Tresano (5%)	R034AY150WY — Sandy Green River and Great Divide Basins (Sy)		304.1	37.7%



## EXHIBIT J

Map Unit	Map Unit Name	Component Name (Percent)	Ecological Site	Dominant plant species	Acres in AOI	Percent of AOI
174	Ryark-Maybell complex, 1 to 12 percent slopes	Ryark (70%) Maybell (15%) Gretivd (5%) Powderwash (5%) Ryan Park (5%)	R034AY298CO — Rolling Loam	Shrub (1) <i>Artemisia tridentata</i> ssp. <i>wyomingensis</i> (2) <i>Chrysothamnus viscidiflorus</i>  Herbaceous (1) <i>Pascopyrum smithii</i> (2) <i>Hesperostipa comata</i>	15.6	1.9%
178	Simanni-Ruedloff complex, 1 to 10 percent slopes	Simanni (50%) Ruedloff (40%) R034AY150WY — Sandy Green River and Great Divide Basins (Sy) Kandaly (5%) Tresano (5%)	R034AY150WY — Sandy Green River and Great Divide Basins (Sy)		46.2	5.7%
198	Torriorthents-Rock outcrop, shale complex, 30 to 75 percent slopes	Torriorthents (60%) Rock outcrop, shale (40%)			49.9	6.2%
199	Torriorthents-Torripsamments complex, 12 to 40 percent slopes	Torriorthents (60%) Torripsamments (30%) Ruedloff (4%) Rock River (3%) Ryan Park (3%)			72.1	8.9%
204	Typic Natrargids, 0 to 5 percent slopes	Typic Natrargids (80%) Deaver (5%) Eghelm (5%) Massadona (5%) Turzo (5%)			11.7	1.5%
205	Uffens fine sandy loam, 0 to 3 percent slopes	Uffens (90%)	R034AY140WY — Saline Lowland Drained Green River and Great Divide Basins (SLDr)		69.0	8.6%

**(C) Range Production (Normal Year)**

Overall, the level of range production at West Side Placer is generally considered to be low. *Table J.(C).1* lists the different ecological sites found in the area. Correspondingly, *6.4.10 EXHIBIT J - Range Production* illustrates the range production for a normal year, highlighting the relationship between production levels and soil type. Furthermore, *Table I.2* presents detailed data on range production units, offering a granular view of the production landscape. For a comprehensive spatial understanding, refer to *Map Map 6.4.3 EXHIBIT C - Soils*, which delineates the location of soil units over the affected ground.

TABLE J.(C).1

Map Unit Symbol	Map Unit Name	Percent of West Side Placer	Rating (lbs/acre/year)
168	Ruedloff sandy loam, 1 to 8 percent slopes	37.7%	425
75	Fonce sandy loam, 1 to 8 percent slopes	12.6%	450

Map Unit Symbol	Map Unit Name	Percent of West Side Placer	Rating (lbs/acre/year)
92	Torriorthents-Torripsamments complex, 12 to 40 percent slopes	8.9%	390
199	Uffens fine sandy loam, 0 to 3 percent slopes	8.6%	495
205	Simanni-Ruedloff complex, 1 to 10 percent slopes	5.7%	525
62	Eghelm loamy fine sand, 0 to 3 percent slopes	5.0%	1350
178	Torriorthents-Rock outcrop, shale complex, 30 to 75 percent slopes	6.2%	150
198	Grimm-Ustic Torriorthents, shallow complex, 15 to 45 percent slopes	9.5%	250
154	Quealman sand, 0 to 3 percent slopes	1.9%	1800
174	Ryark-Maybell complex, 1 to 12 percent slopes	1.9%	688
204	Typic Natrargids, 0 to 5 percent slopes	1.5%	11.7

## (D) Maps

1. 6.4.10 EXHIBIT J - Vegetation Zones 73
2. 6.4.10 EXHIBIT J - 1 Range Production 75



## EXHIBIT J

Date \_\_\_\_\_

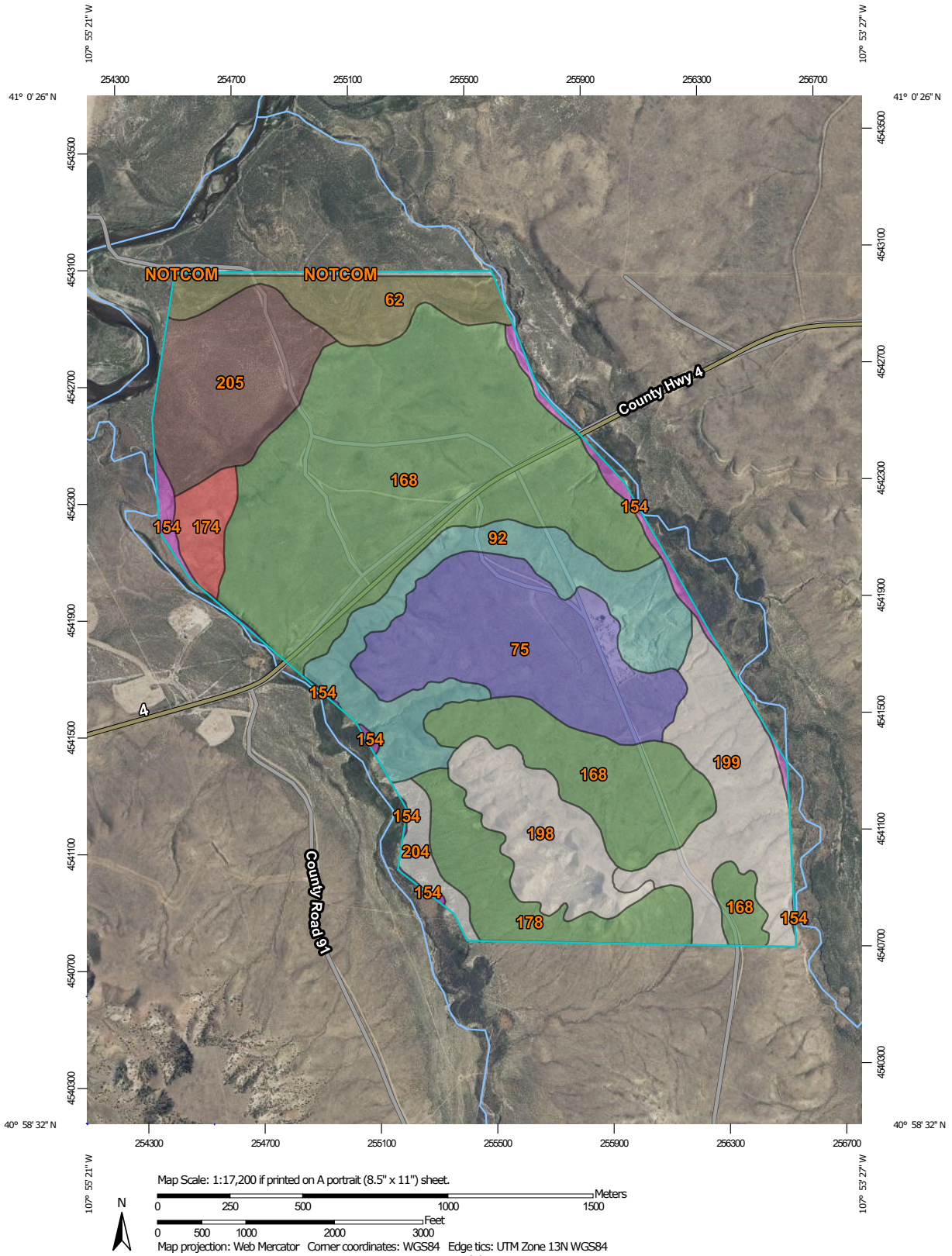
[illegible]

# 6.4.10 EXHIBIT J Vegetation Zones

EXHIBIT J

Signature

Date





## 6.4.11 EXHIBIT K – Climate

### (A) Climate Summary

The West Side Placer is situated in a cold semi-arid climate, classified as BSk in the Köppen climate classification (*see Map K.1*).

Annual precipitation ranges from 7 to 9 inches, with significant variability from year to year, leading to more dry years than those with above-average precipitation. Temperature fluctuations are substantial, attributed to the high elevation and dry air, allowing for rapid radiation exchange. During winter, cold air outbreaks move swiftly from northwest to southeast, causing extreme minimum temperatures. While extreme storms can occur in winter, they most severely impact ranch operations in late winter and spring.

Daytime winds tend to be stronger than nighttime winds, and occasional strong storms may bring brief periods of high winds, reaching gusts of over 50 mph. The growth of native cool-season plants typically begins around April 15 and continues until about July 15. Some greening of cool-season plants may occur in September if moisture is available.

Key climatic statistics for the region include:

**Frost-free period (average):** 121 days

**Freeze-free period (average):** 132 days

**Average precipitation:** 7 to 9 inches

**Average air temperature:** 5.56 degrees Celsius.

### (B) Maps

The following maps have been prepared to show the different climate factors at the West Side Placer Project

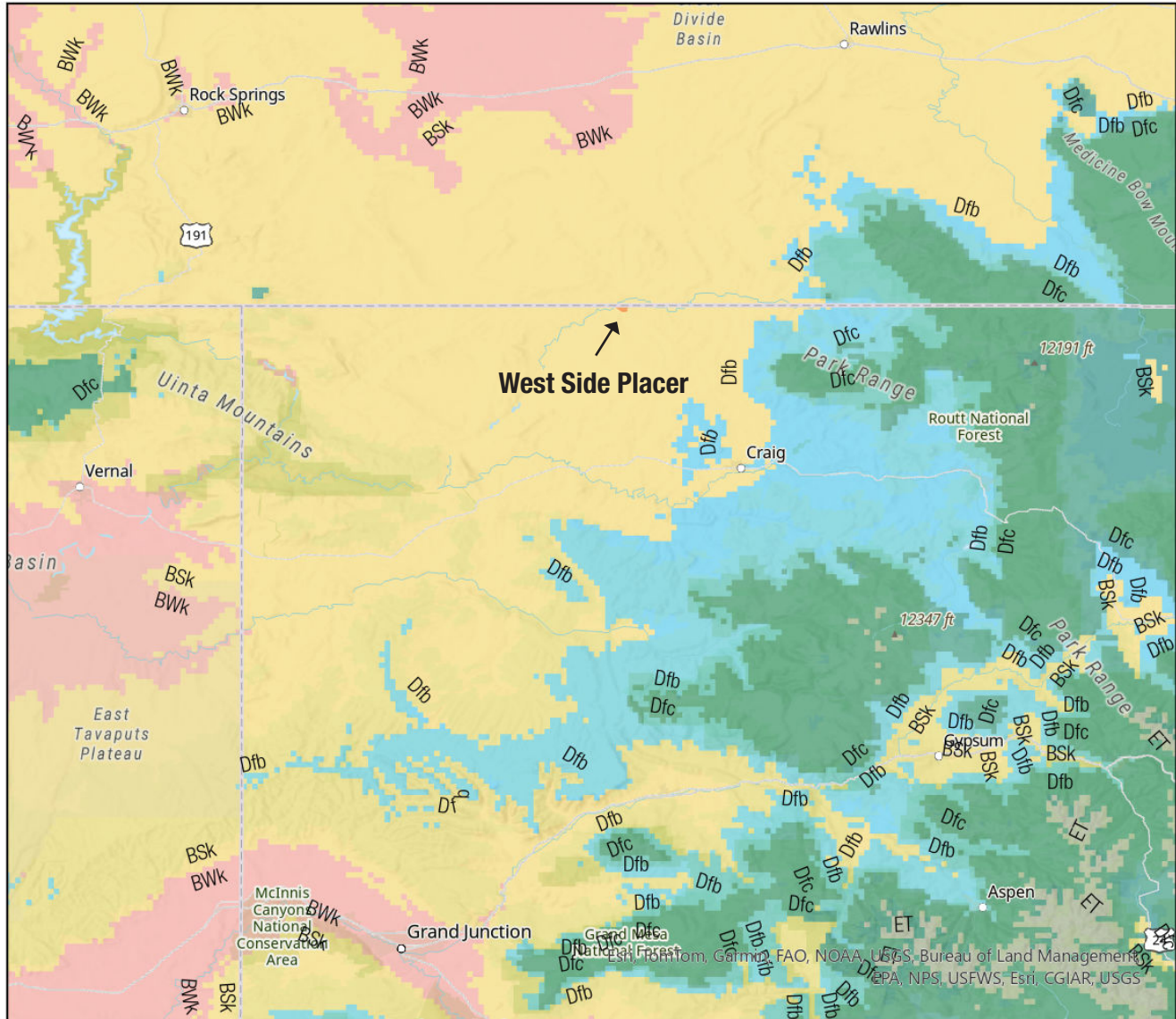
1. 6.4.11 EXHIBIT K - Climate: Köppen Climate Zones	78
2. 6.4.11 EXHIBIT K - Climate: Average Temperature	79
3. 6.4.11 EXHIBIT K - Climate: Precipitation	80
4. 6.4.11 EXHIBIT K - Climate: Solar	81
5. 6.4.11 EXHIBIT K - Climate: Wind	82

## 6.4.11 EXHIBIT K

## Climate: Koppen Climate Zones

Signature

Date



## North America Climate Zones

<ul style="list-style-type: none"> <li>Af: Tropical Rainforest</li> <li>Am: Tropical Monsoon</li> <li>Aw: Tropical Savanna (Wet and Dry Climate)</li> <li>BWh: Hot Desert Climate</li> <li>BWk: Cold Desert Climate</li> <li>BSh: Hot Semi-Arid Climate</li> <li>BSk: Cold Semi-Arid Climate</li> <li>Csa: Hot-Summer Mediterranean Climate</li> </ul>	<ul style="list-style-type: none"> <li>Csb: Warm-Summer Mediterranean Climate</li> <li>Csc: Temperate, Dry Summer, Cold Summer</li> <li>Cwa: Warm Oceanic Climate / Humid Subtropical Climate</li> <li>Cwb: Subtropical Highland Climate or Temperate Oceanic Climate with Dry Winters</li> <li>Cwc: Cold Subtropical Highland / Subpolar Oceanic</li> </ul>	<ul style="list-style-type: none"> <li>Cfa: Humid Subtropical Climate</li> <li>Cfb: Temperate Oceanic Climate</li> <li>Cfc: Subpolar Oceanic Climate</li> <li>Dsa: Humid Continental Climate - Dry Warm Summer</li> <li>Dsb: Humid Continental Climate - Dry Cool Summer</li> <li>Dsc: Continental Subarctic - Cold Dry Summer</li> </ul>	<ul style="list-style-type: none"> <li>Dsd: Continental Subarctic - Dry Summer, Very Cold Winter</li> <li>Dwa: Humid Continental Hot Summers with Dry Winters</li> <li>Dwb: Humid Continental Mild Summer with Dry Winters</li> <li>Dwc: Subarctic with Cool Summers and Dry Winters</li> <li>Dfa: Humid Continental Hot Summers with Year-round Precipitation</li> </ul>	<ul style="list-style-type: none"> <li>Dfb: Humid Continental Mild Summer, Wet All Year</li> <li>Dfc: Subarctic with Cool Summers and Year-round Precipitation</li> <li>Dfd: Subarctic with Cold Winters and Year-round Precipitation</li> <li>ET: Tundra Climate</li> <li>EF: Ice Cap Climate</li> </ul>
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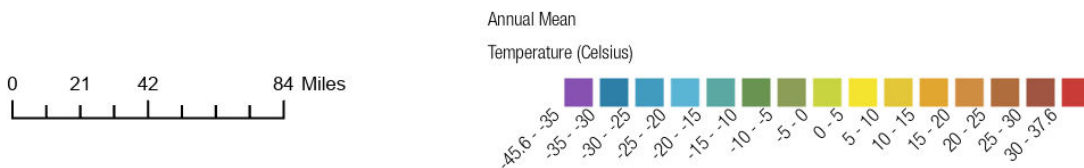
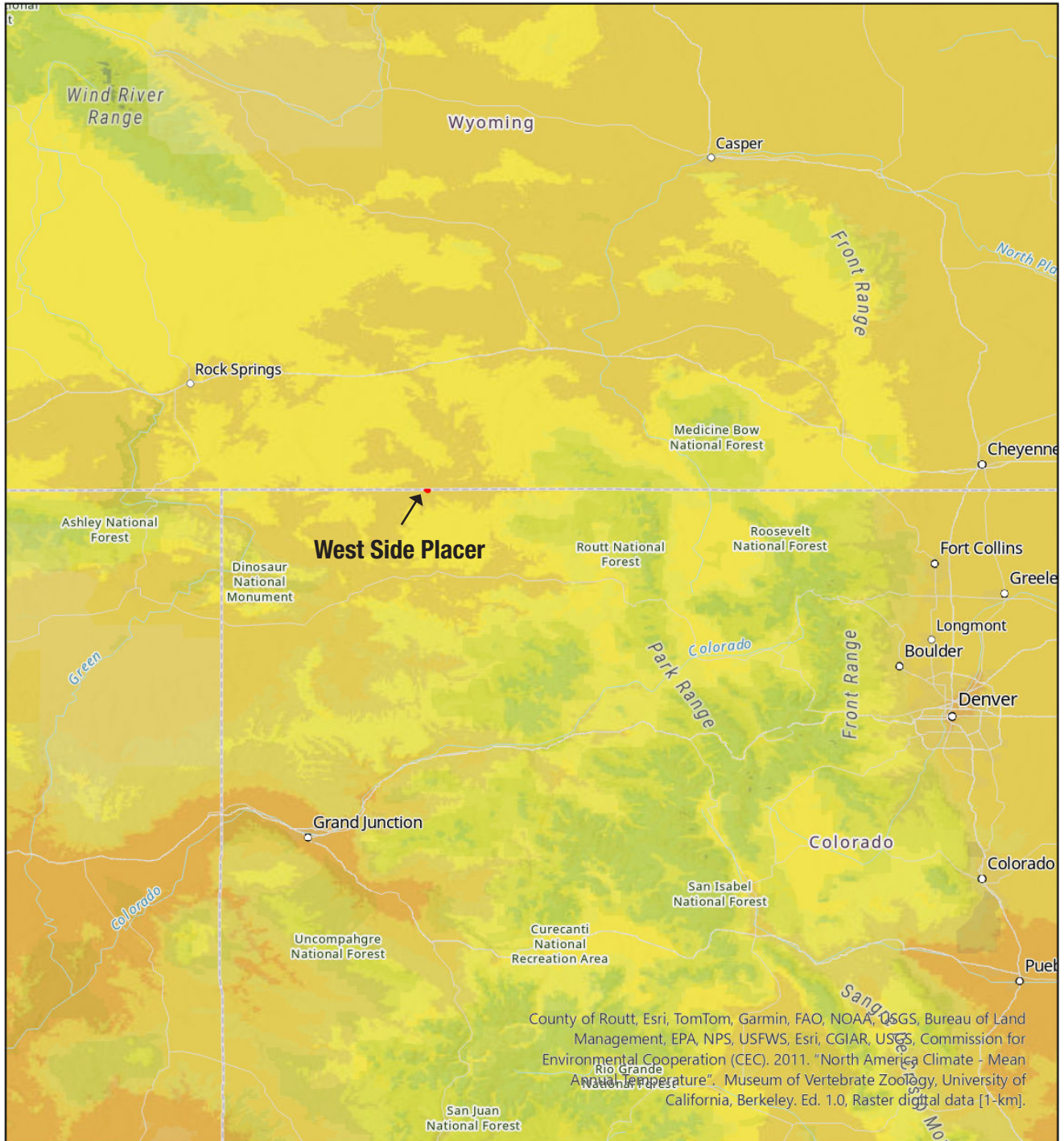


# 6.4.11 EXHIBIT K

## Climate: Average Temperature

Signature

Date

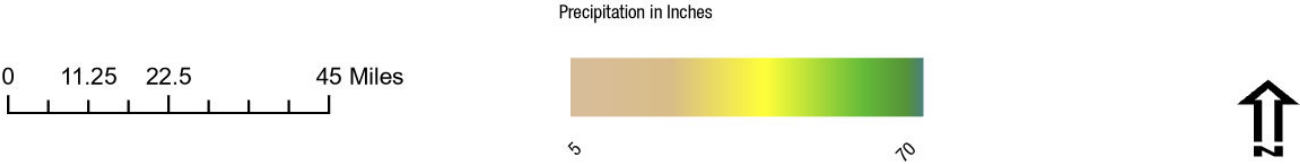
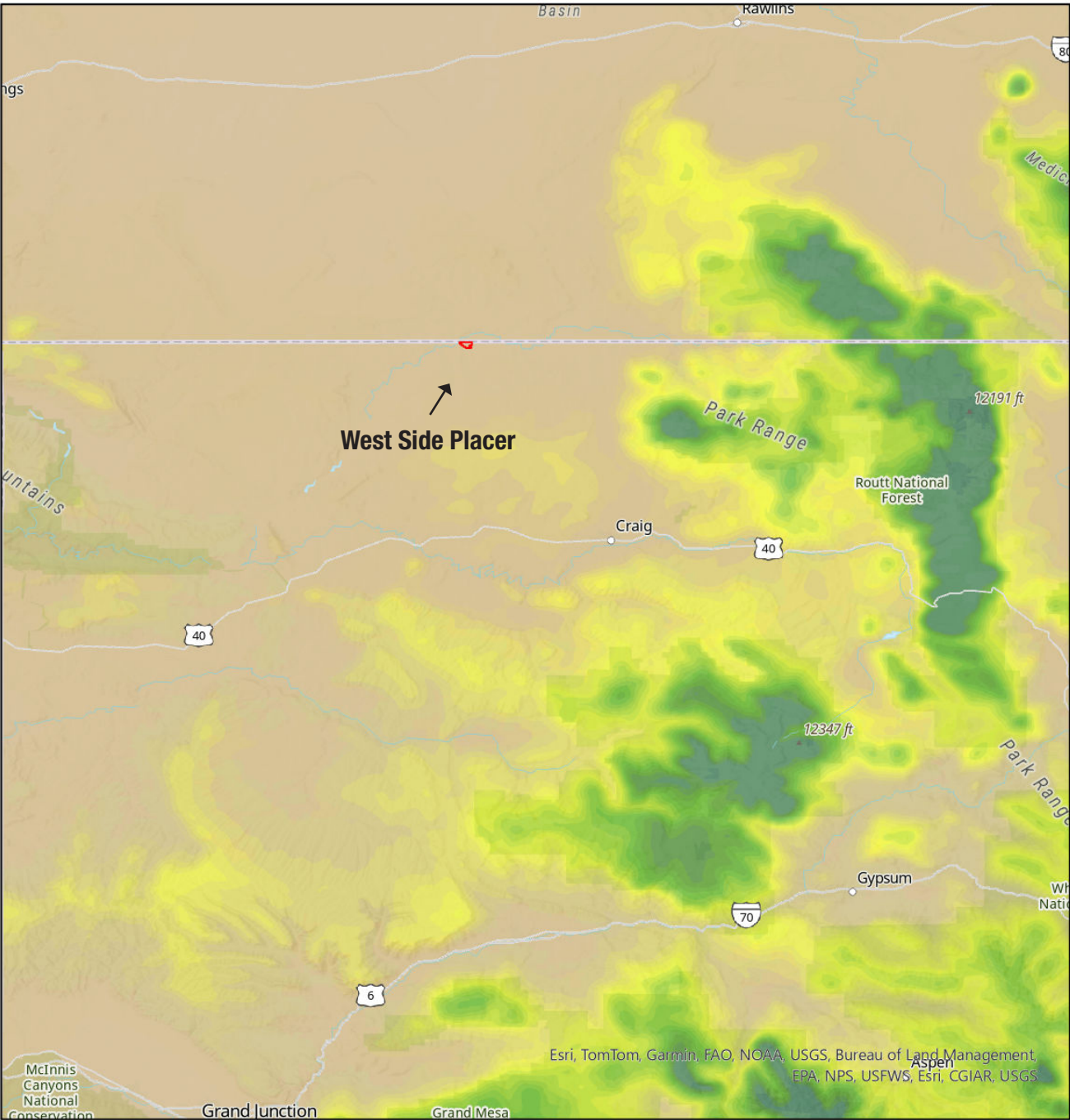


6.4.11 EXHIBIT K

Climate: Precipitation

EXHIBIT K

Signature	Date





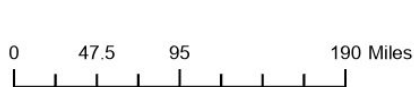
# 6.4.11 EXHIBIT K

## Climate: Solar

EXHIBIT K

Signature

Date

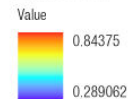


TransWest Express Transmission Project

Solar Potential

- Low usage, most potential
- Low usage, high potential
- Low usage, moderate potential
- Low usage, fair potential
- Households here are already using solar
- This area has low solar potential

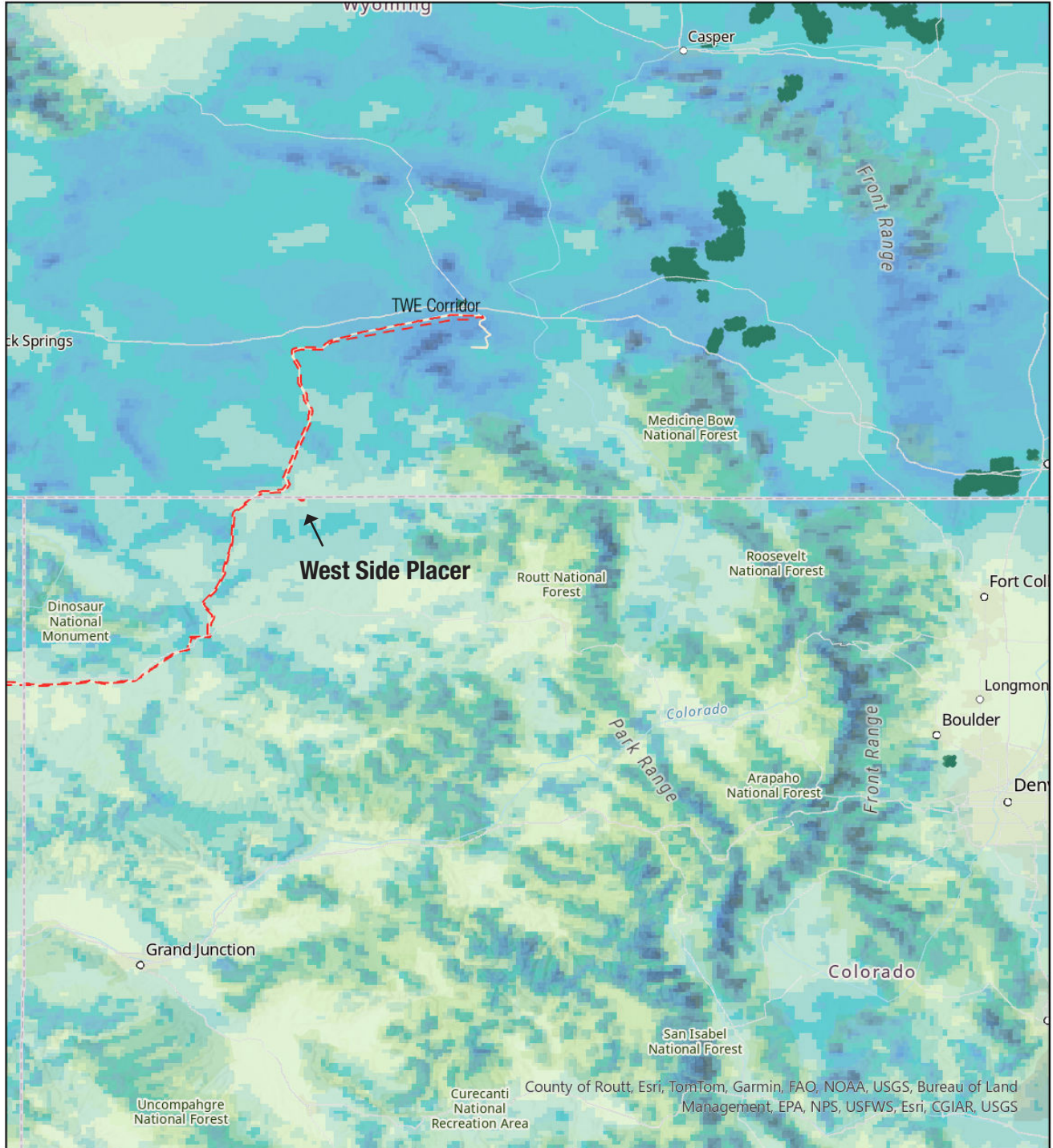
Annual Radiation



# 6.4.11 EXHIBIT Climate: Wind

Signature

Date



0 12.5 25 50 Miles

TransWest Express Transmission Project  
Wind Turbines

USA Average Wind Speed (elevation 10-m to 200-m)

1,233 to 3,193  
3,193 to 4,084  
4,084 to 4,818  
4,818 to 5,499  
5,499 to 6,118  
6,118 to 6,809  
6,809 to 7,386  
7,386 to 7,963  
7,963 to 8,467  
8,467 to 8,959  
8,959 to 9,483  
9,483 to 10,059  
10,059 to 10,951  
10,951 to 14,672





## 6.4.12 EXHIBIT L – Reclamation Costs

### (A) Summary

In alignment with the West Side Placer Project's commitment to responsible mining practices and adherence to regulatory requirements, this section presents a detailed outline of the anticipated costs associated with the reclamation of the mining site. The estimates provided here are informed by historical data and adjusted for current expectations based on inflation and updated operational insights.

#### Historical Context and Cost Estimation Basis

Reclamation costs for the West Side Placer Project are grounded in the estimation work previously conducted by the Colorado Division of Reclamation, Mining, and Safety (DRMS) for Permit No. M-2016-081. As detailed in the supporting document "*Reclamation Costs Update and Notice of Surety Increase (SI-1)*" dated August 29, 2019, the initial cost was estimated at \$3,040.82 per acre. With adjustments for inflation and updates in reclamation practices, the cost for 2024 is projected at \$3,953.07 per acre.

#### Projected Reclamation Activities and Associated Costs

The reclamation plan is designed to ensure comprehensive restoration of the site post-mining operations, with activities categorized into direct and indirect costs:

##### Direct Reclamation Costs:

Encompassing the essential ground activities for restoring the physical conditions of the site:

- Borehole Removal
- Plant Foundation Demolition
- Ore and Overburden Replacement
- Grading of Mining Phases
- Topsoil Replacement
- Ripping Compacted Areas
- Seed Mining Phases

##### Indirect Costs:

Covering administrative and monitoring expenditures critical for overseeing the reclamation process effectively:

- Liability Insurance
- Job Superintendent
- Monitoring Site and Reseeding

#### Financial Overview

The reclamation process encompasses 14 mining blocks as outlined in Exhibit C Mining Plan, covering a total of 70 acres. The combined reclamation efforts, reflecting both direct physical restoration and ongoing management and monitoring, result in a total estimated bonding requirement of \$276,714.90.

This budget ensures that the West Side Placer Project adheres to all regulatory standards and achieves reclamation goals effectively, reflecting our commitment to environmental stewardship and community welfare.

## (B) Reclamation Cost Table

This section provides a detailed breakdown of the anticipated costs associated with the reclamation of the West Side Placer Project, organized into direct and indirect costs. Direct costs relate specifically to on-the-ground activities required to restore the site post-mining operations, while indirect costs cover the administrative and oversight aspects necessary to ensure the success of these efforts.

Task/Description		Equipment Used	Cost
C.1	Borehole Removal x4	Borehole	\$10,060.80
C.2	Plant Foundation Demolition	Excavator	\$22,750
C.3	Ore and Overburden Replacement From Mining Phases	Scraper	\$54,797.57
C.4	Grading of Mining Phase	Dozer	\$5,608.48
C.5	Topsoil Replacement From Mining Phases	Scraper	\$41,525.11
C.6	Ripping Compacted Areas	Ripper	\$19,532.12
C.7	Seed Mining Phases	Re-vegetation Equipment	\$71,993.74
	<b>Total</b>		<b>\$226,267.82</b>
<b>Indirect Costs</b>			
	Liability Insurance:		\$6,728.48
	Job Superintendent:		\$21,110.30
C.8	Monitoring Site and Reseeding - 5 years		\$22,608.30
	<b>Total Indirect Costs</b>		<b>\$50,447.08</b>
<b>Reclamation Total</b>			
		Total	<b>\$276,714.90</b>



**(C.1) Task Cost - Borehole Removal**

Sealing of estimated 1 well.

**BOREHOLE SEALING WORK****Plug water well****UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Plug lower portion of well	Bentonite seal - 8 in. (labor, equip, materials)	7.875	295	295.00	LF	\$6.88	\$2,433.75
Plug upper portion of well	Portland cement grout - 10 in. (labor, equip, materials)	8.625	5	5.00	LF	\$7.14	\$49.45
Marker	Borehole location/identification marker (EA, material cost only)	8.625	1	1.00	EA	\$32.00	\$32.00

**Job Hours:** 16.00

**Total Cost:** \$10,060.80

**(C.2) Task Cost - Plant Foundation Demolition**

Demolition and removal of the concrete foundations associated with the processing plant and the radial stacker, covering approximately 3,000 square feet. This estimate includes the main plant pad, the 5' × 5' center pin footing for the radial stacker, and the 5' × 100' concrete runway for stacker wheels.

**DEMOLITION WORK****Plant Foundation Demolition****UNIT COSTS**

**Location adjustment: 95.50 %**

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Removal of concrete	100"D x 30'L	Footing, concrete, 1.0 ft. x 2 ft. - No reinforcing	18.00	LF	\$3.06	\$546

**Job Hours:** 40.00

**Subtotal (unadjusted):** \$546

**Total Cost (adjusted for location):** \$22,750

### (C.3) Task Cost - Ore and Overburden Replacement

Ore and overburden replacement. The scraper may be substituted with wheeled loader, haul truck and dozer at a similar cost. Based on 15 acres disturbance with 20,000 tons average per acre.

#### SCRAPER TEAM WORK

Overburden replacement and grading of mining phases

#### HOURLY EQUIPMENT

COSTShift basis: 1 per day

	Equipment Description
-Scraper:	Cat 637G
-Dozer:	NA
Support Equipment -Load Area:	Cat D8T - 8SU
-Dump Area:	Cat D8T - 8SU
Road Maintenance –Motor Grader:	NA
-Water Truck:	NA

<u>Cost Breakdown:</u>	Scraper Work Team		Support Equipment		Maintenance Equipment	
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	NA	100	100	NA	NA
Ownership cost/hour:	\$194.42	NA	\$124.63	\$124.63	NA	NA
Operating cost/hour:	\$221.56	NA	\$98.71	\$98.71	NA	NA
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	NA	\$0.00	\$0.00	NA	NA
Ripper op. cost/hour:	NA	NA	\$0.00	\$0.00	NA	NA
Operator cost/hour:	\$37.03	NA	\$49.48	\$49.48	NA	NA
Unit Subtotals:	453.02	NA	\$272.83	\$272.83	NA	NA
Number of Units:	1	0	1	1	0	0
Group Subtotals:	Work:	\$453.02	Support:	\$545.66	Maint:	\$0.00

Total work team cost/hour: **\$998.68**

#### MATERIAL QUANTITIES

Initial volume: 9,999 CCY      Swell factor: 1.000  
 Loose volume: **9,999** LCY

Source of estimated volume: 72" x 75' x 600' strips  
 Source of estimated swell factor: Cat Handbook

#### HOURLY PRODUCTION

Material weight:	<u>3,400 lbs/LCY</u>	Scraper Bowl (volume) Basis:	
Material description:	<u>Sand and gravel - Wet</u>	Struck Volume:	<u>24.00</u> LCY
Rated Payload:	<u>81,600 pounds</u>	Heaped Volume:	<u>34.00</u> LCY
Payload Capacity:	<u>24.00 LCY</u>	Average Volume:	<u>29.00</u> LCY
		Adjusted Capacity:	<u><b>24.00</b></u> LCY



Cycle Time:

Scraper Loading Time: 0.80 Minutes  
 Maneuver and Spread Time: 0.60 Minutes

Job Condition Correction:

Site Altitude: 6225 feet

	Scraper	Push Dozer	Source
Altitude Adj:	1.000	NA	(CAT HB)
Job Efficiency:	0.830	NA	(CAT HB)
Net Correction:	0.830	NA	

Travel Time:Road Condition: Loose sand or gravel 10Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	600.00	0.00	10.00	10.00	922	0.68

Haul Time: 0.68 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	600.00	0.00	10.00	10.00	1476	0.45

Return Time: 0.45 minutesTotal Scraper team cycle time: 2.53 minutesAdjusted for job conditions: 472.41 LCY/HourSelected Number of Scrapers: 1 Scraper(s)Adjusted single scraper team (unit) hourly production: 472.41 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 472.41 LCY/HourUnadjusted unit production/hour: 569.17 LCY/Hour

Optimal Number of Scrapers per push dozer: \_\_\_\_\_

**JOB TIME AND COST**Fleet size: 4 Team(s) Total job time: 54.87 HoursUnit cost: \$2.11 /LCY Total job cost: \$54,797.57

## (C.4) Task Cost - Grading of Mining Phase

Topsoil replacement and grading. The scraper may be substituted with wheeled loader, haul truck and dozer at a similar cost.

### BULLDOZER WORK

#### Grading in mining phase

### HOURLY EQUIPMENT COST

Basic Machine:	Cat D8T - 8SU
Horsepower:	310
Blade Type:	Semi-Universal
Attachment:	NA
Shift Basis: Data	1 per day
Source:	(CRG)

#### Cost Breakdown:

		<u>Utilization %</u>
Ownership Cost/Hour:	\$103.86	NA
Operating Cost/Hour:	\$82.26	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$41.24	NA
Total unit Cost/Hour: Total	\$272.83	
Fleet Cost/Hour:	<b>\$272.83</b>	

### MATERIAL QUANTITIES

Initial Volume:	695
Swell factor:	1.215
Loose volume:	<b>844</b> LCY

Source of estimated volume:	Source	Half of transported amount
of estimated swell factor:		Cat Handbook

### HOURLY PRODUCTION

Average push distance: Unadjusted	200 feet
hourly production:	491.9 LCY/hr

Materials consistency description:	Partly consolidated stockpile 1.1
------------------------------------	-----------------------------------

Average push gradient:	0 %
Average site altitude:	6,225 feet

Material weight:	1,600 lbs/LCY
------------------	---------------

Weight description:	Top Soil
---------------------	----------

<u>Job Condition Correction Factor</u>		<u>Source</u>
Operator Skill: Material	0.750	(AVG.)
consistency: Dozing	1.100	(CAT HB)
method: Visibility:	1.000	(GEN.)
	1.000	(AVG.)



EXHIBIT L

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.600	(FND-SF)
Push gradient:	1.000	(CAT HB)
Altitude: Material	1.000	(CAT HB)
Weight: Blade	1.438	(CAT HB)
type:	1.000	(PAT)

Net correction: 0.5908

Adjusted unit production: 290.61 LCY/hr

Adjusted fleet production: **290.61** LCY/hr

**JOB TIME AND COST**

Fleet size: 1 Dozer(s)  
Unit cost: \$0.938/LCY

Total job time: **20.58** Hours

Total job cost: **\$5,608.48.11**

**(C.5) Task Cost - Topsoil Replacement Of Mining Phases**

Topsoil replacement and grading. The scraper may be substituted with wheeled loader, haul truck and dozer at a similar cost.

**SCRAPER TEAM WORK****Topsoil replacement of mining phases****HOURLY EQUIPMENT**COST Shift basis: 1 per day

	Equipment Description
-Scraper:	Cat 637G
-Dozer:	NA
Support Equipment -Load Area:	Cat D8T - 8SU
-Dump Area:	Cat D8T - 8SU
Road Maintenance -Motor Grader:	NA
-Water Truck:	NA

<b><u>Cost Breakdown:</u></b>	<b>Scraper Work Team</b>		<b>Support Equipment</b>		<b>Maintenance Equipment</b>	
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	NA	100	100	NA	NA
Ownership cost/hour:	\$194.42	NA	\$194.42	\$124.63	NA	NA
Operating cost/hour:	\$221.56	NA	\$221.56	\$98.71	NA	NA
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	NA	\$0.00	\$0.00	NA	NA
Ripper op. cost/hour:	NA	NA	\$0.00	\$0.00	NA	NA
Operator cost/hour:	\$37.03	NA	\$37.03	\$49.48	NA	NA
Unit Subtotals:	\$453.02	NA	\$453.02	\$272.83	NA	NA
Number of Units:	1	0	1	1	0	0
Group Subtotals:	Work:	\$377.52	Support:	\$454.72	Maint:	\$0.00

Total work team cost/hour: **\$998.68****MATERIAL QUANTITIES**

Initial volume: 1,389 CCY      Swell factor: 1.000  
 Loose volume: 1,389 LCY

Source of estimated volume: 10" x 75' x 600' strips  
 Source of estimated swell factor: Cat Handbook

**HOURLY PRODUCTION**

		<b>Scraper Bowl (volume) Basis:</b>	
Material weight:	<u>3,400 lbs/LCY</u>	Struck Volume:	<u>24.00</u> LCY
Material description:	<u>Sand and gravel - Wet</u>	Heaped Volume:	<u>34.00</u> LCY
Rated Payload:	<u>81,600 pounds</u>	Average Volume:	<u>29.00</u> LCY
Payload Capacity:	<u>24.00 LCY</u>	Adjusted Capacity:	<u>24.00</u> LCY



## EXHIBIT L

Cycle Time:

Scraper Loading Time: 0.80 Minutes  
 Maneuver and Spread Time: 0.60 Minutes

Job Condition Correction:

Site Altitude: 6225 feet

	Scraper	Push Dozer	Source
Altitude Adj:	1.000	NA	(CAT HB)
Job Efficiency:	0.830	NA	(CAT HB)
Net Correction:	0.830	NA	

Travel Time:Road Condition: Loose sand or gravel 10Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	600.00	0.00	10.00	10.00	922	0.68

Haul Time: 0.68 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	600.00	0.00	10.00	10.00	1476	0.45

Return Time: 0.45 minutesTotal Scraper team cycle time: 2.53 minutesAdjusted for job conditions: 472.41 LCY/HourSelected Number of Scrapers: 1 Scraper(s)Adjusted single scraper team (unit) hourly production: 472.41 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 472.41 LCY/HourUnadjusted unit production/hour: 569.17 LCY/Hour

Optimal Number of Scrapers per push dozer: \_\_\_\_\_

**JOB TIME AND COST**Fleet size: 1 \_\_\_\_\_ Team(s) Total job time: 41.58 HoursUnit cost: \$2.11 /LCY Total job cost: \$41,525.11

**(C.6) Task Cost - Ripping Compacted Areas**

Ripping compacted areas, haul roads, plant footprint, disturbed areas.

**BULLDOZER RIPPING WORK****Ripping compacted areas****HOURLY EQUIPMENT COST**

Basic Machine:	Cat D8T - 8SU	Horsepower:	310
Ripper Attachment:	3-Shank Ripper	Shift Basis:	1 per day
		Data Source:	(CRG)

**Cost Breakdown:**

		Utilization %
Ownership Cost/Hour: Operating	\$124.63	NA
Cost/Hour: Ripper Ownership	\$98.71	100
Cost/Hour: Ripper Operating	\$12.51	NA
Cost/Hour: Operator Cost/Hour:	\$10.05	100
Total Unit Cost/Hour:	\$49.48	NA
	\$295.40	
Total Fleet Cost/Hour:	<b>\$295.40</b>	

**MATERIAL QUANTITIES Alternate**

Selected estimating method: Area

**Methods:**

Seismic:	NA	Bank	Volume:	NA	BCY	NA
Area:	6.00	acres	Rip Depth (ft):	2.00	Volume:	19,360

BCY or CCY

Source of estimated quantity: Staff estimates, 2018 annual report

**HOURLY PRODUCTION****Seismic:**

Seismic Velocity: NA feet/second

**Area:**

Average Ripping Depth:	2.56	feet/pass
Average Ripping Width:	7.08	feet/pass
Average Ripping Length:	200.00	feet/pass
Average Dozer Speed:	88.00	feet/minute
Average Maneuver Time:	0.25	minutes/pass
Production per unit area:	0.773	acres/hour

**Job Condition Correction Factors**

Unadjusted Hourly Unit Production:	0.773	Acres/hr
Site Altitude:	6,225	feet
Altitude Adj: Job	1.00	(CAT HB)
Efficiency: Net	0.83	(1 shift/day)
Correction:	0.83	multiplier
Adjusted Hourly Unit Production:	0.64	Acres/hr
Adjusted Hourly Fleet Production:	<b>0.64</b>	Acres/hr

**JOB TIME AND COST Fleet**

size:	2	Grader(s)	Total job time:	<b>39.67</b>	Hours
Unit cost:	\$383.620	Per acre	Total job cost:	<b>\$19,532.12</b>	



**(C.7) Task Cost - Seed Mining Phases**

Cost for seeding 70 acres

**REVEGETATION WORK**

Seed mining phases

**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
			<b>Total Fertilizer Materials Cost/ Acre</b>	<b>\$0.00</b>

**Application**

Description	Cost /Acre
	\$
<b>Total Fertilizer Application Cost/Acre</b>	<b>\$0.00</b>

**TILLING**

Description	Cost /Acre
	\$
<b>Total Tilling Cost/Acre</b>	<b>\$0.00</b>

**SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Native	1.85	5.99	\$14.43
Galleta	2.19	7.99	\$58.74
Western Wheatgrass - Arriba	2.76	6.97	\$21.52
Needle and Thread	3.03	8.00	\$152.17
Globemallow, Scarlet (or copper)	0.25	2.83	\$40.65
Basin Wildrye - Trailhead	3.03	12.31	\$56.35
<b>Totals Seed Mix</b>	<b>13.11</b>	<b>44.09</b>	<b>\$412.23</b>

## Reveg Worksheet Cont'd

**Application**

Description	Cost /Acre
Drill Seeding (DRMS Survey Cost)	\$278.4
<b>Total Seed Application Cost/Acre</b>	<b>\$278.4</b>

**MULCHING and MISCELLANEOUS Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - 2,4D @ 1.0 pt/ac	1.00	ACRE	\$2.74	\$3.28
<b>Total Mulch Materials Cost/Acre</b>				<b>\$3.28</b>

**Application**

Description	Cost /Acre
Weed spray, truck, non-aquatic area, nox. [DMG]	\$85.8
<b>Total Mulch Application Cost/Acre</b>	<b>\$85.8</b>

**NURSERY STOCK PLANTING**

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
<b>Totals Nursery Stock Cost / Acre</b>					<b>\$0.00</b>

**JOB TIME AND COST**

No. of Acres: 9.9 Estimated

Failure Rate: 40%

Cost /Acre: \$779.71

Cost /Acre\*: \$621.93

\*Selected Replanting Work Items: SEEDING

Initial Job Cost:	<b>\$54,579.7</b>
Reseeding Job Cost:	<b>\$17,414.04</b>
Total Job Cost:	<b>\$71,993.74</b>
Job Hours:	<b>118.79</b>



## (C.8) Monitoring Site and Reseeding

The West Side Placer Project allocates \$22,608.30 for a comprehensive five-year environmental monitoring and reseeded initiative, emphasizing our commitment to ecological restoration and sustainability post-mining. Biannual visit by a qualified restoration ecologist .

### Costs

- |                                       |           |
|---------------------------------------|-----------|
| • Reseeding                           | 10,000.00 |
| • Annual Visit by Qualified Personnel | 12,608.30 |

## 6.4.13 EXHIBIT M – Other Permits and Licenses

In Moffat County, operations require several local permits, including County Road and Equipment Use permits. At the state level, Colorado Department of Public Health and Environment (CDPHE) mandates Water Discharge and Air Pollution Control permits for aquifer recharge and heavy machinery operation, respectively. Additionally, securing water rights to strict water laws, overseen by the Colorado Division of Water Resources. Federally, various permits and regulations are enforced. The EPA requires Clean Air Act permits, possibly for water extraction from the Little Snake River. The Department of Transportation's (DOT) permits are to be determined. Lastly, the Mine Safety and Health Administration (MSHA) mandates compliance with safety and health standards, including regular inspections and worker training in mines.

See Table M.1

TABLE M.1

Authority	Division/Agency	Permit/Requirement	Details
Moffat County	County-Level Permits (Moffat County)	Moffat County Permits	<ul style="list-style-type: none"> <li>County Road Permits</li> <li>Equipment Use permits</li> </ul>
State of Colorado	Colorado Department of Public Health and Environment (CDPHE) / Water Quality Control Division	Water Discharge Permit	Permit for aquifer recharge
	Colorado Department of Public Health and Environment (CDPHE) / Air Pollution Control Division	Mining operations APEN	Form APCD-222
	Colorado Division of Water Resources	Water Rights and Usage	Secure water rights or usage permits, crucial in Colorado due to stringent water rights laws.
Federal-Level	Environmental Protection Agency (EPA)	Clean Air Act (CAA) Permits	Permit to extract water from the Little Snake River
	U.S. Army Corps of Engineers	-	(Text cut off) Likely related to operations impacting waters of the United States, including wetlands.
	Department of Transportation	DOT Permits	TBD
	Mine Safety and Health Administration (MSHA)	MSHA Regulations/Permits	Compliance with safety and health standards for mines, including regular inspections and training requirements for mine workers.
	U.S. Fish and Wildlife Service	Endangered Species Consultation:	TBD



## 6.4.14 EXHIBIT N – Source of Legal Right to Enter

Exhibit N provides documentation of our legal right to enter and operate on the designated land, as evidenced by Solid Mineral Lease No. 110324, which grants explicit mining rights under the stipulated terms and conditions.



STATE OF COLORADO  
STATE BOARD OF LAND COMMISSIONERS

**Solid Mineral Lease No. 110324**

**Lease Term Extension Rider ("Extension Rider")**

Effective March 23, 2021 ("Effective Date"), the Colorado State Board of Land Commissioners ("Board") approves the extension of State Lease No. 110324 ("Lease") with AUPT INDUSTRIES LCC ("Lessee") for ten (10) years. The term of this Lease will expire on May 12, 2031.

Anniversary date: 5/12

Annual Rental at \$3.00 per acre for a total of \$242.73 per annum

It is further understood the advance minimum royalty rate will remain at \$10,000 per annum.

It is further understood the royalty rate will remain at 10% of gross market value.

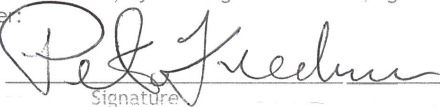
This Extension Rider is incorporated by reference into the Lease, and except to the extent specifically modified hereby, all other terms and conditions of the Lease shall remain in full force and effect through the end of the Lease term.

The parties acknowledge that the mutual promises and covenants contained herein and other good and valuable consideration are sufficient and adequate to support this Lease.

Persons signing for Lessee hereby swear and affirm that they are authorized to act on behalf of the Lessee, and acknowledge that the Board is relying on their representations to that effect.

The Board and the Lessee, by their signatures below, agree to the extension of this Lease as specified in this Extension Rider:

Lessee:

  
Signature

PETER FREEDMAN  
Printed Name

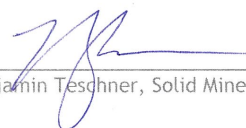
as

OWNER  
Position

of

AUPT INDUSTRIES LCC  
Entity

STATE OF COLORADO ACTING BY AND THROUGH THE  
STATE BOARD OF LAND COMMISSIONERS

  
Benjamin Teschner, Solid Minerals Manager

Approval Date: April 22, 2021

## **6.4.15 EXHIBIT 0 – Owner(s) of Record of Affected Land (Surface Area) and Owners of Substance to be Mined**

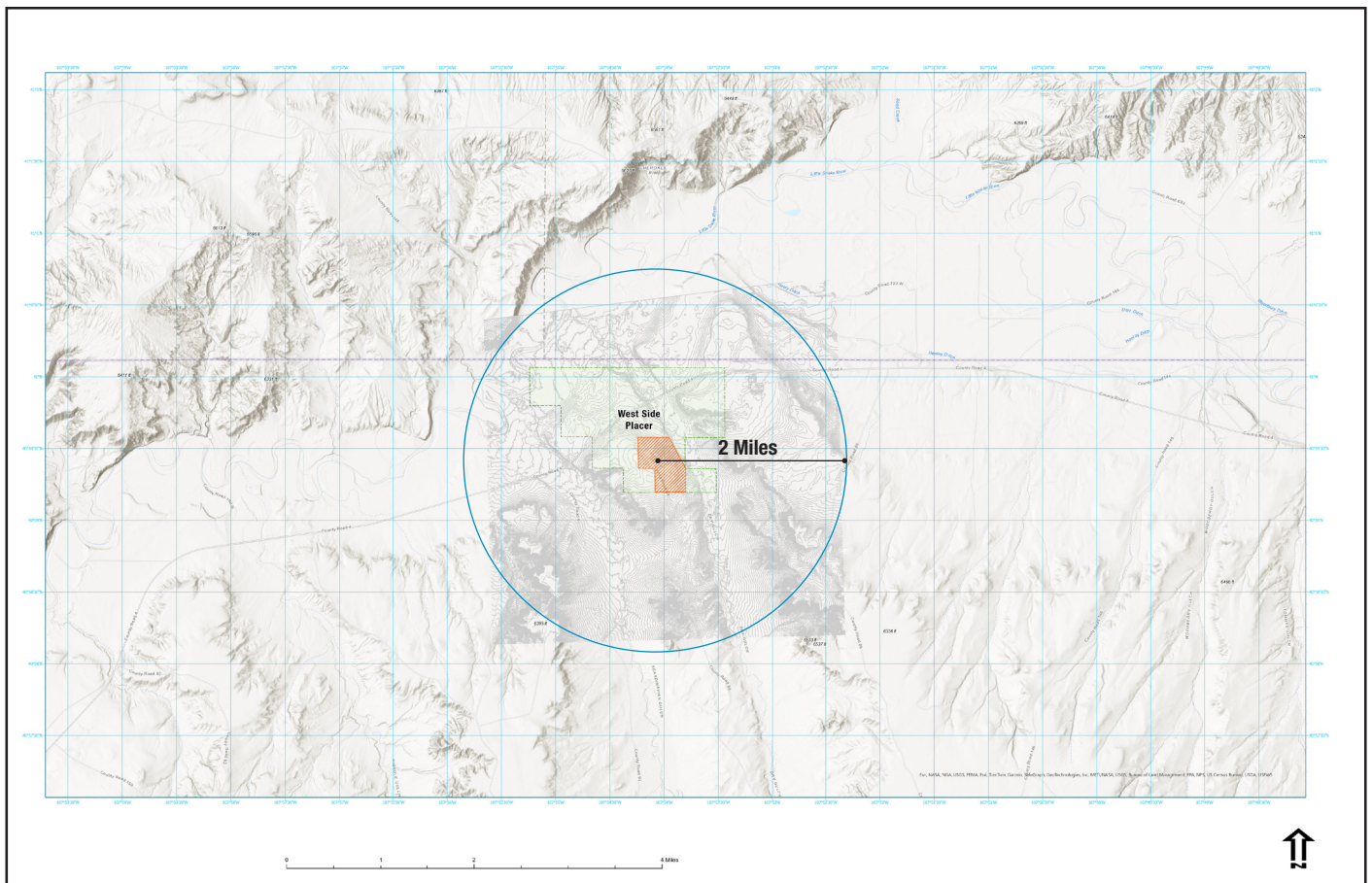
The Colorado State Land Board holds sole ownership of both the surface and mineral estates on the property where the West Side Placer is located.



## 6.4.16 EXHIBIT P – Municipalities within Two Miles

There are no municipalities within two miles of the West Side Placer Project see *Map P.1 Municipalities within Two Miles*

MAP P.1 MUNICIPALITIES WITHIN TWO MILES



Signature

Date

# 6.4.17 EXHIBIT Q – Proof of Mailing of Notices to Board of County Commissioners and Conservation District

MAILING RECEIPTS BOARD OF COUNTY COMMISSIONERS AND CONSERVATION DISTRICT AND PHOTOS OF THE MAILINGS



EAGLE  
264 CHAMBERS AVE  
EAGLE, CO 81631-9997  
(800)275-8777

11/12/2024 11:02 AM

Product	Qty	Unit Price	Price
Priority Mail®	1		\$10.45
Flat Rate Env			
Craig, CO 81625			
Flat Rate			
Expected Delivery Date			
Thu 11/14/2024			
Tracking #:			
9505 5111 5588 4317 5316 85			
Insurance			\$0.00
Up to \$100.00 included			
<b>Total</b>			<b>\$10.45</b>
<b>Grand Total:</b>			<b>\$10.45</b>
<b>Credit Card Remit</b>			<b>\$10.45</b>
Card Name: VISA			
Account #: XXXXXXXXXX2365			
Approval #: 170000			
Transaction #: 324			
AID: A0000000980840			
AL: US DEBIT			
PIN: Not Required			

Text your tracking number to 26777 (2USPS) to get the latest status. Standard Message and Data rates may apply. You may also visit [www.usps.com](http://www.usps.com) USPS Tracking or call 1-800-222-1811.

Save this receipt as evidence of insurance. For information on filing an insurance claim go to <https://www.usps.com/help/claims.htm> or call 1-800-222-1811

Preview your Mail  
Track your Packages  
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All sales final on stamps and postage. Refunds for guaranteed services only. Thank you for your business.

Tell us about your experience. Go to: <https://postalexperience.com/Pos> or scan this code with your mobile device.



or call 1-800-410-7420.

UFN: 072610-0536  
Receipt #: 840-58000422-3-7528786-2  
Clerk: 04

*Colorado Fris*



EAGLE  
264 CHAMBERS AVE  
EAGLE, CO 81631-9997  
(800)275-8777

11/12/2024 11:00 AM

Product	Qty	Unit Price	Price
Priority Mail®	1		\$10.45
Flat Rate Env			
Craig, CO 81625			
Flat Rate			
Expected Delivery Date			
Thu 11/14/2024			
Tracking #:			
9505 5111 5588 4317 5316 61			
Insurance			\$0.00
Up to \$100.00 included			
<b>Total</b>			<b>\$10.45</b>
<b>Grand Total:</b>			<b>\$10.45</b>
<b>Credit Card Remit</b>			<b>\$10.45</b>
Card Name: VISA			
Account #: XXXXXXXXXX2365			
Approval #: 170000			
Transaction #: 324			
AID: A0000000980840			
AL: US DEBIT			
PIN: Not Required			

Text your tracking number to 26777 (2USPS) to get the latest status. Standard Message and Data rates may apply. You may also visit [www.usps.com](http://www.usps.com) USPS Tracking or call 1-800-222-1811.

Save this receipt as evidence of insurance. For information on filing an insurance claim go to <https://www.usps.com/help/claims.htm> or call 1-800-222-1811

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or call 1-800-410-7420.

UFN: 072610-0536  
Receipt #: 840-58000422-3-7528786-2  
Clerk: 04






## 6.4.18 EXHIBIT R – Proof of Filing with County Clerk and Recorder

The attached receipt is from the Moffat County Clerk and Recorder. The permit application is filed under File Number 964 and can be viewed at the Moffat County Clerk and Recorder's Office, located at 221 W. Victory Way, Craig, CO 81625.

**MOFFAT COUNTY CLERK AND RECORDER**

221 W. Victory Way  
Craig, CO 81625  
(970) 824-9104

**MINING/RECLAMATION FORM**

File Number 964

Drawer Number \_\_\_\_\_

Return Date 11-20-2025

Date 11-20-2024

Received From AUPT INDUSTRIES LLC

Mailing Address PO Box 1424  
Edwards, CO 81632

Mining and Reclamation Application for:

Name of Pit or mine: West Side Placer

Date on which inspection period is over and application may be retrieved by Applicant: \_\_\_\_\_

Agent Signature: [Signature]

For: \_\_\_\_\_

Attest: County Clerk or Deputy: [Signature]

## 6.4.19 EXHIBIT S – Permanent Man-made Structures

No permanent man-made structures currently exist or will be permitted at the West Side Placer, ensuring the preservation of its natural state. Any mining facilities constructed will be strictly temporary, designed for removal upon project completion to enable full reclamation and landscape restoration.



# References

- (1) “U.S. Geological Survey Releases 2022 List of Critical Minerals: U.S. Geological Survey.” U.S. Geological Survey Releases 2022 List of Critical Minerals | U.S. Geological Survey, [www.usgs.gov/news/national-news-release/us-geological-survey-releases-2022-list-critical-minerals](https://www.usgs.gov/news/national-news-release/us-geological-survey-releases-2022-list-critical-minerals). Accessed 24 Jan. 2024.
- (2) Colorado Geological Survey. (2023, December 21). ON-010 Colorado Groundwater Atlas - Colorado Geological Survey. <https://coloradogeologicalsurvey.org/water/colorado-groundwater-atlas/>
- (3) CPW All Species Activity Mapping Data.” ArcGIS Hub, [hub.arcgis.com/content/190573c5aba643a0bc058e6f7f0510b7/about](https://hub.arcgis.com/content/190573c5aba643a0bc058e6f7f0510b7/about). Accessed 26 Jan. 2024.
- (4) Hawkins, J., Wick, E., & Jennings, D. (1993). Ichthyofauna of the Little Snake River, Colorado: 1993 Final Report. Contribution 91 of the Larval Fish Laboratory, Colorado State University.
- (5) Colorado Parks and Wildlife. (n.d.). Colorado Parks and Wildlife. <https://cpw.state.co.us/learn/Pages/SpeciesProfiles.aspx>
- (6) “U.S. Geological Survey Releases 2022 List of Critical Minerals: U.S. Geological Survey.” U.S. Geological Survey Releases 2022 List of Critical Minerals | U.S. Geological Survey, [www.usgs.gov/news/national-news-release/us-geological-survey-releases-2022-list-critical-minerals](https://www.usgs.gov/news/national-news-release/us-geological-survey-releases-2022-list-critical-minerals). Accessed 24 Jan. 2024.
- (7) Custom Soil Resource Report for Carbon County Area, Wyoming, Moffat County Area, Colorado, and Sweetwater County Area, Wyoming - USDA 2024
- (8) “Köppen Climate Classification: Defining The Climate Zones Of The World.” Own Your Weather, [ownyourweather.com/koppen-climate-classification-defining-the-climate-zones-of-the-world](https://ownyourweather.com/koppen-climate-classification-defining-the-climate-zones-of-the-world).
- (9) Bureau of Land Management. (2019). Northwestern Colorado Greater Sage-Grouse Record of Decision and Approved Resource Management Plan Amendment [PDF]. Retrieved from [https://eplanning.blm.gov/public\\_projects/lup/105596/168786/205429/2019\\_NWCO\\_GRSG\\_ROD-ARMPA\\_signed\\_2019-0314\\_web.pdf](https://eplanning.blm.gov/public_projects/lup/105596/168786/205429/2019_NWCO_GRSG_ROD-ARMPA_signed_2019-0314_web.pdf)

# Supporting Documents Index

The following documents support the application for the 112 permit.

1. Geotechnical Exhibit for the West Side Placer Project  
*[RULE\\_6.5\\_Geotechnical\\_Stability\\_Exhibit.pdf](#)*
2. Sage-Grouse Management Supplemental Exhibit for the West Side Placer Project  
*[Sage-grouse-Management-Plan.pdf](#)*
3. Custom Soil Resource Report for Carbon County Area, Wyoming, Moffat County Area, Colorado, and Sweetwater County Area, Wyoming  
*[supporting-document-soils-report.pdf](#)*
4. West Side Placer, Permit No. M-2016-081, REVISED-Notice of Surety Increase (SI-1)  
*[supporting-document-surety-increase.pdf](#)*