Greater Sage-Grouse Implementation Guide
Minerals

Ver. 1.4

Utah
Nevada
Idaho / SW Montana
Wyoming
NW Colorado
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Mineral Definitions

The Greater Sage Grouse (GRSG) FEIS and ROD place mineral resources and development into several categories, and each category has specific standards and guideline unique to the category.

Mineral categories are:

**Locatable minerals** — Mineral disposable under the General Mining Act of 1872, as amended, that was not excepted in later legislation. These include hardrock, placer, and industrial minerals and uncommon varieties of rock found on public domain lands.

Locatable projects are non-discretionary projects.

**Leasable minerals** — Those minerals or materials designated as leasable under the Mineral Leasing Act of 1920, as amended, and the Mineral Leasing Act for Acquired Lands of 1947. These include energy-related mineral resources such as oil, natural gas, coal, and geothermal and some non-energy minerals, such as phosphate, sodium, potassium, and sulfur, and hardrock minerals on acquired National Forest System lands. Geothermal resources are also leasable under the Geothermal Steam Act of 1970.

For the purposes of the GRSG ROD leasable minerals were addressed under the following categories:

**Fluid leasable minerals** - Oil, gas, coal bed natural gas, and geothermal resources:

- **Fluid Minerals (Unleased)** — refers to new and pending leases that were not yet leased as of September 15, 2015.
- **Fluid Minerals (Leased)** — refers to lease parcels that were leased prior to Sept. 15, 2015.
- **Fluid Mineral (Operations)** — refers to oil and gas operations that have already been approved and are ongoing.

**Solid Energy Leasables — Coal**:

- **Coal Mines (Unleased)** - new underground coal leases leased after Sept. 15, 2015.
- **Coal Mines (Leased)** - any coal resources currently under lease as of Sept. 15, 2015.

**Non-energy leasable minerals** — such as phosphate, sodium, potassium, sulfur, and hardrock mining on acquired lands.

**Mineral Materials** — Common varieties of mineral materials such as soil, sand and gravel, stone, pumice, and clay that are not obtainable under the mining or leasing laws but that can be acquired under the Materials Act of 1947, as amended. Often referred to as saleable.

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\(^1\) The direction in the following standards and guidelines will be applied consistent with applicable valid existing rights, laws, and regulations. (e.g. applied consistent with the 1872 mining law, 36CFR228 Subpart A regulations, FSM 2810 and all leasing authorities)
Terms & Acronyms

**Anthro Mountain** – In Utah, based on a review of telemetry data, lek distribution data, the distribution of suitable habitat, and the presence of existing disturbance across the landscape, portions of Anthro Mountain, Utah were mapped as “Anthro Mountain” and, while not specifically designated as PHMA, they include the similar management allocations and actions as those applicable to PHMA.

**Biologically Significant Unit (BSU)** – A geographical/spatial area within greater sage-grouse habitat that contains relevant and important habitat that is used as the basis for comparative calculations to support evaluation of changes to habitat. A Biologically Significant Unit or subset of the unit is used in the calculation of the anthropogenic disturbance threshold and in the adaptive management habitat trigger.

- **Utah** – a Biologically Significant Unit is considered the total priority habitat management area associated with a greater sage grouse population area.

- **Nevada** – Biologically Significant Unit is determined to be where greater sage grouse interactions have been documented between two or more population management units (areas delineated based on aggregations of GRSG lek locations, where potential for short-term genetic interchange among populations is high), which represent local GRSG population habitats and seasonal use in the sub-region.

- **Idaho** – a Biologically Significant Unit is considered all of the modeled nesting and delineated winter habitat, based on 2012 data, within priority and/or important habitat management areas within a Conservation Area.

- **Montana** – a Biologically Significant Unit is defined as all of the priority and sagebrush focal management areas.

**Controlled surface use - CSU** – A category of moderate constraint stipulations that allows some use and occupancy of public land while protecting identified resources or values and is applicable to fluid mineral leasing and all activities associated with fluid mineral leasing (e.g., truck-mounted drilling and geophysical exploration equipment off designated routes, construction of wells and/or pads).

**Desired condition** – A description of specific social, economic, and/or ecological characteristics of the plan area, or a portion of the plan area, toward which management of the land and resources should be directed. Desired conditions must be described in terms that are specific enough to allow progress toward their achievement to be determined but do not include completion dates.

**General Habitat Management Areas (GHMA)** – National Forest System lands that are occupied seasonally or year-round habitat outside of priority habitat management areas where some special management would apply to sustain the greater sage-grouse population. The boundaries and management strategies for general habitat management areas are derived from and generally follow the preliminary general habitat boundaries.

**Guideline (GL)** – A constraint on project and activity decision making that allows for departure from its terms so long as the purpose of the guideline is met. Guidelines are established to help achieve or
maintain a desired condition or conditions; to avoid or mitigate undesirable effects; or to meet applicable legal requirements.

**Important Habitat Management Areas (IHMA)**—(Idaho only) High value habitat and populations that provide a management buffer for the priority and sagebrush focal management areas and connect patches of priority and sagebrush focal management areas. The areas encompass areas of generally moderate-to-high conservation value habitat and/or populations and in some Conservation Areas, include areas beyond those identified by U.S. Fish and Wildlife Service as necessary to maintain redundant, representative, and resilient populations. The areas are typically adjacent to priority and sagebrush focal management areas but generally reflect somewhat lower greater sage-grouse population status and/or reduced habitat value due to disturbance, habitat fragmentation, or other factors. No important habitat management areas are designated within the Southwestern Montana Conservation Area.

**Non-Discretionary Decision**—(For locatable mineral projects), the Authorized Officer may not say “no” to a proposed Plan of Operation, POO. However, we may require “reasonable” terms and conditions of approval. When processing projects which are locatable, work with the operator to design the operation in such a manner as to minimize adverse impacts to GRSG, to the extent possible within the existing rights of the operator. Since POO’s require final reclamation look for opportunities to design the projects in such a way as to reclaim the project area to the extent possible to meet the desired conditions in sage grouse habitat.

Locatable projects are a non-discretionary project proposal and will not be subject to the 3% disturbance cap described in the GRSG ROD. The disturbance cap will not be applied to foreclose development of locatable. However, the disturbance from locatable mining will be accounted for when determining the percent disturbance and whether the cap has been exceeded.

**No surface occupancy (NSO)**—A major constraint where use or occupancy of the land surface for fluid mineral exploration or development and all activities associated with fluid mineral leasing (e.g., truck-mounted drilling and geophysical exploration equipment off designated routes, construction of wells and/or pads) are prohibited to protect identified resource values. Areas identified as NSO are open to fluid mineral leasing, but surface occupancy or surface-disturbing activities associated with fluid mineral leasing cannot be conducted on the surface of the land. Access to fluid mineral deposits would require horizontal drilling from outside the boundaries of the NSO area.

**Plan of Operation (POO)**—A Plan of Operation is required for all mining activity conducted under the General Mining Act of 1872, as amended, if the proposed operations will likely cause significant disturbance of surface resources. The Plan of Operation describes the type of operations proposed and how they would be conducted; the type and standard of existing and proposed roads or access routes; the means of transportation to be used; the period during which the proposed activity will take place; and measures to be taken to meet the requirements for environmental protection (36 CR 228.4).

**Priority habitat management areas (PHMA)**—National Forest System lands identified as having highest habitat value for maintaining sustainable greater sage-grouse populations. The boundaries and management strategies for priority habitat management areas are derived from and generally follow the preliminary priority habitat boundaries. Priority habitat management areas largely coincide with areas identified as priority areas for conservation in the Conservation Objectives Team report.
Sagebrush focal areas (SFA) – Areas identified by the U.S. Fish and Wildlife Service that represent recognized “strongholds” for the greater sage-grouse that have been noted and referenced as having the highest densities of greater sage-grouse and other criteria important for the persistence of the species.

Standard (ST) - A mandatory constraint on project and activity decision making established to help achieve or maintain the desired condition or conditions; to avoid or mitigate undesirable effects; or to meet applicable legal requirements.

Stipulation (oil and gas) – A provision that modifies standard lease rights and is attached to and made a part of the lease. Lease stipulations include No Surface Occupancy, Timing Limitations, and Controlled Surface Use.

Timing limitation (TL) – A moderate constraint, applicable to fluid mineral leasing, on all activities associated with fluid mineral leasing (e.g., truck-mounted drilling and geophysical exploration equipment off designated routes, construction of wells and/or pads), and other surface disturbing activities (i.e., those not related to fluid mineral leasing). Areas identified for TL are closed to fluid mineral exploration and development, surface-disturbing activities, and intensive human activity during identified time frames. This stipulation does not apply to operation and basic maintenance activities, including associated vehicle travel, unless otherwise specified. Construction, drilling, completions, and other operations considered to be intensive in nature are not allowed. Intensive maintenance, such as workovers on wells, is not permitted. Tls can overlap spatially with NSO and CSU, as well as with areas that have no other restrictions.

Valid existing rights – Documented legal rights or interests in the land that allow a person or entity to use said land for a specific purpose and that are still in effect. Such rights include but are not limited to fee title ownership, mineral rights, and easements. Such rights may have been reserved, acquired, granted, permitted, or otherwise authorized under various statutes of law over time.

WEM (oil and gas) – Short for Waiver, Exception or Modification:

**Waiver** - Permanent exemption from a lease stipulation. The stipulation no longer applies anywhere within the leasehold.

**Exception** - A case-by-case exemption from a lease stipulation. The stipulation continues to apply to all other sites within the leasehold to which the restrictive criteria apply. The authorized officer (any employee of the Forest Service to whom has been delegated the authority to perform the duties described in the applicable Forest Service manual or handbook) may grant an exception if an environmental record of review determines that the action, as proposed or conditioned, would not impair the function or utility of the site for the current or subsequent seasonal habitat, life-history, or behavioral needs of the greater sage-grouse.

**Modification** - A fundamental change to the provisions of a lease stipulation either temporarily or for the term of the lease. A modification may include an exemption from or alteration to a stipulated requirement. Depending on the specific modification, the stipulation may or may not apply to all other sites within the leasehold to which the restrictive criteria applied.
Introduction for Locatable Mineral Projects

The first step when moving forward with any permitting for minerals activities is to review the relevant Record of Decision and Amendment for the state where the activity is located.

It should be determined if the proposed activity is with sage-grouse habitat management areas, and if the habitat is actual sage-grouse habitat (per the Habitat and Vegetation Guides located at the Implementation Web Site).

Sage Grouse Standards and Guidelines would commonly be applied during the plan of operations review and approval process for locatable minerals, as governed under 36CFR228 Subpart A regulations, FSM 2810 and the 1872 Mining Law, as amended. All of the State sage grouse amendments include the statement: “The direction in the following standards and guidelines will be applied consistent with applicable valid existing rights, laws, and regulations.” Lands withdrawn from mineral entry are subject to valid existing rights.

The 36CFR228 Subpart A regulations do not have provisions to deny a reasonable plan of operations and do not allow federal agencies to deny entry or preempt the miners’ statutory right on lands open to mineral entry granted under the Mining Law of 1872, as amended. The regulations require the agency to develop reasonable mitigation measures to minimize adverse impacts to natural resources that do not materially interfere with operations or make the project economically infeasible. In accordance with 36CFR228, compensatory mitigation, including a net conservation gain, is encouraged, but cannot required since the existing regulations only require to “minimize adverse environmental impacts.”

Sagebrush Focal Areas (SFA), as recommended by the GRSG ROD, are proposed for mineral withdrawal. The Assistant Secretary of the Interior for Land and Minerals Management has approved an application to withdraw approximately 10 million acres of public and National Forest System lands identified as Sagebrush Focal Areas in Idaho, Montana, Nevada, Oregon, Utah, and Wyoming from location and entry under the United States mining laws to protect the Greater Sage-Grouse and its habitat from adverse effects of locatable mineral exploration and mining, subject to valid existing rights. This notice temporarily segregates the lands for up to 2 years while the application is processed and prevents the filing of new mining claims while the BLM undertakes environmental analyses to determine if the lands should be formally withdrawn.

If the lands are withdrawn, claims supported by valid existing rights can still be developed and mined subject to applicable laws and regulations.-The BLM has regulations addressing when to require valid existing rights determinations for lands that have been segregated or withdrawn at 43 C.F.R. 3809.100. Direction and policy on implementing the regulations are located in BLM Handbook 3809 Chapter 8.1 and Instruction Memorandum No. 2010-088. It is the policy of the Forest Service to be consistent with the BLM direction.

For Locatable mineral projects the Authorized Officer may not say “no” to a proposed Plan of Operation, POO. However, we may require “reasonable” mitigation measures. When processing locatable
projects, work with the operator to design the operation in such a manner as to minimize adverse impacts to GRSG, to the extent practicable within the existing rights of the operator. Since the operator shall, where practicable, reclaim the surface disturbance, look for opportunities to design the projects in such a way as to reclaim the project area to the extent possible to meet the desired conditions in sage grouse habitat.

Locatable projects are a non-discretionary project proposal and are not subject to the Disturbance Cap described in the GRSG ROD. **The Disturbance Cap will not be applied to foreclose development of locatable projects.** However, disturbance does need to be calculated for locatable projects so that it can be accounted for as part of the total disturbance that will apply to discretionary project calculations. See information on Anthropogenic Disturbances in the [Implementation Web Site](#). A note that co-locating a project in existing disturbance does not add to the disturbance cap and should be encouraged. Once a reclamation bond is released, the reclaimed acres should be accounted for in the database. Projects that are closed and never implemented on the ground should also be reported to the database steward for acreage adjustment.

The 36CFR228 Subpart A regulations for locatable minerals include the following language that give the Forest Service the authority to impose reasonable mitigations for wildlife on plans of operations:

According to 36 CFR 228.8: “All operations shall be conducted so as, where feasible, to minimize adverse environmental impacts on National Forest surface resources, including the following requirements:

**(e) Fisheries and Wildlife Habitat. In addition to compliance with water quality and solid waste disposal standards required by this section, operator shall take all practicable measures to maintain and protect fisheries and wildlife habitat which may be affected by the operations.”**

The Forest Service Manual (FSM 2810) explains the objectives of managing locatable mineral operations as stated in FSM 2817.02:

"In managing the use of the surface and surface resources, the Forest Service should attempt to minimize or prevent, mitigate, and repair adverse environmental impacts on National Forest System surface and cultural resources as a result of lawful prospecting, exploration, mining, and mineral processing operations, as well as activities reasonably incident to such uses. This should be accomplished by imposition of reasonable conditions which do not materially interfere with such operations."

FSM 2817.23 states:

“**When possible, the authorized officer or duly appointed representative shall review the plan of operations with the operator, on a person-to-person basis, to facilitate joint development of a reasonable agreement relative to the proposed operations. Consistent with the objectives in FSM 2817.02, negotiations may be needed to effect changes in the proposed operations in order to avoid unnecessary surface resource damage but without undue interference with the proposed operation.”**
In summary, the Standards and Guideline in the sage grouse plan amendment for locatable minerals can only be applied as feasible, to minimize adverse environmental impacts using practicable measures and reasonable conditions to minimize, prevent, mitigate, and repair adverse environmental impacts to surface resources which do not materially or unduly interfere with such operations. Since a reasonable plan of operations cannot be denied for locatable minerals (non-discretionary) in an area open to mineral entry or in a withdrawn area, subject to valid existing rights, the Standards and Guidelines are to be used to minimize and mitigate adverse environmental surface impacts to National Forests System lands related to sage grouse and their habitat.
Locatable Minerals

Standard – Only approve Plans of Operation if they include mitigation to protect the greater sage-grouse and its habitat, consistent with the rights of the mining claimant as granted by the General Mining Act of 1872, as amended.

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<tr>
<td>NEVADA</td>
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<td>PHMA, GHMA &amp; SFA</td>
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<td>IDAHO/MT</td>
<td>GRSG-M-LM-ST-095</td>
<td>PHMA, IHMA &amp; SFA</td>
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<td>WYOMING</td>
<td>GRSG-M-LM-ST-096</td>
<td>PHMA &amp; SFA</td>
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<tr>
<td>COLORADO</td>
<td>GRSG-M-LM-ST-090</td>
<td>PHMA</td>
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Guideline – Keep habitat disturbance at a minimum. A phased development approach should be applied to operations consistent with the rights granted under the General Mining Act of 1872, as amended.

Disturbed areas should be reclaimed as soon as they are no longer needed for mineral operations.

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<td>GRSG-M-LM-GL-091</td>
<td>PHMA, GHMA</td>
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Guideline – Abandoned mine sites should be closed or mitigated to reduce predation of the greater sage-grouse by eliminating tall structures that could provide nesting opportunities and perching sites for predators.

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(WYOMING ONLY)

GRSG-M-LM-ST-097-Standard – The disturbance cap described in GRSG-TDDD-ST-022-Standard will not be applied to foreclose development of locatable minerals on unpatented claims located under the General Mining Act of 1872, as amended; the disturbance from locatable mining will be accounted for when determining the percent disturbance and whether the cap has been exceeded.
Flowchart: Locatable Minerals Permitting in Idaho

Non-discernible Locatable Minerals - Idaho

Receive new locatable Plan of Operations (POO) for processing in an area open to mineral entry.

May need VER determination prior to processing

Is the new POO within an SFA that is still segregated from mineral entry?

Do valid existing rights exist?

Cannot approve POO

Is the new POO within an area formally withdrawn from mineral entry?

Is it in PHMA, IHMA or GHMA?

GRSG-GEN-ST-008-Guideline: Have sage grouse surveys been conducted?

Meet the intent of the guideline

GRSG-M-LE-095-Guideline: Prior to approval, does the POO include reasonable mitigation to reduce, minimize, or eliminate impacts to sage grouse and their habitats, consistent with the rights of the mining claimant as granted by the General Mining Act of 1872, as amended.

GRSG-M-LE-096-Guideline: A phased development approach applied to minimize disturbance, consistent with the rights granted under the General Mining Act of 1872, as amended, and will disturbed areas be reclaimed as soon as they no longer needed for mineral operations?

GRSG-GEN-ST-004-Guideline: If noise at 10dB above ambient measured at the perimeter of an occupied lek during lekking is expected to occur, has it been mitigated?

GRSG-GEN-ST-007-Guideline: Have breeding and nesting timing limitations been applied as appropriate?

GRSG-GEN-ST-010-Guideline: Have breeding and nesting habitat desired conditions been applied if they overlap with other seasonal habitats?

GRSG-M-LE-091-Guideline: Have the structures with potential to create opportunities for predators or decrease the use of the area within 5 miles of the perimeter of an occupied lek (as determined by local conditions) been mitigated within nesting habitat?

Abandoned Mine Lands

GRSG-M-LE-096-Guideline: In priority and general habitat management areas, Antino Mountains and sagebrush local areas, abandoned mine sites should be closed or mitigated to reduce presence of greater sage grouse by elimination of structures that could provide nesting opportunities and perching sites for predators.

Is it near a lek?

Process Proposal per your RMP

Modify POO before approval or approve as submitted if the POO is consistent with applicable VER laws, or regulations, and rights granted under the General Mining Act of 1872, as amended.

Continue to existing RMP (End)

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* GRSG-GEN-ST-004-Guideline: Disturbance Caspian applies to discretionary activities only. Does not apply to non-discernible activities, such as locatable minerals

** Locatable minerals are governed by the 36 CFR 228 Subpart A, Forest Service regulations. These regulations do not have provisions for denial of a reasonable plan of operations except if the location of the proposed disturbance has been withdrawn from location (FSM 2017, 236). The direction in these standards and guidelines will be applied consistent with applicable existing rights, laws, and regulations. E.g. applied consistent with the 1972 mining law, 36 CFR 228 Subpart A regulations.
Flowchart: Locatable Minerals Permitting in Utah

Non-disciplinary Locatable Minerals - Utah

Receive new Locatable Plan of Operations (POO) for processing in area open to mineral entry

May need VER determination prior to processing

Yes

Do valid existing rights exist?

Yes

Is the new POO within an area formally withdrawn from mineral entry?

Yes

Is it in PHMA, GHMA or Anthro Mtn.?

No

GRSG-GEN-008-Guideline: Have sage grouse surveys been conducted?

Yes

Meet the intent of the guideline

GRSG-GEN-006-Standard: If noise at 10 dB above ambient measured at the perimeter of an occupied lek during lekking is expected to occur, has it been mitigated?

GRSG-GEN-007-Guideline: Have breeding and nesting time limitations been applied as appropriate?

Yes

GRSG-GEN-006-Standard: If noise at 10 dB above ambient measured at the perimeter of an occupied lek during lekking is expected to occur, has it been mitigated?

GRSG-GEN-005-Guideline: Is a phased development approach applied to minimize disturbance, consistent with the rights granted under the General Mining Act of 1872, as amended, and will disturbed areas be reclaimed as soon as they no longer needed for mineral operations?

Yes

GRSG-GEN-004-Guideline: Distance Cap - Applies to discretionary activities only. Does not apply to non-discretionary activities, such as locatable minerals.

GRSG-M-LM-GL-095-Guideline: Abandoned Mine Lands - In priority and general habitat management areas, Anthro Mountains and sagebrush focal areas, abandoned mines should be closed or mitigated to reduce predation of greater sage grouse by elimination of tall structures that could provide resting opportunities and perching sites for predators.

Abandonment Mine Lands

Is it near a lek?

Yes

Process Proposal per your RMP

Yes

Modify POO before approval or approve as submitted if the POO is consistent with applicable VER, laws, or regulations, and rights granted under the General Mining Act of 1872, as amended.

No

Continue to existing RMP (End)

* GRSG-GEN-004-Guideline: Distance Cap - Applies to discretionary activities only. Does not apply to non-discretionary activities, such as locatable minerals.

** Locatable minerals are governed by the 36 CFR 228 Subpart A, Forest Service regulations. These regulations do not have provisions for denial of a reasonable plan of operations except if the location of the proposed disturbance has been withdrawn from location (36 CFR 228.28(a)). The direction in these standards and guidelines will be applied consistent with applicable valid existing rights, laws, and regulations. E.g. applied consistent with the 1872 mining law, 36 CFR 228 Subpart A regulations.
Flowchart: Locatable Minerals in Nevada

Non-discretionary Locatable Minerals - Nevada

Receive new Locatable Plan of Operations (Poo) for processing in an area open to mineral entry

May need VER determination prior to processing

Do valid existing rights exist?

Is the new Poo within an SFA that is still segregated from mineral entry

Is the new Poo within an area formally withdrawn from mineral entry?

Can't approve Poo

Is it in PHIMA or GIIMA?*

Meet the intent of the guideline

GRSG-GEN-ST-005-Standard: If there are still remaining residual impacts to greater sage grouse or their habitats after avoiding and minimize impacts, has a net conservation gain been achieved by compensatory mitigation projects, subject to valid existing rights?

GRSG-GEN-008-Guideline: Have sage grouse surveys been conducted?

GRSG-M-LM-ST-106-Standard: Prior to approval, does the Poo include reasonable mitigation to reduce, minimize, or eliminate impacts to sage grouse & their habitat, consistent with the rights of the mining claimant as granted by the General Mining Act of 1872, as amended.

GRSG-M-LM-GL-109-Guideline: Is a phased development approach applied to minimize disturbance, consistent with the rights granted under the General Mining Act of 1872, as amended, and will disturbed areas be reclaimed as soon as they no longer needed for mineral operations?

GRSG-GEN-ST-006-Standard: Those at 1068 above ambient measured at the perimeter of an occupied lek during lekking is expected to occur, has it been mitigated?

GRSG-GEN-ST-007-Guideline: Have breeding and nesting timing limitations been applied as appropriate?

GRSG-GEN-ST-009-Guideline: Have breeding and nesting habitat desired conditions been applied if they overlap with other seasonal habitats?

GRSG-GEN-ST-010-Guideline: Have structures with potential to create opportunities for predators or create a use of the area within 3 miles of the perimeter of an occupied lek (as determined by local conditions) been mitigated with non-nesting habitat?

Abandoned Mine Lands
GRSG-M-LM-GL-110-Guideline: In priority and general habitat management areas and sagebrush local areas, abandoned minesites should be closed or mitigated to reduce predation of greater sage grouse by elimination and structures that could provide nesting opportunities and perching sites for predators.

Is it near a Lek?

No

Process Proposal per your RMP

Modify Poo before approval or approval as submitted if the Poo is consistent with applicable VER, laws, or regulations, and rights granted under the General Mining Act of 1872, as amended.**

Continue to existing RMP (End)

* GRSG-GEN-ST-004-Standard: Disturbance Cap Applies to discretionary activities only. Does not apply to non-discretionary activities, such as locatable minerals.

** Locatable minerals are governed by the 35 CFR 223 Subpart A, Forest Service regulations. These regulations do not have provisions for denial of a reasonable plan of operations except if the location of the proposed disturbance has been withdrawn from location (35 CFR 223.210). The direction in these standards and guidelines will be applied consistent with applicable valid existing rights, laws, and regulations. E.g., applied consistent with the 1872 mining law, 35 CFR 223 Subpart A regulations.
Flowchart: Locatable Minerals in Wyoming

**Non-discretionary Locatable Minerals - Wyoming**

- Receive new Locatable Plan of Operations (POO) for processing in area open to mineral entry
  - May need VER determination prior to processing
    - Yes: Is the new POO within an SFA that is still segregated from mineral entry
      - Yes: Is the new POO within an area formally withdrawn from mineral entry?
        - Yes: Consider
          - GRSGH- Standards - 003 - 005- and Guidelines 006-011
            - To the extent practicable and allowed within the existing rights of the claimant, design actions and authorizations so as to mitigate and avoid impacts to sage grouse & their habitat, consistent with the rights of the mining claimant as granted by the General Mining Act of 1872, as amended.
            - Consider
              - Timing, Distance, Density and Disturbance: To the extent practicable and allowed within the existing rights of the claimant, incorporate the Standards and Guidelines 012 - 021.
                - Avoid surface disturbance within 0.5 miles of a lek
                - Avoid surface occupancy within 0.25 mile radius of perimeter of lek
                - If noise at 1004 above ambient measured at the perimeter of an occupied lek during the season is expected to occur, has it been mitigated?
                - Have breeding and nesting timing limitations been applied as appropriate?
                - Have breeding and nesting habitat desired conditions been applied if they overlap with other seasonal habitats?
          - GRSG-M-LM-ST 097 Standard
            - The disturbance cap described TDDD-ST-022 will not be applied to foreclose development on unpatented claims. The disturbance from locatable mining will be accounted for when determining the % disturbance and whether the cap has been exceeded.
        - No: Is it in PHMA or SFA?*
          - Yes: Consider
          - No: Is it near a lek?
            - Yes: Modify POO before approval or approve as submitted if the POO is consistent with applicable VER, laws, or regulations, and rights granted under the General Mining Act of 1872, as amended**
            - No: Continue to existing RMP (End)
          - No: Process Proposal per your RMP

* GRSG-GEN-ST 004 Standard: Disturbance Cap Applies to discretionary activities only. Does not apply to non-discretionary activities, such as locatable minerals.

** Locatable minerals are governed by the 30 CFR 223 Subpart A, Forest Service regulations. These regulations do not have provisions for denial of a reasonable plan of operations except if the location of the proposed disturbance has been withdrawn from location (30 CFR 223). The direction in these standards and guidelines will be applied consistent with applicable valid existing rights, teno, and regulations. E.g. applied consistent with the 1872 mining law, 30 CFR 228 Subpart A regulations.
These Standards apply to those lands which were unleased as of September 15, 2015.

**GRSG-M-FMUL-ST-074-Standard** – New oil and gas leases must include a No Surface Occupancy (NSO) stipulation. There will be no waivers or modifications. An exception could be granted by the authorized officer with unanimous concurrence from a team of agency greater sage-grouse experts from the U.S. Fish and Wildlife Service, the Forest Service, and state wildlife agency if:

- There would be no direct, indirect, or cumulative effects to the greater sage-grouse or its habitat; or
- Granting the exception provides an alternative to a similar action occurring on a nearby parcel; and
- The exception provides a clear net conservation gain to the greater sage-grouse.

**GRSG-M-FMUL-ST-075-Standard** – No Surface Occupancy and no waivers, exceptions, or modifications for fluid mineral leasing.

**GRSG-M-FMUL-ST-090-Standard** – In general habitat management areas, any new leases must include appropriate controlled surface use and timing limitation stipulations to protect sage-grouse and their habitat.

**GRSG-M-FMUL-ST-092-Standard** – In priority habitat management areas outside of sagebrush focal areas, proposed geothermal projects may be considered if:

- A team of agency greater sage-grouse experts from the Fish and Wildlife Service, Forest Service, BLM, and State wildlife agency advises on project-mitigation measures, including lek buffer distances, using the best available science;
- Mitigation actions are consistent with the Mitigation Strategy; and
- The footprint of the project is consistent with the disturbance protocols identified in GRSG-GEN-ST-004.

**GRSG-M-FMUL-ST-093-Standard** – PHMA, GHMA & SFA
Geophysical exploration or similar type of exploratory operations are only allowed consistent with vegetation objectives in table 1a or 1b, as appropriate. Include applicable seasonal restrictions.

IDAHO /SW MONTANA/ COLORADO (Only)

GRSG-M-FMUL-ST-Standard – In GHMA, any new leases must include appropriate controlled surface use and timing limitation stipulations to protect the greater sage-grouse and its habitat.

IDAHO/MT GRSG-M-FMUL-ST-076
COLORADO GRSG-M-FMUL-ST-072

(WYOMING) Only

GRSG-M-FMUL-ST-079-Standard – PHMA, GHMA & SFA
New oil and gas leases may be offered consistent and subject to the leasing stipulations in the timing, distance, density, and disturbance direction in the Timing, Distance, Density and Disturbance section.

GRSG-M-FMUL-ST-080-Standard – PHMA & SFA
Require geophysical exploration projects to be designed to minimize greater sage-grouse habitat fragmentation.
Flowchart: Permitting Post-Amendment Fluid Minerals in Utah
Flowchart: Permitting Post-Amendment Fluid Minerals in Nevada

Fluid Minerals Leased after Sept. 2015 flow chart (Nevada)

Start Development Proposal

Yes

Is it in PHMA, SFA, GHMA

Is it in PHMA, SFA

GHMA

No

Is it in PHMA, SFA

Yes

NSO Stipulation in place. Are you granting an exception to NSO Stipulation?

Yes

Consider and address potential impacts to GSSG

No

SFA

NSO GRSG-NUM-FLUM-ST-091

No WEMs

No Close to PHMA, GHMA

Non-habitat and No impact to GRSG?

No

Apply GRSG-M-FMUL-ST-093 - Consistent with vegetative objectives for explorations only

Yes

Apply GRSG-M-FMUL-ST-089

No impacts direct, indirect or cumulative to GRSG or habitat. Provides net conservation gain

003 - consistent with vegetative objectives

Yes

Can you demonstrate net conservation gain?

Yes

Modify proposal. (Compensatory mitigation, change size/location)

No

Apply other program specific management actions

Yes

Continue to existing LMP

No

Deny proposal (END)

No

Go back to start

No

Apply other program specific management actions
Flowchart: Permitting Post-Amendment Fluid Minerals in Wyoming

Fluid Minerals Leased after Sept. 2015 flow chart (WYOMING)

Start Development Proposal

Yes

Is it in PHMA, SFA, GHMA?

No

Is it close to PHMA, GHMA?

No

Consider and address potential impacts to GSSS

Yes

Process your proposal per your existing RMP

Yes

GRSG-M-FMUL-ST-079 Standard
New oil and gas leases may be offered consistent and subject to the leasing stipulations in the timing, distance, density and disturbance direction in the TDDD sections.

GRSG-M-FMUL-ST-079 Standard
In Priority and Sagebrush focal areas require geophysical exploration projects to be designed to minimize greater sage grouse habitat fragmentation

Continue to existing LMP
Fluid Minerals – Leased prior to Sept. 2015

These Standards apply to those lands which were leased prior to September 15, 2015 both developed and as yet undeveloped. For leased lands currently under operations use the standards for Fluid Minerals - Operations

**GRSG-M-FML-ST-Standard** – In areas on existing leases not yet developed, when approving the Surface Use Plan of Operation portion of the Application for Permit to Drill require that leaseholders avoid and minimize surface disturbing and disruptive activities consistent with the rights granted in the lease.

<table>
<thead>
<tr>
<th>State</th>
<th>Code</th>
<th>Details</th>
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<tbody>
<tr>
<td>UTAH</td>
<td>GRSG-M-FML-ST-076</td>
<td>PHMA, SFA &amp; Anthro Mtn. (UT)</td>
</tr>
<tr>
<td>NEVADA</td>
<td>GRSG-M-FML-ST-094</td>
<td>PHMA, SFA</td>
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<tr>
<td>IDAHO</td>
<td>GRSG-M-FML-ST-078</td>
<td>PHMA, IHMA, SFA</td>
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<td>WYOMING</td>
<td>GRSG-M-FML-ST-081</td>
<td>PHMA, SFA</td>
</tr>
<tr>
<td>COLORADO</td>
<td>GRSG-M-FML-ST-073</td>
<td>PHMA</td>
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</tbody>
</table>

**GRSG-M-FML -Standard** – When facilities are no longer needed or leases are relinquished, require reclamation plans to include terms and conditions to restore habitat to desired conditions as described in Table 1 of the ROD for the appropriate state.

<table>
<thead>
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<th>State</th>
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<tbody>
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<tr>
<td>COLORADO</td>
<td>GRSG-M-FML-ST-074</td>
<td>PHMA</td>
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</tbody>
</table>

**GRSG-M-FML-Standard** – When authorizing new transmission line corridors, transmission line right-of-ways, transmission line construction, or transmission line-facility construction associated with existing fluid mineral leases - add stipulations or conditions of approval necessary to protect the greater sage-grouse and its habitat, consistent with the terms and conditions of the permit.

<table>
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<tr>
<td>COLORADO</td>
<td>GRSG-M-FML-ST-075</td>
<td>GHMA</td>
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<tr>
<td>WYOMING</td>
<td>not a standard</td>
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</tbody>
</table>
GRSG-M-FML-ST-Standard –(except Wyoming) Locate compressor stations on portions of a lease that are non-habitat and are not used by the greater sage-grouse, and if there would be no direct, indirect, or cumulative effects on the greater sage-grouse or its habitat. If this is not possible, work with the operator to use mufflers, sound insulation, or other features to reduce noise, consistent with GRSG-GEN-ST-006.

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<td>IDAHO</td>
<td>GRSG-M-FML-ST-081</td>
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<tr>
<td>COLORADO</td>
<td>GRSG-M-FML-ST-076</td>
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</tbody>
</table>

GRSG-M-FML-ST-Standard –(only Wyoming) Compressor stations should be located on portions of a lease that are non-habitat and are not used by the greater sage-grouse, and if there would be no direct, indirect, or cumulative effects on the greater sage-grouse or its habitat. If this is not possible, work with the operator to use mufflers, sound insulation, or other features to reduce noise, consistent with GRSG-TDDD-ST-014.

GRSG-M-FML-ST-Standard – When authorizing development of fluid mineral resources, work with the operator to minimize impacts to the greater sage-grouse and its habitat, such as locating facilities in non-habitat areas first and then in the least suitable habitat.

<table>
<thead>
<tr>
<th>Location</th>
<th>Standard Number</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
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<td>GRSG-M-FML-ST-080</td>
<td>PHMA, GHMA, SFA &amp; Anthro Mountain (UT)</td>
</tr>
<tr>
<td>NEVADA</td>
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<td>PHMA, GHMA, &amp; SFA</td>
</tr>
<tr>
<td>IDAHO/MT</td>
<td>GRSG-M-FML-ST-082</td>
<td>PHMA, IHMA, GHMA &amp; SFA</td>
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<tr>
<td>WYOMING</td>
<td>GRSG-M-FML-ST-084</td>
<td>PHMA, GHMA, &amp; SFA</td>
</tr>
<tr>
<td>COLORADO</td>
<td>GRSG-M-FML-ST-077</td>
<td>PHMA, GHMA</td>
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GRSG-M-FML-ST-081-Standard –for Anthro Mountain, Utah only

Apply the following conditions of approval on existing fluid mineral leases in Anthro Mountain:

- Use a phased approach for development in greater sage-grouse habitat.
- No well pads or permanent structures will be permitted within a 0.6 mile buffer of an occupied lek.
- Project-related activities and vehicle access will not be allowed in or through the 0.6 mile lek buffer.
- No project-related vehicles or activities (including routine maintenance, production vehicles, or work-over rigs) will be allowed from 1 hour before sunset to 2 hours after sunrise within mapped sage-grouse habitat from March 1 to May 31.
- No surface disturbing activities (including construction, drilling, and well-flaring) will be allowed for wells located within mapped greater sage-grouse habitat from March 1 through June 30.
- No well pad construction, road construction, drilling, or work-over rigs will be allowed on ridge tops from November 1 to March 1 within 4 miles of a lek.
Within mapped greater sage-grouse habitat, disturbance will be limited to an average of one disturbance per square mile (640 acres). Disturbance should be clustered in areas of habitat most distal from leks or areas of habitat least important to the greater sage-grouse.

Disturbance within the mapped GSG habitat on Anthro Mountain will be no more than 3%.

Within 4 miles of a lek, well pads and roads should avoid openings in the pinyon/juniper tracts. If avoidance of an opening is not possible, then well pads and roads should be located as close to the edge of the opening as possible.

Noise levels at leks must be limited to no more than 10dB above ambient, measured at the perimeter of a lek, during the breeding season (from March 1 to May 31).

Low profile tanks will be required for all well pads within mapped greater sage-grouse habitat.

Raptor perch avoidance devices will be installed on any required tank batteries in greater sage-grouse habitat.

Closed-loop drilling will be used for wells within greater sage-grouse habitat.

If a new lek is discovered outside of mapped habitat, contiguous greater sage-grouse habitat within 4 miles of the lek will be mapped. Apply the same protections to the new mapped habitat and the new lek.

The following guidelines also apply in all states:

Operators should be encouraged to reduce disturbance to greater sage-grouse habitat consistent with the rights granted to the lessee:

- At the time of approval of the Surface Use Plan of Operation portion of the Application for Permit to Drill, terms and conditions should be included to reduce disturbance to greater sage-grouse habitat where appropriate and feasible.

- On existing Federal leases when surface occupancy cannot be restricted due to development requirements, try to limit disturbance and surface occupancy to areas least harmful to greater sage-grouse based on vegetation, topography, or other habitat features.

- Where the federal government owns the surface and the mineral estate is in non-federal ownership, coordinate with the mineral estate owner/lessee to apply appropriate stipulations, conditions of approval, conservation measures, and required design features to the appropriate surface management instruments to the maximum extent permissible under existing authorities.
Fluid Minerals – Operations

These standards and guidelines are designed for operations occurring or permitted on leases which were leased prior to Sept. 15, 2015.

Standard – Do not authorize employee camps.

<table>
<thead>
<tr>
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<tr>
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<td>GRSG-M-FMO-ST-086</td>
<td>PHMA, IHMA &amp; SFA</td>
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<td>COLORADO</td>
<td>GRSG-M-FMO-ST-081</td>
<td>PHMA</td>
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<tr>
<td>WYOMING</td>
<td>GRSG-M-FMO-GL-088</td>
<td>PHMA, SFA</td>
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Note in Wyoming, this is a guideline.

Standard – When feasible do not locate tanks or other structures that may be used as raptor perches. If this is not feasible, use perch deterrents.

<table>
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<tr>
<td>IDAHO/MT</td>
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<td>PHMA, IHMA &amp; SFA</td>
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<tr>
<td>COLORADO</td>
<td>GRSG-M-FML-ST-082</td>
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Guideline – Closed-loop systems should be used for drilling operations with no reserve pits where feasible.

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<td>NEVADA</td>
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<tr>
<td>COLORADO</td>
<td>GRSG-M-FML-GL-083</td>
<td>PHMA</td>
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GRSG-M-FMO-GL-Guideline – During drilling operations, soil compaction should be minimized and soil structure should be maintained using the best available techniques to improve vegetation reestablishment.

<table>
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<tr>
<td>NEVADA</td>
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<td>IDAHO/MT</td>
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<tr>
<td>WYOMING</td>
<td>GRSG-M-FMO-GL-090</td>
<td>PHMA, GHMA &amp; SFA</td>
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<tr>
<td>COLORADO</td>
<td>GRSG-M-FML-GL-084</td>
<td>PHMA, GHMA</td>
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</table>
Guideline – Dams, impoundments, and ponds for mineral development should be constructed to reduce potential for West Nile virus. Examples of methods to accomplish this included in the GRSG ROD:

- Increase the depth of ponds to accommodate a greater volume of water than is discharged.
- Build steep shorelines (greater than 2 feet) to reduce shallow water and aquatic vegetation around the perimeter of impoundments to reduce breeding habitat for mosquitoes.
- Maintain the water level below that of rooted aquatic and upland vegetation. Avoid flooding terrestrial vegetation in flat terrain or low-lying areas.
- Construct dams or impoundments that restrict down-slope seepage or overflow by digging ponds in flat areas rather than damming natural draws for effluent water storage or lining constructed ponds in areas where seepage is anticipated.
- Line the channel where discharge water flows into the pond with crushed rock or use a horizontal pipe to discharge inflow directly into existing open water.
- Line the overflow spillway with crushed rock and construct the spillway with steep sides.
- Fence pond sites to restrict access by livestock and other wild ungulates.
- Remove or re-inject produced water.
- Treat waters with larvicides to reduce mosquito production where water occurs on the surface.

Guideline – a phased development approach should be applied to fluid mineral operations, wherever possible, to keep habitat disturbance at a minimum (consistent with the rights granted under the lease).

Disturbed areas should be reclaimed as soon as they are no longer needed for mineral operations.
Coal

**Coal Mines – Unleased** (areas not leased before September 15, 2015)

**Standard** – Include a lease stipulation prohibiting the location of surface facilities when consenting to new underground coal leases.

<table>
<thead>
<tr>
<th>State</th>
<th>Lease ID</th>
<th>Areas</th>
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</thead>
<tbody>
<tr>
<td>UTAH</td>
<td>GRSG-M-MUL-ST-091</td>
<td>PHMA &amp; Anthro Mtn.</td>
</tr>
<tr>
<td>IDAHO/MT(SW)</td>
<td>GRSG-M-MUL-ST-092</td>
<td>PHMA, IHMA &amp; SFA</td>
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</table>

**Coal Mines – Leased** (areas leased after September 15, 2016)

**Standard** – Do not authorize new appurtenant* surface facilities related to existing underground mines unless no technically feasible alternative exists.

If new surface facilities associated with existing mine leases cannot be located outside of sage grouse habitat, locate them within any existing disturbed areas, if possible:

- If location within an existing disturbed area is not possible, then construct new facilities to minimize disturbed areas while meeting mine safety standards and requirements in the MSHA mine-plan approval process, and
- Locate the facilities in an area least harmful to greater sage-grouse habitat based on vegetation, topography, or other habitat features.

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<tr>
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<tr>
<td>IDAHO/SW MONTANA)</td>
<td>GRSG-M-MUL-ST-093</td>
<td>PHMA, IHMA &amp; SFA</td>
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**Guideline** – When coal leases are subject to readjustment, additional requirements should be included in the readjusted lease to conserve, enhance, and restore the greater sage-grouse and its habitat for long-term viability.

<table>
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<tr>
<th>Lease ID</th>
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<tr>
<td>GRSG-M-MUL-ST-093-Standard (Utah)</td>
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<tr>
<td>GRSG-M-MUL-ST-094-Standard (Idaho/ Montana)</td>
<td>PHMA, IHMA, GHMA &amp; SFA</td>
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</tbody>
</table>

*Appurtenant (minerals) – A piece of equipment (e.g., pump jack, separator, storage tank, compressor station, metering equipment, etc.) necessary for production.

**Additional Standards for Wyoming Coal lease areas**

**GRSG-M-CM-ST-093-Standard** – Apply all restrictions listed in the Timing, Distance, Density and Disturbance section to coal exploration and new coal lease projects.

**GRSG-M-CM-ST-094-Standard** – PHMA & SFA are essential habitat for maintaining the greater sage-grouse for purposes of the suitability criteria set forth at 43 CFR 3461.5(o)(1).

**GRSG-M-CM-GL-095-Guideline** – PHMA & SFA When coal leases are subject to readjustment, additional requirements should be included in the readjusted lease to protect and reduce threats to conserve, enhance, and restore the greater sage-grouse and its habitat for long-term viability.
Non-energy Leasable Minerals (all states)

Non-energy leasables consist of phosphate, sodium, potassium, sulphur, gilsonite, and hardrock minerals (on acquired lands.) The basic process starts with a BLM-issued prospecting permit or exploration license with a BLM-approved exploration plan that allows surface disturbance to determine if a valuable mineral exists. Competitive leases may be issued for areas explored under an exploration license, or a preference right lease (for phosphate, sodium, potassium, etc.) or a non-competitive lease (for hardrock leasables) may be issued to holders of Prospecting Permits that demonstrated discovery of a valuable commodity during the term of the prospecting permit. Actions that may occur after an initial lease is issued include fringe acreage leases, lease modifications, lease readjustment (for phosphate, Sulphur and potassium leases), and lease renewals (hardrock and sodium leases).

Overview: For phosphate, sodium and potassium exploration licenses, prospecting permits and leases on lands reserved from the public domain, the Forest Service will recommend that the BLM include provisions to protect GRSG and its habitats when issuing prospecting permits, exploration licenses and leases, or readjusting leases. The Forest Service will also recommend to the BLM that that expansion or readjustment of existing leases avoid, minimize, or mitigate effects to GRSG.

For any non-energy leasable mineral and hardrock leasable minerals on acquired NFS lands, the Forest Service has consent authority to BLM issuing prospecting permits and leases, along with the ability to include stipulations as conditions of consent. In these cases, the Forest Service will include provisions to protect GRSG and its habitats.

Guideline – In PHMA, GHMA, SFA, IHMA & Anthro Mountain, at the time of issuance of prospecting permits; exploration licenses and leases; or readjustment of leases, the Forest Service should provide recommendations to the BLM for the protection of greater sage-grouse and its habitat.

GRSG-M-NEL-GL-097(UT)
GRSG-M-NEL-GL-098(ID)
GRSG-M-NEL-GL-098(WY)
GRSG-M-NEL-GL-111(NV)
GRSG-M-NEL-GL-093(CO)

Guideline – In PHMA, GHMA, SFA, IHMA & Anthro Mountain, the Forest Service should recommend to the BLM that expansion or readjustment of existing leases avoid, minimize, or mitigate the effects to the greater sage-grouse and its habitat.

GRSG-M-NEL-GL-098(UT)
GRSG-M-NEL-GL-099(ID)
GRSG-M-NEL-GL-099(WY)
GRSG-M-NEL-GL-112(NV)
GRSG-M-NEL-GL-094(CO)
Mineral Materials

This includes common variety minerals such as sand, gravel, stone, pumice, cinders, and clay not obtainable under the mining or leasing laws but that can be acquired under the Materials Act of 1947, as amended.

Standard – Do not authorize new mineral material development or disposal.

<table>
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<tr>
<td>COLORADO</td>
<td>GRSG-M-MM-ST-095</td>
<td>PHMA</td>
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</table>

GRSG-M-MM-ST-100-Standard – Free-use mineral material collection permits may be issued and expansion of existing active pits may be allowed:

- except from March 1 to April 30 between 6 p.m. and 9 a.m. within 2 miles from the perimeter of occupied leks, within the Biologically Significant Unit and proposed project area
- if doing so does not exceed the disturbance cap.

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<tr>
<td>UTAH</td>
<td>GRSG-M-MM-ST-100</td>
<td>PHMA, SFA &amp; Anthro Mtn.</td>
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<td>GRSG-M-MM-ST-114</td>
<td>PHMA &amp; SFA</td>
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<td>IDAHO/MT</td>
<td>GRSG-M-MM-ST-101</td>
<td>PHMA, IHMA &amp; SFA</td>
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<td>COLORADO</td>
<td>GRSG-M-MM-ST-096</td>
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Standard – Any permit for existing mineral material operations must include appropriate requirements for operation and reclamation of the site to maintain, restore, or enhance desired habitat conditions (table 1).

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WYOMING (only)

GRSG-M-MM-ST-100-Standard – Apply all restrictions listed in the Timing, Distance, Density and Disturbance section to authorizations for mineral material sales and free use.

GRSG-M-MM-ST-101-Standard – Permits for mineral material operations in priority, sagebrush focal, or general sage-grouse habitat management areas must include appropriate requirements for reclamation of the site to maintain, restore, or enhance desired habitat conditions (table 1).
GRSG-GEN-DC-001-Desired Condition – The landscape for greater sage-grouse encompasses large contiguous areas of native vegetation, approximately 6 to 62 square miles in area, to provide for multiple aspects of species life requirements. Within these landscapes, a variety of sagebrush-community compositions exist without invasive species, which have variations in subspecies composition, co-dominant vegetation, shrub cover, herbaceous cover, and stand structure, to meet seasonal requirements for food, cover, and nesting for greater sage-grouse.

GRSG-GEN-DC-002-Desired Condition – Anthropogenic disturbance is focused in non-habitat areas outside of priority and general habitat management areas and sagebrush focal areas. Disturbance in general habitat management areas is limited, and there is little to no disturbance in priority habitat management areas and sagebrush focal areas except for valid existing rights and authorized uses.

GRSG-GEN-DC-003-Desired Condition – In greater sage-grouse habitats, including all seasonal habitats, 70% or more of lands capable of producing sagebrush have 10 to 30% sagebrush canopy cover and less than 10% conifer canopy cover. In addition, within breeding and nesting habitat, sufficient herbaceous vegetation structure and height provides overhead and lateral concealment for nesting and early brood rearing life stages. Within brood rearing habitat, wet meadows and riparian areas sustain a rich diversity of perennial grass and forb species relative to site potential. Within winter habitat, sufficient sagebrush height and density provides food and cover for greater sage-grouse during this seasonal period. Specific desired conditions for greater sage-grouse based on seasonal habitat requirements.

GRSG-GEN-ST-005-Standard – In priority and general habitat management areas and sagebrush focal areas, only allow new authorized land uses, if after avoiding and minimizing impacts, any remaining residual impacts to greater sage-grouse or their habitats are fully offset by compensatory mitigation projects that provide a net conservation gain to the species, subject to valid existing rights, by applying beneficial mitigation actions. Any compensatory mitigation will be durable, timely, and in addition to what would have resulted without the compensatory mitigation as addressed in the Mitigation Framework.

GRSG-GEN-ST-006-Standard – Do not authorize new surface disturbing and disruptive activities that create noise at 10dB above ambient measured at the perimeter of an occupied lek during lekking (March 1 to May 15) from 6 pm to 9 am. Do not include noise resulting from human activities that have been authorized and initiated within the past 10 years in the ambient baseline measurement.

GRSG-GEN-GL-007-Guideline – During breeding and nesting (March 1 to June 30), surface disturbing and disruptive activities to nesting birds should be avoided.

GRSG-GEN-GL-008-Guideline – In priority and general habitat management areas and sagebrush focal areas, conduct surveys during the breeding season during pre-planning operations. Use protocols such as those established by State Fish and Wildlife agencies. The surveys should encompass all suitable greater sage-grouse habitats within 4 miles of the proposed activities.
GRSG-GEN-GL-009-Guideline – When breeding and nesting habitat overlaps with other seasonal habitats, habitat should be managed for breeding and nesting desired conditions.

(Nevada only)

GRSG-GEN-GL-010-Guideline – Development of tall structures within 3.0 miles from the perimeter of occupied leks, as determined by local conditions (e.g., vegetation or topography), with the potential to disrupt breeding or nesting by creating new perching/nesting opportunities for avian predators or by decreasing the use of an area, should be restricted within nesting habitat.

(Wyoming Only)

GRSG-GRSGH-DC-001-Desired Condition – The landscape for the greater sage-grouse encompasses large contiguous areas of native vegetation, approximately 6-to-62 square miles in area, to provide for multiple aspects of species life requirements. Within these landscapes, a variety of sagebrush-community compositions exist without invasive species, which have variations in subspecies composition, co-dominant vegetation, shrub cover, herbaceous cover, and stand structure to meet seasonal requirements for food, cover, and nesting for the greater sage-grouse.

GRSG-GRSGH-DC-002-Desired Condition – In greater sage-grouse habitat management areas, including all seasonal habitat, 70% or more of lands capable of producing sagebrush have from 10 to 30% sagebrush canopy cover and less than 10% conifer canopy cover. In addition, within breeding and nesting habitat, sufficient herbaceous vegetation structure and height provides overhead and lateral concealment for nesting and early brood rearing life stages. Within brood rearing habitat, wet meadows and riparian areas sustain a rich diversity of perennial grass and forb species relative to site potential. Within winter habitat, sufficient sagebrush height and density

GRSG-GRSGH-ST-003-Standard – Design habitat restoration projects to move towards the desired conditions.

GRSG-GRSGH-ST-004-Standard – A soft trigger is hit when there is any deviation from normal trends in habitat or population in any given year. Normal population trends are calculated as the five-year running mean of annual population counts. Metrics include but are not limited to annual lek counts, wing counts, aerial surveys, habitat monitoring, and Density and Disturbance Calculation Tool evaluations. The Forest Service, with the assistance of the BLM, local Wyoming Game and Fish Department offices, and local sage-grouse working groups, will evaluate the metrics with the Adaptive Management Working Group on an annual basis. The purpose of these strategies is to address the localized greater sage-grouse population and habitat changes by providing the framework in which project management will change if monitoring identifies negative population and habitat anomalies to avoid crossing a hard trigger threshold. This strategy may include curtailment of activities that may adversely affect the greater sage-grouse population or habitat. In cooperation with the Adaptive Management Working Group, implement an appropriate response strategy to address causal factors.

GRSG-GRSGH-ST-005-Standard – Hard triggers are considered a catastrophic indicator that the species is not responding to conservation actions or that a larger-scale impact or set of impacts is having a negative effect. Metrics include but are not limited to number of active leks, acres of available habitat, and population trends based upon lek counts. Within the range of normal population variables (five-year
running mean of annual population counts), hard triggers shall be determined to take effect when two of the three metrics exceed 60 percent of normal variability for the area under management in a single year or when any of the three metrics exceed 40% of normal variability for a 3-year time period within a 5-year range of analysis. A minimum of 3 consecutive years in a 5-year period is used to determine trends (i.e., Y1-2-3, Y2-3-4, Y3-4-5). If a hard trigger is hit, the Forest Service will immediately defer issuance of discretionary authorizations for new actions for a period of 90 days. Cooperate with the Adaptive Management Working Group to initiate development of an interim response strategy within 14 days and initiate a causal factor assessment. Implement the interim response strategy within 90 days for the appropriate Biologically Significant Unit. Once the causal factor assessment has been completed, the interim strategy will be modified to adequately address the causal factors.

**GRSG-GRSGH-GL-006-Guideline** – Within priority habitat management areas and sagebrush focal areas in northeast Wyoming, vegetation treatments in nesting and wintering habitat that would reduce sagebrush canopy to less than 15% should be restricted.

**GRSG-GRSGH-GL-007-Guideline** – When removing conifers that are encroaching into greater sage-grouse habitat, avoid persistent woodlands (i.e., old growth relative to the site or more than 100 years old).

**GRSG-GRSGH-GL-008-Guideline** – In priority and general habitat management areas and sagebrush focal areas, actions and authorizations should be designed to limit the spread and effect of undesirable non-native plant species.

**GRSG-GRSGH-GL-009-Guideline** – To facilitate safe and effective fire management actions, in priority and general habitat management areas and sagebrush focal areas, fuel treatments in high-risk areas (i.e., areas likely to experience wildfire at an intensity level that might result in movement away from the greater sage-grouse desired conditions in table 1) should be designed to reduce the spread and/or intensity of wildfire or the susceptibility of greater sage-grouse attributes to move away from desired conditions.

**GRSG-GRSGH-GL-010-Guideline** – In priority and general habitat management areas and sagebrush focal areas, native plant species should be used, when possible, to maintain, restore, or enhance desired conditions.

**GRSG-GRSGH-GL-011-Guideline** – When breeding and nesting habitat overlaps with other seasonal habitats, habitat should be managed for breeding and nesting desired conditions.