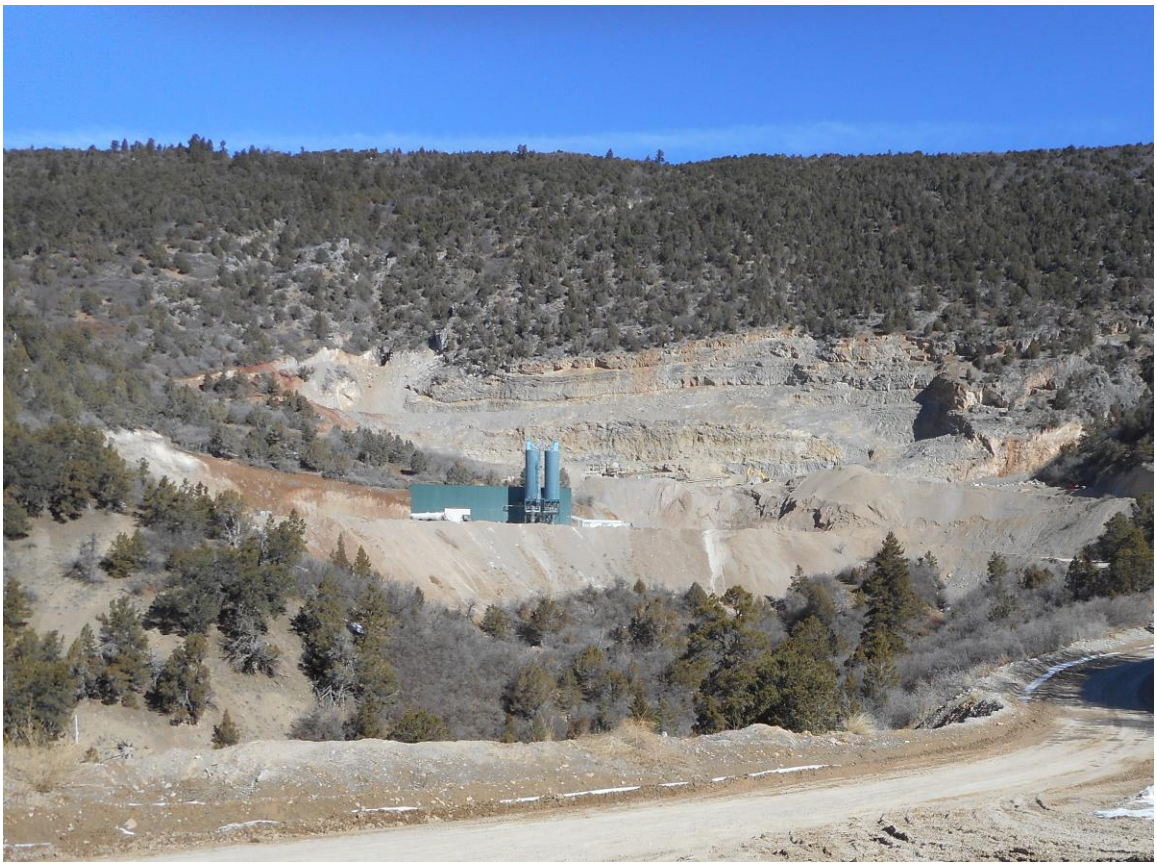
CATEGORICAL EXCLUSION
DOI-BLM-CO-N040-2018-0072-CX

RMR Aggregates Mid-Continent Quarry
Mineral Material Exploration, Sampling, and Testing Authorization



Prepared by:

United States Department of the Interior
Bureau of Land Management
Colorado River Valley Field Office
2300 River Frontage Road
Silt, Colorado 81652

BLM

Colorado River Valley Field Office • COLORADO

PROJECT NAME/PROPOSED ACTION

RMR Aggregates Mid-Continent Quarry Mineral Material Exploration, Sampling, and Testing Authorization.

PERMIT/SERIAL/CASE FILE NUMBER

Serial Number COC-078934.

LOCATION

Mid-Continent Quarry, north of Glenwood Springs, Colorado. T5S, R89W, Section 36, SE/4, 6th P.M.

DESCRIPTION OF PROPOSED ACTION

RMR Aggregates, dba Rocky Mountain Resources, (RMR) is requesting permission from the Bureau of Land Management (BLM) to proceed with drilling for the purpose of mineral material exploration, sampling, and testing within the Mid-Continent Quarry north of Glenwood Springs, Colorado. The purpose of the request is to gain a better understanding of the dolomite deposit located beneath the limestone deposit that the operator is currently mining. The potential future use of the dolomite would be for common variety end use purposes subject to the salable laws, 43 CFR §3600.

Location:
The proposed location for the drilling is within the currently disturbed area of the Mid-Continent Quarry operation. RMR proposes three drilling areas within the existing surface disturbance. Two drilling areas are located on the current mining bench to the northeast of the crushing operation (Drilling Locations 1 & 2 on the location map, Appendix A). The third drilling area is located on the bench directly above the mining bench and to the west of crushing operation (Drilling Location 3 on the location map, Appendix A). Three different areas are requested for flexibility in drilling; should one area not return significant dolomite in a core hole, another area could be drilled. The location map (Appendix A) depicts the center points of the three areas and includes their coordinates. RMR Aggregates is requesting permission to drill within a 50-foot radius of the center points. The total size of each drilling pad will be no greater than 50-feet by 50-feet.

Drill Hole Quantity and Dimensions:
Within the drilling locations, RMR is requesting permission to drill up to 15 holes. Each drill hole would have an outside diameter between 2.5 inches and 6.5 inches. The total depth of each hole would be no deeper than 200-feet. The holes would be drilled on one or more of the three drilling locations described in the "Location" section. All drill holes could be drilled from one location if the rock formation quality and depth allow. In any case, the sum of the holes drilled on the three locations will not exceed 15. The holes would be drilled with a combination of

reverse circulation and core drilling techniques. RMR's goal is to retrieve 2000 pounds of dolomite core and would also retrieve some limestone core from the overlying limestone layer that is currently being mined.

Equipment and Coring Technique:
The equipment RMR proposes to use for drilling would either be a diesel-hydraulic Ingetrol 75F trailer mounted drill or a similar drill mounted on a rubber-tired flat-bed truck. Other equipment on-site at the time of the drilling would include a 4x4 truck, a small compressor, one or two 500 to 1000 gallon water tanks, and a 100 gallon fuel tank on the drill trailer. Core drilling would be performed using fresh water delivered to the site and placed within a pre-existing 2500 gallon storage tank.

Drilling would be accomplished using two methods: Air/rotary techniques through the limestone horizon (limestone will also be spot-cored for testing samples) and coring techniques using wireline tooling and HQ (or similarly sized) coring tools.

Fuel and Lubricants:
Fuel will be stored in individual tanks on either the truck or the trailer. Equipment lubricants will be contained within the equipment they are lubricating. Any grease or small lubricant containers will be contained within the truck or secured on the drill trailer.

In the case of a fuel or lubricant spill, the spill will be contained with an earthen berm or absorbent booms, and absorbed using pads, powders, or dry earthen material. Contaminated products and soiled earth will be disposed of at an authorized facility in accordance with local, state, and federal regulations. Garfield County Landfill is one such authorized facility.

Water Management, Cuttings Management, and Erosion Control:
Drilling operations will be conducted using both wet and dry drilling techniques. Dry techniques (air and rotary) will produce cuttings at the collar of the drill hole. These cuttings will be kept at the collar or shoveled a few feet away from the collar. Cuttings will be kept and used for plugging the drill holes. Wet coring will employ the use of water to lubricate and cool the core drilling bit. Prior to the coring of a hole, a steel casing sleeve will be installed in the top section of the drill hole. The casing will extend down into the hole a few feet and will extend out of the hole a few feet as well. The casing above the surface will have an outlet on one side to allow returned water and cuttings to flow out of the casing in a controlled manner. The flow of returned water and cuttings will be directed into a holding tank with a volume of 500-1000 gallons. The water and cuttings will be allowed to settle in this tank and fill it to the level of an outlet in the side of the tank. Once the water level reaches the tank outlet, it will flow into a second 500-1000 gallon tank, where the water and cutting fines will have additional time to settle and separate. Water in the second tank will be pumped out of the upper portion of the tank and recirculated down the drill hole as clean water for the coring process. Water remaining in the settling tanks after the drilling process will be allowed to settle further and then pumped back into the 2500 gallon storage tank on site for use in mining operations and dust abatement. Drill cuttings and fines in the settling tanks will be emptied onto the ground near the drilling site and will either be used to plug the drill holes or will be disposed of in the fines pile on the northeast corner of the current mill bench area.

Erosion is not expected to be an issue on site since the water from the drilling process will either be recirculated in the drilling process or will be returned to the water storage tank on site. Should water escape from any tank or containment location, it will be contained within an earthen berm. Dry earth may be added to the water to absorb it. Wet material will be removed and stockpiled on the northeast corner of our current bench area.

Drilling Schedule:
Drilling will be performed over the course of 10 days on the quarry site. Drilling will take place Monday – Friday between 7am and 7pm. The crew on site will consist of one senior driller, a driller helper, and a geologist or geological engineer.

Open Drill Holes:
During the drilling operation, all drill holes at the active drill pad will remain open. Depending upon the number of holes drilled on each pad location, the number of drill holes open at one time will range from 1-15. Open holes will be temporarily plugged with a capped piece of PVC pipe 4 feet in length. The pipe will be inserted into the hole a distance sufficient to keep it securely in place and the exposed end will protrude above the surface at least 2 feet. Drilling locations containing open drill holes (temporarily plugged with PVC pipes) will be marked with traffic cones and sectioned off with yellow caution tape when drilling personnel are not on site. This includes the time between shifts, weekends, and any time following the completion of the drilling operations.

A total of three drill holes may be kept open for the purposes of geotechnical analysis for a period of 90 days from the approval of the exploration drilling request. These holes will remain temporarily plugged with a 4-foot piece of capped PVC pipe and marked with high visibility traffic cones and caution tape until geotechnical analysis has been performed or the 90-day time limit has been reached. Once the drilling rig completes drilling operations at a pad location, the open holes will be plugged before moving to the next pad location, except for those holes left open for geotechnical analysis.

Plugging and Reclamation:
After drilling is complete, the drill holes not left open for geotechnical analysis will be promptly plugged and reclaimed in accordance with BLM H-3042-1, Chapter 5. Drill holes without any water present will be backfilled with cuttings and capped with a non-metallic plug and 3-feet of concrete. Cuttings will then be spread across the top of the drill hole. Should static water be encountered in any of the holes, they will be backfilled with bentonite pellets to a height of 50-feet above the static water level and then filled with cuttings to a height of 3-feet below surface level. A non-metallic plug will be installed and the hole will be capped with 3-feet of concrete. Cuttings will then be spread across the top of the drill hole. Artesian water is not expected in the drill holes. Should it be encountered, the drill hole will be filled with bentonite pellets or concrete to a height of 3-feet below the surface level; a non-metallic plug will be installed; the hole will be capped with 3-feet of concrete; and cuttings will then be spread across the top of the drill hole.

Final surface regrading, top soiling, or planting of the drilling areas will not be performed as the drill holes are in the active mining area and will be mined through within the next few years.

Rock Testing:
RMR plans to perform several tests on the rock samples including:

- UCS testing on core samples
- XRF testing on core and chip samples
- Rock properties testing on crushed core samples

RMR will submit the findings of any testing to BLM.

LAND USE PLAN CONFORMANCE

The proposed action is subject to, and has been reviewed for, conformance with this plan (43 CFR 1610.5, BLM 1617.3).

Name of Plan: Colorado River Valley Field Office (CRVFO) Record of Decision (ROD) and Approved Resource Management Plan (RMP).

Date Approved: June 2015

Decision Number/Page: Decision Number MIN-MA-06. *Salable Minerals/Mineral Materials*. Page 113.

Decision Language. Open 342,700 acres of BLM surface estate to salable/mineral materials disposal, except for those identified below, which would be closed (162,500 acres) to disposal:

- WSAs
- ACECs
- SRMAs
- Developed recreation sites
- Lands managed for the protection of wilderness characteristics
- Municipal watersheds
- Two Deep Creek segments found suitable for inclusion in the NWSRS.

COMPLIANCE WITH NEPA

The proposed action qualifies as a categorical exclusion under 516 DM 11, Appendix 4, Section F. Solid Minerals.

9. Digging of exploratory trenches for mineral materials, except in riparian areas.

This categorical exclusion is appropriate in this situation because there are no extraordinary circumstances potentially having effects that may significantly affect the environment. The proposed action has been reviewed, and none of the extraordinary circumstances described in 516 DM 2 apply.

Table 2. Exclusions.

EXCLUSIONS	YES	NO
1. Have significant impacts on public health or safety.		
Rationale. This action is within the existing disturbance area of the mine and there is no data or known issue to suggest that this action will have a significant impact on public health or safety.		**X**
2. Have significant impacts on such natural resources and unique geographic characteristics as historic or cultural resources; park, recreation or refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands (Executive Order 11990); floodplains (Executive Order 11988); national monuments; migratory birds; and other ecologically significant or critical areas.		
Rationale. The proposed drill holes are within previously disturbed areas of the active mine that have been inventoried for cultural resources. No cultural resources have been documented within the proposed project area and a determination of *No Historic Properties Affected* has been given to the project. An interdisciplinary team has reviewed the resources of the human environment and other resources. No adverse impacts to natural resources and unique geographic characteristics are anticipated to occur.		**X**
3. Have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources [NEPA Section 102(2)(E)].		
Rationale. There are no highly controversial environmental effects or unresolved conflicts concerning alternative uses of available resources. The proposed exploratory drilling is to occur within existing mine disturbance.		**X**
4. Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks.		
Rationale. The proposed action is to occur within the existing mine disturbance; therefore, there is no highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks.		**X**
5. Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects.		
Rationale. Based on similar previous decisions there is nothing in the proposed action that would establish a precedent for future action or represent a decision in principal about future actions with potentially significant environmental effects. This action will inform future actions; however, it would not place any obligations on future decisions. The exploratory drill holes would inform the operator of the mineral deposits within the existing, permitted mine area.		**X**

EXCLUSIONS	YES	NO
6. Have a direct relationship to other actions with individually insignificant but cumulatively significant environmental effects.		
Rationale. Implementation does not have any known direct relationship to other actions with individually insignificant but cumulatively significant environmental effects.		**X**
7. Have significant impacts on properties listed, or eligible for listing, on the National Register of Historic Places as determined by either the bureau or office.		
Rationale. There are no documented historic properties located within the proposed project area. Mitigation is included if subsurface cultural values are discovered.		**X**
8. Have significant impacts on species listed, or proposed to be listed, on the List of Endangered or Threatened Species, or have significant impacts on designated Critical Habitat for these species.		
Rationale. There is no habitat for Threatened or Endangered plant or wildlife species within the proposed action area.		**X**
9. Violate a Federal law, or a State, local, or tribal law or requirement imposed for the protection of the environment.		
Rationale. The proposed action is required to be in compliance with Federal, State and local laws.		**X**
10. Have a disproportionately high and adverse effect on low income or minority populations (Executive Order 12898).		
Rationale. The proposed action would have no effect on low income or minority populations.		**X**
11. Limit access to and ceremonial use of Indian sacred sites on Federal lands by Indian religious practitioners or significantly adversely affect the physical integrity of such sacred sites (Executive Order 13007).		
Rationale. No sacred or sensitive sites are known within the project area. The proposed action will not limit access to, or interfere with ceremonial use of sacred sites; nor, will it adversely impact the integrity of such known sites.		**X**
12. Contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of such species (Federal Noxious Weed Control Act and Executive Order 13112).		**X**

EXCLUSIONS	YES	NO
Rationale. The Mid-Continent Quarry is an existing operation. Considering the amount of existing surface disturbance within the area, this action is not expected to create conditions that would measurably change the: (1) number of known invasive plant species, (2) rate of introduction, (3) continued existence, or (4) spread of noxious weeds or invasive plant species.		

INTERDISCIPLINARY REVIEW

Table 3. BLM Interdisciplinary Team Authors and Reviewers

Name	Title	Area of Responsibility
Jessica Lopez Pearce	Geologist	Geology, Minerals, Paleontology
Kimberly Leitzinger	Outdoor Recreation Planner	Cave/Karst, Wild and Scenic Rivers and Wilderness
Erin Leifeld	Archaeologist	Cultural Resources and Native American Religious Concerns
Carla DeYoung	Ecologist	ACECs; T/E/S Plants; Vegetation; Wetlands & Riparian Zones; Land Health Standards
Hilary Boyd	Wildlife Biologist	Aquatic and Terrestrial Wildlife Including T/E/S and Migratory Birds
Chad Mickschl	Hydrologist	Soils, Water, Air
Wendy Huber	Planning and Environmental Coordinator	NEPA Compliance

REMARKS

1. Cultural Resources and Native American Religious Discovery Stipulations

Cultural Resource Discovery Stipulation

If subsurface cultural values are uncovered during operations, all work in the vicinity of the resource will cease and the authorized officer with the BLM notified immediately. The operator shall take any additional measures requested by the BLM to protect discoveries until they can be adequately evaluated by the permitted archaeologist. Within 48 hours of the discovery, the State Historic Preservation Officer (SHPO) and consulting parties will be notified of the discovery and consultation will begin to determine an appropriate mitigation measure. BLM in cooperation with the operator will ensure that the discovery is protected from further disturbance until mitigation is completed. Operations may resume at the discovery site upon receipt of written instructions and authorization by the authorized officer.

Native American Human Remains Discovery Stipulation

Pursuant to 43 CFR 10.4(g), the holder must notify the authorized officer, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony on federal land. Further, pursuant to 43 CFR 10.4 (c) and (d), the holder must stop activities in the vicinity of the discovery that could adversely affect the discovery. The holder shall make a reasonable effort to protect the human remains, funerary items, sacred objects, or objects of cultural patrimony for a period of thirty days after written notice is provided to the authorized officer, or until the authorized officer has issued a written notice to proceed, whichever occurs first.

2. Cave and Karst Survey

A cave and karst geophysical (electrical resistivity tomography and seismic refraction tomography) survey was conducted within the project area by Collier Consulting on July 24 and 25, 2018. The report was reviewed by CRVFO and the BLM Colorado State Office and subsequently accepted on October 9, 2018. The survey report indicated five areas of anomalous resistivity zones and related seismic velocities. These features include:

- a small zone of high resistivity and low seismic velocity, which indicates a high probability of small air-filled voids;
- a zone of high resistivity and high seismic velocity, which indicates the presence of dense, competent rock;
- two zones of low resistivity and high seismic velocity that extend beyond the survey area, which indicates competent rock other than dense, hard limestone;
- a discontinuous zone of low resistivity and low seismic velocity, which indicates potential karst related clay-filled solution features, fractures, or voids and may also indicate the presence of weathered rock.

None of these features were located beneath the drilling locations. Overall, zones of high resistivity suggesting zones of dissolution that have not completely formed into open conduits and a lack of low-P-wave velocity profiles indicate no emplaced conduits or surface karst features.

MITIGATION

The following mitigation will be carried forward within the authorization letter as stipulations:

1. The Colorado River Valley Field Office will be notified at least 48 hours prior to the beginning of the field work of the mineral materials testing program.

2. Trash will be collected and contained and will not be allowed to accumulate. All trash will be hauled to an authorized city or county dump or landfill.

3. The operator shall implement dust abatement measures as needed to prevent fugitive dust from vehicle traffic and onsite operations. BLM may direct the operator to change the level and type of treatment if dust abatement measures are insufficient.

4. The well bore must be drilled either vertically or perpendicular to bedding from surface to total depth (TD).

5. All lost circulation zones from the surface to total depth will be logged and reported in the drilling report.

   Regardless of the type of drilling machinery used, if a void of four feet or more and circulation losses greater than 70 percent occur simultaneously while drilling in any cave-bearing zone, the BLM will be notified immediately by the operator. The BLM will assess the situation and work with the operator on corrective actions to resolve the problem.

6. Fresh water will be used as a circulating medium in zones where caves or karst features may occur; no drilling lubricants are authorized.

7. RMR Aggregates shall take care to ensure that no oil, fuel, or lubricants are discharged onto the ground during drilling operations. Any spills or discharges shall be immediately reported to the BLM, followed by prompt cleanup and remediation.

8. Standard secondary containment shall hold 110% of the capacity the largest single tank it contains and be impervious to any oil, glycol, produced water, or other toxic fluid for 72 hours.

9. All tanks with a capacity of ten (10) barrels or greater shall be labeled or posted with the following information: A. Name of operator; B. Operator's emergency contact telephone number; C. Tank capacity; D. Tank contents; and E. National Fire Protection Association (NFPA) Label. Smaller chemical storage shall be labeled with contents and NFPA label.

10. All open top tanks, catchments or secondary containment vessels will be equipped with sturdy metal screening to prevent access to wildlife of all sizes to prevent entrapment and drowning of small wildlife.

11. Sample splits and a report of the results of the tests, including both a map showing the location of the drill holes and a table containing the coordinates of the drill holes will be submitted within 30 days of completion of the testing program to the Colorado River Valley Field Office (43 CFR 3601.30 (b)). RMR Aggregates is allowed to identify that information which is believed to be exempt from disclosure under the Freedom of Information Act. (See 43 CFR Section 2.11.)

12. RMR Aggregates must be in compliance with all applicable federal, state and local laws and regulations. RMR Aggregates must obtain all appropriate federal, state and local authorizations and permits, including well permits from Colorado Division of Water Resources (CO-DWR).

13. Abandonment of the exploratory drill holes shall be done according to CO-DWR standards.

SUMMARY OF FINDINGS

I have reviewed the categorical exclusion and have determined that none of the Departmental exclusions (extraordinary circumstances) listed above apply to this action and the action is categorically excluded from further National Environmental Policy Act (NEPA) documentation in accordance with 516 DM 11, Appendix 4, Section F. Solid Minerals.

Signature of Authorizing Official: _____ Date: 10/12/2018

Gloria Tibbetts
Acting Field Manager

Contact Person. For additional information concerning this CX review, contact Jessica Lopez Pearce, Geologist, Colorado River Valley Field Office, 2300 River Frontage Road, Silt, CO 81652, (970) 876-9018.

APPENDIX A. FIGURES

Drilling Location #1	Drilling Location #2	Drilling Location #3
Latitude: 39.569923°	Latitude: 39.569692°	Latitude: 39.569583°
Longitude: -107.323431°	Longitude: -107.322388°	Longitude: -107.321267°

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Colorado River Valley Field Office
2300 River Frontage Road
Silt, Colorado 81652

IN REPLY REFER TO:
CON040 – 8371

DECISION RECORD
FOR
DOI-BLM-CO-N040-2018-0072-CX

RMR Aggregates Mid-Continent Quarry
Mineral Material Exploration, Sampling, and Testing Authorization

Decision
It is my decision to implement the Proposed Action, as described in DOI-BLM-N040-2018-0072-CX, authorizing RMR Aggregates to conduct mineral material exploration activities within the existing Mid-Continent Quarry. Exploration activities include the drilling of up to 15 drill holes, each no more than 200 feet deep, within three possible areas inside the existing disturbance of the quarry. The BLM has authority to grant such an authorization in accordance with 30 U.S.C. 601 et seq., 43 U.S.C. 1732, and 43 CFR §3600.

Rationale for Decision
The action is in conformance with the 2015 Colorado River Valley Field Office Approved Resource Management Plan, which provides opportunities for development of locatable minerals, mineral materials, and non-energy leasable minerals while preventing unnecessary and undue degradation..

A stated objective of the Colorado River Valley Field Office is to "facilitate environmentally sound exploration and development of locatable minerals, salable minerals/mineral materials, and non-energy leasable minerals." This project, as described, authorizes the responsible exploration for a mineral materials source on public lands.

Appeals
Notice of the decision described in this categorical exclusion will be posted on the BLM's national register for land use planning and NEPA documents at https://www.blm.gov/epl-front-office/eplanning/lup/lup_register.do.

This decision shall take effect immediately upon the date it is signed by the Authorized Officer, and shall remain in effect while any appeal is pending unless the Interior Board of Land Appeals issues a stay (43 CFR 2801.10(b)). Any appeal of this decision must follow the procedures set forth in 43 CFR Part 4.

This decision may be appealed to the Interior Board of Land Appeals, Office of the Secretary, in accordance with the regulations contained in 43 CFR, Part 4, and the enclosed Form 1842-1. If an appeal is taken, your notice of appeal must be filed in this office (at the above address) within 30 days from receipt of this decision. The appellant has the burden of showing that the decision appealed from is in error.

If you wish to file a petition pursuant to regulation 43 CFR 4.21, for a stay of the effectiveness of this decision during the time that your appeal is being reviewed by the Board, the petition for a stay must accompany your notice of appeal. Copies of the notice of appeal and petition for a stay must also be submitted to each party named in this decision and to the Interior Board of Land Appeals and to the appropriate Office of the Solicitor (see 43 CFR 4.413), at the same time the original documents are filed with this office. If you request a stay, you have the burden of proof to demonstrate that a stay should be granted.

Standards for Obtaining a Stay

Except as otherwise provided by law or other pertinent regulation, a petition for a stay of a decision pending appeal shall show sufficient justification based on the following standards:

A. The relative harm to the parties if the stay is granted or denied,
B. The likelihood of the appellant's success on the merits,
C. The likelihood of immediate and irreparable harm if the stay is not granted, and
D. Whether the public interest favors granting the stay.

Authorizing Official: _____ Date: 12/12/2018

Gloria Tibbetts
Acting Field Manager