

**FINAL RECORD OF DECISION**  
**Federal Coal Lease Modifications COC-1362 & COC-67232**

**Paonia Ranger District**  
**Grand Mesa, Uncompahgre and Gunnison National Forests**  
**Gunnison County, Colorado**  
**Sections 10, 11, 14, 15, 22 and 23 of T. 14S., R. 90W., 6<sup>th</sup> PM**



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Date

## I. BACKGROUND

A Supplemental Final Environmental Impact Statement (SFEIS) for Federal Coal Lease Modifications COC-1362 & COC-67232 (including on-lease exploration plan) has been prepared by Grand Mesa, Uncompahgre and Gunnison National Forests (GMUG) in cooperation with:

- Uncompahgre Field Office of the Bureau of Land Management (BLM),
- Southwest District Office of the BLM
- Colorado State Office of the BLM,
- Western Region of the Office of Surface Mining, Reclamation and Enforcement (OSM), and
- Colorado Division of Reclamation, Mining and Safety (DRMS)

The SFEIS supplements the final EIS for coal lease modifications and incorporates and updates analysis from the BLM Environmental Assessment (EA) for the consideration of on-lease exploration. The EIS and EA were prepared in 2012 and 2013 respectively. Portions of the environmental analyses were found to be inadequate, *High Country Conservation Advocates v. United States Forest Service*, 52 F. Supp. 3d 1174 (D. Colo. 2014). The agency decisions, as well as the exception for temporary road building in the North Fork Coal Mining Area under the Colorado Roadless Rule, were vacated and enjoined by the Court. *High Country Conservation Advocates v. United States Forest Service*, 67 F. Supp. 3d 1262 (D. Colo. 2014). This SFEIS was prepared to address Court-identified deficiencies and to incorporate new information and policies since 2012. The SFEIS incorporates analysis and disclosure of proposed on-lease exploration and analyzes and discloses the impacts of modifying federal coal leases COC-1362 and COC-67232 in response to applications received by the BLM Colorado State Office.

On February 04, 2015, the Forest Service received a request from the BLM to resume analysis of proposed modifications and stipulations to COC-1362 containing about 800 acres, and COC-67232, containing about 920<sup>1</sup> acres. Coal in the existing leases is mined at the West Elk Mine near Somerset, Colorado. Lease COC-67232 is held by Ark Land LLC (Ark), and lease COC-1362 is held by Mountain Coal Company (MCC). The applications were made to ensure that compliant and super-compliant coal reserves are recovered and not bypassed. These applications are being processed according to procedures set forth in 43 CFR 3432.

The coal lease modification areas lie in portions of sections 10, 11, 14, 15, 22 and 23 of T. 14S., R. 90W., 6<sup>th</sup> PM in Gunnison County, Colorado. The modification areas are within National Forest System (NFS) lands managed by the GMUG. The coal estate is administered by the BLM.

The BLM is required by law to consider leasing Federally-owned minerals for economic recovery. With respect to NFS lands, the Forest Service considers whether or not to consent to the BLM leasing coal reserves underlying NFS lands and prescribes stipulations for the protection of non-mineral surface resources.

Within the lease modification areas, the coal would be accessed and recovered by underground longwall mining methods from the existing West Elk Mine. The coal would

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<sup>1</sup> Certificates from Cadastral Land Description Reviews on 3/29/2012 and 5/10/2016 have revised this to 920 acres down from 921-922 acres.

be transported using the existing coal transportation system and surface facilities. At the leasing (or modification) stage, the federal agencies evaluate the effects of mining on non-mineral (surface) resources. This evaluation includes direct impacts resulting from expected subsidence (i.e. the elevation of the land surface over mined areas would slightly be reduced as a result of mining), and other foreseeable impacts to surface resources from mining related activities. Under a foreseeable mine plan scenario, surface impacts within these modification areas would include those from constructing methane drainage wells (MDWs) and associated access routes required to safely mine the coal resources. Methane gas is a byproduct of the process of mining coal using longwall systems. Methane concentrations in excess of 5% can be explosive, and thus must be removed to levels of 1% or less to meet safety standards, most commonly through methane drainage wells (MDWs) or methane vent bores. Specific locations of the MDWs and roads are not known at the leasing stage, and will not be known until specific mine plans are approved by DRMS, BLM, OSM, and the Mine Safety and Health Administration (MSHA) during the mine permitting process, subsequent to leasing. The surface impacts associated with mining were estimated to consider cumulative effects of leasing and are based on similar impacts from recent mining.

On July 3, 2012, the Colorado Roadless Rule (CRR) was promulgated and codified at 36 CFR Part 294. The CRR is now the controlling law and the 2001 Roadless Area Conservation Rule (RACR) no longer applies in Colorado. The State of Colorado and the Forest Service developed the CRR in partnership to create a balance between conserving roadless area characteristics for future generations and allowing limited management activities within roadless areas. The CRR includes an exception for temporary road construction within an area on the GMUG defined as the North Fork Coal Mining Area (NFCMA). This exemption was crafted to allow temporary roads needed for coal mining activities. These temporary roads would not have been allowed under the RACR, and the project proponent has said that absent these roads, coal mining would not occur. The portions of lease modification areas within the Sunset Colorado Roadless Area (CRA) are located within the NFCMA and are subject to the exception for temporary road construction. In 2014, the court severed and vacated the NFCMA exception. *High Country Conservation Advocates v. United States Forest Service*, 67 F. Supp. 3d 1262 (D. Colo. 2014). Following this, a Supplemental Environmental Impact Statement was prepared, and rulemaking "Roadless Area Conservation; National Forest System Lands in Colorado," was published in the *Federal Register* at 81 FR 91811 on December 19, 2016. This rule reinstated the NFCMA exception to the Colorado Roadless Rule and was effective April 17, 2017.

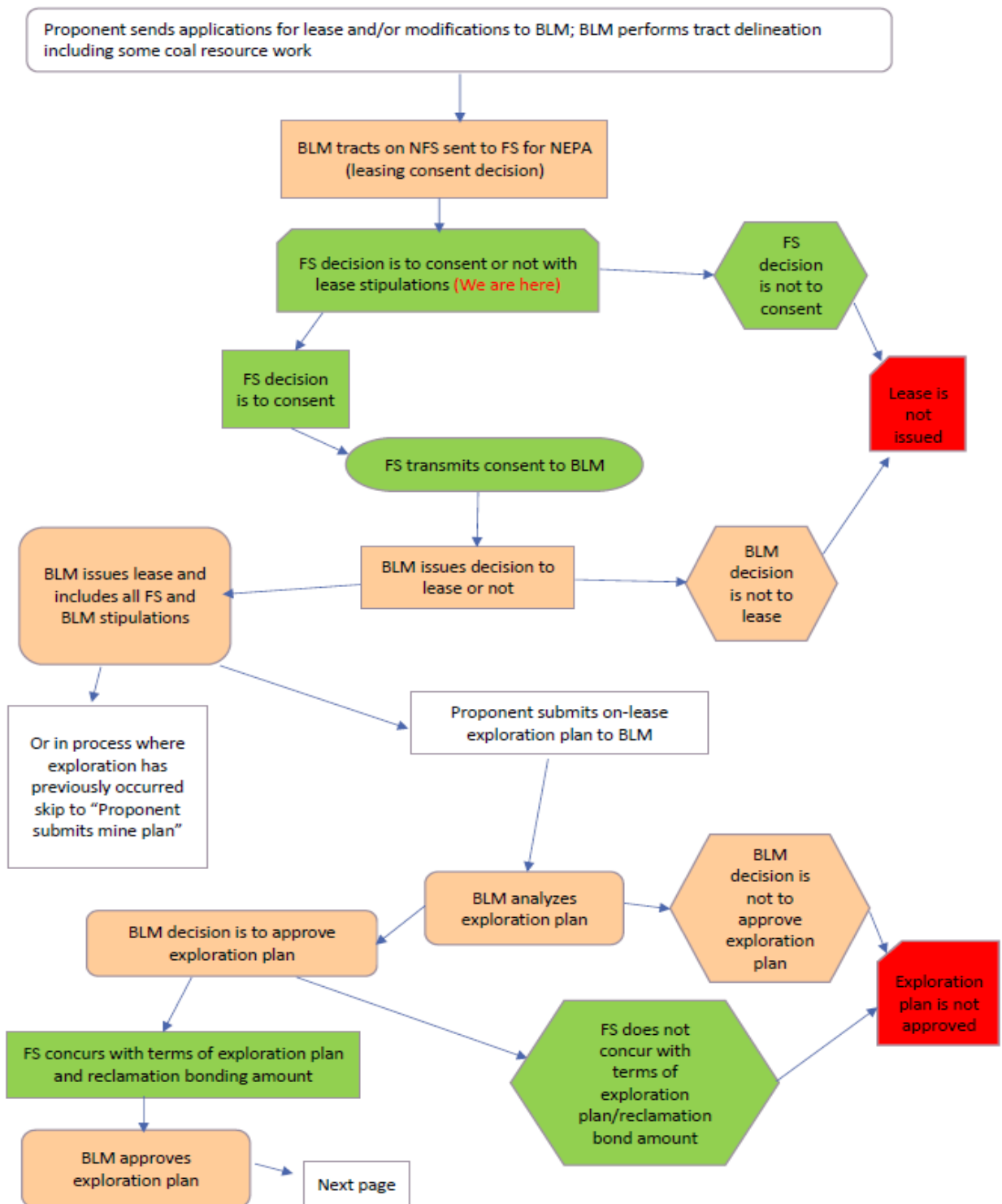
About 915 of the approximately 920 acres of the proposed modification to federal coal lease COC-67232, and about 786 of the approximately 800 acres of the proposed modification to federal coal lease COC-1362 are within the Sunset CRA. If the lease modifications are approved by BLM and coal mining is permitted by DRMS, temporary roads and tree cutting, as allowed by the CRR, will likely be used to construct, operate and maintain MDWs necessary for safety and incidental to underground mining.

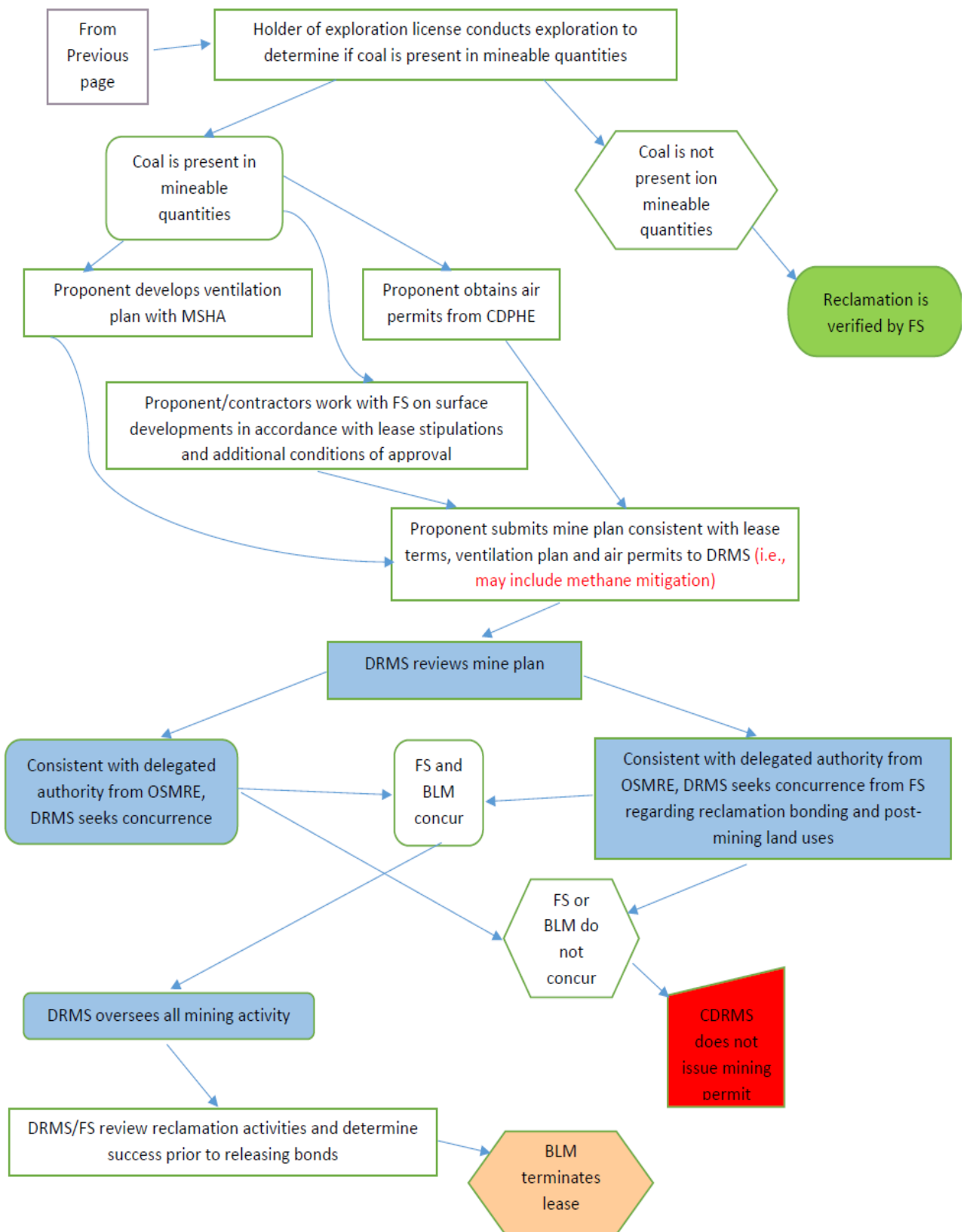
The NFCMA direction was developed in the CRR (36 CFR Part 294). In compliance with these requirements, all coal leases containing NFS lands and respective subsequent lease modifications contain standard lease notice language in accordance with Forest Service Manual (FSM) 2820 (SFEIS, Table 2-1); "The permittee/lessee must comply with all the rules and regulations of the Secretary of Agriculture set forth at Title 36, Chapter II, of the Code of Federal Regulations governing the use and management of the National Forest System (NFS) when not inconsistent with the rights granted by the Secretary of

Interior in the permit.” Lease stipulations have also been included that are specifically from the CRR. (SFEIS, Table 2-1)

It is important to understand that coal mining is a multi-staged process with multiple federal and state agencies involved. The consent to modifying leases does not authorize actual mining or surface disturbing activities. These activities, including lease modifications, mining operations and on-lease exploration, are handled in separate and sequential approval and permitting processes by appropriate state and federal agencies after the leases are modified; however, a projection of these possible post-leasing impacts has occurred and has been analyzed in the SFEIS and all previous documents.

As has become evident throughout the history of this leasing consent decision, the public does not understand this complicated process and it was recommended that I show the process described in the table and appendix of the SFEIS in layman’s terms in a flow chart. The requested flow chart follows.





With respect to modifying federal coal leases, the GMUG, as the surface managing agency, is responsible for:

- Deciding whether or not to consent to the BLM modifying existing Federal Coal Lease COC-1362 by adding 800 acres according to the Federal Coal Leasing Amendments Act of 1976;
- Deciding whether or not to consent to the BLM modifying existing Federal Coal Lease COC-67232 by adding 920 acres according to the Federal Coal Leasing Amendments Act of 1976; and
- If consent is provided, prescribing stipulations needed for the protection of non-mineral surface resources by determining if the existing stipulations on the respective parent leases are sufficient.
  - If they are sufficient, stipulations from the parent leases will be applied to lease modification areas.
  - If they are not sufficient, prescribe additional stipulations that will provide for the protection of non-mineral surface resources to comply with regulations, policy and Forest Plan direction (SFEIS, Table 2-1).

As shown in the above flowchart, the Forest's involvement in the process does not end with my current decision. There are several other points which require GMUG resource specialist assistance and review and my concurrence and/or identification of additional conditions of approval. Concurrence is not a NEPA decision subject to administrative review. There are also several other points during the permitting process where the public has the opportunity to weigh in.

## **II. DECISION AND REASON FOR THE DECISION**

### **Decision Process Summary**

I have decided to select Alternative 3, based on my consideration of: the purpose and need for the action; the issues; the GMUG Land and Resource Management Plan (LRMP) and associated amendments; current policies and regulations; the analysis of alternatives contained in the SFEIS; public comments received and other information in the project record.

I recognize that this is a complex decision, but it is one of many similar decisions made over decades of mining in the North Fork Valley. The vast amounts of technical information and analyses contained in the SFEIS can overshadow the relatively small scale of this decision. Many commenters continue to point out possible new ways to look at the decision, new types of analyses that should be used, new methods to mine, etc. At this point, I, as the decision maker must make a choice. I have been underground in the West Elk Mine. I have hiked and viewed areas where surface impacts and reclamation have occurred on parent leases and will occur under my decision. I have been responsible for overall Forest Management of the entire three million plus-acre Grand Mesa, Uncompahgre and Gunnison National Forests for over five years and have been involved in Public lands decision making for over 30 years. In making a decision such as this it would be easier if there were thresholds or confidence intervals involved that took away any uncertainty related to yet unknown locations for surface occupancy or related to greenhouse gas effects at the local, regional, national or global scales. That is simply not the case. I have reviewed the analysis and re-analysis conducted by agency specialists and have all the information necessary to make an informed decision. I am aware of the effects and potential impacts to the environment and have decided that these impacts are



acceptable in light of their scope and scale; existing laws and regulations; compromises made during negotiations of the CRR; and agency mandates described under Authorities.

## **Identification of the Environmental Documents Considered in Making Decision**

This decision was made after carefully considering the contents of the SFEIS, public comments, agency response to comments, and the supporting project file. The GMUG Forest Plan acknowledges and allows for coal leasing and resource development in areas where such activities would be consistent with the Plan. Further, my decision follows the legal direction for coal resource management (SFEIS, Section 1.7). Other environmental documents (SFEIS, Section 1.11) prepared for activities in the immediate vicinity were also consulted. I have considered the court order and the resultant revised and additional analysis and clarifications in the SFEIS, with particular attention to greenhouse gas emissions, social cost of carbon, socioeconomics, and recreation. The additional analysis and clarifications did not compel me to make a decision dissimilar to my predecessor.

## **Scope of Decision**

The scope of this decision is limited to whether or not to consent to the lease modifications and determining stipulations necessary for the use and protection of the non-mineral interests in those lands. BLM will make a subsequent decision determining whether or not to issue the lease modifications upon my consent. The decision regarding approval of the exploration plan will be made by the BLM. If the BLM decides to approve the exploration plan, they would request the GMUG to review the exploration plan and concur with approval terms and determine adequacy of the bond. I have no decision subject to administrative review to make with regard to exploration.

## **Decision**

I have decided to select Alternative 3 as described in the SFEIS (Section 2.2.3) and summarized in Section III of this document. Selection of this Alternative provides the BLM-Colorado State Office my consent to lease the NFS lands included in federal coal lease modifications COC-1362 and COC-67232 as described in the SFEIS, Table 1.2 (legal descriptions) and shown on the map at Figure 2-1 in SFEIS and in Appendix A herein. My consent decision includes the application of terms and conditions, identified as stipulations, to protect surface resources on NFS lands (Appendix B of this document, SFEIS Tables 2-1 and 2-2).

My decision will be implemented through issuance of this Record of Decision (ROD), formal notification by letter of consent to BLM, followed by BLM's actions of: 1) making a subsequent decision on whether or not to approve lease modification(s), and 2) modifying the lease(s). The lessees would then be responsible to secure any local, State, or Federal permits and approvals as applicable and required by law for future operations or development on the lease modifications.

In the event of any contradiction or conflict between descriptions or depictions of authorized actions, my decision is to be taken from the project documents in the following order of precedence:



- The description in this ROD,
- The representations on the Appendix A- Decision Map and Stipulations in Appendix B, and
- Descriptions in the SFEIS.

My decision to consent to the lease modifications under Alternative 3 and potential future uses of NFS lands which may result from consenting to the lease modifications, including the construction of temporary roads, would be consistent with the CRR.

## **Authorities**

The primary authorities for issuing coal lease modifications are found in the SFEIS, Section 1.6 and restated below.

### ***Mining and Minerals Policy Act of 1970 and Mineral Leasing Act of 1920, as amended***

The Forest Service and BLM manage their minerals programs under law as specified in the Mining and Minerals Policy Act of 1970 which states in part that it is the “continuing policy of the federal government in the national interest to foster and encourage private enterprise in...(t)he development of economically sound and stable domestic mining minerals and mineral reclamation industries...(and) the orderly and economic development of domestic mineral resources....” Further, federal mineral leasing follows the Mineral Leasing Act of 1920 as amended by the Federal Coal Leasing Amendments Act of 1976 (MLA), and specific procedures set forth in 43 CFR 3400.

These lease modification applications are being processed according to procedures set forth in 43 CFR 3432. Lease modifications are non-competitive leasing actions. Since Ark Land applied for these modifications to add acreage to existing leases, other coal companies could not obtain the rights to the coal if these coal lease modifications are approved.

Subsequent permitting actions to allow mining and changing of the approved mine permit boundary to include the modification areas would be evaluated by DRMS under procedures set forth in 30 CFR PART 906.30 Appendix B and the Regulations of the Colorado Mined Land Reclamation Board for Coal Mining. These modifications may also require approval from the United States Department of the Interior (USDI) through the OSM.

### ***Surface Mining Control and Reclamation Act of 1977 (SMCRA)***

The Surface Mining Control and Reclamation Act (SMCRA) principally applies to coal permitting. SMCRA balances the need to protect the environment from the adverse effects of surface coal mining with the Nation's need for coal as an essential energy source. It ensures that coal mining operations are conducted in an environmentally responsible manner and that the land is adequately reclaimed during and following the mining process. Most coal-mining states now have the primary responsibility to regulate surface coal mining on lands within their jurisdiction, with OSM performing an oversight role. SMCRA requires that all coal mining be conducted under a permit approved by the designated regulatory authority. The Colorado Division of Reclamation Mining and Safety is the regulatory authority for coal mining in the state.

Any applications submitted to the State of Colorado to revise the state mining and reclamation permit, including applications to allow mining and its related surface

disturbances, reclamation, and the changing of the approved mine permit boundary to include the modification areas, would be reviewed by the Colorado Division of Reclamation, Mining and Safety (DRMS). This review would be conducted by DRMS as set forth in the Colorado Surface Coal Mining Reclamation Act (34-33-101 et seq., C.R.S. 1973 as amended) and the Regulations of the Colorado Mined Land Reclamation Board for Coal Mining (2 CCR 407-2, August 30, 1980 as revised). Coordination between DRMS and appropriate federal agencies of the review of any applications for Permit Revisions that may be submitted by Mountain Coal Company in conjunction with these lease modifications will be overseen by DRMS in accordance with the Colorado Surface Coal Mining Reclamation Act, the Regulations of the Colorado Mined Land Reclamation Board for Coal Mining, and, as applicable, 30 CFR 906.30. These state permitting actions may also require issuance or modification of a federal mine plan (or plans) by the USDI through the Office of Surface Mining, Reclamation and Enforcement (OSM) under the MLA.

The extent to which SMCRA directly applies at the leasing stage is related to the need to conduct the Unsuitability Assessment under Section 522(e) of SMCRA. For the purposes the unsuitability assessment conducted at the leasing stage, the procedure is codified at 43 CFR 3461.

### ***Energy Policy Act of 2005***

The purpose of the Energy Policy Act of 2005 was to ensure jobs for the future with secure, affordable, and reliable energy.

This Act Amends 30 U.S.C. 203(c)(4)(A) to ``secure modifications of the original coal lease by including additional coal lands or coal deposits contiguous or cornering to those embraced in the lease...(3) In no case shall the total area added by modifications to an existing coal lease under paragraph (1)--(A) exceed 960 acres; or (B) add acreage larger than that in the original lease."

## **Applicable Laws, Regulations, and Policy**

This decision is consistent with applicable laws, regulations, and policies (refer to Section V of this document and SFEIS, Chapter 1) and with Forest Plan direction (SFEIS Section 1.8.1 and for each resource section in Chapter 3).

## **Reasons for my Decision**

This section summarizes the considerations that informed my decision. Subsequent sections detail specific concerns.

Environmental impacts, regulatory framework, and the context of this decision on local, national and global scales have been the focus of analysis, discussions and litigation around this project for the last ~8 years. In making this decision, I want to emphasize how vital I believe the fundamental aims of the NEPA process are: to disclose to the public the anticipated impacts of the project, and to ensure that both the environmental effects and public comments are considered in my decision.

First, I want to clarify how my decision to consent to the lease modifications with additional stipulations fits in the entire process of coal mine development and regulation. Several overarching laws give the Forest Service an affirmative role in developing domestic energy resources as further described in the GMUG Forest Plan. At the same time, regulations divide the responsibility for mineral development between several other federal and state agencies. These agencies work in partnership with the coal industry to efficiently and

safely extract this source of fuel. Thus, the proposed action for this decision originates with an industry partner proposing to implement this portion of the GMUG Forest Plan. The only matter ripe for Forest Service decision is whether to consent to the proposed lease modifications, and whether additional stipulations should be added to the modified leases to protect the Forest Service surface resources. See flow chart above.

Next, there are reasonably foreseeable actions authorized by the BLM and other state and federal agencies that could follow my decision – that is why the Forest Service and BLM prepared this SFEIS jointly. Much of the information disclosed in the SFEIS is related to the subsequent connected actions and cumulative effects associated with reasonably foreseeable coal exploration and mining. These disclosures are in support of the BLM's decision and I have considered them when exercising my decision authority. Considering the 100 year history and importance to custom and culture of coal mining in the North Fork area, the scope/scale of the Forest Service decision is quite small (<0.5% of the area I administer and less than 9% of the North Fork Coal Mining Area Exception to the CRR), the decision is well within precedent, and I have worked with the BLM to review existing stipulations and include a variety of updated stipulations (Appendix B) to protect NFS surface resources.

The NEPA range of alternatives necessary to adequately analyze, disclose and consider the impacts of this proposal is also relatively small. The decision to be made is whether to consent to lease modifications and whether to require additional stipulations be attached to the leases, if modified. A reasonable range of alternatives for the decision whether to consent to lease modifications therefore has three expressions: do not consent (No Action), consent to modify one or both leases without additional stipulations, or consent to modify one or both lease with additional stipulations. In addition to the proposed action to modify both leases (Alternative 3), public concern for leasing minerals under the Sunset Roadless Area led me to direct the interdisciplinary team to analyze in detail Alternative 4, which would not modify lease COC-67232, which includes the wilderness capable portions of this roadless area although “wilderness capable” comes with no special designation nor management direction and further has not been recommended for designation in inventories due to mineral potential and boundary management issues.

NEPA requires that we identify means to mitigate impacts to reduce impacts on the quality of the human environment, and that we have done so in the proposed stipulations in the Action Alternatives and in the Alternatives Considered but Dismissed from Detailed Analysis. None of the action alternatives are without additional stipulations, because changes in the regulatory framework for surface occupancy on NFS lands has changed since establishment of the parent leases; an action alternative with no additional stipulations would not be consistent with other law, policy and regulations for the GMUG (for example roadless). In addition to the action alternatives, the scenario to consent with additional stipulations has been evaluated from 12 alternative viewpoints including 17 variations on No Surface Occupancy, drilling, or methane mitigation stipulations. Many of these viewpoints reflect options for mining or mitigation methods that are not required by stipulations included in the action alternatives, but are also not prohibited, so would be available during development and evaluation of the exploration and mining plans.

Some stakeholders in this project have suggested that the alternatives and my decision must include specific requirements to mitigate impacts on the quality of the human environment by certain methods that minimize or mitigate methane released. I have considered these suggestions and believe that my decision will allow for adaptive development of methods to meet the proposed stipulations in the Action Alternatives and the intent of the Alternatives Considered but Dismissed from Detailed Analysis. My

statutory obligation is to protect surface resources. There is room to implement a wide variety of mitigation measures within the proposed stipulations, so the requested alternatives could have outcomes that are substantially similar to effects disclosed for Alternatives 3 and 4. Furthermore, because the project would be consistent with the existing regulatory framework, there is no compelling reason to constrain the decision to specific methods that are known, when other methods not yet known would also continue to be available for permitting and implementation in the future. Mountain Coal Company has conveyed their intent to continue collaborative work in this area with local groups, state and federal agencies. Some viewpoints reflect options that do not meet the purpose and need of the lease modification and subsequent exploration and/or mining. I feel that the alternatives in the SFEIS -- whether analyzed in detail or considered without detailed analysis -- more than fully meet the requirements of NEPA to analyze all reasonable alternatives while striving for efficiency in NEPA compliance.

Stakeholders have also suggested that analysis in the SFEIS does not sufficiently consider the current and future impacts of coal mining on the global climate, particularly with respect to methane mitigation. This issue is fraught with emotional, scientific and political controversy that I fully acknowledge. Analysis and approaches have varied throughout the project history to reflect changes in best available science and policies. In making the decision at this time, I have fully weighed the implications of the project using a variety of qualitative and quantitative techniques that are fully consistent with the agency guidance on this issue at this time. I have also reviewed the emerging Colorado Climate Plan and am comfortable that this decision is consistent with it.

These are the most pressing considerations in my deliberation over this decision, but I am aware of the full range of impacts to national forest resources. I make the decision with full recognition of the weight of responsibility I have to balance economic, environmental and social outcomes toward meeting the Forest Service mission.

My decision space is whether to consent to a lease issued by the Department of the Interior and to determine conditions necessary for the use and protection of the non-mineral, or surface resources. It is made in the context of staged decision making. The GMUG LRMP at III-63 (1)(a) states "Forest Service authorize...disposals under terms and conditions to prevent or control adverse impacts on surface resources and uses." And under 1(b) "Recommendations for and consent to BLM...will include stipulations that may be necessary for specific surface resources." This area was also identified as part of BLM's known coal recovery area. In response to the State of Colorado, an exception to the Colorado Roadless Rule was promulgated to allow for temporary road construction for coal mining purposes in this area. After my decision is made, there will be subsequent state and federal decisions determining whether it is in the public interest to mine coal in this area and grant the lease, as well as decisions identifying and specifying mine plans and mine operations if the decision is made to lease the coal. Specific mitigation measures which condition mine operations to reduce the emission of greenhouse gases are better made by federal and state agencies which will have the benefit of more specific information, mine plans, and mining operations.

## **How Specific Issues Were Considered**

Issues were identified by the interdisciplinary team (IDT) and through public involvement. Significant issues were identified in the SFEIS (Section 1.10, Table 1-3) and carried forward for analysis in the SFEIS in both the development of Alternatives and in the individual resource sections (Chapter 3). Other issues brought forward were reviewed and addressed in: Response to Comments (SFEIS, Appendices I-K), comments received

are available on the project website, and in Alternatives Considered but Eliminated from Detailed Study (SFEIS, Section 2.3).

### ***Cumulative Effects***

Consenting to lease does not result in any direct effects on the ground. However, should future development of the leases occur, such actions would result in indirect and cumulative effects. Indirect and cumulative effects (SFEIS Chapter 3) were addressed based on a Reasonably Foreseeable Mine Plan (SFEIS Section 3.3) for each resource area.

### ***Lease Stipulations***

Specific lease stipulations (Appendix B herein, SFEIS, Table 2-1) are being prescribed for: cultural and paleontological resources; endangered or threatened species; Canada lynx; raptors; big game winter range; water depletions; breeding birds; geologic hazards; baseline information; monitoring program; riparian, wetland or floodplain; subsidence; roadless; visuals; methane use or flaring and BLM's addenda and stipulation (SFEIS, Table 2-2) regarding methane flaring, capture or use or other alternatives to venting.

### ***Private & Adjacent Federal Lands***

I have considered the effects of my decision not just on the lease modifications area but also upon adjacent NFS lands which are currently under lease (parent leases) and private lands with coal resources owned by Mt. Gunnison Fuel Company also under lease. Even though it is not within my decision space, in consenting to the modifications I am facilitating coal resource recovery on those lands because of projected mine layout if coal is present in mineable quantities on the lease modifications. This is not a decision I take lightly as my decision can affect existing operations and expectations of royalties and other revenue on existing leaseholds to entities other than the federal government. Similarly, when stipulations have been considered, my staff has been very deliberate not to prescribe measures which could negatively affect existing leaseholds or permitted activities as the modifications amend the parent leases. A couple of things in particular come to mind from comments that can affect these adjacent lands.

While not timely to the process at hand because of the detailed engineering process that would go into a future mining permit that has not been proposed, one of these is the continued request for a requirement of specific methane mitigation measures. Because this is an underground mine, the workings of private and existing federal leases are interconnected through ventilation and other systems. Ventilation systems are existing and may not be compatible with specific measures. Restrictions of this nature (such as for methane), however well intentioned, may affect royalties received by private coal owner or workings in the existing mine.

Conversely, with regard to surface areas on parent lease, the CRR made areas roadless that were not roadless under the 2001 RACR. This includes stipulations that have been applied consistent with the CRR to the lease modifications to comply with the regulation and will further replace the lease notices (see Appendix B) on the parent leases. This will, in turn, bring the Sunset CRA portion of the parent leases into compliance with new regulation.

## ***Mitigation Measures & Methane Venting***

The lease stipulations which have been *adopted* are the mitigation measures identified to protect non-mineral surface resources in those lands. The analysis presented in the SFEIS considers the lease stipulations as part of the Proposed Action; therefore, they are analyzed in detail (CEQ describes this as having been “explained and committed”). Should mining activities be authorized, these stipulations will be monitored and enforced by the respective appropriate permitting agencies for mining and associated operations.

Mitigation is an important part of the environmental analysis and NEPA’s hard look. Reasonable mitigation measures that can mitigate the impacts of the project are discussed in the environmental analysis. Mitigation measures are discussed even if those measures are outside the scope of my authority. Commenters have urged the Forest Service to analyze mitigation measures to reduce methane emissions released to the atmosphere anticipated from potential mining operations by capture, use or flaring. I recognize the public concern and potential climate impacts resulting from methane releases, and mitigation to address these concerns has been identified and further addressed in the SFEIS in Table 2-2 and Section 2.3. While I do not believe it is appropriate at the consent to lease stage to prescribe this level of specificity to mine plan operations, these stipulations are permissive of methane capture, use or flaring and do not preclude their inclusion in a subsequent mine plan. Further, these stipulations prescribe surface protections if methane mitigation does occur consistent with my role under the federal coal regulations. In addition, the parent leases have respective addenda added by BLM will also be carried forward to the lease modifications (language was modified slightly by BLM’s Instruction Memo in 2017) which allow capture and/or use of methane as a by-product of mining coal, if it is economically feasible for MCC to do so. BLM further has identified a need for additional information as a stipulation subsequent to leasing related to methane mitigation.

Commenters further contend that the Forest Service should require MCC to capture, use or flare methane vented to the atmosphere to reduce the effects of global climate change. Methane is currently an unregulated constituent under the Clean Air Act as managed by the Environmental Protection Agency (EPA) and through their agent Colorado Department of Public Health and Environment (CDPHE). There is no established threshold of significance for methane. While the Forest Service does not have the authority to promulgate or enforce air quality regulations pursuant to the Clean Air Act, there are several options for reducing greenhouse gas emissions which may be implemented consistent with this decision and Forest Service lease stipulations identified in SFEIS Table 2-1. As the decision maker, I disagree with commenters’ assertions that I am required to do so. Beyond quantified methane emissions which are identified in SFEIS in Section 3.4, there is no reasonable way of measuring global climate change effects at the local level from this particular action, which is the continuation of an existing activity at or below permitted air quality levels, and for which it was acknowledged (throughout Chapter 3 of SFEIS) that specific on-going climate change related-effects will continue to occur. Should methane mitigation be implemented in the future, monitoring and enforcement would be conducted by the respective appropriate permitting agencies for mining and associated operations.

## ***Air Quality***

The SFEIS (Section 3.4, Appendices F & G) addresses issues related to air quality standards and possible effects globally and locally from climate change. Trends in air quality and climate change impacts have been identified. A few commenters requested

to see modeling impacts of criteria pollutants and climate change from this project. However, regulations at 40 CFR 1502.14-1502.16 describe that a comparison between the existing or baseline condition and the proposed activities be described “as is necessary to support the comparisons” and “provide a clear basis for choice by the decision maker.” The SFEIS shows that the existing air quality impacts are in compliance with the CAA permits (permit for Construction Emissions) issued to MCC (SFEIS Appendix F). MCC has also filed an application under Title V of the Clean Air Act (“Tailoring Rule”) as of July 1, 2012; however, these applications were withdrawn after the Supreme Court remanded the Tailoring Rule in 2014. Under the selected Alternative, the rate of mining and mining systems would not change. The change to air quality under the selected Alternative would be an extension of time over which the impacts would occur. The addition of the lease modification areas would add approximately 1.3 years to the permitted baseline on NFS lands, and an additional 1.4 years would be added due to probable associated activities on private lands and parent lease COC-1362 which would become accessible under this decision. Therefore, I find that the effects to air quality and climate change are adequately disclosed in SFEIS in Section 3.4 and Appendices F and G. The magnitude of the effect is compliant with the CAA permits, and it is projected that emissions are likely to occur at current annual rates for less than 3 additional years under the Proposed Action compared with the No Action Alternative.

I did not require methane capture/destruction as a mitigation measure because:

1. Lease mods methane is incremental when viewed in context of the alternatives available:
  - a. Alt 1- 9.38 MM tons CH<sub>4</sub> (CO<sub>2</sub>e) over 8.2 years
  - b. Alt 3- 11.91 MM tons CH<sub>4</sub> (CO<sub>2</sub>e) over 10.9 years
  - c. Alt 4- 11.82 MM tons CH<sub>4</sub> (CO<sub>2</sub>e) over 10.8 years
2. The range of my decision space entails a maximum 11.91-9.38= 2.54 MM tons CH<sub>4</sub> CO<sub>2</sub>e, an amount for which specific climate change effects are unable to be predicted.
3. Methane levels released at the West Elk Mine have decreased steadily since 2012 without the imposition of a methane mitigation measure as a lease stipulation (SFEIS, Figure 3-7)

I feel confident that the effects of burning coal (combustion) under the action alternatives have been considered in Section 3.4.

### ***Social Cost of Carbon***

Several commenters have suggested that we use the Social Cost of Carbon (SCC) protocol to monetize global costs of greenhouse gas (GHG) emissions associated with mining and burning coal.

The Colorado Roadless Rule (CRR) was the programmatic decision (rulemaking) to determine how to balance maintaining and preserving roadless area characteristics while addressing the State’s concern of not foreclosing coal mining opportunities in the North Fork Valley (81 FR 91816). The CRR SFEIS included an SCC analysis as part of the cost-benefit analysis as required for the rule-making decision and the coal in the proposed federal coal lease modifications was included within that SCC analysis. I am familiar with that analysis and believe that the analysis was conducted at the appropriate level at that time and in the appropriate context. This analysis informs my decision and the public. I know that the potential costs of GHG emissions are not “zero” and indeed, depending on what assumptions prove to be true, may be significant.



From comments and objections received, I believe several commenters including members of the Interagency Working Group have also been well informed about the SCC analysis prepared for the CRR and the potential costs of greenhouse gas emissions. Although the recent Executive Order 13783 disbanded the Interagency Working Group on Social Cost of Greenhouse Gases and withdrew technical supporting documents used for the SCC analysis, even if this Executive Order was not issued, and if GHGs were analyzed in a manner that monetized global costs, this type of analysis would not better inform my decision for this project, which fully recognizes the significant potential future costs of GHG emissions. However, monetizing the SCC is not appropriate at this time because NEPA does not require a cost-benefit analysis, a cost benefit analysis was not conducted and a benefit-cost analysis would not substantively add to my ability to reach an informed decision in the matters before me. While the SFEIS contains quantified impacts, and while some of these quantified impacts are monetary, the SFEIS does not contain comparable economic benefits and costs to the SCC that would be needed for cost-benefit analysis per OMB Circular A-4. The SFEIS contains an analysis of environmental consequences (40 CFR 1502.16) that meets the qualitative requirements of NEPA (40 CFR 1502.23). If we set out to quantify climate impacts as monetized costs, it would be necessary to balance these costs by also quantifying the benefits of burning coal to generate electricity such as providing affordable, reliable electricity and the resultant benefits of having electricity in general such as human health from medical advancements, comfort, work efficiencies, etc. and other actions that are beyond the scope of my decision. Regardless, quantifying these benefits and the SCC were not feasible here in the absence of an analysis of effects on domestic and international energy and economic systems as a whole. However, as part of that CRR SFEIS, an energy market analysis was conducted and found that substitute sources of underground and surface coal around the nation are likely to decrease in response to an increases of North Fork Coal Mining Area underground coal production. Additionally, the CRR SFEIS found that relatively low coal price elasticity values indicate that increases in the availability of coal and corresponding decreases in coal prices may not trigger significant changes either in production or consumption of coal.

I acknowledge the potential adverse impacts of greenhouse gas release on the global climate. Further, in review of the analysis in CRR and additional consideration of that analysis during the Objection period, I understand that even with the extreme range of negative to positive values of the cost-benefit analysis driven by variation in SCC estimates (-\$3,440 million to \$206 million), the analysis shows that under most scenarios the economic costs associated with GHGs emission likely exceed the economic benefits of electricity generation associated with coal. I recognize supplemental information suggests that economic costs may be at the high end of the variation in costs. Currently, there are no established criteria identifying the monetized values that are to be considered significant for NEPA purposes, and, at present, there are no known significance (NEPA) levels to prescribe to GHG emissions for evaluating climate change impacts<sup>2</sup>. I acknowledge there are variations on the analysis which could be done today, and criticisms of the analysis done at the rule-making stage, but given the reasons above, I do not believe any additional project level SCC analysis would improve my decision. A hard look at this issue has been taken and both I and the public have been informed by the analysis done to date.

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<sup>2</sup> Please see the additional detail of this discussion on significance and scope of this issue at SFEIS 981.

I do not need a project-level SCC analysis to determine stipulations and whether non-mineral and surface resource impacts are acceptable or not. The SCC protocol describes the monetary impact at the global scale of increased carbon emissions and does not translate to site-specific surface resource impacts.

I know there are resource impacts caused by the effects of climate change and I know that greenhouse gas releases contribute to this change. My decision has been informed by the climate change analysis for each of the resources in Chapter 3 at the local, regional, global levels of the SFEIS and all other impact analyses contained within the SFEIS.

To summarize this SCC issue: 1) for this project it was more effective to qualitatively disclose local regional and global effects of climate change for this project and we quantified GHG emissions across all alternatives, 2) the SCC protocol was used in the CRR as the framework to consider the uncertainty around the estimates and caveats around using the protocol; 3) we did not conduct a cost-benefit analysis for several reasons, including: a. because we did not monetize comparable economic benefits and costs and b. it was not feasible because we determined that analysis of the domestic and international energy and economic systems were out of the scope for this project.

## **Factors Other Than Environmental Effects Considered In Making the Decision**

Furthermore, none of the action alternatives are without additional stipulations, because changes in the regulatory framework for surface occupancy on NFS lands has changed since establishment of the parent leases; an action alternative with no additional stipulations would not be consistent with other law, policy and regulations for the GMUG. In addition to the action alternatives, the scenario to consent with additional stipulations has been evaluated from 12 alternative viewpoints including 17 variations on No Surface Occupancy, drilling, or methane mitigation stipulations. Many of these viewpoints reflect options for mining or mitigation methods that are not required by stipulations included in the action alternatives, but are also not prohibited, so would be available during development and evaluation of the exploration and mining plans.

Some stakeholders in this project have suggested that the alternatives and my decision must include specific requirements to mitigate impacts on the quality of the human environment by certain methods. I have considered these suggestion, and feel that my decision will allow for adaptive development of methods to meet the proposed stipulations in the Action Alternatives and the intent of the Alternatives Considered but Dismissed from Detailed Analysis. My stipulations address the protection of surface resources. There is room to implement a wide variety of mitigation measures within the proposed stipulations, so the requested alternatives would have outcomes that are substantially similar to effects disclosed for Alternatives 3 and 4. Furthermore, because the project would be consistent with the existing regulatory framework, there is no compelling reason to constrain the decision to specific methods that are known, when other methods not yet known would also continue to be available for permitting and implementation in the future. Mountain Coal Company has conveyed their intent to continue collaborative work in this area. Some viewpoints reflect options that do not meet the purpose and need of the lease modification and subsequent exploration and/or mining. I feel that the alternatives in the SFEIS -- whether analyzed in detail or considered without detailed analysis -- more than fully meet the requirements of NEPA to analyze all reasonable alternatives while striving for efficiency in NEPA compliance.

The purpose and need of this project is to consider consenting to and issuing coal lease modifications for federal coal lands immediately adjacent to existing federal coal leases COC-1362 and COC-67232. The purpose of the lease modifications is to ensure that compliant and super-compliant coal reserves are recovered.

The BLM, charged with administration of the mineral estate on these Federal lands, is required, by law, to consider leasing Federally-owned minerals for economic recovery. Under 43 CFR 3432 (as amended by the Energy Policy Act of 2005), the holder of a federal coal lease may apply to modify a lease by adding up to 960 acres. The federal agencies are responding to applications to modify existing leases.

The need is also linked to the GMUG Land and Resource Management Plan, as amended (Forest Plan), which emphasizes environmentally sound mineral and energy development (Forest Plan, page II-61). My decision supports the Purpose and Need for this project and is consistent with Forest Plan direction.

My decision fulfills the Federal Government's policy to foster and encourage mineral development (Mining and Mineral Policy Act of 1970), the Federal Land Policy and Management Act (FLPMA), and complies with GMUG Forest Plan direction.

I considered the Forest Service Strategic Plan, which calls for the Forests to "help meet energy resource needs," the Forest Service implementation of the National Energy Plan (2001) generally directing the agency to expedite federal actions necessary for energy-related project approvals, and Executive Order 13212 directing federal agencies to take steps to increase the energy supply to our nation.

I considered the CRR which made an exemption for temporary road construction in the North Fork coal mining area.

I considered all other laws pertaining to management of NFS including but not limited to the Multiple-Use Sustained Yield Act of 1960 and the National Forest Management Act of 1976.

## **How Considerations Were Weighed and Balanced In Arriving At the Decision**

The resource effects analyses presented in Chapter 3 of the SFEIS (Table 2.3 and Chapter 3) describe potential impacts to surface resources from leasing or not leasing. Stipulations and lease addenda were developed and/or carried forward from the parent leases specifically for: cultural and paleontological resources; threatened or endangered species; Canada lynx; raptors; big game winter range; water depletions; breeding birds; geologic hazards; riparian/wetland/floodplain, roadless; methane use; visuals and baseline information and monitoring program. Because of the surface protections in place (Appendix B and SFEIS Tables 2-1 and 2-2), I chose to consent to lease modification parcels as requested by BLM.

My decision to consent to leasing included evaluating the role and responsibility of the Forest Service in meeting overall energy needs for the nation as well as evaluating the environmental consequences of the decision. This consideration, along with our legal responsibilities, led me to the consent to lease decision.

Roads and well pads for coal exploration and methane drainage have been constructed and reclaimed in the general area for over 20 years including within roadless areas. While temporary displacement of some wildlife have undoubtedly occurred, and some recreational visitors may have chosen to avoid areas of construction and activity, all other

valid uses of the area have occurred concurrently with all phases of above-ground mining operations for the underground mines. Particularly, West Elk Mine's history of reclamation to return disturbed sites to ecological productivity is stellar. The most telling evidence of this may be that during the original development of the CRR, environmental organizations were insistent and successful at ensuring the inclusion of areas with existing temporary roads and well pads in what was then the West Elk Inventoried Roadless Area into the current adjacent Flatirons Colorado Roadless Area, as well as existing and near-term (already permitted) roads and well pads in the northern portion of the Sunset Colorado Roadless Area (See Figure 3-27, SFEIS).

To compare this alternative with the No Action Alternative, existing and currently permitted temporary roads and well pads (including those in Colorado Roadless Areas) can be seen in figure 3-27. The incremental addition of 2.7 years of operations, and 18-72 acres of additional disturbance are quite small in context of past and ongoing operations. In reviewing SFEIS Chapter 3, I find that local interests are best served by consenting to the lease modifications to continue our long-standing community and stewardship collaboration with the mine under the applicable mineral leasing laws and regulations compared to impacts of the projected extended duration of mining coal and limited surface disturbance associated with underground mining.

As a steward of about 3.5 million acres of National Forest System lands, I am assigned the task of balancing multiple and often conflicting uses, as well as appropriate scope and scale of disturbances to dynamic landscapes. While many commenters have suggested that the primarily aspen ecotype of the lease modifications area suggest that it is different from past disturbances which have been more in the oakbrush type, and will be evident on the landscape longer, in my trips to the area, what struck me about the disturbance and reclamation in both oakbrush and aspen was that the previous disturbances were desirable for providing increased species and seral diversity; however, they were at scales so small that they could not be deemed beneficial. E.G., when we treat oakbrush for seral diversity and stand regeneration on the GMUG, we often aim for a minimum size of 500-1000 acres per treatment. When we treat aspen stands to promote seral diversity and stand regeneration, we typically aim for a minimum treatment area of 100 acres. There is a long local history of treatment and successful self-regeneration of aspen and oakbrush. And vegetation treatments of these variety have occurred within this general vicinity. On a ranger district comprising over 450,000 acres, with ~40% of its land base in aspen and ~20% in oakbrush, the past, present and projected future surface disturbances above the West Elk mine are quite small.

Because mine-related temporary roads are not open to the public and have been successfully reclaimed in a timely manner through State permitting and bonding in the area, I do not find these disturbances in the Sunset CRA to be detrimental to future generations' experiences as roadless areas or otherwise significant in context on the local, forest or state scale.

## **Consideration of Other Alternatives**

### ***Alternative 1- No Action Alternative (Environmentally Preferred Alternative)***

I did not select Alternative 1, no action, primarily because it is only incrementally different from the selected alternative in environmental effects, and does not meet the purpose and need or the intent of minerals laws as well as the selected alternative. The purpose of ensuring recovery of high-quality coal reserves on lands adjacent to existing coal mine operations would not be met with this Alternative. Minerals laws direct the Agency to

continue a policy of encouraging private enterprise to develop mineral resources and ensure jobs for the future with secure, affordable and reliable energy (Minerals Policy Act of 1970 and Energy Policy Act of 2005). Further, the Forest Plan supports environmentally sound energy and mineral development.

This Alternative was identified as the environmentally preferable Alternative.

Even though this is the No Action Alternative, currently permitted temporary road and pad construction and use would continue for about ten years under this alternative. Most of these uses are and would continue to be in the Sunset Roadless Area. The selected alternative would likely add less than 3 years to this progression, and add from 18-72 acres of additional temporary disturbance to the many which have been constructed, used and reclaimed concurrent with other valid uses of NFS lands in the area.

## ***Alternative 2***

Alternative 2 was moved to Section 2.3 Alternatives Considered, but Eliminated from Detailed Study in the due to the high likelihood of decreased operating periods, increased erosion potential, and safety concerns of cross country travel with no roads. Moreover, the RACR, which prevented road construction in Inventoried Roadless Areas has been replaced with the Colorado Roadless Rule.

## ***Alternative 4***

Alternative 4 was fully considered in this analysis. I compared: reasonably foreseeable surface disturbance; amount of expected coal to be recovered; and extension of mine life of the three action Alternatives. See Table 1 below.

**Table 1. Summary of Reasonably Foreseeable Actions by Alternative**

Action	Alternative 3	Alternative 4	Difference
Estimated Foreseeable Surface Disturbance (acres)	72	66	(6)
Estimated Coal (tons)	10,100,000	9,265,000	(835,000)
Estimated Foreseeable Extension of Mine Life (years)	1.6	1.4	(0.2)

I considered the relatively small environmental footprint difference between Alternatives, temporary nature of the expected post-lease disturbance and past reclamation success at the West Elk Mine when selecting Alternative 3. I determined that while both the environmental impacts and coal recovery differences were very small between Alternatives 3 and 4, preventing the bypass of recoverable incompliance with the purpose and need of this decision is best served by Alternative 3. The 835,000-ton increase in coal recovery outweighs the environmental effects of disturbing 6 more acres of NFS lands for a short period of time as compared to Alternative 4.

## **Public Involvement Considerations**

Public and agency comments were sought during preparation of the SFEIS (see Section IV). Responsive to some comments on the DEIS, the following changes were completed in development of the SFEIS with respect to Alternatives:

- Development of Alternative 4; analyzing and disclosing impacts of consenting to only one of the proposed lease modifications (COC-1362)

## **III. SUMMARY OF ALTERNATIVES CONSIDERED**

A total of 15 Alternatives with several derivations were considered in the SFEIS (Sections 2.2 through 2.3.12) with 3 carried forward for detailed analysis. Alternative 2 from the 2012 FEIS was eliminated from detailed study. I have selected Alternative 3, conditioned with stipulations. A summary of the Alternatives Considered in Detail in the SFEIS follows:

### **Alternative 1- No Action Alternative**

Analysis of the No Action Alternative is required by CEQ, 40 CFR Part 1502.14(d). Under the No Action Alternative, consent for the lease modifications would not be granted, and no mining would occur in these specific areas. Impacts from mining coal under these areas would not occur on these lands, and the effects from on-going land uses could continue including coal mining activities such as exploration and monitoring related to mine activities, as well as continued recreation and grazing. The land would continue to be managed according to Forest Plan standards, goals and guidelines. This Alternative was the environmentally preferred, as it minimized ecological disturbance compared with the other two alternatives considered.

### **Common to All Action Alternatives**

The proposed action is for the Forest Service to consent to and BLM leasing/modifying MCC's existing federal coal leases COC-67232 and/or COC-1362 and by adding 920 and 800 additional acres (respectively) to ensure that compliant and super-compliant coal reserves are recovered and not bypassed, and to identify stipulations for the protection of non-mineral (i.e. surface) resources.

Methane drainage well construction is essential for operating longwall operations in the North Fork Valley. Normal mine ventilation alone does not allow for safe longwall mining in the North Fork Valley. Without MDWs methane builds up quickly during the longwall mining process. The current use of MDWs is necessary to mitigate methane safety hazards making mine-air compliant with MSHA standards. For the West Elk Mine, MDWs are a required part of their MSHA approved ventilation Plan (see project record).

### **Alternative 3 (Agency Preferred Alternative)**

By selecting Alternative 3 the Forest Service consents to the lease modifications and BLM could modify the leases with stipulations/notices/addenda in Appendix B.

The majority of both lease modification areas are within the Sunset CRA, which is entirely within the NFCMA that provides an exception for post-lease surface-disturbing activities, including the construction and use of temporary roads (36 CFR 294.43 (c)(1)(ix)). 786 acres of the COC-1362 lease modification and 915 acres of the COC-67232 lease modification are within the Sunset CRA. Allowing temporary roads would facilitate MDW

drilling and would therefore allow for mining the coal under the RFMP (described in Section 3.3).

## **Alternative 4**

Many commenters expressed concerns regarding roadless area effects due to post-lease development. Similarly, in the original DEIS, some commenters suggested an Alternative requesting agencies' consent/leasing for proposed modification to COC-1362 only, while not consenting to proposed modification to lease COC-67232. In response to those comments, Alternative 4 was brought forward for further analysis from Alternatives Considered but Eliminated from Detailed Study in the DEIS.

Alternative 4 analyzed the effects of post-lease surface activities under The CRR and resultant NFCMA, similar to Alternative 3.

An RFMP was developed (Section 3.3.3) to address indirect and cumulative effects specific to the COC-1362 modification.

## **Stipulations for Action Alternatives**

I am prescribing some additional stipulations to the existing stipulations on the parent leases to provide for the protection of non-mineral surface resources. All stipulations are listed in Appendix B corresponding to the respective applicability to lease modification(s).

## **IV. PUBLIC INVOLVEMENT**

Extensive public involvement occurred during the preparation of an Environmental Assessment for this same EIS. During that comment period (April-May 2010), approximately 32,002 versions of email form letters were received from environmental groups (more detailed description in subsequent sections); 576 hardcopy/faxed form letters were received from local community members in four counties in support of mining in this area; 78 (mostly modified form letters) were received in response to this scoping effort. Issues ranged from support to opposition of coal mining, effects to Inventoried Roadless Areas, and global climate change. Most concerns dealt with post-leasing development. These issues led the agencies to develop the Proposed Action which has lease stipulations to protect surface resources including: cultural/paleontological resources, threatened/endangered species, Canada Lynx, raptors, big game winter range, water depletions, breeding birds, geological hazards, riparian/wetlands, subsidence, lease notices for presence of roadless areas, lease addendums for methane flaring/capture/use and new lease stipulations for visual resources. The decision was remanded to the forest over stipulations in February of 2012.

In late 2011 and early 2012 Colorado was in the middle of transitioning to new state-wide roadless area regulations, Environmental Protection Agency was considering greenhouse gas regulations, Council on Environmental Quality was considering significance thresholds for analysis of greenhouse gases and BLM was preparing their own leasing analysis for these modifications. All of these combined contributed to the decision to prepare an Environmental Impact Statement (EIS).

The Forest Service published a Notice of Intent to Prepare an EIS in the Federal Register on April 25, 2012. Approximately 830 copies of letters/emails informing interested parties (including state, federal, local agencies, tribes, environmental groups, and interested parties) of this intent were also sent out on April 25, 2012 inviting additional comments throughout the process. Additional notification was sent out with the Draft EIS to



approximately 768 individuals; additional legal notices were published in the Grand Junction Daily Sentinel and Delta County Independent.

Approximately 24,680 comment letters were received on the Draft EIS. Of those, 67 were original comments. Responses to comments received during the 30 day period following the printing of the NOI and the 45 day comment period on the DEIS and other comments specifically included by reference can be found in Appendix I. Comments received during this time can be viewed in entirety in Appendix I (Volume II) of the 2012 Final EIS.

Previous GMUG and BLM decisions (available at: <https://www.fs.usda.gov/project/?project=32459>) were vacated in *High Country Conservation Advocates v. United States Forest Service*, 67 F. Supp. 3d 1262 (D. Colo. 2014)) on September 11, 2014. A Supplemental EIS is being prepared to correct Court-identified deficiencies and to update analysis, as needed, since the Final EIS in 2012 and BLM's Environmental Assessment (EA) for exploration in 2013. The leasing and exploration analyses will be combined into a single document for agency and public convenience.

Over 9,800 additional submissions (primarily form letters, groups of form letters and petitions) were received on the Notice of Intent to Prepare a Supplemental Environmental Impact Statement in 2016-2017 which was not an official comment period. Comments and responses can be found in Appendix J.

During the official comment period (June 2, 2017-July 24, 2017) on the Supplemental Draft Environmental Impact Statement we received approximately 127,250 expressions of interest or comment letters. Issue topics are consistent with those raised in previous comment periods. Summarized substantive comments and responses are included in Appendix K.

## **V. FINDINGS REQUIRED BY OTHER LAWS AND REGULATIONS**

To the best of my knowledge, this decision complies with all applicable laws and regulations. In the following, I have summarized the association of my decision to some pertinent legal requirements.

### **Executive Order 13212 of May 18, 2001**

This Order called the federal agencies to expedite their review of permits for energy-related projects while maintaining safety, public health, and environmental protections. My decision is consistent with this Order.

### **Federal Land Policy and Management Act of 1976**

The Federal Land Policy and Management Act of 1976 states that public lands are to be managed in a manner that recognizes the need for the domestic sources of minerals, including renewable and non-renewable resources. My decision is consistent with this act.

### **Multiple-Use Sustained-Yield Act of 1960**

This act states that renewable resources are to be managed for the long term sustained yield. My decision is consistent with this act.

## **National Forest Management Act of 1976**

The Forest Plan was approved in 1983 and amended in 1991, as required by this Act. This long-range land and resource management plan provides guidance for all resource management activities in the Forest. The National Forest Management Act requires all projects and activities to be consistent with the Forest Plan. The Forest Plan has been reviewed in consideration of this project (SFEIS, Section 1.8). Forest Plan compliance is also addressed in the final subsection of each resource section in Chapter 3 of the SFEIS. My decision is consistent with the Forest Plan.

## **Mining and Minerals Policy Act of 1970**

This Act declared it would be the continuing policy of the Federal government and in the national interest to foster and encourage private enterprise in the development of economically sound and stable domestic mining industries, and the orderly and economic development of domestic mineral resources (SFEIS, Section 1.6).

My decision is consistent with this act.

## **Mineral Leasing Act of 1920 (MLA) as amended, Energy Policy Act of 2005**

Federal coal leasing follows the Mineral Leasing Act of 1920 (MLA), as amended and specific procedures set forth in 43 CFR 3400. These lease modification applications are being processed according to procedures set forth in 43 CFR 3432.

The purpose of the Energy Policy Act of 2005 was to ensure jobs for the future with secure, affordable, and reliable energy.

The Energy Policy Act Amended MLA [30 U.S.C. 203(c)(4)(A)] to ``secure modifications of the original coal lease by including additional coal lands or coal deposits contiguous or cornering to those embraced in the lease...(3) In no case shall the total area added by modifications to an existing coal lease under paragraph (1)--(A) exceed 960 acres; or (B) add acreage larger than that in the original lease.'

Some commenters have suggested that the processing of proposed modifications is not in compliance with MLA, and suggest that due to total acreage of both modifications, they should have been submitted and reviewed as a lease by application instead of two lease modifications.

On January 26, 2009, the GMUG received a request from the BLM to analyze an application to modify and review stipulations for federal coal lease COC-67232, containing about 762 acres. On that same date the GMUG also received a request to modify and review stipulations for federal coal lease COC-1362, containing about 800 acres. COC-1362 currently contains approximately 4,996 acres, including about 160 acres from a lease modification approved October 15, 2001. COC-67232 currently contains approximately 1,517 acres.

On December 14, 2009, the GMUG received an amended request from the BLM regarding COC-67232, addressing acres which removed NFS Wilderness while adding other NFS lands, bringing the total requested modification to 920 acres.

On February 04, 2015, the Forest Service received a request from the BLM to resume analysis of proposed modifications and stipulations to COC-1362 containing about 800

acres, and COC-67232, containing about 920<sup>3</sup> acres. Coal in the existing leases is mined at the West Elk Mine near Somerset, Colorado. Lease COC-67232 is held by Ark Land LLC (Ark), and lease COC-1362 is held by Mountain Coal Company (MCC).

If BLM authorizes these lease modifications, the total modified acres for COC-1362 would be approximately 960 acres.

In summary, neither of the respective proposed lease modification areas exceeds 960 acres. Neither of the respective proposed lease modification areas exceeds acres within respective parent leases. Therefore, my decision is consistent with these Acts, and these lease modification applications are being processed according to procedures set forth in 43 CFR 3432.

### **Colorado Surface Coal Mining Reclamation Act (CRS. 34-33-101)**

This Act and attendant regulations are consistent with the overarching federal regulations (30 CFR Part 906, Appendix B). Federal coal leaseholders in Colorado must hold a State-approved mining permit before performing mining and reclamation operations on Federal lands in the state. In accordance with Colorado's approved federal coal program procedures, during the mine permitting process the GMUG will review an applicant's submittal, including bond sufficiency to ensure that it provides for post-mining land use consistent with the Forest Plan and has adequate protections for NFS lands.

### **Clean Air Act of 1955, as amended 1977**

This Clean Air Act (CAA) required States to develop plans to implement, maintain, and enforce primary and secondary ambient air quality standards for any criteria air pollutants, and called federal agencies to prevent deterioration of air quality. The Forest Service as a Federal Land Manager also has the responsibility to protect Class II wilderness areas under the Wilderness Act so they are untrammelled by human use. The Forest Service chooses to protect the Air Quality Related Values (AQRVs) in these areas with the same standards afforded to Class I wilderness areas. To do otherwise could be viewed as arbitrary and capricious based on a date of August 7, 1977. Effects on air quality as a result of this project were analyzed and showed that this project will have negligible effects on air quality. Further, MCC is required to hold and maintain state air quality permits for their activities under the CAA. MCC currently holds a valid permit from the Colorado Division of Public Health and Environment (CDPHE) for construction air emissions.. This decision is consistent with this Act.

### **Clean Water Act and Amendments of 1972**

This Act requires State and Federal agencies to control and abate water pollution. This project was designed to comply with this Act (Appendix B and SFEIS Table 2-1 through the inclusion of stipulations for surface and ground water, water depletions, baseline data, and monitoring and compliance with all state and local laws, the GMUG Forest Plan, and the Forest Service Watershed Conservation Practices Handbook (FSH 2509.25). This decision is consistent with this Act.

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<sup>3</sup> 1 Certificates from Cadastral Land Description Reviews on 3/29/2012 and 5/10/2016 have revised this to 920 acres down from 921-922 acres.

## **Executive Orders 11990 and 11988**

The management of wetlands and floodplains are subject to Executive Orders 11990 and 11988, respectively. The purpose of the EOs are to avoid to the extent possible the long- and short-term adverse impacts associated with the destruction or modification of wetlands and floodplains and to avoid direct or indirect effects of new construction in wetlands wherever there is a practical Alternative. This order requires the Forest Service to take action to minimize destruction, loss or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands. In compliance with this order, Forest Service direction requires that an analysis be completed to determine whether adverse impacts would result (SFEIS, Chapter 2 and Appendix B). The project was designed to avoid impacts to wetlands and floodplains through the addition of lease stipulations. Permits currently held by MCC, including NPDES, SPCC and CWA section 404 remain valid until renewal is necessary. Therefore, my decision is consistent with these orders.

## **Executive Order 12898**

Concern for environmental justice stems from Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," signed February 11, 1994 by President Clinton. In this order (Section 1-101),

*"each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States."*

The population around the project area was reviewed (SFEIS Section 3.21.1.1). For this project, no disproportionately high adverse impacts are expected. This decision is consistent with this Order.

## **Executive Order 13045**

Direction regarding protection of children is recognized in "Protection of Children from Environmental Health Risks and Safety Risks", April 21, 1997. Children are seldom present at coal mining facilities. On such occasions, the coal mining companies have taken and will continue to take precautions for the safety of children by using a number of means, including fencing, limitations on access to certain areas, and provision of adult supervision. (See SFEIS, Section 3.21.1.2). This decision is consistent with this Order.

## **Executive Order 13783**

*EO 13783 provides direction regarding promoting energy independence and economic growth. This Order disbanded the Interagency Working Group on Social Cost of /technical supporting documents for SCC analysis. My decision does not rely on the SCC protocol and technical documents and is therefore consistent with this Order.*

## **National Historic Preservation Act**

To date, three cultural resource inventories have occurred within the project area and no heritage resources were located. Therefore the lease modifications are found to have no potential to affect cultural resources, as defined in regulations 36 CFR 800. The addition of the standard lease clause will protect currently undiscovered sites (SFEIS Section 3.31

and Project File). Site specific resource surveys have been completed for exploration disturbance, and must be conducted prior to any post-lease ground disturbing activities (Appendix B, SFEIS Table 2-1). Therefore, at this time, no additional inventories need to be completed, and consultation with the State Historic Preservation Office (SHPO) is not required. My decision is consistent with this and other acts protecting heritage resources.

## **Endangered Species Act**

A Biological Assessment (BA) was prepared for this decision (SFEIS, Sections 3.9-3.10, Project File, and Internet). All known endangered or threatened species in the area were considered. Due to “may affect, not likely to adversely affect” determinations for Canada Lynx and water depletions related to the four endangered Colorado River fish, informal consultation with the USFWS was completed on June 16, 2010 (ES/CO: FS/GMUG/Paonia RD; Tails 65413-2010-F-0109) USFWS had concurred with our findings. If additional findings regarding threatened or endangered, proposed or sensitive species are discovered, a new biological assessment or evaluation will be written, and formal consultation reinitiated.

Compliance with terms and conditions of the Biological Opinion are addressed in lease stipulations for threatened and endangered species (Appendix B, SFEIS Tables 2-1 and 2-2). Therefore, my decision is consistent with this Act.

## **Lynx**

During the objection process, Objectors alleged that we not comply with ESA requirements and our use of consultation from 2010 for documenting effects to Canada lynx with the USFWS. I am including the following summary of the process of Canada lynx consultations that are included within the project record.

- A Biological Assessment (BA) was prepared for this decision (SFEIS, Sections 3.10, Project File). All known endangered or threatened species in the area were considered.
- Informal consultation with the USFWS was completed on June 16, 2010 (ES/CO:FS/GMUG/Paonia RD; Tails 65413-2010-F-0109). The USFWS concurred with findings of “may affect, not likely to adversely affect” based on the calculation that less than 0.6% (up to 75 acres) of suitable lynx habitat would become unsuitable due to vegetation alterations under the Foreseeable Mining Plan, which included impacts from MDWs and temporary roads.
- During the CRR rulemaking process additional consultation (ES/GJ-6-CO-09-F-001-GP030’ Tails 06E24100-2016-F-0194) occurred with USFWS. The determination of “may affect, not likely to adversely affect” for Canada Lynx applies projected roads and timber removal to the entire North Fork Coal Mining Area (NFCMA), not just to the project area which is approximately 1/10<sup>th</sup> of the NFCMA.
- Further, GMUG consultation of June 2, 2016 for vegetation removal forest-wide (BO ES/LK-6-CO-08-F-024-GJ0t 6 and TAILS 06824t00-201 6-F -0132) included the earlier project consultation acreages and set acreage limits for disturbance within the lynx analysis units before consultation would again be required. There is over 6,000 additional acres beyond this project and previous disturbances of habitat in the Mount Gunnison Lynx Analysis Unit that may be treated before approaching a conservation limit in compliance with the Southern Rockies Lynx Amendment (SRLA; USFS 2008). Cumulative effects to lynx

habitat within the LAU is tracked under a forest-wide programmatic consultation that occurred on June 2, 2016 that set habitat alteration limits within the LAU at no more than 30%. This threshold is consistent with the SRLA. There is no critical habitat in the Southern Rockies. The project is covered under the Southern Rockies Lynx Amendment Standards and Guidelines for protection of lynx and lynx habitat and the project is not expected to cause harm to lynx populations or “take” of lynx. This is supported in the concurrence letter from the USFWS.

- The current project consultation (ES/CO:FS/GMUG/Paonia RD; Tails 65413-2010-F-0109) addresses 75 acres of disturbance of lynx habitat in the Lynx Analysis Unit (LAU) for the post-leasing development. This includes habitat that may be lost to roads and drill pads. No disturbance has occurred to date under this consultation.
- Although the forest lynx habitat map was updated in 2010, following the June 16, 2010 concurrence letter from the USFWS, the changes to percentage of affected habitat does not change much from the previous calculations and is far from reaching the thresholds identified in the SRLA. The SRLA provides standards and guidance regarding vegetation alteration in LAUs. Under SLRA, an LAU should not have more than 30% unsuitable habitat.
- The SFEIS and project (ES/CO:FS/GMUG/Paonia RD; Tails 65413-2010-F-0109) consultation identifies that if greater than 75 acres would be affected by the project, consultation would be reinitiated.

Given the USFWS concurrence and consistent coordination with the USFWS and stipulations (provided by the SRLA) required for each lease renewal the GMUG has worked hard to best analyze impacts to Canada lynx and their habitat and ensure that cumulative impacts within the LAU are not leading to exceeding the limits of unsuitable habitat within the LAU. As a result, I find the GMUG is in full compliance with ESA requirements for Canada lynx.

### ***Colorado River Fish***

Similarly, during the objection process Objectors alleged concerns about basing project consultation on a programmatic biological opinion for water depletions despite updated information regarding threats to the species and the failure of the Recovery Program to offset those threats. And due to that, they allege that the Forest Service cannot rely on USFWS Recovery Program or those programmatic consultations.

Although no special-status fish species are present within the project area, there are four endangered fish within the Gunnison and Colorado River downstream of the project area (Colorado pikeminnow, razorback sucker, humpback chub, and bonytail) that may be affected by water depletions within the watershed. Methane Drainage Wells and exploration drill holes require the use of water to drill. As a result, water depletions were estimated based on the foreseeable mining plan and previous water use activity in the existing mine shown in reports submitted to the USFWS annually although not all water used by the mine is expected to be tributary (i.e., connected) to the Colorado River. The USFS estimated that water use would be only about 1 acre-foot per year or 4.5 acre-feet over the course of 5 years. A concurrence letter from the USFWS for the project was received by the USFS on June 16, 2010, which deferred to the 2007 Grand Mesa, Uncompahgre, and Gunnison National Forests (GMUG) Programmatic Biological Opinion (PBO) for water depletion thresholds (one time project use of 50 acre-feet or 100 acre-feet annually) and annual water use reporting by the operator to the USFWS (ES/GJ-6-CO-99-F-033-CP062 and TAILS 65413-2007-F-0019).

Water depletions are best assessed through a cumulative, programmatic approach to best address recovery needs and regulate water use basin-wide. A Recovery Implementation Program for Endangered Fish in the Upper Colorado River Basin was initiated on January 22, 1988. This agreement established a framework for conducting section 7 consultations on depletion impacts related to new projects and impacts associated with existing projects in the Upper Basin. The PBO issued to the GMUG from the USFWS on April 27, 2007 (ES/GJ-6-CO-99-F-033-CP062 and TAILS 65413-2007-F-0019) falls under the umbrella of the original December 20, 1999 PBO for the upper Colorado River Basin above the confluence with the Gunnison River. These PBOs require annual reporting of small water depletions. The 2007 PBO for the GMUG requires that projects do not exceed 50 acre-feet per project and 100 acre-feet per year. Similarly, depletions are covered under the USFWS “Final Gunnison River Basin Programmatic Biological Opinion” (ES/GJ-6-CO-09-F-0001 and TAILS 65413-2009-F-0044) dated December 4, 2009, Which includes all previous depletions consulted on including GMUG’s PBO in 2007. The 2009 PBO also addresses climate change and recognizes adaptive management as a strategy for adjusting to changing needs for recovery (pg. 20).

Additionally, USFWS has conducted progress reviews regarding the Colorado River endangered fishes including their October 7, 2015 “Draft 2014-2015 Assessment of Sufficient Progress Under the Upper Colorado River Endangered Fish Recovery Program in the Upper Colorado River Basin, and of Implementation of Action Items in the December 20, 1999, 15-Mile Reach Programmatic Biological Opinion and December 4, 2009, Gunnison River Basin Programmatic Biological Opinion”. Their review was finalized on December 20, 2016, in the “Final 2015—2016 Assessment of Sufficient Progress Under the Upper Colorado River Endangered Fish Recovery Program in the Upper Colorado River Basin, and Implementation of Action Items in the January 10, 2005, Final Programmatic Biological Opinion on the Management Plan for Endangered Fishes in the Yampa River Basin”.

The conclusion provided by the USFWS in that 2016 Sufficient Progress document (pp 44-45) is as follows: “The Recovery Program has made strong progress in protecting and improving flows and restoring habitat and has demonstrated strong resolve to manage nonnative fishes in recent years...The Service remains convinced that the best chance for success and recovery, rests with this collaborative Recovery Program. Based on our comprehensive evaluation of the status of the endangered fish, provision of flows (particularly during periods of drought), the magnitude of new depletion impacts (relatively minor in the historical context), the focus on nonnative threats, and cumulative Recovery Program accomplishments and shortcomings, the Service concludes that when implemented as Conservation Measures (i.e., part of the proposed action), the Recovery Program is making sufficient progress to continue avoiding the likelihood of jeopardy resulting from depletion impacts of new projects that have an annual depletion of up to 4,500 acre feet. Furthermore, that sufficient progress provides continued avoidance of jeopardy for the water projects and depletions currently provided with ESA compliance by the Program. Projects exceeding 4,500 acre feet or that have direct or indirect effects in addition to water depletions will be evaluated to determine if they jeopardize the species’ continued existence on a case by case basis.”

Therefore, given the USFWS’s conclusion under their 2016 Final Assessment, all existing PBOs are still valid because USFWS found sufficient progress toward avoidance of jeopardy for those species.

In May 19, 2016, the USFS received a concurrence letter from the USFWS after reinitiating consultation for the reinstatement of the North Fork Coal Mining Area (NFCMA) temporary



road exception to the Colorado Roadless Rule. This Biological Opinion covers the project and foreseeable activities, including water depletions, by recognizing the adequacy of the Gunnison River PBO thresholds for water depletions. In the 2016 PBO, the USFWS has “determined that projects that fit under the umbrella of the Gunnison River PBO would avoid the likelihood of jeopardy and/or adverse modification of critical habitat for depletion impacts to the Gunnison River basin. For projects involving water depletions less than 100 acre-feet per year that fit under the umbrella of the Gunnison River PBO, the Federal agency requesting consultation must document the project location, the amount of the water depletion, identify if the depletion is new or historic, and provide the information to the Service when consultation is initiated. This information was provided in your consultation request, therefore, the requirements have been met for the subject project to fit under the umbrella of the Gunnison River PBO. The Service requests that the Forest Service retain discretionary Federal authority for the subject project in case reinitiation of section 7 consultation is required.”

Based on this consultation history for the project, the 2010 USFWS concurrence remains valid in light of the USFWS findings in subsequent BOs and recovery agreements which includes by reference all previous consultations including the forest’s 2007 programmatic and 2010 project specific consultations.

## **National Environmental Policy Act**

All documentation in the project record in support of, and including the SFEIS and ROD have been developed to comply with this Act, CEQ regulations at 40 CFR 1500, Forest Service policies at Forest Service Handbook 1909.15 and 36 CFR 220, requirements that evolved through the practice of NEPA, and from case law.

## **Coal Unsuitability**

Upon receipt of the applications to modify the leases, BLM completed tract delineation. I have reviewed the unsuitability criteria published in 43 CFR 3461 (SFEIS, Appendix B) and am recommending to the Secretary of Interior (or their delegated representative) that there are no significant recreational, timber, economic, or other values that are incompatible with modifying the leases within the analysis.

The criteria have also been reviewed for implications with all Alternatives in this analysis. My recommendation is consistent with 43 CFR 3461.

## **Colorado Roadless Rule, 36 CFR 294**

Within portions of proposed lease modification areas within the Sunset CRA, in accordance with § 294.43(c)(2), “If proposed road construction/ reconstruction meets one of the exceptions, subject to the legal rights identified in § 294.43(c)(1), the responsible official must determine:

- (i) *Motorized access, without road construction is not feasible;”*

As described previously in this ROD, development of the lease modifications without roads (Alternative 2) is not feasible at this time. Therefore, motorized access via roads is necessary.

- (ii) *“When proposing to construct a forest road, that a temporary road would not provide reasonable access;”*

All roads that may be constructed would be temporary.

- (iii) *“Road construction is consistent with applicable land management plan direction;”*

The use of roads is consistent with the land management plan. During the permitting stage when the roads would be designed and approved, the Forest Service will work with the permitting agency to ensure compliance with the land management plan and lease stipulations.

- (iv) *“Within a native cutthroat trout catchment or identified recovery watershed, road construction will not diminish, over the long term, conditions in the water influence zone and the extent of the occupied native cutthroat trout habitat;”*

The lease modification area is not within a native cutthroat trout catchment or identified recovery watershed (project file).

- “,and*  
(v) *That watershed conservation practices will be applied to all projects occurring in native cutthroat trout habitat.”*

The lease modification area is not within native cutthroat trout habitat. However, watershed conservation practices will be applied.

Stipulations have been developed to ensure compliance with CRR respecting temporary roads, pipelines and linear construction zones should the latter be needed at a future date for capture of methane incident to mining. My decision is consistent with the requirements of the CRR.

## **Other Permits Required**

- DRMS mine permit

In addition to the mine permit process, other permitting processes not covered by DRMS authority may need to be analyzed (NEPA) and permitted. Examples of these types of permits include: 1) Road Use Permits; 2) Timber contract for harvest of merchantable timber; and 3) Special Use/Right-of-Way Authorizations for other surface disturbing activities not covered by or outside the area covered in the mine permit (e.g. pipelines and off-lease facilities for methane mitigation).

MCC will be required to obtain/update additional information specific to this leasing action including:

- BLM on-lease Exploration Plan
- Update Forest Service Road Use Permit for roads outside the mine permit area
- Forest Service timber contract for any merchantable timber removed
- Update Approved Pesticide Use and Weed Control Plan

Other permits currently held by MCC such as NPDES, SPCC, 404 Permits, Air Construction Permit, Spill Prevention, control, and Countermeasure Plan, etc. remain valid until renewal is necessary.

## **VII. IMPLEMENTATION DATE AND ADMINISTRATIVE REVIEW (OBJECTION) OPPORTUNITY**

### **Administrative Review (Objection) Process**

This decision has been subjected to a pre-decisional objection process in accordance with the provision of 36 CFR § 218 subparts A and B. Objection period ran from September 8th through October 23rd, 2017 after publication of the legal notice in the *Grand Junction Daily Sentinel* on September 8th. Twenty-one written objections were filed with the Reviewing Officer, Deputy Regional Forester, Maribeth Gustafson. All objections received and Reviewing Officer responses to them are available for public inspection at <https://www.fs.usda.gov/project/?project=32459>. Issues raised in objections should have been based on previously submitted and timely, specific written comments regarding the lease modifications and attributed to the objector, unless the issue was based on new information that arose after the opportunities for comment. Eleven of the objections were dismissed without further review by the Reviewing Officer as one or more of the objection criteria in 36 CFR § 218 were not met. Two of the objections were in support of the project, but wanted to maintain administrative standing in the process and provided recommended technical corrections to this final ROD. The remaining objections were reviewed by an independent team of resource specialists under the direction of the Reviewing Officer. Based on issues in objections, I wish to provide the following clarifications for certain items within the SFEIS or project record:

#### ***ESA Compliance***

Objectors alleged violations of ESA. An expanded summary of the consultation processes conducted for both the Canada lynx and water depletions related to the four endangered fish in the Colorado River has been included in the Findings Required by other Laws and Regulations section above.

#### ***Social Cost of Carbon & Economic Analysis***

Objectors alleged several violations regarding failure to calculate social cost of carbon (SCC) for the project. SCC analysis was not completed for this project for the reasons cited in the SFEIS. Additional discussion is found in my decision rationale above.

Objectors alleged that we quantified benefits but not costs and that assumptions were withheld for IMPLAN analysis. Objectors are continuing to confuse regional economic impacts addressed in SFEIS (because money is used as a metric) as identified under Forest Service policy with the requirements of a cost-benefit analysis, which was not conducted, is generally reserved for regulatory activities and evaluates different items than the regional impact analysis that was done. Methodology of regional impact analysis is disclosed which includes modelling assumptions and modelling results (SFEIS pp. 275-279 and 281-284, with more description in project record of model inputs). Additional discussion is found in SFEIS, project record and decision rationale above.

#### ***Roadless***

Objector alleges that the 2016 reinstatement of the North Fork Coal Mining Area of the CRR was illegal for a few reasons. These CRR-related objection issues pertain to the CRR re-instatement of the North Fork Coal Mining Area exception, not to this project specific analysis or decision. These issues are beyond the scope of the decision. The CRR was

promulgated on July 3, 2012. It remains legal and in effect until proven otherwise by a court. The reinstatement of the North Fork Coal Mining Area (NFCMA) within the Colorado Roadless Rule went into effect on April 19, 2017. To date there have been no legal challenges to the NFCMA portion of the rule. Analysis and assumptions completed in 2016 were valid at the time the Rule was issued.

Objector alleges we failed to ensure compliance with the Colorado Roadless Rule including that I must identify specific measures to prevent unnecessary or unreasonable surface disturbance. I have included stipulations in my decision and also ones specific to roadless consistent with those identified CRR to prevent unnecessary or unreasonable surface disturbance and minimize effects to roadless characteristics present including soil, water, air (regulation requires State permits), plants and animal habitat, recreation features (in the case of subsidence), landscapes, and cultural resources. These are included in the SFEIS and here in Appendix B.

Objector alleges we failed to take a hard look at the lease modifications' impacts to Sunset Roadless Area and its values. SFEIS and response to comments thoroughly addresses this issue. Alternative 2 in 2012 DEIS/FEIS was developed solely because of regulatory transition between the RACR and CRR. Alternative 4 was brought forward to deal with objectors concerns about "wilderness capable lands" based on a 2005 inventory. All alternatives include impacts on roadless. Roadless analysis was also included all NEPA analysis.

Objector alleges that I must determine roads are necessary and further contends that an alternative that allows cross country travel should have been analyzed. During the DEIS in 2012 this alternative (Alternative 2) for cross country travel was analyzed in detail under the regulatory framework of the Roadless Area Conservation Rule of 2001. Under the current CRR regulations, cross country motorized use is not proposed. We determined in 2012 that the effects of cross-country travel without the design features required for road construction for heavy drill rigs, is likely to result in more impacts on forest resources than road building. This is summarized under the Alternative 2 (page 51 and pp. 51, 719-720) of the SFEIS. Additionally, we have analyzed other methods to drill MDWs and exploration holes without roads and for various reasons have found them ineffective (SFEIS Section 2.3). Therefore, roads are necessary both to prevent unnecessary or unreasonable surface disturbance and to be technologically feasible for the activities proposed and are in compliance with CRR.

***Technical errata to SFEIS:*** Section 3.6.4.1 of the SFEIS includes a statement about the impact of cross country motorized travel on geology for Alternative 4. This errata deletes this statement as it applied to the now removed Alternative 2.

Objector alleges failure to adopt stipulations to ensure effective road decommissioning. I have included stipulations in my decision that address temporary roads (roadless stipulations) and with regard to the requirements under the Southern Rockies Lynx Amendment (Lynx) that assure reclamation (SFEIS and here in Appendix B). Reclamation bonding is required during exploration and per statute to ensure reclamation success with opportunity for my staff to review bonding amounts and success at several subsequent process steps.

### ***Wilderness Capable***

The SFEIS Violates NEPA by Failing to Analyze a Reasonable Alternative That Would Include Protections for Wilderness Character Lands. See SFEIS Alternative 4, alternatives not considered in detail, and pp. 760-761, 874-876 (#9739-11), 942-943, 959-960. During

review, "Wilderness character" was interpreted as equivalent to "Wilderness capable" from Roadless evaluations. Objector's initial 2012 alternative suggested that we should consider an alternative that we would prohibit surface occupancy with the Sunset IRA's wilderness capable area. Alternative 4 was developed to accommodate this request. Objector over the past five years has also brought forward numerous stipulations for wilderness character lands. Alternative 4 analyzed in detail specifically excluded the Wilderness capable portions of the Sunset Roadless Area as well as the adjacent non-capable lands within the lease modification tract, as shown on SFEIS Figure 3.26. In SFEIS Alternative 4, the lease extending over the Wilderness capable areas would not be modified. While a portion of the project area was identified in a previous Forest Planning process as being wilderness capable, that Forest Planning effort, and the regulations underlying that process are no longer in place. Area was not brought forward as a further planning area for wilderness designation. Capability would have to be followed by "availability" and "recommended" for wilderness under that planning rule which is no longer in effect. It was not carried forward for any of these. Wilderness character and values is applied and defined for wilderness areas not roadless areas which these lease modifications are in. Roadless is not intended to be managed as wilderness. Wilderness capable would not result in any changes under roadless analysis. Roadless characteristics were addressed in this document in Section 3.18. The current GMUG Forest Plan has areas identified as recommended for wilderness designation; this is not one of them. Wilderness character is not addressed for non-wilderness areas. See also SFEIS response at p. 1003.

### ***Recreation***

Objector alleged that we failed to take a hard look at the leasing and exploration impacts to recreation. First, my decision does not authorize surface disturbance that would have effects on recreation. This would occur in subsequent permitting decisions. Recreation effects were included in SFEIS specific to projected mine plan and the specifics of exploration. Each NEPA effort has resulted in additional additions of recreation considerations brought up by Objector including range features, historic trail alignments that are not part of the NFS system and/or trails that are not proximate to the lease modification area. Objector is concerned about two non-system trails including "8152" which is apparently an abandoned range drift fence that appeared on historic maps and at one time as a user-created (identified as "UT-8152") in our database. While surface activities of any variety of the multiple uses of the NFS lands I manage may have site-specific impacts on recreational users of the GMUG, nearly the entire forest is open to cross-country foot access including roadless areas in the same and similar environments for recreational activities. My decision does not preclude the use of the surface by recreationists. See also SFEIS Section 3.16, pp 858-860 (#8419-35), and 887-888 (8419-37).

### ***New Information***

During the objection period Earth Justice commissioned two new studies and included them as attachments to their objection. The first of these, Exhibit 63, (Analysis of the Federal Coal Lease Modifications COC-1362 & COC-67232 Final Supplemental Environmental Impact Statement and Record of Decision by Power Consulting, Inc. October 27)) was included in objection point issue directly regarding SCC and, therefore, requires no additional clarification on my part.

The second study (Raven Ridge, Exhibit 53) relates to the economic feasibility of flaring. Exhibit 53 was reviewed and found to be a reasonable way to assess flaring as a mitigation method. However, the information provided in Exhibit 53 does not change the policy or regulatory framework for the FS decision to be made. In other words, there is no compelling reason to require a more detailed analysis of flaring because the project would otherwise be consistent with air quality regulations. If new incentives develop, flaring could be used to further mitigate methane releases at any future time within the scope of the proposed stipulations and would be consistent with my decision. SFEIS considers flaring as an alternative not considered in detail because it, like all other methane mitigation measures, requires detailed engineering and economic considerations that would occur later in the process. See flowchart above regarding process. My decision does not preclude the inclusion of any methane mitigation measure including flaring, but does provide the sideboards for how these activities may occur on NFS lands in the form of stipulations which address placement and requirements related to a fire plan. This report would mostly appropriately be reviewed by BLM along with their review of economic feasibility to be submitted by MCC for methane mitigation measures within one year of leasing as required by stipulation (see Appendix B). The study does not change the analysis of impacts or my decision space, but provides additional information that is not relevant to this stage of the process. Focusing on this particular method of methane mitigation as economically feasible may also preclude the use of emerging technology and more effective methods.

Earth Justice submitted an additional new report (November 13, 2017) to the Reviewing Officer after the close of the objection period as a supplement to their objection. My staff has reviewed this new report, Climate Science Special Report. I would first like to note that according to page 2 of the document “It does not express any regulatory policies of the United States or any of its agencies, or make any findings of fact that could serve as predicates of regulatory action. Agencies must comply with required statutory and regulatory processes before they could rely on any statements in the document or by the USGCRP as basis for regulatory action.” While this report describes that current climate models may be erring on the low side of projected impacts it also does not contradict the analysis, uncertainties identified, and conclusions contained in SFEIS (section 3.4) regarding climate model scenarios and positive feedbacks. Report indicates that while methane is more potent than CO<sub>2</sub>, it also has a relatively short atmospheric life. Report (p. 395) concludes that for any given cumulative CO<sub>2</sub> budget, higher emissions in the near term imply the need for steeper restrictions in the long term. Report does not require any specific methane mitigation measure or provide direction requiring it. This new report does nothing to change my decision and does not present new information significant to my decision or the analysis. My decision does not preclude any methane mitigation technology from being used only provides the sideboards for its use on NFS lands in the form of lease stipulations.

Earth Justice submitted a second additional new analysis to the Reviewing Officer after the close of the objection period (November 29, 2017) regarding the Liberty Development Project Draft EIS noting that agencies have used SCC in NEPA analyses, and that the SCC is a “useful measure to assess the benefits of CO<sub>2</sub> reductions and inform agency decisions,” despite the fact that it likely underestimates those climate damages...Objector goes on to state “These statements contradict the Forest Service’s conclusion in the Lease Modifications SFEIS that the SCC is not a useful measure to assess climate impacts, that it should only be used in rulemakings, and that the SCC metric may overstate the climate costs of fossil fuel projects.” First, the document referenced is a DEIS that is out for public comment until December 8, 2017. Final Liberty analysis may change before either final

analysis or a decision on that project is issued in the coming years. Notably the referenced DEIS at ES-2 states, “A number of Federal agencies are using this EIS to meet their own regulatory (and in some cases, NEPA) requirements concerning activities described within the Liberty Development and Production Plan that fall under their respective jurisdiction. The Bureau of Safety and Environmental Enforcement (BSEE), the Environmental Protection Agency (EPA), and the U.S. Army Corps of Engineers (USACE) are all adopting this EIS to satisfy NEPA requirements associated with their proposed regulatory actions concerning various activities described in the DPP.” This (along with the comment address of “Federal eRulemaking Portal”) suggests there is regulatory nexus for Liberty Development that we have further specified that our project is not. Because this is a draft document and that does not pose case law considerations to my decision, this possible use of SCC protocol in it is irrelevant to and beyond the scope of my decision.

Objector alleged that we must disclose the extent to which the Proposed Action will undermine Colorado’s New Executive Order on Climate Change. Colorado’s new executive order ([2017 Climate Action Plan](#)) was out for public comment until November 3, 2017. Posted version does not address a reduction in coal mining. While the plan recognizes the greenhouse gas issues associated with coal mines and has encouraged electrical generation from coal mine methane (Section 5.4.1), it has only suggested in its strategies to: 1) Consult with stakeholders and our state partners in the United States Climate Alliance to identify and implement future GHG reduction strategies for meeting statewide emission goals. (Section 4.6) and 2) Aid in the commercialization of emerging electric generation technologies that reduce greenhouse gas emissions, such as coal mine methane capture, anaerobic digestion of agricultural waste, geothermal and small/micro hydro. (Section 5.5) To date, it also does not require methane use or capture from coal mines. Since the State also is the permitting entity for coal mining and for air permits, it would be a non sequitur if the State’s Plan didn’t follow State permitting regulations and federal laws where they also have delegated implementation authority. The GMUG’s analysis and my consent decision also do not prohibit addition of any measures to reduce GHG’s in accordance with State’s future goals to implement the Clean Air Act or this new Executive Order in accord with compliance with federal, state and local regulations. Lease stipulations specifically provide the sideboards for methane mitigation/capture, but do not prescribe a specific method of mitigation. Therefore, my decision poses no effect on the State’s climate goals, as written.

### ***Dated Forest Plan***

Objector alleges that I must refrain from consenting to lease until completion of Forest Plan Revision. This is not the intent of law, regulation or policy to which I must adhere for the processing of minerals applications. See Authorities section above. Likewise, the current forest plan remains active until replaced. To date, I have not reviewed or approved alternatives for proposed forest plan revision that would in any manner curtail my decision space with regard to this coal leasing activity.

### ***Air & Climate***

Objector alleges the USFS has dramatically revised its emissions estimates in the SFEIS without any explanation of the change or opportunity for the public to comment on its analysis. Commenters on the SDEIS noticed the units conversion error in the numbers displayed in the air section. The FS and BLM had corrected the units conversion error in the SFEIS (Section 3.4) and had reported direct methane emissions in terms of CO<sub>2</sub>e where applicable, as requested during comments in compliance with 40 CFR 1503.4 to



make factual corrections in response to comments received. Because agency's SDEIS methodology was re-capped in comment letters received, noting the errors, which were available to the public in the reading room and errors were noted and corrected in compliance with existing methodology, this is not significant new information under 36 CFR 218.8 that has arisen since the SDEIS that would warrant another comment period. No changes in the proposed action have occurred and with the technical/mathematical edits in the effects analysis, and the environmental effects are less than those previously analyzed not greater. This change is not significant new information which would warrant additional supplementation of the EIS analysis. 40 CFR 1502.9 (c )(1). See SFEIS Section 3.4, pp 980-982; EarthJustice Comment Letter (SDEIS # 36078) and Dr. Power's Comment letter (SDEIS #34937).

Objector alleges the USFS erroneously dismissed the significance of the direct and indirect GHG as a result of lease modifications. Referring to SFEIS (pp.105-113, 122,127-129, 896), I believe objector is mischaracterizing the analysis for the following reasons:

- First, methane and CO2 are neither regulated under the Clean Air Act nor has a significance level been established. The only requirement is for inventory of GHGs above 25,000 metric tons CO2e annually in compliance with FY2008 Consolidated Appropriations Act (H.R. 2764; Public Law 110--161). This is important because there is no way to determine what is considered an adverse effect or significance under the law. Emissions have been quantified in direct and indirect effects for all alternatives (SFEIS 105-113).
- Second, Objector quotes parts of the Carbon Budget analysis (SFEIS pp 127-129) to try to pinpoint a contradiction that does not exist between quantified emissions (pp 105-113) and climate change where objector assumes that any incremental increase in GHGs directly relates to climate change effects. This is not necessarily the case. SFEIS at 122 states, "Standardized protocols designed to measure factors that may contribute to climate change at the project scale, and to quantify climatic impacts, are presently unavailable. As a consequence, impact assessment of specific impacts related to anthropogenic activities on global climate change cannot be accurately estimated." While all models show impacts above zero, and I acknowledge there will be effects on climate change from the GHG emissions, I do not believe additional attempts to quantify these impacts provide information sufficiently reliable for my decision or that contribute meaningfully to the information available to the public. SFEIS (128) also explains the variables that contribute to GHG reductions including market, changes in fuel, government actions, etc. Climate change modelling uses various climate scenarios that result in different projections. These climate scenarios (SFEIS pp. 122) have varying effects on local climate-related effects. The Carbon Budget (SFEIS 127-129) adds context of quantified emissions.
- Third, Objector confuses an emissions analysis with portions of an economic cost-benefit analysis for which was not conducted. The SFEIS does not refer to "perfect" substitution in the manner suggested by Objector. This was not a long-term economic assumption in the SDEIS for a cost-benefit analysis (which was not conducted or an analysis of the U.S. Energy Market). It was used to calculate possible emissions at broad geographic scales for pollutants. Summarizing the SFEIS at 109-111:
  - According to U.S. EPA figures contained in the Draft US Greenhouse Gas Inventory Report (2012), nearly 95% percent of all coal consumed in the U.S. during 2010 was used in the generation of electric power. There 463 powerplants that use coal as a primary fuel source.

- It is reasonable to assume that existing coal power plants will continue to have emissions of criteria pollutants as long as they are in operation.
- Because there are no long term contracts in place, coal is sold on the spot market and is mined/delivered within 3 months after being ordered. If coal is purchased by a coal power plant it is likely that it is in turn used to generate electricity.
- Emissions are estimated using EPA's Emissions & Generation Resource Integrated Database (eGRID, 2014 v2)
- For the purposes of disclosure, estimates were provided for the total foreseeable coal to be mined under the alternative. U.S. eGRID based combustions emissions (which include criteria and non-criteria emissions) are shown in SFEIS Table 3-10 and are the result of multiplying the foreseeable total coal to be mined (cumulatively) by the derived emissions factors.

Therefore, as described in the air analysis and further described in the SEIS appendix (pp. 896), this is not an energy market analysis, it is the assumptions used to calculate the combustion emissions and criteria pollutants that may occur from estimated coal quantities within the alternatives that would be mined/delivered after having been purchased and with a very high likelihood (95% based on EPA data) that coal purchased in advance by an existing powerplant would in fact be used/combusted there.

Objector alleged that we failed to take a hard look at the lease modifications' air quality impacts. In response to objector's specific allegations, the information is in the SFEIS, but not consolidated. Production emissions will remain the same for all alternatives (year to year), but the project duration will vary between alternatives. SFEIS Table 3-7 shows the West Elk emissions/year; Table 3-10 displays the coal combustion GHG/ year; Table 3-9 shows emissions from MDW development; and Table 3-11 shows the emissions related to exploration.

Objector alleged that we failed to "properly" analyze VOC emissions from methane venting. Air quality impacts related to local, conditions, construction, methane, VOCs, particulates, and combustion have been addressed. Modelled effects from oil and gas development in the Muddy Country are include in SFEIS. See SFEIS Section 3.4, pp. 597-602, 861-864 (#8419-43), 979-9787. The reasons for not analyzing methane VOC emissions are explained SFEIS (page 108). This information was deemed to be unavailable and incomplete to do a detailed analysis of methane VOC emissions in compliance with NEPA. The State's regulatory department, Colorado Air Pollution Control Department (CAPCD), is reviewing the data, to determine a direction for future permitting of this project and other coal mines around the state under their delegated authority for implementing the Clean Air Act.

Objector alleged we are deferring our regulatory authority to other agencies. The Forest Service did not defer our regulatory authority to another agency for Clean Air Act compliance. We have no regulatory authority to defer. We are awaiting other agencies regulatory actions or input to move forward to provide information on future permits. At this time, MCC has State air permits are in place that control the rate of mining due to emissions in compliance with the requirements of the Clean Air Act.

Objector alleged the SFEIS failed to "properly" assess ozone Impacts. Air quality impacts related to local, conditions, construction, methane, VOCs, particulates, and combustion have been addressed. Modelled effects from oil and gas development in the Muddy Country are included in SFEIS. See SFEIS Section 3.4, pp. 597-602, 861-864 (#8419-43), 979-9787. SFEIS (p. 94) discusses the ozone in the area, and highlights that ozone may

occur in wintertime conditions. Though VOCs are released from CMM, NOX may be a limiting factor for ozone formation.

Objector alleged that we failed to analyze and disclose the indirect effects of coal transport and combustion. SFEIS Section 3.4.2.2 (page 109) discusses the indirect emissions related to transport of coal on trains. Table 3-10 (page 211) displays the emissions from combustion of coal.

Objector alleged that we failed to supplement Forest Plan Standards to address new air quality information. The current forest plan standard (Forest Plan III-85) is to “Comply with State and Federal air quality standards”. This is not a dated standard as it allows for any update in State or Federal regulation. The existing plan will remain in effect until it is replaced by a Revised Forest Plan.

Objector alleged that we failed to take a hard look at the climate impacts of the proposed action further arguing (objection p.54) that the USFS acknowledges that extending the mine life could have substantial global impacts by referencing language from SFEIS (pp. 255-56; Roadless Characteristics). This SFEIS language was taken out of context and not representative of the overall climate impacts discussions in the SFEIS. Climate change was addressed throughout the SFEIS although not in the SCC manner requested by objector.

### ***Subsidence***

Objector alleged that we failed to take a hard look at the impacts of subsidence. There are numerous locations in the SFEIS where subsidence is addressed including private lands and adjacent federal lands. Impacts from subsidence is addressed for every resource in the SFEIS. Lease stipulations (Appendix B) specifically relate to the monitoring and mitigation of subsidence. These lease modification stipulations originated from the parent leases, so would cover adjacent federal land where subsidence may also occur. I have no decision authority over private lands; however, similar subsidence requirements would occur as part of the State permitting process. There is also documentation in the record for the different subsidence estimates in the 2012 FEIS and the 2017 SFEIS. Specific to water, SFEIS (Section 3.8 and pp. 21-38, 990-991) addresses effects on surface and ground water sources. Lease stipulations protect water resources on federal lands, state permitting further protects water resources on federal and private lands. To the extent known where subsidence may occur from mining on private lands it is shown on maps; roads exist on private that can be used for exploration and/or mining. Existing road on private crosses South Fork Prong Creek as displayed on maps.

### ***Heritage Resources***

Objector alleged that we failed to take a hard look at the impacts to heritage resources. The SFEIS addresses impacts to cultural resources. Lease stipulations protect cultural resources. Stipulations (SFEIS and here in Appendix B) are very clear that cultural resource inventories must be completed prior to ground-disturbing activities and that compliance with mitigation measures is required. Some surveys have been completed for previously authorized surface disturbance for exploration in 2013. The results of those surveys have been disclosed. Further, my consent decision does not authorize ground-disturbing activities; those would occur later in the process. However, the same surveys that have already been completed would apply if BLM authorizes exploration consistent with submitted exploration plan analyzed under the proposed action.

## ***Alternatives and Stipulations***

Objector alleged NEPA mandates agencies analyze potential mitigation measures. My stipulations are those intended to protect the surface resources. Stipulations that have been applied by me and will apply to subsequent agency actions have been analyzed in detail as part of the proposed action. My decision allows for the application of other site-specific conditions of approval at the appropriate times and does not preclude the use of methane mitigation measures in the future. Furthermore, because the project would be consistent with the existing regulatory framework, there is no compelling reason to constrain my decision to specific methods proposed by Objector when other still untested/unknown methods would also continue to be available for permitting and implementation in the future.

Objector alleged that we failed to analyze an alternative that would make available less than 16.8 million tons of coal. First, this allegation is a mischaracterization because the coal tonnage includes coal resources already under lease and private coal resources that are not part of my or BLM's decision spaces included in the No Action Alternative. There is no NEPA requirement to develop alternatives with specific quantitative degrees of estimated outputs. Estimated outputs are provided as a baseline and method of comparison with the existing lease outputs (No Action) and would also be subject to adjustment by BLM of the lease modifications themselves in their subsequent decision, as BLM deems appropriate, or from the from results of exploration which would help quantify the coal resource present. See also SFEIS pp. 975-976.

Objector alleged that we failed to analyze an alternative that would eliminate the southern portion of proposed lease modification COC-67232. This alternative is a subset of the proposed action. The alternative does not meet the purpose and need which is to prevent bypass of federal coal resources. BLM retains full discretion to reduce the lease modification sizes in their subsequent leasing decision; however, the surface effects would still remain within the bounds of alternatives disclosed in the EIS. Further, this alternative is captured by the design of alternative 4 which excludes the entire COC-67232 modification. See also SFEIS at 958.

Objector alleged that we failed to analyze an alternative that requires the use of helicopters for exploration. This alternative, brought forward in the SDEIS and SFEIS (Section 2.3.10.9 and pp 974-975), was considered but eliminated from detailed study because it is ineffective and technically infeasible, and would not meet the purpose and need for exploration. Further, exploration is beyond the scope of my decision.

Objector alleges analyze the reasonable alternative of considering the lease modifications as a request for one, new, 1,720-acre lease. Lease modifications are being considered in response to two separate applications as is permitted by law and regulation. The lease modification tracts have been delineated (and modified) by BLM prior to being sent to the GMUG for consent. Each application is tied to existing rights (of different owners of record) and submitted and processed by BLM under the authority of the Mineral Leasing Act as amended by the Energy Policy Act of 2005. There are some administrative distinctions in BLM's regulations and laws between the processes for lease modifications (which BLM has already determined is non-competitive here) and competitive leasing as would be the case for a new lease. Even if BLM's administrative and regulatory process were different for leasing these lands as a single new lease, environmental effects on NFS resources and the stipulations deemed necessary for protection of NFS lands would be identical to those of the proposed action I have selected. There is no range of alternatives here that has not been covered by the existing analysis.

Objector alleged that we failed to analyze stipulations to protect old growth forest and existing mature forest further citing that we failed to inventory the area in compliance with the Forest Plan. Initial comments from objector included old growth then morphed to also include mature forests. GIS data (FS Veg) from corporate databases was used to provide stand structure which is used to determine old growth and mature stand characteristics. No old growth is present based on the first screening criteria (large diameter trees) thus project level inventory as required by the Forest Plan (III-9a) would not apply. The Forest Plan (III-9a) does not eliminate projects in old growth, but has some silvicultural requirements for old growth retention at the fourth-order (5000-20,000 acres) watershed scale. Timber cruise plot data collected for exploration in 2013 (project file) provides the required "inventories" for old growth and validates the GIS layer. Results are still negative for old growth and marginal for mature forest. As a result, additional stipulations were not necessary to protect attributes that are 1) not present and 2) not required to be protected in entirety by the Forest Plan. See also SFEIS at 62-63, 646-647, 713-715, 828, 878-880, 956-880.

Objectors allege that we should require various methane mitigation measures or alternatives. SFEIS addresses all the methods proposed in alternatives not considered in detail. My decision does not preclude any type of methane mitigation as long as the sideboards of the stipulations (Appendix B) are met.

Objectors allege I should consider a mitigation measure to ensure revegetation by fencing out livestock for one season. Fencing stipulation has been addressed in response to comments in SDEIS (pp. 703-704) and SFEIS (p 978). It is not being carried forward because it is site-specific and could impact livestock management or other activities. However, this may be a strategy that is employed as a site-specific condition of approval in subsequent permitting processes.

Objectors allege the SFEIS failed to analyze reasonable alternatives that would reduce surface impacts from exploration, including eliminating exploration hole 10. Proposed action includes exploration hole 10. Based on BLM's 2013 EA, an alternative considered but eliminated from detailed study (SFEIS and SDEIS section 2.3.12) addresses removal of all of the second season exploration drill holes which includes hole 10. Objector modified his comment on the SDEIS comments to only include the exploration hole 10. Neither of commenter's alternative versions meets on-lease exploration purpose and need (40 CFR 1502.13) for the proposed action. SFEIS Alternative 4 analyzes in detail an opportunity to reduce surface impacts from exploration and/or mining by disclosing the impacts of consenting to modification of one lease but not the other; the lease excluded in Alternative 4 includes the potential location of exploration hole 10. Forest Service has no authority to approve exploration.

## **Visuals**

Objector alleged that we failed to take a hard look at the lease modifications' impacts to visual resources. I have reviewed the long history of visual resource analysis. SFEIS revised the visuals section to comply with the current Forest Plan not the visuals assessment that was completed for the abandoned Forest Plan Revision effort ~10 years ago in response to requests for maps from objector. When the previous project documents were prepared, we were unable to locate original Mylar overlays (~1983 vintage) or metadata on the visuals layer used which, when located, indicated that the scenery designations applied to proposed management areas for forest plan revision in 2005 which was never implemented. Visual Quality Objectives (VQOs) tier to Recreation Opportunity Spectrum (ROS) in the current Forest Plan. The Forest Plan established ROS of "roaded

natural for project area". The directive reference (FSM 2311.11 Exhibit 1) identifies partial retention or modification of visual resources as being consistent with roaded natural ROS. The CRR did not amend or change the current Forest Plans with regard to visuals. This project is consistent with the ROS established for the Forest Plan for the project area and with the CRR because of the implementation of lease stipulations which require post-lease roads to be temporary.

### **Wildlife & ESA**

Objector alleged that we failed to disclose impacts to wildlife. Impacts on wildlife have been addressed in the SFEIS and all previous NEPA documents. Analysis includes effects on private lands within HUC 6 watershed which is approximately the same as the Mount Gunnison Lynx Analysis Unit. Stipulations protect wildlife. SFEIS in section 3.10 explains why not every species that has potential to be present within the project area is analyzed although the unsuitability criterion analysis in SFEIS appendix also mentions some of these species. The analysis of TEPS, R2 FS Sensitive, MIS, and BOCC cover a wide variety and breadth of habitat requirements and effects to adequately disclose effects to wildlife species. We are only required to analyze effects to species with special status that may be affected by the proposed action. The 40,000 + acre watershed does not include the Muddy Country which is approximately 20 miles away.

Objector alleged that we failed to take a hard look at the lease modifications cumulative impact. With regard to wildlife, Objector had concerns about using an LAU for all species in the Cumulative Effects analysis and stated that it is an "arbitrary and capricious" boundary to use for all species. The area used is actually the watershed boundary which happens to coincide with the old LAU boundary. A watershed boundary is a good, defined boundary to analyze cumulative effects for a variety of species, per FS guidance and directives. This is described in the vegetation section of the SFEIS as being the same. The Muddy Country which objector tries to force us include in cumulative effects is over 20 miles away and the oil and gas projects there are not in the same watershed. The Muddy Country (i.e., the oil and gas) projects have been included for applicable resources such as air quality; these are described in SFEIS at Section 3.2.11.

### **Other**

Objector alleged that we failed to disclose irreversible or irretrievable commitments of resources from the action alternatives. While objector may disagree with the agencies analysis, the SFEIS (pp 288-289, 665-667, 999, 1019) discloses irreversible and irretrievable commitments of resources.

Objector alleged that we failed to disclose the direct, indirect and/or cumulative Impacts of mining on private and adjacent federal land. Effects from on private land and adjacent federal lands have been disclosed throughout NEPA documents. Maps include private and adjacent federal lands including vegetation, water courses, subsidence, existing roads. For example, a key word search on "private" results in approximately 270 locations and searching on "private lands" results in about 150 locations in the SFEIS. Similar is true about the parent leases where the affected adjacent federal lands are located.

Objector alleges that the proposed action is prohibited under the Energy Policy Act of 2005. Energy Policy Act of 2005 (Subtitle D-Federal Coal Leases, Section 431) amended Section 3 of the Mineral Leasing Act (30 U.S.C. 203) which allows for modifications of leases up to 960 acres which do not exceed the acreage of original lease; application and approval of both leases modifications meet the requirements of the act. These lease

requirements meet the amended requirement of 30 U.S.C. § 203(a)(3). BLM (GER/MER, project file) has performed tract delineation in accordance with 43 CFR 3425.1-9, the Energy Policy Act of 2005 and Mineral Leasing Act (30 U.S.C. 203) to prevent bypass of federal reserves. BLM has also determined this is a non-competitive leasing action. Parent leases, while operated by the same mine, are owned by different entities. BLM is responding to two applications (project file) not one. There is no evident violation of the Energy Policy Act in my consent decision.

Objector alleges that we failed to properly disclose impacts to streams and wetlands. SFEIS analysis addresses impacts to streams and wetlands appropriate to lease modification decision. Lease stipulations protect water resources on federal lands, state permitting further protects water resources on federal and private lands. Objector is requesting much more detailed information that will be addressed in later in a mine plan, during layout, etc. To the extent known where subsidence may occur from mining on private lands it is shown on maps; roads exist on private that can be used for exploration and/or mining. An existing road on private crosses South Fork Prong Creek. Roads and other disturbances for exploration are shown on maps.

***Technical errata to SFEIS:*** While it appears there is a map (SFEIS p 154) discrepancy with regard to a portion of South Prong Creek showing as perennial vs. text on pg 152 stating that South Prong is ephemeral; it should only be clarified that the text on 152 is based on monitoring data and should prevail.

## Implementation Date

This decision may be implemented immediately. In relation to the Forest Service role in this project as the federal surface land management agency, my consent will be formally transmitted to BLM in compliance with agency processes. BLM decision making relating to leasing these lands and exploration may occur at their convenience upon receipt of consent/concurrence.

## Contact

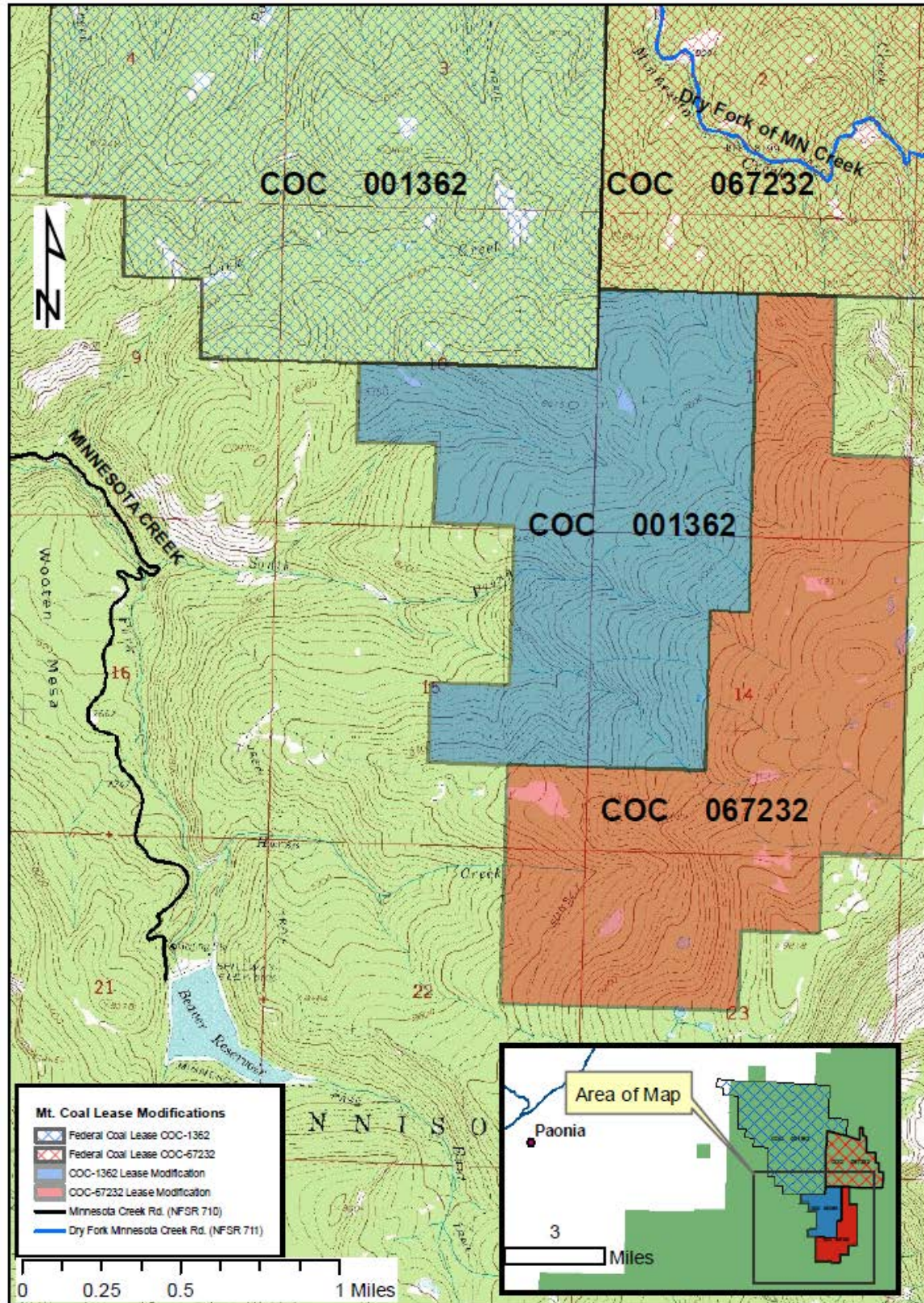
For more information about this project, contact either Niccole Mortenson phone 406-329-3163 or [nmortenson@fs.fed.us](mailto:nmortenson@fs.fed.us) or Levi Broyles at 970-527-4131 or [lbroyles@fs.fed.us](mailto:lbroyles@fs.fed.us).

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## Appendix A- Decision Map





## Appendix B- Stipulations for National Forest System Lands Federal Coal Lease COC-1362 & COC-67232

Resource Area	Stipulations Carried Forward from Parent Lease COC-1362 Specific to Forest Service Lands	Stipulations Carried Forward from Parent Lease COC-67232 Specific to Forest Service Lands	Stipulations Specific to Lease Modifications
<b>Cultural and Paleontological Resources</b>	<p>The FS is responsible for assuring that the leased lands are examined to determine if cultural resources are present and to specify mitigation measures. Prior to undertaking any surface-disturbing activities on the lands covered by this lease, the lessee or operator, unless notified to the contrary by the FS, shall:</p> <ul style="list-style-type: none"> <li>• Contact the FS to determine if a site specific cultural resource inventory is required. If a survey is required then:</li> <li>• Engage the services of a cultural resource specialist acceptable to the FS to conduct a cultural resource inventory of the area of proposed surface disturbance. The operator may elect to inventory an area larger than the area of proposed disturbance to cover possible site relocation which may result from environmental or other considerations. An acceptable inventory report is to be</li> </ul>	<p>The FS is responsible for assuring that the leased lands are examined to determine if cultural resources are present and to specify mitigation measures. Prior to undertaking any surface-disturbing activities on the lands covered by this lease, the lessee or operator, unless notified to the contrary by the FS, shall:</p> <ul style="list-style-type: none"> <li>• Contact the FS to determine if a site specific cultural resource inventory is required. If a survey is required then:</li> <li>• Engage the services of a cultural resource specialist acceptable to the FS to conduct a cultural resource inventory of the area of proposed surface disturbance. The operator may elect to inventory an area larger than the area of proposed disturbance to cover possible site relocation which may result from environmental or other considerations. An acceptable inventory report is to be</li> </ul>	<p>Use language from parent leases (required Standard Notice for Lands under the Jurisdiction of the Department of Agriculture.)</p>

Resource Area	Stipulations Carried Forward from Parent Lease COC-1362 Specific to Forest Service Lands	Stipulations Carried Forward from Parent Lease COC-67232 Specific to Forest Service Lands	Stipulations Specific to Lease Modifications
	<p data-bbox="661 358 1003 477">submitted to the FS for review and approval at the time a surface disturbing plan of operation is submitted.</p> <ul data-bbox="617 513 1003 1286" style="list-style-type: none"> <li data-bbox="617 513 1003 976">• Implement mitigation measures required by the FS and BLM to preserve or avoid destruction of cultural resource values. Mitigation may include relocation of proposed facilities, testing, salvage, and recordation or other protective measures. All costs of the inventory and mitigation will be borne by the lessee or operator, and all data and materials salvaged will remain under the jurisdiction of the U.S. Government as appropriate.</li> <li data-bbox="617 1011 1003 1286">• The lessee or operator shall immediately bring to the attention of the FS and BLM any cultural or paleontological resources or any other objects of scientific interest discovered as a result of surface operations under this license, and shall leave such discoveries intact</li> </ul>	<p data-bbox="1117 358 1459 477">submitted to the FS for review and approval at the time a surface disturbing plan of operation is submitted.</p> <ul data-bbox="1073 513 1459 1286" style="list-style-type: none"> <li data-bbox="1073 513 1459 976">• Implement mitigation measures required by the FS and BLM to preserve or avoid destruction of cultural resource values. Mitigation may include relocation of proposed facilities, testing, salvage, and recordation or other protective measures. All costs of the inventory and mitigation will be borne by the lessee or operator, and all data and materials salvaged will remain under the jurisdiction of the U.S. Government as appropriate.</li> <li data-bbox="1073 1011 1459 1286">• The lessee or operator shall immediately bring to the attention of the FS and BLM any cultural or paleontological resources or any other objects of scientific interest discovered as a result of surface operations under this license, and shall leave such discoveries intact</li> </ul>	

Resource Area	Stipulations Carried Forward from Parent Lease COC-1362 Specific to Forest Service Lands	Stipulations Carried Forward from Parent Lease COC-67232 Specific to Forest Service Lands	Stipulations Specific to Lease Modifications
	until directed to proceed by FS and BLM.	until directed to proceed by FS and BLM.	
<b>Endangered or Threatened Species</b>	<p>The FS is responsible for assuring that the leased land is examined prior to undertaking any surface-disturbing activities to determine effects upon any plant or animal species listed or proposed for listing as endangered or threatened, or their habitats. The findings of this examination may result in some restrictions to the operator's plans or even disallow use and occupancy that would be in violation of the Endangered Species Act of 1973 by detrimentally affecting endangered or threatened species or their habitats.</p> <p>The lessee/operator may, unless notified by the FS that the examination is not necessary, conduct the examination on the leased lands at his discretion and cost. This examination must be done by or under the supervision of a qualified resource specialist approved by the FS. An acceptable report must be provided to the FS identifying the anticipated effects of a proposed action on endangered or threatened species or their habitats.</p>	<p>The FS is responsible for assuring that the leased land is examined prior to undertaking any surface-disturbing activities to determine effects upon any plant or animal species listed or proposed for listing as endangered or threatened, or their habitats. The findings of this examination may result in some restrictions to the operator's plans or even disallow use and occupancy that would be in violation of the Endangered Species Act of 1973 by detrimentally affecting endangered or threatened species or their habitats.</p> <p>The lessee/operator may, unless notified by the FS that the examination is not necessary, conduct the examination on the leased lands at his discretion and cost. This examination must be done by or under the supervision of a qualified resource specialist approved by the FS. An acceptable report must be provided to the FS identifying the anticipated effects of a proposed action on endangered or threatened species or their habitats.</p>	Use language from parent leases, required Standard Notice for Lands under the Jurisdiction of the Department of Agriculture.
	If there is reason to believe that Forest Service Sensitive species, Threatened or Endangered species of plants or animals, or migratory bird species of high Federal interest are present, or become present in the lease area, the Lessee/Operator	If there is reason to believe that Sensitive, Threatened or Endangered species of plants or animals, or migratory bird species of high Federal interest are present, or become present in the lease area, the Lessee/Operator shall be	Use language from parent leases, required Standard Notice for Lands under the Jurisdiction of the Department of Agriculture.

Resource Area	Stipulations Carried Forward from Parent Lease COC-1362 Specific to Forest Service Lands	Stipulations Carried Forward from Parent Lease COC-67232 Specific to Forest Service Lands	Stipulations Specific to Lease Modifications
	shall be required to conduct an intensive field inventory of the area to be disturbed and/or impacted. The inventory shall include species or groups of species identified by the FS, and will be conducted to by a qualified specialist. A report of findings will be prepared and provided to the FS. A plan will be made that recommends protection for these species or action necessary to mitigate the disturbance consistent with the Forest Plan. The cost of conducting such inventory, preparing reports and carrying out mitigation measures shall be borne by the Lessee/Operator.	required to conduct an intensive field inventory of the area to be disturbed and/or impacted. The inventory shall be conducted by a qualified specialist, and a report of findings prepared. A plan will be made that recommends protection for these species or action necessary to mitigate the disturbance. The cost of conducting such inventory, preparing reports and carrying out mitigation measures shall be borne by the Lessee/Operator.	
<b>Canada Lynx</b>	<p>To comply with the USDA Forest Service Conservation Agreement with Fish and Wildlife Service, to follow the conservation measures in the Canada Lynx Conservation Assessment and Strategy (Ruediger et al. 2000), the following special constraints will apply if surface use on the lease is proposed in lynx habitat:</p> <ul style="list-style-type: none"> <li>• Winter access will be limited to designated routes.</li> <li>• Further, should surface disturbing operations be proposed on the lease in lynx habitat, the following special constraints may apply, depending on site-specific circumstances:</li> </ul>	<p>To comply with the Canada Lynx Assessment and Strategy (Ruediger et al. 2000), the following special constraints will apply if post-lease surface use is proposed in lynx habitat:</p> <ul style="list-style-type: none"> <li>• Winter access will be limited to designated routes.</li> </ul> <p>Further, should post-lease operations be proposed on the lease in lynx habitat, the following special constraints may apply, depending on site-specific circumstances:</p> <ul style="list-style-type: none"> <li>• Remote monitoring of the development sites and facilities may be required to reduce snow compaction.</li> </ul>	<p>To comply with the GMUG Forest Plan 2008 amendment, the following special constraints will apply if surface use on the lease is proposed in lynx habitat:</p> <ul style="list-style-type: none"> <li>• Winter access will be limited to designated routes.</li> </ul> <p>Further, should surface disturbing operations be proposed on the lease in lynx habitat, the following special constraints will apply:</p> <ul style="list-style-type: none"> <li>• Remote monitoring of the development sites and facilities will be required to reduce snow compaction.</li> <li>• A reclamation plan (e.g. road reclamation and vegetation</li> </ul>

Resource Area	Stipulations Carried Forward from Parent Lease COC-1362 Specific to Forest Service Lands	Stipulations Carried Forward from Parent Lease COC-67232 Specific to Forest Service Lands	Stipulations Specific to Lease Modifications
	<ul style="list-style-type: none"> <li>• Remote monitoring of the development sites and facilities may be required to reduce snow compaction.</li> <li>• A reclamation plan (e.g. road reclamation and vegetation rehabilitation) for sites and facilities that promotes the restoration of lynx habitat may be required.</li> <li>• Public motorized use on new roads constructed for project-specific purposes will be restricted.</li> <li>• Access roads will be designed to provide for effective closures and will be reclaimed or decommissioned at project completion if they are no longer needed for other management objectives.</li> <li>• New permanent roads will not be built on ridge tops or in saddles, or in areas identified as important for lynx habitat connectivity. New roads will be situated away from forested stringers.</li> </ul>	<ul style="list-style-type: none"> <li>• A reclamation plan (e.g. road reclamation and vegetation rehabilitation) for sites and facilities that promotes the restoration of lynx habitat may be required.</li> <li>• Public motorized use on new roads constructed for project-specific purposes will be restricted.</li> <li>• Access roads will be designed to provide for effective closures and will be reclaimed or decommissioned at project completion if they are no longer needed for other management objectives.</li> <li>• New permanent roads will not be built on ridge tops or in saddles, or in areas identified as important for lynx habitat connectivity. New roads will be situated away from forested stringers.</li> <li>• If post lease surface use occurs in lynx habitat, the Lessee will be required to submit an annual report to the USDA-FS and USFWS of all activities having occurred in lynx habitat.</li> </ul>	<ul style="list-style-type: none"> <li>rehabilitation) for sites and facilities that promotes the restoration of lynx habitat will be required.</li> <li>• Public motorized use on new roads constructed for project-specific purposes will be restricted.</li> <li>• Access roads will be designed to provide for effective closures and will be reclaimed or decommissioned at project completion if they are no longer needed for other management objectives.</li> <li>• New permanent roads will not be built on ridge tops or in saddles, if possible, or in areas identified as important for lynx habitat connectivity. New roads will be situated away from forested stringers, if possible.</li> </ul>

Resource Area	Stipulations Carried Forward from Parent Lease COC-1362 Specific to Forest Service Lands	Stipulations Carried Forward from Parent Lease COC-67232 Specific to Forest Service Lands	Stipulations Specific to Lease Modifications
<b>Raptors</b>	<p>For raptors (except American kestrel) the Lessee will be required to:</p> <ul style="list-style-type: none"> <li>• Conduct surveys for nesting raptors on the lease prior to development of any surface facilities, and</li> <li>• No surface activities will be allowed within ¼ mile radius of active nest sites between the dates of February 1 and August 15, unless authorized by the Forest Service on a site-specific basis.</li> <li>• No surface activities will be allowed within 1-mile radius of active bald eagle or peregrine falcon nest sites between the dates of February 1 and August 15, unless authorized by the Forest Service on a site-specific basis.</li> </ul>	<p>For raptors (except American kestrel) the Lessee will be required to:</p> <ul style="list-style-type: none"> <li>• Conduct surveys for nesting raptors on the lease prior to development of any surface facilities, and</li> <li>• No surface activities will be allowed within ½-mile radius of active nest sites between the dates of February 1 and August 15, unless authorized by the Forest Service on a site-specific basis.</li> </ul>	<p>Use combined language from COC-67232 and COC-1362 which reflects Forest Plan standards as well as guidelines from the Biological Evaluation for this project:</p> <ul style="list-style-type: none"> <li>• Conduct surveys for nesting raptors on the lease prior to development of any surface facilities, and</li> <li>• No surface activities will be allowed within ½-mile radius of active nest sites between the dates of February 1 and August 15, unless authorized by the Forest Service on a site-specific basis.</li> <li>• No surface activities will be allowed within 1-mile radius of active bald eagle or peregrine falcon nest sites * between the dates of February 1 and August 15, unless authorized by the Forest Service on a site-specific basis.</li> </ul> <p>(* No bald eagle or peregrine falcon nest site habitat has been identified within the lease modifications as indicated in the Biological Evaluation prepared for this analysis.)</p>
<b>Big game winter range</b>	In order to protect big game wintering areas, elk calving areas, and other key	In order to protect big game wintering areas, elk calving areas, and other key	Use language from parent leases.

Resource Area	Stipulations Carried Forward from Parent Lease COC-1362 Specific to Forest Service Lands	Stipulations Carried Forward from Parent Lease COC-67232 Specific to Forest Service Lands	Stipulations Specific to Lease Modifications
	wildlife habitat and/or activities, specific surface use may be curtailed during specific times of year. Specific time restrictions for specific species will be evaluated by the Forest Service at the individual project stage, and any additional site specific conditions of use developed at that time.	wildlife habitat and/or activities, specific surface use may be curtailed during specific times of year. Specific time restrictions for specific species will be evaluated by the Forest Service at the individual project stage, and any additional site specific conditions of use developed at that time.	
<b>Water depletions</b>	In the future, if water to be used for mine related activities is taken from a source that is not considered to be non-tributary waters by the U.S. Fish and Wildlife Service, or which exceeds a depletion amount previously consulted upon, the permitting agency must enter into consultation with the U.S. Fish and Wildlife Service to determine appropriate conservation measures to offset effects to listed fish and critical habitat in the upper Colorado River Basin.	In the future, if water to be used for mine related activities is taken from a source that is not considered to be non-tributary waters by the U.S. Fish and Wildlife Service, or which exceeds a depletion amount previously consulted upon, the permitting agency must enter into consultation with the U.S. Fish and Wildlife Service to determine appropriate conservation measures to offset effects to listed fish and critical habitat in the upper Colorado River Basin.	<p>Based on the CRR Section 7 consultation effort for the CRR's NFCMA in 2016, the Forest Service took on the responsibility for reinitiating consultation if minor water depletion caps were exceeded. The Forest Service wants to ensure the lessee provides the necessary information from monitoring and reporting to determine if minor water depletion caps are exceeded, and, in the highly unlikely event that the depletion caps were exceeded, the lessee would meet any additional conservation measures the USFWS might require. This updated stipulation provides clarification to the process that has been occurring on the parent leases regarding water depletion. Changes to stipulation are in italics.</p> <p>In the future, if water to be used for mine related activities is taken from a source that is not considered to be non-tributary waters by the U.S. Fish and Wildlife Service, or which exceeds a depletion amount previously consulted upon, <i>the surface</i></p>

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			<i>management agency must enter into consultation with the U.S. Fish and Wildlife Service to determine appropriate conservation measures to offset effects to listed fish and critical habitat in the upper Colorado River Basin. The lessee shall monitor and report all depletions to the Forest Service. Notwithstanding the fact that the surface management agency has the obligation to consult, the Lessee has the obligation to comply with all appropriate conservation measures to offset effects to listed fish and critical habitat in the upper Colorado River Basin in the event the depletion threshold is exceeded and additional reasonable and prudent actions are required.</i>
<b>Breeding birds</b>	If surface disturbance is proposed on the lease, the lessee/operators will be required to conduct breeding bird surveys prior to surface disturbance as prescribed by the Forest Service.	If surface disturbance is proposed on the lease, the lessee/operators will be required to conduct breeding bird surveys prior to surface disturbance.	Use language from COC-1362 parent lease on both modifications.
<b>Geologic hazards</b>	No surface occupancy would be allowed in areas of high geologic hazard or high erosion potential, or on slopes which exceed 60%.	No surface occupancy would be allowed in areas of high geologic hazard or high erosion potential.	Use language from parent lease COC-1362 on both modifications.
	Special interdisciplinary team analysis and mitigation plans detailing construction and mitigation techniques would be required on areas where slopes range from 40-60 percent. The	Special interdisciplinary team analysis and mitigation plans detailing construction and mitigation techniques would be required on areas where slopes range from 40-60 percent. The	Use language from parent leases.



Resource Area	Stipulations Carried Forward from Parent Lease COC-1362 Specific to Forest Service Lands	Stipulations Carried Forward from Parent Lease COC-67232 Specific to Forest Service Lands	Stipulations Specific to Lease Modifications
	interdisciplinary team could include engineers, soil scientist, hydrologist, landscape architect, reclamation specialist and mining engineer.	interdisciplinary team could include engineers, soil scientist, hydrologist, landscape architect, reclamation specialist and mining engineer.	
<b>Baseline Information</b>	The operator/lessee would be required to perform adequate baseline studies to quantify existing surface and subsurface resources. Existing data can be used for baseline analyses provided that the data is adequate to locate, quantify, and demonstrate interrelationships between geology, topography, hydrogeology, and hydrology. Baseline studies are critical to the success of future observation and assessment of mining related effects on resources.	The operator/lessee would be required to perform adequate baseline studies to quantify existing surface and subsurface resources. Existing data can be used for baseline analyses provided that the data is adequate to locate, quantify, and demonstrate interrelationships between geology, topography, hydrogeology, and hydrology. Baseline studies are critical to the success of future observation and assessment of mining related effects on resources in the Dry Fork lease tract.	Use language from parent leases.
<b>Monitoring Program</b>	The operator/lessee would be required to establish or amend a monitoring program to be used as a continuing record of change over time of area resources in order to assess mining induced impacts. The monitoring program shall provide the procedures and methodologies to adequately assess interrelationships between geology, topography, hydrogeology, and hydrology identified in the baseline assessment to mining activities on the lease area. The monitoring program shall incorporate baseline data so as to provide a continuing record over time.	The operator/lessee of the lease tract would be required to establish or amend a monitoring program to be used as a continuing record of change over time of area resources in order to assess mining induced impacts. The monitoring program shall provide the procedures and methodologies to adequately assess interrelationships between geology, topography, hydrogeology, and hydrology identified in the baseline assessment to mining activities in the lease tract area. The monitoring program shall incorporate baseline data so as to provide a continuing record over time.	Use language from parent leases.
<b>Riparian, wetland or floodplain</b>	Surface use or disturbances (except for surface subsidence and resource	Surface use or disturbances (except for surface subsidence and resource	Use language from parent leases.

Resource Area	Stipulations Carried Forward from Parent Lease COC-1362 Specific to Forest Service Lands	Stipulations Carried Forward from Parent Lease COC-67232 Specific to Forest Service Lands	Stipulations Specific to Lease Modifications
	monitoring purposes defined in the approved mining permit) will avoid riparian, wetland or floodplain areas, and a buffer zone surrounding these areas (the definition of riparian areas and appropriate buffer zone will be consistent with that defined in the Forest Service Manual and Water Conservation Practices Handbook. Wetland definition will follow Army Corps of Engineers guidelines) unless no practical alternatives exist.	monitoring purposes defined in the approved mining permit) will not be permitted in riparian, wetland or floodplain areas, or within a buffer zone surrounding these areas (the definition of riparian areas and appropriate buffer zone will be consistent with that defined in the Forest Service Manual and Water Conservation Practices Handbook. Wetland definition will follow Army Corps of Engineers guidelines) unless no practical alternatives exist.	
<b>Subsidence</b>	<p>If subsidence adversely affects surface resources in any way (including, but not limited to a documented water loss), the Lessee, at their expense will be responsible to: restore stream channels, stock ponds, protect stream flow with earthwork or temporary culverts, restore affected roads, or provide other measures to repair damage or replace any surface water and/or developed ground water source, stock pond, water conveyance facilities, with water from an alternate source in sufficient quantity and quality to maintain existing riparian habitat, livestock and wildlife use, or other land uses as authorized by 36 CFR 251.</p> <p>The Lessee/Operator shall be responsible for monitoring, repairing and/or mitigating subsidence effects on existing facilities under Special Use Permit with the Forest Service. Monitoring, repair and/or mitigation, if needed, would be performed at the</p>	<p>If subsidence adversely affects surface resources in any way (including, but not limited to a documented water loss), the Lessee, at their expense will be responsible to: restore stream channels, stock ponds, protect stream flow with earthwork or temporary culverts, restore affected roads, or provide other measures to repair damage or replace any surface water and/or developed ground water source, stock pond, water conveyance facilities, with water from an alternate source in sufficient quantity and quality to maintain existing riparian habitat, livestock and wildlife use, or other land uses as authorized by 36 CFR 251.</p> <p>The Lessee/Operator shall be required to perform the following with respect to monitoring, repairing and/or mitigating subsidence effects on existing facilities under Special Use Permit with the Forest Service. Monitoring, repair and/or mitigation will be performed at the</p>	<p>Use language from parent leases.</p> <p>As parent lease for COC-67232 deals specifically with an irrigation ditch on that lease, use language from COC-1362 on both lease modifications.</p>

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	Lessee's expense. These requirements will be coordinated with the District Ranger and the Special Use Permittee.	<p>Lessee's expense. The Lessee may request variations on timing for surveys, monitoring and reporting. Approving such requests would be at the discretion of the District Ranger.</p> <p>a. Baseline condition surveys of existing facilities will be completed the Fall following award of lease. Reports of this survey will be deliverable to the Forest Service by December 1 of that same year.</p> <p>b. In consultation with the Special Use Permittee and the Forest Service, install equipment to monitor flow on water conveyance facilities during the Fall following award of lease. Flow monitoring shall commence the following spring and continue until one year post mining. Flow data shall be provided to the Forest Service annually by December 1.</p> <p>c. A Surface Facility Monitoring and Mitigation Plan (Plan) will be submitted to the Forest Service for review and approval not later than 12 months prior to scheduled undermining. The Plan will detail measures to be taken to monitor, repair and mitigate subsidence effects of the facilities during actual mining and for one year.</p>	
<b>Roadless</b>	The permittee/lessee must comply with all the rules and regulations of the Secretary of Agriculture set forth at Title 36, Chapter II, of the Code of Federal Regulations governing the use and management of the National Forest System (NFS) when not inconsistent with	All or parts of the following lands encompassed in this lease are in the West Elk Inventoried Roadless Area and may be subject to restrictions on road-building pursuant to rules and regulations of the Secretary of Agriculture applicable	On the following lands within the Sunset CRA, surface operations incident to underground coal mining are subject to regulations in 36 CFR 294, subpart D:

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	<p>the rights granted by the Secretary of Interior in the permit. The Secretary of Agriculture's rules and regulations must be complied with for (1) all use and occupancy of the NFS prior to approval of an exploration plan by the Secretary of the Interior, (2) uses of all existing improvements, such as forest development roads, within and outside the area permitted by the Secretary of the Interior, and (3) use and occupancy of the NFS not authorized by the permit/operation approved by the Secretary of the Interior.</p> <p>Federal Coal Lease C-1362, as modified October 2001</p> <p>All or parts of the following lands encompassed in this lease are in the West Elk Inventoried Roadless Area and may be subject to restrictions on road-building pursuant to rules and regulations of the Secretary of Agriculture applicable at the time any roads may be proposed on the lease.</p> <p>Legal descriptions are approximate. Locations of any proposed surface use would be verified for relationship to IRA boundaries using site-specific maps if/when surface operations are proposed.</p>	<p>at the time any roads may be proposed on the lease.</p> <p>All or parts of the following lands encompassed in this lease are in the West Elk Inventoried Roadless Area and may be subject to restrictions on road-building pursuant to rules and regulations of the Secretary of Agriculture applicable at the time any roads may be proposed on the lease.</p>	<ul style="list-style-type: none"> <li>• All roads that may be constructed must be temporary.</li> <li>• All temporary road construction must be consistent with applicable land management plan direction</li> <li>• Road construction may only occur if motorized access has been deemed infeasible by the responsible official; unless a temporary road is needed to protect public health and safety in cases of an imminent threat of flood, fire or other catastrophic event that, without intervention, would cause the loss of life or property</li> <li>• Temporary road construction must be completed in a manner that reduces effects on surface resources, and prevents unnecessary or unreasonable surface disturbance</li> <li>• All temporary roads must be decommissioned and affected landscapes restored when it is determined that the road is no longer needed for the established purpose</li> <li>• All temporary roads must prohibit public motorized vehicles (including off-highway vehicles) except:</li> </ul>

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			<p>I. Where specifically used for the purpose for which the road was established; or</p> <p>II. Motor vehicle use that is specifically authorized under a Federal law or regulation.</p> <p>For any linear construction zone (LCZ) over 50 inches wide used to install pipelines, the Regional Forester must determine that they are needed, and the responsible official must determine that motorized access without a linear construction zone is not feasible.</p> <ul style="list-style-type: none"> <li>Construction and use of linear construction zones must be consistent with the GMUG Forest Land and Resource Management Plan, and may be no wider than their respective intended uses.</li> <li>Installation of linear construction zones will be done in a manner that minimizes ground disturbance.</li> <li>Reclamation of a linear construction zone will not diminish, over the long-term, roadless area characteristics. All</li> </ul>

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			<p>authorizations approving the installation of linear facilities through the use of a linear construction zone shall include a responsible official approved reclamation plan for reclaiming the affected landscape while conserving roadless area characteristics over the long-term. Upon completion of the installation of a linear facility via the use of a linear construction zone, all areas of surface disturbance shall be reclaimed as prescribed in the authorization and the approved reclamation plan and may not be waived.</p>
<b>Visuals</b>	n/a	n/a	<p>Within the lease modification areas, the lessee will work with the District Ranger and his/her representative to see that all mine operations are situated on the ground in such a manner that reasonably minimizes impacts to the scenic integrity of that landscape as prescribed in the Forest Plan.</p>
<b>Methane use</b>	n/a	n/a	<p>If flaring or other combustion is prescribed as part of any future mitigation measure, lessee will be required to submit a fire prevention and protection plan subject to responsible Forest Service official for approval.</p>

## BLM-specific Lease Stipulations for Protection of Non-Mineral (Surface) Resources

Resource Area	Addendum Carried Forward from Parent Lease COC-1362 Specific to Forest Service Lands	Addendum Carried Forward from Parent Lease COC-67232 Specific to Forest Service Lands	Revised Addendum per BLM IM 2017-037 (January 20, 2017)
<b>Methane Flaring, Capture/Use or other alternatives to venting</b>	<p>Sec. 3. Notwithstanding the language in Sec.2 of this lease and subject to the terms and conditions below, lessee is authorized to drill for, extract, remove, develop, produce and capture for use or sale any or all of the coal mine methane from the above described lands that it would otherwise be required to vent or discharge for safety purposes by applicable laws and regulations. For purposes of this lease, "coal mine methane" means any combustible gas located in, over, under, or adjacent to the coal resources subject to this lease, that will or may infiltrate underground mining operations.</p> <p>Sec. 4. Notwithstanding any other provision of this lease, nothing herein shall, nor shall it be interpreted to, waive, alter or amend lessee's right to vent, discharge or otherwise dispose of coal mine methane as necessary for mine safety or to mine the coal deposits consistent with permitted underground mining operations and federal and state law and regulation. Lessee shall not be obligated or required to capture for use or sale coal mine methane that would otherwise be vented or discharged if the capture of coal mine methane, independent of activities related to mining coal, is not economically feasible or if the coal mine methane must be vented in order</p>	<p>Sec. 3. Notwithstanding the language in Sec.2 of this lease and subject to the terms and conditions below, lessee is authorized to drill for, extract, remove, develop, produce and capture for use or sale any or all of the coal mine methane from the above described lands that it would otherwise be required to vent or discharge for safety purposes by applicable laws and regulations. For purposes of this lease, "coal mine methane" means any combustible gas located in, over, under, or adjacent to the coal resources subject to this lease, that will or may infiltrate underground mining operations.</p> <p>Sec. 4. Notwithstanding any other provision of this lease, nothing herein shall, nor shall it be interpreted to, waive, alter or amend lessee's right to vent, discharge or otherwise dispose of coal mine methane as necessary for mine safety or to mine the coal deposits consistent with permitted underground mining operations and federal and state law and regulation. Lessee shall not be obligated or required to capture for use or sale coal mine methane that would otherwise be vented or discharged if the capture of coal mine methane, independent of activities related to mining coal, is not economically feasible or if the coal mine methane must be vented in order</p>	<p>"Section 3. Notwithstanding the language in Section 2 of the lease and subject to the terms and conditions below, lessee is authorized to drill for, extract, remove, develop, produce and capture for use or sale any or all of the waste mine methane from the above described lands that it would otherwise be required to vent or discharge for safety purposes by applicable laws and regulations. For purposes of this lease, "waste mine methane" means any combustible methane gas located in, over, under, or adjacent to the coal resources subject to this lease, that will or may infiltrate underground mining operations and that must be vented to protect the health and safety of the mine workers.</p> <p>Section 4. Notwithstanding any other provision of this lease, nothing herein waives, alters, or amends lessee's right to vent, discharge or otherwise dispose of waste mine methane as necessary for mine safety or lessee's obligation to mine the coal deposits consistent with Federal and state law and regulation and with safety requirements contained in permits applicable to underground mining operations subject to this lease. Lessee is not obligated or required to capture for use or sale waste mine methane that would otherwise be</p>

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	<p>to abate the potential hazard to the health or safety of the coal miners or coal mining activities. In the event of a dispute between lessor and lessee as to the economic or other feasibility of capturing for use or sale the coal mine methane, lessor's remedy as a prevailing party shall be limited to recovery of the compensatory royalties on coal mine methane not captured for use or sale by lessee. Lessee shall have the right to continue all mining activities under the lease, including venting coal mine methane, pending resolution of any dispute regarding the application of the terms of Sections 3 and 4.</p> <p>Sec. 2 (c) COAL MINE METHANE OPERATIONS AND ROYALTIES- Notwithstanding the language in Part II, Section 2 (a) of this lease, the royalty shall be 12.5 percent of the value of any coal mine methane that is captured for use or sale from this lease. For purposes of this lease, the term "capture for use or sale" shall not include and the royalty shall not apply to coal mine methane that is vented or discharged and not captured for the economic or safety reasons described in Part I, Section 4 of this lease. Lessee shall have no obligation to pay royalties on any coal mine methane that is used on or for the benefit of mineral extraction at the West Elk coal mine. When not inconsistent with any express provision of this lease, the</p>	<p>to abate the potential hazard to the health or safety of the coal miners or coal mining activities. In the event of a dispute between lessor and lessee as to the economic or other feasibility of capturing for use or sale the coal mine methane, lessor's remedy as a prevailing party shall be limited to recovery of the compensatory royalties on coal mine methane not captured for use or sale by lessee. Lessee shall have the right to continue all mining activities under the lease, including venting coal mine methane, pending resolution of any dispute regarding the application of the terms of Sections 3 and 4.</p> <p>Sec. 2 (c) COAL MINE METHANE OPERATIONS AND ROYALTIES- Notwithstanding the language in Part II, Section 2 (a) of this lease, the royalty shall be 12.5 percent of the value of any coal mine methane that is captured for use or sale from this lease. For purposes of this lease, the term "capture for use or sale" shall not include and the royalty shall not apply to coal mine methane that is vented or discharged and not captured for the economic or safety reasons described in Part I, Section 4 of this lease. Lessee shall have no obligation to pay royalties on any coal mine methane that is used on or for the benefit of mineral extraction at the West Elk coal mine. When not inconsistent with any express provision of this lease, the</p>	<p>vented or discharged if the capture of waste mine methane, independent of the activities related to mining coal, is not economically feasible, or if the waste mine methane must be vented in order to abate the potential hazard to the health or safety of the miners or mining activities. In the event of a dispute between the lessor and the lessee as to the economic or technical feasibility of capturing the waste mine methane for use or sale, lessor's remedy as a prevailing party is limited to recovery of compensatory royalties on the waste mine methane not captured for use or sale by the lessee. Lessee retains the right to continue all mining activities under the lease, including venting waste mine methane, pending resolution of any dispute regarding the application of the terms of Sections 3 and 4.</p> <p>PART II. TERMS AND CONDITIONS (c) WASTE MINE METHANE OPERATIONS AND ROYALTY – Notwithstanding the language in Part II, Sec.2(a) of this lease, the royalty will be 12.5 percent of the value of any waste mine methane that is captured for use or sale from this lease. For purposes of this lease, the term "capture for use or sale" does not include, and the royalty will not apply to, waste mine methane that is vented, or otherwise discharged and not captured, for the economic feasibility or safety reasons described in Part I,</p>



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	<p>lease is subject to all rules and regulations related to Federal gas royalty collection in Title 30 of the Code of Federal Regulations now or hereinafter in effect and lessor's rules and regulations related to applicable reporting and gas measurement now or hereinafter in effect</p> <p>SEVERABILITY- In the event any provision of this addendum is subject to a legal challenge or is held to be invalid, unenforceable or illegal in any respect, the validity, legality and enforceability of this lease will not in any way be affected or impaired thereby and lessee will retain, in accordance with the terms of this lease, the exclusive right and privilege to drill for, mine, extract, remove or otherwise process and dispose of the coal deposits ,upon, or under the lands described in this lease, including the right to vent or discharge coal mine methane for safety purposed as required by applicable laws and regulation.</p>	<p>lease is subject to all rules and regulations related to Federal gas royalty collection in Title 30 of the Code of Federal Regulations now or hereinafter in effect and lessor's rules and regulations related to applicable reporting and gas measurement now or hereinafter in effect</p> <p>SEVERABILITY- In the event any provision of this addendum is subject to a legal challenge or is held to be invalid, unenforceable or illegal in any respect, the validity, legality and enforceability of this lease will not in any way be affected or impaired thereby and lessee will retain, in accordance with the terms of this lease, the exclusive right and privilege to drill for, mine, extract, remove or otherwise process and dispose of the coal deposits ,upon, or under the lands described in this lease, including the right to vent or discharge coal mine methane for safety purposed as required by applicable laws and regulation.</p>	<p>Section 4 of this lease. Lessee will have no obligation to pay royalties on any waste mine methane that is used on or for the benefit of mineral extraction at the (insert mine name here) coal mine. When not inconsistent with any express provision of this lease, this lease is subject to all the rules and regulations related to Federal gas royalty collection in Title 30 of the Code of Federal Regulations now or hereinafter in effect and the lessor's rules, regulations, notices, and orders related to applicable reporting and gas measurement now or hereinafter in effect.</p> <p>SEVERABILITY – In the event any provision of this addendum is subject to a legal challenge or is held to be invalid, unenforceable, or illegal in any respect, the validity, legality, and enforceability of this lease will not in any way be affected or impaired thereby and lessee will retain, in accordance with the terms of this lease, the exclusive right and privilege to drill for, mine, extract, remove, or otherwise process and dispose of the coal deposits in, upon, or under the lands described in this lease, including the right to vent or otherwise discharge waste mine methane for safety purposes as required by applicable laws and regulations.</p>

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			West Elk Mine shall provide to BLM an updated report on the economic feasibility of capturing or flaring the mine's mine methane for beneficial use or abatement, and should provide it to BLM no later than 1 year after the modification is approved.

