



August 2025

**Modena Mine
Environmental Assessment**

DOI-BLM-UT-C010-2025-0005-EA

Iron County, Utah

Project Location:
Salt Lake Meridian,
T. 33 S., R. 19 W.,
secs. 14 and 23.

and

T. 34 S., R. 19 W.,
sec. 23.

**Cedar City Field Office
176 East DL Sargent Drive
Cedar City, UT 84721
(435) 865-3000**

CHAPTER 1. INTRODUCTION

The Bureau of Land Management (BLM) Cedar City Field Office (CCFO) has received a request from Progressive Contracting Inc. (PCI) to conduct a small surface mining operation (per Utah Administrative Rule 647-1-106) to extract bedrock exposures of a volcanic tuff bed that has commercial value as a naturally occurring pozzolan on unpatented mining claims located on BLM-administered land in Iron County. The proposed small mine would be conducted in accordance with PCI's Modena Mine Operations Plan (provided in Appendix A), which was filed with the BLM in compliance with 43 CFR § 3809, and a Notice of Intention to Commence Small Mining Operations (NOI), which was filed with the State of Utah Division of Oil, Gas and Mining (UDOGM). The proposed mine is within T. 33 S., R. 19 W., Sections 14 and 23 (see Map 1 in Appendix B). Approximately 19.5 acres of BLM-administered lands would be disturbed by the proposed small mine operations (see Map 2 in Appendix B). Another 5 acres of BLM-administered lands within T. 34 S., R. 19 W., Section 23 would be disturbed by development of a gravel pit adjacent to Modena Canyon Road to supply aggregate (gravel) for road maintenance activities associated with the mining operation (see Map 3 in Appendix B).

1.1. Background

PCI has located and recorded three unpatented mining claims on the east side of Modena Canyon Road on BLM-administered lands in Modena Canyon; they now request BLM's approval to initiate mining operations.

On November 13, 2025, BLM, PCI, and the Iron County Public Works Department conducted a site visit to the proposed mine location and evaluated the condition of the Modena Canyon Road from the proposed mine to its intersection with SR-56. It was determined that the Modena Canyon Road, in its current condition, is unsuitable for the industrial haulage that would be associated with the mine. BLM requested that the Iron County Public Works Department develop a plan to improve the road to accommodate industrial haulage associated with the mine and execute a Memorandum of Understanding (MOU) with PCI designating responsibility for improvement and maintenance of the Modena Canyon Road between those two entities. It was determined that a five-acre gravel pit was needed as a source of aggregate for road improvement and maintenance. Furthermore, Iron County requested authorization for heavy equipment to travel cross-country, using drive-and-crush travel, in a designated corridor, to remove vegetative debris from an ephemeral wash adjacent to the Modena Canyon Road that is the cause of frequent flooding and washouts on the Modena Canyon Road.

PCI signed a Memorandum of Understanding (MOU; provided in Appendix C) with Iron County to "provide for the use, improvement, and maintenance of Modena Canyon Road . . . during PCI operations of the [mine], while also keeping the road in good working condition for the general use of the public in keeping with the obligations of the county for oversight of a Title V road." The gravel pit was identified as a suitable and accessible site to extract material to maintain the roadway per the MOU.

Additionally, approximately 1,000 feet of creek on the east side of the road in T. 33 S., R. 19 W., Section 23 has been affected by debris that results in flooding of the roadway after storms. Iron

County has requested the ability to remove debris from the wash to prevent flooding damage to the road.

1.2. Purpose and Need

The purpose of the federal action is to respond to PCI’s proposed Operations Plan (see Appendix A) to mine within three unpatented claims on BLM-administered lands in Iron County, Utah.

The need for the action is established by the BLM’s responsibility under the General Mining Law of 1872, as amended, and the Federal Land Policy and Management Act (FLPMA) of 1976, which recognize the statutory right of mining claimants to develop locatable mineral resources (e.g., pozzolan) and to assess whether implementation of the proposed Plan of Operations will result in “unnecessary or undue degradation of public lands by operations authorized by the mining laws . . . Anyone intending to develop mineral resources on the public lands must prevent unnecessary or undue degradation of the land and reclaim disturbed areas” (43 CFR § 3809.1[a]).

1.2.1. Decision to be Made

The authorized officer must decide whether to approve or deny the Operations Plan (Appendix A). If the authorized officer decides to approve the Operations Plan, they must decide under what terms and conditions, and what monitoring would take place to ensure compliance with the decision.

1.3. Scoping and Issues

The BLM Interdisciplinary (ID) Team screened the Proposed Action from November 5, 2024, to June 26, 2025, and considered issues that could be affected by implementation of the Proposed Action and that would therefore require analysis in this environmental assessment (EA); the ID Team Checklist is provided in Appendix D. The following issues requiring further detailed analysis were identified by the BLM ID Team during the internal scoping process:

Table 1-1. Issues Analyzed in Detail

RESOURCE AND ISSUE #	ISSUE STATEMENT
Issue #1 – Mineral Resources – Pozzolan	How would the removal of 500,000 tons of pozzolan from a 19.5-acre site affect the availability and integrity of regional mineral resources, specifically the aerially extensive ash-flow tuff unit in the Modena area?
Issue #2 – Mineral Resources – Gravel	How would the removal of up to 80,000 cubic yards of sand and gravel from a 5-acre pit affect the availability and integrity of regional mineral resources, specifically the associated surface alluvial deposits in the Modena area?

CHAPTER 2. ALTERNATIVES

2.1. Alternative A – No Action Alternative

Under the No Action Alternative, the BLM would not approve the proposed Operations Plan. PCI would not conduct mining operations onto the unpatented Modena claims.

2.2. Alternative B – Proposed Action

The proposed 19.5-acre mine site lies on a small ridgeline just north of the junction of Nelson Canyon and Modena Canyon, on the east side of Modena Canyon Road approximately 9 miles north of Modena. The mining operation would be conducted in phases, starting at the southern end of the ridgeline and progressing northwards. The surficial 1 to 2 feet of topsoil and weathered rock would be stripped in advance of mining each phase and placed in a berm along the eastern side of the mine area to serve as a barrier for any stormwater flows down Nelson Canyon. The tuff bed would be excavated mechanically using hydraulic excavators; once the rock was broken free, it would be loaded into a haul truck and conveyed to an on-site impact crusher for crushing to a marketable top size.

The crushed material would be loaded into highway haul trucks from a stockpile and hauled south via Modena Canyon Road to SR-56 at Modena. From Modena, it would either be highway-truck hauled to buyers or transferred into hopper cars at the Modena siding for rail-haulage to markets. Dust control at the mine site and for the county road haulage down Modena Canyon Road would be by water application at the mine site and water or magnesium chloride dust suppressant on the county road.

As mining progresses northward along the ridge, mined out areas would be covered with the topsoil/weathered rock that was salvaged in advance of mining and re-distributed soil would be broadcast seeded. The ridge would be excavated down to the level of the county road or slightly below. Any highwalls left would be at the north end of the mine site and would have a maximum toe-to-crest slope of 2H:1V.

A 2-acre stream cleanout area would allow for drive and crush access to the ephemeral stream bed for tracked and wheeled vehicles to remove debris that causes frequent flooding of the road that would impede industrial haulage. There would be no alteration of the natural storm drainage.

A 5-acre gravel pit would be authorized for Iron County to allow PCI and Iron County to extract aggregate for the purposes of maintaining and improving the Modena Canyon Road for industrial haulage and traffic. The gravel pit would be cleared using a dozer and track hoe, and the material would be processed using a grizzly screen and/or crusher as needed. Assuming an average deposit thickness of 10 feet, the pit would be anticipated to produce up to 80,000 cubic yards of aggregate material. The gravel pit would be approximately 2.7 miles north of Modena, on the west side of Modena Canyon Road.

2.2.1. Design Features

The following design features have been developed to minimize or eliminate impacts to the human and natural environments. All analysis in this document assumes full incorporation of and compliance with these design features.

2.2.1.1. *Applicant-committed measures*

- PCI would adhere, at a minimum, to all measures described within the Operations Plan. Where design features described below exceed, conflict, or are otherwise incongruous with measures described in the Operations Plan, deference would be given to design features described below.

- An industrial stormwater pollution prevention plan (SWPPP) would be prepared and approved by BLM and a Notice of Intent filed with the State of Utah for coverage under the Multisector General Permit UTR000000 prior to initiation of mining activities.

2.2.1.2. *Access*

- PCI would adhere to the MOU with Iron County (holder of the ROW) to improve and maintain the Modena Canyon Road to standards acceptable for industrial haulage and traffic.

2.2.1.3. *Air Quality*

- All stockpiled topsoil and constructed berms would be seeded with a BLM-approved seed mix to minimize erosion and sediment disturbance.
- The conditional use permit for hauling material on the Modena Canyon Road would require PCI to apply magnesium chloride or similar dust-abatement measures.

2.2.1.4. *Cadastral*

- PCI would coordinate with BLM cadastral to protect survey monuments during mining, gravel pit production, and road maintenance and improvement operations.

2.2.1.5. *Fire and Fuels*

- PCI would consult with BLM prior to reclamation to develop a seed mix that includes fire-resilient species that would best stabilize and revegetate mined areas. In addition to noxious weeds, PCI would use herbicide to control annual invasive grasses and other fine-flashy fuels during all phases of mine operation, including reclamation. BLM would also provide guidance and approval to PCI for proper planting techniques to ensure the highest rate of success.

2.2.1.6. *Grazing*

- Any mining pits, ponds, holes, or shafts that could pose a hazard to livestock, wildlife, or wild horses would be appropriately fenced in accordance with BLM-approved fencing specifications.
- To prevent entrapment of livestock, wildlife, or wild horses, at least one side of all reserve pits or ponds would be constructed with a slope of approximately 30 percent (3:1 incline).
- Any rangeland improvement projects (e.g., fences, troughs, pipelines) impacted by project activities would be repaired promptly and/or reconstructed following completion of the project.

2.2.1.7. *Reclamation*

- Potential impacts to soil resources would be mitigated by adhering to the reclamation schedule and implementing the CCFO Reclamation Standards and Operating Practices (see Appendix E).

2.2.1.8. *Wildlife*

- No off-road travel, surface use, or otherwise disruptive activity would be allowed from December 1 through April 30 within UDWR-mapped crucial winter mule deer habitat. If

treatment cannot be avoided during winter avoidance timeframes, a qualified BLM biologist would be consulted along with UDWR regarding monitoring or temporary restrictions and the following considered:

- If construction/activities are authorized, implementation would cease when snow depth is greater than 6 inches and/or temperatures are less than 20 °F.
- No surface use, ground disturbance, or otherwise disruptive maintenance activities would be allowed from April 1 through July 15 based on migratory bird surveys and species occupancy (refer to species-specific dates). Surveys are required for all migratory bird species protected under the Migratory Bird Treaty Act if project activities occur during active nesting season. If project activities are unavoidable during this timeframe, then:
 - Migratory bird nest surveys would be completed no more than 7 days prior to any disturbance activities.
 - Field surveys protocol and reports would be reviewed and approved by a BLM wildlife biologist.
 - Active nests that are found would have at least a 100-foot buffer or species-specific seasonal nesting restrictions and appropriate nesting buffers would be applied.
 - Biological monitors would continue to monitor active nests until such time as it is determined that the nest is no longer active and buffers can be lifted, allowing project activities to occur.
 - The BLM would be contacted prior to any maintenance activities, with the possible exception of emergency maintenance.
- PCI would avoid surface use, ground disturbance, vegetation clearing, or disruptive maintenance activities during raptor nesting season from January 1 through August 31 based on surveys and species occupancy (Romin and Muck 2002). Surveys are required for all raptor species if project activities occur during active nesting season. If project activities are unavoidable during this timeframe, then:
 - Field surveys would be conducted via meandering transects. If active nesting sites are identified as a result of the surveys, appropriate buffers and timing limitations would be implemented in accordance with BLM's Best Management Practices for Raptors.
 - Raptor nest surveys would be conducted within priority habitats at least 7 days prior to any project disturbance activities.
 - Species-specific seasonal nesting restrictions and appropriate nesting buffers would be applied to known active nests (Romin and Muck 2002).
 - Birds with eggs or young cannot be hazed, and nests with eggs or young cannot be moved until young are no longer dependent on the nest. Confirmation that all young have fledged should be made by a qualified biologist before a restriction within a buffer is lifted.

- When project activities must be scheduled during the nesting season, appropriate steps to prevent migratory birds from establishing nests in the potential impact area would be taken. These steps would include, at the minimum, covering stationary equipment that could provide a nesting structure for a bird and covering/excluding birds from any supplies (i.e., pipes) where birds may nest.
- PCI would minimize migratory bird mortalities from collisions with fences through marking of potential problem areas, as determined by a BLM wildlife biologist.
- Applicable conservation measures from the USFWS's *Western Monarch Butterfly Conservation Recommendations* would be implemented at the direction of a BLM wildlife biologist.

2.3. Alternatives Considered but Eliminated from Detailed Analysis

Another gravel source was identified north of the proposed pozzolan mine, on the very southern end of the Hamlin Valley; however, the location is within 0.25 miles of a known greater sage-grouse (*Centrocercus urophasianus*) lek and would therefore violate the Greater Sage-Grouse Approved Resource Management Plan Amendment. Because this alternative would not be in conformance with the land use plan, it was not considered in detail.

2.4. Land Use Plan and Statutory Conformance

Land use decisions for the project location are contained in the Cedar Beaver Garfield Antimony Record of Decision / Resource Management Plan (RMP), approved in 1986. As stated in the RMP (pages 19-20), BLM's objectives and management actions for minerals management include :

- "Prevent unnecessary and undue degradation on lands open for locatable mineral exploration and development."

The proposed mine expansion would be in accordance with the General Mining Law of 1872, as amended, 43 CFR Subpart 3715 Use and Occupancy Under the Mining Laws regulations, and 43 CFR Subpart 3809 Surface Management regulations. Under these authorities, PCI may stake a claim and submit to BLM an Operations Plan to mine pozzolan. The mining operation would be required to conform to Utah Administrative Code Rule R647-3 Small Mining Operations, and a mining permit would be obtained from the UDOGM.

CHAPTER 3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL IMPACTS

This chapter defines the scope of analysis contained in this EA, describes the existing conditions relevant to the issues presented in Table 1-1 in Section 1.3, and discloses the potential impacts of the proposed action and alternatives.

3.1. Issue 1: How would the removal of 500,000 tons of pozzolan from a 19.5-acre site affect the availability and integrity of regional mineral resources, specifically the aerially extensive ash-flow tuff unit in the Modena area?

3.1.1. Affected Environment

The affected environment is defined as the broader tuff deposit that contains the proposed pozzolan mining operation. The broader tuff deposit area is an estimated 40 square miles (about 25,600 acres). The affected environment for pozzolan mineral resources is shown on Map 4 in Appendix B.

As a mineral resource, the affected environment is temporally defined as indefinite. Future market conditions may dictate the feasibility of the extraction of pozzolan from the affected environment in the future. However, the speculative and unknown nature of future markets for the mineral resource over this timescale do not allow for future market conditions to be considered in this analysis or in defining the affected environment.

3.1.2. Methodology

The affected environment was defined using publicly available geospatial data. Geospatial data were also used to geospatially define the past, present, and reasonably foreseeable future extraction of pozzolan in the affected environment. There are no known large-scale pozzolan extraction operations in the immediate vicinity of the project.

The tonnage of the pozzolan that is expected to be produced by the Proposed Action was reported by PCI to the BLM and is also described in the Operations Plan. Using core samples from geotechnical testing in the area, PCI assumed similar thickness and quality of pozzolan on the proposed mine area to calculate the estimated tonnage of pozzolan production. This is the best available method to make this estimate; however, it contains a high degree of uncertainty.

No accurate data or methods exist to predict the quantity of pozzolan contained in the portions of the affected environment where future extraction may occur; therefore, surface acreage of this resource is the only metric used to describe the quantity of the pozzolan resource that could be extracted in the reasonably foreseeable future, and a total tonnage of pozzolan within the affected environment is unknown.

3.1.3. Impacts of the Alternative A – No Action Alternative

Under the No Action Alternative, pozzolan would remain unmined on 19.5 acres of BLM-administered lands adjacent to Modena Canyon Road as described in Section 2.2.

3.1.4. Impacts of the Alternative B – Proposed Action

The Proposed Action would allow for excavation and removal of an estimated 500,000 tons of pozzolan from an ash-flow tuff deposit on 19.5 acres of BLM-administered lands on the east side of Modena Canyon Road. The pozzolan would be mined up to 160 feet deep.

3.1.5. Reasonably Foreseeable Future Actions

Suitable mineral materials are a finite resource within the affected environment. Once the currently proposed areas were fully mined, materials would have to be acquired from new sources. The proposed pozzolan extraction site is in the most accessible area with suitable

material and proximal hauling facilities within the affected environment. The economic viability of expanding or changing mining locations would be determined at an unknown future date.

The Proposed Action would account for an estimated 500,000 tons of pozzolan extracted on 19.5 acres within the affected environment; this constitutes less than 0.1 percent of the acres of available resource within the affected environment.

To what extent the remaining pozzolan resources would be extracted within the affected environment is speculative and not ripe for analysis. The resources will exist indefinitely for extraction; however, market and other external conditions that would drive the extraction of these materials in the affected environment cannot be determined. If future market conditions are similar to current conditions, it can be expected that pozzolan extraction would continue northwards from the Proposed Action once the resource in the project location is depleted; to what extent and for how long is impossible to determine.

Complete extraction of the pozzolan resource within the affected environment is provided for by the General Mining Law of 1872 and would constitute a negligible amount of the total extractable resource contained in both the State of Utah and nationwide.

3.2. Issue 2: How would the removal of up to 80,000 cubic yards of sand and gravel from a 5-acre pit affect the availability and integrity of regional mineral resources, specifically the associated surface alluvial deposits in the Modena area?

3.2.1. Affected Environment

The affected environment is defined as the alluvial deposits adjacent to Modena Canyon Road that potentially contain additional aggregate resources. Alluvial deposits are common and widespread throughout the area (Rowley et al. 2008); the area adjacent to the road is an estimated 7,000 acres. The affected environment for aggregate resources is also shown on Map 4 in Appendix B.

As a mineral resource, the affected environment is temporally defined as indefinite. Future market conditions may dictate the feasibility of the extraction of aggregate from the affected environment in the future. However, the speculative and unknown nature of future markets for aggregate over this timescale do not allow for future market conditions to be considered in this analysis or in defining the affected environment.

3.2.2. Methodology

The affected environment was defined using publicly available geospatial data. Geospatial data were also used to geospatially define the past, present, and reasonably foreseeable future extraction of aggregate in the affected environment. There are no known large-scale aggregate extraction operations in the immediate vicinity of the project.

The volume of the aggregate that is expected to be produced by the Proposed Action was estimated by the Iron County and BLM geologists.

Due to geologic forces, the aggregate layer is irregular in thickness. No accurate data or methods exist to predict the quantity of aggregate contained in the portions of the affected environment where future aggregate extraction may occur. Therefore, surface acreage of this resource is the only metric used to describe the quantity of aggregate resource that could be extracted in the

reasonably foreseeable future, and a total volume of aggregate within the affected environment is unknown.

3.2.3. Impacts of the Alternative A – No Action Alternative

Under the No Action Alternative, aggregate would remain unmined on 5.0 acres of BLM-administered lands adjacent to Modena Canyon Road as described in Section 2.2.

3.2.4. Impacts of the Alternative B – Proposed Action

The Proposed Action would allow for excavation and removal of up to 80,000 cubic yards of sand and gravel from a 5-acre aggregate pit on the west side of Modena Canyon Road.

3.2.5. Reasonably Foreseeable Future Actions

Suitable mineral materials are a finite resource within the affected environment. Once the currently proposed areas were fully mined, materials would have to be acquired from new sources. The proposed aggregate extraction site is in the most accessible area with suitable material and proximal hauling facilities within the affected environment. The economic viability of expanding or changing mining locations would be determined at an unknown future date.

The Proposed Action would account for an estimated 80,000 cubic yards of aggregate extracted on 5.0 acres within the affected environment. This constitutes less than 0.1 percent of the acres of available resource within the affected environment.

To what extent the remaining aggregate resources would be extracted within the affected environment is unknowable. The resources will exist indefinitely for extraction; however, market and other external conditions that would drive the extraction of these materials in the affected environment cannot be determined. There are currently no pending applications for mineral materials in the portion of the affected environment under BLM jurisdiction.

Complete extraction of the aggregate resource within the affected environment, however extremely unlikely, is provided for by the Materials Act of 1947 and would constitute a negligible amount of the total extractable resource contained in both the State of Utah and nationwide.

CHAPTER 4. PUBLIC INVOLVEMENT, CONSULTATION AND COORDINATION

4.1. Public Involvement

This EA (DOI-BLM-UT-C010-2025-0005-EA) was posted to the BLM e-Planning website from August 4 through August 19, 2025, to inform the public of the actions proposed within this EA and to solicit public participation. An email was sent to all parties who had expressed interest in this project via prior email to the BLM. Comments were received from ___ entities within the public comment period; substantive comments and BLM's responses to such are summarized in Appendix F.

4.2. Consultation and Coordination

Tribal consultation as required by the American Indian Religious Freedom Act of 1978 (42 U.S.C. 1531) was initiated with tribes in a letter dated December 20, 2024. Letters were sent to the Paiute Indian Tribe of Utah, as well as the Cedar Band, Indian Peaks Band, Kanosh Band, Koosharem Band, and Shivwits Band; the Kaibab Band of Paiute Indians of the Kaibab Indian Reservation; the Moapa Band of Paiute Indians of the Moapa River Indian Reservation; the Ute Indian Tribe of the Uintah & Ouray Reservation; the Navajo Nation; the Ute Mountain Ute Tribe and the White Mesa Community; the Pueblo of Zuni, and the Hopi Tribe.

In January 2025, Autumn Gillard, Cultural Resources Manager of the Paiute Indian Tribe of Utah, requested a meeting to discuss the project; the meeting was held virtually on January 28, 2025. In an email on February 3, 2025, Autumn said the Tribe “will wait for cultural report to make a final assessment of the project.” The draft cultural report was provided to Autumn on May 6, 2025. On June 13, 2025, Autumn indicated that she would provide “additional comments to the NEPA document.”

On January 6, 2025, Stewart B. Koyiyumptewa, Hopi Tribal Historic Preservation Officer, requested a meeting to discuss this and other projects covered in the letter. During the meeting on January 31, 2025, Stewart stated that all lithic scatters, regardless of National Register eligibility, are significant to the Hopi, as they are the footprint of their ancestors and future generations can learn from these sites. He stated that, if sites (including not eligible lithics scatters) are destroyed by projects this would be impactful. He recommended all lithics scatters be avoided or moved.

All projects within southern Utah and neighboring states have potential to impact Southern Paiute Traditional Ecological Knowledge pathway for the Salt Song Trail. Per unrelated consultation with other Southern Paiute Tribes, the impact to this pathway should be considered and Tribes should be provided the opportunity to bless an area prior to project implementation.

No additional responses were received from other Tribes as of June 16, 2025.

Consultation with the Utah State Historic Preservation Office (SHPO) pursuant to Section 106 of the National Historic Preservation Act (NHPA) was initiated on June 18, 2025. The SHPO concurred with a determination of “no historic properties affected” on June 23, 2025.

Based on an analysis of the species and habitats that may occur within the area, the project would have no effect on federally listed plant or wildlife species or critical habitat.; therefore, consultation with U.S. Fish and Wildlife Service under Section 7 of the Endangered Species Act is not required.

There were no cooperating agencies for development of this EA.

CHAPTER 5. LIST OF PREPARERS

BLM staff involved in scoping, their job titles, analysis, and issues analyzed are contained in the ID Team Checklist located in Interdisciplinary Team Checklist. Upon the conclusion of scoping, the following individuals were involved in drafting, reviewing, and editing the EA:

Name	Affiliation	Title	Resource Area
Jenna Jorgensen	Jones & DeMille Engineering	Environmental Coordinator	NEPA Document Preparation
Edgar Covarrubias	BLM Color Country District Office	Minerals Specialist	Mineral Materials
Ryan Oberhelman	BLM Cedar City Field Office	Planning & Environmental Specialist	NEPA Document Review and Edit

References

- Bureau of Land Management (BLM). 1986. Cedar Beaver Garfield Antimony Record of Decision / Resource Management Plan.
- Rowley, P. D., V. S. Williams, G. S. Vice, D. J Maxwell, L. W. Snee, and J. H. Mackin. 2008. Interim Geologic Map of the Cedar City 30' X 60' Quadrangle, Iron and Washington Counties, Utah. Utah Geological Survey Open-File Report 476DM.

Appendix A. PCI's Modena Mine Operations Plan

Appendix B. Maps

Appendix C. Memorandum of Understanding between Iron County and PCI

Appendix D. Interdisciplinary Team Checklist

Project Title: Modena Mine

NEPA Log Number: DOI-BLM-UT-CO10-2025-0005-EA

File/Serial Number: UTUT-106695354

Project Leader: Ryan Oberhelman

DETERMINATION OF STAFF: *(Choose one of the following abbreviated options for the left column)*

NP = not present in the area impacted by the proposed or alternative actions

NI = present, but not affected to a degree that detailed analysis is required

PI = present with potential for relevant impact that need to be analyzed in detail in the EA. **The NEPA Handbook states that issues need to be analyzed in detail if: 1) Analysis of the issue is necessary to make a reasoned choice between alternatives; 2) The issue is significant...or where analysis is necessary to determine the significance of impacts.**

RESOURCES AND ISSUES CONSIDERED:

Determi- nation	Resource	Rationale for Determination	Signature	Date
NI	Air Quality	The Proposed Action would generate small amounts of fugitive dust during mining operations. However, section 4 of the Operations Plan contained within the Notice of Intent to Commence Small Mining Operations stipulates that water will be kept on-site for dust control purposes during mining operations. Item 9 of the Operation and Reclamation Practices contained within the same document states that erosion shall be minimized, and sediment controlled, thereby additionally contributing to minimizing air quality impacts of the Proposed Action. Design features specify that all stockpiled topsoil and constructed berms must be seeded with a BLM-approved seed mix to minimize erosion and sediment disturbance. The conditional use permit for hauling material on the Modena Canyon Road would require the proponent to apply magnesium chloride or similar dust-abatement throughout that portion of the ROW, thereby minimizing negative impacts to air quality associated with industrial haulage along the gravel road. All the measures described above would minimize the adverse impact of the Proposed Action on air quality to the extent that the impact would be negligible in context and intensity.	R. Oberhelman	6/16/2025
NP	Areas of Critical Environmental Concern	There are no ACECs within the CCFO.	M. Innes	11/5/2024

Determination	Resource	Rationale for Determination	Signature	Date
NI	Cultural Resources	The BLM has determined the Area of Potential Effect (APE) for this undertaking to be the proposed pozzolan mine, stream cleanout, and proposed gravel pit. The total APE is approximately 26 acres. A Class III inventory of the APE was completed by contractors in February of 2025. The results of this inventory indicated two sites determined by the BLM to be not eligible for listing on the National Register of Historic Places are located within the proposed gravel pit. No sites were located within the proposed mine footprint or the stream cleanout area. The BLM has assigned a No Historic Properties Affected determination to this undertaking. The Utah State Historic Preservation Office (SHPO) was consulted on June 18, 2025. SHPO concurred with eligibility and determination of effect on June 23, 2025.	J. LaValley	6/16/2025
NP	Farmlands (Prime or Unique)	The Natural Resources Conservation Service Web Soil Survey application shows no prime or unique farmlands fall within the proposed project areas.	M. Bayles	11/05/2024
NI	Floodplains	The proposed action does occur in any mapped floodplains.	Mike Moulton	6/26/2025
NI	Fuels/Fire Management	Development for minerals would reduce presence of hazardous fuels within the mine location. Fire starts from mining operations are unlikely to occur due to lack of vegetation and following of standard fire safety practices. Fuels and Fire design features require that during mine reclamation, fire-resistant species are seeded, and herbicide be used to control the spread and establishment of fine, flashy fuels that would contribute to wildfire risk.	Abigail Barker	6/16/2025
PI	Geology / Mineral Resources/Energy Production	There are no minerals-related encumbrances nor authorizations on the proposed project lands other than unpatented mining claims presently held by the project proponent. The only known mineral resources in the proposed project area are Tertiary (Miocene) age volcanics which have been tested and found to have pozzolanic activity that give them commercial value. The proposed mining of the surface-outcropping material and its removal from the site will permanently reduce the resource of this material from the federal lands. Quaternary-age alluvium (sand and gravel) resource potential is excellent and abundant along the canyon road. The proposed surface mining of sand and gravel for road use would permanently reduce the resource of this material from federal lands.	Edgardo Covarrubias	6/16/2025

Determination	Resource	Rationale for Determination	Signature	Date
NI	Greenhouse Gas Emissions	Equipment used in mining operations would emit greenhouse gases. However, these emissions would be small, localized, and would not continue beyond the life of the mine, and therefore are negligible in the context of contribution to global climate change. Hauling of material from the mine would carry material approximately 10 miles to a railroad siding in Modena, or regionally to concrete plants, depending on the market and values for pozzolan. These emissions would be small, localized, and would not continue beyond the life of the mine, and therefore are negligible in the context of contribution to global climate change.	R. Oberhelman	6/16/2025
NI	Invasive Species/Noxious Weeds	The applicant shall adhere to the approved reclamation plan outlined in the attached Standard Operating Practices, Reclamation Standards and Exhibit 1(b)(3) of the SMO Permit Application.	Mitch Bayles	6/16/2025
NI	Lands/Access	The proposed road and storm drain channel improvements fall within Iron County's existing road ROW UTU-89343; no amendment to the road ROW is required. No other issued rights-of-way are within the project area. Evidence of the Public Land Survey System (PLSS) and related federal property boundaries would be identified and protected prior to the commencement of any ground disturbing activity. Add design feature to coordinate with cadastral to protect survey monuments.	Rob Turley	6/16/2025
NI	Lands with Wilderness Characteristics	The Proposed Action is located within the Crook Creek LWC Unit (NLCS 000923). FLPMA section 201 states, "The preparation and maintenance of inventory shall not, of itself, change or prevent change of the management or use of public lands." The Crook Creek LWC is 15,745 acres. The proposed action may result in the elimination of .0012% of the acreage of the unit during the next inventory. Since the potential reduction of less than 1% of the LWC unit would not disqualify the Crook Creek unit from wilderness designation consideration, no impacts to Lands with Wilderness Characteristics is expected. 43 CFR 3809 requires BLM to evaluate the plan of operations for "unnecessary and undue degradation to resources." LWCs are not withdrawn from mineral entry. The Mining Law of 1872 declares all valuable mineral deposits on federal lands to be free and open to exploration and purchase. Therefore, siting of the Modena Mine outside of the LWC boundary as an alternative was not considered.	M. Innes	11/5/2024

Determi- nation	Resource	Rationale for Determination	Signature	Date
NI	Livestock Grazing	<p>The proposed action is located within the Modena Canyon grazing allotment, which is authorized for cattle use from July 1 to September 30. While the area is within an active allotment, cattle use is minimal due to dense pinyon-juniper cover and a limited herbaceous understory. Cattle occasionally trail along the Modena Canyon Road during the fall.</p> <p>No impacts to authorized AUMs are anticipated as the proposed action would not affect forage availability or access due to the site's topography and vegetation characteristics. Design features would be implemented to ensure livestock safety and prevent hazards, such as fencing around potential hazards and properly sloped pond embankments.</p>	M. Bayles	11/5/2024
NP	National Historic Trails	There are no National Historic Trails within the project area.	M. Innes	11/5/2024

NI	Native American Religious Concerns	<p>Request for consultation letters were sent by the BLM on December 20, 2024, to the following Tribes: Paiute Indian Tribe of Utah as well as the Cedar Band, Indian Peaks Band, Kanosh Band, Koosharem Band, and Shivwits Band; Kaibab Band of Paiute Indians of the Kaibab Indian Reservation; Moapa Band of Paiute Indians of the Moapa River Indian Reservation; Ute Indian Tribe of the Uintah & Ouray Reservation; Navajo Nation; Ute Mountain Ute Tribe; Ute Mountain Ute Tribe – White Mesa Community; Pueblo of Zuni; and The Hopi Tribe.</p> <p>In January, Autumn Gillard, Paiute Indian Tribe of Utah Cultural Resources Manager, requested a meeting to discuss. This was held virtually on January 28, 2025. Autumn followed up with an email on February 3, 2025. Regarding Modena Canyon mine Autumn said the Tribe “will wait for cultural report to make a final assessment of the project.” Autumn reached out on March 6, 2025 seeking status and schedule for this project and resulting document and said she has comments she would like to submit on behalf of the Tribe. The draft cultural report was provided to Autumn on May 6, 2025. BLM touched base with Autumn on June 10, 2025 to seek comments on the report prior to SHPO consultation. Autumn replied on June 13, 2025 and said she would provide “additional comments to the NEPA document.”</p> <p>On January 6, 2025, Stewart B. Koyiyumptewa, Hopi Tribal Historic Preservation Officer, requested a meeting to discuss this and other projects in the letter. During the meeting on January 31, 2025, Stewart stated that all lithic scatters, regardless of National Register eligibility are significant to the Hopi, as they are the footprint of their ancestors and future generations can learn from these sites. However, if sites (including not eligible lithics scatters) are destroyed by projects this would be impactful. He recommended all lithics scatters be avoided or moved. At least one lithic scatter is present within the APE. This site is determined not eligible by BLM and SHPO and is afforded no additional protections under the National Historic Preservation Act. It would be destroyed by the proposed gravel pit. Moving the site is also not an option. If alternatives to a gravel source are available, this would be preferable for the Tribes.</p> <p>All projects within southern Utah and neighboring states have potential to impact Southern Paiute Traditional Ecological Knowledge pathway for the Salt Song Trail. Per unrelated consultation with other Southern Paiute Tribes, the impact to this pathway should be considered and Tribes should be provided the opportunity to bless an area prior to project implementation.</p> <p>No additional responses were received from other Tribes as of June 16, 2025.</p> <p>Consultation is ongoing and it is currently unknown how or if this proposed action would limit access or impede the ceremonial use of known Indian sacred sites or if it would adversely affect the integrity off any known sacred sites.</p>	J. LaValley	6/16/2025
----	---------------------------------------	--	-------------	-----------

Determination	Resource	Rationale for Determination	Signature	Date
NI	Paleontology	The surficial geology of the proposed project area consists of bedrock outcrops of Tertiary (Miocene) age volcanics. Using the Bureau's Potential Fossil Yield Classification System, the volcanics fall within Class 1, No Potential for fossil resources. In the proposed sand and gravel pit, the potential for fossils is also considered Low to No Potential as surficial geology is Quaternary stream alluvium.	Edgardo Covarrubias	6/16/2025
NI	Rangeland Health Standards	The proposed project includes 25 acres within the Modena Canyon allotment that consists of 23,603 acres. The proposed area currently consists of dense pinyon/juniper forest that would be reclaimed to shrubs and grasses following reclamation. The scale of the project would not impact overall Rangeland Health Standards for the entire Modena Canyon grazing allotment.	M. Bayles	11/5/2024
NI	Recreation	Recreation use in the project area mainly consists of dispersed OHV use. Other forms of dispersed recreation such as rockhounding and geocaching occur near the project area, but these uses are limited. Some recreational users may drive past the project area en route to the White Rocks Wilderness Study Area; however, the visual exposure to the project area at driving speeds would likely be 60 seconds or less. Recreation would not be impacted due to the size of the project area and recreation opportunities that exist surrounding the project area.	M. Innes	11/5/2024
NI	Socio-Economics	While the mining operations would provide employment, much of the labor would be supplied by employees of Progressive Contracting, Inc. and travel from the St. George metropolitan area to the project location. Therefore, there would be no adverse or beneficial socio-economic impact to the local population of Modena.	R. Oberhelman	6/16/2025
NI	Soils	<p>25 acres of surface and subsurface soil would be incrementally removed as part of the proposed mining operations. Reclamation activities are scheduled to occur on an annual basis in accordance with the reclamation schedule outlined in Exhibit 1 of the Surface Management Operations (SMO) Plan.</p> <p>Potential impacts to soil resources would be mitigated by adhering to the reclamation schedule and implementing the CCFO Reclamation Standards and Operating Practices (see Appendices). These measures are designed to minimize erosion, stabilize disturbed areas, and promote revegetation.</p> <p>Determination: <i>NI (Not Impacted)</i> – No significant impacts to soil resources are anticipated if the proposed reclamation practices are followed.</p>	M. Bayles	6/16/2025

Determination	Resource	Rationale for Determination	Signature	Date
NI	Sound/Noise	<p>The EPA has identified a 24-hour exposure level of 70 dBA as the level of environmental noise to prevent any measurable hearing loss over a person's lifetime (EPA 1974). Likewise, daily community noise levels of 55 decibels outdoors and 45 decibels indoors are identified as preventing activity interference and annoyance. The levels are not single event impulse, or "peak" noise levels. Instead, they represent averages of acoustic energy over periods of time such as 8 hours or 24 hours, and over long periods of time such as years. The 55 dBA threshold is generally recognized as a level below which no public health or safety risks to the general population would be anticipated to occur. To prevent hearing loss due to impulse noise, the EPA's identified threshold is 145 dB for one impulse noise event daily (EPA 1974). Additionally, impulses exceeding the background noise by more than about 10 dB are potentially startling or sleep-disturbing.</p> <p>There would be no blasting resulting from the Proposed Action as hydraulic removal of material is specified as the sole method of material removal. Mining operations would be in compliance with permissible noise exposures for occupational safety as described in 29 CFR 1910.95, which is 115 dBA for the shortest exposure duration. This is below the EPA threshold of 145 dBA for impulse noises. Offsite impacts are anticipated to be less as sound levels decrease by 6 dBA with every doubling of distance from the noise source. The nearest occupied building is approximately two miles from the Proposed Action, and separated by hilly to mountainous topography, as the crow flies. As a result, noise levels from mining operations are expected to drop below 55 dBA at areas populated by the general public.</p>	R. Oberhelman	6/16/2025
NP	Special Status Plants	<p><i>Astragalus oophorus</i> var. <i>lonchocarpus</i> (Pink-egg milkvetch) is a BLM Sensitive Species documented in recent surveys north of the project area in Hamlin Valley. Although the species has not been identified within the immediate project footprint, potential habitat may be present.</p> <p><i>Spiranthes diluvialis</i> (Ute ladies'-tresses) is currently classified as threatened under the Endangered Species Act, although it is currently proposed for delisting. Potential habitat based on modeling showed up on the U.S. FWS IPAC report.</p> <p>A site-specific survey would be conducted by the BLM prior to any ground-disturbing activities. If the species is detected, appropriate design features and mitigation measures would be incorporated into the Environmental Assessment (EA) to avoid or minimize potential impacts.</p> <p>Determination: <i>NP (Not Present)</i> – A site survey was completed on June 24, 2025, within the proposed project area. No Special Status Species were found.</p>	M. Bayles	6/25/2025

Determination	Resource	Rationale for Determination	Signature	Date
NI	Vegetation	<p>25 acres of surface and subsurface soil would be incrementally removed as part of the proposed mining operations. Reclamation activities are scheduled to occur on an annual basis in accordance with the reclamation schedule outlined in Exhibit 1 of the Surface Management Operations (SMO) Plan.</p> <p>Potential impacts to vegetation resources would be mitigated by adhering to the reclamation schedule and implementing the CCFO Reclamation Standards and Operating Practices (see Appendices). These measures are designed to minimize erosion, stabilize disturbed areas, and promote revegetation.</p> <p>Determination: <i>NI (Not Impacted)</i> – No significant impacts to vegetation resources are anticipated if the proposed reclamation practices are followed.</p>	M. Bayles	11/5/2024
NI	Visual Resources	The project area is in VRM Class IV. A Visual Contrast Rating Analysis was completed on 2/25/2025, which determined that the proposed action would meet Class IV objectives.	M. Innes	2/5/2025
NI	Wastes (hazardous or solid)	There are no known waste issues currently associated with the proposed project area. Use of construction equipment introduces a threat only if an unforeseen incident or malfunction occurs with the equipment. However, this threat is unlikely due to the probability and minimal quantities of product utilized. State and federal regulation governs the use, storage and disposal of any wastes. In addition, should an unforeseen incident occur, reporting and mitigation is required.	T. Carlson	11/12/2024
NI	Water Resources/Quality (drinking/surface/ground)	The proposed action would likely have minimal effect on water resources; however, a SWPPP should be developed and approved by BLM prior to project implementation.	Mike Moulton	6/26/2025
NI	Wetlands/Riparian Zones	There are no areas with riparian characteristics within the project area.	Mike Moulton	6/26/2025
NP	Wild and Scenic Rivers	There are no wild and scenic rivers in the CCFO.	M. Innes	11/5/2024
NP	Wilderness/WSA	The White Rock WSA is 16 miles away and would not be impacted by the proposed action.	M. Innes	11/5/2024
NI	Wild Horses	The proposed action encompasses 20 acres along the county road in Modena Canyon and is just outside the east edge of the Mt. Elinor HMA. Although horses do move through the area, the proposed action is not within the Herd Management Area and would not hinder their ability to move around and access water and forage. No impact to wild horses is anticipated. Livestock design features requiring fencing to exclude wild horses from the active mine site are adequate to minimize impact and potential injury to wild horses.	R. Reese	6/3/2025

Determination	Resource	Rationale for Determination	Signature	Date
NI	Wildlife & Fish	<p>The proposed action is within mule deer and elk year-long substantial habitats. Migration corridors for mule deer in the area are considered to be low use. The south pit area is also within proximity to year-long pronghorn and wild turkey habitat.</p> <p>Avoid initial surface disturbances in mule deer and elk habitat Dec 1 to Apr 30.</p> <p>There are no fisheries within or reasonably near the proposed mine, gravel pit, an existing county road. There would be no significant impacts to general wildlife and fish species from the overall proposed project if wildlife design features are followed.</p>	D. Schaible	6/20/25
NP	Wildlife - Greater Sage-Grouse	The project is not within GRSG habitat.	K. Willardson	6/2/2025
NI	Wildlife – Migratory Birds	<p>Various migratory bird species utilize the proposed areas for the mine, gravel pit, stream cleanout, and road maintenance, including the pinyon jay, black-throated gray warbler, gray vireo, blue-gray gnatcatcher, and sage thrasher. It is estimated that approximately 24.5 acres of migratory bird habitat would be lost due to the proposed mine and gravel pit until reclamation actions can be implemented following the completion of mining activities, which is expected to occur at an undetermined date in the future.</p> <p>To avoid or minimize impacts to migratory birds, project disturbance activities should be scheduled outside of the nesting season (January 1 – August 31) whenever possible. If this is not feasible, habitat alteration, removal, or destruction should be avoided during the primary nesting season for migratory birds (March 1 – July 31). If any ground disturbance activities must occur during the migratory bird nesting season, nesting surveys would be conducted by a qualified biologist. Active nests would be subject to appropriate buffers and seasonal timing restrictions. Buffers and seasonal timing restrictions for raptors would adhere to the USFWS's Utah Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances (USFWS 2002).</p> <p>Additional design features to avoid and minimize impacts to migratory birds from mining operations would be implemented (see design features for a complete list of migratory bird stipulations).</p> <p>The maintenance of the existing Modena Canyon Road is not anticipated to have significant impacts on migratory birds, as the road lies within previously disturbed areas.</p>	D. Christensen	6/16/2025

Determination	Resource	Rationale for Determination	Signature	Date
NI	Wildlife-Special Status (not TEC)	<p>BLM Utah wildlife sensitive species that may occur in the proposed mine, gravel pit, stream cleanout, and road maintenance areas according to GIS analysis include bald eagle, burrowing owl, ferruginous hawk, northern goshawk, short-eared owl, ferruginous hawk, golden eagle, western bumblebee, big free-tailed bat, fringed myotis, spotted bat, Townsend's big-eared bat, western red bat, and pygmy rabbit.</p> <p>Potential suitable habitat for the burrowing owl and pygmy rabbit exists along the existing Modena Canyon Road. While this road would be maintained, no new ground disturbance would occur, and therefore, no impacts to the burrowing owl or pygmy rabbit are expected.</p> <p>Additionally, no impacts to other sensitive wildlife species are anticipated if design features are implemented to avoid and minimize impacts through seasonal timing restrictions, avoidance buffers, and surveys (see attached design features for pygmy rabbit, burrowing owl, and migratory birds).</p>	D. Schaible	6/20/2025
NI	Wildlife T&E and Candidate	<p>There is no designated critical habitat for threatened and endangered (T&E) species within or in close proximity to the proposed mine and gravel pit. According to the U.S. Fish and Wildlife Service's Information for Planning and Consultation (IPaC), the only threatened, endangered, or candidate wildlife species that could be impacted by the proposed project are the monarch butterfly (proposed threatened) and Suckley's cuckoo bumble bee (proposed endangered). The project areas may provide foraging and nectaring habitat for both species; however, there is no breeding habitat present, as milkweed plant species necessary for the monarch butterfly are absent. Applicable conservation measures from the USFWS's Western Monarch Butterfly Conservation Recommendations would be implemented. Furthermore, the maintenance of Hamblin Valley Road is not expected to impact the monarch butterfly or Suckley's cuckoo bumble bee, as the road is a primary county road situated within previously disturbed areas.</p>	D. Christensen	6/16/2025
NI	Woodland / Forestry	<p>Removal of pinyon-juniper would be minimal for this project. However, in accordance with 43 Code of Federal Regulation (CFR) 2805.15c and 5462.2(b)(1), a permit would be required for the removal and disposal of vegetative resources on Bureau of Land Management (BLM) Lands. BLM would issue a Contract for the Sale of Vegetation Resources.</p>	C. Peterson	6/3/2024

FINAL REVIEW:

Reviewer Title	Signature	Date	Comments
Environmental Coordinator			
Authorized Officer			

Appendix E. Cedar City Field Office Standard Operating Practices and Reclamation Standards

Appendix F. Comments and Responses