

**Landowners:**

Douglas Mountain Ranch & Preserve  
Joyce Tanner  
Croke Estate  
Clear Creek County

**Operator:**

Empire Aggregate, Inc.

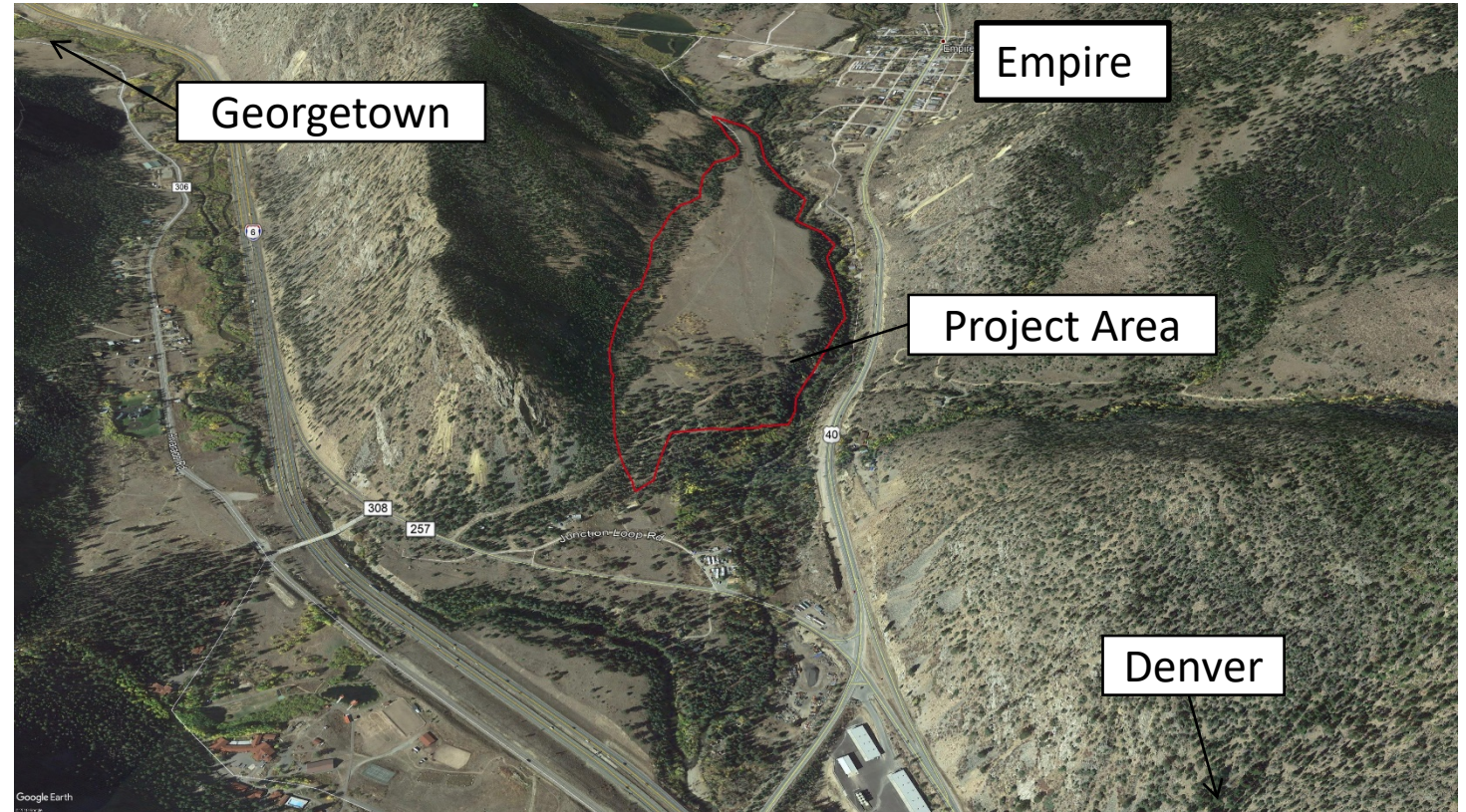
- 1,000,000 tons per year
- 20-25 year mine life
- Reclaimed to rangeland meadow, the current use
- Maximum 77.5 acres of activity on a 170 acre total site
- Source of construction material projects on the Front Range and along I-70

***Why here?***

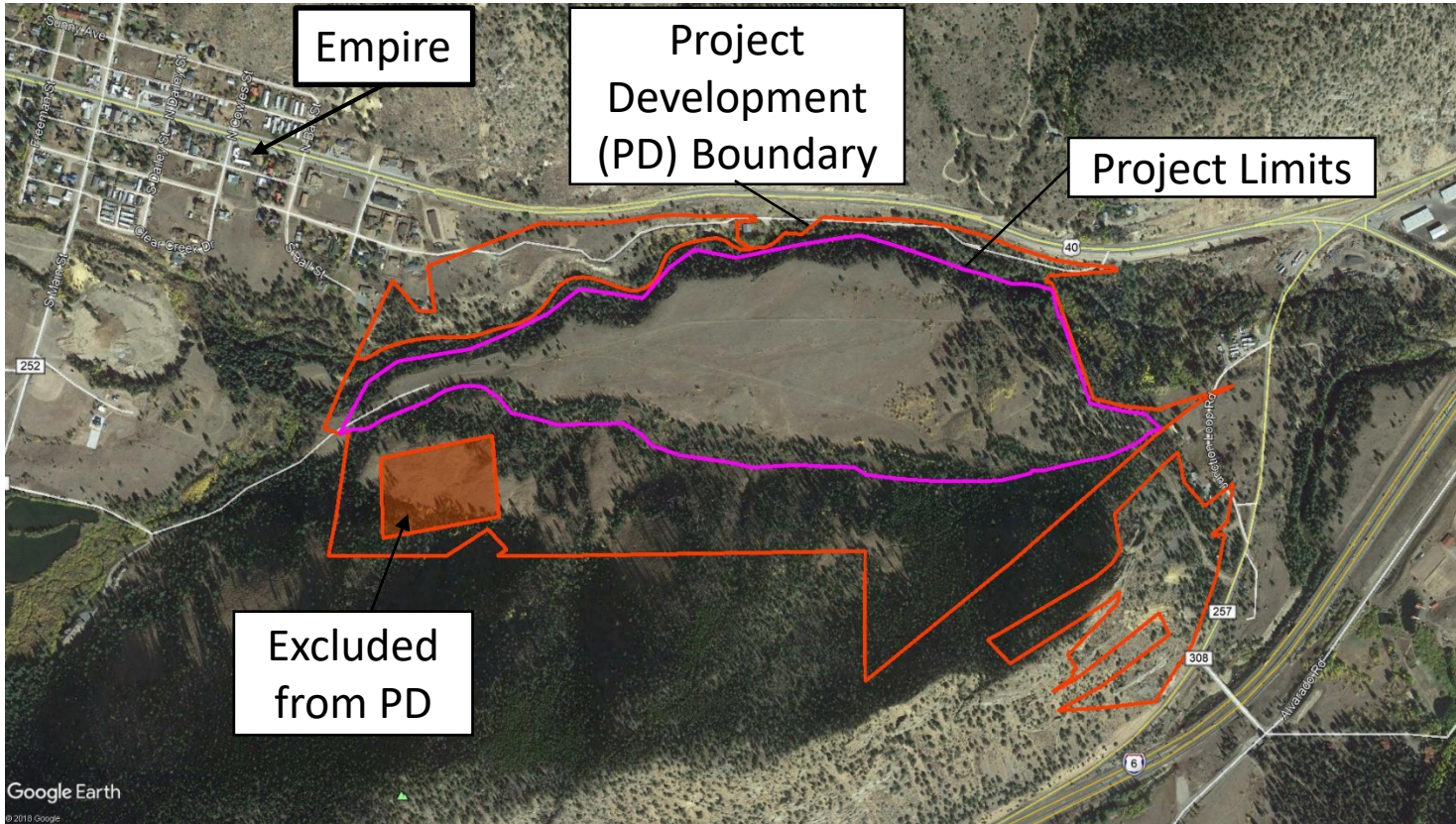
- Location of gravel resource; must mine where the rock is!
- Good location to reduce impacts on the community:
  - Traffic runs directly onto highways without going through towns
  - Separated from Empire by the West Fork of Clear Creek
  - Elevated above Clear Creek and the West Fork of Clear Creek
  - Deep deposit that can hide operations behind natural visual berm

# Douglas Mountain Ranch Mine

Empire, Colorado



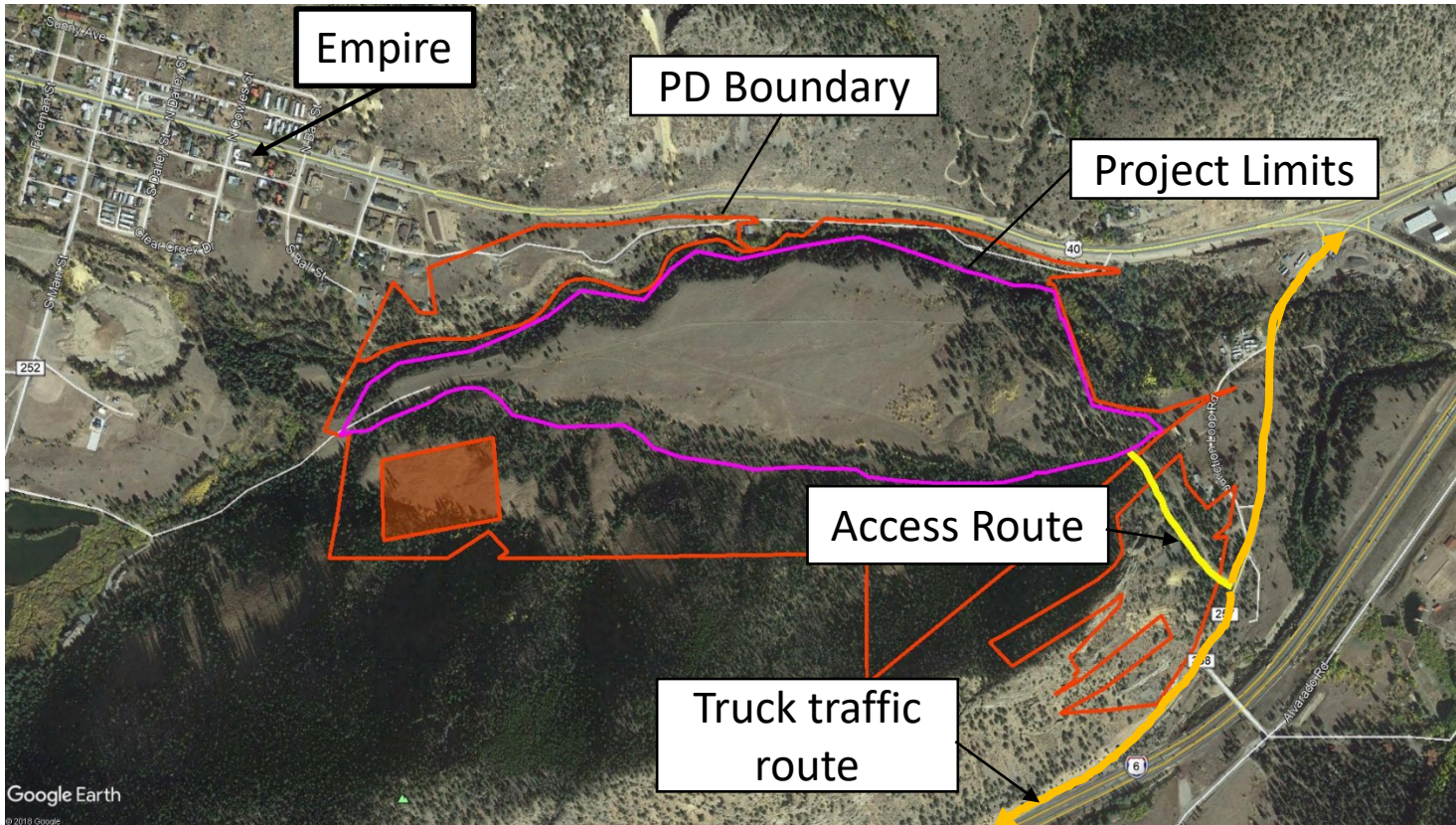
# DMR Mine



## What about dust, noise, water, and how it looks?

- Mining takes place behind a large natural berm to minimize public view of the operation
  - Images showing a concept of how mining should look can be found at other tables.
- Dust controlled by road watering, gravelling/paving high traffic roads, and other methods
- Noise limited by law and controlled in several ways:
  - Mining behind large berm keeps noise from escaping
  - Quiet back up alarms (instead of beeping a “shushing” sound will be utilized)
  - Traffic routed away from area residences
- Water is protected in a number of ways:
  - Mining behind berms prevents water from leaving site
  - Prompt reclamation as mining is completed in an area leaves behind clean fields that capture more runoff water
  - Straw bales, silt fences, and similar tools are used whenever activity might not be contained by site topography
  - No groundwater will be handled

# DMR Mine

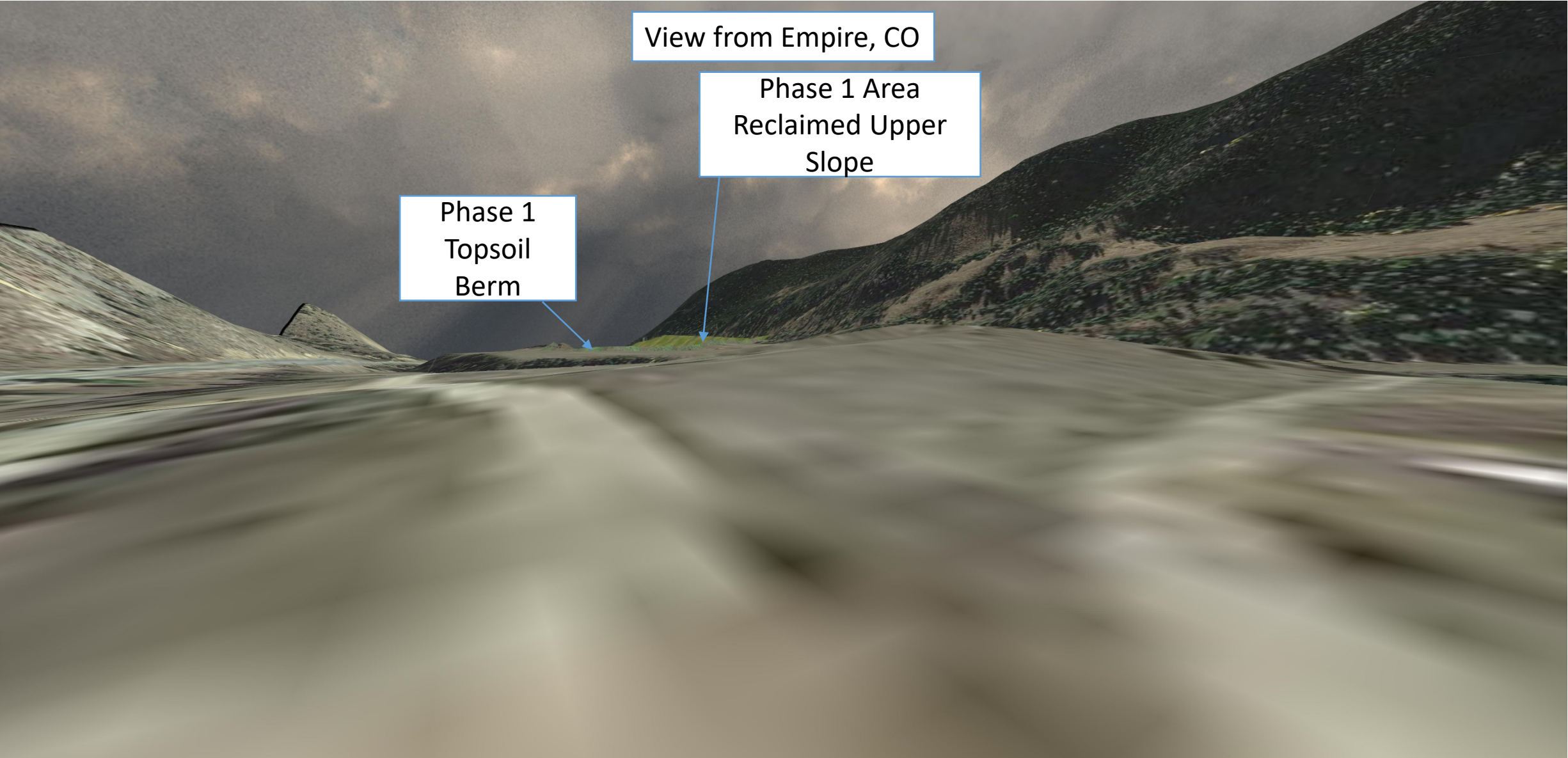


## Truck Traffic

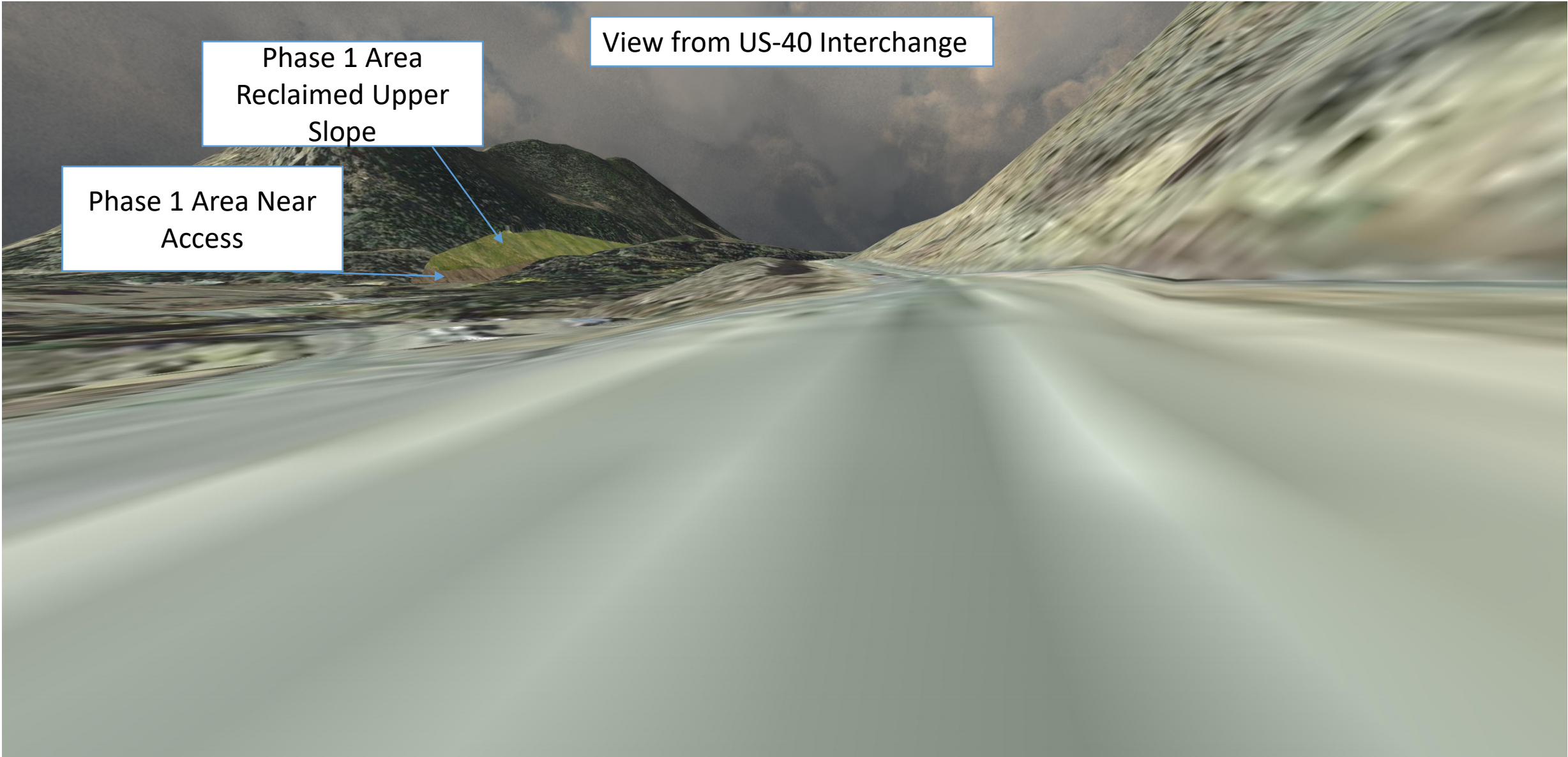
- All traffic enters and exits from the Westbound I-70 on ramp
- Accel/decel lanes will be built at the access intersection
- Truck traffic will not pass through Empire unless there is a project west of the town. This is expected to be infrequent.
- >75% of the truck traffic is expected to head east to Denver
- Access is regulated by CDOT
  - An access permit is under review
  - Level of Service at the access will be at least B level (little delay) thanks to the access improvements
- US-40 and I-70 intersection west of Empire
  - Heavy ski traffic can lead to queuing headed east on US-40
  - Truck traffic will not use US-40, but will need to turn at the intersection
  - Most trucks will pass through the intersection by the afternoon
  - Empire Aggregate will work with Town of Empire and CDOT to address queuing at this intersection if it becomes a problem



# DMR Mine – Phase 1 Visual Concept



# DMR Mine – Phase 1 Visual Concept

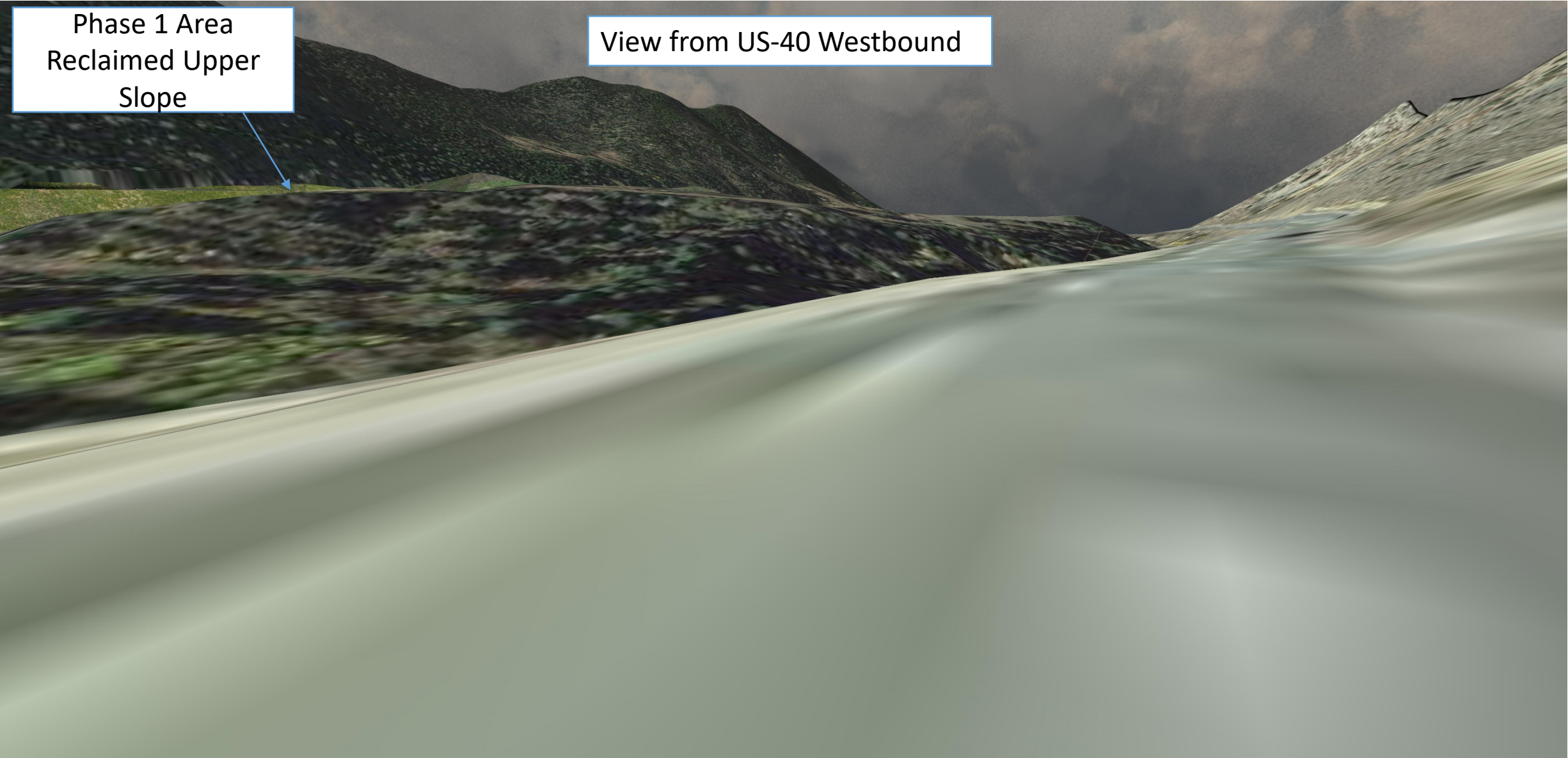


View from US-40 Interchange

Phase 1 Area  
Reclaimed Upper  
Slope

Phase 1 Area Near  
Access

# DMR Mine – Phase 1 Visual Concept



Phase 1 Area  
Reclaimed Upper  
Slope

View from US-40 Westbound

# DMR Mine – Phase 1 Visual Concept

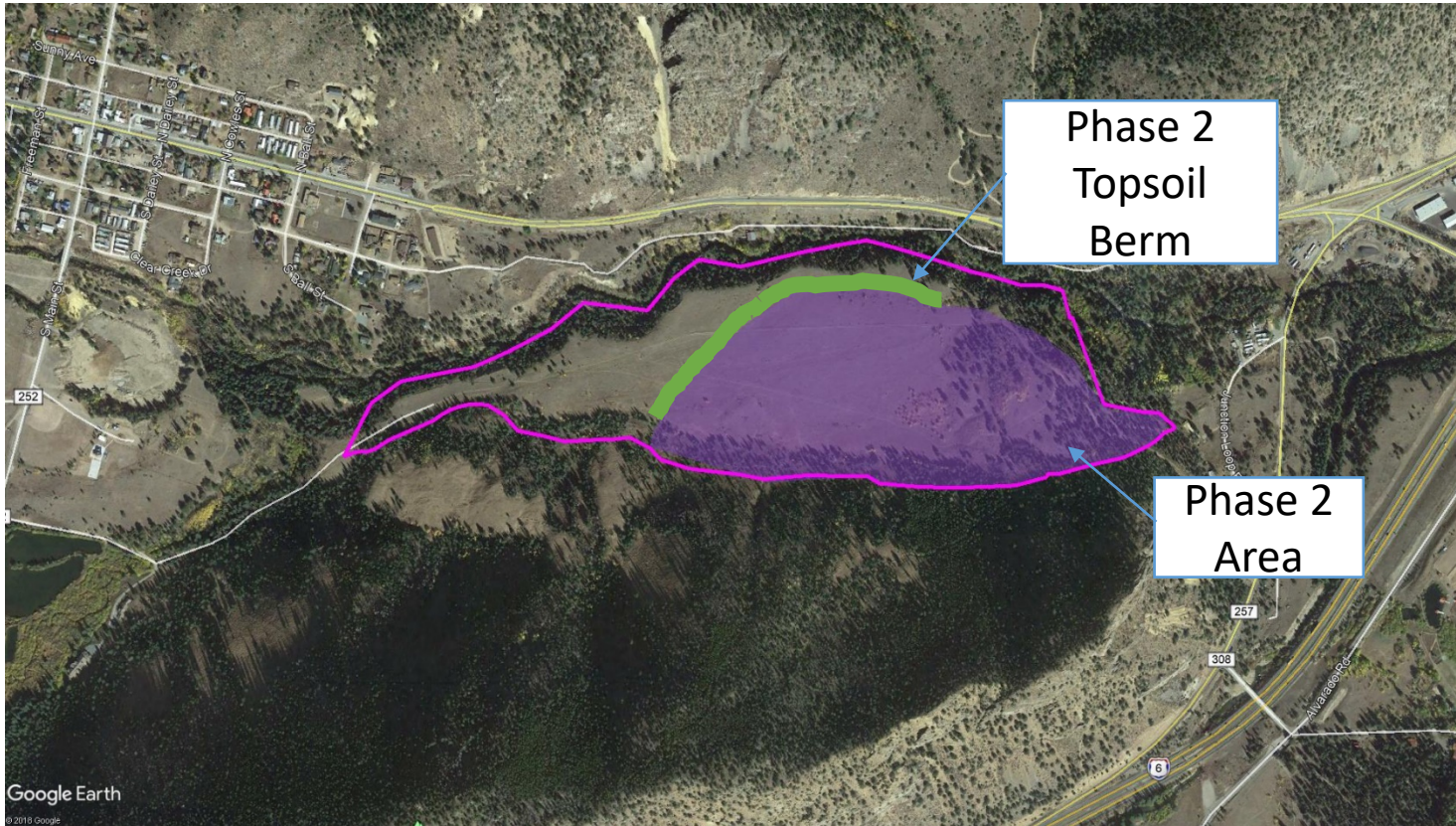


View from US-40 at Sanitation Facility

Phase 1 Area  
Reclaimed Upper  
Slope



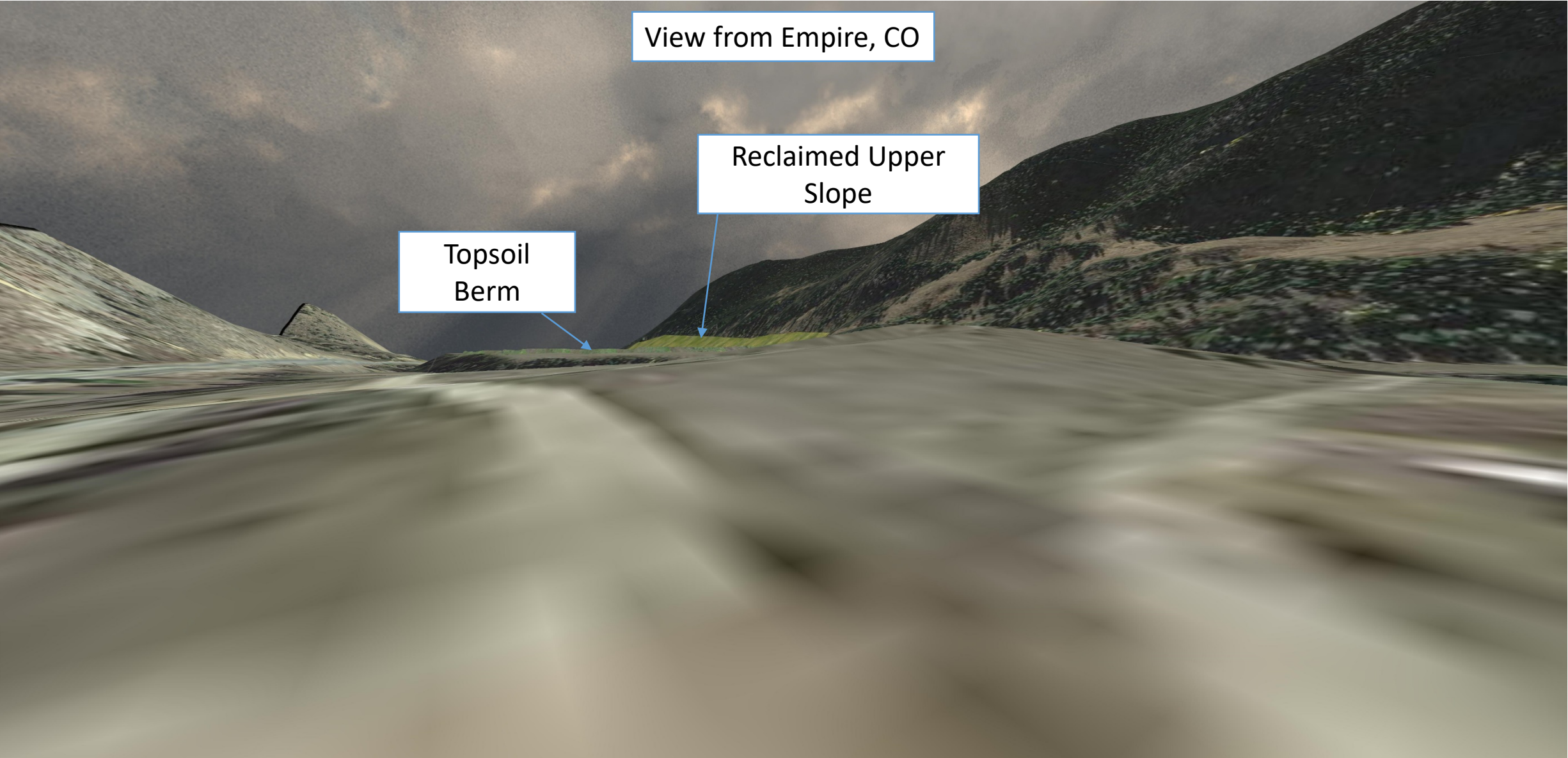
# DMR Mine



## Phase 2

- First 10 years of the mine's life will produce 1,000,000 tons a year
- Topsoil is stored in a berm along the west and north side of mining
- Mining area expands towards the West Fork of Clear Creek and Empire
- Maintenance of natural visual berms by mining below grade for the majority of the operation

# DMR Mine – Phase 2 Visual Concept

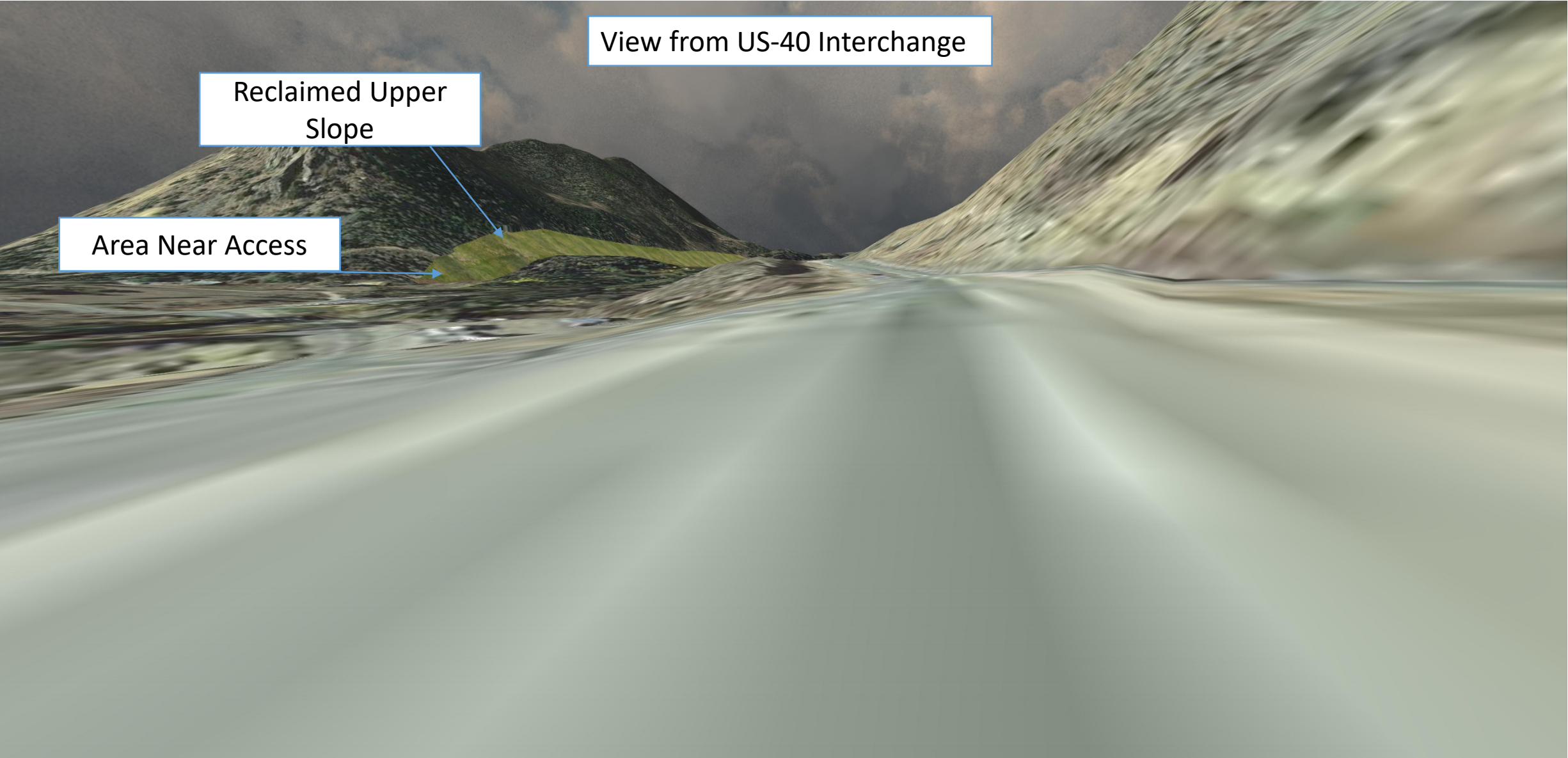


View from Empire, CO

Reclaimed Upper Slope

Topsoil Berm

# DMR Mine – Phase 2 Visual Concept



# DMR Mine – Phase 2 Visual Concept



View from US-40 Westbound

Reclaimed Upper Slope

# DMR Mine – Phase 2 Visual Concept

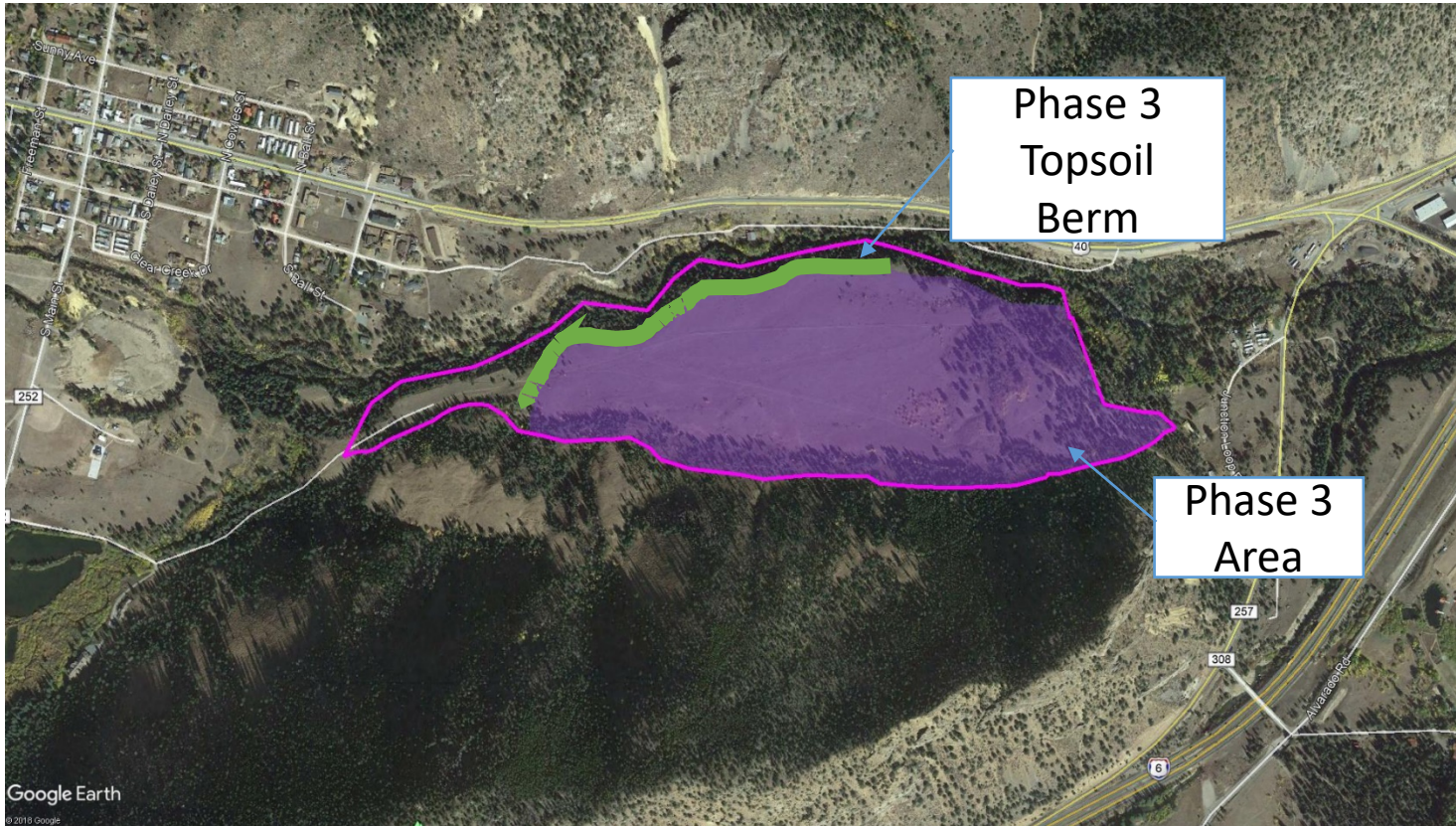


View from US-40 at Sanitation Facility

Reclaimed Upper Slope

Topsoil Berm

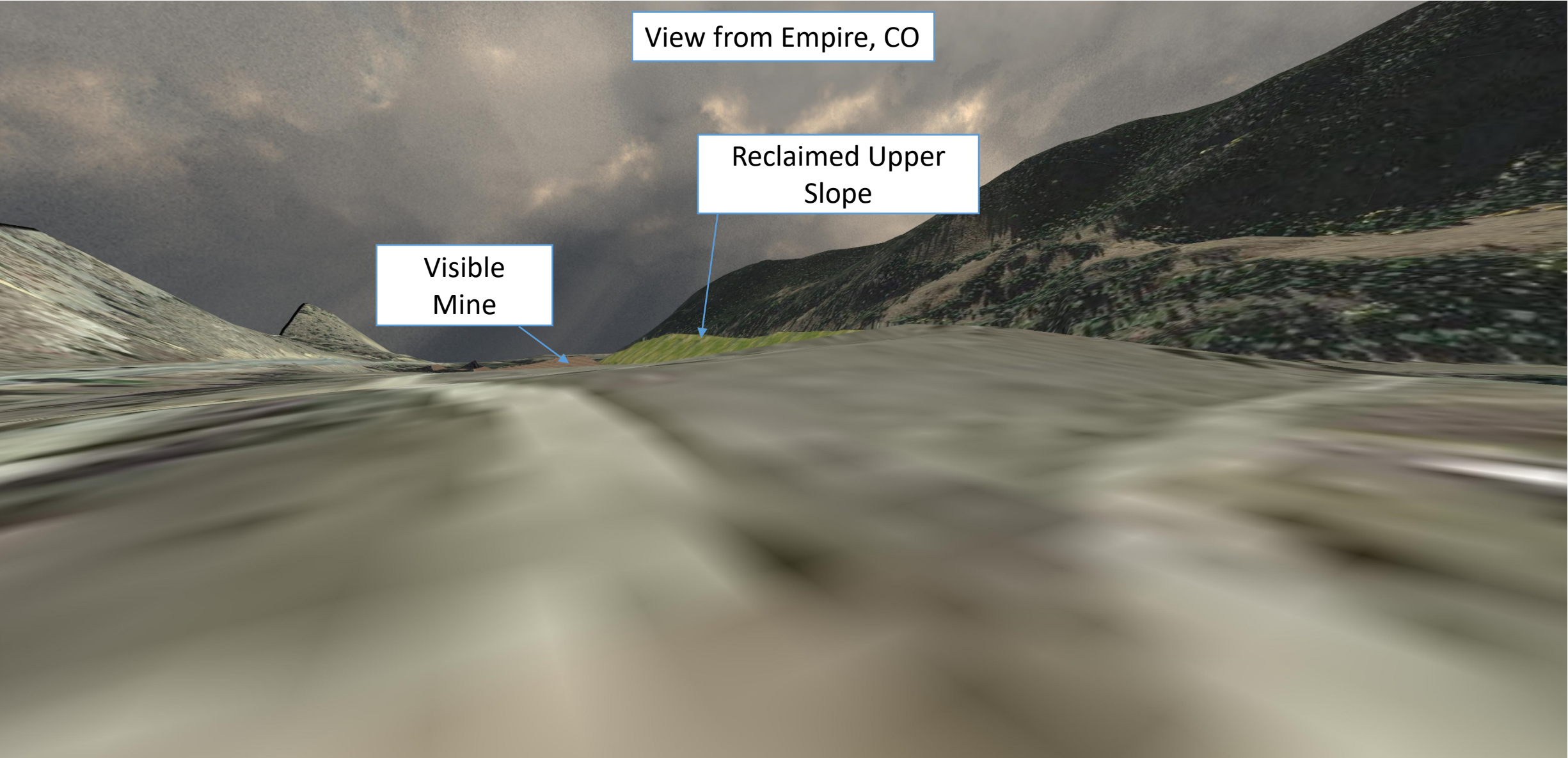
# DMR Mine



## Phase 3

- First 15 years of the mine's life will produce 1,000,000 tons a year
- Topsoil is stored in a berm along the west and north side of mining
- Mining area expands towards the West Fork of Clear Creek and Empire
- Maintenance of the natural visual berm by mining below grade the majority of the operation

# DMR Mine – Phase 3 Visual Concept

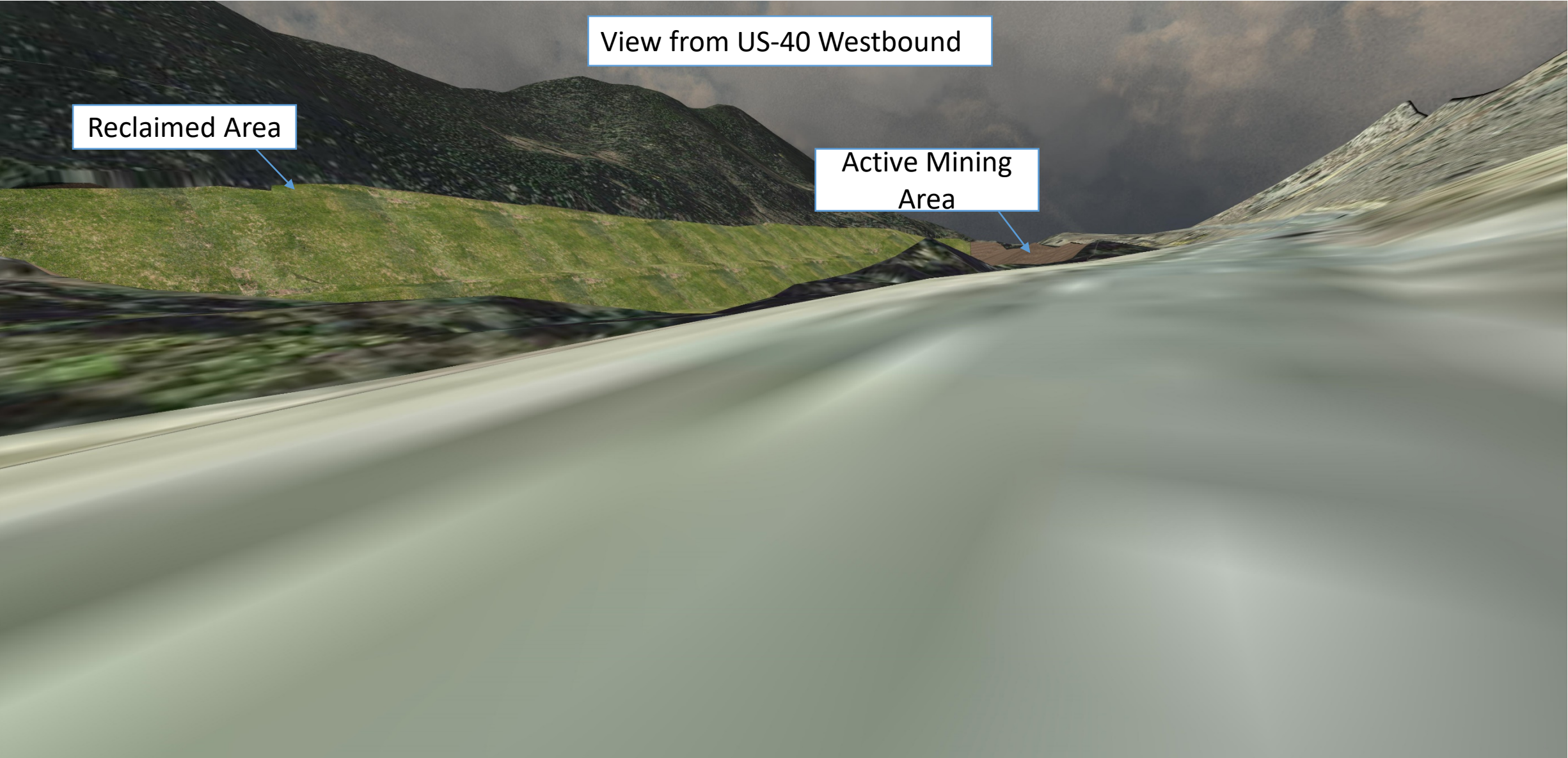


# DMR Mine – Phase 3 Visual Concept

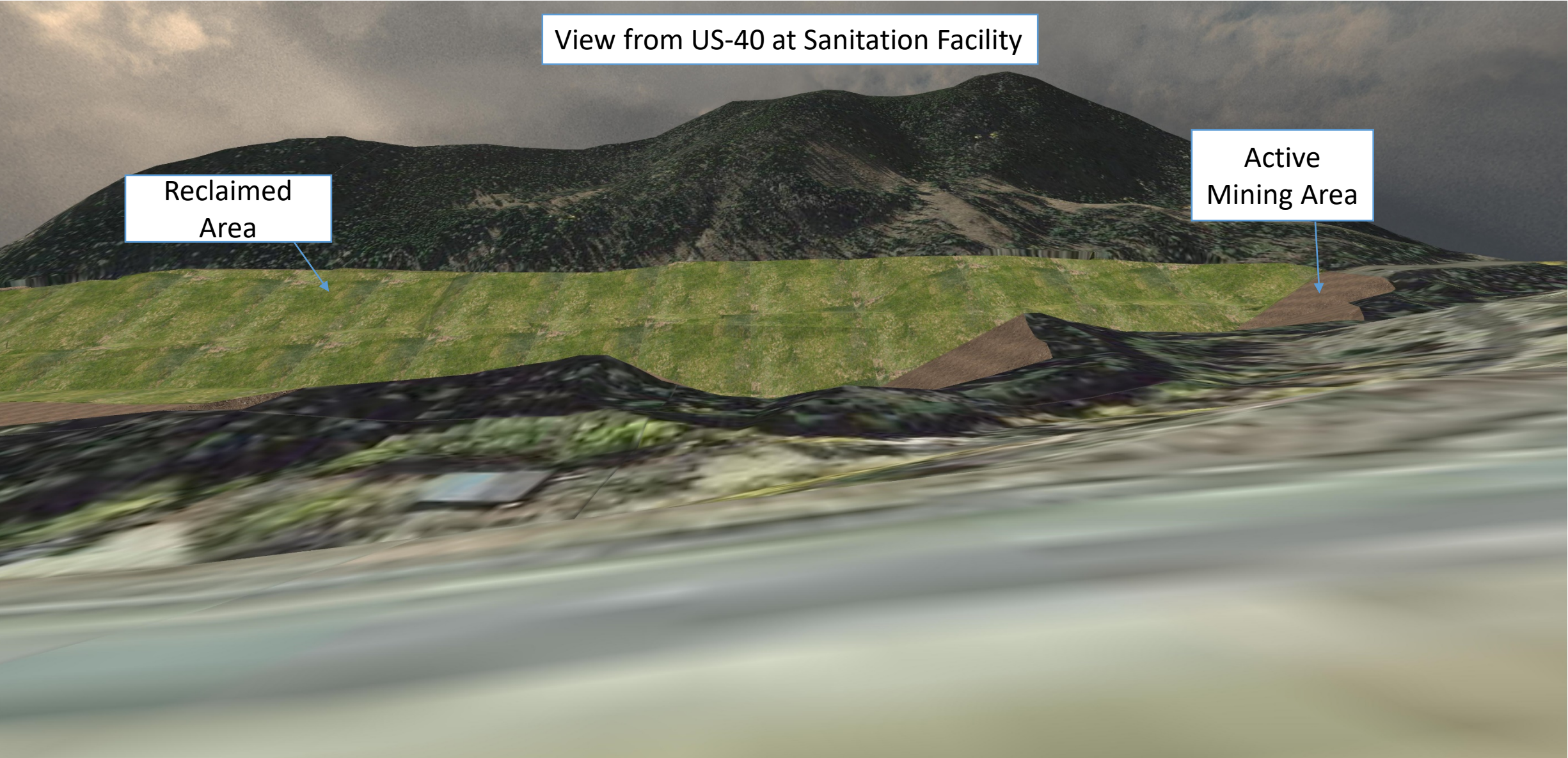




# DMR Mine – Phase 3 Visual Concept



# DMR Mine – Phase 3 Visual Concept

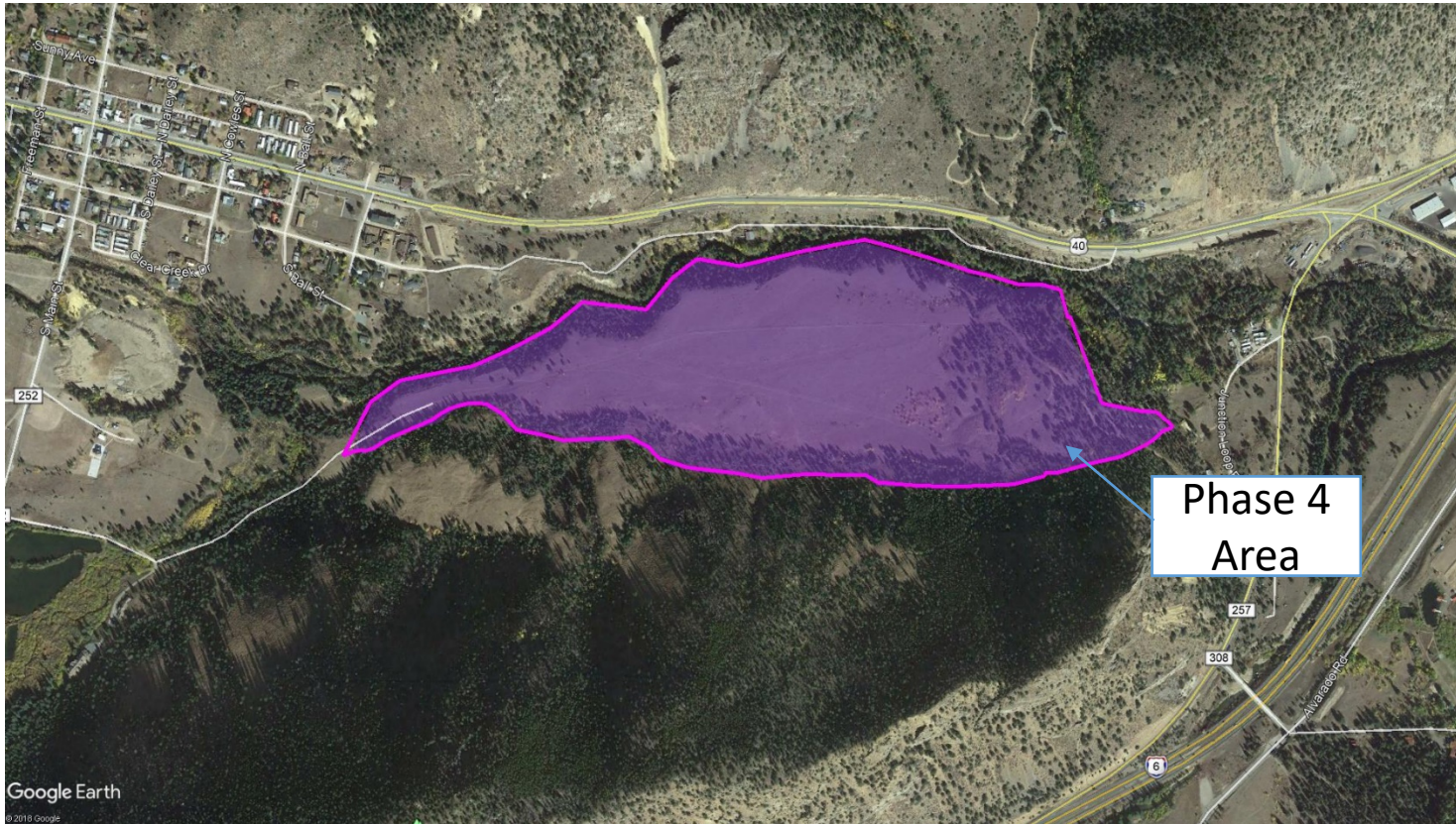


View from US-40 at Sanitation Facility

Reclaimed Area

Active Mining Area

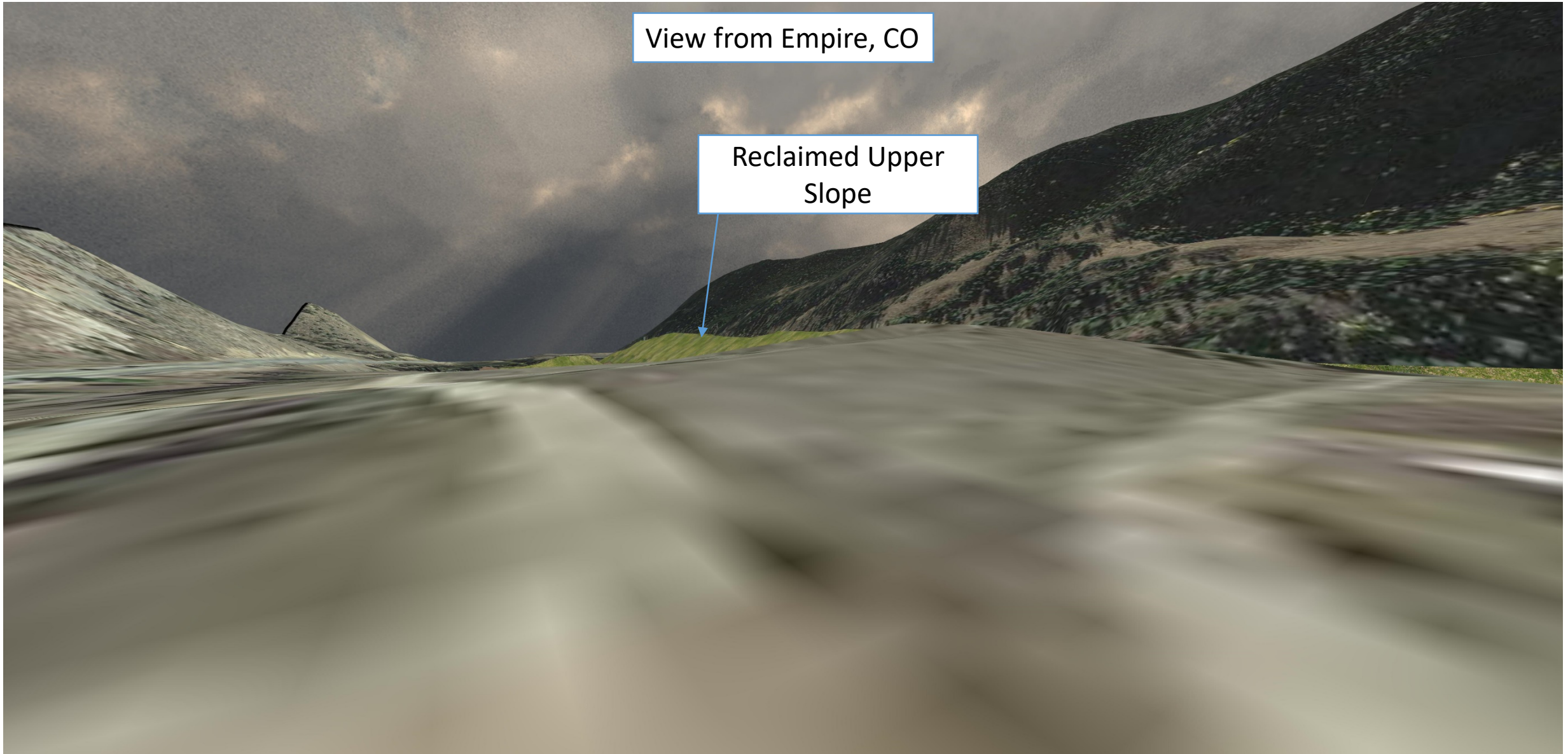
# DMR Mine



## Phase 4

- The end of mining, roughly 20 years after opening Phase 1 (based on 1,000,000 tons mined a year)
- Mine out the remaining natural visual berm
- Pit behind the natural visual berm is reclaimed

# DMR Mine – Phase 4 Visual Concept



View from Empire, CO

Reclaimed Upper Slope

# DMR Mine – Phase 4 Visual Concept



# DMR Mine – Phase 4 Visual Concept



View from US-40 Westbound

Reclaimed Area

Final Mining Area

# DMR Mine – Phase 4 Visual Concept



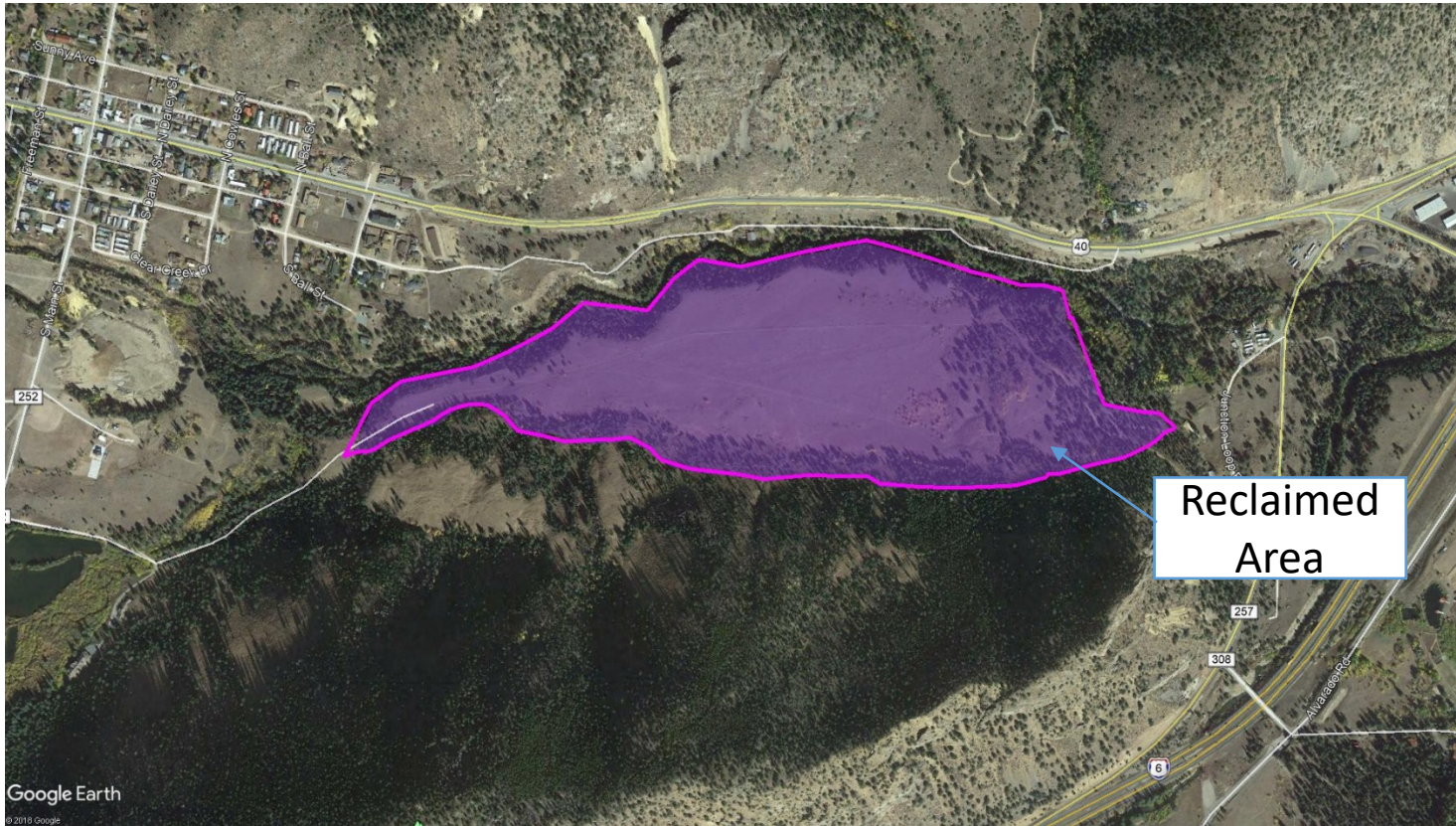
View from US-40 at Sanitation Facility

Reclaimed Area

Internal Haul Road

Final Mining Area

# DMR Mine

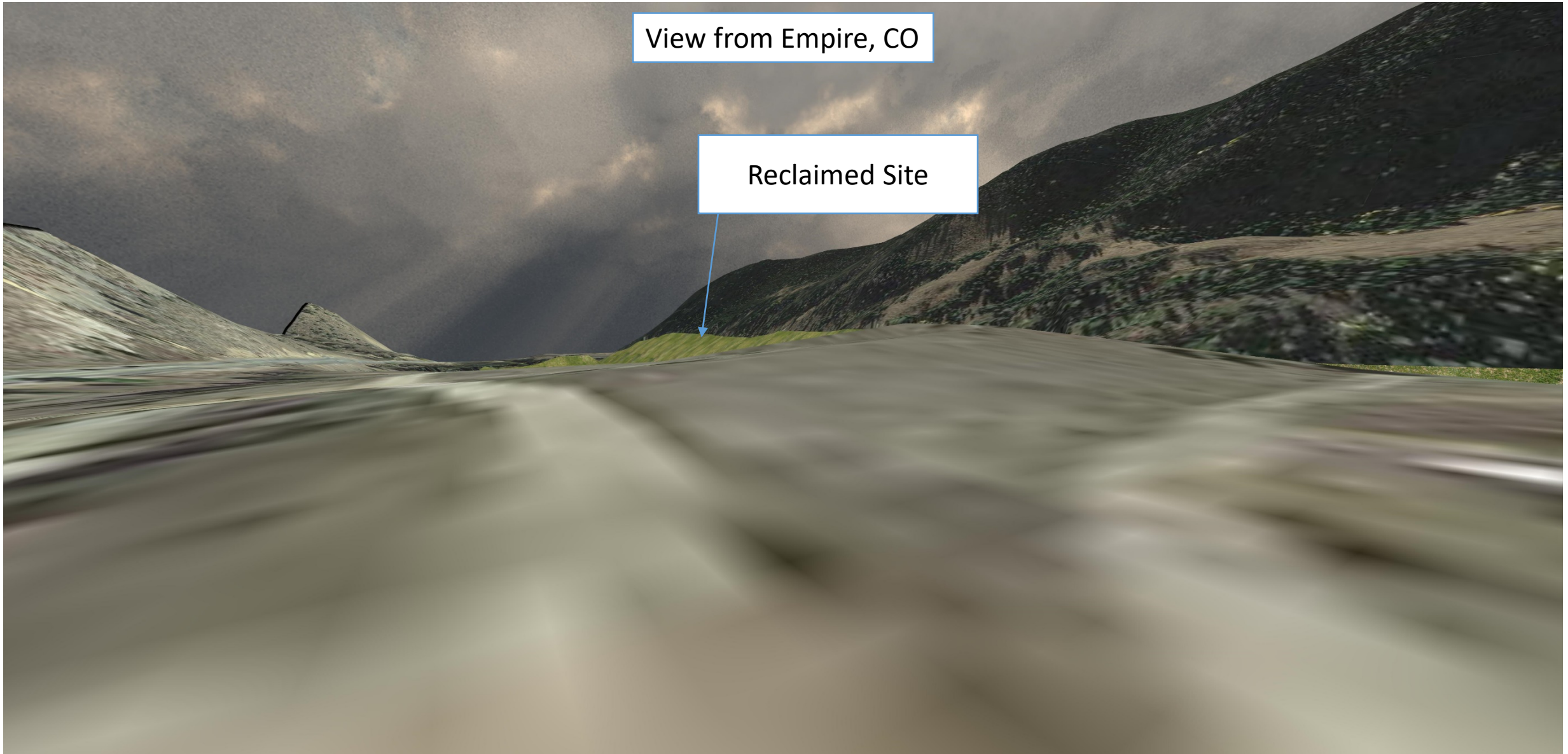


## Reclaimed

- Reclamation concurrent with mining creates rangeland meadow as mining progresses with each Phase
- The final reclaimed site will be rangeland meadow with a depression in the middle
- Future use of the site will be up to the landowner and requires a new county application



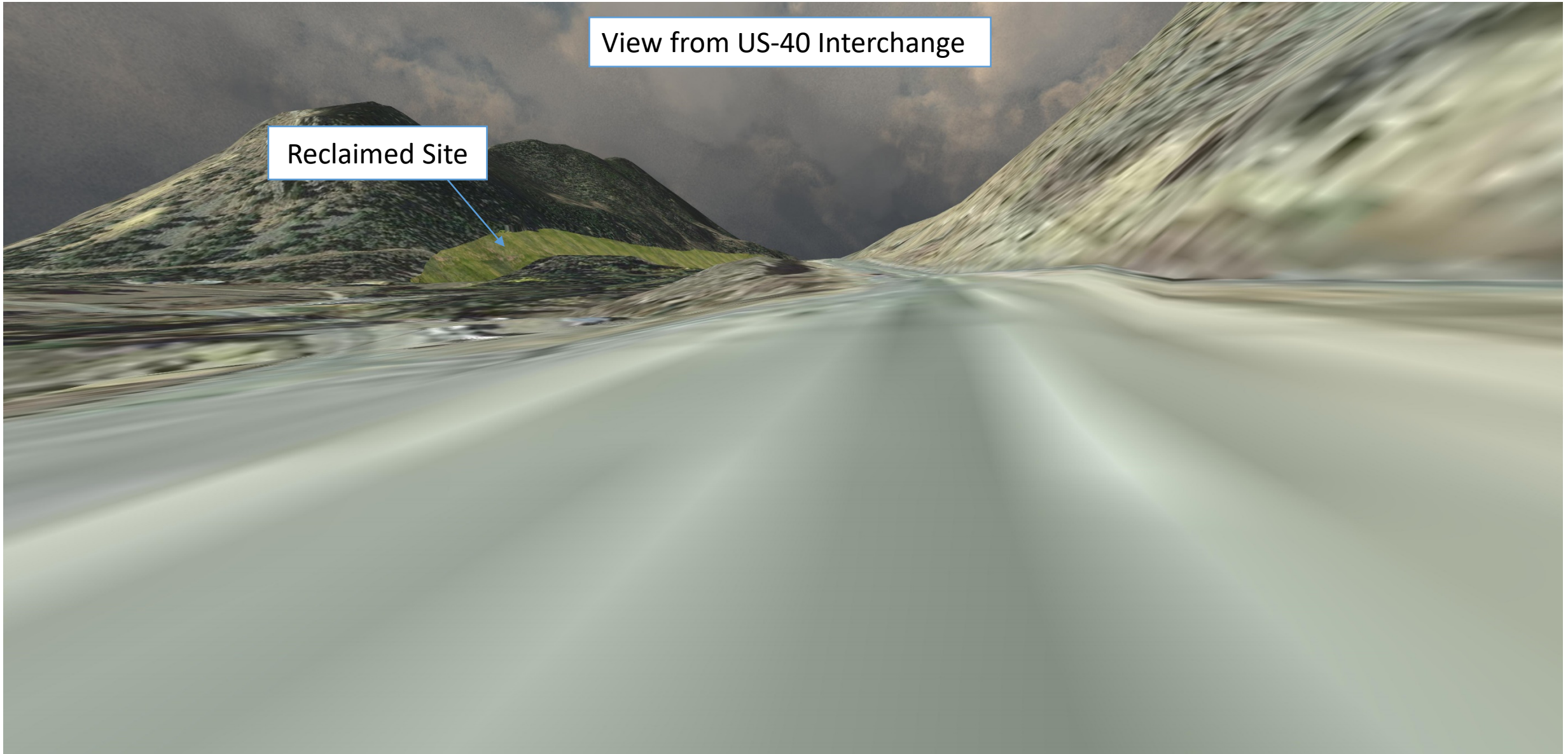
# DMR Mine – Reclaimed Visual Concept



View from Empire, CO

Reclaimed Site

# DMR Mine – Reclaimed Visual Concept



View from US-40 Interchange

Reclaimed Site

# DMR Mine – Reclaimed Visual Concept



View from US-40 Westbound

Reclaimed Site

# DMR Mine – Reclaimed Visual Concept

View from US-40 at Sanitation Facility

Reclaimed  
Site

