

**PRE-DECISIONAL ADMINISTRATIVE REVIEW AND OBJECTION PURSUANT TO
36 C.F.R. PART 219**

October 1, 2019

OBJECTOR

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PROPOSED PROJECT

Idaho (Boise, Caribou-Targhee, Salmon-Challis, and Sawtooth National Forests and Curlew National Grassland); Nevada (Humboldt-Toiyabe National Forest); Utah (Ashley, Dixie, Fishlake, Manti-La Sal, and Uinta-Wasatch-Cache National Forests); Wyoming (Bridger-Teton National Forest); and Wyoming/Colorado (Medicine Bow-Routt National Forest and Thunder Basin National Grassland) Amendments to Land Management Plans for Greater Sage-Grouse Conservation

United States Department of Agriculture, U.S. Forest Service

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SUBMITTED VIA

<https://cara.ecosystem-management.org/Public/CommentInput?project=52904>

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Pursuant to 36 C.F.R. Part 219, the Wyoming Coalition of Local Governments (“Objector” or “Coalition”) submits this objection to the Greater Sage-grouse Draft Record of Decision and Land Management Plan Amendment for National Forest System Land in Wyoming (“2019 Draft ROD”). Notice was published in the Salt Lake Tribune and Denver Post on August 2, 2019 with a 60 day objection period closing on October 1, 2019.

I. STATEMENT OF INTEREST

The Coalition is a voluntary association of local governments organized under the laws of the State of Wyoming to educate, guide, and develop public land policy in the affected counties. Wyo. Stat. §§11-16-103, 11-16-122, 18-5-201. Coalition members include Lincoln County, Sweetwater County, Uinta County, Sublette County, Lincoln Conservation District, Sweetwater County Conservation District, Uinta County Conservation District, Sublette County Conservation District, Little Snake River Conservation District, and Star Valley Conservation District. The Coalition serves its members to advocate for local government land management and planning. The plans adopted by the Coalition members provide for the protection of vested rights of individuals and industries dependent on utilizing and conserving existing resources and public lands, the promotion and support of habitat improvement, the support and funding of scientific studies addressing federal land use plans and projects, and providing comments on behalf of members for the educational benefit of those proposing federal land use plans and land use projects.

The county and conservation district members of the Coalition are local governments with special expertise and jurisdiction by law as set out in the CEQ regulations in a variety of different contexts. The county and conservation district members of the Coalition enjoy the authority to protect the public health and welfare of Wyoming citizens and to promote the management and protection of federal land natural resources. Wyo. Stat. §§18-5-102; Wyo. Stat. §§11-16-122. Given this statutory charge and wealth of experience in federal land matters, the Coalition members have participated as cooperating agencies on most Wyoming projects and land use plans and have coordinated efforts with BLM, U.S. Forest Service, and other federal, state, and local entities.

- Sublette County supports a multiple-use policy on the lands within the county. Sublette County Comprehensive Plan, at 19, 62 (2005). It encourages and supports "maintaining wildlife populations that are in balance with available habitat and other uses," as well as supporting "wildlife management techniques that minimize conflicts with agricultural operations and/or practices." *Id.* at 18, 57. It is also Sublette County's goal to "balance between the conservation and the use of the County's natural resources." *Id.* at 44-45, 61. It is the County's policy to coordinate and cooperate with both state and federal entities to in planning efforts. *Id.* at 6.
- Sublette County Conservation District's objective is to "ensure public lands are managed for multiple use, sustained yield, and prevention of natural resource waste." Sublette County Conservation District Public Land Use Policies, at 5, 7-8 (2008). It is the District's position that "[f]orests, rangelands, and watersheds, in a healthy

condition, are necessary and beneficial for wildlife, livestock grazing, and other multiple uses." *Id.* at 16. Sublette County Conservation District's Long Range Plan identifies agriculture, vegetation, soils, forests, minerals and other resource areas of concern and emphasizes coordination and cooperation with the BLM and the USFS on planning efforts that may impact each of those areas. Sublette County Conservation District Long Range Plan at 15.

- Lincoln County also supports and depends on the multiple uses of the public lands and supports land uses that are consistent with "orderly development and efficient use of renewable and nonrenewable resources." Lincoln County Comprehensive Plan, at 7 (2006). It is Lincoln County's position that if forests, rangelands, and watersheds are maintained in a healthy condition, then it will benefit wildlife, livestock grazing, and other multiple-uses. Lincoln County Public Lands Policy, at 3-40. Lincoln Conservation District's objective is to "maintain a solid resource balance between wildlife, recreation and other land uses in the District." Lincoln Conservation District Land Use & Natural Management Long Range Plan, at 36 (2010-2015).
- Uinta County supports public land development and livestock grazing as critical economic and cultural drivers. Uinta County Comprehensive Plan at 21-23 (2011). The County supports use of maximum Animal Unit Months and opposes any relinquishment of livestock permits. *Id.* at 22. The County supports public land access and opposes the any use of the Endangered Species Act, or candidate species to restrict or curtail uses in the County. *Id.* Uinta County Conservation District seeks to "promote and protect agriculture, to provide leadership, information, education and technical assistance for the development and improvement of our natural resources, to protect the tax base and promote the health, safety and well being of Uinta County residents." Uinta County Conservation District Long Range Plan at 1 (2010-2015).
- Sweetwater County Conservation District commits to seeing that all natural resource decisions "maintain and revitalize the concept of multiple use on state and federal lands in Sweetwater County." SWCCD Land & Resource Use Plan & Policy at 8, 17, 29 (2005). It encourages the participation "in local plans for sage grouse management to ensure an effective balance between sagebrush habitat for sage grouse and grass vegetation for domestic and wild grazing animals." *Id.* at 55. It also looks to ensure "that wildlife management and habitat objectives reduce and/or avoid conflicts with other multiple uses," and that the "objective of maintaining healthy wildlife populations balance[] with resource carrying capacity and other land uses." *Id.* at 66-68.

The 2019 Draft ROD will greatly impair Coalition member interests because:

- The 2019 Draft ROD adopts No Surface Occupancy stipulations, noise limitations, and disturbance caps that limit energy development that decrease county revenues, injures the tax base, and destabilizes the economy of each county;
- The 2019 Draft ROD adopts a mitigation standard of “conservation uplift” to “improve” sage-grouse habitat against the Forest Service’s statutory authority which will chill energy development and other multiple uses;
- The 2019 Draft ROD creates a presumption that livestock grazing will cause a negative impact to sage-grouse habitat which will merit livestock grazing permit reductions;
- The 2019 Draft ROD relies on literature from the 2015 planning process that is not adequately explained or analyzed which is the subject of significant controversy and litigation and has been the basis of management actions that have directly impacted the Coalition's economy, custom, and culture.

II. DESCRIPTION OF ASPECTS OF PROPOSED PROJECT ADDRESSED BY THE OBJECTION

Pursuant to 36 C.F.R. §219.54, the Objector includes the following:

1. A statement of the issues and/or the parts of the plan, plan amendment, or plan revision to which the objection applies;
2. A concise statement explaining the objection and suggesting how the proposed plan decision may be improved. If applicable, the objector should identify how the objector believes that the plan, plan amendment, or plan revision is inconsistent with law, regulation, or policy; and
3. A statement that demonstrates the link between prior substantive formal comments attributed to the objector and the content of the objection, unless the objection concerns an issue that arose after the opportunities for formal comment.

Pursuant to 36 C.F.R. 219.54(b)(4), the Coalition need not resubmit “[f]ormal comments previously provided to the Forest Service by the objector during the proposed plan, plan amendment, or plan revision comment period.” The Coalition has not provided its formal *public* comments but has provided its Cooperating Agency comments as well as other documents used in the decision making process such as letters to the Forest Service.

III. OBJECTION ISSUE 1: NO SURFACE OCCUPANCY STIPULATIONS

A. *Description of Objection Issue in 2019 Draft ROD: No Surface Occupancy in Priority and General Habitat Management Areas*

The 2019 Draft ROD retains several No Surface Occupancy (“NSO”) stipulations including: (1) on lands located in priority habitat management areas (“PHMA”) or connectivity habitat management areas (“CHMA”) where oil and gas development exceeds an average of one pad per 640 acres; (2) on or within a 0.6 mile radius of the perimeter of occupied leks that are located in PHMA or CHMA; and (3) on or within a 0.25 mile radius of the perimeter of occupied leks that are located in general habitat management areas (“GHMA”). See 2019 Draft ROD at 84-85 (GRSG-TDDD-ST-014; GRSG-TDDD-GL-016; GRSG-TDDD-GL-017). The only change to these NSO stipulations is that now the Forest Service does not need the unanimous approval of the U.S. Fish and Wildlife Service and the State of Wyoming to approve an Exception or Modification to the NSO stipulation. *Id.* at 52; 2019 FEIS at 4-413 – 414.

B. *Link Between Prior Substantive Comments and Objection*

As to the NSO stipulation for GHMA, the Coalition commented that no literature has substantiated the need for GHMA or limitations on surface occupancy or surface disturbing activities. 081518 Proposed Changes Comments at 12. The Coalition cited literature used by the Forest Service that actually *disclaimed* any review of, or the need for, additional protections in *non*-PHMA. *Id.* (Citing *Report on National Greater Sage-Grouse Conservation Measures Produced by the BLM Sage-Grouse National Technical Team* (Dec. 2011) (“NTT Report”). As to the NSO stipulation for PHMA, the Coalition suggested changes to the proposed language that would more accurately reflect the Forest Service’s statutory authority. *Id.* at 11. The Coalition also repeatedly disputed the literature that supports the 1 facility per 640 acre disturbance cap. *Id.* at 19-20; *see also* 011918 USFS NOI Sage-grouse comments at 15. Specifically, the Coalition explained that the study used as the basis for the 1/640 acre threshold never actually tested that threshold against other densities. 081518 Proposed Changes Comments at 19-20.

C. *Concise Statement of Objection: NSO Stipulations Are Arbitrary and Capricious and Not Adequately Explained*

1. NSO Stipulations Effectively Close Tens of Thousands of Acres to Energy Development

NEPA requires the Forest Service to “consider the environmental impacts of their actions, disclose those impacts to the public, and then explain how their actions will address those impacts.” *W. Org. of Res. Councils v. Bureau of Land Mgmt.*, 591 F. Supp. 2d 1206, 1228–29 (D. Wyo. 2008), *aff’d sub nom. BioDiversity Conservation All. v. Bureau of Land Mgmt.*, 608 F.3d 709 (10th Cir. 2010). An EIS must assess and disclose direct and indirect effects, 40 C.F.R. §§ 1502.16, 1508.8, and consider “every significant aspect of the environmental impact of a proposed action.” *Kern v.*

Bureau of Land Management, 284 F.3d 1062, 1066, 1073 (9th Cir.2002). The Forest Service must “articulate, publicly and in detail, the reasons for and likely effects of ... decisions, and to allow public comment on that articulation.” *Id.* Failure to do so is fatal to the document. *WildEarth Guardians v. Nat'l Park Serv.*, 703 F.3d 1178, 1183 (10th Cir. 2013).

Under the 2015 Land Use Plan Amendment (“2015 LUPA”), Map 2-4 shows that 883,670 acres are closed to oil and gas leasing and another 441,690 acres have major (*e.g.* NSO) stipulations. *See* 2015 LUPA, Map 2-4; *see also* 2015 FEIS at 4-115. The 2015 LUPA map also reveals that thousands of acres applied NSO stipulations to adjacent lands that are closed to oil and gas leasing. The BLM and Forest Service admitted in 2015 that these stipulations would result in an approximate 10% decrease in oil and gas wells and that federal minerals would likely be drained. *Id.* The 2015 FEIS did not disclose, however, that the thousands of acres that were otherwise available for leasing *could not* be developed because of the relationship between an NSO stipulation and areas that were *closed* to mineral leasing. The possibility of additional lands being closed to mineral development was and remains a grave concern of the Coalition in both the 2015 and 2019 planning process. *See* 010319 Coalition DEIS Comments at 10-12.

The 2019 FEIS retains the restrictions but did not correct the failure in the 2015 FEIS to disclose and analyze the number of acres where an NSO stipulation made it impossible to develop. The interrelationship between the “closed” acres and the “NSO” acres includes significant cumulative and connected impacts and the Forest Service has not explored that relationship and documented it in the FEIS. *Utah Shared Access Alliance v. U.S. Forest Serv.*, 288 F.3d 1205, 1212 (10th Cir. 2002) (Agencies must consider synergistic interrelationship of management actions and their effects). The number of acres that cannot be developed will adversely affect the Coalition members economy, custom, and culture. The burdens on energy development also create a drag on other industries, such as well services, equipment sales, and finance.

2. One Facility Per 640 Acres is Arbitrary and Capricious

Courts will set aside agency action if it is “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” 5 U.S.C. § 706(2)(a). The duty of a court under this standard is to determine whether the Forest Service has demonstrated a rational connection between the facts found and the decision made. *Citizens' Comm. to Save Our Canyons v. Krueger*, 513 F.3d 1169, 1176 (10th Cir. 2008). Moreover, CEQ rules require an FEIS to address scientific controversies. 40 C.F.R. §§ 1503.4(a); 1508.27(b)(4). An FEIS that does not will be set aside. *Middle Rio Grand Conservancy Dist. v. Norton*, 294 F.3d 1220, 1229 (10th Cir. 2002) (disagreement as to quantity of water was a scientific controversy to be addressed in the FEIS); *Center for Biological Diversity v. Forest Service*, 349 F.3d 1157, 1168-69 (9th Cir. 2003) (responding generally to a disagreement is not sufficient.).

The one facility per 640 acres prescription is found in, and derives from, the NTT Report. The NTT Report again cites Holloran’s 2005 study which provides “[m]aintaining well densities of ≤ 1 well per 283 ha (approximately 1 well per section) within 2 mi of a lek could reduce the negative

consequences of gas field development.” Mathew J. Holloran, *Greater Sage-Grouse Population Response to Natural Gas Field Development in Western Wyoming*, at 57-58 (2005). Holloran, however, did not actually test this threshold against other well densities. According to Dr. Rob Roy Ramey’s review of the NTT Report, Holloran instead “reported on leks affected by different numbers of impacts in each of four quadrants in the cardinal directions, and predictions based upon correlations at a scale of 3 km. Data, significance tests, and scatterplots of those correlative analyses were not reported by Holloran (2005), making the scientific rationale for his one-well-per-section not reproducible.” Ramey, et al. *A Report on National Greater Sage-Grouse Conservation Measures Produced by the BLM Sage-Grouse National Technical Team*, at 28 (Dec. 21, 2011). Perhaps more importantly, in 2010, Holloran found no population loss but only temporary movement of birds to other leks. *Id.* Thus, Holloran’s report is not only methodologically flawed but it documents no adverse effect to sage-grouse.

The fact that the State of Wyoming sage-grouse plan adopted Holloran’s recommendation does not absolve the Forest Service of its independent obligation to address the disputed science. The Forest Service’s 2019 FEIS does resolve the controversy of the NTT Report in general, or the one facility per 640 acres prescription in specific despite the Coalition’s repeated identification of the problems of both. *See e.g.*, 081518 Proposed Changes Comments at 19. Moreover, the Forest Service has failed to explore, and explain, how the 5% disturbance cap and the one facility per 640 acres act to conserve sage-grouse habitat. The 2019 Plan explicitly prioritizes development outside of PHMA, *see* 2019 Draft ROD at 18; 2019 FEIS at 4-352, and then decreases the opportunity to develop inside of PHMA by artificially limiting the number of acres that can be developed. As a result, operators are forced to find undisturbed land outside of PHMA when the better option in some circumstances may be to continue to develop the already disturbed area. *Even if* the full 5% is not utilized, operators have no incentive to forego a larger well pad site and greater area to work in another section under the 2019 Draft ROD. In other words, if a section has 2% disturbance, the operator may opt to locate all facilities on another section to utilize the full 5%.

As the Coalition commented at length, the one site per 640 acres is not scientifically defensible and the Forest Service has not adequately disclosed and discussed the problems with the supporting literature, the controversy surrounding the methodology, and the credibility of the NTT Report in general. The Forest Service cannot rely on its expertise when it so clearly failed to follow the National Environmental Policy Act rules.

D. Suggested Remedies To Resolve the Objection

The Coalition suggests that the following language correlates more closely with the Forest Service’s statutory authority.

In priority and connectivity habitat management areas, ~~do not authorize~~ new surface occupancy or surface disturbing activities **may be authorized** on or within a 0.6 mile radius of the perimeter of occupied leks.

In priority and connectivity habitat management areas, ~~limit the density of activities related to oil and gas development or mining activities to no more than~~ **may exceed** an average of one pad or mining operation per 640 acres, using the current Density Disturbance Calculation Tool process or its replacement **in the Responsible Official's discretion.**

~~In general habitat management areas, do not authorize new surface occupancy or surface disturbing activities on or within a 0.25-mile radius of the perimeter of occupied leks.~~

IV. OBJECTION ISSUE 2: COMPENSATORY MITIGATION STANDARD

A. *Description of Objection Issue in 2019 Draft ROD: Conservation Uplift and No Net Loss*

The 2019 ROD changes the mitigation standard used in the 2015 LUPA from a “net conservation gain” threshold to a “no net loss” threshold. *Compare* 2015 LUPA at 18 *with* 2019 Draft ROD at 19 (discussing the rationale for the change). It appears, however, that the change is purely semantic – the 2019 Draft ROD mitigation standard provides “a clearer link to acres and equivalency or *uplift for the species* than the previous net conservation gain definition.” 2019 Draft ROD at 19; 2019 FEIS at 4-354. According to the ROD, new surface disturbances will be allowed (above and beyond the density and disturbance caps) if, and only if, residual impacts are “fully offset by mitigation that provide no net habitat loss to the species, measured at the statewide scale, subject to existing rights.” 2019 Draft ROD at 53. The 2019 Draft ROD language is at best ambiguous and fails to provide certainty or clarity.

B. *Link Between Prior Substantive Comments and Objection*

The Coalition commented that Forest Service does not have authority to require the complete mitigation or “uplift” of any and all impacts caused by a proposed project. NEPA does not require mitigation, let alone, complete mitigation and Forest Service statutes and regulations do not either. Thus, the Forest Service may not require an “improvement” or “uplift” standard in the 2019 Plan. *See e.g.*, 081518 Proposed Changes Comments at 14-15. The Coalition also commented that the Forest Service does not have authority to require any mitigation *regardless* of the standard. *See* 011918 Scoping Comments at 11. Despite these comments, the 2019 Draft ROD retains a mitigation standard that includes artifacts of the net conservation gain threshold. Needless to say the Draft ROD language on mitigation is neither defensible or durable.

C. *Concise Statement of Objection: Forest Service Lacks Authority to Require Any Mitigation*

According to the 2019 FEIS and Draft ROD, the new mitigation standard – no net loss – provides “a clearer link to acres and equivalency or *uplift for the species* than the previous net

conservation gain definition.” 2019 Draft ROD at 19; 2019 FEIS at 4-354. Thus, despite the textual change in the new plan, the Forest Service has apparently interpreted “no net loss” as accomplishing what the “net conservation gain” standard was intended to accomplish. Put another way, the Forest Service has *retained* the goal to provide an “uplift for the species” but has *changed* the mechanism by which it accomplishes this uplift. The 2019 FEIS never discloses the Forest Service’s authority to require mitigation, regardless of the standard, for projects and operations that comply with the Forest Service statutory multiple use mandate.

No statute, rule, or policy requires the Forest Service to improve, benefit, or uplift any resource. *See* NFMA at 16 U.S.C. § 1604(e), 1607; MUSYA, 16 U.S.C. §§ 528-531; Organic Act 16 U.S.C.A. § 475(a)(the purpose of the forest is to “[secure] favorable conditions of water flows, and to furnish a continuous supply of timber for the use and necessities of citizens of the United States . . .”). Indeed, the furthest extent of the Forest Service’s mitigation authority can be found in Forest Service rules which authorize “minimiz[ation of] adverse environmental impacts.” 36 C.F.R. § 228.8. Minimizing impacts is not the same as compensatory mitigation and the Forest Service may not conflate the two distinct terms. *Compare* 40 C.F.R. 1508.20(b) *with id.* at 1508.20(e); *see also* *Mercy Hosp., Inc. v. Azar*, 891 F.3d 1062, 1068 (D.C. Cir. 2018) (distinct provisions should not be read to produce surplus provisions). With regard to wildlife habitat, such as sage-grouse PHMA or GHMA, the Forest Service is only authorized to “maintain and protect” habitat that may be affected by operations on Forest Service lands. *Id.* at § 228(e). Providing “uplift for the species” therefore, is clearly beyond the pale of the Forest Service’s clear and unambiguous statutory grant of authority.

It is perhaps more telling that the policies upon which the “net conservation gain” standard were based have since been revoked. Authority for the net conservation gain standard relied on Secretary Order 3330 (Improving Mitigation Policies and Practices of the Department of the Interior) and the Presidential Memorandum issued on November 3, 2015 (Mitigating Impacts on Natural Resources from Development and Encouraging Related Private Investment). Both the order and guidance have been rescinded by the Executive Order 13783 (Mar. 28, 2017) and Secretary Order 3349. Thus, the Executive has already acknowledged that the Secretary of Agriculture lacks the authority to require any improvement above the original or baseline conditions. The 2019 Draft ROD mitigation standard clearly fails to conform to the clarification provided by the President and Interior Secretary.

Similarly, NEPA does not require mitigation of *any type*. Rather, NEPA only requires that mitigation be *discussed* in terms of evaluating environmental impacts, but does not require proponents of a proposed action to mitigate the potential impacts. *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 352-53 (1989) (“...it would be inconsistent with NEPA's reliance on procedural mechanisms – as opposed to substantive, result-based standards – to demand the presence of a fully developed plan that will mitigate environmental harm before an agency can act.”). The 2019 FEIS could – and should – merely state “whether all practicable means to avoid or minimize environmental harm from the alternative selected have been adopted, and if not, why they were not.” 40 C.F.R. §§ 1505.2(c); 1505.3. The FEIS must discuss potential mitigation, but, no

law or rule requires that mitigation be adopted or enforced and certainly not mitigation that requires “uplift.”

D. Suggested Remedies That Would Resolve the Objection

The Coalition has long supported a “no net loss” mitigation standard, largely because it conforms to wetlands mitigation affirmed in the federal courts. The “no net loss” was and is construed as acre for acre. The Coalition, however, strongly disagrees with any language that requires, implies, or otherwise opens to the door for mitigation to improve, benefit, uplift sage-grouse or its habitat. Thus, all “conservation uplift” or “improve” language should be deleted to match statutory authorities and Standard GRS-G-TDDD-ST-023 should be deleted entirely as inconsistent with law.

V. OBJECTION ISSUE 3: GRAZING GUIDELINES

A. Description of Objection Issue in 2019 Draft ROD: Livestock Grazing Permit Reductions and Habitat Objectives

The 2019 Draft ROD provides that “[i]n greater sage-grouse HMA, if livestock grazing is determined to be a *causal factor limiting achievement of desired conditions* for seasonal habitats on capable sites, adjust livestock management, as appropriate, to address species life requirements (e.g., cover, food, shelter). 2019 Draft ROD at 55 (emphasis added). The desired conditions are listed in Attachment E and include among others: (1) perennial grass height that will “[p]rovide overhead and lateral concealment from predators” in breeding and nesting habitat; (2) perennial grass canopy cover of greater than 10% in arid sites and 15% in breeding and nesting habitat; and (3) perennial grass canopy cover of greater than 15% in brood-rearing and summer habitat. *See* 2019 Draft ROD Attachment E at 93. By the language in the 2019 Draft ROD, if livestock grazing “limits achievement”, in any way to any degree, of these thresholds, livestock grazing will be adjusted to address cover, food, or shelter for sage-grouse.

B. Link Between Prior Substantive Comments and Objection

The Coalition has identified and explained the flaws in the grazing guidelines in the 2015 LUPA in its scoping comments. *See* 011918 USFS NOI Comments at 4-10. The Coalition exhaustively detailed the false assumptions upon which grass height objectives were based, *id.* at 5, that the Forest service’s claim that grazing permits would not be adjusted contradicted the plain language in the 2015 LUPA, *id.* at 4, and that the BLM, Forest Service, USFWS, and local governments do not have data to support habitat objectives across the Interior West. *Id.* at 7-9.

It also became clear during the 2018 planning process that the Forest Service had not fully disclosed how sage-grouse benefit from a particular range of canopy cover or grass height. 081518 Proposed Changes Comments at 3. The Coalition emphasized that Table 1 (Habitat Objectives) should be removed entirely as unsupported and lacking demonstrated benefit to sage-grouse, and

because the “application of Table 1 leads, **invariably**, to decreased utilization on the Forest by livestock permittees when monitoring data, if any are available, just do not support decreases or adjustments. *Id.* at 4 (discussing GRSGLG-GL-037-Guideline (requiring adjustments to livestock grazing if Table 1 objectives are not met)); *see also* Exhibit (Ex.) 1, DEIS_Chapter2_Draft_092118 Coalition Cooperating Agency Comments; Ex. 2, DEIS_Chapter3_Draft_92118_edit (1) Coalition Cooperating Agency comments; Ex. 3, DEIS_Chapter4_Draft92118 Coalition Cooperating Agency comments; Ex. 4, 071818 Cooperating Agency Follow Up. The habitat objectives and the assumptions are not tied to soil types, precipitation, or altitude all of which make the site capability conclusions hypothetical

C. *Concise Statement of Objection: Grazing Guideline 38 Forces Grazing Permit Reductions When Grazing is Not a Significant Causal Factor and is Arbitrary and Capricious*

Pursuant to Forest Service regulations, the Forest Service may “[m]odify the seasons of use, numbers, kind, and class of livestock allowed or the allotment to be used under the permit, because of resource condition, or permittee request.” 36 C.F.R. § 222.4(a)(8). Resource objectives are set by the governing land use plan. *See* FSM 2230.2. The 2019 Draft ROD provides that “[i]n greater sage-grouse HMA, if livestock grazing is determined to be a *causal factor limiting achievement of desired conditions* for seasonal habitats on capable sites, adjust livestock management, as appropriate, to address species life requirements (*e.g.*, cover, food, shelter). 2019 Draft ROD at 55 (emphasis added).

The 2019 Draft ROD *requires* changes if livestock grazing *limits* achievement of desired conditions to any extent whatsoever. By the very nature of livestock grazing, cattle and sheep will *necessarily*, limit the growth of grasses and forbs in both height and canopy cover at least on a seasonal basis. Every single cow or sheep on every single allotment is a causal factor “limit[ing] the achievement” of the habitat objectives in the 2019 Draft ROD. By way of example, if the Forest Service and permittees determine that 40% utilization is sufficient to provide “overhead and lateral concealment from predators” and big game populations constitute 30%, then even if cattle or sheep only use 10%, the 2019 Draft ROD would require grazing adjustments as opposed to requiring the state to reduce big game numbers. Similarly, if grazing reduces canopy by a total of 5% such that total canopy cover falls below the indicator values (10% or 15%), then permittees will be punished *even though* their operation was not a **significant** causal factor in the allotment’s condition. The 2019 Draft ROD sets up every grazing permittee for failure with imprecise language that the Coalition identified in its comments and the Forest Service has failed to correct.

Finally, the 2019 FEIS uses the term “capable” but never documents which if any of the priority habitat is capable of the indicator values described above. The FEIS offers little if any analysis of soils, precipitation or altitude all of which will affect the habitat. However, the Forest Service, BLM, and most state entities (including Wyoming Game and Fish and Wyoming Department of Agriculture) do not have monitoring data of what sites are actually “capable.” Thus, range personnel faced with the lack of any information may (*e.g.* will) resort to the Habitat

Objectives rather than using them as references. Forest Service manuals and handbooks generally do not require the Forest Service to measure and record grass height or percent canopy cover beneath that grass height or beneath sagebrush. Indeed, the Forest Service never adopted rangeland health principles in 1995 so to the extent monitoring data exists, it will vary in quality and be more than 20 years old. The Forest Service has not performed detailed site analysis or carrying capacity studies for the past 35 years and now lack the personnel and budgets to do so.

D. Suggested Remedies To Resolve the Objection

The objection could be resolved with the following language:

In greater sage-grouse HMA, if livestock grazing is determined to be a **significant** causal factor limiting achievement of desired conditions for seasonal habitats on ~~capable~~ sites independently determined to be capable after taking into account existing uses, adjust livestock management, as appropriate, to address species life requirements (e.g., cover, food, shelter).

VI. OBJECTION ISSUE 4: HARD AND SOFT TRIGGERS

A. Description of Objection Issue in 2019 Draft ROD: Retention of Hard and Soft Triggers from the 2015 LUPA

The 2019 Draft ROD provides two types of triggers – hard and soft – that are tripped when changes to sage-grouse populations or habitat are determined. 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.” 2019 Draft ROD at 51. Metrics include “annual lek counts, wing counts, aerial surveys, habitat monitoring, and Density and Disturbance Calculation Tool evaluations.” *Id.* A hard-trigger is “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.” *Id.*

If *either* a hard or soft trigger is tripped, the Forest service will “identify and implement appropriate management responses for the specific casual factor in the decline of populations and/or habitats.” *Id.* at 50. Furthermore, 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.” *Id.* at 50.

B. Link Between Prior Substantive Comments and Objection

The Coalition objected to the use of “hard wired” responses in its scoping comments. 011918 NOI USFS Comments. The Coalition elaborated during the Cooperating Agency process that the problem with the new Adaptive Management triggers were the exact same as those included in the 2015 LUPA. 081518 Proposed Changes Comment at 5-6. Specifically, the Coalition described how soft-triggers will be tripped on “any deviation” and a soft-trigger still includes the

ability to adjust uses. *Id.* The Coalition also identified major problems with hard-triggers including the reliance on single metrics to dictate an entire management system. *Id.* at 7.

C. *Concise Statement of Objection: Adaptive Management Triggers are Arbitrary and Capricious*

Once the adaptive management triggers in the 2019 Draft ROD are tripped, the Forest Service will adjust discretionary uses. The triggers do not take into account, however, that various environmental factors may have caused the deviation. For example, if a severe drought occurs in years 1 through 3, and populations drop below the "five-year running mean" during year 4 and 5 but years 4 and 5 produce exceptional growth, presumably the Forest Service would cut authorized uses on years 4 and 5 without any benefit to the grouse. Thus, the 2019 Draft ROD forces a single response on *every* possible scenario and, moreover, that single response may not benefit sage-grouse if the trigger was tripped as the result of a fire, drought, big game species or other. The Forest Service did not attempt to resolve this arbitrary system in its FEIS despite the Coalition's repeated comments. *See e.g.*, Ex. 5, 061218 Key Changes Comment Letter.

Moreover, as to soft-triggers, the 2019 Draft ROD does not provide any untriggering language despite the fact that the soft-trigger will still trip management adjustments. As a result, the Forest Service will implement the exact same response (*i.e.* adjustment of uses) but only one can be reversed. The rationale for the disparate treatment of the two types of triggers is entirely absent in the FEIS. Moreover, reliance on a 5 year population average ignores long term trends and variations that extend beyond that limited scope.

D. *Suggested Remedies To Resolve the Objection*

The Coalition is not opposed to adaptive management as long as the response to identified triggers includes a spectrum of possible actions and includes flexibility when the causal factor for the trigger being tripped is due to no fault of any authorized use or is the result of an anomalous year. Adaptive management requires a consistent commitment to monitoring and to working with land users and an agreement on the data set. Too often monitoring is a one-time event or worse there is inconsistent protocols, such as measuring canopy in the fall or winter. Imposing triggers without the necessary criteria for adaptive management will lead to harsh and unfounded land management. The Coalition suggests that the Wyoming Forest Service plan be modified to mirror the Utah Forest Service Plan on this aspect.

VII. OBJECTION ISSUE 5: FAILURE TO ADDRESS CONTROVERSY OF NATIONAL TECHNICAL TEAM REPORT

A. *Description of Objection Issue in 2019 Draft ROD: National Technical Team Report and Monograph*

The 2019 Draft ROD includes several limitations, prescriptions, and management actions that are supported by the NTT, COT and other articles compiled into the *USGS Comprehensive Review of Ecology and Conservation of the Greater Sage Grouse: A Landscape Species and its Habitat* (“Monograph”). The 2019 Draft ROD provides:

- GRSG-TDDD-GL-015-Guideline - In PHMA, do not authorize surface disturbing activities unless all existing discrete anthropogenic disturbances, (including wildfire after 2011), cover less than 5% of the suitable habitat in the surrounding area using the current Density Disturbance Calculation Tool process or its replacement and the new use will not cause exceedance of the 5% threshold. *See* 2019 Draft ROD at 52 (GRSG-TDDD-GL-015-Guideline).
- In PHMA, do not authorize new projects that create noise levels, either individual or cumulative, that exceed 10 dBA (as measured by L50) above baseline noise at the perimeter of the lek (or lek center if no perimeter is yet mapped) from 6 p.m. to 8 a.m. during the breeding season (March 1 to May 15). *Id.* at 53 (GRSG-TDDD-GL-021-Guideline).
- In greater sage-grouse HMA, if livestock grazing is determined to be a causal factor limiting achievement of desired conditions for seasonal habitats on capable sites, adjust livestock management, as appropriate, to address species life requirements (e.g., cover, food, shelter). *Id.* at 55 (GRSG-LG-GL-038-Guideline).
- The 2019 Draft ROD never discusses or analyzes the controversy surrounding the methodology, credibility, and unreliability of the Monograph as exposed by various reviewers that invalidate the suggested limitations within the Monograph.

B. Link Between Prior Substantive Comments and Objection

The Coalition provided extensive comments on each of these issues. In its scoping comments, the Coalition detailed flaws in the noise literature that is incorporated in the Monograph, credibility and methodological flaws in the 5% disturbance cap, and false assumptions regarding livestock grazing impacts on habitat. 011918 NOI USFS Comments at 5-16. The Coalition further developed these issues in its Cooperating Agency Proposed Changes comments. 081518 Proposed Changes comment at 12 – 20, 30-32, and then again in its comments to the DEIS. 010319 DEIS Comments at 3-5.

C. *Concise Statement of Objection: Forest Service Failed to Address Controversial and Flawed Science That Serve as Basis for Prescriptions in 2015 LUPA and 2019 Draft ROD*

CEQ rules require an FEIS to address scientific controversies. 40 C.F.R. §§ 1503.4(a); 1508.27(b)(4). An FEIS that does not, will be set aside. *Middle Rio Grand Conservancy Dist. v. Norton*, 294 F.3d 1220, 1229 (10th Cir. 2002) (disagreement as to quantity of water was a scientific controversy to be addressed in the FEIS); *Center for Biological Diversity v. Forest Service*, 349 F.3d 1157, 1168-69 (9th Cir. 2003) (responding generally to a disagreement is not sufficient.). By law, Interior must “ensure and maximize” the quality, objectivity, utility and integrity of information disseminated. 44 U.S.C. §3516. (*hereinafter* “IQA”). NEPA imposes an affirmative duty on federal agencies to ‘insure the professional integrity, including scientific integrity, of the discussions and analyses in the environmental impact statements.’” *Utahns for Better Transp. v. U.S. Dep’t of Transp.*, 305 F.3d 1152, 1181 (10th Cir. 2002) *as modified on reh’g*, 319 F.3d 1207 (10th Cir. 2003) (quoting 40 C.F.R. § 1502.24). The Forest Service’s blind reliance on the NTT Report violates the basic tenant of NEPA that agencies must perform a hard look especially when comments reveal a persistent and significant scientific controversy.

1. 5% Disturbance Cap

Studies by Naugle, Doherty and Ramey, among others, do not recommend a 3% or 5% disturbance cap. The Forest Service may not selectively use literature to justify (or perhaps predetermine) a NEPA decision and the confusion in implementing such a cap and how it impairs local government land management was not addressed. Alternative D of the 2015 FEIS considered a 9% disturbance cap and found that impacts to the economy would be much ameliorated while still preserving sage-grouse core habitat. *See* 2015 FEIS at 4-77. The Coalition prefers the 9% disturbance cap that balances multiple uses with sage-grouse habitat.

The 2019 FEIS also refers repeatedly to Hanser, et al. without explaining the limits of the USGS review or its inherent bias. The Coalition notes that Steve Hanser, the lead author of the 2014 USGS paper, also authored the 2018 review. Other authors for both include David Manier and Zachery Bowen. The Coalition has closely reviewed the Hanser, et al. (2018) report, which assumes that only if new literature refutes the previous literature, that the 2018 Management Actions must be revised to reflect the new literature. This is not what NEPA requires, especially because the 2015 LUPAs were based on several scientifically controversial principles that neither Interior nor the Forest Service ever addressed. The failure to address these controversies sparked litigation across the country and the Forest Service and Interior, to date, have failed to acknowledge or address the significant scientific problems with this cap.

2. 10DB Noise Limitations

This management action was based on the NTT Report. The NTT Report, however, overstates and misrepresents the conclusion of the literature it cites (*e.g.* Blickely (2012)). Blickley,

however, found that sage-grouse tolerated, and even showed no signs of behavior variation, when noise levels were increased by 30 dBA. The noise levels of the studies relied on in the 2015 LUPA reached 70 dBA. *Utah Env'tl. Cong.*, 479 F.3d at 1280 (Explanation for a decision "that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise" is arbitrary and capricious). 011918 USFS NOI Comments at 14.

The recommended noise levels are not based upon any standardized, repeatable data collection, or accepted methods of sound measurement. *See Ramey, et al. A Report on National Greater Sage-Grouse Conservation Measures Produced by the BLM Sage-Grouse National Technical Team*, at 33-39 (Dec. 21, 2011). No studies have been performed that determine which frequencies have more (if any) or less impact on sage-grouse. Therefore, the USFS must consider the noise limitations in the RMP amendments and consider all other studies and scientific information that is available. The Forest Service currently lacks the expertise, personnel or even authority to implement this standard and has not addressed the controversy surrounding its implementation in the 2019 FEIS.

3. Livestock Grazing Does Not Threaten Sage-Grouse Habitat in Wyoming

No literature has been published on grazing that shows sage-grouse or its habitat are in jeopardy or are threatened by livestock grazing in Wyoming. Neither the 2015 FEIS nor the 2019 FEIS document habitat in Wyoming that is being impacted by livestock grazing to the detriment of sage-grouse. Moreover, the 2019 FEIS does not document whether livestock grazing in Wyoming, *or any state*, is negatively impacting the mortality rates of sage-grouse. Rather, the Forest Service relies on outdated and controversial literature to justify the management actions that *will be* used to decrease livestock grazing on Utah forests *without* explaining the impacts these decreases will have.

4. NTT Report, COT Report and Monograph Must be Fully Considered

NEPA imposes an affirmative duty on federal agencies to 'insure the professional integrity, including scientific integrity, of the discussions and analyses in the environmental impact statements.'" *Utahns for Better Transp. v. U.S. Dep't of Transp.*, 305 F.3d 1152, 1181 (10th Cir. 2002) *as modified on reh'g*, 319 F.3d 1207 (10th Cir. 2003) (quoting 40 C.F.R. § 1502.24). The Forest Service's blind reliance on the Monograph violates the basic tenant of NEPA that agencies must perform a hard look especially when comments reveal a persistent and significant scientific controversy. The Forest Service's failure to use the ample means to address these problems (*e.g.* adding an appendix as the Coalition suggested) is inexcusable.

The 2019 FEIS does not discuss *any* of the problems that the Coalition identified in the NTT Report, the COT Report and the Monograph and, therefore, the Forest Service has committed the same error it made in 2015. As the Coalition commented, the NTT Report does not conform to the Information Quality Act. The NTT Report authors cite to authority that does not appear in the "Literature Cited" section. J.W. Connelly is cited 12 times in the Report but 25% of the time, there

was no source available for review. B.L. Walker was also cited 11 times and 45% of the time there was no source available for review.

Sources often cited by the NTT Report do not directly support the assertions for which they were cited. For example, the NTT Report states that full reclamation bonds should be required to ensure full restoration in all priority GRSG habitat. However, the source cited only recommends that breeding habitat should be restored to a condition that is once again suitable for breeding. NTT authors extended the recommendation regarding breeding habitat to all habitat, a fundamentally larger area not supported by any research.

Many of the authors of the NTT Report were biased. The authors cited each others work to the exclusion of other, often contradictory, literature. Many of the authors collaborated on other work that perpetuated certain positions, while, again, excluding other reasonable and often *more reasonable* positions. Three of the NTT authors are the three most cited sources throughout the NTT Report. The NTT authors pushed their own perspective to the forefront and compromised the integrity and accuracy of the NTT Report itself.

D. Suggested Remedies To Resolve the Objection

The Coalition requests that the above cited 2019 Draft ROD language be revised as follows:

GRSG-TDDD-GL-015-Guideline - In PHMA, do not authorize surface disturbing activities unless all existing discrete anthropogenic disturbances, (including wildfire after 2011), cover less than ~~5%~~ 9% of the suitable habitat in the surrounding area using the current Density Disturbance Calculation Tool process or its replacement and the new use will not cause exceedance of the 5% threshold.. See 2019 Draft ROD at 52 (GRSG-TDDD-GL-015-Guideline).

In PHMA, do not authorize new projects that create noise levels, either individual or cumulative, that exceed ~~10~~ 30 dBA (as measured by L50) above baseline noise at the perimeter of the lek (or lek center if no perimeter is yet mapped) from 6 p.m. to 8 a.m. during the breeding season (March 1 to May 15). *Id.* at 53 (GRSG-TDDD-GL-021-Guideline).

~~In greater sage-grouse HMA, if livestock grazing is determined to be a causal factor limiting achievement of desired conditions for seasonal habitats on capable sites, adjust livestock management, as appropriate, to address species life requirements (e.g., cover, food, shelter). *Id.* at 55 (GRSG-LG-GL-038-Guideline).~~

Finally, the Forest Service should, as the Coalition suggested, add an appendix to the 2019 FEIS that fully evaluates whether the Monograph is credible, reliable, and the best available information when the Monograph has been the subject of litigation regarding the significant data quality and integrity issues identified by multiple parties.

VIII. CONCLUSION AND RELIEF REQUESTED

The Coalition appreciates the improvements made to the 2019 ROD as compared to the 2015 LUPA and encourages the Forest Service to further improve the 2019 Plan with the corrections identified herein.

Respectfully submitted this 1st Day of October, 2019:

/S/ Kent Connelly

Kent Connelly, Chairman Wyoming Coalition of Local Governments

Attachment 1

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CHAPTER 2 - ALTERNATIVES

2.1 INTRODUCTION

This chapter describes the alternatives evaluated as a part of this draft environmental impact statement (DEIS) for the plan amendment. This EIS analyzes three alternatives in detail. Alternative 1 is the No Action Alternative. Alternative 2 is the Proposed Action, which was developed to meet the purpose and need presented in Chapter 1. Alternative 3 is the State of Utah Alternative. In addition to the alternatives considered in detail, this chapter describes alternatives considered but eliminated from detailed analysis.

2.1.1 FOREST SERVICE PLAN COMPONENTS AND OPTIONAL CONTENT IN THE PLAN

On NFS lands, LMPs guide management activities and contain desired conditions and objectives as well as standards and guidelines that provide direction for project planning and design. Forest Service plan component definitions are in the planning rule at 36 CFR 219.7(e)(1). The following terms and definitions are used throughout this DEIS:

- **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.
- **Objective** - A concise, measurable, and time-specific statement of a desired rate of progress toward a desired condition or conditions. Objectives should be based on reasonably foreseeable budgets.
- **Standard** - A mandatory constraint on project and activity decisionmaking, established to help achieve or maintain the desired condition or conditions, to avoid or mitigate undesirable effects, or to meet applicable legal requirements.
- **Guideline** - A constraint on project and activity decisionmaking 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.

The planning rule also provides for inclusion of optional content in the plan, such as potential management approaches or strategies and partnership opportunities or coordination activities (36 CFR 219.7(f)(2)). The planning rule does not require project consistency with optional content in the plan (36 CFR 219.15(d)). Optional content in the plan can be changed after public notification under the planning rule provision for administrative changes (36 CFR 219.13(c)). The optional content in the plan for this plan amendment is referred to as a “management approach” and generally includes the following:

- **Management Approach** - A management approach can describe the principal strategies and program priorities the Responsible Official intends to employ to carry out projects and activities

developed under the LMP. Management approaches can convey the management emphasis, relate to desired conditions and may indicate the future course or direction of change. These may discuss potential processes such as analysis, assessment, inventory, project planning, or monitoring.

2.2 ALTERNATIVES CONSIDERED BUT NOT ANALYZED IN DETAIL

2.2.1 VARYING CONSTRAINTS ON LAND USES AND DEVELOPMENT ACTIVITIES

During scoping, some commenters asked the Forest Service to consider additional constraints on land uses and ground-disturbing development activities to protect greater sage-grouse habitat. These constraints are beyond those in the current LMPs. Other commenters, in contrast, asked the Forest Service to consider eliminating or reducing constraints on land uses, or incorporating other flexibilities into the Forest Service’s implementation of LMPs, in addition to those issues that are already evaluated in the Preferred Alternative. Some commenters also wanted the Forest Service to return LMPs to how they were prior to the 2015 ROD/LMPA (see descriptions of Alternative A by state below). Other commenters wanted the provisions of the 2015 RODs left in place. The Forest Service considered public scoping comments, including comments from States and cooperating agencies, and, where appropriate, incorporated these issues into the Alternatives.

This planning process does not revisit every issue that the Forest Service and the BLM evaluated in the 2015 planning process. Instead, the Forest Service now addresses refinements and clarifications to the 2015 Sage-Grouse Plan Amendments, consistent with the purpose and need for action. Accordingly, this EIS has its foundation in the comprehensive 2015 Final EIS and ROD/LMPA and incorporates those documents by reference-including the entire range of alternatives evaluated through the 2015 planning process.

The Forest Service is incorporating by reference the following 2015 Final EIS and ROD/LMPA Alternatives:

Colorado

- Alternative A would have retained the current management goals, objectives, and direction specified in the existing FS LMPs.
- Alternative B was based on the conservation measures developed by the National Technical Team (NTT) planning effort in Washington Office Instructional Memorandum (IM) Number 2012-044. As directed in the IM, the conservation measures developed by the NTT must be considered and analyzed, as appropriate, through the land use planning process and NEPA by all National Forests that contain occupied Greater Sage-Grouse habitat. Most management actions included in Alternative B would be applied to priority habitat management areas (PHMA).
- Alternative C was based on a citizen group’s recommended alternative. This alternative emphasizes improvement and protection of habitat for Greater Sage-Grouse and was applied to all occupied Greater Sage-Grouse habitat. Alternative C would limit commodity development in areas of occupied Greater Sage-Grouse habitat and would close or designate portions of the planning area to some land uses.
- Alternative D, which was identified as the Preferred Alternative in the Draft EIS, balanced opportunities to use and develop the planning area and ensures protection of Greater Sage-

Commented [CD1]: Is the Forest Service incorporating the alternatives to be considered in *addition* to the existing alternatives?
If so then the DEIS needs to be explicit. A couple of sentences at the beginning are not sufficient. If FS intends to incorporate the 2015 FEIS it also needs to state explicitly this includes the administrative record as well. Ambiguity on this issue will lead to the FEIS being set aside.

Grouse habitat based on scoping comments and input from Cooperating Agencies involved in the alternatives development process. Protective measures would be applied to Greater Sage-Grouse habitat.

- The Proposed LMPA incorporated guidance from specific State Conservation strategies, as well as additional management based on the NTT recommendations. This alternative emphasized management of Greater Sage-Grouse seasonal habitats and maintaining habitat connectivity to support population objectives.

Idaho

- Alternative A would have retained the management goals, objectives and direction specified in the Forest Service land and resource management plans effective prior to the 2015 ROD/LMPA.
- Alternative B was based on the conservation measures developed by the National Technical Team planning effort in Washington Office IM 2012-044. As directed in the IM, the conservation measures developed by the National Technical Team must be considered and analyzed, as appropriate, through the land use planning process and NEPA by all National Forests that contain occupied Greater Sage-Grouse habitat. Most management actions included in Alternative B would have been applied to PHMA.
- Alternative C was based on a citizen group's recommended alternative. This alternative emphasized improvement and protection of habitat for Greater Sage-Grouse and was applied to all occupied Greater Sage-Grouse habitat. Alternative C would have limited commodity development in areas of occupied Greater Sage-Grouse habitat and would have closed or designated portions of the planning area to some land uses.
- Alternative D, which was identified as the Preferred Alternative in the Draft RMPA/EIS, balanced opportunities to use and develop the planning area and protects Greater Sage-Grouse habitat based on scoping comments and input from cooperating agencies involved in the alternatives development process. Protective measures would have been applied to Greater Sage-Grouse habitat.
- Alternative E was the alternative provided by the State or Governor's offices for inclusion and analysis in the EISs. It incorporated guidance from specific State Conservation strategies and emphasized management of Greater Sage-Grouse seasonal habitats and maintaining habitat connectivity to support population objectives. This alternative was identified as a co-Preferred Alternative in the Idaho Draft EIS.
- Alternative F was also based on a citizen group-recommended alternative. This alternative emphasized improvement and protection of habitat for Greater Sage-Grouse and defined different restrictions for PHMA and general habitat management areas (GHMA). Alternative F would have limited commodity development in areas of occupied Greater Sage-Grouse habitat and would have closed or designated portions of the planning area to some land uses.
- The Proposed LMPA incorporated guidance from specific State Conservation strategies, as well as additional management based on the National Technical Team recommendations. This alternative emphasized management of Greater Sage-Grouse seasonal habitats and maintaining habitat connectivity to support population objectives.

Nevada

- Alternative A would have retained the management goals, objectives, and direction specified in the Forest Service land and resource management plans effective prior to the 2015 ROD/LMPA.

- Alternative B was based on the conservation measures developed by the National Technical Team planning effort in Washington Office Instruction Memorandum (IM) 2012-044. As directed in the IM, the conservation measures developed by the National Technical Team must be considered and analyzed, as appropriate, through the land use planning process and NEPA by all National Forests that contain occupied Greater Sage-Grouse habitat. Most management actions included in Alternative B would have been applied to PHMA.
- Alternative C was based on a citizen groups' recommended alternative. This alternative emphasized improvement and protection of habitat for Greater Sage-Grouse and was applied to all occupied Greater Sage-Grouse habitat. Alternative C would have limited commodity development in areas of occupied GRSG habitat and would have closed or designated portions of the planning area to some land uses.
- Alternative D, which was identified as the Preferred Alternative, balanced opportunities to use and develop the planning area and protects Greater Sage-Grouse habitat based on scoping comments and input from cooperating agencies involved in the alternatives development process. Protective measures would have been applied to Greater Sage-Grouse habitat.
- Alternative E was the alternative provided by the State or Governor's offices for inclusion and analysis in the EISs. It incorporated guidance from specific state conservation strategies and emphasized management of Greater Sage-Grouse seasonal habitats and maintaining habitat connectivity to support population objectives.
- Alternative F was also based on a citizen group-recommended alternative. This alternative emphasized improvement and protection of habitat for Greater Sage-Grouse and defined different restrictions for PHMA and GHMA. Alternative F would have limited commodity development in areas of occupied Greater Sage-Grouse habitat and would have closed or designated portions of the planning area to some land uses.
- The Proposed LMPA incorporated guidance from specific State Conservation strategies, as well as additional management based on the National Technical Team recommendations. This alternative emphasized management of Greater Sage-Grouse seasonal habitats and maintaining habitat connectivity to support population objectives.

Utah

- Alternative A would have retained the management goals, objectives and direction specified in the Forest Service land and resource management plans effective prior to the 2015 ROD/LMPA.
- Alternative B was based on the conservation measures developed by the National Technical Team planning effort in Washington Office IM 2012-044. As directed in the IM, the conservation measures developed by the National Technical Team must be considered and analyzed, as appropriate, through the land use planning process and NEPA by all National Forests that contain occupied Greater Sage-Grouse habitat. Most management actions included in Alternative B would have been applied to PHMA.
- Alternative C was based on a citizen groups' recommended alternative and was combined with Alternative F considered by ID, NV, CA, MT, and OR. This alternative emphasized improvement and protection of habitat for Greater Sage-Grouse and was applied to all occupied Greater Sage-Grouse habitat. Alternative C would have limited commodity development in areas of occupied GRSG ~~habitat, and~~ habitat and would have closed or designated portions of the planning area to some land uses.
- Alternative D, which was identified as the Preferred Alternative in the Draft LMPA/EIS, balanced opportunities to use and develop the planning area and protects Greater Sage-Grouse habitat

based on scoping comments and input from Cooperating Agencies involved in the alternatives development process. Protective measures would have been applied to Greater Sage-Grouse habitat.

- Alternative E was the alternative provided by the State or Governor's offices for inclusion and analysis in the EISs. It incorporated guidance from specific State Conservation strategies and emphasized management of Greater Sage-Grouse seasonal habitats and maintaining habitat connectivity to support population objectives.
- The Proposed LMPA incorporated guidance from specific State Conservation strategies, as well as additional management based on the National Technical Team recommendations. This alternative emphasized management of Greater Sage-Grouse.

Wyoming

- Alternative A would have retained the current management goals, objectives and direction specified in the existing FS LMPs.
- Alternative B was based on the conservation measures developed by the National Technical Team planning effort in IM 2012-044. As directed in the IM, the conservation measure developed by the National Technical Team must be considered and analyzed, as appropriate, through the land use planning process and NEPA by all National Forests that contain occupied Greater Sage-Grouse habitat. Most management actions included in Alternative B would be applied to PHMA.
- Alternative C was based on a citizen groups' recommended alternative. This alternative emphasizes improvement and protection of habitat for Greater Sage-Grouse and was applied to all occupied Greater Sage-Grouse habitat. Alternative C would limit commodity development in areas of occupied Greater Sage-Grouse ~~habitat, and~~ habitat and would close or designate portions of the planning area to some land uses.
- Alternative D, which was identified as the Preferred Alternative in the draft EIS, balanced opportunities to use and develop the planning area and ensures protection of GRSG habitat based on scoping comments and input from cooperating agencies involved in the alternatives development process. Protective measures would be applied to Greater Sage-Grouse habitat.
- The Proposed LUPA incorporated guidance from specific State Conservation strategies, as well as additional management based on the National Technical Team recommendations. This alternative emphasized management of Greater Sage-Grouse seasonal habitats and maintaining habitat connectivity to support population objectives. For the Wyoming Proposed LMPA, this guidance was consistent with guidelines provided in the Governor's Sage-Grouse Implementation Team's Core Population Area strategy and the Governor's Executive Order (WY EO 2011-05).

The Forest Service considered the entire range of alternatives from the 2015 Final EIS to identify issues meriting reconsideration, given the Forest Service's goal to incorporate new information to improve the clarity, efficiency, and implementation of the 2015 Sage-Grouse Plan Amendments and to better align with BLM and State plans. In this manner, the Forest Service will continue to appropriately manage greater sage-grouse and its habitat through this planning effort in tandem with the 2015 ROD/LMPA.

Further, additional constraints on land uses or development without a documented need would not meet the purpose this planning effort. The Forest Service did not discover new information that would indicate that it should increase the level of conservation, management, and protection to achieve its land use plan objectives. As part of the consideration of whether to amend the 2015 Greater Sage-Grouse RMPs, the

Commented [CD2]: It is not enough to state that the USFS has reconsidered the full range of alternatives from the 2015 EIS. The USFS must look at the impacts of the changes made in the 2018 DEIS as they relate to the threats identified in the 2015 EIS and disclose how those threats are ameliorated or at the least, not worsened by the 2018 changes. The Coalition appreciates that this will likely occur in Chapter 4, but it bears repeating here for citation and reference to a later chapter.

USGS annotated bibliography of Greater Sage-Grouse science published in 2018 was reviewed for new scientific information that became available since January 2015 (Carter et al. 2018).

2.3 DESCRIPTION OF ALTERNATIVES

2.3.1 ALTERNATIVE 1 - NO ACTION ALTERNATIVE

Under the No Action Alternative, the Forest Service would not amend LMPs amended by the 2015 *Greater Sage-grouse Record of Decision and Land Management Plan Amendments* (For a complete list, see Chapter 1, Table 1-1). Greater sage-grouse habitat would continue to be managed under current LMP direction.

Desired conditions and objectives for Forest Service administered lands and federal mineral estate would not change. Allowable uses and restrictions would also remain the same, as they pertain to such activities as mineral leasing and development, recreation, lands and realty, and livestock grazing. This alternative also maintains the designation of sagebrush focal areas (SFAs), although the BLM has cancelled the proposal withdraw SFAs from locatable mineral entry ([Notice of Cancellation](#), 82 *Federal Register* 195, October 11, 2017, p. 47248).

2.3.2 ALTERNATIVE 2 – PROPOSED ACTION

This alternative makes modifications to the No Action Alternative to incorporate new information to improve the clarity, efficiency, and implementation of GRSG plans, including better alignment with BLM and state plans, in order to benefit GRSG conservation on the landscape scale.

This alternative was developed to promote continued collaboration with the BLM, states, and stakeholders to improve management, compatibility, and consistency between federal management plans and other plans and programs at the state level, and to continue to provide protection of greater sage-grouse habitat. This enhanced cooperation between the Forest Service and the States is expected to improve management and coordination with states across the range of greater sage-grouse. The modifications made by this alternative include updating and making adjustments to habitat management area boundaries; removing SFA designations; removing the Anthro Mountain habitat designation and replacing it with PHMA designation; incorporating ~~casual-causal~~ factor review and response processes into the adaptive management strategies; changing net conservation gain to no net loss of habitat and aligning better with states' mitigation strategies; revising livestock management guidelines to replace grass height requirements with standardized evaluation methods; clarifying the restriction on water developments within habitat management areas; and emphasizing treatment of invasive plants in PHMAs. These modifications differ among states in the planning area.

Consistent with the [Notice of Cancellation](#) of the BLM's application to withdraw SFAs from locatable mineral entry (82 *Federal Register* 195, October 11, 2017, p. 47248), this alternative would also remove the recommendation for withdrawal. The effects of such action are included in **Chapter 4**.

To be consistent with the planning rule, those plan components of the 2015 Greater Sage-Grouse Plan Amendments that do not meet the definitions for plan components in 36 CFR 219.7(e)(1) would become management approaches.

The planning rule also states that “Plans should not repeat laws, regulations, or program management policies, practices, and procedures that are in the Forest Service Directive System.” 36 CFR 219.2(b)(2). To be consistent with the planning rule, redundant plan components of the 2015 Greater Sage-Grouse Plan Amendments would be removed.

2.3.3 ALTERNATIVE 3 – STATE OF UTAH ALTERNATIVE

This alternative incorporates all aspects of Alternative 2, except it incorporates two additional modifications to plans within the state of Utah. Specifically, the USFS would remove the GHMA designation from NFS lands in Utah and would also remove the Anthro Mountain management area from designation on the Ashley National Forest but not re-designate it as PHMA.

2.4 COMPARATIVE SUMMARY OF ALTERNATIVES

Tables 2-1 and 2-2 below provide a comparison between acres designated as PHMA, GHMA, important habitat management areas (IHMA, Idaho only), other habitat management areas (OHMA, Nevada only), and Anthro Mountain HMA (Utah only) between the No Action Alternative and Proposed Action. The change in acres between these two alternatives is based on the following:

- Sagebrush Focal Area (SFA) designations were changed to the appropriate HMA designation.
- The Anthro Mountain HMA (Utah only) designation was changed to PHMA designation.
- The Beaverhead-Deerlodge National Forest in SW Montana is not within the scope of this proposed action; however, changes for Idaho result in changes to the previous combined acreage for Idaho and SW Montana
- In areas where additional, site-specific data were gathered since 2015, acreage was updated.
- Small mapping errors were fixed. For example, the 2015 Idaho map showed a GRSG HMA in high elevation outside of actual GRSG habitat.

Table 2-3 provides the acres under the State of Utah Alternative. It is similar to the Proposed Action, except that the State of Utah provided the analysis, and the Anthro Mountain HMA and General HMA were removed.

Table 2-4 displays the acreage of greater sage-grouse habitat management areas present on each forest by alternative.

Table 2-1. No Action Alternative - Summary of habitat management areas in acres.

NFS Surface Acres	NW Colorado	Idaho/SW Montana ¹	Nevada	Wyoming	Utah	Total Acres
PHMA	5,200	575,900	986,400	381,200	736,700	2,685,400
GHMA	14,900	580,800	796,100	533,700	80,500	2,006,000
IHMA (ID/MT Only)	-	415,900	-	-	-	415,900
OHMA (NV Only)	-	-	621,400	-	-	621,400
Priority-Core (WY only) ²	-	-	-	309,200	-	309,200
Priority-Connectivity (WY only)	-	-	-	68,800	-	68,800
Anthro Mountain HMA (UT Only)	-	-	-	-	41,200	41,200
Sagebrush Focal Areas (SFAs) ²	0	248,100	566,600	3,300	47,700	865,700
Total	20,100	1,572,600	2,403,900	983,700	858,400	5,422,800

¹The acreage calculation includes acres in Montana and Idaho.

²These acres overlay designated HMAs; the acres are not additive.

Table 2-2. Proposed Action - Summary of habitat management areas in acres.

NFS Surface Acres	NW Colorado	Idaho ¹	Nevada	Wyoming	Utah	Total Acres
PHMA	5,200	330,200	886,900	317,700	777,900	2,355,000
GHMA	14,900	346,300	1,094,900	514,200	80,500	1,998,400
IHMA (ID Only)		415,900				415,900
OHMA (NV Only)			426,500			426,500
Connectivity (WY only)				6,400		6,400
Total	20,100	1,092,400	2,408,300	838,300	858,400	5,202,200

¹The acreage calculation includes acres in Idaho only.

Table 2-3. State of Utah Alternative - Summary of habitat management areas in acres.

NFS Surface Acres	NW Colorado	Idaho ¹	Nevada	Wyoming	Utah	Total Acres
PHMA	5,200	330,200	886,900	317,700	736,700	2,276,700
GHMA	14,900	346,300	1,094,900	514,200		1,970,300
IHMA (ID Only)		415,900				415,900
OHMA (NV Only)			426,500			426,500
Connectivity (WY only)				6,400		6,400
Total	20,100	1,092,400	2,408,300	838,300	736,700	5,095,800

Table 2-4. Comparative summary of GRSG habitat by alternative in acres.¹

Forest Service Unit Name ²	No Action Alternative			Proposed Action			State of Utah Alternative		
	Total Acres NFS Lands	Total Acres GRSG HMA intersecting NFS Lands	% GRSG HMA on NFS Lands	Total Acres NFS Lands	Total Acres GRSG HMA intersecting NFS Lands	% GRSG HMA on NFS Lands	Total Acres NFS Lands	Total Acres GRSG HMA intersecting NFS Lands	% GRSG HMA on NFS Lands
Ashley National Forest	1,401,200	242,600	17%	1,401,100	242,700	17%		TBD	
Beaverhead-Deerlodge National Forest	3,579,600	410,700	11%	No Change	No Change	No Change			
Boise National Forest	2,950,800	131,500	4%	2,950,400	131,500	4%			
Bridger-Teton National Forest	3,430,100	349,300	10%	3,430,100	179,900	5%			
Caribou National Forest	1,348,200	33,200	2%	1,084,400	32,600	3%			
Challis National Forest	2,479,600	362,500	15%	2,479,700	374,600	15%			
Curlew National Grassland	74,700	61,100	82%	74,800	61,200	82%			
Dixie National Forest	1,965,100	246,100	13%	1,965,100	246,100	13%		TBD	
Fishlake National Forest	1,534,000	133,400	9%	1,534,000	133,400	9%		TBD	
Humboldt National Forest	2,618,600	1,140,000	44%	2,618,600	1,516,300	58%			
Manti-La Sal National Forest	1,414,100	109,600	8%	1,337,600	109,600	8%		TBD	
Medicine Bow National Forest	1,387,900	46,000	3%	1,387,900	46,400	3%			
Routt National Forest	1,249,400	17,300	1%	1,249,400	17,300	1%			
Salmon National Forest	1,796,800	76,900	4%	1,796,900	76,900	4%			
Sawtooth National Forest	1,892,600	571,600	30%	1,892,700	479,600	25%			
Targhee National Forest	1,691,900	90,200	5%	1,691,500	90,300	5%			
Thunder Basin National Grassland	626,200	539,000	86%	626,200	538,900	86%			
Toiyabe National Forest	4,230,500	644,400	15%	4,231,700	1,010,800	24%			
Uinta National Forest	885,500	42,400	5%	961,700	42,400	4%		TBD	
Wasatch-Cache National Forest	2,030,200	336,400	17%	2,294,800	311,300	14%		TBD	

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No Action Alternative - Source: FS GIS 2015

Proposed Action - Source: FS GIS 2018; State of Utah Alternative - Source: FS GIS 2018

¹ Data rounded to the nearest 100.

¹ Proclaimed boundaries were used to break down forests into individual units.

2.5 COMPARISON OF ALTERNATIVES

Table 2-5. Northwestern Colorado - Comparison of alternatives¹

¹Priority, connectivity, and general habitat management areas may contain non-habitat. Management direction would not apply to those areas of non-habitat if the proposed activity in non-habitat does not preclude effective sage-grouse use of adjacent habitats.

No Action Alternative (Colorado)	Proposed Action (Colorado)	Issue/Clarification
Greater Sage-grouse General		
GRSG-GEN-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-GEN-DC-001-Desired Condition No Change	
GRSG-GEN-DC-002-Desired Condition Anthropogenic disturbance is focused in non-habitat areas outside of priority and general habitat management areas. ² Disturbance in general habitat management areas is limited, and there is little to no disturbance in priority habitat management areas except for valid existing rights and existing authorized uses.	GRSG-GEN-DC-002-Desired Condition No Change	
GRSG-GEN-DC-003-Desired Condition In greater sage-grouse 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	GRSG-GEN-DC-003-Desired Condition In greater sage-grouse habitat management areas, <u>habitats are adequately distributed to support GRSG populations. 70% or more of lands capable of producing sagebrush have from 5 to 25% sagebrush canopy cover and less than 10% conifer cover. Areas managed for breeding and nesting provide for lek security and nest hiding cover through sufficient sagebrush.</u>	Modifying Desired Conditions

Commented [CB3]: The State of Colorado position is not supported by the Colorado counties. The proposed action needs to clearly incorporate the local governments. This is required in National Forest Management Act, 16 U.S.C. §1604(a).

No Action Alternative (Colorado)	Proposed Action (Colorado)	Issue/Clarification
<p>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 the greater sage-grouse during this seasonal period. Specific desired conditions for the greater sage-grouse based on seasonal habitat requirements are in Table 1.</p>	<p>canopy, sagebrush height, and perennial grass cover to deliver overhead and lateral concealment from March 15 through June 30. Areas managed for summer/brood rearing habitat July 1 through November 30 maintain wet meadows and riparian areas in proper functioning condition, sustain diverse perennial grass and forb communities, and maintain sagebrush cover in the 328 feet adjacent to riparian/mesic meadows. When breeding and nesting habitat overlaps with other seasonal habitats, habitat should be managed for breeding and nesting desired conditions.</p>	
<p>Nothing in 2015 Plan</p>	<p>GRSG-GEN-MA-004-Management Approach The values for GRSG habitat attributes in Appendix B are initial references based on range-wide habitat selection by GRSG. These initial values do not preclude collaborative refinement to fit local variables of GRSG habitat use, ecological site capability, and limitations of habitat distribution. Not all areas will be capable of achieving the indicator values, due to inherent variation in vegetation communities and ecological site potential.</p>	<p>Modifying Desired Conditions Consistency with 2012 Planning Rule</p>
<p>GRSG-GEN-ST-004-Standard In priority habitat management areas and sagebrush focal areas, do not issue new discretionary written authorizations unless all existing discrete anthropogenic disturbances cover less than 3% of the total greater sage-grouse habitat within the Biologically Significant Unit and the proposed project area, regardless of ownership, and the new use will not cause exceedance of the 3% cap. Discretionary activities that might result in disturbance above 3% at the Biologically Significant Unit and proposed project area would be prohibited unless approved by the forest supervisor with concurrence from the regional forester after review of new or site- specific information that indicates the project would result in a net conservation gain at the Biologically Significant Unit and proposed project area scale. Within existing designated utility</p>	<p>GRSG-GEN-ST-005-Standard In priority habitat management areas, do not issue new discretionary written authorizations unless all existing discrete anthropogenic disturbances cover less than 3% of the total greater sage-grouse habitat within the Biologically Significant Unit and the proposed project area, regardless of ownership, and the new use will not cause exceedance of the 3% cap. Discretionary activities that might result in disturbance above 3% at the Biologically Significant Unit and proposed project area would be prohibited unless approved by the forest supervisor with concurrence from the regional forester after review of new or site- specific information that indicates the project would result in a net conservation gain at the Biologically Significant Unit and proposed project area scale. Within existing designated utility corridors, the 3% disturbance</p>	<p>Sagebrush Focal Areas</p>

No Action Alternative (Colorado)	Proposed Action (Colorado)	Issue/Clarification
<p>corridors, the 3% disturbance cap may be exceeded at the project scale if the site specific NEPA analysis indicates that a net conservation gain to the species will be achieved. This exception is limited to projects that fulfill the use for which the corridors were designated (e.g., transmission lines, pipelines) and the designated width of a corridor will not be exceeded as a result of any project co-location. Consider the likelihood of surface disturbing activities as a result of development of valid existing rights when authorizing new projects in priority habitat management areas.</p>	<p>cap may be exceeded at the project scale if the site specific NEPA analysis indicates that a net conservation gain to the species will be achieved. This exception is limited to projects that fulfill the use for which the corridors were designated (e.g., transmission lines, pipelines) and the designated width of a corridor will not be exceeded as a result of any project co-location. Consider the likelihood of surface disturbing activities as a result of development of valid existing rights when authorizing new projects in priority habitat management areas.</p>	
<p>GRSG-GEN-ST-005-Standard In priority and general habitat management areas, only allow new authorized land uses if, after avoiding and minimizing impacts, any remaining residual impacts to the greater sage-grouse or its habitat 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 (Appendix B).</p>	<p>GRSG-GEN-ST-006-Standard No Change</p>	
<p>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 (from March 1 to April 30) from 6 p.m. to 9 a.m. Do not include noise resulting from human activities that have been authorized and initiated within the past 10 years in the ambient baseline measurement.</p>	<p>GRSG-GEN-ST-007-Standard No Change</p>	
<p>GRSG-GEN-GL-007-Guideline During breeding and nesting (from March 1 to June 15), surface disturbing and disruptive activities to nesting birds should be avoided.</p>	<p>GRSG-GEN-GL-008-Guideline No Change</p>	
<p>GRSG-GEN-GL-008-Guideline</p>	<p>GRSG-GEN-GL-009-Guideline Table 1 is now Appendix B, Table B-1.</p>	<p>Clarification</p>

No Action Alternative (Colorado)	Proposed Action (Colorado)	Issue/Clarification
When breeding and nesting habitat overlaps with other seasonal habitats, habitat should be managed for breeding and nesting desired conditions in Table 1 .		
GRSG-GEN-GL-009-Guideline Development of tall structures within 2 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.	GRSG-GEN-GL-010-Guideline No Change	
Adaptive Management		
GRSG-AM-ST-010-Standard If a hard trigger is identified, immediate action is necessary to stop a severe deviation from greater sage-grouse conservation objectives. Upon reaching a hard trigger, an appropriate component of a more restrictive alternative analyzed in the EIS will be implemented. The Forest Service will immediately defer issuance of discretionary authorizations for new actions for a period of 90 days. In addition, within 14 days of a determination that a hard trigger has been tripped, the Northwest Colorado Greater Sage-Grouse Statewide Implementation Team will convene to develop an interim response strategy and initiate an assessment to determine the causal factor or factors. The hard triggers are discussed more fully in Appendix C – NWCO Adaptive Management Plan .	GRSG-AM-ST-011-Standard NWCO Adaptive Management Plan is now in Appendix B.	
GRSG-AM-ST-011-Standard If a soft trigger is identified by the Northwest Colorado Greater Sage-Grouse Statewide Implementation Team in the decline of the greater sage-grouse population and/or its habitat, apply more conservative or restrictive implementation measures (e.g., extending seasonal restrictions for seasonal surface disturbing activities, modifying seasons of use for livestock grazing, and applying additional restrictions on discretionary activities) for the causal factor(s) identified in the decline of	GRSG-AM-ST-012-Standard NWCO Adaptive Management Plan is now in Appendix B.	

No Action Alternative (Colorado)	Proposed Action (Colorado)	Issue/Clarification
<p>population and/or habitat, considering local knowledge and conditions. The soft triggers are discussed more fully in Appendix C – NWCO Adaptive Management Plan.</p>		
Lands and Realty		
Special-use Authorizations (non-recreation)		
<p>GRSG-LR-SUA-O-012-Objective In nesting habitats, retrofit existing tall structures (e.g., power poles, communication tower sites, etc.) with perch deterrents or other anti-perching devices within 2 years of signing the ROD.</p>	<p>GRSG-LR-SUA-O-013-Objective No Change</p>	
<p>GRSG-LR-SUA-ST-013-Standard In priority and general habitat management areas, restrict issuance of new lands special-use authorizations that authorize infrastructure, such as high- voltage transmission lines, major pipelines, distribution lines, and communication tower sites. Exceptions may include co-location and must be limited (e.g., safety needs) and based on rationale (e.g., monitoring, modeling, or best available science) that explicitly demonstrates that adverse impacts to the greater sage-grouse will be avoided by the exception. If co-location of new infrastructure cannot be accomplished, locate it adjacent to existing infrastructure, roads, or already disturbed areas and limit disturbance to the smallest footprint or where it best limits impacts to the greater sage-grouse or its habitat. Existing authorized uses will continue to be recognized.</p>	<p>GRSG-LR-SUA-ST-014-Standard No Change</p>	
<p>GRSG-LR-SUA-ST-014-Standard In priority and general habitat management areas, do not authorize temporary lands special-uses (i.e., facilities or activities) that result in loss of habitat or would have long-term (i.e., greater than 5 years) negative impact on the greater sage-grouse or its habitat.</p>	<p>GRSG-LR-SUA-ST-015-Standard No Change</p>	

No Action Alternative (Colorado)	Proposed Action (Colorado)	Issue/Clarification
<p>GRSG-LR-SUA-ST-015-Standard In priority and general habitat management areas, require protective stipulations (e.g., noise, tall structure, guy wire removal, perch deterrent installation, etc.) when issuing new authorizations or during renewal, amendment, or reissuance of existing authorizations that authorize infrastructure (e.g., high-voltage transmission lines, major pipelines, roads, distribution lines, and communication tower sites).</p>	<p>GRSG-LR-SUA-ST-016-Standard No Change</p>	
<p>GRSG-LR-SUA-ST-016-Standard In priority and general habitat management areas, locate upgrades to existing transmission lines within the existing designated corridors or rights-of-way unless an alternate route would benefit the greater sage-grouse or its habitat.</p>	<p>GRSG-LR-SUA-ST-017-Standard No Change</p>	
<p>GRSG-LR-SUA-ST-017-Standard In priority and general habitat management areas, when a lands special-use authorization is revoked or terminatedterminated, and no future use is contemplated, require the authorization holder to remove overhead lines and other surface infrastructure in compliance with 36 CFR 251.60(i).</p>	<p>GRSG-LR-SUA-ST-018-Standard No Change</p>	
<p>GRSG-LR-SUA-GL-018-Guideline In priority habitat management areas, outside of existing designated corridors and rights-of-way, new transmission lines and pipelines should be buried to limit disturbance to the smallest footprint unless explicit rationale is provided that the biological impacts to the greater sage-grouse are being avoided. If new transmission lines and pipelines are not buried, locate them adjacent to existing transmission lines and pipelines. New communication tower sites may be authorized for public safety.</p>	<p>GRSG-LR-SUA-GL-019-Guideline No Change</p>	
<p>GRSG-LR-SUA-GL-019-Guideline The best available science and monitoring should be used to inform infrastructure siting in greater sage-grouse habitat.</p>	<p>GRSG-LR-SUA-GL-020-Guideline No Change</p>	

No Action Alternative (Colorado)	Proposed Action (Colorado)	Issue/Clarification
Land Ownership Adjustments		
GRSG-LR-LOA-ST-020-Standard In priority and general management areas, do not approve landownership adjustments, including land exchanges, unless the action results in a net conservation gain to the greater sage-grouse or it will not directly or indirectly adversely affect greater sage-grouse conservation.	GRSG-LR-LOA-ST-021-Standard No Change	
GRSG-LR-LOA-GL-021-Guideline In priority and general habitat management areas with minority federal ownership, consider landownership adjustments to achieve a landownership pattern (e.g., consolidation, reducing fragmentation) that supports improved greater sage-grouse population trends and habitat.	GRSG-LR-LOA-GL-022-Guideline No Change	
Land Withdrawal		
GRSG-LR-LW-GL-022-Guideline In priority habitat management areas, use land withdrawals as a tool, where appropriate, to withhold areas from activities that will be detrimental to the greater sage-grouse or its habitat.	GRSG-LR-LW-GL-023-Guideline No Change	
Wind and Solar		
GRSG-WS-ST-023-Standard In priority habitat management areas, do not authorize new solar and wind utility-scale and/or commercial energy development except for on-site power generation associated with existing industrial infrastructure (e.g., mine sites).	GRSG-WS-ST-024-Standard No Change	
GRSG-WS-GL-024-Guideline In general habitat management areas, new solar and wind energy utility-scale and/or commercial development should be restricted. If development cannot be restricted due to existing authorized use, adjacent developments, or split estate issues, then ensure that stipulations are incorporated into the authorization to protect the greater sage-grouse and its habitat.	GRSG-WS-GL-025-Guideline No Change	

Commented [CB4]: This guideline should be deleted since the withdrawal notice was allowed to expire and the proposed SFA EIS withdrawn. Land withdrawals were further shown to have no value.

Commented [CD5]: According to the Wyoming USFS, "The idea that GHMA is important for gene-flow and connectivity is not supported by the best available local data and science." 2018 WY USFS DEIS at 4-19." Thus, the BLM's apparent reliance on GHMA appears to be without basis.

No Action Alternative (Colorado)	Proposed Action (Colorado)	Issue/Clarification
Greater Sage-grouse Habitat		
GRSG-GRSGH-ST-025-Standard Design habitat restoration projects to move towards desired conditions (Table 1).	GRSG-GRSGH-ST-026-Standard Table 1 is now Appendix B, Table B-1.	Clarification
GRSG-GRSGH-GL-026-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-027-Guideline No Change	
GRSG-GRSGH-GL-027-Guideline In priority and general habitat management areas, actions and authorizations should include design features to limit the spread and effect of undesirable non- native plant species.	GRSG-GRSGH-GL-028-Guideline No Change	
GRSG-GRSGH-GL-028-Guideline To facilitate safe and effective fire management actions, in priority and general habitat management 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 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 (Table 1).	GRSG-GRSGH-GL-029-Guideline Table 1 is now Appendix B, Table B-1.	Clarification
GRSG-GRSGH-GL-029-Guideline In priority and general habitat management areas, native plant species should be used when possible to maintain, restore, or enhance desired conditions (Table 1).	GRSG-GRSGH-GL-030-Guideline Table 1 is now Appendix B, Table B-1.	Clarification
GRSG-GRSGH-GL-030-Guideline In priority habitat management areas, vegetation treatment projects should only be conducted if they maintain, restore, or enhance desired conditions (Table 1).	GRSG-GRSGH-GL-031-Guideline Table 1 is now Appendix B, Table B-1.	Clarification
Livestock Grazing		

No Action Alternative (Colorado)	Proposed Action (Colorado)	Issue/Clarification
<p>GRSG-LG-DC-031-Desired Condition In priority and general habitat management areas and within lek buffers, livestock grazing is managed to maintain or move towards desired conditions (Table 1).</p>	<p>GRSG-LG-DC-032-Desired Condition In priority and general habitat management areas, livestock grazing is used as a tool to maintain or move towards desired habitat conditions (Appendix B, Table B-1).</p>	<p>Clarification</p>
<p>GRSG-LG-ST-032-Standard In priority habitat management areas, do not approve construction of water developments unless beneficial to greater sage-grouse habitat.</p>	<p>GRSG-LG-ST-033-Standard In priority habitat management area, do not approve construction of water developments if the development would cause adverse effects to greater sage-grouse habitat.</p>	<p>Changing Livestock Grazing Guidelines</p>
<p>GRSG-LG-GL-033-Guideline Grazing guidelines should be applied in each of the seasonal habitats in Table 2. If values in Table 2 guidelines cannot be achieved based upon a site-specific analysis using Ecological Site Descriptions, long-term ecological site potential analysis, or other similar analysis, adjust grazing management to move towards desired habitat conditions in Table 1 consistent with the ecological site potential. Do not use drought and degraded habitat condition to adjust values. Grazing guidelines in Table 2 would not apply to isolated parcels of National Forest System lands that have less than 200 acres of greater sage-grouse habitat.</p>	<p>GRSG-LG-GL-034-Guideline In greater sage-grouse habitat, if livestock grazing is limiting achievement of seasonal desired conditions, adjust livestock management, as appropriate, to address greater sage-grouse habitat requirements.</p>	<p>Changing Livestock Grazing Guidelines</p>
<p>Nothing in 2015 Plan</p>	<p>GRSG-LG-MA-035-Management Approach Conduct greater sage-grouse habitat assessments in allotments. If the assessment identifies the habitat is in less than Suitable Condition, determine factors limiting achievement of the Suitable Condition</p>	<p>Changing Livestock Grazing Guidelines Consistency with 2012 Planning Rule</p>
<p>GRSG-LG-GL-034-Guideline In priority and general habitat management areas, when grazing permits are waived without preference or obtained through permit cancellation, consider the agency's full range of administrative authorities for future allotment management, including but not limited to allotment closure, vacancy status for resource protection, establishment of forage reserve, re-</p>	<p>GRSG-LG-GL-034-Guideline Delete</p>	<p>Removed – covered in existing Forest Service policy and direction</p>

No Action Alternative (Colorado)	Proposed Action (Colorado)	Issue/Clarification
stocking, or livestock conversion as management options to maintain or achieve desired habitat conditions (Table 1).		
GRSG-LG-GL-035-Guideline Bedding sheep and locating camps within 1.2 miles from the perimeter of a lek during lekking (from March 1 to April 30) should be restricted.	GRSG-LG-GL-036-Guideline No Change	
GRSG-LG-GL-036-Guideline During breeding and nesting season (from March 1 to June 15), trailing livestock through breeding and nesting habitat should be minimized. Specific routes should be identified; existing trails should be used; and stopovers on active leks should be avoided.	GRSG-LG-GL-037-Guideline No Change	
GRSG-LG-GL-037-Guideline Fences should not be constructed or reconstructed within 1.2 miles from the perimeter of occupied leks unless the collision risk can be mitigated through design features or markings (e.g., mark, laydown fences, or other design features).	GRSG-LG-GL-038-Guideline No Change	
GRSG-LG-GL-038-Guideline New permanent livestock facilities (e.g., windmills, water tanks, corrals, etc.) should not be constructed within 1.2 miles from the perimeter of occupied leks.	GRSG-LG-GL-039-Guideline No Change	
Fire Management		
GRSG-FM-DC-039-Desired Condition In priority and general habitat management areas, protect sagebrush habitat from loss due to unwanted wildfires or damages resulting from management-related activities while using agency risk management protocols to manage for firefighter and public safety and other high priority values. In all fire response, first priority is the management of risk to firefighters and the public. Greater sage-grouse habitat will be prioritized as a high value resource along with other high value resources and assets.	GRSG-FM-DC-040-Desired Condition No Change	

No Action Alternative (Colorado)	Proposed Action (Colorado)	Issue/Clarification
<p>GRSG-FM-ST-040-Standard In priority and general habitat management areas, do not use prescribed fire in 12-inch or less precipitation zones unless necessary to facilitate restoration of greater sage-grouse habitat consistent with desired conditions in Table 1 or for pile burning.</p>	<p>GRSG-FM-ST-041-Standard Table 1 is now Appendix B, Table B-1.</p>	
<p>GRSG-FM-ST-041-Standard In priority and general habitat management areas, if it is necessary to use prescribed fire for restoration of greater sage-grouse habitat consistent with desired conditions in Table 1, the associated National Environmental Policy Act analysis must identify how the project would move towards greater sage-grouse desired conditions; why alternative techniques were not selected; and how potential threats to greater sage-grouse habitat would be minimized.</p>	<p>GRSG-FM-ST-042-Standard Table 1 is now Appendix B, Table B-1.</p>	
<p>GRSG-FM-GL-042-Guideline In wintering or breeding and nesting habitat, sagebrush removal or manipulation, including prescribed fire, should be restricted unless the removal strategically reduces the potential impacts from wildfire or supports the attainment of desired conditions.</p>	<p>GRSG-FM-GL-043-Guideline No Change</p>	
<p>GRSG-FM-GL-043-Guideline In planned fuels management activities or part of an overall vegetative management strategy to mitigate the impacts of wildfire in priority and general habitat management areas and sagebrush focal areas, when reseeding in fuel breaks, fire-resistant native plant species should be used if available, or consider using fire resistance non-native species if analysis and/or best available science demonstrates that non-native plants will not degrade greater sage-grouse habitat in the long-term.</p>	<p>GRSG-FM-GL-044-Guideline In planned fuels management activities or part of an overall vegetative management strategy to mitigate the impacts of wildfire in priority and general habitat management areas, when reseeding in fuel breaks, fire-resistant native plant species should be used if available, or consider using fire resistance non-native species if analysis and/or best available science demonstrates that non-native plants will not degrade greater sage-grouse habitat in the long-term.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-FM-GL-044-Guideline</p>	<p>GRSG-FM-GL-045-Guideline No Change</p>	

No Action Alternative (Colorado)	Proposed Action (Colorado)	Issue/Clarification
In priority and general habitat management areas, fuel treatments should be designed to maintain, restore, or enhance greater sage-grouse habitat.		
GRSG-FM-GL-045-Guideline Locating temporary wildfire suppression facilities (e.g., incident command posts, spike camps, helibases, mobile retardant plants) in priority and general habitat management areas and sagebrush focal areas should be avoided. When needed to best provide for firefighter or public safety or to minimize fire size in sage grouse habitat, impacts to the greater sage-grouse should be considered and removal of sagebrush should be limited.	GRSG-FM-GL-046-Guideline Locating temporary wildfire suppression facilities (e.g., incident command posts, spike camps, helibases, mobile retardant plants) in priority and general habitat management areas should be avoided. When needed to best provide for firefighter or public safety or to minimize fire size in sage grouse habitat, impacts to the greater sage-grouse should be considered and removal of sagebrush should be limited.	Elimination of Sagebrush Focal Areas
GRSG-FM-GL-046-Guideline In priority and general habitat management areas, cross-country vehicle travel during fire operations should be restricted. When needed to best provide for firefighter or public safety or to minimize fire size in greater sage-grouse habitat, impacts to the greater sage-grouse should be considered and removal of sagebrush should be limited.	GRSG-FM-GL-047-Guideline No Change	
GRSG-FM-GL-047-Guideline In priority and general habitat management areas, use fire management tactics and strategies that seek to minimize loss of existing sagebrush habitat. The safest and most practical means to do so will be determined by fireline leadership and incident commanders.	GRSG-FM-GL-048-Guideline No Change	
GRSG-FM-GL-048-Guideline In priority and general habitat management areas, prescribed fire prescriptions should minimize undesirable effects on vegetation and/or soils (e.g., minimize mortality of desirable perennial plant species and reduce risk of hydrophobicity).	GRSG-FM-GL-049-Guideline No Change	
GRSG-FM-GL-049-Guideline In priority and general habitat management areas, roads and natural fuel breaks should be incorporated into planned fuel	GRSG-FM-GL-050-Guideline No Change	

No Action Alternative (Colorado)	Proposed Action (Colorado)	Issue/Clarification
break design to improve effectiveness and minimize loss of existing sagebrush habitat.		
GRSG-FM-GL-050-Guideline In priority and general habitat management areas, where practical and available, all fire-associated vehicles and equipment should be inspected and cleaned using standardized protocols and procedures and approved vehicle/equipment decontamination systems before entering and exiting the area beyond initial attack activities to minimize the introduction of invasive annual grasses and other invasive plant species and noxious weeds.	GRSG-FM-GL-051-Guideline No Change	
GRSG-FM-GL-051-Guideline Unit-specific greater sage-grouse fire management-related information should be added to wildland fire decision support systems (currently, the Wildland Fire Decision Support System); local operating plans and resource advisor plans to be used during fire situations to inform management decision; and aid in development of strategies and tactics for resource prioritization.	GRSG-FM-GL-052-Guideline No Change	
GRSG-FM-GL-052-Guideline Localized maps of priority and general habitat management areas and sagebrush focal areas should be made available to fireline, dispatch, and fire support personnel.	GRSG-FM-GL-053-Guideline Localized maps of priority and general habitat management areas should be made available to fireline, dispatch, and fire support personnel.	Elimination of Sagebrush Focal Areas
GRSG-FM-GL-053-Guideline In or near priority and general habitat management areas, a greater sage-grouse resource advisor should be assigned to all extended attack fires.	GRSG-FM-GL-054-Guideline No Change	
GRSG-FM-GL-054-Guideline On critical fire weather days, protection of greater sage-grouse habitat should receive high consideration, along with other high values, for positioning of resources.	GRSG-FM-GL-055-Guideline No Change	
GRSG-FM-GL-055-Guideline Line officers should be involved in setting pre-season wildfire response priorities and prioritizing protection of priority and	GRSG-FM-GL-056-Guideline Line officers should be involved in setting pre-season wildfire response priorities and prioritizing protection of priority and	Elimination of Sagebrush Focal Areas

No Action Alternative (Colorado)	Proposed Action (Colorado)	Issue/Clarification
<p>general habitat management areas and sagebrush focal areas, along with other high values. During periods of multiple fires or limited resource availability fire management organizational structure (local, regional, national) will prioritize fires and allocation of resources in which greater sage-grouse habitat is a consideration along with other high values.</p>	<p>general habitat management areas, along with other high values. During periods of multiple fires or limited resource availability fire management organizational structure (local, regional, national) will prioritize fires and allocation of resources in which greater sage-grouse habitat is a consideration along with other high values.</p>	
<p>GRSG-FM-GL-056-Guideline In priority and general habitat management areas, consider using fire retardant and mechanized equipment only if it is likely to result in minimizing burned acreage, preventing the loss of other high value resources, or increasing the effectiveness of other tactical strategies. Agency administrators, their designee, or fireline leadership should consider fire suppression effects while determining suppression strategy and tactics; the use of fire retardant and mechanized equipment may be approved by agency administrators, their designee, or fireline leadership.</p>	<p>GRSG-FM-GL-057-Guideline No Change</p>	
<p>GRSG-FM-GL-057-Guideline In priority and general habitat management areas, to minimize sagebrush habitat loss, consider using the full range of suppression techniques to protect unburned islands, doglegs, and other greater sage-grouse habitat features that may exist within the perimeter of wildfires. These suppression objectives and activities should be prioritized against other wildland fire suppression activities and priorities.</p>	<p>GRSG-FM-GL-058-Guideline No Change</p>	
<p>Recreation</p>		
<p>GRSG-R-DC-058-Desired Condition In priority habitat management areas, recreation activities are balanced with the ability of the land to support them while meeting greater sage-grouse seasonal habitat desired conditions (Table 1) and creating minimal user conflicts.</p>	<p>GRSG-R-DC-059-Desired Condition Table 1 is now Appendix B, Table B-1.</p>	
<p>GRSG-R-ST-059-Standard In priority and general habitat management areas, do not authorize temporary recreation uses (i.e., facilities or activities)</p>	<p>GRSG-R-ST-060-Standard No Change</p>	

No Action Alternative (Colorado)	Proposed Action (Colorado)	Issue/Clarification
that result in loss of habitat or would have long-term (i.e., greater than 5 years) negative impacts on greater sage-grouse or its habitat.		
GRSG-R-GL-060-Guideline In priority and general habitat management areas, terms and conditions that protect and/or restore greater sage-grouse habitat within the permit area should be included in new recreation special-use authorizations. During renewal, amendment, or reauthorization, terms and conditions in existing permits and operating plans should be modified to protect and/or restore greater sage-grouse habitat.	GRSG-R-GL-061-Guideline No Change	
GRSG-R-GL-061-Guideline In priority habitat management areas, new recreational facilities or expansion of existing recreational facilities (e.g., roads, trails, campgrounds), including special-use authorizations for facilities and activities, should not be approved unless the development results in a net conservation gain to the greater sage-grouse or its habitat or the development is required for visitor safety.	GRSG-R-GL-062-Guideline No Change	
Roads/Transportation		
GRSG-RT-DC-062-Desired Condition In priority and general habitat management areas, within the forest transportation system and on roads and trails authorized under a special use authorization, the greater sage-grouse experience minimal disturbance during breeding and nesting (from March 1 to June 15) and wintering (from November 1 to February 28) periods.	GRSG-RT-DC-063-Desired Condition No Change	
GRSG-RT-ST-063-Standard In priority and general habitat management areas, do not conduct or allow new road or trail construction (does not apply to realignments for resource protection) except when necessary for administrative access to existing and authorized uses, public safety, or to access valid existing rights. If necessary to construct new roads and trails for one of these	GRSG-RT-ST-064-Standard No Change	

Commented [CB6]: This condition, standard and guideline should be reworked or deleted.

This condition and standard would impair public access and access rights for up to six months. None of the research justifies this kind of restriction. The impacts on landowners, transportation and recreation are incalculable.

There is no definition of "minimal disturbance."

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No Action Alternative (Colorado)	Proposed Action (Colorado)	Issue/Clarification
purposes, construct them to the minimum standard, length, and number and avoid, minimize, and mitigate impacts.		
GRSG-RT-ST-064-Standard Do not conduct or allow road and trail maintenance activities within 2 miles from the perimeter of active leks during lekking (from March 1 to April 30) from 6 p.m. to 9 a.m.	GRSG-RT-ST-065-Standard No Change	
GRSG-RT-ST-065-Standard In priority habitat management areas, prohibit public access on temporary energy development roads.	GRSG-RT-ST-066-Standard No Change	
GRSG-RT-GL-066-Guideline In priority habitat management areas, new roads and road realignments should be designed and administered to reduce collisions with the greater sage- grouse.	GRSG-RT-GL-067-Guideline No Change	
GRSG-RT-GL-067-Guideline In priority habitat management areas, road construction within riparian areas and mesic meadows should be restricted. If not possible to restrict construction within riparian areas and mesic meadows, roads should be designed and constructed at right angles to ephemeral drainages and stream crossings unless topography prevents doing so.	GRSG-RT-GL-068-Guideline No Change	
GRSG-RT-GL-068-Guideline In priority and general habitat management areas, when decommissioning roads and unauthorized routes, restoration activity should be designed to move habitat towards desired conditions (Table 1).	GRSG-RT-GL-069-Guideline Table 1 is now Appendix B, Table B-1.	
GRSG-RT-GL-069-Guideline In priority and general habitat management areas, dust abatement terms and conditions should be included in road-use authorizations when dust has the potential to affect the greater sage-grouse.	GRSG-RT-GL-070-Guideline No Change	

No Action Alternative (Colorado)	Proposed Action (Colorado)	Issue/Clarification
<p>GRSG-RT-GL-070-Guideline</p> <p>In priority and general habitat management areas, road and road- way maintenance activities should be designed and implemented to reduce the risk of vehicle- or human-caused wildfires and the spread of invasive plants. Such activities include but are not limited to the removal or mowing of vegetation a car-width off the edge of roads; use of weed-free earth-moving equipment, gravel, fill, or other materials; and blading or pulling roadsides and ditches that are infested with noxious weeds only if required for public safety or protection of the roadway.</p>	<p>GRSG-RT-GL-071-Guideline</p> <p>No Change</p>	
Minerals		
Fluid Minerals – Unleased		
<p>GRSG-M-FMUL-ST-071-Standard</p> <p>In priority habitat management areas, any new oil and gas leases must include a <u>Controlled No</u>-Surface Occupancy 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 the state wildlife agency if:</p> <ul style="list-style-type: none"> • 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. 	<p>GRSG-M-FMUL-ST-072-Standard</p> <p>No Change</p>	
<p>GRSG-M-FMUL-ST-072-Standard</p> <p>In <u>priority general</u> habitat management areas, any new leases must include appropriate Controlled Surface Use and Timing Limitation stipulations to protect the greater sage-grouse and its habitat.</p>	<p>GRSG-M-FMUL-ST-073-Standard</p> <p>No Change</p>	
Fluid Minerals – Leased		

Commented [CB7]: This standard needs to be changed for a host of reasons.

As written, with the exception of habitat areas within an existing lease, there will be no development.

The use of the phrase “no waiver or modification” contradicts allowing an exception. USFWS has no legal role in making such a decision since the sage grouse is not a candidate species and is solely managed by Colorado Div. of Wildlife. USFWS is acting with no jurisdiction and no authority.

Retaining “net conservation gain” phrase contradicts DOI repudiation of the term. As FS has no similar guidance, it too has no basis to impose such a requirement.

As written the surface use prohibition would apply even when sage grouse are not present. In short it is overbroad and intended to sterilize all NFS lands from oil and gas development.

No Action Alternative (Colorado)	Proposed Action (Colorado)	Issue/Clarification
<p>GRSG-M-FML-ST-073-Standard In priority habitat management areas, when approving the Surface Use Plan of Operation portion of the Application for Permit to Drill on existing leases that are not yet developed, require that leaseholders avoid and minimize surface disturbing and disruptive activities consistent with the rights granted in the lease.</p>	<p>GRSG-M-FML-ST-074-Standard No Change</p>	
<p>GRSG-M-FML-ST-074-Standard In priority habitat management areas, 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.</p>	<p>GRSG-M-FML-ST-075-Standard Table 1 is now Appendix B, Table B-1.</p>	
<p>GRSG-M-FML-ST-075-Standard In general habitat management areas, authorize new transmission line corridors, transmission line right-of-waysrights-of-way, transmission line construction, or transmission line-facility construction associated with fluid mineral leases with stipulations necessary to protect the greater sage-grouse and its habitat, consistent with the terms and conditions of the permit.</p>	<p>GRSG-M-FML-ST-076-Standard No Change</p>	
<p>GRSG-M-FML-ST-076-Standard 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-Standard.</p>	<p>GRSG-M-FML-ST-077-Standard No Change</p>	
<p>GRSG-M-FML-ST-077-Standard In priority and general habitat management areas, 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.</p>	<p>GRSG-M-FML-ST-078-Standard No Change</p>	

No Action Alternative (Colorado)	Proposed Action (Colorado)	Issue/Clarification
<p>GRSG-M-FML-GL-078-Guideline In priority and general habitat management areas, operators should be encouraged to reduce disturbance to greater sage-grouse habitat. 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 and consistent with the rights granted to the lessee.</p>	<p>GRSG-M-FML-GL-079-Guideline No Change</p>	
<p>GRSG-M-FML-GL-079-Guideline On existing federal leases in priority habitat management areas, when surface occupancy cannot be restricted due to valid existing rights or development requirements, disturbance and surface occupancy should be limited to areas least harmful to the greater sage-grouse based on vegetation, topography, or other habitat features.</p>	<p>GRSG-M-FML-GL-080-Guideline No Change</p>	
<p>GRSG-M-FML-GL-080-Guideline In priority and general habitat management areas, 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.</p>	<p>GRSG-M-FML-GL-081-Guideline No Change</p>	
Fluid Minerals – Operations		
<p>GRSG-M-FMO-ST-081-Standard In priority habitat management areas, do not authorize employee camps.</p>	<p>GRSG-M-FMO-ST-082-Standard No Change</p>	
<p>GRSG-M-FMO-ST-082-Standard In priority habitat management areas, when feasible, do not locate tanks or other structures that may be used as raptor perches. If this is not feasible, use perch deterrents.</p>	<p>GRSG-M-FMO-ST-083-Standard No Change</p>	
<p>GRSG-M-FMO-GL-083-Guideline</p>	<p>GRSG-M-FMO-GL-084-Guideline No Change</p>	

No Action Alternative (Colorado)	Proposed Action (Colorado)	Issue/Clarification
<p>In priority habitat management areas, closed-loop systems should be used for drilling operations with no reserve pits, where feasible.</p>		
<p>GRSG-M-FMO-GL-084-Guideline In priority and general habitat management areas, during drilling operations, soil compaction should be minimized<u>minimized</u>, and soil structure should be maintained using the best available techniques to improve vegetation reestablishment.</p>	<p>GRSG-M-FMO-GL-085-Guideline No Change</p>	
<p>GRSG-M-FMO-GL-085-Guideline In priority and general habitat management areas, dams, impoundments and ponds for mineral development should be constructed to reduce potential for West Nile virus. Examples of methods to accomplish this include the following:</p> <ul style="list-style-type: none"> • 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. 	<p>GRSG-M-FMO-GL-086-Guideline No Change</p>	

No Action Alternative (Colorado)	Proposed Action (Colorado)	Issue/Clarification
<ul style="list-style-type: none"> 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. 		
<p>GRSG-M-FMO-GL-086-Guideline In priority and general habitat management areas, to keep habitat disturbance at a minimum a phased development approach should be applied to fluid mineral operations, wherever possible, consistent with the rights granted under the lease. Disturbed areas should be reclaimed as soon as they are no longer needed for mineral operations.</p>	<p>GRSG-M-FMO-GL-087-Guideline No Change</p>	
Coal Mines – Unleased		
<p>GRSG-M-CMUL-ST-087-Standard When consenting to new underground coal leases, include a lease stipulation prohibiting the location of surface facilities in priority habitat management areas.</p>	<p>GRSG-M-CMUL-ST-088-Standard Delete</p>	<p>No coal activity occurs on NFS units in this part of CO</p>
Coal Mines – Leased		
<p>GRSG-M-CML-ST-088-Standard In priority habitat management areas, do not authorize new appurtenant surface facilities related to existing underground mines unless no technical feasible alternative exists. If new appurtenant surface facilities associated with existing mine leases cannot be located outside of priority habitat management areas, locate them with 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, as identified by the Mine Safety and Health Administration 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.</p>	<p>GRSG-M-CML-ST-089-Standard Delete</p>	<p>No coal activity occurs on NFS units in this part of CO</p>

No Action Alternative (Colorado)	Proposed Action (Colorado)	Issue/Clarification
<p>GRSG-M-CML-GL-089-Guideline In priority and general habitat management areas, 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.</p>	<p>GRSG-M-CML-GL-090-Guideline Delete</p>	<p>No coal activity occurs on NFS units in this part of CO</p>
Locatable Minerals		
<p>GRSG-M-LM-ST-090-Standard In priority habitat management areas, 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.</p>	<p>GRSG-M-LM-ST-088-Standard No Change</p>	
<p>GRSG-M-LM-GL-091-Guideline In priority and general habitat management areas, to 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.</p>	<p>GRSG-M-LM-GL-089-Guideline No Change</p>	
<p>GRSG-M-LM-GL-092-Guideline In priority and general habitat management areas, 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.</p>	<p>GRSG-M-LM-GL-090-Guideline No Change</p>	
Non-energy Leasable Minerals		
<p>GRSG-M-NEL-GL-093-Guideline In priority and general habitat management areas, 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 the greater sage-grouse and its habitat.</p>	<p>GRSG-M-NEL-MA-091-Management Approach In priority and general habitat management areas, include stipulations to restrict surface use, occupancy and seasonal activities for exploration or pre-mining activities with recommendations or consent (as applicable) to issuance of</p>	<p>Clarification of regulatory process</p> <p>Consistency with 2012 Planning Rule</p>

No Action Alternative (Colorado)	Proposed Action (Colorado)	Issue/Clarification
	prospecting permits, exploration licenses, or leases, lease modifications, lease readjustments or lease renewals. In priority habitat management areas where development would be by surface mining methods, do not consent to, or recommend, leasing in areas that exceed disturbance caps. In priority habitat management areas where development would be by underground mining methods, specify or recommend stipulations that prohibit surface use and occupancy in priority habitat management areas.	
<p>GRSG-M-NEL-GL-094-Guideline</p> <p>In priority and general habitat, 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.</p>	<p>GRSG-M-NEL-MA-092-Management Approach</p> <p>In priority, important, and general habitat management areas, include in recommendations to the BLM regarding exploration plan or mining plans conditions to reduce invasive species, prevent fire, limit permanent tall structures and new permanent roads, and to design reclamation of surface disturbance to restore applicable greater sage-grouse habitat.</p>	<p>Clarification of regulatory process</p> <p>Consistency with 2012 Planning Rule</p>
Mineral Materials		
<p>GRSG-M-MM-ST-095-Standard</p> <p>In priority habitat management areas, do not authorize new mineral material disposal or development.</p>	<p>GRSG-M-MM-ST-093-Standard</p> <p>No Change</p>	
<p>GRSG-M-MM-ST-096-Standard</p> <p>In priority habitat management areas, 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.</p>	<p>GRSG-M-MM-ST-094-Standard</p> <p>No Change</p>	
<p>GRSG-M-MM-ST-097-Standard</p>	<p>GRSG-M-MM-ST-095-Standard</p> <p>Table 1 is now Appendix B, Table B-1.</p>	

No Action Alternative (Colorado)	Proposed Action (Colorado)	Issue/Clarification
In priority and general habitat management areas, 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).		

Table 2-6. Idaho - Comparison of alternatives¹

¹[Priority, important, and general habitat management areas may contain non-habitat. Management direction would not apply to those areas of non-habitat if the proposed activity in non-habitat does not preclude effective sage-grouse use of adjacent habitats.](#)

No Action Alternative (Idaho)	Proposed Action (Idaho)	Issue/Clarification
<p>GRSG-GEN-DC-001-Desired Condition</p> <p>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.</p>	<p>GRSG-GEN-DC-001-Desired Condition</p> <p>No Change</p>	
<p>GRSG-GEN-DC-002-Desired Condition</p> <p>Anthropogenic disturbance is focused in non-habitat areas outside of priority, important, and general habitat management areas and sagebrush focal areas.² Disturbance in general habitat management areas is limited, and there is little to no disturbance in priority and important habitat management areas and sagebrush focal areas except for valid existing rights and existing authorized uses.</p>	<p>GRSG-GEN-DC-002-Desired Condition</p> <p>Anthropogenic disturbance is focused in non-habitat areas outside of priority, important, and general habitat management areas. Disturbance in general habitat management areas is limited, and there is little to no disturbance in priority and important habitat management areas except for valid existing rights and existing authorized uses.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-GEN-DC-003-Desired Condition</p> <p>In all greater sage-grouse habitat, 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</p>	<p>GRSG-GEN-DC-003-Desired Condition</p> <p>At the landscape scale, in all greater sage-grouse habitat, 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</p>	<p>Clarification</p>

No Action Alternative (Idaho)	Proposed Action (Idaho)	Issue/Clarification
<p>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 the greater sage-grouse during this seasonal period. Specific desired conditions for the greater sage-grouse based on seasonal habitat requirements are in Table 1.</p>	<p>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 the greater sage-grouse during this seasonal period. When and where breeding and nesting habitat overlaps with other seasonal habitats, the desired conditions are those for breeding and nesting habitat. Specific desired conditions for the greater sage-grouse based on seasonal habitat requirements are in Appendix C, Table C-1.</p>	
<p>Nothing in 2015 Plan</p>	<p>GRSG-GEN-MA-004-Management Approach Every 5 years or in conjunction BLM and State of Idaho, evaluate the Habitat Management Area (HMA) Map and Biologically Significant Unit (BSU) Map when a demonstrated need for change exists. These evaluations will occur in conjunction with an interagency team to ensure consistency across administrative boundaries.</p>	<p>Habitat Management Area Designation</p>
<p>GRSG-GEN-ST-004-Standard</p> <p>In priority habitat management areas and sagebrush focal areas, do not issue new discretionary written authorizations unless all existing discrete anthropogenic disturbances cover less than 3% of the total greater sage-grouse habitat within the Biologically Significant Unit and the proposed project area, regardless of ownership, and the new use will not cause exceedance of the 3% cap. Southwestern Montana will use a 3% disturbance cap until the State of Montana Strategy, which uses a 5% disturbance cap for all lands and all disturbances, is fully implemented. The BLM in Montana has developed conditions to be met before the change in the disturbance cap. Discretionary activities that might</p>	<p>GRSG-GEN-ST-005-Standard</p> <p>In priority and important habitat management areas, do not issue new discretionary written authorizations unless all existing discrete anthropogenic disturbances cover less than 3% of the total greater sage-grouse habitat within the Biologically Significant Unit, regardless of ownership, and the new use will not cause exceedance of the 3% cap.¹</p> <p>¹The description of the Southwestern Montana disturbance cap remains applicable to SW Montana. SW Montana is not part of this EIS process.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Changing Net Conservation Gain</p> <p>Adjustment of Compensatory Mitigation Frameworks</p> <p>Habitat Management Areas Designations</p> <p>Clarification</p>

No Action Alternative (Idaho)	Proposed Action (Idaho)	Issue/Clarification
<p>result in disturbance above 3% (5% in Montana when fully implemented) at the Biologically Significant Unit and proposed project area would be prohibited unless approved by the forest supervisor with concurrence from the regional forester after review of new or site-specific information that indicates the project would result in a net conservation gain at the Biologically Significant Unit and proposed project area scale. Within existing designated utility corridors, the 3% disturbance cap may be exceeded at the project scale if the site specific NEPA analysis indicates that a net conservation gain to the species will be achieved. This exception is limited to projects that fulfill the use for which the corridors were designated (e.g., transmission lines, pipelines) and the designated width of a corridor will not be exceeded as a result of any project co-location. Consider the likelihood of surface disturbing activities as a result of development of valid existing rights when authorizing new projects in priority habitat management areas.</p>		
<p>Nothing in 2015 Plan</p>	<p>GRSG-GEN-MA-006-Management Approach</p> <p>The following would be used to implement GRSG-GEN-ST-005-Standard:</p> <p>a. Through coordination with the State of Idaho, it is determined that the project cannot be achieved, technically or economically, outside of this management area; and</p> <p>b. The project location and/or design should best reduce cumulative impacts and/or impacts on GRSG and other high value natural, cultural, or societal resources; this may include colocation within the footprint for existing infrastructure, to the extent practicable; and</p>	<p>Clarification</p> <p>Consistency with 2012 Planning Rule</p>

No Action Alternative (Idaho)	Proposed Action (Idaho)	Issue/Clarification
	<p>c. The project results in no net loss to GRSG Key habitat or with beneficial mitigation actions reduces habitat fragmentation or other threats within the Conservation Area; and</p> <p>d. The project design mitigates unavoidable impacts through appropriate compensatory mitigation; and</p> <p>e. The project will not exceed the disturbance cap.</p>	
<p>GRSG-GEN-ST-005-Standard</p> <p>In priority, general, and important management areas and sagebrush focal areas, only allow new authorized land uses if, after avoiding and minimizing impacts, any remaining residual impacts to the greater sage-grouse or its habitat 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 (Appendix B).</p>	<p>GRSG-GEN-ST-005-Standard</p> <p>Delete</p>	<p>Deleted-redundant with GRSG-LR-SUA-ST-013-Standard</p>
<p>GRSG-GEN-ST-006-Standard</p> <p>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 (from March 1 to April 30) from 6 p.m. to 9 a.m. Do not include noise resulting from human activities that have been authorized and initiated within the past 10 years in the ambient baseline measurement.</p>	<p>GRSG-GEN-ST-007-Standard</p> <p>No Change</p>	
<p>GRSG-GEN-GL-007-Guideline</p>	<p>GRSG-GEN-GL-008-Guideline</p>	

No Action Alternative (Idaho)	Proposed Action (Idaho)	Issue/Clarification
During breeding and nesting (from March 1 to June 15), surface disturbing and disruptive activities to nesting birds should be avoided.	No Change	
<p>GRSG-GEN-GL-008-Guideline</p> <p>When breeding and nesting habitat overlaps with other seasonal habitat, habitat should be managed for breeding and nesting desired conditions in Table 1.</p>	<p>GRSG-GEN-GL-008-Guideline</p> <p>Delete</p>	<p>Deleted- incorporated into GRSG-GEN-DC-003-Desired Condition</p>
<p>GRSG-GEN-GL-009-Guideline</p> <p>Development of tall structures within 2 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.</p>	<p>GRSG-GEN-GL-009-Guideline</p> <p>Development of tall structures within: 2 miles in priority habitat management areas; 2 miles (communication/metrological), 1.2 miles (transmission lines) and 0.6 miles (distribution lines) in important habitat management areas; and 0.6 miles in general habitat management areas 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.</p>	<p>Modifying Lek Buffers</p>
<p>Adaptive Management</p>		
<p>GRSG-AM-ST-010-Standard</p> <p>If a hard trigger is identified, management direction applying to priority habitat management areas will be applied to important habitat management areas within the Conservation Area in Idaho, and the Sage-Grouse Implementation Task Force will evaluate available and pertinent data and recommend additional potential implementation level activities to the appropriate Forest</p>	<p>GRSG-AM-MA-010-Management Approach</p> <p>If a hard trigger is tripped, management direction applying to priority habitat management areas will be applied to important habitat management areas within the Conservation Area in Idaho. The response identified in Appendix C will be followed.</p> <p>When habitat or maximum male population count exceeds the 2011 baseline for habitat or population levels within the</p>	<p>Adaptive Management Review Process</p> <p>Clarification</p> <p>Consistency with 2012 Planning Rule</p>

No Action Alternative (Idaho)	Proposed Action (Idaho)	Issue/Clarification
Service line officer in both Idaho and Southwest Montana (Appendix C).	Conservation Area, IHMA managed as PHMA will revert to management as IHMA within the Conservation Area.	
<p>GRSG-AM-ST-011-Standard</p> <p>If a soft trigger is identified, the Forest Service will review available and pertinent data in coordination with the Sage-grouse Implementation Task Force, which may recommend potential implementation level activities to the appropriate agency line officer (Appendix C).</p>	<p>GRSG-AM-MA-011-Management Approach</p> <p>If a soft trigger is tripped, the Forest Service will review available and pertinent data in coordination with an interagency technical team, which may recommend potential implementation level activities to the appropriate agency line officer (Appendix C).</p>	<p>Adaptive Management Review Process</p> <p>Consistency with 2012 Planning Rule</p>
Land and Realty		
Specials Use Authorizations (Non-Recreation)		
<p>GRSG-LR-SUA-O-012-Objective</p> <p>In nesting habitat, retrofit existing tall structures (e.g., power poles, communication tower sites) with perch deterrents or other anti-perching devices within 2 years of signing the ROD.</p>	<p>GRSG-LR-SUA-O-012-Objective</p> <p>In nesting habitat, retrofit existing tall structures (e.g., power poles, communication tower sites) with perch deterrents or other anti-perching devices within 3 years of reissuing permits.</p>	<p>Clarification</p>
<p>GRSG-LR-SUA-ST-013-Standard</p> <p>In priority and important habitat management areas and sagebrush focal areas, restrict issuance of new lands special-use authorizations for infrastructure, such as high-voltage transmission lines, major pipelines, distribution lines, and communication tower sites. Exceptions may include co-location and must be limited (e.g., safety needs) and based on rationale (e.g., monitoring, modeling, or best available science) that explicitly demonstrates that adverse impacts to the greater sage-grouse will be avoided by the exception. If co-location of new infrastructure cannot be accomplished, locate it adjacent to existing infrastructure, roads, or already disturbed areas and limit disturbance to the smallest</p>	<p>GRSG-LR-SUA-ST-013-Standard</p> <p>In priority habitat management areas, only allow new lands special-use authorizations for infrastructure, such as high-voltage transmission lines, major pipelines, distribution lines, and communication tower sites when infrastructure is co-located with existing infrastructure, roads, or already disturbed areas. In important habitat management areas allow new lands special-use authorizations if impacts to the greater sage-grouse or its habitat are co-located or offset by using compensatory mitigation. Any mitigation will be in accordance with the Mitigation Framework (Appendix C).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Adjustment of Compensatory Mitigation Frameworks</p> <p>Habitat Management Areas Designations</p> <p>Adaptive Management Review Process</p>

No Action Alternative (Idaho)	Proposed Action (Idaho)	Issue/Clarification
<p>footprint or where it best limits impacts to the greater sage-grouse or its habitat. Existing authorized uses will continue to be recognized.</p>		
<p>Nothing in 2015 Plan</p>	<p><u>GRSG-LR-SUA-ST-014-Standard</u> <u>Land use authorizations in PHMA and IHMA must meet the following project screening criteria:</u></p> <p><u>a. The population trend for the GRSG within the associated Conservation Area is stable or increasing over a three-year period and the population levels are not currently engaging the adaptive management triggers (this applies strictly to new authorizations; renewals and amendments of existing authorizations will not be subject to this criteria when it can be shown that long-term impacts from those renewals or amendments will be substantially the same as the existing development);</u></p> <p><u>b. The development with associated mitigation will not result in a net loss of GRSG Key habitat or of the respective PHMA;</u></p> <p><u>c. The project and associated impacts will not result in a net loss of GRSG Key habitat or habitat fragmentation or other impacts causing a decline in the population of the species within the relevant Conservation Area;</u></p> <p><u>d. The development cannot be reasonably accomplished outside of the PHMA; or can be either: 1) developed pursuant to a valid existing authorization; or 2) is co-located within the footprint of existing infrastructure (proposed actions will not increase the 2011 authorized footprint and associated impacts more than 50 percent, depending on industry practice);</u></p>	<p>Adjustment of Compensatory Mitigation Frameworks</p> <p>Adaptive Management Review Process</p>

No Action Alternative (Idaho)	Proposed Action (Idaho)	Issue/Clarification
	e. Large scale anthropogenic disturbances in PHMA and IHMA will be reviewed by the Technical and Policy Teams as described in Appendix C.	
<p>GRSG-LR-SUA-ST-014-Standard</p> <p>In general habitat management areas, new lands special-use authorizations may be issued for infrastructure, such as high-voltage transmission lines, major pipelines, distribution lines, and communication tower sites, if they can be located within existing designated corridors or rights-of-way and the authorization includes stipulations to protect the greater sage-grouse and its habitat. Existing authorized uses will continue to be recognized.</p>	<p>GRSG-LR-SUA-GL-015-Guideline</p> <p>In general habitat management areas, new lands special-use authorizations may be issued for infrastructure, such as high-voltage transmission lines, major pipelines, distribution lines, and communication tower sites, within existing designated corridors or rights-of-way or if the authorization includes stipulations to minimize impacts to the GRSG and its habitat.</p>	<p>Clarification</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-LR-SUA-ST-015-Standard</p> <p>In priority and important habitat management areas and sagebrush focal areas, do not authorize temporary lands special-uses (i.e., facilities or activities) that result in loss of habitat or would have long-term (i.e., greater than 5 years) negative impact on the greater sage-grouse or its habitat.</p>	<p>GRSG-LR-SUA-ST-016-Standard</p> <p>In priority habitat management areas, do not authorize temporary lands special-uses (i.e., facilities or activities) that result in loss of habitat or would have long-term (i.e., greater than 5 years) negative impact on the greater sage-grouse or its habitat. In important habitat management areas only authorize temporary lands special-uses if habitat loss is offset by avoidance, minimization, or using compensatory mitigation.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Adjustment of Compensatory Mitigation Frameworks</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-LR-SUA-ST-016-Standard</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, require protective stipulations (e.g., noise, tall structure, guy wire removal, perch deterrent installation) when issuing new authorizations or during renewal, amendment, or reissuance of existing authorizations that authorize infrastructure (e.g., high-voltage transmission lines, major pipelines, roads, distribution lines, and communication tower sites).</p>	<p>GRSG-LR-SUA-ST-017-Standard</p> <p>In priority and important habitat management areas, require protective stipulations (e.g., noise, tall structure, guy wire removal) when issuing new authorizations or during renewal, amendment, or reissuance of existing authorizations that authorize infrastructure (e.g., high-voltage transmission lines, major pipelines, roads, distribution lines, and communication tower sites).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Adjustment of Compensatory Mitigation Frameworks</p>

No Action Alternative (Idaho)	Proposed Action (Idaho)	Issue/Clarification
<p>GRSG-LR-SUA-ST-017-Standard</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, locate upgrades to existing transmission lines within the existing designated corridors or rights-of-way unless an alternate route would benefit the greater sage-grouse or its habitat.</p>	<p>GRSG-LR-SUA-ST-018-Standard</p> <p>In priority and important habitat management areas, locate upgrades to existing transmission lines within the existing designated corridors or rights-of-way unless an alternate route would benefit the greater sage-grouse or its habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Adjustment of Compensatory Mitigation Frameworks</p>
<p>GRSG-LR-SUA-ST-018-Standard</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, when a lands special-use authorization is revoked or terminated terminated, and no future use is contemplated, require the authorization holder to remove overhead lines and other infrastructure in compliance with 36 CFR 251.60(i).</p>	<p>GRSG-LR-SUA-ST-019-Standard</p> <p>In priority, important, and general habitat management areas, when a lands special-use authorization is revoked or terminated terminated, and no future use is contemplated, require the authorization holder to remove overhead lines and other infrastructure in compliance with 36 CFR 251.60(i).</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-LR-SUA-GL-019-Guideline</p> <p>In priority management areas and sagebrush focal areas, outside of existing designated corridors and rights-of-way, new transmission lines and pipelines should be buried to limit disturbance to the smallest footprint unless explicit rationale is provided that the biological impacts to the greater sage-grouse and its habitat are being avoided. If new transmission lines and pipelines are not buried, locate them adjacent to existing transmission lines and pipelines.</p>	<p>GRSG-LR-SUA-GL-019-Guideline</p> <p>Delete.</p>	<p>Redundant with GRSG-LR-SUA-ST-013-Standard</p>
<p>GRSG-LR-SUA-GL-020-Guideline</p> <p>The best available science and monitoring should be used to inform infrastructure siting in greater sage-grouse habitat.</p>	<p>GRSG-LR-SUA-GL-020-Guideline</p> <p>Delete</p>	
<p>Land Ownership Adjustments</p>		

No Action Alternative (Idaho)	Proposed Action (Idaho)	Issue/Clarification
<p>GRSG-LR-LOA-ST-021-Standard</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, do not approve landownership adjustments, including land exchanges, unless the action results in a net conservation gain to the greater sage-grouse or it will not directly or indirectly adversely affect greater sage-grouse conservation.</p>	<p>GRSG-LR-LOA-ST-020-Guideline</p> <p>In priority habitat management areas, do not approve landownership adjustments, including land exchanges, unless the action results in no net habitat loss to the greater sage-grouse.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Adjustment of Compensatory Mitigation Frameworks</p> <p>Habitat Management Areas Designations</p> <p>Changing Net Conservation gain</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-LR-LOA-GL-022-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas with minority federal ownership, consider landownership adjustments to achieve a landownership pattern (e.g., consolidation, reducing fragmentation) that supports improved greater sage-grouse population trends and habitat.</p>	<p>GRSG-LR-LOA-MA-021-Management Approach</p> <p>In priority, important, and general habitat management areas with minority federal ownership, consider landownership adjustments to achieve a landownership pattern (e.g., consolidation, reducing fragmentation) that supports improved greater sage-grouse population trends and habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>
<p>Land Withdrawal</p>		
<p>GRSG-LR-LW-GL-023-Guideline</p> <p>In priority and important habitat management areas and sagebrush focal areas, use land withdrawals as a tool, where appropriate, to withhold an area from activities that will be detrimental to the greater sage-grouse or its habitat.</p>	<p>GRSG-LR-LW-GL-023-Guideline</p> <p>Delete</p>	<p>Elimination of Withdrawals</p>
<p>Wind and Solar</p>		

Commented [CD8]: New science suggests that strategies implemented in the 2015 plans to conserve sage-grouse are not expected to reverse alleged declines. Thus, it does not make any sense to obligate the agency to a “net conservation gain” when that standard would be impossible to meet.

No Action Alternative (Idaho)	Proposed Action (Idaho)	Issue/Clarification
<p>GRSG-WS-ST-024-Standard</p> <p>In priority management areas and sagebrush focal areas, do not authorize new solar and wind utility-scale and/or commercial energy development except for on- site power generation associated with existing industrial infrastructure (e.g., mine site).</p>	<p>GRSG-WS-ST-022-Standard</p> <p>In priority management areas, do not authorize new solar and wind utility-scale and/or commercial energy development except for on- site power generation associated with existing industrial infrastructure (e.g., mine site).</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-WS-GL-025-Guideline</p> <p>In important habitat management areas, new solar and wind energy utility-scale and/or commercial development should be restricted. If development cannot be restricted due to existing authorized use, adjacent developments, or split estate issues, then ensure that stipulations are incorporated into the authorization to protect the greater sage-grouse and its habitat.</p>	<p>GRSG-WS-GL-025-Guideline</p> <p>Delete</p>	<p>Redundant with GRSG-LR-SUA-ST-013-Standard</p>
<p>Greater Sage-grouse Habitat</p>		
<p>Nothing in 2015 Plan</p>	<p>GRSG-GRSGH-DC-023-Desired Condition</p> <p>Invasive annual grasses are either not present or in low abundance and not increasing in sage-grouse habitat.</p>	<p>Treatment of Invasive Species</p>
<p>GRSG-GRSGH-O-026-Objective</p> <p>Every 10 years for the next 50 years, improve greater sage-grouse habitat by removing invading conifers and other undesirable species based upon the number of acres shown in Table 2.</p>	<p>GRSG-GRSGH-O-024-Objective</p> <p>Table 2 is now Appendix C, Table C-2.</p>	<p>Clarification</p>
<p>GRSG-GRSGH-ST-027-Standard</p> <p>Design habitat restoration projects to move towards desired conditions (Table 1).</p>	<p>GRSG-GRSGH-ST-027-Standard</p> <p>Delete</p>	<p>Removed- required by 2012 Planning Rule</p>

No Action Alternative (Idaho)	Proposed Action (Idaho)	Issue/Clarification
Nothing in 2015 Plan	GRSG-GRSGH-MA-025-Management Approach Within 2 years of the Record of Decision, develop a map of areas prone to annual grass invasion within sage-grouse habitat using resistance and resilience concepts for each National Forest and Grassland.	Treatment of Invasive Species
GRSG-GRSGH-GL-028-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-026-Guideline No Change	
GRSG-GRSGH-GL-029-Guideline In priority, important, and general habitat management areas and sagebrush focal areas , actions and authorizations should include design features to limit the spread and effect of undesirable non-native plant species.	GRSG-GRSGH-GL-027-Guideline In priority, important, and general habitat management areas, actions and authorizations should include design features to limit the spread and effect of undesirable non-native plant species.	Elimination of Sagebrush Focal Areas
GRSG-GRSGH-GL-030-Guideline To facilitate safe and effective fire management actions, in priority, important, 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 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 (Table 1).	GRSG-GRSGH-MA-028-Management Approach To facilitate safe and effective fire management actions in priority, important, and general habitat management 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 greater sage-grouse desired conditions in Appendix C, Table C-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 (Appendix C, Table C-1).	Elimination of Sagebrush Focal Areas Clarification Consistency with 2012 Planning Rule
GRSG-GRSGH-GL-031-Guideline In priority, important, and general habitat management areas and sagebrush focal areas , native plant species should	GRSG-GRSGH-GL-029-Guideline In priority, important, and general habitat management areas, native plant species should be used, when possible, to	Elimination of Sagebrush Focal Areas

No Action Alternative (Idaho)	Proposed Action (Idaho)	Issue/Clarification
be used, when possible, to maintain, restore, or enhance desired conditions (Table 1).	maintain, restore, or enhance desired conditions (Appendix C, Table C-1).	
GRSG-GRSGH-GL-032-Guideline In priority and important habitat management areas and sagebrush focal areas , vegetation treatment projects should only be conducted if they maintain, restore, or enhance desired conditions (Table 1).	GRSG-GRSGH-GL-030-Guideline In priority, important, <u>and general habitat</u> management areas and, vegetation treatment projects should only be conducted if they maintain, restore, or enhance desired conditions (Appendix C, Table C-1).	Elimination of Sagebrush Focal Areas Clarification
Nothing in 2015 Plan	GRSG-GRSGH-MA-031-Management Approach Prioritize treatments for established invasive plant populations that have the potential to impact sage-grouse habitat in priority habitat management areas. Early detection and rapid response treatments remain the focus.	Treatment of Invasive Species
Nothing in 2015 Plan	GRSG-GRSGH-MA-032-Management Approach Post wildfire recovery treatments) should consider resistance and resilience ecological site descriptions, and state and transition models in designing vegetation treatments following wildfire.	Treatment of Invasive Species
Livestock Grazing		
GRSG-LG-DC-033-Desired Condition In priority and general habitat management areas, sagebrush focal areas, and within lek buffers, livestock grazing is managed to maintain or move towards desired conditions (Table 1).	GRSG-LG-DC-033-Desired Condition Delete	Removed- required by 2012 Planning Rule

No Action Alternative (Idaho)	Proposed Action (Idaho)	Issue/Clarification
<p>GRSG-LG-ST-034-Standard</p> <p>In priority and important habitat management areas and sagebrush focal areas, do not approve construction of water developments unless beneficial to greater sage-grouse habitat.</p>	<p>GRSG-LG-ST-033-Standard</p> <p>In priority and important habitat management areas, do not approve construction of water developments if the development <u>would cause adverse effects to greater sage-grouse habitat</u>.</p>	<p>Changing Livestock Grazing Guidelines</p>
<p>GRSG-LG-GL-035-Guideline</p> <p>Grazing guidelines should be applied in each of the seasonal habitat in Table 3. If values in Table 3 guidelines cannot be achieved based upon a site-specific analysis using Ecological Site Descriptions, long-term ecological site potential analysis, or other similar analysis, adjust grazing management to move towards desired habitat conditions in Table 1 consistent with the ecological site potential. Do not use drought and degraded habitat condition to adjust values. Grazing guidelines in Table 3 would not apply to isolated parcels of National Forest System lands that have less than 200 acres of greater sage-grouse habitat.</p>	<p>GRSG-LG-GL-034-Guideline</p> <p><u>In greater sage-grouse habitat, if livestock grazing is limiting achievement of seasonal desired conditions, adjust livestock management, as appropriate, to address greater sage-grouse habitat requirements.</u></p>	<p>Changing Livestock Grazing Guidelines</p>
<p>Nothing in 2015 Plan</p>	<p>GRSG-LG-<u>MA-035-Management Approach</u></p> <p><u>Conduct greater sage-grouse habitat assessments in allotments. If the assessment identifies the habitat is in less than suitable condition, determine factors limiting achievement of the suitable condition.</u></p>	<p>Changing Livestock Grazing Guidelines</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-LG-GL-036-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, when grazing permits are waived without preference or obtained through permit cancellation, consider the agency's full range of administrative authorities for future allotment management, including but not limited to allotment closure,</p>	<p>GRSG-LG-GL-036-Guideline</p> <p>Delete</p>	<p>Removed- covered in existing FS policy and direction</p>

No Action Alternative (Idaho)	Proposed Action (Idaho)	Issue/Clarification
vacancy status for resource protection, establishment of forage reserve, re-stocking, or livestock conversion as management options to maintain or achieve desired habitat conditions (Table 1).		
GRSG-LG-GL-037-Guideline Bedding sheep and placing camps within 1.2 miles from the perimeter of a lek during lekking (from March 1 to April 30) should be restricted.	GRSG-LG-GL-036-Guideline Bedding sheep and placing camps within 0.62 miles (1 km) from the perimeter of a lek during lekking (from March 1 to April 30) should be restricted to prevent disturbance of breeding GRSG.	Clarification
GRSG-LG-GL-038-Guideline During the breeding and nesting season (from March 1 to June 15), trailing livestock through breeding and nesting habitat should be minimized. Specific routes should be identified; existing trails should be used; and stopovers on active leks should be avoided.	GRSG-LG-GL-037-Guideline During the breeding and nesting season, trailing livestock through breeding and nesting habitat should be avoided to the extent practicable to prevent disturbance to breeding and nesting GRSG. Specific routes should be identified, existing trails should be used, and stopovers on active leks not allowed.	Clarification
GRSG-LG-GL-039-Guideline Fences should not be constructed or reconstructed within 1.2 miles from the perimeter of occupied leks unless the collision risk can be mitigated through design features or markings (e.g., mark, laydown fences, or other design features).	GRSG-LG-GL-038-Guideline No Change	
GRSG-LG-GL-040-Guideline New permanent livestock facilities (e.g., windmills, water tanks, corrals) should not be constructed within 1.2 miles from the perimeter of occupied leks.	GRSG-LG-GL-039-Guideline To prevent predation from perching raptors, new permanent livestock facilities taller than 4 feet (e.g., windmills, water tanks, corrals, etc.) should not be constructed within 1.2 miles in priority, 0.6 miles in important, and 0.12 miles in general.	Clarification of Buffer Distances Clarification

No Action Alternative (Idaho)	Proposed Action (Idaho)	Issue/Clarification
	habitat management areas from the perimeter of occupied leks.	
Fire Management		
<p>GRSG-FM-DC-041-Desired Condition</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, protect sagebrush habitat from loss due to unwanted wildfires or damages resulting from management-related activities while using agency risk management protocols to manage for firefighter and public safety and other high priority values. In all fire response, first priority is the management of risk to firefighters and the public. Greater sage-grouse habitat will be prioritized as a high value resource along with other high value resources and assets.</p>	<p>GRSG-FM-MA-040-Management Approach</p> <p>In priority, important, and general habitat management areas, protect sagebrush habitat from loss due to unwanted wildfires or damages resulting from management-related activities while using agency risk management protocols to manage for firefighter and public safety and other high priority values. In all fire response, first priority is the management of risk to firefighters and the public. Greater sage-grouse habitat will be prioritized as a high value resource along with other high value resources and assets.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-FM-ST-042-Standard</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, do not use prescribed fire in 12-inch or less precipitation zones unless necessary to facilitate restoration of greater sage-grouse habitat consistent with desired conditions in Table 1 or for pile burning.</p>	<p>GRSG-FM-ST-041-Standard</p> <p>In priority, important, and general habitat management areas, do not use prescribed fire in 12-inch or less precipitation zones unless necessary to facilitate restoration of greater sage-grouse habitat consistent with desired conditions in Appendix C, Table C-1 or for pile burning.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-FM-ST-043-Standard</p> <p>In priority, important, and general management habitat management areas and sagebrush focal areas, if it is necessary to use prescribed fire for restoration of greater sage-grouse habitat consistent with desired conditions in Table 1, the associated National Environmental Policy Act analysis must identify how the project would move towards greater sage- grouse desired conditions, why alternative</p>	<p>GRSG-FM-MA-042-Management Approach</p> <p>In priority, important, and general management habitat management areas, if it is necessary to use prescribed fire for restoration of greater sage-grouse habitat consistent with desired conditions in Appendix C, Table C-1, the associated National Environmental Policy Act analysis must identify how the project would move towards greater sage- grouse desired conditions, why alternative techniques were not selected, and</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p> <p>Consistency with 2012 Planning Rule</p>

No Action Alternative (Idaho)	Proposed Action (Idaho)	Issue/Clarification
techniques were not selected, and how potential threats to greater sage-grouse habitat would be minimized.	how potential threats to greater sage-grouse habitat would be minimized.	
<p>GRSG-FM-GL-044-Guideline</p> <p>In wintering or breeding and nesting habitat, sagebrush removal or manipulation, including prescribed fire, should be restricted unless the removal strategically reduces the potential impacts from wildfire or supports the attainment of desired conditions.</p>	<p>GRSG-FM-GL-043-Guideline</p> <p>In order to maintain sagebrush in wintering or breeding and nesting habitat, sagebrush removal or manipulation, including prescribed fire, should be restricted unless the removal strategically reduces the potential impacts from wildfire or supports the attainment of desired conditions.</p>	<p>Clarification</p>
<p>GRSG-FM-GL-045-Guideline</p> <p>In planned fuels management activities or part of an overall vegetative management strategy to mitigate the impacts of wildfire in priority and general habitat management areas and sagebrush focal areas, when reseeding in fuel breaks, fire-resistant native plant species should be used if available, or consider using fire-resistant non-native species if analysis and/or best available science demonstrates that non-native plants will not degrade greater sage-grouse habitat in the long-term.</p>	<p>GRSG-FM-MA-044-Management Approach</p> <p>In priority, important, and general habitat management areas, when reseeding in fuel breaks, fire-resistant native plant species should be used if available, or consider using fire-resistant non-native species if analysis and/or best available science demonstrates that non-native plants will not degrade greater sage-grouse habitat in the long-term and will prevent fire spread into GRSG habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-FM-GL-046-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, fuel treatments should be designed to maintain, restore, or enhance greater sage-grouse habitat.</p>	<p>GRSG-FM-GL-046-Guideline</p> <p>Delete</p>	<p>Removed- required by 2012 Planning Rule</p>
<p>GRSG-FM-GL-047-Guideline</p> <p>Locating temporary wildfire suppression facilities (e.g., incident command posts, spike camps, helibases, mobile retardant plants) in priority and general habitat management areas and sagebrush focal areas should be</p>	<p>GRSG-FM-MA-045-Management Approach</p> <p>Locate wildfire suppression facilities (i.e., base camps, spike camps, drop points, staging areas, helibases, etc.) in areas where physical disturbance to Greater Sage-Grouse habitat can be minimized. These include disturbed areas, grasslands,</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p>

No Action Alternative (Idaho)	Proposed Action (Idaho)	Issue/Clarification
<p>avoided. When needed to best provide for firefighter or public safety or to minimize fire size in greater sage-grouse habitat, impacts to the greater sage-grouse should be considered and removal of sagebrush should be limited.</p>	<p>near roads/trails, or in other areas where there is existing disturbance or minimal sagebrush cover.</p>	<p>Consistency with 2012 Planning Rule</p>
<p>GRSG-FM-GL-048-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, cross-country vehicle travel during fire operations should be restricted. When needed to best provide for firefighter or public safety or to minimize fire size in greater sage- grouse habitat, impacts to the greater sage-grouse should be considered and removal of sagebrush should be limited.</p>	<p>GRSG-FM-MA-046-Management Approach</p> <p>In priority, important, and general habitat management areas, cross-country vehicle travel during fire operations should be restricted. When needed to best provide for firefighter or public safety or to minimize fire size in greater sage- grouse habitat, impacts to the greater sage-grouse should be considered and removal of sagebrush should be limited to the extent practicable to achieve suppression objectives.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-FM-GL-049-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, use fire management tactics and strategies that seek to minimize loss of existing sagebrush habitat. The safest and most practical means to do so will be determined by fireline leadership and incident commanders.</p>	<p>GRSG-FM-MA-047-Management Approach</p> <p>In priority, important, and general habitat management areas, use fire management tactics and strategies that seek to minimize loss of existing sagebrush habitat. The safest and most practical means to do so will be determined by fireline leadership and incident commanders.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-FM-GL-050-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, prescribed fire prescriptions should minimize undesirable effects on vegetation and/or soils (e.g., minimize mortality of desirable perennial plant species and reduce risk of hydrophobicity).</p>	<p>GRSG-FM-MA-048-Management Approach</p> <p>In priority and general habitat management areas prescribed fire prescriptions should result in improvement of desired conditions for GRSG and not result in undesirable effects on vegetation and/or soils (e.g., minimize mortality of desirable perennial plant species and reduce risk of hydrophobicity).</p>	<p>Consistency with 2012 Planning Rule</p>
<p>GRSG-FM-GL-051-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, roads and natural fuel</p>	<p>GRSG-FM-MA-049-Management Approach</p> <p>In priority, important, and general habitat management areas, roads and natural fuel breaks should be incorporated into</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Idaho)	Proposed Action (Idaho)	Issue/Clarification
breaks should be incorporated into planned fuel-break design to improve effectiveness and minimize loss of existing sagebrush habitat.	planned fuel-break design to improve effectiveness and minimize loss of existing sagebrush habitat.	Consistency with 2012 Planning Rule
<p>GRSG-FM-GL-052-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, where practical and available, all fire-associated vehicles and equipment should be inspected and cleaned using standardized protocols and procedures and approved vehicle/equipment decontamination systems before entering and exiting the area beyond initial attack activities to minimize the introduction of invasive annual grasses and other invasive plant species and noxious weeds.</p>	<p>GRSG-FM-ST-050-Standard</p> <p>In priority, important, and general habitat management areas all fire-associated vehicles and equipment are to be inspected and cleaned using standardized protocols and procedures and approved vehicle/equipment decontamination systems before entering and exiting the area beyond initial attack activities to minimize the introduction of invasive annual grasses and other invasive plant species and noxious weeds.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-FM-GL-053-Guideline</p> <p>Unit-specific greater sage-grouse fire management-related information should be added to wildland fire decision support systems (currently, the Wildland Fire Decision Support System); local operating plans and resource advisor plans to be used during fire situations to inform management decisions; and aid in development of strategies and tactics for resource prioritization.</p>	<p>GRSG-FM-MA-051-Management Approach</p> <p>Unit-specific greater sage-grouse fire management-related information should be added to wildland fire decision support systems (currently, the Wildland Fire Decision Support System); local operating plans and resource advisor plans to be used during fire situations to inform management decisions; and aid in development of strategies and tactics for resource prioritization.</p>	<p>Consistency with 2012 Planning Rule</p>
<p>GRSG-FM-GL-054-Guideline</p> <p>Localized maps of priority and general habitat management areas and sagebrush focal areas should be made available to fireline, dispatch, and fire support personnel.</p>	<p>GRSG-FM-MA-052-Management Approach</p> <p>Localized maps of priority, important, and general habitat management areas should be made available to fireline, dispatch, and fire support personnel.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-FM-GL-055-Guideline</p>	<p>GRSG-FM-MA-053-Management Approach</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Idaho)	Proposed Action (Idaho)	Issue/Clarification
<p>In or near priority, important, and general habitat management areas and sagebrush focal areas, a greater sage-grouse resource advisor should be assigned to all extended attack fires.</p>	<p>In or near priority, important, and general habitat management areas, a greater sage-grouse resource advisor should be assigned to all extended attack fires.</p>	<p>Consistency with 2012 Planning Rule</p>
<p>GRSG-FM-GL-056-Guideline</p> <p>On critical fire weather days, protection of greater sage-grouse habitat should receive high consideration, along with other high values, for positioning of resources.</p>	<p>GRSG-FM-MA-054-Management Approach</p> <p>On critical fire weather days, protection of greater sage-grouse habitat should receive high consideration, along with other high values, for positioning of resources.</p>	<p>Consistency with 2012 Planning Rule</p>
<p>GRSG-FM-GL-057-Guideline</p> <p>Line officers should be involved in setting pre-season wildfire response priorities and prioritizing protection of priority and general habitat management areas and sagebrush focal areas, along with other high values. During periods of multiple fires or limited resource availability, fire management organizational structure (local, regional, national) will prioritize fires and allocation of resources in which greater sage-grouse habitat is a consideration along with other high values.</p>	<p>GRSG-FM-MA-055-Management Approach</p> <p>Line officers should be involved in setting pre-season wildfire response priorities and prioritizing protection of priority, important, and general habitat management areas, along with other high values. During periods of multiple fires or limited resource availability, fire management organizational structure (local, regional, national) will prioritize fires and allocation of resources in which greater sage-grouse habitat is a consideration along with other high values.</p>	<p>Consistency with 2012 Planning Rule</p>
<p>GRSG-FM-GL-058-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, consider using fire retardant and mechanized equipment only if it is likely to result in minimizing burned acreage, preventing the loss of other high value resources, or increasing the effectiveness of other tactical strategies. Agency administrators, their designee, or fireline leadership should consider fire suppression effects while determining suppression strategy and tactics; the use of fire retardant and mechanized</p>	<p>GRSG-FM-MA-056-Management Approach</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, consider using fire retardant and mechanized equipment only if it is likely to result in minimizing burned acreage, preventing the loss of other high value resources, or increasing the effectiveness of other tactical strategies. Agency administrators, their designee, or fireline leadership should consider fire suppression effects while determining suppression strategy and tactics; the use of fire retardant and mechanized equipment may be approved by agency administrators, their designee, or fireline leadership.</p>	<p>Consistency with 2012 Planning Rule</p>

No Action Alternative (Idaho)	Proposed Action (Idaho)	Issue/Clarification
equipment may be approved by agency administrators, their designee, or fireline leadership.		
<p>GRSG-FM-GL-059-Guideline</p> <p>In priority, important, and general habitat management areas, to minimize sagebrush habitat loss, consider using the full range of suppression techniques to protect unburned islands, doglegs, and other greater sage-grouse habitat features that may exist within the perimeter of wildfires. These suppression objectives and activities should be prioritized against other wildland fire suppression activities and priorities.</p>	<p>GRSG-FM-GL-057-Guideline</p> <p>In priority, important, and general habitat management areas, to minimize sagebrush habitat loss, the full range of suppression techniques should be used to protect unburned islands, doglegs, and other greater sage-grouse habitat features that may exist within the perimeter of wildfires to retain as much GRSG habitat as possible.</p>	Clarification
Wild Horse and Burro		
<p>GRSG-HB-GL-060-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, wild horse and burro populations should be managed within established appropriate management levels to maintain, restore, or enhance greater sage-grouse desired habitat conditions (Table 1).</p>	<p>GRSG-HB-GL-060-Guideline</p> <p>Delete</p>	Removed - There are no Herd Management Areas within the NFS plan area in Idaho.
<p>GRSG-HB-GL-061-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, consider adjusting appropriate management levels, consistent with applicable law, if greater sage-grouse management standards are not met due to degradation that can be at least partially be attributed to wild horse or burro populations.</p>	<p>GRSG-HB-GL-061-Guideline</p> <p>Delete</p>	Removed - There are no Herd Management Areas within the NFS plan area in Idaho.
Recreation		

No Action Alternative (Idaho)	Proposed Action (Idaho)	Issue/Clarification
<p>GRSG-R-DC-062-Desired Condition</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, recreation activities are balanced with the ability of the land to support them while meeting greater sage-grouse seasonal habitat desired conditions (Table 1) and creating minimal user conflicts.</p>	<p>GRSG-R-DC-062-Desired Condition</p> <p>Delete</p>	<p>Consistency with 2012 Planning Rule</p>
<p>GRSG-R-ST-063-Standard</p> <p>In priority and important habitat management areas and sagebrush focal areas, do not authorize temporary recreation uses (i.e., facilities or activities) that result in loss of habitat or would have long-term (i.e., greater than 5 years) negative impacts on greater sage-grouse or its habitat.</p>	<p>GRSG-R-GL-058-Guideline</p> <p>In priority habitat management areas, do not authorize temporary recreational special-uses (i.e., facilities or activities) that result in loss of habitat or would have long-term (i.e., greater than 5 years) negative impact on the greater sage-grouse or its habitat. In important habitat management areas only authorize temporary recreational special-uses if habitat loss is offset by avoidance, minimization, or using compensatory mitigation.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Adjustment of Compensatory Mitigation Frameworks</p> <p>Consistency with 2012 Planning Rule</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-R-GL-064-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, terms and conditions that protect and/or restore greater sage-grouse habitat within the permit area should be included in new recreation special-use authorizations. During renewal, amendment, or reauthorization, terms and conditions in existing permits and operating plans should be modified to protect and/or restore greater sage-grouse habitat.</p>	<p>GRSG-R-MA-059-Management Approach</p> <p>In priority, important, and general habitat management areas, terms and conditions that protect and/or restore greater sage-grouse habitat within the permit area should be included in new recreation special-use authorizations. During renewal, amendment, or reauthorization, terms and conditions in existing permits and operating plans should be modified to protect and/or restore greater sage-grouse habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-R-GL-065-Guideline</p> <p>In priority and important habitat management areas and sagebrush focal areas, new recreational facilities or expansion of existing recreational facilities (e.g., roads,</p>	<p>GRSG-R-GL-060-Guideline</p> <p>In priority habitat management areas, new recreational facilities or expansion of existing recreational facilities will be co-located with existing infrastructure or located in already</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Idaho)	Proposed Action (Idaho)	Issue/Clarification
trails, campgrounds), including special-use authorizations for facilities and activities, should not be approved unless the development results in a net conservation gain to the greater sage-grouse or its habitat or the development is required for visitor safety.	disturbed areas , unless exception is required for visitor safety. In important habitat management areas allow new recreational facilities or expansion of existing recreational facilities if facilities can be co-located or impacts can be offset by compensatory mitigation , unless exception is required for visitor safety. Any mitigation will be in accordance with the Mitigation Framework (Appendix C) .	Adjustment of Compensatory Mitigation Frameworks Habitat Management Areas Designations
Roads/Transportation		
GRSG-RT-DC-066-Desired Condition In priority, important, and general habitat management areas and sagebrush focal areas within the forest transportation system and on roads and trails authorized under a special-use authorization, the greater sage-grouse experiences minimal disturbance during breeding and nesting (from March 1 to June 15) and wintering (from November 1 to February 28) periods.	GRSG-RT-DC-061-Desired Condition In priority, important, and general habitat management areas on roads and trails within the forest transportation system and those authorized under a special-use authorization, the greater sage-grouse experiences minimal disturbance and mortality .	Elimination of Sagebrush Focal Areas Clarification
GRSG-RT-ST-067-Standard In priority, important, and general habitat management areas and sagebrush focal areas , do not conduct or allow new road or trail construction (does not apply to realignments for resource protection) except when necessary for administrative access to existing and authorized uses, public safety, or to access valid existing rights. If necessary to construct new roads and trails for one of these purposes, construct them to the minimum standard, length, and number and avoid, minimize, and mitigate impacts.	GRSG-RT-ST-062-Standard In priority, important, and general habitat management areas, do not conduct or allow new road or trail construction (does not apply to realignments for resource protection) except when necessary for administrative access to existing and authorized uses, public safety, or to access valid existing rights. If necessary to construct new roads and trails for one of these purposes, construct them to the minimum standard, length, and number and avoid, minimize, and mitigate impacts.	Elimination of Sagebrush Focal Areas
GRSG-RT-ST-068-Standard	GRSG-RT-ST-063-Standard	

No Action Alternative (Idaho)	Proposed Action (Idaho)	Issue/Clarification
Do not conduct or allow road and trail maintenance activities within 2 miles from the perimeter of active leks during lekking (from March 1 to April 30) from 6 p.m. to 9 a.m.	No Change	
GRSG-RT-ST-069-Standard In priority and important habitat management areas and sagebrush focal areas, do not allow public motor vehicle use on temporary energy development roads.	GRSG-RT-ST-069-Standard Delete	Removed- covered in existing Forest Service policy and direction
GRSG-RT-GL-070-Guideline In priority and important habitat management areas and sagebrush focal areas, new roads and road realignments should be designed and administered to reduce collisions with the greater sage-grouse.	GRSG-RT-GL-070-Guideline Delete	Redundant with GRSG-RT-ST-067-Standard
GRSG-RT-GL-071-Guideline In priority and important habitat management areas and sagebrush focal areas, road construction within riparian areas and mesic meadows should be restricted. If not possible to restrict construction within riparian areas and mesic meadows, roads should be designed and constructed at right angles to ephemeral drainages and stream crossings, unless topography prevents doing so.	GRSG-RT-GL-071-Guideline Delete	Redundant with GRSG-RT-ST-067-Standard
GRSG-RT-GL-072-Guideline In priority, important, and general habitat management areas and sagebrush focal areas, when decommissioning roads and unauthorized routes, restoration activity should be designed to move habitat towards desired conditions (Table 1).	GRSG-RT-GL-072-Guideline Delete	Required by 2012 Planning Rule

No Action Alternative (Idaho)	Proposed Action (Idaho)	Issue/Clarification
<p>GRSG-RT-GL-073-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, dust abatement terms and conditions should be included in road-use authorizations when dust has the potential to affect the greater sage-grouse.</p>	<p>GRSG-RT-MA-064-Management Approach</p> <p>In priority, important, and general habitat management areas, dust abatement terms and conditions should be included in road-use authorizations when dust has the potential to affect the greater sage-grouse.</p>	<p>Consistency with 2012 Planning Rule</p>
<p>GRSG-RT-GL-074-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, road and road-way maintenance activities should be designed and implemented to reduce the risk of vehicle- or human-caused wildfires and the spread of invasive plants. Such activities include but are not limited to the removal or mowing of vegetation a car-width off the edge of roads; use of weed-free earth-moving equipment, gravel, fill, or other materials; and blading or pulling roadsides and ditches that are infested with noxious weeds only if required for public safety or protection of the roadway.</p>	<p>GRSG-RT-MA-065-Management Approach</p> <p>In priority, important, and general habitat management areas, road and road-way maintenance activities should be designed and implemented to reduce the risk of vehicle- or human-caused wildfires and the spread of invasive plants.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p> <p>Consistency with 2012 Planning Rule</p>
<p>Minerals</p>		
<p>Fluid-Unleased</p>		
<p>GRSG-M-FMUL-ST-075-Standard</p> <p>In priority and important habitat management areas, any new oil and gas leases must include a No Surface Occupancy 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:</p> <ul style="list-style-type: none"> • There will be no direct, indirect, or cumulative effects 	<p>GRSG-M-FMUL-ST-066-Standard</p> <p>In priority and important habitat management areas, any new oil and gas leases must include a No Surface Occupancy stipulation. There will be no waivers or modifications. An exception could be granted by the authorized officer if:</p> <ul style="list-style-type: none"> • The population trend for the Greater Sage-Grouse within the associated Conservation Area is stable or increasing over a three-year period and the population levels are not currently engaging the 	<p>Including Waivers, Exceptions, and Modifications on NSO Stipulations</p>

No Action Alternative (Idaho)	Proposed Action (Idaho)	Issue/Clarification
<p>to greater sage-grouse or its habitat; or</p> <ul style="list-style-type: none"> 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 	<p>adaptive management triggers (this applies strictly to new authorizations; renewals and amendments of existing authorizations will not be subject to this criteria when it can be shown that long-term impacts from those renewals or amendments will be substantially the same as the existing development);</p> <ul style="list-style-type: none"> The development with associated mitigation will not result in a net loss of Greater Sage-Grouse key habitat or of the respective PHMA; There would be no direct, indirect, or cumulative effects to the greater sage-grouse or its habitat; Impacts could be fully offset through mitigation; or Granting the exception provides an alternative to a similar action occurring on a nearby parcel; and The development cannot be reasonably accomplished outside of the PHMA; or can be either: 1) developed pursuant to a valid existing authorization; or 2) is collocated within the footprint of existing infrastructure (proposed actions will not increase the 2011 authorized footprint and associated impacts more than 50 percent, depending on industry practice). The exception will include appropriate controlled surface use and timing limitation stipulations The project will not exceed the disturbance cap; and Will be reviewed by the Technical and Policy Teams 	
<p>GRSG-M-FMUL-ST-076-Standard</p> <p>In general habitat management areas, any new leases must include appropriate controlled surface use and timing</p>	<p>GRSG-M-FMUL-ST-067-Standard</p> <p>No Change</p>	

No Action Alternative (Idaho)	Proposed Action (Idaho)	Issue/Clarification
limitation stipulations to protect the greater sage-grouse and its habitat.		
<p>GRSG-M-FMUL-ST-077-Standard</p> <p>In sagebrush focal areas, there will be No Surface Occupancy and no waivers, exceptions, or modifications for fluid mineral leasing.</p>	<p>GRSG-M-FMUL-ST-077-Standard</p> <p>Delete</p>	<p>Elimination of Sagebrush Focal Areas</p>
Fluid-Leased		
<p>GRSG-M-FML-ST-078-Standard</p> <p>In priority and important habitat management areas and sagebrush focal areas, when approving the Surface Use Plan of Operation portion of the Application for Permit to Drill on existing leases that are not yet developed, require that leaseholders avoid and minimize surface disturbing and disruptive activities consistent with the rights granted in the lease.</p>	<p>GRSG-M-FML-ST-068-Standard</p> <p>In priority habitat management areas areas, the Surface Use Plan of Operation portion of the Application for Permit to Drill on existing leases that are not yet developed, will require <u>Conditions of Approval (COA) that will avoid and minimize</u> surface disturbing and disruptive activities consistent with the rights granted in the lease.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-M-FML-ST-079-Standard</p> <p>In priority and important habitat management areas and sagebrush focal areas, when facilities are no longer needed needed, or leases are relinquished, require reclamation plans to include terms and conditions to restore habitat to desired conditions as described in Table 1.</p>	<p>GRSG-M-FML-ST-069-Standard</p> <p>In priority, important, <u>and general</u> habitat management areas, when facilities are no longer needed needed, or leases are relinquished, reclamation plans must include terms and conditions to restore habitat to desired conditions as described in <u>Appendix C, Table C-1</u>.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-M-FML-ST-080-Standard</p> <p>In general habitat management areas, authorize new transmission line corridors, transmission line right-of-ways rights-of-way, transmission line construction, or transmission line-facility construction associated with fluid mineral leases with stipulations necessary to protect the</p>	<p>GRSG-M-FML-ST-070-Standard</p> <p>In general habitat management areas, authorize new transmission line corridors, transmission line right-of-ways rights-of-way, transmission line construction, or transmission line-facility construction associated with fluid mineral leases with stipulations necessary to protect the</p>	<p>Clarification</p>

No Action Alternative (Idaho)	Proposed Action (Idaho)	Issue/Clarification
greater sage-grouse and its habitat, consistent with the terms and conditions of the permit.	greater sage-grouse and its habitat, consistent with the terms and conditions of the permit (Appendix G).	
<p>GRSG-M-FML-ST-081-Standard</p> <p>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-Standard.</p>	<p>GRSG-M-FML-MA-071-Management Approach</p> <p>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-Standard.</p>	<p>Consistency with 2012 Planning Rule</p>
<p>GRSG-M-FML-ST-082-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, 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.</p>	<p>GRSG-M-FML-ST-082-Standard</p> <p>Delete</p>	<p>Redundant with GRSG-M-FML-ST-078-Standard</p>
<p>GRSG-M-FML-GL-083-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, operators should be encouraged to reduce disturbance to greater sage-grouse habitat. 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 and consistent with the rights granted to the lessee.</p>	<p>GRSG-M-FML-GL-072-Guideline</p> <p>In priority, important, and general habitat management areas, the Surface Use Plan of Operation portion of the Application for Permit to Drill will include terms and conditions to reduce disturbance to greater sage-grouse habitat where appropriate, feasible, and consistent with the rights granted to the lessee.</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Idaho)	Proposed Action (Idaho)	Issue/Clarification
<p>GRSG-M-FML-GL-084-Guideline</p> <p>On existing federal leases in priority and important habitat management areas and sagebrush focal areas, when surface occupancy cannot be restricted due to valid existing rights or development requirements, disturbance and surface occupancy should be limited to areas least harmful to the greater sage-grouse based on vegetation, topography, or other habitat features.</p>	<p>GRSG-M-FML-GL-073-Guideline</p> <p>On existing federal leases in priority and important habitat management areas, when surface occupancy must be allowed due to valid existing rights or development requirements, disturbance and surface occupancy should be restricted to areas that will minimize the impact to GRSG and its habitat to the greater sage-grouse based on vegetation, topography, or other habitat features.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-M-FML-GL-085-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, 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.</p>	<p>GRSG-M-FML-MA-074-Management Approach</p> <p>In priority, important, and general habitat management areas, 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 (Appendix G).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>
Fluid-Operations		
<p>GRSG-M-FMO-ST-086-Standard</p> <p>In priority and important habitat management areas and sagebrush focal areas, do not authorize employee camps.</p>	<p>GRSG-M-FMO-ST-075-Standard</p> <p>In priority and important habitat management areas, do not authorize employee camps.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-M-FMO-ST-087-Standard</p> <p>In priority and important habitat management areas and sagebrush focal areas, when feasible, do not locate tanks or other structures that may be used as raptor perches. If this is not feasible, use perch deterrents.</p>	<p>GRSG-M-FMO-ST-076-Standard</p> <p>In priority and important habitat management areas, when feasible, do not locate tanks or other structures that may be used as raptor perches. If this is not feasible, use perch deterrents.</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Idaho)	Proposed Action (Idaho)	Issue/Clarification
<p>GRSG-M-FMO-GL-088-Guideline</p> <p>In priority and important habitat management areas and sagebrush focal areas, closed-loop systems should be used for drilling operations with no reserve pits, where feasible.</p>	<p>GRSG-M-FMO-MA-077-Management Approach</p> <p>In priority and important habitat management areas, closed-loop systems should be used for drilling operations with no reserve pits, where feasible.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-M-FMO-GL-089-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, during drilling operations soil compaction should be minimized and soil structure should be maintained using the best available techniques to improve vegetation reestablishment.</p>	<p>GRSG-M-FMO-GL-078-Guideline</p> <p>In priority, important, and general habitat management areas, during drilling operations soil compaction should be minimized and soil structure should be maintained using the best available techniques to improve vegetation reestablishment.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-M-FMO-GL-090-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, dams, impoundments, and ponds for mineral development should be constructed to reduce potential for West Nile virus. Examples of methods to accomplish this include the following:</p> <ul style="list-style-type: none"> • 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. 	<p>GRSG-M-FMO-GL-079-Guideline</p> <p>In priority, important, and general habitat management areas, dams, impoundments, and ponds for mineral development should be constructed to reduce potential for West Nile virus.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>

No Action Alternative (Idaho)	Proposed Action (Idaho)	Issue/Clarification
<ul style="list-style-type: none"> • 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. 		
	<p>GRSG-M-FMO-MA-080-Management Approach</p> <p>Utilize the following methods to reduce to potential for West Nile virus include the following:</p> <ul style="list-style-type: none"> • 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 	<p>Consistency with 2012 Planning Rule</p>

No Action Alternative (Idaho)	Proposed Action (Idaho)	Issue/Clarification
	other wild ungulates. <ul style="list-style-type: none"> • Remove or re-inject produced water. • Treat waters with larvicides to reduce mosquito production where water occurs on the surface. 	
GRSG-M-FMO-GL-091-Guideline In priority, important, and general habitat management areas and sagebrush focal areas , to keep habitat disturbance at a minimum, a phased development approach should be applied to fluid mineral operations wherever possible, consistent with the rights granted under the lease. Disturbed areas should be reclaimed as soon as they are no longer needed for mineral operations.	GRSG-M-FMO-GL-081-Guideline In priority, important, and general habitat management areas, to keep habitat disturbance at a minimum, a phased development approach should be applied to fluid mineral operations wherever possible, consistent with the rights granted under the lease. Disturbed areas should be reclaimed as soon as they are no longer needed for mineral operations.	Elimination of Sagebrush Focal Areas
Coal Mines-Unleased		
GRSG-M-CMUL-ST-092-Standard When consenting to new underground coal leases, include a lease stipulation prohibiting the location of surface facilities in priority and important habitat management areas and sagebrush focal areas.	GRSG-M-CMUL-ST-092-Standard Delete	There is no commercially available coal in ID- BLM is leasing agency
Coal Mines- Leased		
GRSG-M-CML-ST-093-Standard In priority and important habitat management areas and sagebrush focal areas, do not authorize new appurtenant facilities related to existing underground mines unless no technically feasible alternative exists. If new appurtenant facilities associated with existing mine leases cannot be located outside of priority and important habitat management areas and sagebrush focal areas, locate them within any existing disturbed areas, if possible. If location	GRSG-M-CML-ST-093-Standard Delete	There is no commercially available coal in ID- BLM is leasing agency

No Action Alternative (Idaho)	Proposed Action (Idaho)	Issue/Clarification
<p>within an existing disturbed area is not possible, then construct new facilities to minimize disturbed areas while meeting mine safety standards and requirements as identified by the Mine Safety and Health Administration 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.</p>		
<p>GRSG-M-CML-GL-094-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, 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.</p>	<p>GRSG-M-CML-GL-094-Guideline</p> <p>Delete</p>	<p>There is no commercially available coal in ID- BLM is leasing agency</p>
<p>Locatable Minerals</p>		
<p>GRSG-M-LM-ST-095-Standard</p> <p>In priority and important habitat management areas and sagebrush focal areas, 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.</p>	<p>GRSG-M-LM-ST-082-Standard</p> <p>In priority, important, and general habitat management areas, only approve Plans of Operation if they include mitigation (avoid and minimize) 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.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p>
<p>GRSG-M-LM-GL-096-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, to 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.</p>	<p>GRSG-M-LM-GL-083-Guideline</p> <p>In priority, important, and general habitat management areas, to keep habitat disturbance at a minimum, a phased development approach should be applied to operations consistent with the rights granted under the General Mining</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Idaho)	Proposed Action (Idaho)	Issue/Clarification
Disturbed areas should be reclaimed as soon as they are no longer needed for mineral operations.	Act of 1872, as amended. Disturbed areas should be reclaimed as soon as they are no longer needed for mineral operations.	
<p>GRSG-M-LM-GL-097-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, 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.</p>	<p>GRSG-M-LM-GL-084-Guideline</p> <p>In priority and general habitat management areas, when closing abandoned mine sites remove tall structures that could provide nesting opportunities and perching sites for predators to reduce predation of greater sage-grouse.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p>
<p>Non-energy Leasable Minerals</p>		
<p>GRSG-M-NEL-GL-098-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, 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 the greater sage-grouse and its habitat.</p>	<p>GRSG-M-NEL-MA-085-Management Approach</p> <p>In priority, important, and general habitat management areas, include stipulations to restrict surface use, occupancy and seasonal activities for exploration or pre-mining activities with recommendations or consent (as applicable) to issuance of prospecting permits, exploration licenses, or leases, lease modifications, lease readjustments or lease renewals.</p> <p>In priority habitat management areas where development would be by surface mining methods, do not consent to, or recommend, leasing in areas that exceed disturbance caps. In priority habitat management areas where development would be by underground mining methods, specify or recommend stipulations that prohibit surface use and occupancy in priority habitat management areas.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p> <p>Clarification of regulatory process</p>
<p>GRSG-M-NEL-GL-099-Guideline</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, the Forest Service should</p>	<p>GRSG-M-NEL-MA-086-Management Approach</p> <p>In priority, important, and general habitat management areas, include in recommendations to the BLM regarding exploration</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Idaho)	Proposed Action (Idaho)	Issue/Clarification
<p>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.</p>	<p>plan or mining plans conditions to reduce invasive species, prevent fire, limit permanent tall structures and new permanent roads, and to design reclamation of surface disturbance to restore applicable greater sage-grouse habitat.</p>	<p>Consistency with 2012 Planning Rule</p> <p>Clarification of regulatory process</p>
<p>Mineral Materials</p>		
<p>GRSG-M-MM-ST-100-Standard</p> <p>In priority management areas and sagebrush focal areas, do not authorize new mineral material disposal or development.</p>	<p>GRSG-M-MM-ST-87-Standard</p> <p>In priority management areas, do not authorize new mineral material disposal or development.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-M-MM-ST-101-Standard</p> <p>In priority and important habitat management areas and sagebrush focal areas, 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.</p>	<p>GRSG-M-MM-ST-88-Standard</p> <p>Do not allow free-use mineral material collection from March 1 to April 30 between 6 p.m. and 9 a.m. within 2 miles from the perimeter of occupied leks.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p>
<p>GRSG-M-MM-ST-102-Standard</p> <p>In priority, important, and general habitat management areas and sagebrush focal areas, 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).</p>	<p>GRSG-M-MM-ST-89-Standard</p> <p>In priority, important, and general habitat management areas, management of existing or expansion of existing pits will include appropriate requirements for operation and reclamation of the site to maintain, restore, or enhance desired habitat conditions (Appendix C, Table C-1).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p>

Table 2-7. Nevada - Comparison of alternatives¹

¹[Priority and general habitat management areas may contain non-habitat. Management direction would not apply to those areas of non-habitat if the proposed activity in non-habitat does not preclude effective sage-grouse use of adjacent habitats.](#)

No Action Alternative (Nevada)	Proposed Action (Nevada)	Issue/Clarification
<p>GRSG-GEN-DC-001-Desired Condition</p> <p>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.</p>	<p>GRSG-GEN-DC-001-Desired Condition</p> <p>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. Sagebrush vegetation communities provide contiguous habitat for greater sage grouse, which is resistant and resilient to disturbances such as fire and invasive plants.</p>	
<p>GRSG-GEN-DC-002-Desired Condition</p> <p>Anthropogenic disturbance is focused in non-habitat areas outside of priority and general habitat management areas and sagebrush focal areas². 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.</p>	<p>GRSG-GEN-DC-002-Desired Condition</p> <p>Anthropogenic disturbance is focused in non-habitat areas outside of priority and general habitat management areas.</p> <p>Disturbance in general habitat management areas is limited, and there is little to no disturbance in priority habitat management areas except for valid existing rights and authorized uses.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-GEN-DC-003-Desired Condition</p> <p>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</p>	<p>GRSG-GEN-DC-003-Desired Condition</p> <p>At the landscape scale, 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</p>	<p>Modifying Desired Conditions</p>

No Action Alternative (Nevada)	Proposed Action (Nevada)	Issue/Clarification
<p>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 are in Tables 1a and 1b*.</p>	<p>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. When and where breeding and nesting habitat overlaps with other seasonal habitats, the desired conditions are those for breeding and nesting habitat.</p>	
	<p>GRSG-GEN-MA-004-Management Approach</p> <p>Seasonal use periods for greater sage-grouse on the Humboldt-Toiyabe National Forest are in Appendix D, Table D-1. Seasonal habitat preferences for use during habitat assessment are in Appendix D, Table D-3.</p>	<p>Modifying Desired Conditions</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-GEN-ST-004-Standard</p> <p>In priority habitat management areas and sagebrush focal areas, do not issue new discretionary written authorizations unless all existing discrete anthropogenic disturbances cover less than 3% of the total greater sage-grouse habitat within the Biologically Significant Unit and the proposed project area, regardless of ownership, and the new use will not cause exceedance of the 3% cap. Discretionary activities that might result in disturbance above 3% at the Biologically Significant Unit and proposed project area would be prohibited unless approved by the forest supervisor with concurrence from the regional forester after review of new or site- specific information that indicates the project would result in a net conservation gain at the Biologically Significant Unit and proposed project area scale. Within existing designated utility corridors, the 3% disturbance cap may be exceeded at the project scale if the site specific NEPA analysis indicates that a net conservation gain to the species will be achieved. This exception is limited to projects that fulfill the use</p>	<p>GRSG-GEN-ST-005-Standard</p> <p>In priority habitat management areas, do not issue new discretionary written authorizations unless all existing discrete anthropogenic disturbances cover less than 3% of the total greater sage-grouse habitat within the Biologically Significant Unit and the proposed project area, regardless of ownership, and the new use will not cause exceedance of the 3% cap. Discretionary activities that might result in disturbance above 3% at the Biologically Significant Unit and proposed project area would be prohibited unless approved by the forest supervisor with concurrence from the regional forester after review of new or site- specific information that indicates the project would result in a net conservation gain at the Biologically Significant Unit and proposed project area scale. Within existing designated utility corridors, the 3% disturbance cap may be exceeded at the project scale if the site specific NEPA analysis indicates that a net conservation gain to the species will be achieved. This exception is limited to projects that fulfill the use for which the corridors were</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>

No Action Alternative (Nevada)	Proposed Action (Nevada)	Issue/Clarification
for which the corridors were designated (e.g., transmission lines, pipelines) and the designated width of a corridor will not be exceeded as a result of any project co-location. Consider the likelihood of surface disturbing activities as a result of development of valid existing rights when authorizing new projects in priority habitat management areas.	designated (e.g., transmission lines, pipelines) and the designated width of a corridor will not be exceeded as a result of any project co-location.	
	GRSG-GEN-MA-006-Management Approach Consider the likelihood of surface disturbing activities as a result of development of valid existing rights when authorizing new projects in priority habitat management areas.	Consistency with 2012 Planning Rule
Nothing in 2015 Plan	GRSG-GEN-MA-007-Management Approach The Forest Service will conduct a NEPA sufficiency review (FSH 1909.15, Section 18.1) to update the habitat management area maps as new data (e.g., additional greater sage-grouse telemetry data, improved vegetation community data) are incorporated into the model described in “Spatially Explicit Modelling of Greater Sage-Grouse Habitat in Nevada and Northeastern California” (Coates et al. 2014, 2016, as adopted by the State of Nevada in December 2015). If the review indicates no new effects, the maps would be adopted as an administrative change to plan content. If the review indicates potential effects not previously disclosed, the appropriate NEPA and forest planning process will be followed before updating the map.	Habitat Management Areas Designations
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	GRSG-GEN-ST-008-Standard In priority and general habitat management 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	Elimination of Sagebrush Focal Areas Adjustment of Compensatory Mitigation Frameworks

No Action Alternative (Nevada)	Proposed Action (Nevada)	Issue/Clarification
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 (Appendix B).	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 (Appendix D).	
	GRSG-GEN-MA-009-Management Approach The State of Nevada’s Habitat Quantification Tool, or other standardized method, will be used to quantify the residual impacts from project activities and any pursuant compensatory mitigation projects.	Adjustment of Compensatory Mitigation Frameworks Consistency with 2012 Planning Rule
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-ST-010-Standard Do not authorize new surface disturbing and disruptive activities that create noise at 10dB above ambient measured at the perimeter of an active or pending lek during lekking (Table D-1) from 6 pm to 9 am. Do not include noise resulting from human activities that have been authorized and initiated within the 10 years since the issuance of the 2015 ROD (2005) in the ambient baseline measurement.	Clarification
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-011-Guideline During breeding and nesting seasonal use period (Table D-1), surface disturbing and disruptive activities should be avoided to minimize impacts to breeding and nesting birds.	Clarification
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	GRSG-GEN-MA-012-Management Approach In priority and general habitat management areas, conduct surveys during the breeding season (Table D-1) during pre-planning operations. Use protocols such as those established by State Fish and Wildlife agencies. The surveys should encompass all	Elimination of Sagebrush Focal Areas Consistency with 2012 Planning Rule

No Action Alternative (Nevada)	Proposed Action (Nevada)	Issue/Clarification
encompass all suitable greater sage-grouse habitats within 4 miles of the proposed activities.	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 in Tables 1a and 1b.	GRSG-GEN-GL-009-Guideline Delete	Incorporated into GRSG-GEN-DC-001-Desired Condition
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.	GRSG-GEN-GL-013-Guideline Development of tall structures within 3.0 miles from active or pending 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.	Clarification
Adaptive Management		
GRSG-AM-ST-011-Standard If a hard trigger is identified based on either population monitoring or habitat monitoring, immediate action is necessary to stop a severe deviation from GRSG conservation objectives. The hard trigger responses are identified in Tables 1 and 2 of the Adaptive Management (Appendix C) for both priority and general management areas.	GRSG-AM-MA-014-Management Approach Hard triggers (signals) represent a threshold that indicates that immediate action needs be considered to stop or reverse a severe deviation from GRSG conservation goals and objectives . The process for evaluating and responding to hard triggers is documented in Appendix D.	Adaptive Management Review Process Consistency with 2012 Planning Rule
GRSG-AM-ST-012-Standard If a soft trigger is identified based on either population monitoring or habitat monitoring, apply more conservative or restrictive implementation measures (e.g., extending seasonal restrictions for seasonal surface disturbing activities, modifying seasons of use for livestock grazing, and applying additional	GRSG-AM-MA-015-Management Approach Soft triggers represent an intermediate threshold that indicates that management changes should be considered at the project or implementation level to address GRSG population and/or habitat declines. If a soft trigger is reached, consider additional implementation level management responses to address the known or probable causes of the decline in GRSG habitat or	Adaptive Management Review Process Consistency with 2012 Planning Rule

No Action Alternative (Nevada)	Proposed Action (Nevada)	Issue/Clarification
restrictions on discretionary activities) for the specific causal factor in the decline of populations and/or habitats, with consideration of local knowledge and conditions. (Appendix C)	populations with consideration of local knowledge and conditions, as documented in Appendix D.	
Lands and Realty		
Special Use Authorizations		
<p>GRSG-LR-SUA-O-013-Objective</p> <p>In nesting habitats, retrofit existing tall structures (e.g., power poles, communication tower sites) with perch deterrents or other anti-perching devices within 2 years of signing the ROD.</p>	<p>GRSG-LR-SUA-O-013-Objective</p> <p>Delete</p>	
<p>GRSG-LR-SUA-ST-014-Standard</p> <p>In priority habitat management areas and sagebrush focal areas, restrict issuance of new lands special use authorizations for infrastructure, such as high- voltage transmission lines, major pipelines, distribution lines, and communication tower sites. Exceptions may include co-location and must be limited (e.g., safety needs) and based on rationale (e.g., monitoring, modeling, or best available science) that explicitly demonstrates that adverse impacts to greater sage-grouse will be avoided by the exception. If co-location of new infrastructure cannot be accomplished, locate it adjacent to existing infrastructure, roads, or already disturbed areas and limit disturbance to the smallest footprint or where it best limits impacts to greater sage-grouse or their habitat. Existing authorized uses will continue to be recognized.</p>	<p>GRSG-LR-SUA-ST-016-Standard</p> <p>In priority habitat management areas do not allow new lands special use authorizations for infrastructure, such as high- voltage transmission lines, major pipelines, distribution lines, and communication tower sites. Exceptions may be made if:</p> <ol style="list-style-type: none"> i. The location of the proposed authorization is determined to be unsuitable habitat or non-habitat; lacks the ecological potential to become marginal or suitable habitat; and would not result in direct, indirect, or cumulative impacts on greater sage-grouse and its habitat. ii. Impacts from the proposed action could be offset through use of the mitigation hierarchy (avoid, minimize, mitigate) to achieve a net conservation gain and demonstrate that the individual and cumulative impacts of the project would not result in habitat fragmentation or other impacts that would cause greater sage-grouse populations to decline. iii. The proposed action would be authorized to address public health and safety concerns, specifically as they relate to local, state, and national priorities. 	<p>Adjustment of Compensatory Mitigation Frameworks</p>

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No Action Alternative (Nevada)	Proposed Action (Nevada)	Issue/Clarification
	<ul style="list-style-type: none"> iv. Renewals or re-authorizations of existing infrastructure in previously disturbed sites or expansions of existing infrastructure that have <i>de minimis</i> impacts or do not result in direct, indirect, or cumulative impacts on Greater Sage-Grouse and its habitat. v. The proposed action would be determined a routine administrative function conducted by State or local governments, including prior existing uses, authorized uses, valid existing rights and existing infrastructure (i.e., rights-of-way for roads) that serve such a public purpose. 	
<p>GRSG-LR-SUA-ST-015-Standard</p> <p>In general habitat management areas, new lands special use authorizations may be issued for infrastructure, such as high-voltage transmission lines, major pipelines, distribution lines, and communication tower sites, if they can be located within existing designated corridors or rights-of-way and the authorization includes stipulations to protect greater sage-grouse and their habitats. Existing authorized uses will continue to be recognized.</p>	<p>GRSG-LR-SUA-ST-017-Standard</p> <p>In general habitat management areas, new lands special use authorizations may be issued for infrastructure, such as high-voltage transmission lines, major pipelines, distribution lines, and communication tower sites, <u>only</u> if they can be located within existing designated corridors or rights-of-way and the authorization includes stipulations to protect greater sage-grouse and their habitats. Mitigate residual impacts according to GRSG-GEN-ST-005-Standard. Existing authorized uses will continue to be recognized.</p>	<p>Adjustment of Compensatory Mitigation Frameworks</p>
<p>GRSG-LR-SUA-ST-016-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, do not authorize temporary lands special uses (i.e., facilities or activities) that result in loss of habitat or would have long-term (i.e., greater than 5 years) negative impact on greater sage-grouse or their habitats.</p>	<p>GRSG-LR-SUA-ST-018-Standard</p> <p>In priority habitat and general management areas, do not authorize temporary lands special uses (i.e., facilities or activities) that result in loss of habitat or would have long-term (i.e., greater than 5 years) negative impact on greater sage-grouse or their habitats.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-LR-SUA-ST-017-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, require protective stipulations (e.g., noise, tall structure, guy wire removal, perch deterrent installation) when</p>	<p>GRSG-LR-SUA-ST-019-Standard</p> <p>In priority and general habitat management areas, require protective stipulations (e.g., noise, tall structure, guy wire removal, perch deterrent installation) when issuing new</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Adjustment of Compensatory</p>

No Action Alternative (Nevada)	Proposed Action (Nevada)	Issue/Clarification
issuing new authorizations or during renewal, amendment, or reissuance of existing authorizations that authorize infrastructure (e.g., high- voltage transmission lines, major pipelines, roads, distribution lines, and communication tower sites).	authorizations or during renewal, amendment, or reissuance of existing authorizations that authorize infrastructure (e.g., high-voltage transmission lines, major pipelines, roads, distribution lines, and communication tower sites). Refer to standards GRSG-GEN-ST-004 and GRSG-GEN-ST-005 for disturbance caps and compensatory mitigation for residual impacts.	Mitigation Frameworks
GRSG-LR-SUA-ST-018-Standard In priority and general habitat management areas and sagebrush focal areas , locate upgrades to existing transmission lines within the existing designated corridors or right-of-way unless an alternate route would benefit greater sage-grouse or their habitats.	GRSG-LR-SUA-ST-020-Standard In priority and general habitat management areas, locate upgrades to existing transmission lines within the existing designated corridors or right-of-way unless an alternate route would benefit greater sage- grouse or their habitats.	Elimination of Sagebrush Focal Areas
GRSG-LR-SUA-ST-019-Standard In priority and general habitat management areas and sagebrush focal areas , when a lands special use authorization is revoked or terminated terminated , and no future use is contemplated, require the authorization holder to remove overhead lines and other surface infrastructure in compliance with 36 CFR 251.60(i).	GRSG-LR-SUA-ST-021-Standard In priority and general habitat management areas, when a lands special use authorization is revoked or terminated terminated , and no future use is contemplated, require the authorization holder to remove overhead lines and other surface infrastructure in compliance with 36 CFR 251.60(i).	Elimination of Sagebrush Focal Areas
GRSG-LR-SUA-GL-020-Guideline In priority habitat management areas and sagebrush focal areas , outside of existing designated corridors and rights-of-way, new transmission lines and pipelines should be buried to limit disturbance to the smallest footprint unless explicit rationale is provided that the biological impacts to greater sage-grouse and its habitat are being avoided. If new transmission lines and pipelines are not buried, locate them adjacent to existing transmission lines and pipelines.	GRSG-LR-SUA-ST-022-Standard In priority habitat management areas, outside of existing designated corridors and rights-of-way, new transmission lines and pipelines must be buried to limit disturbance to the smallest footprint unless explicit rationale is provided that the biological impacts to greater sage-grouse and its habitat are being avoided. If new transmission lines and pipelines are not buried, locate them adjacent to existing transmission lines and pipelines.	Elimination of Sagebrush Focal Areas Consistency with 2012 Planning Rule

No Action Alternative (Nevada)	Proposed Action (Nevada)	Issue/Clarification
<p>GRSG-LR-SUA-GL-021-Guideline</p> <p>The best available science and monitoring should be used to inform infrastructure siting in GRSG habitat.</p>	<p>GRSG-LR-SUA-MA-023-Management Approach</p> <p>The best available science and monitoring should be used to inform infrastructure siting in GRSG habitat.</p>	<p>Consistency with 2012 Planning Rule</p>
Land Ownership Adjustments		
<p>GRSG-LR-LOA-ST-022-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, do not approve landownership adjustments, including land exchanges, unless the action results in a net conservation gain to greater sage-grouse or it will not directly or indirectly adversely impact greater sage-grouse conservation.</p>	<p>GRSG-LR-LOA-ST-024-Standard</p> <p>In priority and general habitat management areas, do not approve landownership adjustments, including land exchanges, unless the action results in a net conservation gain to greater sage-grouse or it will not directly or indirectly adversely impact greater sage-grouse conservation.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-LR-LOA-GL-023-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas with minority Federal ownership, consider landownership adjustments to achieve a landownership pattern (e.g., consolidation, reducing fragmentation) that supports improved greater sage-grouse population trends and habitats.</p>	<p>GRSG-LR-LOA-MA-025-Management Approach</p> <p>In priority and general habitat management areas with minority Federal ownership, consider landownership adjustments to achieve a landownership pattern (e.g., consolidation, reducing fragmentation) that supports improved greater sage-grouse population trends and habitats.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>
Land Withdrawal		
<p>GRSG-LR-LW-GL-024-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, use land withdrawals as a tool, where appropriate, to withhold an area from activities that will be detrimental to greater sage-grouse or their habitats.</p>	<p>GRSG-LR-LW-GL-024-Guideline</p> <p>Delete</p>	<p>Cancellation of mineral withdrawal</p>
Wind and Solar		
<p>GRSG-WS-ST-025-Standard</p>	<p>GRSG-WS-ST-026-Standard</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Nevada)	Proposed Action (Nevada)	Issue/Clarification
In priority and general habitat management areas and sagebrush focal areas , do not authorize new solar utility-scale and/or commercial energy development except for on-site power generation associated with existing industrial infrastructure (e.g., mine site).	In priority and general habitat management areas, do not authorize new solar utility-scale and/or commercial energy development except for on-site power generation associated with existing industrial infrastructure (e.g., mine site).	
GRSG-WS-ST-026-Standard In priority habitat management areas and sagebrush focal areas , do not authorize new wind energy utility-scale and/or commercial development.	GRSG-WS-ST-027-Standard In priority habitat management areas, do not authorize new wind energy utility-scale and/or commercial development.	Elimination of Sagebrush Focal Areas
GRSG-WS-GL-027- Guideline In general habitat management areas, new wind energy utility-scale and/or commercial development should be restricted. If development cannot be restricted due to existing authorized use, adjacent developments, or split estate issues, then ensure that stipulations are incorporated into the authorization to protect greater sage-grouse and their habitats.	GRSG-WS-GL-028- Guideline In general habitat management areas, new wind energy utility-scale and/or commercial development should be restricted. If development cannot be restricted due to existing authorized use, adjacent developments, or split estate issues, then ensure that stipulations are incorporated into the authorization to protect greater sage-grouse and their habitats. Refer to standards GRSG-GEN-ST-004 and GRSG-GEN-ST-005 for disturbance caps and compensatory mitigation for residual impacts.	Adjustment of Compensatory Mitigation Frameworks
Greater Sage-grouse Habitat		
GRSG-GRSG-DC-028-Desired Condition Sagebrush vegetation communities provide contiguous habitat for greater sage grouse, which is resistant and resilient to disturbances such as fire and invasives.	GRSG-GRSG-DC-028-Desired Condition Delete	Incorporated into GRSG-GEN-DC-001-Desired Condition
Nothing in 2015 Plan	GRSG-GRSGH-DC-029-Desired Condition Invasive annual grasses are either not present or in low abundance and not increasing in sage-grouse habitat.	Treatment of Invasive Plants

No Action Alternative (Nevada)	Proposed Action (Nevada)	Issue/Clarification
<p>GRSG-GRSGH-O-029-Objective</p> <p>Every 10 years for the next 50 years, improve greater sage-grouse habitat by removing invading conifers and other undesirable species within the number of acres shown in Table 2.</p>	<p>GRSG-GRSGH-O-030-Objective</p> <p>Every 10 years for the next 50 years, improve greater sage-grouse habitat by removing invading conifers and other undesirable species within the number of acres shown in Appendix D, Table D-4.</p> <p>When authorizing vegetation management treatments in priority and general sage grouse habitat management areas, priority should be given to treatments in Phase I and early Phase II pinyon and/or juniper stands in areas with a sagebrush component.</p> <p>Treatments in pinyon and/or juniper stands in late Phase II or Phase III condition should only be authorized to create movement corridors, connect habitats, or reduce the potential for catastrophic fire.</p>	<p>Clarification</p>
<p>GRSG-GRSGH-ST-030-Standard</p> <p>Design habitat restoration projects to move towards desired conditions (Table 1a or 1b).</p>	<p>GRSG-GRSGH-ST-030-Standard</p> <p>Delete</p>	<p>Required by 2012 Planning Rule</p>
<p>GRSG-GRSGH-GL-031-Guideline</p> <p>When removing conifers that are encroaching into greater sage-grouse habitat, avoid persistent woodland (i.e., old growth relative to the site or more than 100 years old).</p>	<p>GRSG-GRSGH-GL-031-Guideline</p> <p>No change</p>	
<p>GRSG-GRSGH-GL-032-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, actions and authorizations should include design features to limit the spread and effect of undesirable non-native plant species.</p>	<p>GRSG-GRSGH-GL-032-Guideline</p> <p>In priority and general habitat management areas, actions and authorizations should include design features to limit the spread and effect of undesirable non-native plant species.</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Nevada)	Proposed Action (Nevada)	Issue/Clarification
<p>GRSG-GRSGH-GL-033-Guideline</p> <p>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 (Table 1a and Table 1b).</p>	<p>GRSG-GRSGH-MA-033-Management Approach</p> <p>To facilitate safe and effective fire management actions, in priority and general habitat management 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) 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-GEN-DC-001-Desired Condition).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-GRSGH-GL-034-Guideline</p> <p>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 habitat conditions (Table 1a or 1b).</p>	<p>GRSG-GRSGH-GL-034-Guideline</p> <p>In priority and general habitat management areas, native plant species should be used, when possible, to maintain, restore, or enhance desired habitat conditions (GRSG-GEN-DC-001-Desired Condition).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p>
<p>GRSG-GRSGH-GL-035-Guideline</p> <p>In priority habitat management areas and sagebrush focal areas, vegetation treatment projects should only be conducted if they maintain, restore, or enhance desired habitat conditions (Table 1a or 1b).</p>	<p>GRSG-GRSGH-GL-035-Guideline</p> <p>In priority habitat management areas, vegetation treatment projects should only be conducted if they maintain, restore, or enhance desired habitat conditions (GRSG-GEN-DC-003-Desired Condition).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p>
<p>GRSG-GRSGH-GL-036-Guideline</p> <p>Vegetation treatment activities in lentic riparian areas (i.e., seeps, springs, and wet meadows) in priority and general habitat management areas and sagebrush focal areas, should only be authorized if they maintain or improve conditions to meet greater sage- grouse desired conditions (Table 1a or 1b).</p>	<p>GRSG-GRSGH-GL-036-Guideline</p> <p>Vegetation treatment activities in lentic riparian areas (i.e., seeps, springs, and wet meadows) in priority and general habitat management areas, should only be authorized if they maintain or improve conditions to meet greater sage- grouse desired conditions (GRSG-GEN-DC-003-Desired Condition).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p>

No Action Alternative (Nevada)	Proposed Action (Nevada)	Issue/Clarification
<p>GRSG-GRSGH-GL-037-Guideline</p> <p>When authorizing vegetation management treatments in priority and general sage grouse habitat management areas and sagebrush focal areas, priority should be given to treatments in Phase I and early Phase II pinyon and/or juniper stands in areas with a sagebrush component. Pinyon-Juniper treatments in Phase I and Phase II condition should be designed to maintain or enhance sagebrush in the treatment areas. Treatments in late Phase II or Phase III condition should only be authorized to create movement corridors, connect habitats, or reduce the potential for catastrophic fire.</p>	<p>GRSG-GRSGH-GL-037-Guideline</p> <p>Delete</p>	<p>Incorporated into GRSG-GRSGH-O-030-Objective</p>
<p>GRSG-GRSGH-GL-038-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, treatment methodologies should be based on the treatment areas' resistance to annual invasive grasses and the resilience of native vegetation to respond after disturbance. Use mechanical treatments (i.e., do not use fire) in areas with relatively low resistance to annuals and treat areas in early- to mid-phase pinyon-juniper expansion.</p>	<p>GRSG-GRSGH-MA-037-Management Approach</p> <p>In priority and general habitat management areas, treatment methodologies should be based on the treatment areas' resistance to annual invasive grasses and the resilience of native vegetation to respond after disturbance.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>
	<p>GRSG-GRSGH-GL-038-Guideline</p> <p><u>Use mechanical treatments (i.e., do not use fire) in areas with relatively low resistance to annuals and treat areas in early- to mid-phase pinyon-juniper expansion.</u></p>	<p>Treatment of Invasive Species</p> <p>Consistency with 2012 Planning Rule</p>
<p>Nothing in 2015 Plan</p>	<p>GRSG-GRSGH-MA-039-Management Approach</p> <p><u>Prioritize treatments for established invasive plant populations that have the potential to impact sage-grouse habitat in priority</u></p>	<p>Treatment of Invasive Species</p>

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	habitat management areas. Early detection and rapid response treatments remain the focus.	
Nothing in 2015 Plan	GRSG-GRSGH-MA-040-Management Approach Within 2 years of the Record of Decision, develop a map of areas prone to annual grass invasion within sage-grouse habitat using resistance and resilience concepts for each National Forest and Grassland.	Treatment of Invasive Species
Nothing in 2015 Plan	GRSG-GRSGH-MA-041-Management Approach Post wildfire recovery treatments should consider resistance and resilience, ecological site descriptions, and state and transition models in designing vegetation treatments following wildfire.	Treatment of Invasive Species
Livestock Grazing		
GRSG-LG-DC-039-Desired Condition In priority and general habitat management areas, sagebrush focal areas, and within lek buffers, livestock grazing is managed to maintain or move towards desired conditions (Tables 1a and 1b).	GRSG-LG-DC-039-Desired Condition Delete	Required by 2012 Planning Rule
Nothing in 2015 Plan	GRSG-LG-DC-042-Desired Condition Grazing management contributes to proper functioning condition in riparian areas and mesic meadows in priority, general, and other habitat management areas.	Changing Livestock Grazing Guidelines
GRSG-LG-ST-040-Standard In priority and general management areas and sagebrush focal areas, do not approve construction of water developments unless beneficial to greater sage-grouse habitat and consistent with State approved water rights.	GRSG-LG-ST-043-Standard In priority and general habitat management areas, do not approve construction of water developments if the development would cause adverse effects to greater sage-grouse habitat.	Changing Livestock Grazing Guidelines

No Action Alternative (Nevada)	Proposed Action (Nevada)	Issue/Clarification
<p>GRSG-LG-ST-041-Standard</p> <p>When vertical embankments in water troughs or open water facilities pose a drowning risk to birds, wildlife escape ramps should be installed and maintained.</p>	<p>GRSG-LG-ST-044-Standard</p> <p>No change</p>	
<p>GRSG-LG-GL-042-Guideline</p> <p>Grazing guidelines should be applied in each of the seasonal habitats in Table 3. If values in Table 3 guidelines cannot be achieved based upon a site-specific analysis using Ecological Site Descriptions, long-term ecological site potential analysis, or other similar analysis, adjust grazing management to move towards-desired<u>towards desired</u> habitat conditions in Table 1a or 1b consistent with the ecological site potential. Do not use drought and degraded habitat condition to adjust values. Grazing guidelines in Table 3 would not apply to isolated parcels of National Forest System lands that have less than 200 acres of greater sage-grouse habitat.</p>	<p>GRSG-LG-GL-045-Guideline</p> <p><u>In greater sage-grouse habitat, if livestock grazing is limiting achievement of seasonal desired conditions, adjust livestock management, as appropriate, to address greater sage-grouse habitat requirements.</u></p>	<p>Changing Livestock Grazing Guidelines</p>
	<p>GRSG-LG-GL-046-Guideline</p> <p><u>In priority, general, and other habitat management areas, grazing utilization in riparian areas and mesic meadows should be managed to promote cover, diversity, and health of important/key plant species to support sage-grouse during brood-rearing season; and/or during the growing season, manage grazing in riparian areas and mesic meadows to allow recovery of riparian vegetation (e.g. using riparian pastures, water developments, stockmanship, rotational grazing).</u></p>	<p>Changing Livestock Grazing Guidelines</p>
<p>Nothing in 2015 Plan</p>	<p>GRSG-LG-MA-047-Management Approach</p> <p><u>Conduct greater sage-grouse habitat assessments in allotments. If the assessment identifies the habitat is in less than Suitable</u></p>	<p>Changing Livestock Grazing Guidelines</p> <p>Consistency with 2012 Planning Rule</p>

No Action Alternative (Nevada)	Proposed Action (Nevada)	Issue/Clarification
	Condition, determine factors limiting achievement of the Suitable Condition.	
<p>GRSG-LG-GL-043-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, when grazing permits are waived without preference or obtained through permit cancellation, consider the agency's full range of administrative authorities for future allotment management, including, but not limited to allotment closure, vacancy status for resource protection, establishment of forage reserve, re-stocking, or livestock conversion as management options to maintain or achieve desired habitat conditions (Table 1).</p>	<p>GRSG-LG-GL-043-Guideline</p> <p>Delete</p>	<p>Removed- covered in existing Forest Service policy and direction</p>
<p>GRSG-LG-GL-044-Guideline</p> <p>Bedding sheep and placing camps within 2.0 miles from the perimeter of a lek during lekking (March 1 to May 15) should be restricted.</p>	<p>GRSG-LG-GL-048-Guideline</p> <p>Bedding sheep and placing camps within 2.0 miles from an active or pending lek during lekking (Table D-1) should be restricted to prevent disturbance to breeding and nesting GRSG.</p>	<p>Clarification</p>
<p>GRSG-LG-GL-045-Guideline</p> <p>During the breeding and nesting season (March 1 to June 30), trailing livestock through breeding and nesting habitat should be minimized. Specific routes should be identified, existing trails should be used, and stopovers on active leks should be avoided.</p>	<p>GRSG-LG-GL-049-Guideline</p> <p>During the breeding and nesting season (Table D-1), trailing livestock through breeding and nesting habitat should be avoided to the extent practicable to prevent disturbance to breeding and nesting GRSG. Specific routes should be identified, existing trails should be used, and stopovers on active leks are not allowed.</p>	<p>Clarification</p>
<p>GRSG-LG-GL-046-Guideline</p> <p>Fences should not be constructed or reconstructed within 1.2 miles from the perimeter of occupied leks, unless the collision</p>	<p>GRSG-LG-GL-050-Guideline</p> <p>Fences should not be constructed or reconstructed within 1.2 miles from the perimeter of active or pending leks, unless the</p>	<p>Clarification</p>

No Action Alternative (Nevada)	Proposed Action (Nevada)	Issue/Clarification
risk can be mitigated through design features or markings (e.g., mark, laydown fences, or other design features).	collision risk can be mitigated through design features or markings (e.g., mark, laydown fences, or other design features).	
GRSG-LG-GL-047-Guideline New permanent livestock facilities (e.g., windmills, water tanks, corrals) should not be constructed within 1.2 miles from the perimeter of occupied leks.	GRSG-LG-GL-051-Guideline To prevent predation from perching raptors , new permanent livestock facilities (e.g., windmills, water tanks, corrals, etc.) should not be constructed within 1.2 miles from the perimeter <u>of active or pending</u> leks.	Clarification
Fire Management		
GRSG-FM-DC-048-Desired Condition In priority and general habitat management areas and sagebrush focal areas , protect sagebrush sage grouse habitat from loss due to unwanted wildfires or damages resulting from management related activities while using agency risk management protocols to manage for fire fighter and public safety and other high priority values. In all fire response, first priority is the management of risk to firefighters and the public. Sage grouse habitat will be prioritized as a high value resource along with other high value resources and assets.	GRSG-FM-MA-052-Management Approach In priority and general habitat management areas, protect sagebrush sage grouse habitat from loss due to unwanted wildfires or damages resulting from management related activities while using agency risk management protocols to manage for fire fighter and public safety and other high priority values. In all fire response, first priority is the management of risk to firefighters and the public. Sage grouse habitat will be prioritized as a high value resource along with other high value resources and assets.	Elimination of Sagebrush Focal Areas Consistency with 2012 Planning Rule
GRSG-FM-ST-049-Standard In priority and general habitat management areas and sagebrush focal areas , do not use prescribed fire in 12-inch or less precipitation zones unless necessary to facilitate restoration of greater sage-grouse habitat consistent with desired conditions in Table 1a or 1b or for pile burning.	GRSG-FM-ST-053-Standard In priority and general habitat management areas, do not use prescribed fire in 12-inch or less precipitation zones unless necessary to facilitate restoration of greater sage-grouse habitat consistent with desired conditions (GRSG-GEN-DC-003-Desired Condition) or for pile burning.	Elimination of Sagebrush Focal Areas Clarification
GRSG-FM-ST-050-Standard In priority and general habitat management areas and sagebrush focal areas , if it is necessary to use prescribed fire for restoration of greater sage-grouse habitat consistent with desired conditions in Tables 1a and 1b , the associated NEPA analysis must identify	GRSG-FM-MA-054-Management Approach In priority and general habitat management areas, if it is necessary to use prescribed fire for restoration of greater sage-grouse habitat consistent with desired conditions (GRSG-GEN-DC-003-Desired Condition), the associated NEPA analysis must	Elimination of Sagebrush Focal Areas Clarification Consistency with 2012

No Action Alternative (Nevada)	Proposed Action (Nevada)	Issue/Clarification
how the project would move towards greater sage-grouse desired conditions, why alternative techniques were not selected, and how potential threats to greater sage-grouse habitat would be minimized.	identify how the project would move towards greater sage-grouse desired conditions, why alternative techniques were not selected, and how potential threats to greater sage-grouse habitat would be minimized.	Planning Rule
<p>GRSG-FM-GL-051-Guideline</p> <p>In wintering or breeding and nesting habitat, sagebrush removal or manipulation, including prescribed fire, should be restricted unless the removal strategically reduces the potential impacts from wildfire or supports the attainment of desired conditions.</p>	<p>GRSG-FM-GL-055-Guideline</p> <p>In order to maintain sagebrush in wintering or breeding and nesting habitat, sagebrush removal or manipulation, including prescribed fire, should be restricted unless the removal strategically reduces the potential impacts from wildfire or supports the attainment of desired conditions (GRSG-GEN-DC-003-Desired Condition).</p>	Clarification
<p>GRSG-FM-GL-052-Guideline</p> <p>In planned fuels management activities or part of an overall vegetative management strategy to mitigate the impacts of wildfire in priority and general habitat management areas and sagebrush focal areas, when reseeding in fuel breaks, fire resistant native plant species should be used if available, or consider using fire resistance non-native species, if analysis and/or best available science demonstrates that non-native plants will not degrade greater sage-grouse habitat in the long-term.</p>	<p>GRSG-FM-MA-056-Management Approach</p> <p>In planned fuels management activities or part of an overall vegetative management strategy to mitigate the impacts of wildfire in priority and general habitat management areas, when reseeding in fuel breaks, fire resistant native plant species should be used if available, or consider using fire resistant non-native species, if analysis and/or best available science demonstrates that non-native plants will not degrade greater sage-grouse habitat in the long-term and will prevent fire spread into GRSG habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-FM-GL-053-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, fuel treatments should be designed to maintain, restore, or enhance greater sage-grouse habitat.</p>	<p>GRSG-FM-GL-053-Guideline</p> <p>Delete</p>	Required by 2012 Planning Rule
<p>GRSG-FM-GL-054-Guideline</p> <p>Locating temporary wildfire suppression facilities (e.g., incident command posts, spike camps, helibases, mobile retardant plants)</p>	<p>GRSG-FM-GL-057-Guideline</p> <p>Locate wildfire suppression facilities (i.e., base camps, spike camps, drop points, staging areas, helibases, etc.) in areas where</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p>

No Action Alternative (Nevada)	Proposed Action (Nevada)	Issue/Clarification
<p>in priority and general habitat management areas and sagebrush focal areas should be avoided. When needed to best provide for firefighter or public safety or to minimize fire size in sage grouse habitat, impacts to greater sage grouse should be considered and removal of sagebrush should be limited.</p>	<p>physical disturbance to GRSG habitat can be minimized. These include disturbed areas, grasslands, near roads/trails, or in other areas where there is existing disturbance or minimal sagebrush cover.</p>	
<p>GRSG-FM-GL-055-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, cross-country vehicle travel during fire operations should be restricted. When needed to best provide for firefighter or public safety or to minimize fire size in sage grouse habitat, impacts to sage grouse should be considered and removal of sagebrush should be limited.</p>	<p>GRSG-FM-GL-058-Guideline</p> <p>In priority and general habitat management areas across-country vehicle travel during fire operations should be restricted. When needed to best provide for firefighter or public safety or to minimize fire size in sage grouse habitat, impacts to sage grouse should be considered and removal of sagebrush should be limited to the extent practicable.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p>
<p>GRSG-FM-GL-056-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, use fire management tactics and strategies that seek to minimize loss of existing sagebrush habitat. The safest and most practical means to do so will be determined by fireline leadership and incident commanders.</p>	<p>GRSG-FM-MA-059-Management Approach</p> <p>In priority and general habitat management areas, use fire management tactics and strategies that seek to minimize loss of existing sagebrush habitat. The safest and most practical means to do so will be determined by fireline leadership and incident commanders.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-FM-GL-057-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, prescribed fire prescriptions should minimize undesirable effects on vegetation and/or soils (e.g., minimize mortality of desirable perennial plant species and reduce risk of hydrophobicity).</p>	<p>GRSG-FM-MA-060-Management Approach</p> <p>In priority and general habitat management areas prescribed fire prescriptions should result in movement toward desiredtoward desired conditions for GRSG and not result in undesirable effects on vegetation and/or soils (e.g., minimize mortality of desirable perennial plant species and reduce risk of hydrophobicity).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-FM-GL-058-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, roads and natural fuel breaks should be incorporated</p>	<p>GRSG-FM-MA-061-Management Approach</p> <p>In priority and general habitat management areas, roads and natural fuel breaks should be incorporated into planned fuel</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>

No Action Alternative (Nevada)	Proposed Action (Nevada)	Issue/Clarification
into planned fuel break design to improve effectiveness and minimize loss of existing sagebrush habitat.	break design to improve effectiveness and minimize loss of existing sagebrush habitat.	
<p>GRSG-FM-GL-059-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, where practical and available, all fire-associated vehicles and equipment should be inspected and cleaned using standardized protocols and procedures and approved vehicle/equipment decontamination systems before entering and exiting the area beyond initial attack activities to minimize the introduction of invasive annual grasses and other invasive plant species and noxious weeds.</p>	<p>GRSG-FM-ST-062-Standard</p> <p>In priority and general habitat management areas all fire-associated vehicles and equipment are to be inspected and cleaned using standardized protocols and procedures and approved vehicle/equipment decontamination systems before entering and exiting the area beyond initial attack activities to minimize the introduction of invasive annual grasses and other invasive plant species and noxious weeds.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p> <p>Treatment of Invasive Plants</p>
<p>GRSG-FM-GL-060-Guideline</p> <p>Unit-specific greater sage-grouse fire management related information should be added to wildland fire decision support systems (currently, the Wildland Fire Decision Support System), local operating plans and resource advisor plans to be used during fire situation to inform management decision, aid in development of strategies and tactics and for the prioritization of resources.</p>	<p>GRSG-FM-MA-063-Management Approach</p> <p>Unit-specific greater sage-grouse fire management related information should be added to wildland fire decision support systems (currently, the Wildland Fire Decision Support System), local operating plans and resource advisor plans to be used during fire situation to inform management decision, aid in development of strategies and tactics and for the prioritization of resources.</p>	<p>Consistency with 2012 Planning Rule</p>
<p>GRSG-FM-GL-061-Guideline</p> <p>Localized maps of priority and general habitat management areas and sagebrush focal areas should be made available to fireline, dispatch and fire support personnel.</p>	<p>GRSG-FM-MA-064-Management Approach</p> <p>Localized maps of priority and general habitat management areas should be made available to fireline, dispatch and fire support personnel.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-FM-GL-062-Guideline</p> <p>In or near priority and general habitat management areas and sagebrush focal areas, a greater sage-grouse resource advisor should be assigned to all extended attack fires.</p>	<p>GRSG-FM-MA-065-Management Approach</p> <p>In or near priority and general habitat management areas, a greater sage-grouse resource advisor should be assigned to all extended attack fires.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>

No Action Alternative (Nevada)	Proposed Action (Nevada)	Issue/Clarification
<p>GRSG-FM-GL-063-Guideline</p> <p>On critical fire weather days, protection of greater sage-grouse habitat should receive high consideration, along with other high values, for positioning of resources.</p>	<p>GRSG-FM-MA-066-Management Approach</p> <p>No change</p>	<p>Consistency with 2012 Planning Rule</p>
<p>GRSG-FM-GL-064-Guideline</p> <p>Line officers should be involved in setting pre-season wildfire response priorities and, prioritizing protection of priority and general habitat management areas and sagebrush focal areas, along with other high values. During periods of multiple fires or limited resource availability fire management organizational structure (local, regional, national) will prioritize fires and allocation of resources in which sage grouse habitat is a consideration along with other high values.</p>	<p>GRSG-FM-MA-067-Management Approach</p> <p>Line officers should be involved in setting pre-season wildfire response priorities and, prioritizing protection of priority and general habitat management areas, along with other high values. During periods of multiple fires or limited resource availability fire management organizational structure (local, regional, national) will prioritize fires and allocation of resources in which sage grouse habitat is a consideration along with other high values.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-FM-GL-065-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, consider using fire retardant and mechanized equipment only if it is likely to result in minimizing burned acreage, preventing the loss of other high value resources, or increasing the effectiveness of other tactical strategies. Agency administrators, or their designee, or fireline leadership should consider fire suppression effects while determining suppression strategy and tactics; the use of fire retardant and mechanized equipment may be approved by agency administrators, or their designee, or fireline leadership.</p>	<p>GRSG-FM-MA-068-Management Approach</p> <p>In priority and general habitat management areas, consider using fire retardant and mechanized equipment only if it is likely to result in minimizing burned acreage, preventing the loss of other high value resources, or increasing the effectiveness of other tactical strategies. Agency administrators, or their designee, or fireline leadership should consider fire suppression effects while determining suppression strategy and tactics; the use of fire retardant and mechanized equipment may be approved by agency administrators, or their designee, or fireline leadership.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-FM-GL-066-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, to minimize sagebrush habitat loss, consider using the full range of suppression techniques to protect unburned islands, doglegs, and other sage grouse habitat features that may exist within the perimeter of wildfires. These suppression</p>	<p>GRSG-FM-GL-069-Guideline</p> <p><u>In priority and general habitat management areas, to minimize sagebrush habitat loss, the full range of suppression techniques should be used to protect unburned islands, doglegs, and other</u></p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p>

No Action Alternative (Nevada)	Proposed Action (Nevada)	Issue/Clarification
objectives and activities should be prioritized against other wildland fire suppression activities and priorities.	greater sage-grouse habitat features that may exist within the perimeter of wildfires to retain as much GRSG habitat as possible.	
Wild Horse and Burro		
GRSG-HB-DC-067-Desired Condition In priority and general habitat management areas, wild horse and burro populations are within established appropriate management levels.	GRSG-HB-DC-070-Desired Condition No change	
GRSG-HB-ST-068-Standard In priority and general habitat management areas, consider adjusting appropriate management levels, consistent with applicable law, if greater sage-grouse management standards are not met due to degradation that can be at least partially be attributed to wild horse or burro populations.	GRSG-HB-MA-071-Management Approach In priority and general habitat management areas, consider adjusting appropriate management levels, consistent with applicable law, if greater sage-grouse management standards are not met due to degradation that can be at least partially be attributed to wild horse or burro populations.	Consistency with 2012 Planning Rule
GRSG-HB-ST-069-Standard In priority and general management areas, remove wild horses and burros outside of a wild horse and burro territory.	GRSG-HB-MA-072-Management Approach In priority and general management areas, remove wild horses and burros outside of a wild horse and burro territory consistent with FSM 2260.31.	Clarification Consistency with 2012 Planning Rule
GRSG-HB-GL-070-Guideline In priority and general habitat, herd gathering should be prioritized when wild horse and burro populations exceed the upper limit of the established appropriate management level.	GRSG-HB-MA-073-Management Approach In priority and general habitat management areas , herd gathering should be prioritized when wild horse and burro populations exceed the upper limit of the established appropriate management level.	Clarification Consistency with 2012 Planning Rule
GRSG-HB-GL-071-Guideline	GRSG-HB-GL-071-Guideline Delete	Removed- covered in existing Forest Service policy and direction

No Action Alternative (Nevada)	Proposed Action (Nevada)	Issue/Clarification
In priority and general habitat, wild horse and burro population levels should be managed at the lower limit of established appropriate management level ranges, as appropriate.		
GRSG-HB-GL-072-Guideline In priority and general habitat, consider exclusion of wild horse or burros immediately following emergency situation (e.g., fire, floods, and drought).	GRSG-HB-MA-074-Management Approach In priority and general habitat management area , consider exclusion of wild horse or burros immediately following emergency situation (e.g., fire, floods).	Clarification Consistency with 2012 Planning Rule
Recreation		
GRSG-R-DC-073-Desired Condition In priority and general habitat management areas and sagebrush focal areas, recreation activities are balanced with the ability of the land to support them, while meeting greater sage-grouse seasonal habitat desired conditions (Table 1a and 1b) and creating minimal user conflicts.	GRSG-R-DC-073-Desired Condition Delete	Required by 2012 Planning Rule
GRSG-R-ST-074-Standard In priority and general habitat management areas and sagebrush focal areas, do not authorize temporary recreation uses (i.e., facilities or activities) that result in loss of habitat or would have long-term (i.e., greater than 5 years) negative impacts on greater sage-grouse or their habitats.	GRSG-R-GL-075-Guideline In priority and general habitat management areas, do not authorize temporary recreation uses (i.e., facilities or activities) that result in loss of habitat or would have long-term (i.e., greater than 5 years) negative impacts on greater sage-grouse or their habitats.	Elimination of Sagebrush Focal Areas Consistency with 2012 Planning Rule
GRSG-R-GL-075-Guideline In priority and general habitat management areas and sagebrush focal areas, terms and conditions that protect and/or restore greater sage-grouse habitat within the permit area should be included in new recreation special use authorizations. During renewal, amendment, or reauthorization, terms and conditions	GRSG-R-MA-076-Management Approach In priority and general habitat management areas, terms and conditions that protect and/or restore greater sage-grouse habitat within the permit area should be included in new recreation special use authorizations. During renewal, amendment, or reauthorization, terms and conditions in existing	Elimination of Sagebrush Focal Areas Consistency with 2012 Planning Rule

No Action Alternative (Nevada)	Proposed Action (Nevada)	Issue/Clarification
in existing permits and operating plans should be modified to protect and/or restore greater sage-grouse habitat.	permits and operating plans should be modified to protect and/or restore greater sage-grouse habitat.	
<p>GRSG-R-GL-076-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, new recreational facilities or expansion of existing recreational facilities (e.g., roads, trails, campgrounds), including special use authorizations for facilities and activities, should not be approved unless the development results in a net conservation gain to greater sage-grouse or their habitats or the development is required for visitor safety.</p>	<p>GRSG-R-GL-077-Guideline</p> <p>In priority and general habitat management areas, new recreational facilities or expansion of existing recreational facilities (e.g., roads, trails, campgrounds), including special use authorizations for facilities and activities, should not be approved unless the development results in a net conservation gain to greater sage-grouse or their habitats or the development is required for visitor safety.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-R-GL-077-Guideline</p> <p>During breeding and nesting (March 1 to June 30), outfitter-guide activities within 0.25 mile from the perimeter of active leks should not be authorized.</p>	<p>GRSG-R-ST-078-Standard</p> <p>During breeding and nesting (Table D-1), outfitter-guide activities within 0.25 mile from active or pending leks shall not be authorized.</p>	<p>Clarification</p>
<p>Roads/Transportation</p>		
<p>GRSG-RT-DC-078-Desired Condition</p> <p>In priority and general habitat management areas and sagebrush focal areas, within the forest transportation system and on roads and trails authorized under a special use authorization, greater sage-grouse experience minimal disturbance during breeding and nesting (March 1 to June 30) and wintering (November 1 to February 28) periods.</p>	<p>GRSG-RT-DC-079-Desired Condition</p> <p>In priority and general habitat management areas, within the forest transportation system and on roads and trails authorized under a special use authorization, greater sage-grouse experience minimal disturbance and mortality.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p>
<p>GRSG-RT-ST-079-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, do not conduct or allow new road or trail construction (does not apply to realignments for resource protection) except when necessary for administrative access to</p>	<p>GRSG-RT-ST-080-Standard</p> <p>In priority and general habitat management areas, do not conduct or allow new road or trail construction (does not apply to realignments for resource protection) except when necessary for administrative access to existing and authorized uses, public</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Nevada)	Proposed Action (Nevada)	Issue/Clarification
existing and authorized uses, public safety, or to access valid existing rights. If necessary to construct new roads and trails for one of these purposes, construct them to the minimum standard, length, and number and avoid, minimize, and mitigate impacts.	safety, or to access valid existing rights. If necessary to construct new roads and trails for one of these purposes, construct them to the minimum standard, length, and number and avoid, minimize, and mitigate impacts.	
GRSG-RT-ST-080-Standard Do not construct or allow road and trail maintenance activities within 2 miles from the perimeter of active leks during lekking (March 1 to May 15) from 6 pm to 9 am.	GRSG-RT-ST-081-Standard Do not construct or allow road and trail maintenance activities within 2 miles from the perimeter of active or pending leks during lekking (Table D-1) from 6 pm to 9 am.	Clarification
GRSG-RT-ST-081-Standard In priority habitat management areas and sagebrush focal areas, do not allow public motor vehicle use on temporary energy development roads.	GRSG-RT-ST-081-Standard Delete	Redundant with Special Use Permit issuance
GRSG-RT-GL-082-Guideline In priority habitat management areas and sagebrush focal areas, new roads and road realignments should be designed and administered to reduce collisions with greater sage-grouse.	GRSG-RT-GL-082-Guideline Delete	Added to DC-078
GRSG-RT-GL-083-Guideline In priority habitat management areas and sagebrush focal areas, road construction within riparian areas and mesic meadows should be restricted. If not possible to restrict construction within riparian areas and mesic meadows, roads should be designed and constructed at right angles to ephemeral drainages and stream crossings, unless topography prevents doing so.	GRSG-RT-GL-082-Guideline In priority habitat management areas, road construction within riparian areas and mesic meadows should be avoided to the extent practicable . If not possible to restrict construction within riparian areas and mesic meadows, roads should be constructed at right angles to ephemeral drainages and stream crossings, unless topography prevents doing so to minimize impacts to riparian habitat .	Elimination of Sagebrush Focal Areas
GRSG-RT-GL-084-Guideline In priority and general habitat management areas and sagebrush focal areas, when decommissioning roads and unauthorized	GRSG-RT-GL-084-Guideline Delete	Required by 2012 Planning Rule

No Action Alternative (Nevada)	Proposed Action (Nevada)	Issue/Clarification
<p>routes, restoration activity should be designed to move habitat towards desired conditions (Table 1a or 1b).</p>		
<p>GRSG-RT-GL-085-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, dust abatement terms and conditions should be included in road-use authorizations when dust has the potential to impact greater sage-grouse.</p>	<p>GRSG-RT-MA-083-Management Approach</p> <p>In priority and general habitat management areas, dust abatement terms and conditions should be included in road-use authorizations when dust has the potential to impact greater sage-grouse.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-RT-GL-086-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, road and road-way maintenance activities should be designed and implemented to reduce the risk of vehicle or human-caused wildfires and the spread of invasive plants. Such activities include but are not limited to the removal or mowing of vegetation a car-width off the edge of roads; use of weed-free earth-moving equipment, gravel, fill, or other materials; and blading or pulling roadsides and ditches that are infested with noxious weeds only if required for public safety or protection of the roadway.</p>	<p>GRSG-RT-MA-084-Management Approach</p> <p>In priority and general habitat management areas, road and road-way maintenance activities should be designed and implemented to reduce the risk of vehicle or human-caused wildfires and the spread of invasive plants. Such activities include but are not limited to the removal or mowing of vegetation a car-width off the edge of roads; use of weed-free earth-moving equipment, gravel, fill, or other materials; and blading or pulling roadsides and ditches that are infested with noxious weeds only if required for public safety or protection of the roadway.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-RT-GL-087-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, during breeding and nesting (March 1 to June 30), consider seasonal road closures on motorized travel routes with high traffic volume, speeds, or noise levels.</p>	<p>GRSG-RT-GL-085-Guideline</p> <p>In priority and general habitat management areas, during breeding and nesting season (Table D-1), seasonally close seasonally close motorized travel routes with high traffic volume, speeds, or noise levels <u>that are demonstrably having a negative impact on GRSG breeding and nesting behavior.</u></p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p>
<p>GRSG-RT-GL-088-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, from November 1 to February 28, consider limiting over-snow motorized vehicles in wintering areas.</p>	<p>GRSG-RT-MA-086-Management Approach</p> <p>In priority and general habitat management areas, <u>during winter seasonal use periods (Table D-1)</u>, consider limiting over-snow motorized vehicles in wintering areas.</p>	<p>Clarification</p> <p>Consistency with 2012 Planning Rule</p>

No Action Alternative (Nevada)	Proposed Action (Nevada)	Issue/Clarification
Minerals		
Fluid- Unleased		
<p>GRSG-M-FMUL-ST-089-Standard</p> <p>In priority habitat management areas, any new oil and gas leases must include a no surface occupancy 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 Fish and Wildlife Service, Forest Service, and State wildlife agency if:</p> <ul style="list-style-type: none"> • There would be no direct, indirect, or cumulative effects to greater sage-grouse or their habitats 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 greater sage-grouse. 	<p>GRSG-M-FMUL-ST-087-Standard</p> <p>In priority habitat management areas, any new oil and gas leases <u>or geothermal leases</u> must include a no surface occupancy stipulation. There will be no waivers or modifications. An exception could be granted by the authorized officer <u>officer if</u> one of the following applies:</p> <ul style="list-style-type: none"> • <u>The location of the proposed authorization is determined to be unsuitable (by a qualified biologist with Greater Sage-Grouse experience); lacks the ecological potential to become marginal or suitable habitat; and would not result in direct, indirect, or cumulative impacts on greater sage-grouse and its habitat.</u> • <u>Impacts from the proposed action could be offset through use of the mitigation hierarchy (avoid, minimize, mitigate) to achieve a net conservation gain and demonstrate that the individual and cumulative impacts of the project would not result in habitat fragmentation or other impacts that would cause greater sage-grouse populations to decline.</u> 	<p>Adjustment of Compensatory Mitigation Frameworks</p> <p>Clarification</p>
<p>GRSG-M-FMUL-ST-090-Standard</p> <p>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.</p>	<p>GRSG-M-FMUL-ST-088-Standard</p> <p>No change</p>	
<p>GRSG-M-FMUL-ST-091-Standard</p> <p>In sagebrush focal areas, there will be no surface occupancy and no waivers, exceptions, or modifications for fluid mineral leasing.</p>	<p>GRSG-M-FMUL-ST-091-Standard</p> <p>Delete</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Nevada)	Proposed Action (Nevada)	Issue/Clarification
<p>GRSG-M-FMUL-ST-092-Standard</p> <p>In priority habitat management areas outside of sagebrush focal areas, proposed geothermal projects may be considered if:</p> <ul style="list-style-type: none"> • 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. 	<p>GRSG-M-FMUL-ST-092-Standard</p> <p>Delete</p>	<p>Redundant with GRSG-M-FMUL-ST-089-Standard</p>
<p>GRSG-M-FMUL-ST-093-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, only allow geophysical exploration or similar type of exploratory operations that are consistent with vegetation objectives in Table 1a or 1b, as appropriate, and include applicable seasonal restrictions.</p>	<p>GRSG-M-FMUL-ST-089-Standard</p> <p>In priority and general habitat management areas, include applicable seasonal restrictions (Table D-1) when authorizing geophysical exploration or similar type of exploratory operations.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p>
<p>Fluid Minerals-Leased</p>		
<p>GRSG-M-FML-ST-094-Standard</p> <p>In priority habitat management areas and sagebrush focal areas, when approving the Surface Use Plan of Operation portion of the Application for Permit to Drill on existing leases that are not yet developed, require that leaseholders avoid and minimize surface disturbing and disruptive activities consistent with the rights granted in the lease.</p>	<p>GRSG-M-FML-ST-090-Standard</p> <p>In priority habitat management areas areas, the Surface Use Plan of Operation portion of the Application for Permit to Drill on existing leases that are not yet developed, will require Conditions of Approval (COA) that will avoid and minimize surface disturbing and disruptive activities consistent with the rights granted in the lease.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p> <p>Clarification</p>

No Action Alternative (Nevada)	Proposed Action (Nevada)	Issue/Clarification
<p>GRSG-M-FML-ST-095-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, when facilities are no longer needed<u>needed</u>, or leases are relinquished, require reclamation plans to include terms and conditions to restore habitat to desired conditions as described in Table 1a or 1b.</p>	<p>GRSG-M-FML-ST-091-Standard</p> <p>In priority and general habitat management areas, when facilities are no longer needed<u>needed</u>, or leases are relinquished, reclamation plans must include terms and conditions to restore habitat to desired conditions (GRSG-GEN-DC-003-Desired Condition).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p>
<p>GRSG-M-FML-ST-096-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, authorize new transmission line corridors, transmission line right-of- ways, transmission line construction, or transmission line-facility construction associated with fluid mineral leases with stipulations necessary to protect greater sage-grouse and their habitats, consistent with the terms and conditions of the permit.</p>	<p>GRSG-M-FML-ST-092-Standard</p> <p>In priority and general habitat management areas, authorize new transmission line corridors, transmission line right-of- ways, transmission line construction, or transmission line-facility construction associated with fluid mineral leases with stipulations necessary to protect greater sage-grouse and their habitats, consistent with the terms and conditions of the permit (Appendix G).</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-M-FML-ST-097-Standard</p> <p>Locate compressor stations on portions of a lease that are non-habitat and are not used by greater sage-grouse, and if there would be no direct, indirect, or cumulative effects on sage-grouse or their 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-Standard.</p>	<p>GRSG-M-FML-MA-093-Management Approach</p> <p>Locate compressor stations on portions of a lease that are non-habitat and are not used by greater sage-grouse, and if there would be no direct, indirect, or cumulative effects on sage-grouse or their 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-Standard.</p>	<p>Consistency with 2012 Planning Rule</p>
<p>GRSG-M-FML-ST-098-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, when authorizing development of fluid mineral resources, work with the operator to minimize impacts to greater sage-grouse and their habitat, such as locating facilities in non-habitat areas first and then in the least suitable habitat.</p>	<p>GRSG-M-FML-MA-094-Management Approach</p> <p>In priority and general habitat management areas, when authorizing development of fluid mineral resources, work with the operator to minimize impacts to greater sage-grouse and their habitat, such as locating facilities in non-habitat areas first and then in the least suitable habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>

No Action Alternative (Nevada)	Proposed Action (Nevada)	Issue/Clarification
<p>GRSG-M-FML-GL-099-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, operators should be encouraged to reduce disturbance to greater sage- grouse habitat. 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 and consistent with the rights granted to the lessee.</p>	<p>GRSG-M-FML-MA-095-Management Approach</p> <p>In priority and general habitat management areas operators should be encouraged to reduce disturbance to greater sage-grouse habitat. 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 and consistent with the rights granted to the lessee.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-M-FML-GL-100-Guideline</p> <p>On existing Federal leases in priority and general habitat management areas and sagebrush focal areas, when surface occupancy cannot be restricted due to valid existing rights or development requirements, disturbance and surface occupancy should be limited to areas least harmful to greater sage-grouse based on vegetation, topography, or other habitat features.</p>	<p>GRSG-M-FML-MA-096-Guideline</p> <p>On existing Federal leases in priority and general habitat management areas, when surface occupancy cannot be restricted due to valid existing rights or development requirements, disturbance and surface occupancy should be limited to areas least harmful to greater sage-grouse based on vegetation, topography, or other habitat features.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-M-FML-GL-101-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, 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.</p>	<p>GRSG-M-FML-MA-097-Management Approach</p> <p>In priority and general habitat management areas, 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.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>
<p>Fluid Minerals- Operations</p>		

No Action Alternative (Nevada)	Proposed Action (Nevada)	Issue/Clarification
<p>GRSG-M-FMO-ST-102-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, do not authorize employee camps.</p>	<p>GRSG-M-FMO-ST-98-Standard</p> <p>In priority and general habitat management areas, do not authorize employee camps.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-M-FMO-ST-103-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, when feasible, do not locate tanks or other structures that may be used as raptor perches. If this is not feasible, use perch deterrents.</p>	<p>GRSG-M-FMO-ST-099-Standard</p> <p>In priority and general habitat management areas, when feasible, do not locate tanks or other structures that may be used as raptor perches. If this is not feasible, use perch deterrents.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-M-FMO-GL-104-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, closed-loop systems should be used for drilling operations with no reserve pits, where feasible.</p>	<p>GRSG-M-FMO-MA-100-Management Approach</p> <p>In priority and general habitat management areas, closed-loop systems should be used for drilling operations with no reserve pits, where feasible.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-M-FMO-GL-105-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, during drilling operations, soil compaction should be minimized<u>minimized</u>, and soil structure should be maintained using the best available techniques to improve vegetation reestablishment.</p>	<p>GRSG-M-FMO-MA-101-Management Approach</p> <p>In priority and general habitat management areas, during drilling operations, soil compaction should be minimized<u>minimized</u>, and soil structure should be maintained using the best available techniques to improve vegetation reestablishment.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-M-FMO-GL-106-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, dams, impoundments and ponds for mineral development should be constructed to reduce potential for West Nile virus. Examples of methods to accomplish this include:</p> <ul style="list-style-type: none"> • Increase the depth of ponds to accommodate a greater volume of water than is discharged. 	<p>GRSG-M-FMO-GL-102-Guideline</p> <p>In priority and general habitat management areas, dams, impoundments and ponds for mineral development should be constructed to reduce potential for West Nile virus.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>

No Action Alternative (Nevada)	Proposed Action (Nevada)	Issue/Clarification
<ul style="list-style-type: none"> • 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. 		
	<p>GRSG-M-FMO-MA-103-Management Approach</p> <p>Utilize the following methods to reduce to potential for West Nile virus include the following:</p> <ul style="list-style-type: none"> • 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. 	<p>Consistency with 2012 Planning Rule</p>

No Action Alternative (Nevada)	Proposed Action (Nevada)	Issue/Clarification
	<ul style="list-style-type: none"> • 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 	
<p>GRSG-M-FMO-GL-107-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas to keep habitat disturbance at a minimum, a phased development approach should be applied to fluid mineral operations, wherever possible, consistent with the rights granted under the lease. Disturbed areas should be reclaimed as soon as they are no longer needed for mineral operations.</p>	<p>GRSG-M-FMO-GL-104-Guideline</p> <p>In priority and general habitat management areas to keep habitat disturbance at a minimum, a phased development approach should be applied to fluid mineral operations, wherever possible, consistent with the rights granted under the lease. Disturbed areas should be reclaimed as soon as they are no longer needed for mineral operations.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>Locatable Minerals</p>		
<p>GRSG-M-LM-ST-108-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, only approve Plans of Operation if they include mitigation to protect greater sage-grouse and their habitats,</p>	<p>GRSG-M-LM-ST-105-Standard</p> <p>In priority and general habitat management areas, only approve Plans of Operation if they include mitigation to protect greater sage-grouse and their habitats, consistent with the rights of the</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Nevada)	Proposed Action (Nevada)	Issue/Clarification
consistent with the rights of the mining claimant as granted by the General Mining Act of 1872, as amended.	mining claimant as granted by the General Mining Act of 1872, as amended.	
<p>GRSG-M-LM-GL-109-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, to 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.</p>	<p>GRSG-M-LM-GL-106-Guideline</p> <p>In priority and general habitat management areas, to 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.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-M-LM-GL-110-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, abandoned mine sites should be closed or mitigated to reduce predation of greater sage-grouse by eliminating tall structures that could provide nesting opportunities and perching sites for predators.</p>	<p>GRSG-M-LM-GL-107-Guideline</p> <p>In priority and general habitat management areas, <u>when closing</u> abandoned mine sites <u>remove</u> tall structures that could provide nesting opportunities and perching sites for predators to reduce predation of greater sage-grouse.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>
<p>Non-energy Leasable Minerals</p>		
<p>GRSG-M-NEL-GL-111-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, 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 their habitats.</p>	<p>GRSG-M-NEL-MA-108-Management Approach</p> <p><u>In priority and general habitat management areas, include stipulations to restrict surface use, occupancy and seasonal activities for exploration or pre-mining activities with recommendations or consent (as applicable) to issuance of prospecting permits, exploration licenses, or leases, lease modifications, lease readjustments or lease renewals.</u></p> <p><u>In priority habitat management areas where development would be by surface mining methods, do not consent to, or recommend, leasing in areas that exceed disturbance caps. In priority habitat management areas where development would be by underground mining methods, specify or recommend stipulations</u></p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p> <p>Clarification of regulatory process</p>

No Action Alternative (Nevada)	Proposed Action (Nevada)	Issue/Clarification
	that prohibit surface use and occupancy in priority habitat management areas.	
<p>GRSG-M-NEL-GL-112-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, the Forest Service should recommend to the BLM that expansion or readjustment of existing leases avoid, minimize, or mitigate the effects to greater sage-grouse and their habitat.</p>	<p>GRSG-M-NEL-MA-109-Management Approach</p> <p>In priority, important, and general habitat management areas, include in recommendations to the BLM regarding exploration plan or mining plans conditions to reduce invasive species, prevent fire, limit permanent tall structures and new permanent roads, and to design reclamation of surface disturbance to restore applicable greater sage-grouse habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p> <p>Clarification of regulatory process</p>
Mineral Materials		
<p>GRSG-M-MM-ST-113-Standard</p> <p>In priority management areas and sagebrush focal areas, do not authorize new mineral material disposal or development.</p>	<p>GRSG-M-MM-ST-110-Standard</p> <p>In priority management areas, do not authorize new mineral material disposal or development.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-M-MM-ST-114-Standard</p> <p>In priority habitat management areas and sagebrush focal areas, free-use mineral material collection permits may be issued and expansion of existing active pits may be allowed, except from March 1 to May 15 between 6 pm and 9 am 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.</p>	<p>GRSG-M-MM-ST-111-Standard</p> <p>Do not allow free-use mineral material collection during lekking season (Table D-1) between 6 p.m. and 9 a.m. within 2 miles from the perimeter of occupied leks.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p>
<p>GRSG-M-MM-ST-115-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, 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 1a or 1b).</p>	<p>GRSG-M-MM-ST-112-Standard</p> <p>In priority and general habitat management areas, management of existing or expansion of existing pits, will include appropriate requirements for operation and reclamation of the site to maintain, restore, or enhance desired habitat conditions (Appendix D, Table D-3).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p>

No Action Alternative (Nevada)	Proposed Action (Nevada)	Issue/Clarification
Predation		
GRSG-P-DC-116-Desired Condition Anthropogenic uses on public lands are managed to reduce the effects of predation on greater sage-grouse.	GRSG-P-DC-113-Desired Condition No change	
Nothing in 2015 Plan	GRSG-P-MA-114-Management Approach Efforts by other agencies to minimize impacts from predators on the greater sage-grouse should be supported and encouraged where needs have been documented.	Added - Support for other agencies that manage predators

Table 2.8. Utah - Comparison of alternatives¹

¹Priority and general habitat management areas may contain non-habitat. Management direction would not apply to those areas of non-habitat if the proposed activity in non-habitat does not preclude effective sage-grouse use of adjacent habitats.

No Action Alternative (Utah)	Proposed Action (Utah)	Issue/Clarification
<p>GRSG-GEN-DC-001-Desired Condition</p> <p>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.</p>	<p>GRSG-GEN-DC-001-Desired Condition</p> <p>No Change</p>	
<p>GRSG-GEN-DC-002-Desired Condition</p> <p>Anthropogenic disturbance is focused in non-habitat areas outside of priority and general habitat management areas and sagebrush focal areas.² Disturbance in general 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 existing authorized uses.</p> <p>²Priority habitat management areas and general habitat management areas may contain areas of non-habitat, and management direction would not apply to those areas of non-habitat. However, management direction would apply to all areas within sagebrush focal areas including non-habitat non-habitat.</p>	<p>GRSG-GEN-DC-002-Desired Condition</p> <p>Anthropogenic disturbance is focused in non-habitat areas outside of priority and general habitat management. Disturbance in general management areas is limited, and there is little to no disturbance in priority habitat management areas except for valid existing rights and existing authorized uses.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Added footnote to definition of HMAs</p>
<p>GRSG-GEN-DC-003-Desired Condition</p> <p>In greater sage-grouse seasonal habitat, including all seasonal habitats, 70% or more of lands capable of producing sagebrush have from 10 to 30% sagebrush canopy cover and less than 10%</p>	<p>GRSG-GEN-DC-003-Desired Condition</p> <p>At the landscape scale, in greater sage-grouse seasonal habitat, including all seasonal habitats, 70% or more of lands capable of producing sagebrush have from 10 to 30% sagebrush canopy cover</p>	<p>Modifying Desired Conditions</p>

Commented [CB9]: Delete references to general habitat. Priority habitat areas were identified with some care and a lot of coordination. The same cannot be said for general habitat. The lack of ground-truthing does not support the extent of additional regulation.

Commented [CB10]: Sage grouse habitat areas should not be managed as wilderness. As written in desired conditions they would be. Ironically sage grouse can still be hunted and it is difficult to imagine a greater anthropogenic disturbance than being shot at.

No Action Alternative (Utah)	Proposed Action (Utah)	Issue/Clarification
<p>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 the greater sage-grouse during this seasonal period. Specific desired conditions for the greater sage-grouse based on seasonal habitat requirements are in Table 1.</p>	<p>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 the greater sage-grouse during this seasonal period. When and where breeding and nesting habitat overlaps with other seasonal habitats, the desired conditions are those for breeding and nesting habitat. Specific desired conditions for the greater sage-grouse based on seasonal habitat requirements are in Appendix E, Table E-1. The values in the tables should be considered as initial references and do not preclude development of local desired conditions or utilizing other indicators/values, based on site selection preferences of the local population and ecological site capability of sagebrush communities.</p>	
<p>GRSG-GEN-ST-004-Standard</p> <p>In priority habitat management areas and sagebrush focal areas, do not issue new discretionary written authorizations unless all existing discrete anthropogenic disturbances cover less than 3% of the total greater sage-grouse habitat within the Biologically Significant Unit and the proposed project area, regardless of ownership, and the new use will not cause exceedance of the 3% cap. Discretionary activities that might result in disturbance above 3% at the Biologically Significant Unit and proposed project area would be prohibited unless approved by the forest supervisor with concurrence from the regional forester after review of new or site- specific information that indicates the project would result in a net conservation gain at the Biologically Significant Unit and proposed project area scale. Within existing designated utility corridors, the 3% disturbance cap may be exceeded at the project scale if the site specific NEPA analysis indicates that a net conservation gain to the species will be achieved. This exception is limited to projects</p>	<p>GRSG-GEN-ST-004-Standard</p> <p>In priority habitat management areas, do not issue new discretionary written authorizations unless all existing discrete anthropogenic disturbances cover less than 3% of the total greater sage-grouse habitat within the Biologically Significant Unit and the proposed project area, regardless of ownership, and the new use will not cause exceedance of the 3% cap. Discretionary activities that might result in disturbance above 3% at the Biologically Significant Unit and proposed project area would be prohibited unless approved by the forest supervisor with concurrence from the regional forester after review of new or site- specific information that indicates the project results in no net loss of habitat at the Biologically Significant Unit and proposed project area scale. Within existing designated utility corridors, the 3% disturbance cap may be exceeded at the project scale if the site specific NEPA analysis indicates no net loss of habitat. This exception is limited to projects that fulfill the use for which the corridors were designated (e.g., transmission lines, pipelines) and</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Changing Net Conservation Gain</p>

Commented [CB11]: This standard will lead to wildfires due to failing to manage vegetation, particularly conifers. Surely after the fire seasons of the past 18 years it is clear that vegetation treatments are needed. This standard will preclude this and lead to loss of sagebrush habitat just as the National Forests in Washington, Oregon and California have burned causing destruction of spotted owl habitat and owl mortality.

No Action Alternative (Utah)	Proposed Action (Utah)	Issue/Clarification
that fulfill the use for which the corridors were designated (e.g., transmission lines, pipelines) and the designated width of a corridor will not be exceeded as a result of any project co-location. Consider the likelihood of surface disturbing activities as a result of development of valid existing rights when authorizing new projects in priority habitat management areas.	the designated width of a corridor will not be exceeded as a result of any project co-location. Consider the likelihood of surface disturbing activities as a result of development of valid existing rights when authorizing new projects in priority habitat management areas.	
<p>GRSG-GEN-ST-005-Standard</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, only allow new authorized land uses if after avoiding and minimizing impacts, any remaining residual impacts to the greater sage-grouse or its habitat 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 Strategy (Appendix B).</p>	<p>GRSG-GEN-ST-005-Standard</p> <p>In priority habitat management areas, only allow new authorized land uses if after avoiding and minimizing impacts, any remaining residual impacts to the greater sage-grouse or its habitat are fully offset by compensatory mitigation projects that <u>result in no net loss</u>, 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 Strategy (<u>Appendix E</u>).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Changing Net Conservation Gain</p>
<p>GRSG-GEN-ST-006-Standard</p> <p>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 (from March 1 to April 30) from 6 p.m. to 9 a.m. Do not include noise resulting from human activities that have been authorized and initiated within the past 10 years in the ambient baseline measurement.</p>	<p>GRSG-GEN-ST-006-Standard</p> <p>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 (from March 1 to April 30) from 6 p.m. to 9 a.m. Do not include noise resulting from human activities that have been authorized and initiated within the past 10 years in the ambient baseline measurement since the issuance of the 2015 ROD (2005).</p>	
<p>GRSG-GEN-GL-007-Guideline</p> <p>During breeding and nesting (from March 1 to June 15), surface disturbing and disruptive activities to nesting birds should be avoided.</p>	<p>GRSG-GEN-GL-007-Guideline</p> <p>No Change</p>	
<p>GRSG-GEN-GL-008-Guideline</p>	<p>GRSG-GEN-GL-008-Guideline</p> <p>Delete</p>	<p>Added to DC-003</p>

Commented [CB12]: The Coalition continues to question the 10 dB limit. The cited research confirmed no change in behavior until 70 dB. There is simply no factual or scientific basis for 10 dB. Excluding past 10 years from ambient noise levels violates every principle of noise management and is not supported.

No Action Alternative (Utah)	Proposed Action (Utah)	Issue/Clarification
When breeding and nesting habitat overlaps with other seasonal habitats, habitat should be managed for breeding and nesting desired conditions in Table 1.		
GRSG-GEN-GL-009-Guideline Development of tall structures within 2 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.	GRSG-GEN-GL-008-Guideline No Change	
Nothing in 2015 Plan	GRSG-GEN-MA-009-Management Approach Every 5 years or in conjunction BLM and State of Utah, evaluate the Habitat Management Area (HMA) Map and Biologically Significant Unit (BSU) Map when a demonstrated need for change exists. These evaluations will occur in conjunction with an interagency team to ensure consistency across administrative boundaries.	Habitat Management Area Designation
Adaptive Management		
GRSG-AM-ST-010-Standard If a hard trigger is met, immediate action is necessary to stop a severe deviation from greater sage-grouse conservation objectives. The hard trigger responses are identified in table XX of the Adaptive Management Appendix XX. The Forest Service will review available and pertinent data in coordination with greater sage-grouse biologists from multiple agencies.	GRSG-AM-ST-010-Standard When conditions result in a 20% or greater decline of average males per lek for four consecutive years (or remainder of criteria described in Appendix E) or there is a 20% loss of total GRSG habitat in PHMA or 20% loss of habitat within nesting or wintering areas within PHMAs, more restrictive management direction may will be applied, in addition to identifying causal factors and implementing a corrective strategy. The responses identified in Appendix E will be followed.	
GRSG-AM-ST-011-Standard If a soft trigger is met, the Forest Service will determine the specific cause or causes that are contributing to the decline. In completing this evaluation, the Forest Service will coordinate with greater sage-grouse biologists from multiple agencies. If it is determined that the decline is related to a natural variation in the population, no specific management actions would be	GRSG-AM-MA-011-Management Approach If a soft trigger is met, the Forest Service will determine the specific cause or causes that are contributing to the decline. In completing this evaluation, the Forest Service will coordinate with greater sage-grouse biologists from multiple agencies. If it is determined that the decline is related to a natural variation in the population, no specific management actions would be required.	Consistency with 2012 Planning Rule

Commented [CD13]: BLM Utah has added management actions to increase removal of corvid nests. Please incorporate to allow greater consistency and to acknowledge obvious benefits to sage-grouse.

Commented [CD14]: Adjustments to a BSU are necessarily significant adjustments under NEPA rules and thus, the USFS must ensure that any changes to BSUs are preceded by notice and comment.

Commented [CB15]: The standard needs to identify a cause before treating the issue. Moreover, this standard calls for canceling permits or leases when the cause could be something entirely different like wildfire. The hallmark of adaptive management is the search for causation rather than rigid implementation of restrictions. This standard is not adaptive management.

No Action Alternative (Utah)	Proposed Action (Utah)	Issue/Clarification
<p>required. However, if Forest Service management actions are determined to be the cause or contribute to the decline, the Forest Service would apply measures within its implementation-level discretion to mitigate the decline of populations and/or habitat. These measures would apply more conservative or restrictive implementation-level conservation conditions, terms, or decisions within the agency's discretion to mitigate the decline.</p>	<p>However, if Forest Service management actions are determined to be the cause or contribute to the decline, the Forest Service would apply measures within its implementation-level discretion to mitigate the decline of populations and/or habitat. These measures would apply more conservative or restrictive implementation-level conservation conditions, terms, or decisions within the agency's discretion to mitigate the decline (Appendix E).</p>	
Lands and Realty		
Special-use Authorizations (Non-recreation)		
<p>GRSG-LR-SUA-O-012-Objective</p> <p>In nesting habitats, retrofit existing tall structures (e.g., power poles, communication tower sites, etc.) with perch deterrents or other anti-perching devices within 2 years of signing the ROD.</p>	<p>GRSG-LR-SUA-O-012-Objective</p> <p>In nesting habitats, retrofit existing tall structures (e.g., power poles, communication tower sites, etc.) with perch deterrents or other anti-perching devices within 3 years of reissuing permits.</p>	<p>Clarification</p>
<p>GRSG-LR-SUA-ST-013-Standard</p> <p><i>In priority habitat, sagebrush focal areas, and Anthro Mountain, restrict issuance of new lands special-use authorizations that authorize infrastructure, such as high-voltage transmission lines, major pipelines, distribution lines, and communication tower sites. Exceptions must be limited (e.g., safety needs) and based on rationale (e.g., monitoring, modeling, or best available science) that explicitly demonstrates that adverse impacts to the greater sage-grouse will be avoided by the exception. Existing authorized uses will continue to be recognized.</i></p>	<p>GRSG-LR-SUA-ST-013-Standard</p> <p><i>In priority habitat management areas, only allow new lands special-use authorizations for infrastructure, such as high-voltage transmission lines, major pipelines, distribution lines, and communication tower sites when infrastructure is co-located with existing infrastructure, roads, or already disturbed areas. Impacts to greater sage-grouse must be avoided. In limited circumstances, when other alternatives are not feasible, or impacts cannot be avoided, offset by using compensatory mitigation (GRSG-GEN-ST-005-Standard).</i></p>	<p>Clarification</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-LR-SUA-ST-014-Standard</p> <p>In general habitat management areas, new lands special-use authorizations may be issued for infrastructure, such as high-voltage transmission lines, major pipelines, distribution lines, and communication tower sites if they can be located within existing designated corridors or rights-of-way and the authorization includes stipulations to protect the greater sage-grouse and its habitat. <i>Existing authorized uses will continue to be recognized.</i></p>	<p>GRSG-LR-SUA-ST-014-Standard</p> <p><i>In general habitat management areas, new lands special-use authorizations may be issued for infrastructure, such as high-voltage transmission lines, major pipelines, distribution lines, and communication tower sites if they can be located within existing designated corridors or rights-of-way and the authorization includes stipulations to protect the greater sage-grouse and its habitat.</i></p>	<p>Required by 2012 Planning Rule</p>

Commented [CB16]: This standard needs to clearly exclude all existing authorizations. As written, it does not. The standard gives equal weight to high voltage transmission lines as to buried pipelines. They have dramatically different impacts but the standard employs the same management.

Commented [CB17]: This needs to be deleted. The nation needs transmission lines, etc. This would greatly hinder meeting these infrastructure goals.

No Action Alternative (Utah)	Proposed Action (Utah)	Issue/Clarification
<p>GRSG-LR-SUA-ST-015-Standard</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, do not authorize temporary lands special-uses (i.e., facilities or activities) that result in loss of habitat or would have long-term (i.e., greater than 5 years) negative impact on the greater sage-grouse or its habitat.</p>	<p>GRSG-LR-SUA-ST-015-Standard</p> <p>In priority habitat management areas, do not authorize temporary lands special-uses (i.e., facilities or activities) that result in loss of habitat or would have long-term (i.e., greater than 5 years) negative impact on the greater sage-grouse or its habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-LR-SUA-ST-016-Standard</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, require protective stipulations (e.g., noise, tall structure, guy wire removal, perch deterrent installation, etc.) when issuing new authorizations or during renewal, amendment, or reissuance of existing authorizations that authorize infrastructure (e.g., high-voltage transmission lines, major pipelines, roads, distribution lines, and communication tower sites).</p>	<p>GRSG-LR-SUA-ST-016-Standard</p> <p>In priority and general habitat management areas, require protective stipulations (e.g., noise, tall structure, guy wire removal, perch deterrent installation, etc.) when issuing new authorizations or during renewal, amendment, or reissuance of existing authorizations that authorize infrastructure (e.g., high-voltage transmission lines, major pipelines, roads, distribution lines, and communication tower sites).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-LR-SUA-ST-017-Standard</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, locate upgrades to existing transmission lines within the existing designated corridors or rights-of way unless an alternate route would benefit the greater sage-grouse or its habitat.</p>	<p>GRSG-LR-SUA-ST-017-Standard</p> <p>In priority habitat management areas, locate upgrades to existing transmission lines within the existing designated corridors or rights-of way unless an alternate route would benefit the greater sage-grouse or its habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-LR-SUA-ST-018-Standard</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, when a lands special-use authorization is revoked or terminatedterminated, and no future use is contemplated, require the authorization holder to remove overhead lines and other surface infrastructure in compliance with 36 CFR 251.60(i).</p>	<p>GRSG-LR-SUA-ST-018-Standard</p> <p>In priority and general habitat management areas, when a lands special-use authorization is revoked or terminatedterminated, and no future use is contemplated, authorization holder must remove overhead lines and other surface infrastructure in compliance with 36 CFR 251.60(i).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with 2012 Planning Rule</p>

Commented [CB18]: This standard makes little sense. If the use is temporary, how likely is it to have long term impacts. This is more stringent than long-term authorizations.

Commented [CB19]: If transmission lines cannot be built in priority habitat, why regulate structures. If existing authorizations, does the FS really propose to limit necessary improvements? This would lead to significant safety problems all of which would lead to condemnation of the FS for standing in the way. As to roads, the FS simply lacks the authority to interfere with public roads. This standard should be rewritten to distinguish between valid rights (limited restrictions if any) and new authorizations. Even in the case of new authorizations, the FS cannot deny access to private land as the law says "notwithstanding any other law."

No Action Alternative (Utah)	Proposed Action (Utah)	Issue/Clarification
<p>GRSG-LR-SUA-GL-019-Guideline</p> <p>In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, outside of existing designated corridors and rights-of-way, new transmission lines and pipelines should be buried to limit disturbance to the smallest footprint unless explicit rationale is provided that the biological impacts to the greater sage-grouse are being avoided. When new transmission lines and pipelines are not buried, locate them adjacent to existing transmission lines and pipelines.</p>	<p>GRSG-LR-SUA-GL-019-Guideline</p> <p>Delete</p>	<p>Redundant with GRSG-LR-SUA-ST-013-Standard</p>
<p>GRSG-LR-SUA-GL-020-Guideline</p> <p>The best available science and monitoring should be used to inform infrastructure siting in greater sage-grouse habitat.</p>	<p>GRSG-LR-SUA-MA-019-Management Approach</p> <p>No Change</p>	<p>Consistency with 2012 Planning Rule</p>
<p>Land Ownership Adjustments</p>		
<p>GRSG-LR-LOA-ST-021-Standard</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, do not approve landownership adjustments, including land exchanges, unless the action results in a net conservation gain to the greater sage-grouse or it will not directly or indirectly adversely affect greater sage-grouse conservation.</p>	<p>GRSG-LR-LOA-ST-020-Standard</p> <p>In priority habitat management areas, do not approve landownership adjustments, including land exchanges, unless the action results in no net loss of greater sage- grouse habitat or it will not directly or indirectly adversely affect greater sage-grouse conservation.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Changing Net Conservation Gain</p>
<p>GRSG-LR-LOA-GL-022-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, and with minority federal ownership, consider landownership adjustments to achieve a landownership pattern (e.g., consolidation, reducing fragmentation, etc.) that supports improved greater sage-grouse population trends and habitat.</p>	<p>GRSG-LR-LOA-MA -021-Management Approach</p> <p>In priority and general habitat management areas, and with minority federal ownership, consider landownership adjustments to achieve a landownership pattern (e.g., consolidation, reducing fragmentation, etc.) that supports improved greater sage-grouse population trends and habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with 2012 Planning Rule</p>

No Action Alternative (Utah)	Proposed Action (Utah)	Issue/Clarification
Land Withdrawal		
GRSG-LR-LW-GL-023-Guideline In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, use land withdrawals as a tool, where appropriate, to withhold an area from activities that will be detrimental to the greater sage-grouse or its habitat.	GRSG-LR-LW-GL-023-Guideline Delete	Deleted - Mineral withdrawal is no longer valid.
Wind and Solar		
GRSG-WS-ST-024-Standard In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain , do not authorize new solar utility-scale and/or commercial energy development except for on-site power generation associated with existing industrial infrastructure (e.g., mine sites).	GRSG-WS-ST-022-Standard In priority habitat management areas, do not authorize new solar utility-scale and/or commercial energy development except for on-site power generation associated with existing industrial infrastructure (e.g., mine sites).	Elimination of Sagebrush Focal Areas Habitat Management Areas Designations
GRSG-WS-ST-025-Standard In priority habitat management areas, sagebrush focal areas, and Anthro Mountain , do not authorize new wind utility-scale and/or commercial energy development except for on-site power generation associated with existing industrial infrastructure (e.g., mine sites).	GRSG-WS-ST-023-Standard In priority habitat management areas, do not authorize new wind utility-scale and/or commercial energy development except for on-site power generation associated with existing industrial infrastructure (e.g., mine sites).	Elimination of Sagebrush Focal Areas Habitat Management Areas Designations
Greater Sage-grouse Habitat		
GRSG-GRSGH-O-026-Objective Every 10 years for the next 50 years, improve greater sage-grouse habitat by removing invading conifers and other undesirable species based upon the number of acres shown in Table 2 .	GRSG-GRSGH-O-024-Objective Table 2 is now Appendix E, Table E-2.	Clarification
Nothing in 2015 Plan	GRSG-GRSGH-DC-025-Desired Condition Invasive annual grasses are either not present or in low abundance and not increasing in sage-grouse habitat.	Treatment of Invasive Species
GRSG-GRSGH-ST-027-Standard	GRSG-GRSGH-ST-027-Standard	Required by 2012 Planning Rule

No Action Alternative (Utah)	Proposed Action (Utah)	Issue/Clarification
Design habitat restoration projects to move towards desired conditions (Table 1).	Delete	
GRSG-GRSGH-ST-028-Standard On the Dixie and Fishlake National Forests, where greater sage-grouse priority habitat management areas overlap with identified Utah prairie dog habitat, the most current version of conservation measures developed by the U.S. Fish and Wildlife Service will be used during implementation of recovery actions.	GRSG-GRSGH-MA-026-Management Approach On the Dixie and Fishlake National Forests, where greater sage-grouse priority habitat management areas overlap with identified Utah prairie dog habitat, the most current version of conservation measures developed by the U.S. Fish and Wildlife Service will be used during implementation of recovery actions	Consistency with 2012 Planning Rule
GRSG-GRSGH-GL-029-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-027-Guideline No Change	
GRSG-GRSGH-GL-030-Guideline In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain , actions and authorizations should include design features to limit the spread and effect of undesirable non-native plant species.	GRSG-GRSGH-GL-028-Guideline In priority and general habitat management areas, actions and authorizations should include design features to limit the spread and effect of undesirable non-native plant species.	Elimination of Sagebrush Focal Areas Habitat Management Areas Designations
GRSG-GRSGH-GL-031-Guideline To facilitate safe and effective fire management actions in priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain , 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 (Table 1).	GRSG-GRSGH-MA-029-Management Approach To facilitate safe and effective fire management actions in priority and general habitat management 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 Appendix E, Table E-1 should be designed to reduce the spread and/or intensity of wildfire or the susceptibility of greater sage- grouse habitat attributes to move away from desired conditions (Appendix E, Table E-1).	Elimination of Sagebrush Focal Areas Habitat Management Areas Designations Clarification Consistency with 2012 Planning Rule

Commented [CB20]: It would make more sense to adjust priority habitat boundaries to exclude prairie dog areas. There is no universe where prairie dog towns can conform to sage brush habitat guidelines.

Commented [CB21]: There is no area in Utah not at risk for fire. This management approach explains why the 3% anthropogenic disturbance standard butts up against preventing fires.

No Action Alternative (Utah)	Proposed Action (Utah)	Issue/Clarification
<p>GRSG-GRSGH-GL-032-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, native plant species should be used when possible to maintain, restore, or enhance desired conditions (Table 1).</p>	<p>GRSG-GRSGH-GL-030-Guideline</p> <p>In priority and general habitat management areas, native plant species should be used when possible to maintain, restore, or enhance desired conditions (Appendix E, Table E-1).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Clarification</p>
<p>GRSG-GRSGH-GL-033-Guideline</p> <p>In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, vegetation treatment projects should only be conducted if they maintain, restore, or enhance desired conditions (Table 1).</p>	<p>GRSG-GRSGH-GL-031-Guideline</p> <p>In priority and general habitat management areas, vegetation treatment projects should only be conducted if they maintain, restore, or enhance desired conditions (Appendix E, Table E-1).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Clarification</p>
<p>Nothing in 2015 Plan</p>	<p><u>GRSG-GRSGH-MA-032-Management Approach</u></p> <p><u>Within 2 years of the Record of Decision, develop a map of areas prone to annual grass invasion within sage-grouse habitat using resistance and resilience concepts, ecological site descriptions, and state and transition models for each National Forest and Grassland.</u></p>	<p>Treatment of Invasive Species</p>
<p>Nothing in 2015 Plan</p>	<p><u>GRSG-GRSGH-MA-033-Management Approach</u></p> <p><u>Post wildfire recovery treatments) should consider resistance and resilience in designing vegetation treatments following wildfire.</u></p>	<p>Treatment of Invasive Species</p>
<p>Nothing in 2015 Plan</p>	<p><u>GRSG-GRSGH-GL-034-Management Approach</u></p> <p><u>Prioritize treatments for established invasive plant populations that have the potential to impact sage-grouse habitat in priority habitat management areas. Early detection and rapid response treatments remain the focus.</u></p>	<p>Treatment of Invasive Species</p>
<p>Livestock Grazing</p>		

Commented [CB22]: This is an interesting concept but unless the FS has on-the-ground data the maps will have no documented connection to reality and will not lead to better management.

No Action Alternative (Utah)	Proposed Action (Utah)	Issue/Clarification
<p>GRSG-LG-DC-034-Desired Condition</p> <p>In priority and general habitat management areas, sagebrush focal areas, within lek buffers, and Anthro Mountain, livestock grazing is managed to maintain or move towards desired conditions (Table 1).</p>	<p>GRSG-LG-DC-034-Desired Condition</p> <p>Delete</p>	<p>Required by 2012 Planning Rule</p>
<p>GRSG-LG-ST-035-Standard</p> <p>In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, do not approve construction of water developments unless beneficial to greater sage-grouse habitat.</p>	<p>GRSG-LG-ST-035-Standard</p> <p>In priority habitat management area, do not approve construction of water developments if the development would cause adverse effects to greater sage-grouse habitat.</p>	<p>Clarification</p>
<p>GRSG-LG-GL-036-Guideline</p> <p>Grazing guidelines should be applied in each of the seasonal habitats in Table 3. If values in Table 3 guidelines cannot be achieved based upon a site-specific analysis using Ecological Site Descriptions, long-term ecological site potential analysis, or other similar analysis, adjust grazing management to move towards desired habitat conditions in Table 1 consistent with the ecological site potential. Do not use drought and degraded habitat condition to adjust values. Grazing guidelines in Table 3 would not apply to isolated parcels of National Forest System lands that have less than 200 acres of greater sage-grouse habitat.</p>	<p>GRSG-LG-GL-036-Guideline</p> <p>In greater sage-grouse habitat, if livestock grazing is limiting achievement of seasonal desired conditions, adjust livestock management, as appropriate, to address greater sage-grouse habitat requirements. No action will occur before the FS has addressed other grazing impacts by prairie dogs, big game and ungulates, and feral equids.</p>	<p>Changing Livestock Grazing Guidelines</p>
<p>Nothing in 2015 Plan</p>	<p>GRSG-LG-MA-037-Management Approach</p> <p>Conduct greater sage-grouse habitat assessments in allotments. If the assessment identifies the habitat is in less than Suitable Condition, determine factors limiting achievement of the Suitable Condition.</p>	<p>Changing Livestock Grazing Guidelines</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-LG-GL-037-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, when grazing permits are waived without preference or obtained through permit cancellation, consider the agency's full range of administrative</p>	<p>GRSG-LG-GL-037-Guideline</p> <p>Delete</p>	<p>Removed – Covered in existing Forest Service policy and direction</p>

Commented [CD23]: Water improvements, including stock ponds, benefit all species of grouse. It is common knowledge that blue grouse, ruffed grouse, and sage-grouse visit water improvements and sage-grouse drowning is not a universal truth and therefore does not require a standard.

No Action Alternative (Utah)	Proposed Action (Utah)	Issue/Clarification
authorities for future allotment management, including but not limited to allotment closure, vacancy status for resource protection, establishment of forage reserve, re-stocking, or livestock conversion as management options to maintain or achieve desired habitat conditions (Table 1).		
GRSG-LG-GL-038-Guideline Bedding sheep and placing camps within 1.2 miles from the perimeter of a lek during lekking (from March 1 to April 30) should be restricted.	GRSG-LG-GL-038-Guideline Bedding sheep and placing camps within 0.62 miles (1 km) from the perimeter of a lek during lekking (from March 1 to April 30) should be restricted to prevent disturbance to breeding and nesting GRSG.	Consistency with 2012 Planning Rule
GRSG-LG-GL-039-Guideline During the breeding and nesting season (from March 1 to June 15), trailing livestock through breeding and nesting habitat should be minimized. Specific routes should be identified; existing trails should be used; and stopovers on active leks should be avoided.	GRSG-LG-GL-039-Guideline During the breeding and nesting season, trailing livestock through breeding and nesting habitat should use be avoided to the extent practicable to prevent disturbance to breeding and nesting GRSG. Specific routes should be identified, existing trails and roads should be used, and stopovers on active leks not allowed.	Consistency with 2012 Planning Rule
GRSG-LG-GL-040-Guideline Fences should not be constructed or reconstructed within 1.2 miles from the perimeter of occupied leks unless the collision risk can be mitigated through design features or markings (e.g., mark, laydown fences, or other design features).	GRSG-LG-GL-040-Guideline No Change	
GRSG-LG-GL-041-Guideline New permanent livestock facilities (e.g., windmills, water tanks, corrals, etc.) should not be constructed within 1.2 miles from the perimeter of occupied leks.	GRSG-LG-GL-041-Guideline To prevent predation from perching raptors , new permanent livestock facilities (e.g., windmills, water tanks, corrals, etc.) should not be constructed within 1.2 miles from the perimeter of occupied leks unless anti-perching devices are attached.	Consistency with 2012 Planning Rule
Fire Management		
GRSG-FM-DC-042-Desired Condition In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain , protect sagebrush sage grouse habitat from loss due to unwanted wildfires or damages	GRSG-FM-MA-042-Management Approach In priority and general habitat management areas, protect sagebrush sage grouse habitat from loss due to unwanted wildfires or damages resulting from management related activities	Elimination of Sagebrush Focal Areas

Commented [CB24]: The Coalition has never seen any data supporting this condition. It is part of the anti-grazing sentiments reflected in the 2015 plans.

Commented [CB25]: The same is true for trailing. It is a transient and temporary activity. No research supports this limit and it should be deleted or reduced to a suggestion.

No Action Alternative (Utah)	Proposed Action (Utah)	Issue/Clarification
resulting from management related activities while using agency risk management protocols to manage for firefighter and public safety and other high priority values. In all fire response, first priority is the management of risk to firefighters and the public. Sage grouse habitat will be prioritized as a high value resource along with other high value resources and assets.	while using agency risk management protocols to manage for firefighter and public safety and other high priority values. In all fire response, first priority is the management of risk to firefighters and the public. <u>The second priority is protection of private property and structures.</u> Sage grouse habitat will be prioritized as a high value resource along with other high value resources and assets.	Habitat Management Areas Designations Consistency with 2012 Planning Rule
GRSG-FM-ST-043-Standard In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain , do not use prescribed fire in 12-inch or less precipitation zones unless necessary to facilitate restoration of greater sage-grouse habitat consistent with desired conditions in Table 1 or for pile burning.	GRSG-FM-ST-043-Standard In priority and general habitat management areas, do not use prescribed fire in 12-inch or less precipitation zones unless necessary to facilitate restoration of greater sage-grouse habitat consistent with desired conditions in Appendix E, Table E-1 or for pile burning.	Elimination of Sagebrush Focal Areas Habitat Management Areas Designations Clarification
GRSG-FM-ST-044-Standard In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain , if it is necessary to use prescribed fire for restoration of greater sage- grouse habitat consistent with desired conditions in Table 1 , the associated National Environmental Policy Act analysis must identify how the project would move towards greater sage-grouse desired conditions; why alternative techniques were not selected; and how potential threats to greater sage-grouse habitat would be minimized.	GRSG-FM-<u>MA-044-Management Approach</u> In priority and general habitat management areas, if it is necessary to use prescribed fire <u>or other mechanical means</u> for restoration of greater sage- grouse habitat consistent with desired conditions in Appendix E, Table E-1 , the associated National Environmental Policy Act analysis must identify how the project would move towards greater sage-grouse desired conditions; why alternative techniques were not selected; and how potential threats to greater sage-grouse habitat would be minimized.	Elimination of Sagebrush Focal Areas Habitat Management Areas Designations Clarification Consistency with 2012 Planning Rule
GRSG-FM-GL-045-Guideline In wintering or breeding and nesting habitat, sagebrush removal or manipulation, including prescribed fire, should be restricted unless the removal strategically reduces the potential impacts from wildfire or supports the attainment of desired conditions.	GRSG-FM-GL-045-Guideline <u>In order to maintain sagebrush</u> in wintering or breeding and nesting habitat, sagebrush removal or manipulation, including prescribed fire, should <u>occur when be restricted unless the removal may strategically reduces</u> reduce the potential impacts from wildfire or supports the attainment of desired conditions, <u>such as rejuvenation of decadent sagebrush.</u>	Clarification
GRSG-FM-GL-046-Guideline	GRSG-FM-<u>MA-046-Management Approach</u>	Clarification

Commented [CB26]: As written, the guideline fails to convey the need to rejuvenate sagebrush that is decadent.

No Action Alternative (Utah)	Proposed Action (Utah)	Issue/Clarification
<p>In planned fuels management activities or part of an overall vegetative management strategy to mitigate the impacts of wildfire in priority and general habitat management areas and sagebrush focal areas, when reseeding in fuel breaks, fire resistant native plant species should be used if available, or consider using fire resistance non-native species if analysis and/or best available science demonstrates that non-native plants will not degrade greater sage-grouse habitat in the long-term.</p>	<p>In priority and general habitat management areas, when reseeding in fuel breaks, fire resistant native plant species should be used if available, or available or consider using fire resistance non-native species if analysis and/or best available science demonstrates that non-native plants will not degrade greater sage-grouse habitat in the long-term (> 5 years) and will prevent fire spread into GRSG habitat. <u>Many all sites for invasive species.</u></p>	<p>Consistency with 2012 Planning Rule</p>
<p>GRSG-FM-GL-047-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, fuel treatments should be designed to maintain, restore, or enhance greater sage-grouse habitat.</p>	<p>GRSG-FM-GL-047-Guideline</p> <p>Delete</p>	<p>Required by 2012 Planning Rule</p>
<p>GRSG-FM-GL-048-Guideline</p> <p>Locating temporary wildfire suppression facilities (e.g., incident command posts, spike camps, helibases, mobile retardant plants) in priority and general habitat management areas and sagebrush focal areas should be avoided. When needed to best provide for firefighter or public safety or to minimize fire size in sage grouse habitat, impacts to the greater sage-grouse should be considered, and removal of sagebrush should be limited.</p>	<p>GRSG-FM-MA-047-Management Approach</p> <p>Locate wildfire suppression facilities (i.e., <u>base camps</u>, spike camps, <u>drop points, staging areas</u>, helibases, etc.) <u>in areas where physical disturbance to GRSG habitat can be minimized. These include disturbed areas, grasslands, near roads/trails, or in other areas where there is existing disturbance or minimal sagebrush cover.</u></p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-FM-GL-049-Guideline</p> <p>In priority and general habitat management areas, <u>sagebrush focal areas, and Anthro Mountain</u>, cross-country vehicle travel during fire operations should be restricted. When needed to best provide for firefighter or public safety or to minimize fire size in greater sage-grouse habitat, impacts to the greater sage-grouse should be considered, and removal of sagebrush should be limited.</p>	<p>GRSG-FM-MA-048-Management Approach</p> <p>In priority and general-habitat management areas, cross-country vehicle travel during fire operations should be restricted. When needed to best provide for firefighter or public safety or to minimize fire size in greater sage-grouse habitat, impacts to the greater sage-grouse should be considered, and removal of sagebrush should be limited <u>to the extent practicable to achieve suppression objectives.</u></p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with 2012 Planning Rule</p>

No Action Alternative (Utah)	Proposed Action (Utah)	Issue/Clarification
<p>GRSG-FM-GL-050-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, use fire management tactics and strategies that seek to minimize loss of existing sagebrush habitat. The safest and most practical means to do so will be determined by fireline leadership and incident commanders.</p>	<p>GRSG-FM-MA-049-Management Approach</p> <p>In priority and general habitat management areas, use fire management tactics and strategies that seek to minimize loss of existing sagebrush habitat, <u>unless sagebrush is decadent and needs to be rejuvenated</u>. The safest and most practical means to do so will be determined by fireline leadership and incident commanders.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-FM-GL-051-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, prescribed fire prescriptions should minimize undesirable effects on vegetation and/or soils (e.g., minimize mortality of desirable perennial plant species and reduce risk of hydrophobicity).</p>	<p>GRSG-FM-MA-050-Management Approach</p> <p>In priority and general habitat management areas prescribed fire prescriptions <u>should result in improvement of</u> desired conditions for GRSG and not result in undesirable effects on vegetation and/or soils (e.g., minimize mortality of desirable perennial plant species and reduce risk of hydrophobicity).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-FM-GL-052-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, roads and natural fuel breaks should be incorporated into planned fuel break design to improve effectiveness and minimize loss of existing sagebrush habitat.</p>	<p>GRSG-FM-MA-051-Management Approach</p> <p>In priority and general habitat management areas, roads and natural fuel breaks should be incorporated into planned fuel break design to improve effectiveness and minimize loss of existing sagebrush habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-FM-GL-053-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, where practical and available, all fire-associated vehicles and equipment should be</p>	<p>GRSG-FM-ST-052-Standard</p> <p>In priority and general habitat management areas, all fire-associated vehicles and equipment <u>are to</u> be inspected and cleaned using standardized protocols and procedures and</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Utah)	Proposed Action (Utah)	Issue/Clarification
inspected and cleaned using standardized protocols and procedures and approved vehicle/equipment decontamination systems before entering and exiting the area beyond initial attack activities to minimize the introduction of invasive annual grasses and other invasive plant species and noxious weeds.	approved vehicle/equipment decontamination systems before entering and exiting the area beyond initial attack activities to minimize the introduction of invasive annual grasses and other invasive plant species and noxious weeds. <u>Undertake invasive plant species control where needed.</u>	Habitat Management Areas Designations Consistency with 2012 Planning Rule
GRSG-FM-GL-054-Guideline Unit-specific greater sage-grouse fire management-related information should be added to wildland fire decision support systems (currently, the Wildland Fire Decision Support System); local operating plans and resource advisor plans to be used during fire situations to inform management decisions; and aid in development of strategies and tactics for resource prioritization.	GRSG-FM-MA-053-Management Approach Unit-specific greater sage-grouse fire management-related information should be added to wildland fire decision support systems (currently, the Wildland Fire Decision Support System); local operating plans and resource advisor plans to be used during fire situations to inform management decisions; and aid in development of strategies and tactics for resource prioritization.	
GRSG-FM-GL-055-Guideline Localized maps of priority and general habitat management areas and sagebrush focal areas should be made available to fireline, dispatch, and fire support personnel.	GRSG-FM-MA-054-Management Approach Localized maps of priority and general habitat management areas should be made available to fireline, dispatch, and fire support personnel.	Elimination of Sagebrush Focal Areas Consistency with 2012 Planning Rule
GRSG-FM-GL-056-Guideline In or near priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain , a greater sage-grouse resource advisor should be assigned to all extended attack fires.	GRSG-FM-MA-055-Management Approach In or near priority and general habitat management areas, a greater sage-grouse resource advisor should be assigned to all extended attack fires.	Elimination of Sagebrush Focal Areas Habitat Management Areas Designations Consistency with 2012 Planning Rule
GRSG-FM-GL-057-Guideline	GRSG-FM-MA-056-Management Approach	Consistency with 2012 Planning Rule

Commented [CB27]: These methods unlikely to be effective. Invasive species spread primarily through wind, birds, and wildlife.

No Action Alternative (Utah)	Proposed Action (Utah)	Issue/Clarification
On critical fire weather days, protection of greater sage-grouse habitat should receive high consideration, along with other high values, for positioning of resources.	On critical fire weather days, protection of greater sage-grouse habitat should receive high consideration, along with other high values, for positioning of resources.	
GRSG-FM-GL-058-Guideline Line officers should be involved in setting pre-season wildfire response priorities and prioritizing protection of priority and general habitat management areas and sagebrush focal areas , along with other high values. During periods of multiple fires or limited resource availability, fire management organizational structure (local, regional, national) will prioritize fires and allocation of resources in which greater sage-grouse habitat is a consideration along with other high values.	GRSG-FM-MA-057-Management Approach Line officers should be involved in setting pre-season wildfire response priorities and prioritizing protection of priority and general habitat management areas along with other high values. During periods of multiple fires or limited resource availability, fire management organizational structure (local, regional, national) will prioritize fires and allocation of resources in which greater sage-grouse habitat is a consideration along with other high values.	Elimination of Sagebrush Focal Areas Consistency with 2012 Planning Rule
GRSG-FM-GL-059-Guideline In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain , consider using fire retardant and mechanized equipment only if it is likely to result in minimizing burned acreage; preventing the loss of other high value resources; or increasing the effectiveness of other tactical strategies. Agency administrators, their designee, or fireline leadership should consider fire suppression effects while determining suppression strategy and tactics; the use of fire retardant and mechanized equipment may be approved by agency administrators, their designee, or fireline leadership.	GRSG-FM-MA-058-Management Approach In priority and general habitat management areas, use fire retardant and mechanized equipment only if it is likely to result in minimizing burned acreage; preventing the loss of other high value resources; or increasing the effectiveness of other tactical strategies. Agency administrators, their designee, or fireline leadership should consider fire suppression effects while determining suppression strategy and tactics; the use of fire retardant and mechanized equipment may be approved by agency administrators, their designee, or fireline leadership.	Elimination of Sagebrush Focal Areas Habitat Management Areas Designations Consistency with 2012 Planning Rule
GRSG-FM-GL-060-Guideline In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain , to minimize sagebrush habitat loss consider using the full range of suppression techniques to protect unburned islands, doglegs, and other greater sage-grouse habitat features that may exist within the perimeter of wildfires. These suppression objectives and activities should be prioritized against other wildland fire suppression activities and priorities.	GRSG-FM-GL-059-Guideline In priority and general habitat management areas, to minimize sagebrush habitat loss, the full range of suppression techniques should be used to protect unburned islands, doglegs, and other greater sage-grouse habitat features that may exist within the perimeter of wildfires to retain as much GRSG habitat as possible.	Elimination of Sagebrush Focal Areas Habitat Management Areas Designations Consistency with 2012 Planning Rule
Recreation		

Commented [CB28]: This restriction on firefighting is difficult to understand. Most areas of priority habitat lack water so fire retardant, e.g. slurry and digging fire lines, are the next best tools. Perhaps adding the phrase, "If adequate water is available, use water to minimize burned acres. Otherwise, use all available tools." The southern Idaho Murphy Complex Fire is ample evidence of how fast and wide a sagebrush fire burns.

No Action Alternative (Utah)	Proposed Action (Utah)	Issue/Clarification
<p>GRSG-R-DC-061-Desired Condition</p> <p>In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, recreation activities are balanced with the ability of the land to support them while meeting greater sage-grouse seasonal habitat desired conditions (Table 1) and creating minimal user conflicts.</p>	<p>GRSG-R-DC-059-Desired Condition</p> <p>Delete</p>	<p>Required by 2012 Planning Rule</p>
<p>GRSG-R-ST-062-Standard</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, do not authorize temporary recreation uses (i.e., facilities or activities) that result in loss of habitat or would have long-term (i.e., greater than 5 years) negative impacts on the greater sage-grouse or its habitat.</p>	<p>GRSG-R-GL-060-Guideline</p> <p>In priority habitat management areas, do not authorize temporary recreation uses (i.e., facilities or activities) that result in loss of habitat or would have long-term (i.e., greater than 5 years) negative impacts on the greater sage-grouse or its habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-R-GL-063-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, terms and conditions that protect and/or restore greater sage-grouse habitat within the permit area should be included in new recreation special-use authorizations. During renewal, amendment, or reauthorization, terms and conditions in existing permits and operating plans should be modified to protect and/or restore greater sage-grouse habitat.</p>	<p>GRSG-R-MA-061-Management Approach</p> <p>In priority and general habitat management areas, terms and conditions that protect and/or restore greater sage-grouse habitat within the permit area should be included in new recreation special-use authorizations. During renewal, amendment, or reauthorization, terms and conditions in existing permits and operating plans should be modified to protect and/or restore greater sage-grouse habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-R-GL-064-Guideline</p> <p>In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, new recreational facilities or expansion of existing recreational facilities (e.g., roads, trails, campgrounds), including special-use authorizations for facilities and activities, should not be approved unless the development</p>	<p>GRSG-R-GL-062-Guideline</p> <p>In priority habitat management areas, new recreational facilities or expansion of existing recreational facilities (e.g., roads, trails, campgrounds), including special-use authorizations for facilities, should not be approved unless the development <u>results in no net loss of</u> greater sage-grouse <u>habitat</u> or the development is required for safety.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>

No Action Alternative (Utah)	Proposed Action (Utah)	Issue/Clarification
results in a net conservation gain to the greater sage- grouse or its habitat or the development is required for visitor safety.		Changing Net Conservation Gain
Roads/Transportation		
GRSG-RT-DC-065-Desired Condition In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, within the forest transportation system and on roads and trails authorized under a special-use authorization, the greater sage-grouse experience minimal disturbance during breeding and nesting (from March 1 to June 15) and wintering (from November 1 to February 28) periods.	GRSG-RT-DC-063-Desired Condition In priority and general habitat management areas <u>and subject to valid rights and authorizations</u> , within the forest transportation system and on roads and trails authorized under a special use authorization, greater sage-grouse experience minimal disturbance and mortality.	Elimination of Sagebrush Focal Areas Habitat Management Areas Designations Clarification
GRSG-RT-ST-066-Standard In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, do not conduct or allow new road or trail construction (does not apply to realignments for resource protection) except when necessary for administrative access to existing and authorized uses, public safety, or to access valid existing rights. If necessary to construct new roads and trails for one of these purposes, construct them to the minimum standard, length, and number and avoid, minimize, and mitigate impacts.	GRSG-RT-ST-064-Standard In priority and general habitat management areas, <u>allow existing rights and authorizations.</u> do not conduct or allow new road or trail construction (does not apply to realignments for resource protection) except when necessary for administrative access to existing and authorized uses, public safety, or to access valid existing rights. If necessary to construct new roads and trails for one of these purposes, construct them to <u>the minimum standard, length, and number and</u> avoid, minimize, and mitigate impacts.	Elimination of Sagebrush Focal Areas Habitat Management Areas Designations
GRSG-RT-ST-067-Standard Do not conduct or allow road and trail maintenance activities within 2 miles from the perimeter of active leks during lekking (from March 1 to April 30) from 6 p.m. to 9 a.m.	GRSG-RT-ST-065-Standard No Change	
GRSG-RT-ST-068-Standard In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, do not allow public motor vehicle use on temporary energy development roads.	GRSG-RT-ST-068-Standard Delete	Redundant with Special Use Permit Issuance
GRSG-RT-GL-069-Guideline	GRSG-RT-GL-069-Guideline	Included in DC-65

Commented [CB29]: There is little if any evidence that travel on existing roads and trails causes significant mortality or disturbance. As written, the FS purports to supersede federal laws regarding state and county roads as well as its mandatory access obligations. The issue of disturbance is even more troubling. There are no limits on hunting which clearly disturbs sage grouse but a passing car or truck is to be limited.

Commented [CB30]: This is an unsupported and unreasonable limit on NFS access.

No Action Alternative (Utah)	Proposed Action (Utah)	Issue/Clarification
<p>In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, new roads and road realignments should be designed and administered to reduce collisions with the greater sage-grouse.</p>	<p>Delete</p>	
<p>GRSG-RT-GL-070-Guideline</p> <p>In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, road construction within riparian areas and mesic meadows should be restricted. If not possible to restrict construction within riparian areas and mesic meadows, roads should be designed and constructed at right angles to ephemeral drainages and stream crossings unless topography prevents doing so.</p>	<p>GRSG-RT-GL-070-Guideline</p> <p>Delete</p>	<p>Redundant with GRSG-RT-ST-066-Standard</p>
<p>GRSG-RT-GL-071-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, when decommissioning roads and unauthorized routes, restoration activity should be designed to move habitat towards desired conditions (Table 1).</p>	<p>GRSG-RT-GL-071-Guideline</p> <p>Delete</p>	<p>Required by 2012 Planning Rule</p>
<p>GRSG-RT-GL-072-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, dust abatement terms and conditions should be included in road-use authorizations when dust has the potential to affect the greater sage-grouse.</p>	<p>GRSG-RT-<u>MA-066-Management Approach</u></p> <p>In priority and general habitat management areas, dust abatement terms and conditions should be included in road-use authorizations when dust has the potential to affect the greater sage-grouse.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-RT-GL-073-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, road and road-way maintenance activities should be designed and implemented to reduce the risk of vehicle- or human-caused wildfires and the spread of invasive plants. Such activities include but are not</p>	<p>GRSG-RT-<u>MA-067-Management Approach</u></p> <p>In priority and general habitat management areas, road and road-way maintenance activities should be designed and implemented to reduce the risk of vehicle- or human-caused wildfires and the spread of invasive plants.</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Utah)	Proposed Action (Utah)	Issue/Clarification
limited to the removal or mowing of vegetation a car- width off the edge of roads; use of weed-free earth-moving equipment, gravel, fill, or other materials; and blading or pulling roadsides and ditches that are infested with noxious weeds only if required for public safety or protection of the roadway.		Habitat Management Areas Designations Clarification Consistency with 2012 Planning Rule
Minerals		
Fluid-Unleased		
GRSG-M-FMUL-ST-074-Standard In priority habitat management areas and Anthro Mountain, any new oil and gas leases must include a No Surface Occupancy 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: <ul style="list-style-type: none"> • 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-068-Standard In priority habitat management areas, any new oil and gas leases or geothermal leases must include a Controlled No-Surface Occupancy stipulation. There will be no waivers or modifications. An exception could be granted by the authorized officer if: <ul style="list-style-type: none"> • There would be no direct, indirect, or cumulative effects to the greater sage-grouse or its habitat; or • Impacts could be fully offset through mitigation; and • The exception will include appropriate controlled surface use and timing limitation stipulations 	Habitat Management Areas Designations Including Waivers, Exceptions, and Modifications on NSO Stipulation Adjustment of Compensatory Mitigation Frameworks Clarification
GRSG-M-FMUL-ST-075-Standard In sagebrush focal areas, there will be No Surface Occupancy and no waivers, exceptions, or modifications for fluid mineral leasing.	GRSG-M-FMUL-ST-075-Standard Delete	Mineral withdrawal no longer valid
Fluid- Leased		
GRSG-M-FML-ST-076-Standard In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, when approving the Surface Use Plan of Operation portion of the Application for Permit to Drill on	GRSG-M-FML-ST-069-Standard Subject to valid existing rights, in priority habitat management areas the Surface Use Plan of Operation portion of the Application for Permit to Drill on existing leases that are not yet developed,	Elimination of Sagebrush Focal Areas

Commented [CB31]: The Utah Plan does not call for NSO and as commented above, broad NSO lease areas mean no development.

Commented [CB32]: There are a large number of producing leases that do not have sage grouse stipulations. FS cannot require a condition of approval for a new well or workover on a current lease that would change the lease terms.

No Action Alternative (Utah)	Proposed Action (Utah)	Issue/Clarification
existing leases that are not yet developed, require that leaseholders avoid and minimize surface disturbing and disruptive activities consistent with the rights granted in the lease.	<u>will require Conditions of Approval (COA) that will avoid and minimize</u> surface disturbing and disruptive activities consistent with the rights granted in the lease.	Habitat Management Areas Designations Consistency with 2012 Planning Rule
GRSG-M-FML-ST-077-Standard In priority habitat management areas, sagebrush focal areas, and Anthro Mountain , when facilities are no longer needed <u>needed</u> , or leases are relinquished, require reclamation plans to include terms and conditions to restore habitat to desired conditions as described in Table 1 .	GRSG-M-FML-ST-070-Standard In priority habitat management areas, when facilities are no longer needed <u>needed</u> , or leases are relinquished, reclamation plans must include terms and conditions to restore habitat to desired conditions as described in <u>Appendix E, Table E-1</u> .	Elimination of Sagebrush Focal Areas Habitat Management Areas Designations
GRSG-M-FML-ST-078-Standard In general management areas, authorize new transmission line corridors, transmission line right of ways <u>rights-of-way</u> , transmission line construction, or transmission line-facility construction associated with fluid mineral leases with stipulations necessary to protect the greater sage-grouse and its habitat, consistent with the terms and conditions of the permit.	GRSG-M-FML-ST-071-Standard In general management areas, authorize new transmission line corridors, transmission line right of ways, transmission line construction, or transmission line facility construction associated with fluid mineral leases with stipulations necessary to protect the greater sage-grouse and its habitat, consistent with the terms and conditions of the permit (Appendix G).	Clarification
GRSG-M-FML-ST-079-Standard 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-Standard.	GRSG-M-FML-MA-072-Management Approach <u>Where possible, l</u> ocate 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-Standard.	Consistency with 2012 Planning Rule
GRSG-M-FML-ST-080-Standard In priority and general habitat management areas, when authorizing development of fluid mineral resources, work with the operator to minimize impacts to the greater sage-grouse	GRSG-M-FML-MA-073-Management Approach In priority and general habitat management areas, when authorizing development of fluid mineral resources, work with the operator to minimize impacts to the greater sage-grouse and its	Consistency with 2012 Planning Rule

Commented [CB33]: The Coalition would delete this condition for a number of reasons. First transmission lines are governed by Title V of FLPMA, not the MLA. Second general habitat should not be subject to these kinds of conditions. Third, these conditions would force operators to use generators that are noisy and release more air pollution.

Commented [CB34]: The Coalition would delete or modify.

No Action Alternative (Utah)	Proposed Action (Utah)	Issue/Clarification
and its habitat, such as locating facilities in non-habitat areas first and then in the least suitable habitat.	habitat, such as locating facilities in non-habitat areas first and then in the least suitable habitat.	
<p>GRSG-M-FML-ST-081-Standard</p> <p>Apply the following conditions of approval on existing fluid mineral leases in Anthro Mountain.</p> <ul style="list-style-type: none"> • Use a phased approach for development in greater sage-grouse habitat. • No well pads or permanent structures will be permitted within a 0.6 mile0.6-mile buffer of an occupied lek. • Project-related activities and vehicle access will not be allowed in or through the 0.6 mile0.6-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 greater sage-grouse 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. 	<p>GRSG-M-FML-ST-081-Standard</p> <p>Delete</p>	<p>Habitat Management Areas</p>

No Action Alternative (Utah)	Proposed Action (Utah)	Issue/Clarification
<ul style="list-style-type: none"> • Noise levels at leks must be limited to no more than 10dB above ambient (not to exceed 20- 24 dB), 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. <p>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.</p>		
<p>GRSG-M-FML-GL-082-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, operators should be encouraged to reduce disturbance to greater sage-grouse habitat. 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 and consistent with the rights granted to the lessee.</p>	<p>GRSG-M-FML-GL-074-Guideline</p> <p>In priority and general habitat management areas, the Surface Use Plan of Operation portion of the Application for Permit to Drill will include terms and conditions to reduce disturbance to greater sage-grouse habitat where appropriate, feasible, and consistent with the rights granted to the lessee.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-M-FML-GL-083-Guideline</p> <p>On existing Federal leases in priority habitat management areas, sagebrush focal areas, and Anthro Mountain, when surface occupancy cannot be restricted due to valid existing rights or development requirements, disturbance and surface occupancy should be limited to areas least harmful to greater sage-grouse based on vegetation, topography, or other habitat features.</p>	<p>GRSG-M-FML-GL-075-Guideline</p> <p>On existing federal leases in priority habitat management areas <u>and subject to valid existing rights</u>, when surface occupancy must be allowed due to valid existing rights or development requirements, disturbance and surface occupancy should be restricted to areas that will minimize the impact to the greater sage-grouse based on vegetation, topography, or other habitat features.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>

Commented [CB35]: This guideline is well-stated and should apply to all activities under a lease. FS could delete much of the micro-management standards and guidelines retained.

No Action Alternative (Utah)	Proposed Action (Utah)	Issue/Clarification
<p>GRSG-M-FML-GL-084-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, 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.</p>	<p>GRSG-M-FML-MA-076-Management Approach</p> <p>In priority and general habitat management areas, 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 (Appendix G).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with 2012 Planning Rule</p> <p>Clarification</p>
Fluid- Operations		
<p>GRSG-M-FMO-ST-085-Standard</p> <p>In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, do not authorize employee camps.</p>	<p>GRSG-M-FMO-ST-077-Standard</p> <p>In priority habitat management areas do not authorize employee camps.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-M-FMO-ST-086-Standard</p> <p>In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, when feasible do not locate tanks or other structures that may be used as raptor perches. If this is not feasible, use perch deterrents.</p>	<p>GRSG-M-FMO-ST-078-Standard</p> <p>In priority habitat management areas, when feasible do not locate tanks or other structures that may be used as raptor perches. If this is not feasible, use perch deterrents.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-M-FMO-GL-087-Guideline</p> <p>In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, closed-loop systems should be used for drilling operations with no reserve pits, where feasible.</p>	<p>GRSG-M-FMO-MA-079-Management Approach</p> <p>In priority habitat management areas, closed-loop systems should be used for drilling operations with no reserve pits, where feasible.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>

Commented [CB36]: FS has limited authority to limit access to private minerals. *Duncan Energy v. US Forest Service*, 50 F.3d 584, 591, fn. 8 (8th Cir. 1995) (“The Forest Service concedes that it cannot prohibit mineral development and recognizes the mineral holder’s absolute right to develop its mineral estate.”)

No Action Alternative (Utah)	Proposed Action (Utah)	Issue/Clarification
<p>GRSG-M-FMO-GL-088-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, during drilling operations, soil compaction should be minimizedminimized, and soil structure should be maintained using the best available techniques to improve vegetation reestablishment.</p>	<p>GRSG-M-FMO-GL-080-Guideline</p> <p>In priority and general habitat management areas, during drilling operations, soil compaction should be minimizedminimized, and soil structure should be maintained using the best available techniques to improve vegetation reestablishment.</p>	<p>Consistency with 2012 Planning Rule</p> <p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-M-FMO-GL-089-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, dams, impoundments, and ponds for mineral development should be constructed to reduce potential for West Nile virus. Examples of methods to accomplish this include the following:</p> <ul style="list-style-type: none"> • 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. 	<p>GRSG-M-FMO-GL-081-Guideline</p> <p>In priority and general habitat management areas, dams, impoundments, and ponds for mineral development should be constructed to reduce potential for West Nile virus.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with 2012 Planning Rule</p>

Commented [CB37]: Ongoing research suggests avian species can develop immunity to West Nile Virus. B. Walker *West Nile Virus and Greater Sage-Grouse: Estimating Infection Rate in a Wild Bird Population*, Avian Diseases 51 (3):691-6 October 2007. This guideline should be downgraded to a management approach.

No Action Alternative (Utah)	Proposed Action (Utah)	Issue/Clarification
<ul style="list-style-type: none"> • 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. 		
	<p>GRSG-M-FMO-MA-082-Management Approach</p> <p>Utilize the following methods to reduce to potential for West Nile virus include the following:</p> <ul style="list-style-type: none"> • 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. 	<p>Consistency with 2012 Planning Rule</p>

No Action Alternative (Utah)	Proposed Action (Utah)	Issue/Clarification
<p>GRSG-M-FMO-GL-090-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, to keep habitat disturbance at a minimum, a phased development approach should be applied to fluid mineral operations wherever possible, consistent with the rights granted under the lease. Disturbed areas should be reclaimed as soon as they are no longer needed for mineral operations.</p>	<p>GRSG-M-FMO-GL-083-Guideline</p> <p>In priority and general habitat management areas, to keep habitat disturbance at a minimum, a phased development approach should be applied to fluid mineral operations wherever possible, consistent with the rights granted under the lease. Disturbed areas should be reclaimed as soon as they are no longer needed for mineral operations.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
Coal Mines- Unleased		
<p>GRSG-M-CMUL-ST-091-Standard</p> <p>When consenting to new underground coal leases, include a lease stipulation prohibiting the location of surface facilities in priority habitat management areas, sagebrush focal areas, and Anthro Mountain.</p>	<p>GRSG-M-CMUL-ST-084-Standard</p> <p><u>When consenting to coal leases or coal lease modifications where development would be by underground mining methods, include a lease stipulation prohibiting the location of surface facilities in priority habitat management areas. At coal lease readjustment, bring forward stipulations for prohibiting the location of surface facilities in priority habitat management areas.</u></p> <p><u>For coal exploration licenses, prohibit surface facilities in priority habitat management areas; prescribe stipulations to protect greater sage-grouse and its habitat. Recommend operating conditions for exploration plans to reduce invasive species, prevent fire, limit permanent tall structures and new permanent roads, and design reclamation of surface disturbance to restore applicable greater sage-grouse habitat.</u></p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Clarification of Regulatory Process</p>
Coal Mines- Leased		
<p>GRSG-M-CML-ST-092-Standard</p> <p>In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, do not authorize new appurtenant surface facilities related to existing underground mines unless no technically feasible alternative exists. If new appurtenant surface facilities associated with existing mine leases cannot be located outside of priority habitat management areas and sagebrush focal areas, locate them within any existing disturbed areas, if possible. If location within an existing disturbed area is</p>	<p>GRSG-M-CML-ST-085-Standard</p> <p><u>If not stipulated in a coal lease, during the state agency permitting process, recommend against placement of surface facilities related to existing underground mines in priority habitat management areas. If new surface facilities associated with existing leases cannot be located outside of priority habitat management areas, then recommend location within any existing disturbed areas. If location within an existing disturbed area is not possible, then locate the facilities in an area least harmful to greater sage-grouse.</u></p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Clarification of Regulatory Process</p>

Commented [CB38]: These conditions are overbroad.

No Action Alternative (Utah)	Proposed Action (Utah)	Issue/Clarification
<p>not possible, then construct new facilities to minimize disturbed areas while meeting mine safety standards and requirements as identified by the Mine Safety and Health Administration 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.</p>	<p>habitat based on vegetation, topography, or other habitat features, and recommend to the authorizing state agency that reclamation be designed to restore any disturbed greater sage-grouse habitat.</p>	
<p>GRSG-M-CML-GL-093-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, when coal leases are subject to readjustment, additional requirements should be included in the readjusted lease to conserve, enhance, and restore greater sage-grouse and its habitat for long-term viability.</p>	<p>GRSG-M-CML-GL-086-Guideline</p> <p>When responding to the authorized state agency regarding mine permitting actions that cause surface disturbance, if applicable, include conditions for surface use occupancy and timing prohibitions and restrictions based on habitat present. During permitting actions and/or 5-year permit reviews, advise the state agency that the post-mining land use is wildlife habitat involving greater sage-grouse habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Clarification of Regulatory Process</p>
Locatable Minerals		
<p>GRSG-M-LM-ST-094-Standard</p> <p>In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, 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.</p>	<p>GRSG-M-LM-ST-087-Standard</p> <p>In priority and general habitat management areas, only approve Plans of Operation with mitigation (avoid and minimize) to protect the greater sage-grouse and its habitat, consistent with the rights of the mining claimant as granted by the Mining Law of 1872, as amended.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-M-LM-GL-095-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, to 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.</p>	<p>GRSG-M-LM-GL-088-Guideline</p> <p>In priority and general habitat management areas, to 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.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>

Commented [CB39]: The FS cannot impose conditions on a plan of operations that will interfere with mining.

No Action Alternative (Utah)	Proposed Action (Utah)	Issue/Clarification
<p>GRSG-M-LM-GL-096-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, 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.</p>	<p>GRSG-M-LM-GL-089-Guideline</p> <p>In priority and general-habitat management areas, <u>when closing</u> abandoned mine sites <u>remove</u> tall structures that could provide nesting opportunities and perching sites for predators to reduce predation of greater sage-grouse.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with 2012 Planning Rule</p>
Non-energy Leaseable Minerals		
<p>GRSG-M-NEL-GL-097-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and 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.</p>	<p>GRSG-M-NEL-MA-090-Management Approach</p> <p><u>In priority and general-habitat management areas, include stipulations to restrict surface use, occupancy and seasonal activities for exploration or pre-mining activities with recommendations or consent (as applicable) to issuance of prospecting permits, exploration licenses, or leases, lease modifications, lease readjustments or lease renewals.</u></p> <p><u>In priority habitat management areas where development would be by surface mining methods, do not consent to, or recommend, leasing in areas that exceed disturbance caps. In priority habitat management areas where development would be by underground mining methods, specify or recommend stipulations that prohibit surface use and occupancy in priority habitat management areas.</u></p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with 2012 Planning Rule</p> <p>Clarification of Regulatory Process</p>
<p>GRSG-M-NEL-GL-098-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and 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.</p>	<p>GRSG-M-NEL-MA-091-Management Approach</p> <p><u>In priority, important, and general habitatpriority habitat management areas, include in recommendations to the BLM regarding exploration plan or mining plans conditions to reduce invasive species, prevent fire, limit permanent tall structures and new permanent roads, and to design reclamation of surface disturbance to restore applicable greater sage-grouse habitat.</u></p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>

No Action Alternative (Utah)	Proposed Action (Utah)	Issue/Clarification
		<p>Consistency with 2012 Planning Rule</p> <p>Clarification of Regulatory Process</p>
Mineral Materials		
<p>GRSG-M-MM-ST-099-Standard</p> <p>In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, do not authorize new mineral material disposal or development.</p>	<p>GRSG-M-MM-ST-092-Standard</p> <p>In priority habitat management areas, do not authorize new mineral material disposal or development.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-M-MM-ST-100-Standard</p> <p>In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, 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.</p>	<p>GRSG-M-MM-ST-93-Standard</p> <p>Do not allow mineral material collection from March 1 to April 30 between 6 p.m. and 9 a.m. within 2 miles from the perimeter of occupied leks.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Clarification</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-M-MM-ST-101-Standard</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, 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).</p>	<p>GRSG-M-MM-ST-094-Standard</p> <p>In priority and general habitat <u>management areas, management of existing or expansion of existing pits, will include</u> appropriate requirements for operation and reclamation of the site to maintain, restore, or enhance desired habitat conditions (<u>Appendix E, Table E-1</u>).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Desired Conditions</p>

No Action Alternative (Utah)	Proposed Action (Utah)	Issue/Clarification
		Clarification

Table 2-8a. Comparisons of State of Utah Alternative¹

¹Priority, important, connectivity, and general habitat management areas may contain non-habitat. Management direction would not apply to those areas of non-habitat if the proposed activity in non-habitat does not preclude effective sage-grouse use of adjacent habitats.

Commented [CB40]: The Coalition supports the State of Utah alternative. The Utah Plan was adopted with extensive involvement of the affected state and local government agencies. It also avoids the micro-management found in the FS revisions for Utah. Because the sage grouse is now managed by the State, FS authority is limited to habitat and must also conform to state wildlife plans. The 2015 Plans were written when USFWS insisted on conditions or threatened it would list the sage grouse.

No Action Alternative (Utah)	State of Utah Alternative (Utah)	Issue/Clarification
<p>GRSG-GEN-DC-002-Desired Condition</p> <p>Anthropogenic disturbance is focused in non-habitat areas outside of priority and general habitat management areas and sagebrush focal areas.² Disturbance in general 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 existing authorized uses.</p> <p>²Priority habitat management areas and general habitat management areas may contain areas of non-habitat, and management direction would not apply to those areas of non-habitat. However, management direction would apply to all areas within sagebrush focal areas including non-habitat non-habitat.</p>	<p>GRSG-GEN-DC-002-Desired Condition</p> <p>Anthropogenic disturbance is focused in non-habitat areas outside of priority habitat management. There is little to no disturbance in priority habitat management areas except for valid existing rights and existing authorized uses.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Added footnote to definition of HMAs</p>
<p>Special-use Authorizations (Non-recreation)</p> <p>GRSG-LR-SUA-ST-014-Standard</p> <p>In general habitat management areas, new lands special-use authorizations may be issued for infrastructure, such as high-voltage transmission lines, major pipelines, distribution lines, and communication tower sites if they can be located within existing designated corridors or rights-of-way and the authorization includes stipulations to protect the greater sage-grouse and its habitat. Existing authorized uses will continue to be recognized.</p>	<p>GRSG-LR-SUA-ST-014-Standard</p> <p>Delete</p>	<p>Required by 2012 Planning Rule</p>

No Action Alternative (Utah)	State of Utah Alternative (Utah)	Issue/Clarification
<p>GRSG-LR-SUA-ST-016-Standard</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, require protective stipulations (e.g., noise, tall structure, guy wire removal, perch deterrent installation, etc.) when issuing new authorizations or during renewal, amendment, or reissuance of existing authorizations that authorize infrastructure (e.g., high-voltage transmission lines, major pipelines, roads, distribution lines, and communication tower sites).</p>	<p>GRSG-LR-SUA-ST-017-Standard</p> <p>In priority habitat management areas, require protective stipulations (e.g., noise, tall structure, guy wire removal, perch deterrent installation, etc.) when issuing new authorizations or during renewal, amendment, or reissuance of existing authorizations that authorize infrastructure (e.g., high-voltage transmission lines, major pipelines, roads, distribution lines, and communication tower sites).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-LR-SUA-ST-018-Standard</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, when a lands special-use authorization is revoked or terminatedterminated, and no future use is contemplated, require the authorization holder to remove overhead lines and other surface infrastructure in compliance with 36 CFR 251.60(i).</p>	<p>GRSG-LR-SUA-ST-018-Standard</p> <p>In priority habitat management areas, when a lands special-use authorization is revoked or terminatedterminated, and no future use is contemplated, authorization holder must remove overhead lines and other surface infrastructure in compliance with 36 CFR 251.60(i).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with 2012 Planning Rule</p>
Land Ownership Adjustments		
<p>GRSG-LR-LOA-GL-022-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, and with minority federal ownership, consider landownership adjustments to achieve a landownership pattern (e.g., consolidation, reducing fragmentation, etc.) that supports improved greater sage-grouse population trends and habitat.</p>	<p>GRSG-LR-LOA-MA-021-Management Approach</p> <p>In priority habitat management areas, and with minority federal ownership, consider landownership adjustments to achieve a landownership pattern (e.g., consolidation, reducing fragmentation, etc.) that supports improved greater sage-grouse population trends and habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with 2012 Planning Rule</p>
Greater Sage-grouse Habitat		

No Action Alternative (Utah)	State of Utah Alternative (Utah)	Issue/Clarification
<p>GRSG-GRSGH-GL-030-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, actions and authorizations should include design features to limit the spread and effect of undesirable non-native plant species.</p>	<p>GRSG-GRSGH-GL-028-Guideline</p> <p>In priority habitat management areas, actions and authorizations should include design features to limit the spread and effect of undesirable non-native plant species.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-GRSGH-GL-031-Guideline</p> <p>To facilitate safe and effective fire management actions in priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, 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 (Table 1).</p>	<p>GRSG-GRSGH-MA-029-Management Approach</p> <p>To facilitate safe and effective fire management actions in priority habitat management 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 Appendix E, Table E-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 (Appendix E, Table E-1).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-GRSGH-GL-032-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, native plant species should be used when possible to maintain, restore, or enhance desired conditions (Table 1).</p>	<p>GRSG-GRSGH-GL-030-Guideline</p> <p>In priority habitat management areas, native plant species should be used when possible to maintain, restore, or enhance desired conditions (Appendix E, Table E-1).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-GRSGH-GL-033-Guideline</p> <p>In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, vegetation treatment projects should only be conducted if they maintain, restore, or enhance desired conditions (Table 1).</p>	<p>GRSG-GRSGH-GL-031-Guideline</p> <p>In priority habitat management areas, vegetation treatment projects should only be conducted if they maintain, restore, or enhance desired conditions (Appendix E, Table E-1).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>Livestock Grazing</p>		

No Action Alternative (Utah)	State of Utah Alternative (Utah)	Issue/Clarification
<p>GRSG-LG-ST-035-Standard</p> <p>In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, do not approve construction of water developments unless beneficial to greater sage-grouse habitat.</p>	<p>GRSG-LG-ST-035-Standard</p> <p>In priority habitat management area, do not approve construction of water developments if the development would cause adverse effects to greater sage-grouse habitat.</p>	
<p>GRSG-LG-GL-036-Guideline</p> <p>Grazing guidelines should be applied in each of the seasonal habitats in Table 3. If values in Table 3 guidelines cannot be achieved based upon a site-specific analysis using Ecological Site Descriptions, long-term ecological site potential analysis, or other similar analysis, adjust grazing management to move towards desired habitat conditions in Table 1 consistent with the ecological site potential. Do not use drought and degraded habitat condition to adjust values. Grazing guidelines in Table 3 would not apply to isolated parcels of National Forest System lands that have less than 200 acres of greater sage-grouse habitat.</p>	<p>GRSG-LG-GL-036-Guideline</p> <p>In greater sage-grouse habitat, if livestock grazing is limiting achievement of seasonal desired conditions, adjust livestock management, as appropriate, to address greater sage-grouse habitat requirements.</p>	<p>Changing Livestock Grazing Guidelines</p>
<p>Nothing in 2015 Plan</p>	<p>GRSG-LG-MA-037-Management Approach</p> <p>Conduct greater sage-grouse habitat assessments in allotments. If the assessment identifies the habitat is in less than Suitable Condition, determine factors limiting achievement of the Suitable Condition.</p>	<p>Changing Livestock Grazing Guidelines</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-LG-GL-037-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, when grazing permits are waived without preference or obtained through permit cancellation, consider the agency's full range of administrative authorities for future allotment management, including but not limited to allotment closure, vacancy status for resource protection, establishment of forage reserve, re-stocking, or livestock conversion as management options to maintain or achieve desired habitat conditions (Table 1).</p>	<p>GRSG-LG-GL-037-Guideline</p> <p>Delete</p>	<p>Removed- Covered in existing Forest Service policy and direction</p>
<p>Fire Management</p>		

No Action Alternative (Utah)	State of Utah Alternative (Utah)	Issue/Clarification
<p>GRSG-FM-DC-042-Desired Condition</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, protect sagebrush sage grouse habitat from loss due to unwanted wildfires or damages resulting from management related activities while using agency risk management protocols to manage for firefighter and public safety and other high priority values. In all fire response, first priority is the management of risk to firefighters and the public. Sage grouse habitat will be prioritized as a high value resource along with other high value resources and assets.</p>	<p>GRSG-FM-MA-042-Management Approach</p> <p>In priority habitat management areas, protect sagebrush sage grouse habitat from loss due to unwanted wildfires or damages resulting from management related activities while using agency risk management protocols to manage for firefighter and public safety and other high priority values. In all fire response, first priority is the management of risk to firefighters and the public. Sage grouse habitat will be prioritized as a high value resource along with other high value resources and assets.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-FM-ST-043-Standard</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, do not use prescribed fire in 12-inch or less precipitation zones unless necessary to facilitate restoration of greater sage-grouse habitat consistent with desired conditions in Table 1 or for pile burning.</p>	<p>GRSG-FM-ST-043-Standard</p> <p>In priority habitat management areas, do not use prescribed fire in 12-inch or less precipitation zones unless necessary to facilitate restoration of greater sage-grouse habitat consistent with desired conditions in Appendix E, Table E-1 or for pile burning.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-FM-ST-044-Standard</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, if it is necessary to use prescribed fire for restoration of greater sage- grouse habitat consistent with desired conditions in Table 1, the associated National Environmental Policy Act analysis must identify how the project would move towards greater sage-grouse desired conditions; why alternative techniques were not selected; and how potential threats to greater sage-grouse habitat would be minimized.</p>	<p>GRSG-FM-MA-044-Management Approach</p> <p>In priority habitat management areas, if it is necessary to use prescribed fire for restoration of greater sage- grouse habitat consistent with desired conditions in Appendix E, Table E-1, the associated National Environmental Policy Act analysis must identify how the project would move towards greater sage-grouse desired conditions; why alternative techniques were not selected; and how potential threats to greater sage-grouse habitat would be minimized.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-FM-GL-046-Guideline</p> <p>In planned fuels management activities or part of an overall vegetative management strategy to mitigate the impacts of wildfire in priority and general habitat management areas and</p>	<p>GRSG-FM-MA-046-Management Approach</p> <p>In priority habitat management areas, when reseeding in fuel breaks, fire resistant native plant species should be used if available, oravailable or consider using fire resistance non-native</p>	<p>Clarification</p> <p>Consistency with 2012 Planning Rule</p>

No Action Alternative (Utah)	State of Utah Alternative (Utah)	Issue/Clarification
<p>sagebrush focal areas, when reseeding in fuel breaks, fire resistant native plant species should be used if available, or consider using fire resistance non-native species if analysis and/or best available science demonstrates that non-native plants will not degrade greater sage-grouse habitat in the long-term.</p>	<p>species if analysis and/or best available science demonstrates that non-native plants will not degrade greater sage-grouse habitat in the long-term (> 5 years) and will prevent fire spread into GRSG habitat.</p>	
<p>GRSG-FM-GL-049-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, cross-country vehicle travel during fire operations should be restricted. When needed to best provide for firefighter or public safety or to minimize fire size in greater sage-grouse habitat, impacts to the greater sage-grouse should be considered, and removal of sagebrush should be limited.</p>	<p>GRSG-FM-MA-048-Management Approach</p> <p>In priority habitat management areas, cross-country vehicle travel during fire operations should be restricted. When needed to best provide for firefighter or public safety or to minimize fire size in greater sage-grouse habitat, impacts to the greater sage-grouse should be considered, and removal of sagebrush should be limited to the extent practicable to achieve suppression objectives.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-FM-GL-050-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, use fire management tactics and strategies that seek to minimize loss of existing sagebrush habitat. The safest and most practical means to do so will be determined by fireline leadership and incident commanders.</p>	<p>GRSG-FM-MA-049-Management Approach</p> <p>In priority habitat management areas, use fire management tactics and strategies that seek to minimize loss of existing sagebrush habitat. The safest and most practical means to do so will be determined by fireline leadership and incident commanders.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-FM-GL-051-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, prescribed fire prescriptions should minimize undesirable effects on vegetation and/or soils (e.g., minimize mortality of desirable perennial plant species and reduce risk of hydrophobicity).</p>	<p>GRSG-FM-MA-050-Management Approach</p> <p>In priority habitat management areas prescribed fire prescriptions should result in improvement of desired conditions for GRSG and not result in undesirable effects on vegetation and/or soils (e.g., minimize mortality of desirable perennial plant species and reduce risk of hydrophobicity).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management</p>

No Action Alternative (Utah)	State of Utah Alternative (Utah)	Issue/Clarification
		Areas Designations Consistency with 2012 Planning Rule
<p>GRSG-FM-GL-052-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, roads and natural fuel breaks should be incorporated into planned fuel break design to improve effectiveness and minimize loss of existing sagebrush habitat.</p>	<p>GRSG-FM-MA-051-Management Approach</p> <p>In priority habitat management areas, roads and natural fuel breaks should be incorporated into planned fuel break design to improve effectiveness and minimize loss of existing sagebrush habitat.</p>	Elimination of Sagebrush Focal Areas Habitat Management Areas Designations Consistency with 2012 Planning Rule
<p>GRSG-FM-GL-053-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, where practical and available, all fire-associated vehicles and equipment should be inspected and cleaned using standardized protocols and procedures and approved vehicle/equipment decontamination systems before entering and exiting the area beyond initial attack activities to minimize the introduction of invasive annual grasses and other invasive plant species and noxious weeds.</p>	<p>GRSG-FM-ST-052-Standard</p> <p>In priority habitat management areas, all fire-associated vehicles and equipment are to be inspected and cleaned using standardized protocols and procedures and approved vehicle/equipment decontamination systems before entering and exiting the area beyond initial attack activities to minimize the introduction of invasive annual grasses and other invasive plant species and noxious weeds.</p>	Elimination of Sagebrush Focal Areas Habitat Management Areas Designations Consistency with 2012 Planning Rule
<p>GRSG-FM-GL-055-Guideline</p> <p>Localized maps of priority and general habitat management areas and sagebrush focal areas should be made available to fireline, dispatch, and fire support personnel.</p>	<p>GRSG-FM-MA-054-Management Approach</p> <p>Localized maps of priority habitat management areas should be made available to fireline, dispatch, and fire support personnel.</p>	Elimination of Sagebrush Focal Areas Consistency with 2012 Planning Rule

No Action Alternative (Utah)	State of Utah Alternative (Utah)	Issue/Clarification
<p>GRSG-FM-GL-056-Guideline</p> <p>In or near priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, a greater sage-grouse resource advisor should be assigned to all extended attack fires.</p>	<p>GRSG-FM-MA-055-Management Approach</p> <p>In or near priority habitat management areas, a greater sage-grouse resource advisor should be assigned to all extended attack fires.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-FM-GL-059-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, consider using fire retardant and mechanized equipment only if it is likely to result in minimizing burned acreage; preventing the loss of other high value resources; or increasing the effectiveness of other tactical strategies. Agency administrators, their designee, or fireline leadership should consider fire suppression effects while determining suppression strategy and tactics; the use of fire retardant and mechanized equipment may be approved by agency administrators, their designee, or fireline leadership.</p>	<p>GRSG-FM-MA-058-Management Approach</p> <p>In priority habitat management areas, use fire retardant and mechanized equipment only if it is likely to result in minimizing burned acreage; preventing the loss of other high value resources; or increasing the effectiveness of other tactical strategies. Agency administrators, their designee, or fireline leadership should consider fire suppression effects while determining suppression strategy and tactics; the use of fire retardant and mechanized equipment may be approved by agency administrators, their designee, or fireline leadership.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-FM-GL-060-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, to minimize sagebrush habitat loss consider using the full range of suppression techniques to protect unburned islands, doglegs, and other greater sage-grouse habitat features that may exist within the perimeter of wildfires. These suppression objectives and activities should be prioritized against other wildland fire suppression activities and priorities.</p>	<p>GRSG-FM-GL-059-Guideline</p> <p>In priority habitat management areas, to minimize sagebrush habitat loss, the full range of suppression techniques should be used to protect unburned islands, doglegs, and other greater sage-grouse habitat features that may exist within the perimeter of wildfires to retain as much GRSG habitat as possible.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with 2012 Planning Rule</p>
<p>Recreation</p>		

No Action Alternative (Utah)	State of Utah Alternative (Utah)	Issue/Clarification
<p>GRSG-R-ST-062-Standard</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, do not authorize temporary recreation uses (i.e., facilities or activities) that result in loss of habitat or would have long-term (i.e., greater than 5 years) negative impacts on the greater sage-grouse or its habitat.</p>	<p>GRSG-R-GL-060-Guideline</p> <p>In priority habitat management areas, do not authorize temporary recreation uses (i.e., facilities or activities) that result in loss of habitat or would have long-term (i.e., greater than 5 years) negative impacts on the greater sage-grouse or its habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with 2012 Planning Rule</p>
Roads/Transportation		
<p>GRSG-RT-DC-065-Desired Condition</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, within the forest transportation system and on roads and trails authorized under a special-use authorization, the greater sage-grouse experience minimal disturbance during breeding and nesting (from March 1 to June 15) and wintering (from November 1 to February 28) periods.</p>	<p>GRSG-RT-DC-063-Desired Condition</p> <p>In priority habitat management areas, within the forest transportation system and on roads and trails authorized under a special use authorization, greater sage-grouse experience minimal disturbance and mortality.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Clarification</p>
<p>GRSG-RT-ST-066-Standard</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, do not conduct or allow new road or trail construction (does not apply to realignments for resource protection) except when necessary for administrative access to existing and authorized uses, public safety, or to access valid existing rights. If necessary to construct new roads and trails for one of these purposes, construct them to the minimum standard, length, and number and avoid, minimize, and mitigate impacts.</p>	<p>GRSG-RT-ST-064-Standard</p> <p>In priority habitat management areas, do not conduct or allow new road or trail construction (does not apply to realignments for resource protection) except when necessary for administrative access to existing and authorized uses, public safety, or to access valid existing rights. If necessary to construct new roads and trails for one of these purposes, construct them to the minimum standard, length, and number and avoid, minimize, and mitigate impacts.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-RT-GL-072-Guideline</p>	<p>GRSG-RT-MA-066-Management Approach</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Utah)	State of Utah Alternative (Utah)	Issue/Clarification
<p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, dust abatement terms and conditions should be included in road-use authorizations when dust has the potential to affect the greater sage-grouse.</p>	<p>In priority habitat management areas, dust abatement terms and conditions should be included in road-use authorizations when dust has the potential to affect the greater sage-grouse.</p>	<p>Habitat Management Areas Designations</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-RT-GL-073-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, road and road-way maintenance activities should be designed and implemented to reduce the risk of vehicle- or human-caused wildfires and the spread of invasive plants. Such activities include but are not limited to the removal or mowing of vegetation a car- width off the edge of roads; use of weed-free earth-moving equipment, gravel, fill, or other materials; and blading or pulling roadsides and ditches that are infested with noxious weeds only if required for public safety or protection of the roadway.</p>	<p>GRSG-RT-MA-067-Management Approach</p> <p>In priority habitat management areas, road and road-way maintenance activities should be designed and implemented to reduce the risk of vehicle- or human-caused wildfires and the spread of invasive plants.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Clarification</p> <p>Consistency with 2012 Planning Rule</p>
Minerals		
<p>GRSG-M-FML-ST-080-Standard</p> <p>In priority and general habitat management areas, 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.</p>	<p>GRSG-M-FML-MA-073-Management Approach</p> <p>In priority habitat management areas, 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.</p>	<p>Consistency with 2012 Planning Rule</p>
<p>GRSG-M-FML-GL-082-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, operators should be encouraged to reduce disturbance to greater sage-grouse habitat. At the time of approval of the Surface Use Plan of</p>	<p>GRSG-M-FML-GL-074-Guideline</p> <p>In priority habitat management areas, the Surface Use Plan of Operation portion of the Application for Permit to Drill will include terms and conditions to reduce disturbance to greater sage-grouse</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management</p>

No Action Alternative (Utah)	State of Utah Alternative (Utah)	Issue/Clarification
<p>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 and consistent with the rights granted to the lessee.</p>	<p>habitat where appropriate, feasible, and consistent with the rights granted to the lessee.</p>	<p>Areas Designations</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-M-FML-GL-084-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, 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.</p>	<p>GRSG-M-FML-MA-076-Management Approach</p> <p>In priority habitat management areas, 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 (Appendix G).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with 2012 Planning Rule</p> <p>Clarification</p>
Fluid- Operations		
<p>GRSG-M-FMO-GL-088-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, during drilling operations, soil compaction should be minimizedminimized, and soil structure should be maintained using the best available techniques to improve vegetation reestablishment.</p>	<p>GRSG-M-FMO-GL-080-Guideline</p> <p>In priority habitat management areas, during drilling operations, soil compaction should be minimizedminimized, and soil structure should be maintained using the best available techniques to improve vegetation reestablishment.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-M-FMO-GL-089-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, dams, impoundments, and ponds for mineral development should be constructed to reduce potential for West Nile virus. Examples of methods to accomplish this include the following:</p>	<p>GRSG-M-FMO-GL-081-Guideline</p> <p>In priority habitat management areas, dams, impoundments, and ponds for mineral development should be constructed to reduce potential for West Nile virus.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>

No Action Alternative (Utah)	State of Utah Alternative (Utah)	Issue/Clarification
<ul style="list-style-type: none"> • 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. <p>Treat waters with larvicides to reduce mosquito production where water occurs on the surface.</p>		<p>Consistency with 2012 Planning Rule</p>
<p>GRSG-M-FMO-GL-090-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, to keep habitat disturbance at a minimum, a phased development approach should be applied to fluid mineral operations wherever possible, consistent with the rights granted under the lease. Disturbed areas should be reclaimed as soon as they are no longer needed for mineral operations.</p>	<p>GRSG-M-FMO-GL-083-Guideline</p> <p>In priority habitat management areas, to keep habitat disturbance at a minimum, a phased development approach should be applied to fluid mineral operations wherever possible, consistent with the rights granted under the lease. Disturbed areas should be reclaimed as soon as they are no longer needed for mineral operations.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>Coal Mines- Unleased</p>		
<p>Coal Mines- Leased</p>		

No Action Alternative (Utah)	State of Utah Alternative (Utah)	Issue/Clarification
<p>GRSG-M-CML-GL-093-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, when coal leases are subject to readjustment, additional requirements should be included in the readjusted lease to conserve, enhance, and restore greater sage-grouse and its habitat for long-term viability.</p>	<p>GRSG-M-CML-GL-086-Guideline</p> <p>When responding to the authorized state agency regarding mine permitting actions that cause surface disturbance, if applicable, include conditions for surface use occupancy and timing prohibitions and restrictions based on habitat present. During permitting actions and/or 5-year permit reviews, advise the state agency that the post-mining land use is wildlife habitat involving greater sage-grouse habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Clarification of Regulatory Process</p>
Locatable Minerals		
<p>GRSG-M-LM-GL-095-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, to 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.</p>	<p>GRSG-M-LM-GL-088-Guideline</p> <p>In priority habitat management areas, to 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.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-M-LM-GL-096-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, 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.</p>	<p>GRSG-M-LM-GL-089-Guideline</p> <p>In priority habitat management areas, when closing abandoned mine sites remove tall structures that could provide nesting opportunities and perching sites for predators to reduce predation of greater sage-grouse.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with 2012 Planning Rule</p>
Non-energy Leasable Minerals		
<p>GRSG-M-NEL-GL-097-Guideline</p>	<p>GRSG-M-NEL-MA-090-Management Approach</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Utah)	State of Utah Alternative (Utah)	Issue/Clarification
<p>In priority and general habitat management areas, sagebrush focal areas, and 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.</p>	<p><u>In priority and general habitat management areas, include stipulations to restrict surface use, occupancy and seasonal activities for exploration or pre-mining activities with recommendations or consent (as applicable) to issuance of prospecting permits, exploration licenses, or leases, lease modifications, lease readjustments or lease renewals.</u></p> <p><u>In priority habitat management areas where development would be by surface mining methods, do not consent to, or recommend, leasing in areas that exceed disturbance caps. In priority habitat management areas where development would be by underground mining methods, specify or recommend stipulations that prohibit surface use and occupancy in priority habitat management areas.</u></p>	<p>Habitat Management Areas Designations</p> <p>Consistency with 2012 Planning Rule</p> <p>Clarification of Regulatory Process</p>
<p>GRSG-M-NEL-GL-098-Guideline</p> <p>In priority and general habitat management areas, sagebrush focal areas, and 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.</p>	<p>GRSG-M-NEL-MA-091-Management Approach</p> <p><u>In priority, important, and general habitat management areas, include areas, include in recommendations to the BLM regarding exploration plan or mining plans conditions to reduce invasive species, prevent fire, limit permanent tall structures and new permanent roads, and to design reclamation of surface disturbance to restore applicable greater sage-grouse habitat.</u></p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with 2012 Planning Rule</p> <p>Clarification of Regulatory Process</p>
Mineral Materials		
<p>GRSG-M-MM-ST-101-Standard</p> <p>In priority and general habitat management areas, sagebrush focal areas, and Anthro Mountain, 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).</p>	<p>GRSG-M-MM-ST-094-Standard</p> <p>In priority habitat <u>management areas, management of existing or expansion of existing pits, will include</u> appropriate requirements for operation and reclamation of the site to maintain, restore, or enhance desired habitat conditions (Table 2-7a).</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>

No Action Alternative (Utah)	State of Utah Alternative (Utah)	Issue/Clarification
		Desired Conditions Clarification

Table 2-9. Wyoming - Comparison of alternatives¹

¹Priority, connectivity, and general habitat management areas may contain non-habitat. Management direction would not apply to those areas of non-habitat if the proposed activity in non-habitat does not preclude effective sage-grouse use of adjacent habitats.

No Action Alternative (Wyoming)	Proposed Action (Wyoming)	Issue/Clarification
<p>GRSG-GRSGH-DC-001-Desired Condition</p> <p>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.</p>	<p>GRSG-GEN-DC-001-Desired Condition</p> <p>The landscape for the greater sage-grouse encompasses large contiguous areas of native vegetation to provide for multiple aspects of species life requirements (<u>e.g. breeding, nesting, brood rearing, etc.</u>). 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 provide for food, cover, and nesting habitat for the greater sage-grouse.</p>	<p>Clarification</p>
<p>GRSG-GRSGH-DC-002-Desired Condition</p> <p>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 provides food and cover for the greater sage-grouse during this seasonal period. Specific desired conditions for the greater sage-grouse based on seasonal habitat requirements are in Table 1.</p>	<p>GRSG-GEN-DC-002-Desired Condition</p> <p>In greater sage-grouse habitat management areas, <u>habitats are adequately distributed to support greater sage-grouse populations. 70% or more of lands capable of producing sagebrush have from 5 to 25% sagebrush canopy cover and less than 10% conifer cover. Areas managed for breeding and nesting provide for lek security and nest hiding cover through sufficient sagebrush canopy, sagebrush height, and perennial grass cover to deliver overhead and lateral concealment from March 15 through June 30. Areas managed for summer/brood rearing habitat July 1 through November 30 maintain wet meadows and riparian areas in proper functioning condition, sustain diverse perennial grass and forb communities, and maintain sagebrush cover in the 328 feet adjacent to riparian/mesic meadows. When breeding and nesting habitat overlaps with other seasonal habitats, habitat should be managed for breeding and nesting desired conditions. Within Winter Concentration Areas (as mapped by the State of Wyoming) sufficient sagebrush height and density provides food and cover during this seasonal period.</u></p>	<p>Habitat Management Areas Designations</p> <p>Modifying Desired Conditions</p>

Commented [CD41]: The Coalition appreciates the changes to this management action.

A significant portion of the Wyoming sage-grouse's habitat is not native vegetation. For example, significant portions of treated acres now are predominantly crested wheatgrass or other sterile non-natives. The Coalition would suggest that this sentence be modified to include "non-natives" which will imply that sage-grouse use and sage-grouse presence is the desired condition.

Commented [CD42]: The Coalition appreciates the decrease from 10% to 5% and 30% to 25% but disagrees fundamentally with identifying any definite value as a desired condition. These numbers set unrealistic expectations and commit the USFS to managing any given pasture as if it were capable of meeting these objectives (Note: capable is not the same concept as "potential").

No Action Alternative (Wyoming)	Proposed Action (Wyoming)	Issue/Clarification
	<p>GRSG-GEN-MA-003-Management Approach</p> <p>The values for greater sage-grouse habitat attributes in Appendix F are initial references based on range-wide habitat selection by greater sage-grouse. These initial references should be refined collaboratively to fit local habitats used by greater sage-grouse, ecological site capability, and limitations of habitat distribution. Not all areas will be capable of achieving the indicator values, due to inherent variation in vegetation communities, and ecological site potential, and variation in precipitation.</p>	<p>Consistency with 2012 Planning Rule</p> <p>Modifying Desired Conditions</p>
<p>GRSG-GRSGH-ST-003-Standard</p> <p>Design habitat restoration projects to move towards the desired conditions in Table 1.</p>	<p>GRSG-GRSGH-ST-003-Standard</p> <p>Delete</p>	<p>Required by 2012 Planning Rule</p>
<p>GRSG-GRSGH-ST-004-Standard</p> <p>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.</p>	<p>GRSG-GEN-MA-004-Management Approach</p> <p>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.</p>	<p>Consistency with 2012 Planning Rule</p>

Commented [CD43]: Neither “vegetation communities” nor “ESD” provide for variation in precipitation. Please add the suggested language.

Commented [CD44]: Converting a “standard” to a “management approach” without also changing the language in the management action makes it likely that staff will apply a Management Approach as if it were a Standard.

A management approach may not commit the USFS to a given decision, see FSH 1909.12 at §22.4, and that is the exact definition of a “trigger” – it necessitates a causal response to a given impetus and requires a certain action of the USFS.

The language in the action needs to remove all “trigger” language that indicates a causal response, provide for greater flexibility in management after a problem is identified.

No Action Alternative (Wyoming)	Proposed Action (Wyoming)	Issue/Clarification
<p>GRSG-GRSGH-ST-005-Standard</p> <p>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.</p> <p>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.</p>	<p>GRSG-GEN-ST-005-Standard</p> <p>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. <u>Adaptive management actions will be reversed once all of the identified causal factors are resolved.</u></p>	<p>Adaptive Management Review Process</p> <p>Consistency with 2012 Planning Rule</p>
<p>Nothing in 2015 Plan</p>	<p><u>GRSG-GEN-MA-006-Management Approach</u></p> <p>Cooperate with the Adaptive Management Working Group <u>as outlined in Appendix F - Adaptive Management</u>, 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. <u>The Adaptive Management Working</u></p>	<p>Consistency with 2012 Planning Rule</p>

Commented [CD45]: The Coalition appreciates this addition but wants to ensure that the causation inquiry address all causal factors rather than attribute the change to a program that can be changed quickly, e.g. livestock grazing.

No Action Alternative (Wyoming)	Proposed Action (Wyoming)	Issue/Clarification
	Group will establish a process to review and reverse adaptive management actions once the identified causal factor is resolved (e.g., returning to previous management once objectives of interim management strategy have been met).	
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-GEN-GL-007-Guideline Within priority habitat management areas in northeast Wyoming, to maintain adequate nesting and wintering habitat, vegetation treatments that would reduce sagebrush canopy to less than 15% should be restricted.	Elimination of Sagebrush Focal Areas Consistency with 2012 Planning Rule
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-GEN-GL-008-Guideline No change	Clarification
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-GEN-GL-009-Guideline In priority, connectivity and winter and general habitat management areas actions and authorizations should be designed to limit the spread and effect of noxious and invasive plant species.	Elimination of Sagebrush Focal Areas
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 (Table 1).	GRSG-GEN-GL-010-Guideline To facilitate safe and effective fire management actions, in priority and general habitat management 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) 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.	Elimination of Sagebrush Focal Areas
GRSG-GRSGH-GL-010-Guideline	GRSG-GEN-GL-011-Guideline	Elimination of Sagebrush Focal Areas

Commented [CB46]: The Wyoming Plan identifies winter habitat but not general.

No Action Alternative (Wyoming)	Proposed Action (Wyoming)	Issue/Clarification
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 (Table 1).	In priority and general habitat management 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 (Table 1).	GRSG-GRSGH-GL-011-Guideline Delete	Incorporated into DC-002
Nothing in 2015 Plan	GRSG-GEN-MA-012-Management Approach <u>Every 5 years or in conjunction with State of Wyoming, local agencies, and the Sage-grouse Interagency Team, evaluate the Habitat Management Area (HMA) Map when a demonstrated need for change exists. These evaluations will ensure that the latest version of the Wyoming Core Area maps are considered, and considered and promote consistency across administrative boundaries.</u>	Habitat Management Areas Designations
Nothing in 2015 Plan	GRSG-GEN-MA-013-Management Approach <u>Within the broader context of Early Detection and Rapid Response strategies for invasive species management, prioritize treatments for invasive plant populations that have the potential to impact sage-grouse habitat in priority habitat management areas.</u>	Invasive Species Treatment
Timing, Distance, Density, and Disturbance¹ ¹ An exception may be made with concurrence from the next higher official that the approved action would not impair the function of the WY designated core area to provide for the current or subsequent seasonal habitat, life-history, or behavioral needs of the greater sage-grouse. Exceptions may also be granted for prescribed fire activity that is intended to protect or improve greater sage-grouse habitat over time.		

Commented [CD47]: Review of the plan needs to involve the local agencies. Dramatic modifications in the boundary or area designated as PHMA without a plan amendment will not withstand judicial review. *Klamath Siskiyou Wildlands Center v. Boody*, 468 F.3d 549, 558 (9th Cir. 2006) (“However, even if adaptive management modifications were contemplated by the 2000 FSEIS, there must be limits to how dramatic ‘modifications’ can be before they are deemed ‘amendments.’”).

No Action Alternative (Wyoming)	Proposed Action (Wyoming)	Issue/Clarification
<p>GRSG-TDDD-GL-021-Guideline¹¹</p> <p>In priority-core habitat management areas and sagebrush focal areas, limit the density of activities related to oil and gas development or mining activities to no more than an average of one pad or mining operation per 640 acres, using the current Density Disturbance Calculation Tool process or its replacement.</p>	<p>GRSG-TDDD-ST-014-Standard</p> <p>In priority habitat management areas, limit the density of activities related to oil and gas development to no more than an average of one pad per 640 acres, using the current Density Disturbance Calculation Tool process or its replacement.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-TDDD-GL-022-Guideline¹¹</p> <p>In priority habitat management areas and sagebrush focal areas, do not authorize surface disturbing activities unless all existing discrete anthropogenic disturbances cover less than 5% of the suitable habitat in the surrounding area using the current Density Disturbance Calculation Tool process or its replacement and the new use will not cause exceedance of the 5% cap. An exception is described in GRSG-M-LM-ST-097-Standard. Consider the likelihood of surface disturbing activities as a result of development of valid existing rights when authorizing new projects in priority habitat management areas.</p>	<p>GRSG-TDDD-GL-015-Guideline</p> <p>In priority habitat management areas, do not authorize surface disturbing activities unless all existing discrete anthropogenic disturbances cover less than 5% of the suitable habitat in the surrounding area using the current Density Disturbance Calculation Tool process or its replacement and the new use will not cause exceedance of the 5% threshold. In connectivity habitat management areas, the threshold not to be exceeded is an average of 5% per 640 acres. An exception is described in GRSG-M-LM-ST-095-Standard.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-TDDD-ST-012-Standard²</p> <p>In priority habitat management areas and sagebrush focal areas, do not authorize new surface occupancy or surface disturbing activities on or within a 0.6-mile radius of the perimeter of occupied leks that are located in priority habitat management and sagebrush focal areas.</p>	<p>GRSG-TDDD-GL-016-Guideline</p> <p>To support breeding opportunities in priority and connectivity habitat management areas, do not authorize new surface occupancy or surface disturbing activities on or within a 0.6-mile radius of the perimeter of occupied leks.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-TDDD-ST-013-Standard¹⁰</p> <p>In general habitat management areas, do not authorize new surface occupancy or surface disturbing activities on or within a 0.25-mile radius of the perimeter of occupied leks.</p>	<p>GRSG-TDDD-GL-017-Guideline</p> <p>To support breeding opportunities in general habitat management areas, do not authorize new surface occupancy or</p>	<p>Consistency with 2012 Planning Rule</p>

Commented [CD48]: Elevating a guideline to a standard will require additional justification and given the significant controversy surrounding the studies that advocate for this standard, the USFS must explain (1) why the standard was chosen over a guideline; and (2) why the standard was chosen when the studies supporting that standard have been heavily criticized.

No Action Alternative (Wyoming)	Proposed Action (Wyoming)	Issue/Clarification
	surface disturbing activities on or within a 0.25-mile <u>0.25-mile</u> radius of the perimeter of occupied leks.	
<p>GRSG-TDDD-GL-016-Guideline³</p> <p>In priority-core habitat management areas and sagebrush focal areas, do not authorize new surface disturbing or disruptive activities from March 15 through June 30. Where credible data, based upon field analysis, support different timeframes for the seasonal restriction, dates may be shifted by either 14 days before or subsequent to the above dates, but not both.</p>	<p>GRSG-TDDD-GL-018-Guideline</p> <p><u>To support breeding and nesting</u> in <u>priority</u> habitat management areas, do not authorize new surface disturbing or disruptive activities from March 15 through June 30. Where data based upon field analysis support different seasonal restriction timeframes <u>for the benefit of the bird</u>, dates may be shifted by <u>up to</u> 14 days before or subsequent to the above dates, but not both.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-TDDD-GL-017-Guideline¹¹</p> <p>Within priority-connectivity habitat management areas, do not authorize new surface disturbing or disruptive activities from March 15 through June 30 within 4 miles of a lek perimeter. Where credible data, based upon field analysis, support different timeframes for this seasonal restriction, dates may be shifted by either 14 days before or after the above dates, but not both.</p>	<p>GRSG-TDDD-GL-019-Guideline</p> <p><u>To support breeding and nesting</u> within <u>connectivity</u> habitat management areas, do not authorize new surface disturbing or disruptive activities from March 15 through June 30 within 4 miles of a lek perimeter. Where data based upon field analysis, support different seasonal restriction timeframes <u>for the benefit of the bird</u>, dates may be shifted by <u>up to</u> 14 days before or after the above dates, but not both.</p>	<p>Habitat Management Areas Designations</p> <p>Consistency with 2012 Planning Rule</p>

Commented [CD49]: No. There may be instances where the timelines can be shifted without any impact on the bird. As written, the timeline could not be adjusted without benefit. Please revise.

Commented [CD50]: See above comment.

No Action Alternative (Wyoming)	Proposed Action (Wyoming)	Issue/Clarification
<p>GRSG-TDDD-GL-018-Guideline¹¹</p> <p>In general habitat management areas, do not authorize new surface disturbing or disruptive activities from March 15 to June 30 within 2 miles of the lek or lek perimeter of any occupied lek located inside general areas. Where credible data, based upon field analysis, support different timeframes for this restriction, dates may be shifted by either 14 days before or subsequent to the above dates, but not both.</p>	<p>GRSG-TDDD-GL-020-Guideline</p> <p><u>To support breeding and nesting outside of priority in general-habitat management areas, do not authorize new surface disturbing or new disruptive activities from March 15 to June 30 within <u>.6 2</u> miles of the lek or lek perimeter of any occupied lek located <u>inside general areas</u>. Where data based upon field analysis, support different seasonal restriction timeframes <u>for the benefit of the bird</u>, dates may be <u>adjusted, shifted by up to 14 days before or subsequent to the above dates, but not both.</u></u></p>	<p>Clarification</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-TDDD-ST-014-Standard</p> <p>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 (from March 1 to May 15) from 6 p.m. to 8 a.m. Do not include noise resulting from human activities that have been authorized and initiated within the past 10 years in the ambient baseline measurement.</p>	<p>GRSG-TDDD-GL-021-Guideline</p> <p><u>To support breeding near leks in priority habitat management areas, do not authorize new surface disturbing activities that create noise (individually or cumulatively) at 10dB above baseline noise measured at the perimeter of an occupied lek from 6 p.m. to 8 a.m. during the breeding season (March 1 to May 15). <u>Do not include noise resulting from human activities that have been authorized and initiated within 10 years prior to the issuance of the 2015 ROD, in the ambient baseline measurement.</u></u></p>	<p>Habitat Management Areas Designations</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-TDDD-ST-015-Standard</p> <p>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 the greater sage-grouse or its habitat 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 (Appendix B).</p>	<p>GRSG-TDDD-ST-022-Standard</p> <p>In priority habitat management areas, only allow new authorized land uses if after avoiding and minimizing impacts, any remaining residual impacts to the greater sage-grouse or its habitat are fully offset by compensatory mitigation that provide no net habitat loss to the species, <u>measured at the statewide scale</u>, 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 <u>State of Wyoming Greater Sage-grouse Compensatory Mitigation Framework</u>.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Changing Net Conservation Gain</p>

Commented [CB51]: Wyoming does not identify general habitat and does not impose a two-mile lek buffer. This language comes out of a BLM IM applicable to priority habitat. The Coalition believes it should be deleted or revised. This is an example of where general habitat is being managed the same as priority habitat without any documentation that general habitat in fact has the attributes of sage grouse habitat, populations or leks.

Commented [CB52]: Change 10 dB to 30 dB to conform to research.

No Action Alternative (Wyoming)	Proposed Action (Wyoming)	Issue/Clarification
	<p>GRSG-TDDD-GL-023-Guideline</p> <p><u>To reduce impacts to sage grouse in general habitat management areas, new land use authorizations may be issued, but should be collocated, as practicable, within existing designated corridors, rights of way, disturbances, or non habitat areas. The authorization should consider design criteria to avoid and minimize impacts to the greater sage grouse and its habitat.</u></p>	<p>Adjustment of Compensatory Mitigation Frameworks</p> <p>Clarification</p>
	<p>GRSG-TDDD-MA-024-Management Approach</p> <p><u>If a proposed project exceeds timing, density, disturbance, distance or noise requirements after avoidance and minimization, the Wyoming Compensatory Mitigation Framework is the primary mechanism to calculate credits and debits that adequately offset the effects of the proposed disturbance. Refer to Appendix F for the Mitigation Framework.</u></p>	<p>Adjustment of Compensatory Mitigation Frameworks</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-TDDD-GL-019-Guideline¹¹</p> <p>Within mapped winter concentration areas in priority-core habitat management areas and sagebrush focal areas, do not authorize new surface disturbing or disruptive activities from December 1 through March 14 to protect priority-core and sagebrush focal area greater sage-grouse populations that use these winter concentration habitats.</p>	<p>GRSG-TDDD-GL-025-Guideline</p> <p><u>Subject to valid existing rights and access rights, use Forest Orders to restrict surface disturbing or disruptive activities from December 1 through March 14 in mapped Winter Concentration Areas. As new data become available regarding Winter Concentration Areas, update seasonal use maps and apply stipulations (Appendix G).</u></p>	<p>Clarification</p> <p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-TDDD-GL-020-Guideline¹¹</p> <p>Within mapped winter concentration areas in priority-connectivity and general habitat management areas, do not authorize new surface disturbing or disruptive activities from December 1 through March 14 where winter concentration areas are identified as supporting populations of greater sage-grouse that attend leks within priority-core habitat management areas and sagebrush focal areas.</p>	<p>GRSG-TDDD-GL-020-Guideline¹¹</p> <p>Delete</p>	<p>Deleted - Redundant with GRSG-TDDD-GL-019-Guideline</p>
Infrastructure		

Commented [CB53]: FS cannot go closing existing roads, rights-of-way, or energy corridors for "general habitat."

Commented [CB54]: Using sage grouse as an excuse to limit public access is problematic. There is little authority proving that an occasional car harms sage grouse.

No Action Alternative (Wyoming)	Proposed Action (Wyoming)	Issue/Clarification
<p>GRSG-INFRA-GL-023-Guideline</p> <p>In priority habitat management areas and sagebrush focal areas, when constructing new infrastructure and during maintenance, replacement, and upgrades to existing infrastructure, impacts to the greater sage-grouse and its habitat should be mitigated.</p> <ul style="list-style-type: none"> Existing guy wires should be removed or appropriately marked with bird flight diverters to make them more visible to the greater sage-grouse in flight. Authorization of new infrastructure with guy wires should be restricted. Power lines (distribution and transmission) should be designed to minimize wildlife-related impacts and constructed to the latest APLIC standards. Permanent structures should be designed or sited to minimize impacts to the greater sage-grouse, with emphasis on locating and operating facilities that create movement (e.g., pump jacks) or attract frequent human use and vehicular traffic (e.g., fluid storage tanks) in a manner that will minimize disturbance of the greater sage-grouse or interference with habitat use. Liquid gathering facilities in priority habitat management areas should be buried and reclaimed to limit or eliminate human disturbance and physical habitat disturbance. To reduce truck traffic and perching and nesting of ravens and raptors, tanks should not be placed at well locations. 	<p>GRSG-INFRA-GL-026-Guideline</p> <p>In priority habitat management areas, when constructing new infrastructure and during maintenance, replacement, and upgrades to existing infrastructure, impacts to the greater sage-grouse and its habitat should be mitigated.</p> <ul style="list-style-type: none"> Existing guy wires should be removed or appropriately marked with bird flight diverters to make them more visible to the greater sage-grouse in flight. Authorization of new infrastructure with guy wires should be restricted. Power lines (distribution and transmission) should be designed to minimize wildlife-related impacts and constructed to the latest APLIC standards. Permanent structures should be designed or sited to minimize impacts to the greater sage-grouse, with emphasis on locating and operating facilities that create movement (e.g., pump jacks) or attract frequent human use and vehicular traffic (e.g., fluid storage tanks) in a manner that will minimize disturbance of the greater sage-grouse or interference with habitat use. Liquid gathering facilities in priority habitat management areas should be buried and reclaimed to limit or eliminate human disturbance and physical habitat disturbance. To reduce truck traffic and perching and nesting of ravens and raptors, tanks should not be placed at well locations. 	<p>Elimination of Sagebrush Focal Areas</p>
Lands and Realty		
Special-use Authorizations (non-recreation)		
<p>GRSG-LR-SUA-ST-024-Standard</p> <p>In priority habitat management areas and sagebrush focal areas, restrict issuance of new special-use authorizations for infrastructure, such as high-voltage transmission lines, major pipelines distribution lines, and communication towers.</p>	<p>GRSG-LR-SUA-ST-027-Standard</p> <p>In priority habitat management areas, restrict issuance of new special-use authorizations for infrastructure, such as high-voltage transmission lines, major pipelines distribution lines, and communication towers. Exceptions may include co-location and</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming)	Issue/Clarification
<p>Exceptions may include co-location and must be limited (e.g., safety needs) and based on rationale (e.g., monitoring, modeling, or best available science) that explicitly demonstrates that adverse impacts to the greater sage-grouse will be avoided with the exception. If co-location of new infrastructure cannot be accomplished, locate it adjacent to existing infrastructure, roads, or already disturbed areas and limit disturbance to the smallest footprint or where it best limits impacts to the greater sage-grouse or its habitat. Existing authorized uses will continue to be recognized.</p>	<p>must be limited (e.g., safety needs) and based on rationale (e.g., monitoring, modeling, or best available science) that explicitly demonstrates that adverse impacts to the greater sage-grouse will be avoided with the exception. If co-location of new infrastructure cannot be accomplished, locate it adjacent to existing infrastructure, roads, or already disturbed areas and limit disturbance to the smallest footprint or where it best limits impacts to the greater sage-grouse or its habitat and refer to Standard 23 (compensatory mitigation). Existing authorized uses will continue to be recognized.</p>	<p>Adjustment of Compensatory Mitigation Frameworks</p>
<p>GRSG-LR-SUA-ST-025-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, do not authorize temporary lands special-use permits (i.e., facilities or activities) that result in loss of habitat or would have long-term (i.e., greater than 5 years) negative impact on the greater sage-grouse or its habitat.</p>	<p>GRSG-LR-SUA-ST-028-Standard</p> <p>In priority habitat management areas, do not authorize temporary lands special-use permits (i.e., facilities or activities) that result in loss of habitat or would have long-term (i.e., greater than 5 years) negative impact on the greater sage-grouse or its habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-LR-SUA-ST-026-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, when a lands special-use authorization is revoked or terminatedterminated, and no future use is contemplated, require the authorization holder to remove overhead lines and other infrastructure in compliance with 36 CFR 251.60(i).</p>	<p>GRSG-LR-SUA-ST-029-Standard</p> <p>In priority and general habitat management areas, when a lands special-use authorization is revoked or terminatedterminated, and no future use is contemplated, require the authorization holder to remove overhead lines and other infrastructure in compliance with 36 CFR 251.60(i).</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-LR-SUA-ST-027-Standard</p> <p>In priority habitat management areas and sagebrush focal areas, new power transmission projects must be located within the 2-mile wide transmission line route in south-central and southwestern Wyoming or as close as technically feasible (i.e., within 0.5 mile) on either side of existing 115 kV or larger transmission lines or corridors creating a route no wider than 1 mile. These projects will not be counted against the 5% disturbance cap.</p>	<p>GRSG-LR-SUA-ST-030-Standard</p> <p>In priority habitat management areas, new power transmission projects must be located within the 2-mile wide transmission line route in south-central and southwestern Wyoming or as close as technically feasible (i.e., within 0.5 mile) on either side of existing 115 kV or larger transmission lines or corridors creating a route no wider than 1 mile. These projects will not be counted against the 5% disturbance threshold.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming)	Issue/Clarification
<p>GRSG-LR-SUA-ST-029-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, locate upgrades to existing transmission lines within the existing designated corridors or rights-of-way unless an alternate route would benefit greater sage- grouse or their habitats.</p>	<p>GRSG-LR-SUA-ST-031-Standard</p> <p>In priority habitat management areas, locate upgrades to existing transmission lines within the existing designated corridors or rights-of-way unless an alternate route would benefit greater sage- grouse or their habitats.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p>
<p>GRSG-LR-SUA-GL-030-Guideline</p> <p>Authorization of new temporary meteorological towers should be restricted in priority habitat management areas and sagebrush focal areas within 2 miles of occupied greater sage-grouse leks, unless they are out of direct line of sight of an occupied lek.</p>	<p>GRSG-LR-SUA-GL-032-Guideline</p> <p>Authorization of new temporary meteorological towers should <u>not be allowed</u> in priority habitat management areas within 2 miles of occupied greater sage-grouse leks, unless they <u>have anti-perch devices</u> or are out of direct line of sight of an occupied <u>lek to reduce disturbance to breeding GRSG</u>.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-LR-SUA-GL-031-Guideline</p> <p>In priority habitat management areas and sagebrush focal areas, outside of existing designated corridors and rights-of-way, new transmission lines and pipelines should be buried to limit disturbance to the smallest footprint unless explicit rationale is provided that the biological impacts to the greater sage-grouse are being avoided. If new transmission lines and pipelines are not buried, locate them adjacent to existing transmission lines and pipelines.</p>	<p>GRSG-LR-SUA-GL-031-Guideline</p> <p>Delete</p>	<p>Deleted – Redundant with GRSG-LR-SUA-ST-024-Standard</p>
Land Ownership Adjustments		
<p>GRSG-LR-LOA-ST-032-Standard</p> <p>In priority and general management areas and sagebrush focal areas, do not approve landownership adjustments, including land exchanges, unless the action results in a net conservation gain to the greater sage-grouse or it will not directly or indirectly adversely affect greater sage-grouse conservation.</p>	<p>GRSG-LR-LOA-ST-033-Standard</p> <p>In priority habitat management areas, do not approve landownership adjustments, including land exchanges, unless the action results in <u>no net habitat loss</u> to the greater sage-grouse or it will not directly or indirectly adversely affect greater sage-grouse conservation.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Habitat Management Areas Designations</p> <p>Changing Net Conservation Gain</p>
<p>GRSG-LR-LOA-GL-033-Guideline</p>	<p>GRSG-LR-LOA-ST-034-Standard</p>	<p>Elimination of Sagebrush Focal Areas</p>

Commented [CB55]: The 5% DDCT does not apply to existing leases or existing rights. This standard needs to correctly reflect the Wyoming Plan.

No Action Alternative (Wyoming)	Proposed Action (Wyoming)	Issue/Clarification
<p>In priority habitat management areas and sagebrush focal areas, do not issue new discretionary written authorizations unless all existing discrete anthropogenic disturbances cover less than 5% of the total greater sage-grouse habitat within the Biologically Significant Unit and the proposed project area, regardless of ownership, and the new use will not cause exceedance of the 5% cap. Discretionary activities that might result in disturbance above 5% at the Biologically Significant Unit and proposed project area would be prohibited unless approved by the forest supervisor with concurrence from the regional forester after review of new or site-specific information that indicates the project would result in a net conservation gain at the Biologically Significant Unit and proposed project area scale. Within existing designated utility corridors, the 5% disturbance cap may be exceeded at the project scale if the site specific NEPA analysis indicates that a net conservation gain to the species will be achieved. This exception is limited to projects that fulfill the use for which the corridors were designated (e.g., transmission lines, pipelines) and the designated width of a corridor will not be exceeded as a result of any project co-location. Consider the likelihood of surface disturbing activities as a result of development of valid existing rights when authorizing new projects in priority habitat management areas.</p>	<p>In priority habitat management areas, do not issue new discretionary written authorizations unless all existing discrete anthropogenic disturbances cover less than 5% of the total greater sage-grouse habitat within the proposed project area, regardless of ownership, and the new use will not cause exceedance of the 5% threshold. Discretionary activities that might result in disturbance above 5% at the proposed project area would be prohibited unless approved by the forest supervisor with concurrence from the regional forester after review of new or site-specific information that indicates the project would result in no net habitat loss at the State-wide scale. Within existing designated utility corridors, the 5% disturbance threshold may be exceeded at the project area scale if the site specific NEPA analysis indicates that no net habitat loss to the species will be achieved. This exception is limited to projects that fulfill the use for which the corridors were designated (e.g., transmission lines, pipelines) and the designated width of a corridor will not be exceeded as a result of any project co-location.</p>	<p>Changing Net Conservation Gain</p> <p>Consistency with 2012 Planning Rule</p>
<p>Land Withdrawal</p>		
<p>GRSG-LR-LW-GL-034-Guideline</p> <p>In priority habitat management areas and sagebrush focal areas, use land withdrawals as a tool, where appropriate, to withhold an area from activities that will be detrimental to the greater sage-grouse or its habitat.</p>	<p>GRSG-LR-LW-GL-034-Guideline</p> <p>Delete</p>	<p>Deleted - Elimination of Withdrawal</p>
<p>Wind Energy Development</p>		
<p>GRSG-WS-GL-035-Guideline</p> <p>In priority habitat management areas and sagebrush focal areas, restrict authorization of wind utility-scale and/or commercial energy development except for on- site power</p>	<p>GRSG-WS-ST-035-Guideline</p> <p>In priority habitat management areas, authorization of wind utility-scale and/or commercial energy development except for</p>	<p>Elimination of Sagebrush Focal Areas</p>

Commented [CB56]: This is not a full sentence.

No Action Alternative (Wyoming)	Proposed Action (Wyoming)	Issue/Clarification
generation associated with existing industrial infrastructure (e.g., mine site).	on-site power generation associated with existing industrial infrastructure (e.g., mine site) to contribute GRSG conservation .	Consistency with 2012 Planning Rule
Livestock Grazing		
<p>GRSG-LG-DC-036-Desired Condition</p> <p>In priority and general habitat management areas, sagebrush focal areas, and within lek buffers, livestock grazing is managed to maintain or move towards desired habitat conditions (Table 1).</p>	<p>GRSG-LG-MA-036-Management Approach</p> <p>In priority and general habitat management areas, livestock grazing is used as a tool to maintain or move towards desired habitat conditions.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-LG-GL-037-Guideline</p> <p>Grazing guidelines in Table 2 should be applied in each of the seasonal habitats in Table 2. If values in Table 2 cannot be achieved based upon a site-specific analysis using Ecological Site Descriptions, long-term ecological site potential analysis, or other similar analysis, adjust grazing management to move towards desired habitat conditions in Table 1 consistent with the ecological site potential. Do not use drought and degraded habitat condition to adjust values. Grazing guidelines in Table 2 would not apply to isolated parcels of National Forest System lands that have less than 200 acres of greater sage-grouse habitat.</p>	<p>GRSG-LG-GL-037-Guideline</p> <p>In greater sage-grouse habitat, if livestock grazing is limiting achievement of seasonal desired conditions on capable sites, adjust livestock management, as appropriate, to address greater sage-grouse habitat requirements. No grazing activity will be changed unless and until the FS quantifies the related grazing effects of wildlife, big game, and other ungulates, e.g. wild horses.</p>	<p>Changing Livestock Grazing Guidelines</p>
<p>Nothing in 2015 Plan</p>	<p>GRSG-LG-MA-038-Management Approach</p> <p>In areas where domestic livestock grazing is authorized within priority and general sage-grouse habitat, managers may use the Habitat Assessment Framework in conjunction with rangeland monitoring information, site potential, and greater sage-grouse biological use data to assess habitat conditions at the appropriate times and locations relative to the greater sage-grouse habitat attributes of interest. Ecological Site Descriptions and site potential will be used to determine whether or not the site is capable of producing the desired greater sage-grouse habitat. If greater sage-grouse habitat condition is deteriorated or trending away from desired conditions, then assess causal</p>	<p>Changing Livestock Grazing Guidelines</p> <p>Consistency with 2012 Planning Rule</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming)	Issue/Clarification
	factors before prescribing changes to livestock grazing management.	
<p>GRSG-LG-GL-038-Guideline</p> <p>On the Thunder Basin National Grassland, if 90% or more of the allotment falls within nesting or brood rearing habitat, 25% of the allotment would be exempted from the breeding/nesting residual perennial grass height guidelines in Table 2.</p>	<p>GRSG-LG-GL-038-Guideline</p> <p>Delete</p>	<p>Removed- No longer required due to changes made to GRSG-LG-DC-036-Desired Condition</p>
<p>GRSG-LG-GL-039-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, when grazing permits are waived without preference or obtained through permit cancellation, consider the agency's full range of administrative authorities for future allotment management, including but not limited to allotment closure, vacancy status for resource protection, establishment of forage reserve, re-stocking, or livestock conversion as management options to maintain or achieve desired habitat conditions (Table 1).</p>	<p>GRSG-LG-GL-039-Guideline</p> <p>Delete</p>	<p>Removed – Covered in existing Forest Service policy and direction</p>
<p>GRSG-LG-GL-040-Guideline</p> <p>Bedding sheep and locating camps within 0.6 miles from the perimeter of a lek during lekking (from March 1 to May 15) should be restricted.</p>	<p>GRSG-LG-GL-039-Guideline</p> <p>Bedding sheep and placing camps within 0.62 miles (1 km) from the perimeter of a lek during lekking (from March 1 to April 30) should be restricted to prevent disturbance of breeding GRSG.</p>	<p>Consistency with 2012 Planning Rule</p>
<p>GRSG-LG-GL-041-Guideline</p> <p>From March 15 through June 30, trailing livestock should be limited to existing trails. Specific routes and timeframes should be identified; existing trails should be used; and stopovers on occupied leks should be avoided. New trailing activities should be assessed to determine a route that will minimize impacts to the greater sage-grouse and its habitats. Where credible data based upon field analysis support different timeframes for the seasonal restriction, dates may be shifted by either 14 days before or subsequent to the above dates, but not both.</p>	<p>GRSG-LG-GL-040-Guideline</p> <p>No Change</p>	

No Action Alternative (Wyoming)	Proposed Action (Wyoming)	Issue/Clarification
<p>GRSG-LG-GL-042-Guideline</p> <p>Collision risk associated with existing fences within 1.2 miles of leks should be minimized through removal or modification (e.g. marking, laydown fences, or other design features).</p>	<p>GRSG-LG-GL-041-Guideline</p> <p>To minimize collision risk associated with fences, existing fences within 1.2 miles of leks should be modified through removal, marking, laydown, or other design features. New fencing within 0.6 miles of a lek would not be constructed March 15 through June 30, or on the lek itself.</p>	<p>Consistency with the Wyoming Executive Order</p>
<p>GRSG-LG-GL-043-Guideline</p> <p>In priority habitat management areas and sagebrush focal areas, new permanent livestock facilities, except fences, should not be constructed within 0.6 miles from the perimeter of occupied leks. In general habitat management areas, new permanent livestock facilities should not be constructed within 0.25 miles of occupied leks.</p>	<p>GRSG-LG-GL-042-Guideline</p> <p>To prevent predation from perching raptors in priority habitat management areas, new permanent livestock facilities, should not be constructed within 0.6 miles from the perimeter of occupied leks. In general habitat management areas, new permanent livestock facilities should not be constructed within 0.25 miles of occupied leks.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-LG-GL-044-Guideline</p> <p>On the Thunder Basin National Grassland, where general habitat management areas overlap with Management Area 8.4 (Mineral Production), Management Area 3.63 (Black-footed Ferret Reintroduction Habitat), or other designated areas for short-grass species, livestock grazing should be managed to meet the objectives for that Management Area.</p>	<p>GRSG-LG-GL-043-Guideline</p> <p>No Change</p>	
Fire Management		
<p>GRSG-FM-DC-045-Desired Condition</p> <p>In priority and general habitat management areas and sagebrush focal areas, protect sagebrush habitat from loss due to unwanted wildfires or damages resulting from management related activities while using agency risk management protocols to manage for firefighter and public safety and other high priority values. In all fire response, first priority is the management of risk to firefighters and the public. Greater sage-grouse habitat will be prioritized as a high value resource along with other high value resources and assets.</p>	<p>GRSG-FM-MA-044-Management Approach</p> <p>In priority and general habitat management areas, protect sagebrush habitat from loss due to unwanted wildfires or damages resulting from management related activities while using agency risk management protocols to manage for firefighter and public safety and other high priority values. In all fire response, first priority is the management of risk to firefighters and the public. Greater sage-grouse habitat will be prioritized as a high value resource along with other high value resources and assets.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>

Commented [CB57]: The Coalition recommends modification of either the black-footed prairie dog habitat or priority habitat.

No Action Alternative (Wyoming)	Proposed Action (Wyoming)	Issue/Clarification
<p>GRSG-FM-ST-046-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, when prescribed fire is used for fuels management or vegetation treatments, design the burn to move towards desired habitat conditions (Table 1). Restrict prescribed fire in areas of Wyoming big sagebrush, other xeric sagebrush species, where cheatgrass or other fire-invasive species occur, and/or within areas of less than 12-inch precipitation zones unless necessary for restoration of greater sage-grouse habitat consistent with desired conditions in Table 1.</p>	<p>GRSG-FM-GL-045-Guideline</p> <p>To maintain or improve existing habitat in priority and general habitat management areas, when prescribed fire is used for fuels management or vegetation treatments, design the burn to move towards desired habitat conditions. Avoid prescribed fire in areas where Wyoming big sagebrush, other xeric sagebrush species, cheatgrass or other fire-invasive species occur, unless beneficial to greater sage-grouse habitat consistent with desired conditions.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-FM-ST-047-Standard</p> <p>In priority and general habitat management areas and sagebrush focal areas, if it is necessary to use prescribed fire for restoration of greater sage-grouse habitat consistent with desired conditions in Table 1, the associated National Environmental Policy Act analysis must identify how the project would move towards greater sage-grouse desired conditions; why alternative techniques were not selected; and how potential threats to greater sage-grouse habitat would be minimized.</p>	<p>GRSG-FM-MA-046-Management Approach</p> <p>In priority and general habitat management areas if it is necessary to use prescribed fire for restoration of greater sage-grouse habitat consistent with desired conditions, the associated National Environmental Policy Act analysis must identify how the project would move towards greater sage-grouse desired conditions; why alternative techniques were not selected; and how potential threats to greater sage-grouse habitat would be minimized.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-FM-ST-048-Standard</p> <p>On the Thunder Basin National Grassland, where general habitat management areas overlap with Management Area 3.63 (Black-footed Ferret Reintroduction Habitat) or other designated areas for short-grass species, allow prescribed fire to meet objectives for that Management Area.</p>	<p>GRSG-FM-ST-047-Standard</p> <p>No Change</p>	
<p>GRSG-FM-GL-049-Guideline</p> <p>In planned fuels management activities or part of an overall vegetative management strategy to mitigate the impacts of wildfire in priority and general habitat management areas and sagebrush focal areas, when reseeding in fuel breaks, fire-resistant native plant species should be used if available</p>	<p>GRSG-FM-GL-048-Guideline</p> <p>In priority and general habitat management areas when reseeding in fuel breaks, fire-resistant native plant species should be used if available or use fire-resistant non-native plants</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming)	Issue/Clarification
or consider using fire-resistant non-native species if analysis and/or best available science demonstrates that non-native plants will not degrade greater sage-grouse habitat in the long-term.	only if they would not degrade greater sage-grouse habitat in the long-term.	
<p>GRSG-FM-GL-050-Guideline</p> <p>Locating temporary wildfire suppression facilities (e.g., incident command posts, spike camps, helibases, mobile retardant plants) in priority and general habitat management areas and sagebrush focal areas should be avoided. When needed to best provide for firefighter or public safety or to minimize fire size in greater sage-grouse habitat, impacts to the greater sage-grouse should be considered and removal of sagebrush should be limited.</p>	<p>GRSG-FM-MA-049-Management Approach</p> <p>Locating temporary wildfire suppression facilities (e.g., incident command posts, spike camps, helibases, mobile retardant plants) in priority and general habitat management areas should be avoided. When needed to best provide for firefighter or public safety or to minimize fire size in greater sage-grouse habitat, impacts to the greater sage-grouse should be considered and removal of sagebrush should be limited.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-FM-GL-051-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, cross-country vehicle travel during fire operations should be restricted. When needed to best provide for firefighter or public safety or to minimize fire size in greater sage-grouse habitat, impacts to the greater sage-grouse should be considered and removal of sagebrush should be limited.</p>	<p>GRSG-FM-GL-050-Guideline</p> <p>In priority and general habitat management areas, cross-country vehicle travel during fire operations should be restricted. When needed to best provide for firefighter or public safety or to minimize fire size in greater sage-grouse habitat, impacts to the greater sage-grouse should be considered and removal of sagebrush should be limited <u>to the extent practicable to achieve suppression objectives.</u></p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-FM-GL-052-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, use fire management tactics and strategies that seek to minimize loss of existing sagebrush habitat. The safest and most practical means to do so will be determined by fireline leadership and incident commanders.</p>	<p>GRSG-FM-MA-051-Management Approach</p> <p>In priority and general habitat management areas, use fire management tactics and strategies that seek to minimize loss of existing sagebrush habitat. The safest and most practical means to do so will be determined by fireline leadership and incident commanders.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-FM-GL-053-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, prescribed fire prescriptions should minimize undesirable effects on vegetation and/or soils (e.g., minimize mortality of desirable perennial plant species and reduce risk of hydrophobicity).</p>	<p>GRSG-FM-MA-052-Management Approach</p> <p>In priority and general habitat management areas, prescribed fire prescriptions should minimize undesirable effects on vegetation and/or soils (e.g., minimize mortality of desirable perennial plant species and reduce risk of hydrophobicity).</p>	<p>Consistency with 2012 Planning Rule</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming)	Issue/Clarification
<p>GRSG-FM-GL-054-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, roads and natural fuel breaks should be incorporated into planned fuel break design to improve effectiveness and minimize loss of existing sagebrush habitat.</p>	<p>GRSG-FM-MA-053-Management Approach</p> <p>In priority and general habitat management areas, roads and natural fuel breaks should be incorporated into planned fuel break design to improve effectiveness and minimize loss of existing sagebrush habitat.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-FM-GL-055-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, where practical and available, all fire-associated vehicles and equipment should be inspected and cleaned using standardized protocols and procedures and approved vehicle/equipment decontamination systems before entering and exiting the area beyond initial attack activities to minimize the introduction of invasive annual grasses and other invasive plant species and noxious weeds.</p>	<p>GRSG-FM-SI-054-Standard</p> <p>In priority and general habitat management areas, all fire-associated vehicles and equipment are to be inspected and cleaned using standardized protocols and procedures and approved vehicle/equipment decontamination systems before entering and exiting the area beyond initial attack activities to minimize the introduction of invasive annual grasses and other invasive plant species and noxious weeds.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-FM-GL-056-Guideline</p> <p>Unit-specific greater sage-grouse fire management related information should be added to wildland fire decision support systems (currently, the Wildland Fire Decision Support System, WFDSS); local operating plans and resource advisor plans to be used during fire situation to inform management decisions; and aid in development of strategies and tactics for resource prioritization.</p>	<p>GRSG-FM-MA-055-Management Approach</p> <p>Unit-specific greater sage-grouse fire management related information should be added to wildland fire decision support systems (currently, the Wildland Fire Decision Support System, WFDSS); local operating plans and resource advisor plans to be used during fire situation to inform management decisions; and aid in development of strategies and tactics for resource prioritization.</p>	<p>Consistency with 2012 Planning Rule</p>
<p>GRSG-FM-GL-057-Guideline</p> <p>Localized maps of priority and general habitat management areas and sagebrush focal areas should be made available to fireline, dispatch, and fire support personnel.</p>	<p>GRSG-FM-MA-056-Management Approach</p> <p>Localized maps of priority and general habitat management areas should be made available to fireline, dispatch, and fire support personnel.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-FM-GL-058-Guideline</p> <p>In or near priority and general habitat management areas and sagebrush focal areas, a greater sage-grouse resource advisor should be assigned to all extended attack fires.</p>	<p>GRSG-FM-MA-057-Management Approach</p> <p>In or near priority and general habitat management areas, a greater sage-grouse resource advisor should be assigned to all extended attack fires.</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming)	Issue/Clarification
		Consistency with 2012 Planning Rule
<p>GRSG-FM-GL-059-Guideline</p> <p>On critical fire weather days, protection of greater sage-grouse habitat should receive high consideration, along with other high values, for positioning of resources.</p>	<p>GRSG-FM-MA-058-Management Approach</p> <p>No change</p>	Consistency with 2012 Planning Rule
<p>GRSG-FM-GL-060-Guideline</p> <p>Line officers should be involved in setting pre-season wildfire response priorities and prioritizing protection of priority and general habitat management areas and sagebrush focal areas, along with other high values. During periods of multiple fires or limited resource availability, fire management organizational structure (local, regional, national) will prioritize fires and allocation of resources in which greater sage-grouse habitat is a consideration along with other high values.</p>	<p>GRSG-FM-MA-059-Management Approach</p> <p>Line officers should be involved in setting pre-season wildfire response priorities and prioritizing protection of priority and general habitat management areas, along with other high values. During periods of multiple fires or limited resource availability, fire management organizational structure (local, regional, national) will prioritize fires and allocation of resources in which greater sage-grouse habitat is a consideration along with other high values.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-FM-GL-061-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, consider using fire retardant and mechanized equipment only if it is likely to result in minimizing burned acreage; preventing the loss of other high value resources; or increasing the effectiveness of other tactical strategies. Agency administrators, their designee, or fireline leadership should consider fire suppression effects while determining suppression strategy and tactics; the use of fire retardant and mechanized equipment may be approved by agency administrators, their designee, or fireline leadership.</p>	<p>GRSG-FM-MA-060-Management Approach</p> <p>In priority and general habitat management areas consider using fire retardant and mechanized equipment only if it is likely to result in minimizing burned acreage; preventing the loss of other high value resources; or increasing the effectiveness of other tactical strategies. Agency administrators, their designee, or fireline leadership should consider fire suppression effects while determining suppression strategy and tactics; the use of fire retardant and mechanized equipment may be approved by agency administrators, their designee, or fireline leadership.</p>	Consistency with 2012 Planning Rule
<p>GRSG-FM-GL-062-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, to minimize sagebrush habitat loss, consider using the full range of suppression techniques to</p>	<p>GRSG-FM-MA-061-Management Approach</p> <p>In priority and general habitat management areas, to minimize sagebrush habitat loss, consider using the full range of suppression techniques to protect unburned islands, doglegs,</p>	Elimination of Sagebrush Focal Areas

No Action Alternative (Wyoming)	Proposed Action (Wyoming)	Issue/Clarification
protect unburned islands, doglegs, and other sage grouse habitat features that may exist within the perimeter of wildfires. These suppression objectives and activities should be prioritized against other wildland fire suppression activities and priorities.	and other sage grouse habitat features that may exist within the perimeter of wildfires.	Consistency with 2012 Planning Rule
GRSG-FM-GL-063-Guideline In wintering or breeding and nesting habitat , sagebrush removal or manipulation, including prescribed fire, should be restricted unless the removal strategically reduces the potential impacts from wildfire or supports the attainment of desired conditions.	GRSG-FM-GL-062-Guideline In priority habitat management areas , sagebrush removal or manipulation, including prescribed fire, should be avoided unless the removal strategically reduces the potential impacts from wildfire or supports the enhancement of habitat conditions for greater sage-grouse.	Clarification
Recreation GRSG-R-DC-064-Desired Condition In priority habitat management areas and sagebrush focal areas , recreation activities are balanced with the ability of the land to support them while meeting greater sage-grouse seasonal habitat desired conditions (Table 1) and creating minimal user conflicts.	GRSG-R-DC-064-Desired Condition Delete	Consistency with 2012 Planning Rule
GRSG-R-ST-065-Standard In priority and general habitat management areas and sagebrush focal areas , do not authorize temporary recreation uses (i.e., facilities or activities) that result in loss of habitat or would have long-term (i.e., greater than 5 years) negative impact on the greater sage- grouse or its habitat.	GRSG-R-GL-063-Guideline In priority habitat management areas , do not authorize temporary recreation uses that result in loss of habitat or would have long-term negative impact on the greater sage- grouse or its habitat.	Elimination of Sagebrush Focal Areas Habitat Management Areas Designations Consistency with 2012 Planning Rule
GRSG-R-GL-066-Guideline In priority and general habitat management areas and sagebrush focal areas habitat management areas, terms and conditions that protect and restore greater sage- grouse habitat within the permit area should be included in new recreation special-use authorizations. During renewal, amendment, or reauthorization, terms and conditions in	GRSG-R-MA-064-Management Approach In priority and general habitat management areas , terms and conditions that protect and restore greater sage- grouse habitat within the permit area should be included in new recreation special-use authorizations. During renewal, amendment, or reauthorization, terms and conditions in existing permits and	Elimination of Sagebrush Focal Areas Consistency with 2012 Planning Rule

No Action Alternative (Wyoming)	Proposed Action (Wyoming)	Issue/Clarification
existing permits and operating plans should be modified to protect and/or restore greater sage-grouse habitat.	operating plans should be modified to protect and/or restore greater sage-grouse habitat.	
GRSG-R-GL-067-Guideline In priority habitat management areas and sagebrush focal areas , new recreational facilities or expansion of existing recreational facilities (e.g., roads, trails, campgrounds), including special-use authorizations for facilities and activities, should not be approved unless the development results in a net conservation gain to the greater sage-grouse or its habitat or the development is required for visitor safety.	GRSG-R-GL-065-Guideline In priority habitat management areas, new recreational facilities or expansion of existing recreational facilities (e.g., roads, trails, campgrounds), including special-use authorizations for facilities and activities, should not be approved unless the development <u>results in no net loss of</u> greater sage-grouse <u>habitat</u> or the development is required for safety.	Elimination of Sagebrush Focal Areas Changing Net Conservation Gain Consistency with 2012 Planning Rule
Roads/Transportation		
GRSG-RT-DC-068-Desired Condition In priority and general habitat management areas and sagebrush focal areas , within the forest transportation system and on roads and trails authorized under a special-use authorization, the greater sage-grouse experience minimal disturbance during breeding and nesting (from March 15 to June 30) and wintering (from December 1 to March 15) periods; dates may be shifted by either 14 days before or after the above dates, but not both.	GRSG-RT-DC-066-Desired Condition <u>Subject to valid existing rights, i</u> n priority habitat management areas, within the forest transportation system and on roads and trails authorized under a special-use authorization, the greater sage-grouse experience minimal disturbance from March 15 to June 30 <u>within a 0.6-mile0.6-mile perimeter of an occupied lek</u> where breeding, nesting, and early brood-rearing habitat is present. <u>Subject to valid exiting rights, i</u> n <u>Winter Concentration Areas</u> as mapped by the State of Wyoming, there should be minimal disturbance from December 1 to March 15. Dates may be shifted by either 14 days before or after the above dates, but not both.	Elimination of Sagebrush Focal Areas Consistency with the Wyoming Executive Order
GRSG-RT-ST-069-Standard Restrict construction of new maintenance level 4 and 5 roads within 1.9 miles of the perimeter of occupied greater sage-grouse leks within priority habitat management areas and sagebrush focal areas unless construction allows decommissioning of an existing route that negatively affects the greater sage-grouse.	GRSG-RT-ST-067-Standard <u>Do not construct new maintenance level 4 and 5 roads within 1.9 miles of the perimeter of occupied greater sage-grouse leks within priority habitat management areas unless construction allows decommissioning of an existing route that negatively affects the greater sage-grouse.</u>	Elimination of Sagebrush Focal Areas Consistency with 2012 Planning Rule
GRSG-RT-ST-070-Standard	GRSG-RT-ST-068-Standard	Elimination of Sagebrush Focal Areas

Commented [CB58]: FS has no authority to limit road construction and levels 4 and 5 are very low standard. This is not in the Wyoming Plan.

No Action Alternative (Wyoming)	Proposed Action (Wyoming)	Issue/Clarification
Do not allow any category of road construction within 0.6 miles from the perimeter of occupied leks in priority habitat management areas and sagebrush focal areas or 0.25 miles from the perimeter of occupied leks in general habitat management areas as described in GRSG-TDDD-ST-012 and 013-Standards.	Do not allow any category of road construction within 0.6 miles from the perimeter of occupied leks in priority habitat management areas or 0.25 miles from the perimeter of occupied leks in general habitat management areas as described in GRSG-TDDD-ST-012 and 013-Standards.	
GRSG-RT-ST-071-Standard In priority habitat management areas and sagebrush focal areas , do not allow improvements to existing routes that would change route category (level 1 through 5) or capacity unless the upgrading would have minimal impact on the greater sage-grouse; is necessary for motorist safety; or eliminates the need to construct a new road.	GRSG-RT-ST-069-Standard In priority habitat management areas, do not allow improvements to existing routes that would change route category (level 1 through 5) or capacity unless the upgrading would have minimal impact on the greater sage-grouse; is necessary for motorist safety; or eliminates the need to construct a new road.	Elimination of Sagebrush Focal Areas
GRSG-RT-ST-072-Standard If necessary to construct new roads and trails in priority or sagebrush focal areas for one of the reasons listed in GRSG-RT-ST-070-Standard or to access valid existing rights, limit construction to the minimum standard, length, and number and avoid, minimize, and mitigate impacts.	GRSG-RT-ST-070-Standard If necessary to construct new roads and trails in priority <u>habitat management areas</u> to access valid existing rights, limit construction to the minimum standard, length, and number and avoid, minimize, and mitigate impacts.	Elimination of Sagebrush Focal Areas Clarification
GRSG-RT-ST-073-Standard In priority and general habitat management areas and sagebrush focal areas , do not allow public motor vehicle use on temporary energy development roads.	GRSG-RT-ST-071-Standard In priority and general habitat management areas, do not allow public motor vehicle use on temporary energy development roads.	Elimination of Sagebrush Focal Areas
GRSG-RT-GL-074-Guideline In priority and general habitat management areas and sagebrush focal areas , new roads and road realignments should be designed and administered to reduce collisions with the greater sage-grouse.	GRSG-RT-GL-072-Guideline In priority and general habitat management areas, new roads and road realignments should be designed and administered to reduce collisions with the greater sage-grouse.	Elimination of Sagebrush Focal Areas
GRSG-RT-GL-075-Guideline In priority and general habitat management areas and sagebrush focal areas , road construction within riparian areas and mesic meadows should be restricted. If not possible to	GRSG-RT-GL-073-Guideline In priority and general habitat management areas, road construction within riparian areas and mesic meadows should be restricted. If not possible to restrict construction within riparian	Elimination of Sagebrush Focal Areas

Commented [CB59]: The majority of the so-called energy roads are built on existing road beds. Denying public access shuts down much of the NFS to public access without following road closure procedures.

No Action Alternative (Wyoming)	Proposed Action (Wyoming)	Issue/Clarification
restrict construction within riparian areas and mesic meadows, roads should be designed and constructed perpendicular to ephemeral drainages and stream crossings, unless topography prevents doing so.	areas and mesic meadows, roads should be designed and constructed perpendicular to ephemeral drainages and stream crossings, unless topography prevents doing so.	
GRSG-RT-GL-076-Guideline In priority and general habitat management areas and sagebrush focal areas, when decommissioning roads and unauthorized routes, restoration activity should be designed to move habitat towards desired conditions (Table 1).	GRSG-RT-GL-076-Guideline Delete	Required by 2012 Planning Rule
GRSG-RT-GL-077-Guideline In priority and general habitat management areas and sagebrush focal areas, dust abatement terms and conditions should be included in road-use authorizations when dust has the potential to affect the greater sage-grouse.	GRSG-RT-GL-074-Guideline In priority and general habitat management areas, dust abatement terms and conditions should be included in road-use authorizations when dust has the potential to affect the greater sage-grouse.	Elimination of Sagebrush Focal Areas
GRSG-RT-GL-078-Guideline In priority and general habitat management areas and sagebrush focal areas, road and road-way maintenance activities should be designed and implemented to reduce the risk of vehicle- or human-caused wildfires and the spread of invasive plants. Such activities include but are not limited to the removal or mowing of vegetation a car-width off the edge of roads; use of weed-free earth-moving equipment, gravel, fill, or other materials; and blading or pulling roadsides and ditches that are infested with noxious weeds only if required for public safety or protection of the roadway.	GRSG-RT-MA-075-Management Approach In priority and general habitat management areas, road and road-way maintenance activities should be designed and implemented to reduce the risk of vehicle- or human-caused wildfires and the spread of invasive plants.	Elimination of Sagebrush Focal Areas Clarification Consistency with 2012 Planning Rule
Minerals		
Fluid Minerals – Unleased		
GRSG-M-FMUL-ST-079-Standard In priority and general habitat management areas and sagebrush focal areas, new oil and gas leases may be offered consistent and subject to the leasing stipulations in the	GRSG-M-FMUL-ST-076-Standard In priority and general habitat management areas, new oil and gas leases <u>that may be offered must be consistent with and include leasing stipulations for direction in the</u> Timing, Distance, Density and Disturbance section.	Elimination of Sagebrush Focal Areas Clarification

Commented [CB60]: DDCT / 5% rule does not apply to general habitat. This is one of many examples where inclusion of general habitat has significant and adverse impacts not seriously analyzed or supported by science.

No Action Alternative (Wyoming)	Proposed Action (Wyoming)	Issue/Clarification
timing, distance, density, and disturbance direction in the Timing, Distance, Density and Disturbance section.		
<p>GRSG-M-FMUL-ST-080-Standard</p> <p>In priority habitat management areas and sagebrush focal areas, require geophysical exploration projects to be designed to minimize greater sage-grouse habitat fragmentation.</p>	<p>GRSG-M-FMUL-ST-077-Standard</p> <p>In priority habitat management areas, do not approve geophysical exploration projects unless designed to minimize impacts to greater sage-grouse to the extent possible.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>
Fluid Minerals – Leased		
<p>GRSG-M-FML-ST-081-Standard</p> <p>In priority habitat management areas and sagebrush focal areas when approving the Surface Use Plan of Operation portion of the Application for Permit to Drill on existing leases that are not yet developed, require that leaseholders avoid and minimize surface disturbances and disruptive activities consistent with the rights granted in the lease.</p>	<p>GRSG-M-FML-ST-078-Standard</p> <p>In priority habitat management areas, the Surface Use Plan of Operation portion of the Application for Permit to Drill on existing leases that are not yet developed, will require avoidance and minimization of surface disturbing and disruptive activities consistent with the rights granted in the lease.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-M-FML-ST-082-Standard</p> <p>In priority habitat management areas and sagebrush focal areas, when facilities are no longer neededneeded, or leases are relinquished, require reclamation plans to include terms and conditions to restore habitat to desired conditions as described in Table 1.</p>	<p>GRSG-M-FML-ST-079-Standard</p> <p>In priority habitat management areas, when facilities are no longer neededneeded, or leases are relinquished, reclamation plans must include terms and conditions to restore habitat towards desired conditions.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-M-FML-GL-083-Guideline</p> <p>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-Standard.</p>	<p>GRSG-M-FML-MA-080-Management Approach</p> <p>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-Standard.</p>	<p>Consistency with 2012 Planning Rule</p>
<p>GRSG-M-FML-ST-084-Standard</p>	<p>GRSG-M-FML-MA-081-Management Approach</p>	<p>Consistency with 2012 Planning Rule</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming)	Issue/Clarification
<p>In priority and general habitat management areas and sagebrush focal areas, 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.</p>	<p>In priority and general habitat management areas when authorizing development of fluid mineral resources, work with the operator to <u>avoid</u> and 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.</p>	
<p>GRSG-M-FML-GL-085-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas on existing leases, operators should be encouraged to reduce disturbance to greater sage-grouse habitat. 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 and consistent with the rights granted to the lessee.</p>	<p>GRSG-M-FML-MA-082-Management Approach</p> <p>In priority and general habitat management areas on existing leases, operators should be encouraged to reduce disturbance to greater sage-grouse habitat. 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 and consistent with the rights granted to the lessee.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-M-FML-GL-086-Guideline</p> <p>On existing federal leases in priority and general habitat management areas and sagebrush focal areas, when surface occupancy cannot be restricted due to valid existing rights or development requirements, disturbance and surface occupancy should be limited to areas least harmful to the greater sage-grouse, based on vegetation, topography, or other habitat features.</p>	<p>GRSG-M-FML-GL-083-Guideline</p> <p>On existing federal leases in priority habitat management areas, when surface occupancy must be allowed due to valid existing rights or development requirements, disturbance and surface occupancy should be restricted to areas that will minimize the impact to GRSG and its habitat grouse based on vegetation, topography, or other habitat features.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-M-FML-GL-087-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, 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.</p>	<p>GRSG-M-FML-MA-084-Management Approach</p> <p>In priority and general habitat management areas, 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.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>
<p>Fluid Minerals – Operations</p>		

No Action Alternative (Wyoming)	Proposed Action (Wyoming)	Issue/Clarification
<p>GRSG-M-FMO-GL-088-Guideline</p> <p>In priority habitat management areas and sagebrush focal areas, do not authorize employee camps.</p>	<p>GRSG-M-FMO-ST-085-Standard</p> <p>In priority habitat management areas, do not authorize new employee camps.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>
<p>GRSG-M-FMO-GL-089-Guideline</p> <p>In priority habitat management areas and sagebrush focal areas, closed-loop systems should be used for drilling operations with no reserve pits where feasible.</p>	<p>GRSG-M-FMO-GL-086-Guideline</p> <p>In priority habitat management areas, closed-loop systems should be used for drilling operations with no reserve pits where feasible.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-M-FMO-GL-090-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, during drilling operations, soil compaction should be minimizedminimized, and soil structure should be maintained using the best available techniques to improve vegetation reestablishment.</p>	<p>GRSG-M-FMO-MA-087-Management Approach</p> <p>In priority and general habitat management areas, during drilling operations, soil compaction should be minimizedminimized, and soil structure should be maintained using the best available techniques to improve vegetation reestablishment.</p>	<p>Elimination of Sagebrush Focal Areas</p>
<p>GRSG-M-FMO-GL-091-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, dams, impoundments, and ponds for mineral development should be constructed to reduce potential for West Nile virus. Examples of methods to accomplish this include the following:</p> <ul style="list-style-type: none"> • 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 	<p>GRSG-M-FMO-GL-088-Guideline</p> <p>In priority and general habitat management areas, dams, impoundments, and ponds for mineral development should be constructed to reduce potential for West Nile virus</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming)	Issue/Clarification
<p>rather than damming natural draws for effluent water storage or lining constructed ponds in areas where seepage is anticipated.</p> <ul style="list-style-type: none"> • 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. 		
	<p><u>GRSG-M-FMO-MA-089-Management Approach</u></p> <p>Utilize the following methods to reduce to potential for West Nile virus:</p> <ul style="list-style-type: none"> • 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. 	<p>Consistency with 2012 Planning Rule</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming)	Issue/Clarification
	<ul style="list-style-type: none"> 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. 	
<p>GRSG-M-FMO-GL-092-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, to keep habitat disturbance at a minimum, a phased development approach should be applied to fluid mineral operations, wherever possible, consistent with the rights granted under the lease. Disturbed areas should be reclaimed as soon as they are no longer needed for mineral operations.</p>	<p>GRSG-M-FMO-GL-090-Guideline</p> <p>In priority and general habitat management areas, to keep habitat disturbance at a minimum, a phased development approach should be applied to fluid mineral operations, wherever practicable, consistent with the rights granted under the lease. Disturbed areas should be reclaimed as soon as they are no longer needed for mineral operations.</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Clarification</p>
Coal Mines		
<p>GRSG-M-CM-ST-093-Standard</p> <p>Apply all restrictions listed in the Timing, Distance, Density and Disturbance section to coal exploration and new coal lease projects.</p>	<p>GRSG-M-CM-ST-091-Standard</p> <p>For coal exploration licenses, in priority habitat management areas, prescribe stipulations as applicable for surface use and occupancy, and timing prohibitions and restrictions from GRSG-TDDD-GL-15 through 24. Recommend operating conditions for exploration plans to reduce invasive species, prevent fire, limit permanent tall structures and new permanent roads, and design reclamation of surface disturbance to restore applicable greater sage-grouse habitat.</p>	<p>Reworded to make applicable to regulatory process</p>
<p>GRSG-M-CM-ST-094-Standard</p> <p>Priority habitat management areas and sagebrush focal areas are essential habitat for maintaining the greater sage-grouse for purposes of the suitability criteria set forth at 43 CFR 3461.5(o)(1).</p>	<p>GRSG-M-CM-ST-092-Standard</p> <p>Priority habitat management areas are essential habitat for maintaining the greater sage-grouse for purposes of the unsuitability criteria set forth at 43 CFR 3461.5(o)(1). If consultation with the State occurs according to this criterion, apply GRSG-TDDD-GL-015 using the portion of the proposed lease that overlaps PHMA, when calculating disturbance, to</p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Reworded to make applicable to regulatory process</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming)	Issue/Clarification
	determine if all or certain stipulated methods of coal mining would have long term impacts on GRSG.	
<p>GRSG-M-CM-GL-095-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, 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.</p>	<p>GRSG-M-CM-GL-093-Guideline</p> <p>When responding to the state regulatory authority regarding coal mine permitting actions that cause surface disturbance other than mining, in priority habitat management areas, forward applicable conditions for surface use and occupancy, and timing prohibitions and restrictions from GRSG-TDDD-ST-15 through 24. During permitting actions and/or 5-year permit reviews involving lands that contain priority habitat management areas, for reclamation requirements, advise the state regulatory authority that the post-mining land use is wildlife habitat involving greater sage-grouse.</p>	<p>Reworded to make applicable to regulatory process for readjustment and reclamation</p>
Locatable Minerals		
<p>GRSG-M-LM-ST-096-Standard</p> <p>In priority habitat management areas and sagebrush focal areas, only approve Plans of Operation with mitigation to protect the greater sage-grouse and its habitat, consistent with the rights of the mining claimant as granted by the Mining Law of 1872, as amended.</p>	<p>GRSG-M-LM-ST-094-Standard</p> <p>In priority habitat management areas, only approve Plans of Operation with appropriate avoidance, minimization, and compensatory mitigation to protect the greater sage-grouse and its habitat, consistent with the rights of the mining claimant as granted by the Mining Law of 1872, as amended.</p>	<p>Elimination of Sagebrush Focal Areas Habitat Management Areas Designations</p>
<p>GRSG-M-LM-ST-097-Standard</p> <p>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.</p>	<p>GRSG-M-LM-ST-095-Standard</p> <p>The disturbance thresholds described in GRSG-TDDD-GL-015-Guideline 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 threshold has been exceeded.</p>	<p>Clarification</p>
Non-energy Leasable Minerals		
<p>GRSG-M-NEL-GL-098-Guideline</p>	<p>GRSG-M-NEL-MA-096-Management Approach</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming)	Issue/Clarification
<p>In priority and general habitat management areas and sagebrush focal areas, at the time of issuance of prospecting permits; exploration licenses and leases; or readjustment of leases for non-energy leasable minerals, the Forest Service should provide recommendations to the BLM for the protection of the greater sage-grouse and its habitats.</p>	<p><u>In priority and general habitat management areas, include stipulations to restrict surface use, occupancy and seasonal activities for exploration or pre-mining activities with recommendations or consent (as applicable) to issuance of prospecting permits, exploration licenses, or leases, lease modifications, lease readjustments or lease renewals.</u></p> <p><u>In priority habitat management areas where development would be by surface mining methods, do not consent to, or recommend against, leasing in priority or general habitat management areas in established distances from leks. Consider disturbance caps in when assessing whether or not to consent to, or to or recommend leasing in areas that exceed disturbance caps.</u></p> <p><u>In priority habitat management areas where development would be by underground mining methods, specify or recommend stipulations that prohibit surface use and occupancy in priority habitat management areas.</u></p>	<p>Consistency with 2012 Planning Rule</p> <p>Clarification of Regulatory Process</p>
<p>GRSG-M-NEL-GL-099-Guideline</p> <p>In priority and general habitat management areas and sagebrush focal areas, 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.</p>	<p>GRSG-M-NEL-MA-097-Management Approach</p> <p><u>In priority, important, and general habitat management areas, include in recommendations to the BLM regarding exploration plan or mining plans conditions to reduce invasive species, prevent fire, limit permanent tall structures and new permanent roads, and to design reclamation of surface disturbance to restore applicable greater sage-grouse habitat.</u></p>	<p>Elimination of Sagebrush Focal Areas</p> <p>Consistency with 2012 Planning Rule</p> <p>Clarification of Regulatory Process</p>
Mineral Materials		
<p>GRSG-M-MM-ST-100-Standard</p> <p>Apply all restrictions listed in the Timing, Distance, Density and Disturbance section to authorizations for mineral material sales and free use.</p>	<p>GRSG-M-MM-ST-098-Standard</p> <p>No Change</p>	
<p>GRSG-M-MM-ST-101-Standard</p> <p>Permits for mineral material operations in priority, sagebrush focal, or general sage-grouse habitat management areas</p>	<p>GRSG-M-MM-ST-099-Standard</p> <p>Permits for mineral material operations in priority or general sage-grouse habitat management areas must include</p>	<p>Elimination of Sagebrush Focal Areas</p>

No Action Alternative (Wyoming)	Proposed Action (Wyoming)	Issue/Clarification
must include appropriate requirements for reclamation of the site to maintain, restore, or enhance desired habitat conditions (Table 1).	appropriate requirements for reclamation of the site to maintain, restore, or enhance desired habitat conditions.	
Predators		
GRSG-PR-GL-102-Guideline Efforts by other agencies to minimize impacts from predators on the greater sage-grouse should be supported and encouraged where needs have been documented.	GRSG-PR-MA-100-Management Approach No Change	Consistency with 2012 Planning Rule

2.6 PREFERRED ALTERNATIVE

Forest Service regulations require the agency to identify a preferred alternative in the Draft EIS (40 CFR 1502.14). The preferred alternative represents those goals, objectives, and actions determined to be most effective at resolving planning issues and balancing resource use at this stage of the process. The Forest Service has identified the Proposed Action as the preferred alternative.

It is important to note that the identification of a preferred alternative does not constitute a final decision, and there is no requirement that the preferred alternative identified in this Draft EIS be selected as the agency's decision in the ROD.

2.7 PLAN EVALUATION, MONITORING, AND ADAPTIVE MANAGEMENT

Plan evaluation is the process by which the plan and monitoring data are reviewed to determine if management objectives are being met and progress is being made toward meeting management goals and if management direction is sound. LMP evaluations determine if decisions are being implemented, if mitigation measures are satisfactory, if there are significant changes in the related plans of other entities, if there are new data of significance to the plan, and if decisions should be amended or revised.

Plan monitoring provides the information needed to determine if a change in plan components or content is needed and measures management effectiveness and progress toward achieving or maintaining desired conditions. The Forest Service would use LMP evaluations to determine if the plan amendment approved by the decision is still valid in light of new information and monitoring data. Evaluations would follow the process established by the Forest Service Land Management Planning Handbook (FSH 1909.12).

This DEIS also includes adaptive management strategies that can be found in the Appendices for each state. These appendices are associated with the proposed action and the State of Utah alternative.

Attachment 2

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CHAPTER 3 - Affected Environment

3.1 INTRODUCTION

The purpose of this chapter is to describe the existing biological, physical, and socioeconomic characteristics of the planning area, including human uses that could be affected by implementing the alternatives described in **Chapter 2**. The affected environment provides the context for assessing potential impacts described in **Chapter 4**. The resource topics included in this chapter reflect those in **Table 1-2** as corresponding to an issue carried forward for detailed analysis in the 2015 Final EIS.

The geographic extent of this environmental analysis is the same as that in the 2015 Final EIS. The FS acknowledges that there have been changes to the landscape since 2015; however, due to the scale of this analysis covering 5.2 million acres of FS-administered lands, habitat monitoring data collected consistently across the range (including sagebrush availability, habitat degradation, and energy and mining density) indicate that the extent of these changes to the landscape are relatively minimal. For example, FS habitat monitoring data collected and analyzed annually at the biologically significant unit (BSU) scale, as outlined in the Greater Sage-Grouse Monitoring Framework (Appendix D of the 2015 ROD/LUPA), indicates that natural and human caused disturbances impacted less than 1 percent of PHMA range-wide from 2015 through 2017.

Management decisions and actions taken by the Forest Service since publication of the 2015 Final EIS and ROD have been consistent with the ROD. The FS will continue to implement the decisions in the 2015 ROD and any decisions and authorizations that include reference to and content from the 2015 ROD, unless those decisions are amended.

Acreage figures and other numbers were approximated using geographic information systems (GIS) technology; they do not reflect exact measurements or precise calculations.

3.1.1 GREATER SAGE-GROUSE LITERATURE, 2015–2018

To inform the consideration of whether to amend some, all, or none of the 2015 Greater Sage-Grouse land use plans, the BLM requested the USGS to develop an annotated bibliography of Greater Sage-Grouse science published since January 2015 (Carter et al. 2018) and a report that synthesized and outlined the potential management implications of this new science (Hanser et al. 2018).

Following the 2015 plans, the scientific community has continued to improve the knowledge available to inform implementation of management actions and an overall understanding of Greater Sage-Grouse populations, their habitat requirements, and their response to human activity. The report discussed the science related to six major topics identified by an interagency team, which are summarized below:

- Multiscale habitat suitability and mapping tools
- Discrete human activities

Commented [CB1]: The ADEIS minimizes the impacts of recent wildfires. Even Section 3.6 omits 2018 wildfires, including the 2018 Marten Creek fire that burned 5,700 acres and the Bender Mtn. fire in Utah, or the 2017 Snowstorm fire which burned 171,000 acres,

Commented [CB2]: The ADEIS refers repeatedly to Hanser, et al. without explaining the limits of the USGS review or its inherent bias. The Coalition notes that Steve Hanser the lead author of the 2014 USGS paper also authored the 2018 review. Other authors for both include David Manier and Zachery Bowen. The Coalition has closely reviewed the Hanser, et al. (2018) report. The Hanser report is premised on the assumption that only if new literature refutes old literature, that the 2018 Management Actions must be revised to reflect the new literature. This is not what NEPA requires.

CEQ rules require an FEIS to address scientific controversies. 40 C.F.R. §§1503.4(a); 1508.27(b)(4). An FEIS that does not will be set aside. *Middle Rio Grand Conservancy Dist. v. Norton*, 294 F.3d 1220, 1229 (10th Cir. 2002) (disagreement as to quantity of water was a scientific controversy to be addressed in the FEIS); *Center for Biological Diversity v. Forest Service*, 349 F.3d 1157, 1168-69 (9th Cir. 2003) (responding generally to a disagreement is not sufficient.). As the Coalition has explained in its DEIS comments, significant dispute remains with regards to:

Noise limits - litigation regarding the credibility and reliability of the Blickley studies requires that the BLM readdress these studies;

Habitat Objectives - new literature, including the Hanser report, demonstrate that universal habitat objectives must be reevaluated since BLM has no data to support a "local" objective for grass height, canopy cover, forb cover, etc.

Grazing - no literature has been published on grazing that shows sage-grouse are in jeopardy or are threatened by livestock grazing in Wyoming.

5% disturbance cap - Studies by Naugle, Doherty and Ramey, among others, do not advocate for a 5% disturbance cap. BLM may not selectively use literature to predetermine a NEPA decision.

1 site per 640 acres - Holloran reported on leks affected by different numbers of impacts in each of four quadrants in the cardinal directions, and predictions based upon correlations at a scale of 3 km. Data, significance tests, and scatter plots of those correlative analyses were not reported by Holloran (2005), making the scientific rationale for his one-well-per-section not reproducible.

Generally speaking, the ADEIS has failed to address the science produced in the NTT Report and the COT Report. The result, is a document that continues the same themes from the 2015 Plans and the Obama administration and which includes the procedural and substantive failures of ...

Commented [CB3]: The ADEIS repeats the errors made in 2015 with respect to the failure to address the impacts of other grazing animals, including prairie dogs, big game, and ungulates (elk and moose), all of which also affect habitat.

- Diffuse activities
- Fire and invasive species
- Restoration effectiveness
- Population estimation and genetics

Multiscale Habitat Suitability and Mapping Tools

At the broad (range-wide) and mid (population and sub-population) scales, higher resolution geospatial information allows for better understanding of habitat characteristics, which in turn improves modeling techniques. Advances in modeling and mapping techniques at these scales can help inform allocations and targeting of land management resources to benefit greater sage-grouse conservation. These tools and modelling output have in some cases produced improved maps that are reflected in proposed actions for some states; in other states they do not indicate a need change in habitat management. The FS has described the process required to determine if changes are needed to habitat management areas boundaries and how to proceed in using an interagency method (Table 2-4).

At the fine scale (home ranges and seasonal habitats) and site scale (within seasonal habitats and daily use sites), the existing state of knowledge for greater sage-grouse habitat use has been described and synthesized (Connelly et al. 2000, 2011; Hagen et al. 2007; Stiver et al. 2015). This information was included in the Seasonal Habitat Desired Conditions for GRS tables in the 2015 Final EISs (USDI BLM and USDA FS 2015). The science developed since 2015 largely corroborates the knowledge prior to 2015 regarding Greater Sage-Grouse habitat selection; namely that sage-grouse select large, relatively flat, intact sagebrush landscapes with very low human disturbance.

Specific to nesting and brood-rearing habitat, scientific literature published since 2015 demonstrates that there is not as strong a correlation between grass height and nest success as previously believed. This new information indicates a need to reevaluate guidelines from the 2015 ROD specific to grazing. Other site-scale vegetation measurements, especially sagebrush cover, remain important for sage-grouse habitat use and survival and are critical for identifying desired habitat conditions (Hanser et al. 2018).

Discrete Human Activities

The science developed since 2015 corroborates the knowledge prior to 2015 regarding the impact of discrete human activities on Greater Sage-Grouse. New science suggests that strategies to limit surface disturbance may be successful at limiting range-wide population declines, but they are not expected to reverse the declines, particularly where active oil and gas operations are present (Hanser et al. 2018). This information may have relevance when considering the impact of changes to management actions designed to limit discrete disturbances.

Diffuse Activities

The science developed since 2015 does not appreciably change the knowledge prior to 2015 regarding diffuse activities (e.g. livestock grazing, predation, hunting, wild horses and burros, fences, recreation); however, some study authors questioned current assumptions, provided refinements, or corroborated existing understanding.

Commented [CD4]: This statement contradicts later statements made in this chapter that sage-grouse habitat objectives in Table 1 that droop height, stubble height, and all of the objectives formerly thought to indicate sage-grouse preferred habitat do not actually indicate beneficial habitat traits.

Commented [CB5]: The Coalition welcomes the reassessment of what had come to be known as Table 2-2 from the 2015 Wyoming FEIS. It does not appear that there was a similarly rigorous reexamination of lek distances or noise. Nor is there any serious re-examination of the General Habitat classification. In short, the USGS reexamination was selective and omitted other recent work on these issues.

- Studies have shown that the effects of livestock grazing will vary with grazing intensity and season.
- Predation can be limiting to greater sage-grouse populations in areas with overabundant predator numbers or degraded habitats. Application of predator control has potential short-term benefits in small, declining populations; however, reducing human subsidies may be necessary to generate long-term changes in raven numbers. This is because raven control has produced only short-term declines in local raven populations.
- Refinements to the current hunting seasons used by state wildlife agencies may minimize potential effects on greater sage-grouse populations, but none of the studies implicated current application of hunting seasons and timings as a plausible cause for Greater Sage-Grouse declines.
- No new insights into the effects of wild horses and burros, fence collision, or recreational activity on greater sage-grouse have been developed (Hanser et al. 2018).

Fire and Invasive Species

Science since 2015 indicates that wildfire will continue to threaten greater sage-grouse through loss of available habitat, reductions in multiple vital rates (survival and recruitment), and declining population trends, especially in the western part of its range. The concepts of resilience after wildfire and resistance to invasion by nonnative annual grasses have been mapped across the sagebrush ecosystem using links to soil temperature and moisture regimes. These concepts inform restoration and management strategies and help prioritize application of greater sage-grouse management resources (Hanser et al. 2018).

Restoration Effectiveness

Since 2015, tools have been developed to help managers strategically place and design restoration treatments where they will have the greatest benefit for greater sage-grouse. New publications have also contributed to our understanding of success following treatments aimed at restoring habitat:

- Vegetation treatment methods and site potential can affect post-treatment vegetation characteristics.
- Conifer removal benefits greater sage-grouse through increased female survival and nest and brood success.
- Sagebrush manipulation treatments seem to benefit greater sage-grouse populations and brood-rearing habitat availability, but benefits may be limited to areas with high sagebrush cover at higher elevations and in mountain big sagebrush (*Artemisia tridentata vaseyana*) communities.
- Studies indicate that Greater Sage- Grouse populations did not benefit from, or were negatively affected by, prescribed fire and mechanical sagebrush removal treatments (Hanser et. al. 2018).

Restoration activities occur mainly at the District project level, and the FS maintains the flexibility to incorporate new tools in the agency's project planning for restoration actions.

Population Estimation and Genetics

The accuracy of estimating greater sage-grouse populations has increased because of improved sampling procedures used to complete count surveys at leks and the development of correction factors for

Commented [CB6]: The USGS team also failed to consider the role of drought in sage grouse declines even though this issue has been raised. 2018 WAFA Sage Columbian Sharp-Tailed Grouse 31st Biennial Workshop. Coates, et al., *High Stakes and High Variability: Sage-grouse Population Monitoring Framework Within a Stochastic Environment*.

Commented [CB7]: The lack of "new insights" should not preclude the USGS team from reconsidering the premises of the 2015 Plans.

Commented [CB8]: The analysis fails to address how fine fuels increase, such as when livestock grazing is reduced or removed from the landscape.

potential bias in lek count data. In addition, techniques to map greater sage-grouse genetic structure at multiple spatial scales has improved. This genetic data is used in statistical models to increase understanding of how landscape features and configuration affect gene flow. This understanding emphasizes the importance of maintaining connectivity between populations to ensure genetic diversity and distribution (Hanser et al. 2018). New information continues to affirm the FS’s understanding that greater sage-grouse is a species that selects for large, intact landscapes and habitat patches.

3.2 RESOURCES AFFECTED

Per **Chapter 1** (see **Section 1.5**), the following resources may have potential effects based on the actions considered in **Chapter 2. Table 3-1**, below, provides the location of baseline information in the 2015 Final EISs (BLM and FS 2015), and, where applicable, additional information contained in the Sagebrush Focal Area Withdrawal Draft EIS (BLM 2016).

Table 3-1. Resource topics carried forward for additional analysis.

Resource Topic	State	Location of Baseline Information
Special Status Species- Greater Sage-Grouse (and Habitat)	CO	Chapter 3, Section 3.3, pages 3-33 to 3-81 (BLM and FS 2015)
	ID	Chapter 3, Section 3.5, pages 3-5 to 3-23 (BLM and FS 2015)
	NV	Chapter 3, Section 3.2, pages 3-3 to 3-41 (BLM and FS 2015)
	UT	Chapter 3, Section 3.3, pages 3-4 to 3-44 (BLM and FS 2015)
	WY	Chapter 3, Section 3.14, pages 3-232 to 3-337 (BLM and FS 2015)
	All	Chapter 3, Section 3.7, pages 3-139 to 3-180 (BLM 2016)
Vegetation (Including Invasive, Exotic Species, and Noxious Weeds)	CO	Chapter 3, Section 3.5, page 3-92 to 3-109 (BLM and FS 2015)
	ID	Chapter 3, Section 3.3, page 3-23 to 3-41 (BLM and FS 2015)
	NV	Chapter 3, Section 3.3, page 3-41 to 3-57 (BLM and FS 2015)
	UT	Chapter 3, Section 3.8, page 3-64 to 3-99 (BLM and FS 2015)
	WY	Chapter 3, Section 3.16, page 3-356 to 3-403 (BLM and FS 2015)
	All	Chapter 3, Section 3.6, page 3-128 to 3-138 (BLM 2016)
Livestock Grazing (Range Management)	CO	Chapter 3, Section 3.12, page 3-159 to 3-167 (BLM and FS 2015)
	ID	Chapter 3, Section 3.8, page 3-65 to 3-71 (BLM and FS 2015)
	NV	Chapter 3, Section 3.8, page 3-93 to 3-101 (BLM and FS 2015)
	UT	Chapter 3, Section 3.8, page 3-64 to 3-999 (BLM and FS 2015)
	WY	Chapter 3, Section 3.7, page 3-74 to 3-97 (BLM and FS 2015)
Land Use and Realty (including Renewable Energy)	CO	Chapter 3, Section 3.4, page 3-81 to 3-92 (BLM and FS 2015)
	ID	Chapter 3, Section 3.11, page 3-84 to 3-98 (BLM and FS 2015)
	NV	Chapter 3, Section 3.11, page 3-110 to 3-121 (BLM and FS 2015) Chapter 3, Section 3.12, page 3-121 to 3-124 (BLM and FS 2015)
	UT	Chapter 3, Section 3.19, page 3-180 to 3-190 (BLM and FS 2015) Chapter 3, Section 3.20, page 3-190 to 3-199 (BLM and FS 2015)
	WY	Chapter 3, Section 3.5, page 3-50 to 3-71 (BLM and FS 2015)
Mineral and Energy Resources	CO	Chapter 3, Section 3.7, page 3-116 to 3-134 (BLM and FS 2015) Chapter 3, Section 3.8, page 3-134 to 3-138 (BLM and FS 2015) Chapter 3, Section 3.9, page 3-138 to 3-141 (BLM and FS 2015)
	ID	Chapter 3, Section 3.12, page 3-98 to 3-117 (BLM and FS 2015)
	NV	Chapter 3, Section 3.13, page 3-124 to 3-143 (BLM and FS 2015)
	UT	Chapter 3, Section 3.21, page 3-199 to 3-224 (BLM and FS 2015)
	WY	Chapter 3, Section 3.8, page 3-97 to 3-142 (BLM and FS 2015)
	All	Chapter 3, Section 3.4, page 3-2 to 3-8 (BLM 2016)
	CO	Chapter 3, section 3.10, page 3-141 to 3-149 (BLM and FS 2015)

Resource Topic	State	Location of Baseline Information
Comprehensive Travel Management (Transportation and Access Management)	ID	Chapter 3, section 3.10, page 3-78 to 3-84 (BLM and FS 2015)
	NV	Chapter 3, section 3.10, page 3-104 to 3-110 (BLM and FS 2015)
	UT	Chapter 3, section 3.18, page 3-177 to 3-180 (BLM and FS 2015)
	WY	Chapter 3, section 3.15, page 3-337 to 3-356 (BLM and FS 2015)
Recreation	CO	Chapter 3, section 3.11, page 3-149 to 3-159 (BLM and FS 2015)
	ID	Chapter 3, section 3.9, page 3-71 to 3-78 (BLM and FS 2015)
	NV	Chapter 3, section 3.9, page 3-101 to 3-104 (BLM and FS 2015)
	UT	Chapter 3, section 3.17, page 3-171 to 3-177 (BLM and FS 2015)
Riparian Areas and Wetlands and Water Resources	WY	Chapter 3, section 3.10, page 3-152 to 3-169 (BLM and FS 2015)
	CO	Chapter 3, section 3.5, page 3-92 to 3-109 (BLM and FS 2015) Chapter 3, section 3.15, page 3-186 to 3-196 (BLM and FS 2015)
	ID	Chapter 3, Section 3.3, page 3-23 to 3-41 (BLM and FS 2015) Chapter 3, Section 3.15, page 3-139 to 3-143 (BLM and FS 2015)
	NV	Chapter 3, Section 3.4, page 3-58 to 3-61 (BLM and FS 2015) Chapter 3, Section 3.15, page 3-154 to 3-164 (BLM and FS 2015)
	UT	Chapter 3, Section 3.7, page 3-60 to 3-64 (BLM and FS 2015) Chapter 3, Section 3.8, page 3-64 to 3-99 (BLM and FS 2015)
Wildland Fire	WY	Chapter 3, Section 3.18, page 3-415 to 3-449 (BLM and FS 2015)
	CO	Chapter 3, Section 3.6, page 3-109 to 3-116 (BLM and FS 2015)
	ID	Chapter 3, Section 3.7, page 3-57 to 3-65 (BLM and FS 2015)
	NV	Chapter 3, Section 3.7, page 3-82 to 3-93 (BLM and FS 2015)
	UT	Chapter 3, Section 3.7, page 3-154 to 3-163 (BLM and FS 2015)
WY	Chapter 3, Section 3.14, page 3-449 to 3-462 (BLM and FS 2015)	

3.2.1 GREATER SAGE-GROUSE AND HABITAT

The existing condition of greater sage-grouse in the planning area is described in the respective states' 2015 Final EIS in the sections listed in Table 3-1 (Special Status Species- Greater Sage-Grouse and Habitat); therefore, except as otherwise expressly indicated by new or updated information contained in this section, the affected environment for greater sage-grouse described in the 2015 Final EISs are hereby incorporated by reference.

Since 2015, the BLM and Forest Service have been implementing the greater sage-grouse conservation measures outlined in the 2015 Final EIS. In addition to working with partners, such as state wildlife agencies and USGS, to monitor the status of greater sage-grouse populations in the planning area, the FS has also been tracking human disturbance, wildland fire, and reclamation/restoration efforts in greater sage-grouse habitat management areas.

GREATER SAGE-GROUSE POPULATION STATUS

Table 3-2 shows very broad greater sage-grouse population counts at a state-wide level. These numbers do not break out trends by land ownership or region, so habitat trends cannot be surmised by these numbers. Data is collected and reported by state wildlife agencies.

Table 3-2. Greater sage-grouse population counts by state.

	GRSG Male Bird Counts on Leks			
	2014	2015	2016	2017
Colorado ¹	ND	ND	2,245	3,904
Idaho ²	11,963	13,083	16,089	12,888
Nevada ²	8,869	11,907	12,661	10,721
Utah ³	4,449	5,332	5,183	4,423
Wyoming ²	20,211	36,233	42,433	36,948

¹Northwest Colorado and North Park males counted on leks

²Total state count, males on leks

³Sage-grouse Management Area males counted on leks only

3.2.2 VEGETATION

Existing conditions for vegetation, including invasive species, in the planning area are described in the 2015 Final EISs (Table 3-1), as well as in the 2016 Draft EIS (BLM 2016) (Table 3-1). This section identifies additions or changes which are applicable to the analysis and decision-making process.

Table 3-3 identifies the treatments implemented by the FS to restore or improve greater sage-grouse in 2016 and 2017. Habitat improvement projects include meadow restoration, installation of fence markers, spring enclosures, and road decommissioning.

Table 3-3. Acres of greater sage-grouse conservation actions.

	Conifer Removal		Invasive Species Treatment		Habitat Improvement	
	2016	2017	2016	2017	2016	2017
Region 2						
Colorado ¹						
Wyoming		170	4,816	1,443	8,436	10,430
Region 4						
Idaho		1,137		2,400		46,003
Nevada	275	7,936		5,570	16,999	116,605
Utah					6,947	15,897

¹All data from Medicine Bow-Routt NF shown under WY although some acres may be in CO

3.2.3 RIPARIAN AREAS AND WETLANDS AND WATER RESOURCES

The existing condition of Riparian Areas, Wetlands, and Water Resources in the planning area is described in the 2015 Final EISs (Table 3-1). Riparian Areas, Wetlands, and Water Resources remain generally as described in the 2015 FEISs and impacts on greater sage-grouse are also as disclosed. Authorized activities relevant to riparian areas, wetlands, and water resources within greater sage-grouse habitat include stream channel and meadow restoration projects, spring improvements, and riparian enclosure fences.

Since 2015, authorized activities relevant to riparian areas, wetlands, and water resources within greater sage-grouse habitat were consistent with the state-specific 2015 ROD direction (USDA FS 2017b and USDA FS 2018d). The FS continues to manage riparian areas, wetlands, and water resources within greater sage-grouse habitat following the management direction in the 2015 decision.

3.2.4 LAND USE AND REALTY (INCLUDING RENEWABLE ENERGY)

The existing condition of Land Use and Realty in the planning area is described in the 2015 Final EISs (Table 3-1). The lands and realty program remains as described in the 2015 FEISs and the program’s impacts on greater sage-grouse are also as disclosed. Land use authorization requests are customer driven. Within the planning area, most authorizations processed are for roads, electric distribution lines, small buried fiber optic lines, and communications sites. Major ROWs are those large-scale utility projects, such as for 500kV electric transmission, wind, and solar development. The FS has not received applications for large-scale utility projects in the planning area since 2015.

Since 2015, authorized lands and realty actions were consistent with the state-specific 2015 ROD direction (USDA FS 2017b and USDA FS 2018d). The FS continues to manage the Lands and Realty programs following the management direction in the 2015 decision.

3.2.5 HUMAN DISTURBANCE

Human disturbance was discussed in the 2015 Final EISs (Colorado, Section 3.3.1; Idaho, Section 3.2.3; Nevada, Section 3.2.4; Utah, Section 3.3.6; Wyoming, Section 3.14.1). The BLM has tracked human disturbance in PHMAs from 2015 to 2017 (BLM Anthropogenic Disturbance Database), which is summarized in Table 3-4. Human disturbance has incrementally increased in all the states, with a total average of 0.89% of all PHMA annually.

Commented [CB9]: The use of the general term “anthropogenic disturbance” fails to reflect the greater impacts from wildfire due to widespread and long-term loss of habitat and mortality, as compared to a 6-acre well site and traffic.

Table 3-4. Broad scale estimates of anthropogenic disturbance¹.

State	BSU Acres	Acres of PHMA in BSU	Disturbance Estimate 2015		Disturbance Estimate 2016		Disturbance Estimate 2017	
			Acres of Disturbance on PHMA	% of PHMA	Acres of Disturbance on PHMA	% of PHMA	Acres of Disturbance on PHMA	% of PHMA
Colorado	3,831,829	2,363,984	36,255	1.62%	36,423	1.64%	36,856	1.66%
Idaho ²	8,504,747	8,504,757	42,688	0.52%	43,201	0.53%	43,386	0.53%
Nevada ³	34,915,581	11,958,171	62,560	0.47%	65,249	0.48%	65,553	0.48%
Utah	5,587,896	5,470,326	51,097	0.99%	53,517	1.02%	54,202	1.03%
Wyoming	14,968,085	14,376,688	105,599	0.74%	109,996	0.75%	111,925	0.77%
Total	67,808,138	42,673,926	298,199	0.87%	308,386	0.88%	311,922	0.89%

¹Estimates are cumulative over time

²IHMA included in Idaho totals

³California BSUs omitted

3.2.6 LIVESTOCK GRAZING

The existing condition of Livestock Grazing/Range Management in the planning area is described in the 2015 Final EISs (Table 3-1). Livestock Grazing/Range Management remains as described in the 2015 FEISs and the program’s impacts on greater sage-grouse are also as disclosed.

In the report that synthesized and outlined the potential management implications of new science

(Hanser et al. 2018, section 3.3.3), livestock grazing was included within the diffuse activities topics. Literature published and reviewed in Hanser et al. 2018 did not appreciably change knowledge of the effects of livestock grazing on sage-grouse. The studies questioned current assumptions, provided refinements, or corroborated existing understanding. Studies demonstrated that grazing impacts to sage-grouse habitat, resulting in a population level effect, is dependent on grazing intensity and timing relative to vegetation phenology and productivity.

During the development of the 2015 Amendments grazing guidelines, peer-reviewed research (Hagen et al. 2007, Holloran et al. 2005, Connelly et al. 2000, Doherty et al. 2014) indicated a relationship between perennial grass height and sage-grouse nest success. This research was foundational to the assumption that livestock grazing occurring within sage-grouse nesting habitat during the nesting season must be managed so that in breeding/nesting habitat, 7 inch droop height of perennial grass species is present at the end of the nesting period and in breeding/nesting habitat, 4 inch droop height of perennial grass species is present at the end of the growing season to ensure nest success; and in summer/brood-rearing habitat, 4 inch stubble height of for herbaceous riparian/mesic meadow vegetation is present at the end of the grazing period for brood-rearing success. The 2015 Amendments grazing guidelines were developed as conservation measures consistent with the findings of this research to reduce/ameliorate the threat of livestock grazing to nesting sage-grouse.

After the issuance of the RODs in September 2015, several greater sage-grouse researchers found there may be a significant and overlooked bias in research that linked greater sage-grouse nest success to grass height. Subsequent to 2015, there have been several publications which document the bias of plant phenology and timing of measurements of grass heights, which resulted in an over-estimate of the importance of grass height as a significant factor in nesting success (Gibson et al. 2016, Sage Grouse Initiative 2017, Smith et al. 2017a, Smith et al. 2017b).

Current literature also indicates that grazing forage use levels in mesic meadows and riparian areas, rather than stubble height, are consistent with either maintenance or improvement of sage-grouse brood-rearing habitat. Research suggests that moderate livestock grazing or less in mid to late summer, fall, or winter is generally compatible with the maintenance of perennial grasses and forbs in sagebrush habitat (Pechanec and Stewart 1949, Mueggler 1950, Laycock and Conrad 1967, 1981, Gibbens and Fisser 1975, Miller et al. 1994, Bork et al. 1998). Moderate use has traditionally been defined as occurring within the range of 40–60% utilization by weight, however, generalizing a specific level of utilization that represents “proper use” can be difficult (Caldwell 1984). However, moderate utilization by livestock in spring, early summer, or winter is sustainable in non-degraded meadow and riparian areas within sagebrush habitat (Shaw 1992, Clary et al. 1996, Mosley et al. 1997). Moderate use equates to a 10-cm (4 inch) residual stubble height for most grasses and sedges and 5-cm (2 inch) for Kentucky bluegrass (Mosley et al. 1997, Clary and Leininger 2000).

In riparian brood-rearing habitat, sage-grouse prefer the lower vegetation (5–15 cm vs. 30–50 cm; Oakleaf 1971, Neel 1980, Klebenow 1982, Evans 1986) and succulent forb growth stimulated by moderate livestock grazing (Neel 1980, Evans 1986). Brood-rearing habitat may be enhanced by grazing practices that favor upland forb production (e.g., fall grazing) and prescribed light (< 40%) to moderate spring grazing can remove standing herbage and make forbs more accessible (Smith et al. 1979, Fulgham et al. 1982).

During 2016 and 2017, National Forests included in the 2015 Amendments began measuring droop and stubble heights. Sampling occurred on 2,965 sites. Where sampling occurred, data indicate that

management of livestock grazing based on pre-2015 ROD direction included in Forest Plans, current term grazing permits, and project area grazing decisions provides for the stated droop height and stubble height provisions from the RODs (Tables 3-5, 3-6, 3-7, 3-8, 3-9).

Many Forests were unable to gather sufficient data to report brood-rearing stubble height measurements. For most of these forests, pre-2015 ROD plan direction includes utilization standards within the range considered moderate use to promote desired conditions in riparian areas and mesic meadows (Table 3-7). The Humboldt-Toiyabe National Forest includes some allotments in which utilization standards exceed moderate use and proposes additional plan components to ensure movement toward desired conditions for brood-rearing habitat (Table 2-4).

Table 3-5. Droop and stubble height measurements.

State	Forest	Year	Nesting/Breeding (> 7" Droop Height) End Nesting Season		Nesting/Breeding (> 4" Droop Height) End Growing Season		Brood-rearing/Summer (4" Stubble Height)	
			Number of Samples	Average Height in Inches	Number of Samples	Average Height in Inches	Number of Samples	Average Height in Inches
UT	Ashley	2017	40	10	95	7	0	N/A
ID	Boise	2017	3	19	0	N/A	0	N/A
WY	Bridger-Teton	2016/2017	113	11	61	11	7	10
UT	Dixie	2016/2017	165	10	220	10	0	N/A
UT	Fishlake	2016/2017	45	7	53	11	0	N/A
NV	Humboldt-Toiyabe	2016/2017	206	13	132	12	0	N/A
UT	Manti-La Sal	2016/2017	50	9	205	8	0	N/A
ID	Sawtooth	2017	6	14	34	14	144	5
ID	Salmon-Challis	2016/2017	23	11	169	12	232	5
WY/CO	Medicine Bow-Routt	2016/2017	184	9	104	11	366	25
UT	Uinta-Wasatch-Cache	2016/2017	272	11	36	11	0	N/A
Total/Average			1107	11	1109	11	749	11

Commented [CD10]: These values are not qualified by any language regarding drought, wildlife herbivory, or other mitigating and extenuating circumstances. This data set, is therefore, incomplete and does not adequately describe the circumstances on the ground. Additionally, the small number of samples, failure to correlate use with grazing activity, and failure to distinguish measurement sites make this analysis highly inaccurate.

Table 3-6. Idaho LMP Grazing Use Levels

Forest/Grassland Plan	Existing Upland Use Level ¹	Existing Riparian Use Level ¹	Consistent with Greater Sage-grouse Research
Boise National Forest Land and Resource Management Plan (2003)	<ul style="list-style-type: none"> 40% - Early season or season long 50% late season 	<ul style="list-style-type: none"> Maximum 45% 4" hydric greenline – whichever comes first 	Yes
Revised Forest Plan for the Caribou National Forest (2003)	35% - 55%	4" - 6" SH	Yes
Revised Forest Plan, Targhee National Forest (1997)	35% - 55%	<ul style="list-style-type: none"> 4" SH 30% Browse³ 	Yes
Curlew National Grassland Plan (2002)	50% - 60%	Use levels established at site specific level or in AMP	Yes
Salmon National Forest Land and Resource Management Plan (1988)	<ul style="list-style-type: none"> 25% - 65% 3" - 6" SH 	<ul style="list-style-type: none"> 25% - 65% 3" - 6" SH 	Yes
Challis National Forest Land and Resource Management Plan (1987)	None (Defers to AMP)	<ul style="list-style-type: none"> Use levels established at site specific level or in AMP 50% Browse 	No
Sawtooth National Forest Land and Resource Management Plan (2003)	<ul style="list-style-type: none"> 40% early season or season long 50% late season 	<ul style="list-style-type: none"> Maximum 45% or 4" hydric greenline whichever occurs first 	Yes

Commented [CB11]: Grazing use levels fail to address late-season senescence. Most ranchers come off NFS allotments in October, when senescence would dramatically affect stubble height. These tables need to note that stubble height would lose a significant percent based solely on drying of vegetation.

¹ As described in the current Land Resource Management Plan. Ranges vary according to grazing system (e.g., rest or deferred), season of use (e.g., early or late), range condition (e.g., satisfactory or unsatisfactory), vegetation type (e.g., alpine or non-native seeding), or other categories (e.g., greenline, key area, age class).

² SH- stubble height

³ Annual utilization of current year's growth of woody vegetation

Table 3-7. Nevada LMP Grazing Use Levels

Forest Plan	Existing Upland Use Level ¹	Existing Riparian Use Level ¹	Consistent with Greater Sage-grouse Research
Humboldt National Forest Land and Resource Management Plan (1986)	<ul style="list-style-type: none"> 55% - 65% 50% Browse 	<ul style="list-style-type: none"> 35% - 70% 35% Browse² 	Somewhat; 40-60% or moderate use is reported
Land and Resource Management Plan, Toiyabe National Forest (1986)	<ul style="list-style-type: none"> 30% - 55% 20-50% Browse 	<ul style="list-style-type: none"> 45% - 65% 20-35% Browse 	Yes

¹ As described in the current Land Resource Management Plan. Ranges vary according to grazing system (e.g., rest or deferred), season of use (e.g., early or late), range condition (e.g., satisfactory or unsatisfactory), vegetation type (e.g., alpine or non-native seeding), or other categories (e.g., greenline, key area, age class).

² Annual utilization of current year's growth of woody vegetation

Table 3-8. Utah LMP Grazing Use Levels

Forest Plan	Existing Upland Use Level ¹	Existing Riparian Use Level ¹	Consistent with Greater Sage-grouse Research
Ashley National Forest Land and Resource Management Plan (1986)	None (Defers to AMP)	50% Browse ²	Not in Forest Plan, but included in the Allotment Management Plans*
Land and Resource Management Plan for the Dixie National Forest (1986)	50% - 60%	<ul style="list-style-type: none"> ▪ 50% - 60% ▪ 50% Browse 	Yes
Land and Resource Management Plan for the Dixie National Forest (1986)	40% - 60%	<ul style="list-style-type: none"> ▪ 1.5" – 6" SH³ ▪ 40% - 50% Browse 	Yes
Land and Resource Management Plan, Manti-La Sal (1986)	40% - 65%	<ul style="list-style-type: none"> ▪ 30% - 60% ▪ 4" - 5" SH 	Yes
Sawtooth National Forest Land and Resource Management Plan (2003)	<ul style="list-style-type: none"> • 40% -early season or season long • 50% late season 	<ul style="list-style-type: none"> ▪ Maximum 45% or 4" hydric greenline, whichever comes first 	Yes
Land and Resource Management Plan, Uinta National Forest (2003)	<ul style="list-style-type: none"> ▪ 40% - 60% ▪ 6"- 7" SH⁴ 	<ul style="list-style-type: none"> ▪ 35% - 65% ▪ 2" - 6" SH ▪ 6" - 7" SH⁴ ▪ 35% - 50% Browse 	Yes
Revised Forest Plan, Wasatch-Cache National Forest (2003)	<ul style="list-style-type: none"> ▪ 50% - 60% ▪ 50% Browse 	<ul style="list-style-type: none"> ▪ 30% - 60% ▪ 3" - 5" SH ▪ 50% Browse 	Yes

¹ As described in the current Land Resource Management Plan. Ranges vary according to grazing system (e.g., rest or deferred), season of use (e.g., early or late), range condition (e.g., satisfactory or unsatisfactory), vegetation type (e.g., alpine or non-native seeding), or other categories (e.g., greenline, key area, age class).

² Annual utilization of current year's growth of woody vegetation

³ SH - stubble height

⁴ Applies to greater sage-grouse breeding habitat through June 15 in the Vernon and Strawberry Reservoir Management Areas respectively.

Table 3-9. Wyoming and Northwest Colorado LMP Grazing Use Levels

Forest or Grassland Plan	Existing Upland Use Level ¹	Existing Riparian Use Level ¹	Consistent with Greater Sage-grouse Research
Medicine Bow National Forest Revised Land and Resource Management Plan (2003)	0-55%	SH: 3-6"	Yes
Land and Resource Management Plan for the Thunder Basin National Grassland (2001)	Vegetation is managed by seral and structural objectives for each Management area within each Geographic Area.		Yes (specific MA direction included below)

Forest or Grassland Plan	Existing Upland Use Level ¹	Existing Riparian Use Level ¹	Consistent with Greater Sage-grouse Research
Routt National Forest Revised Land and Resource Management Plan (1997)	0-55%	SH: 4-6"	Yes

¹ As described in the current Land Resource Management Plan. Ranges vary according to grazing system (e.g., rest or deferred), season of use (e.g., early or late), range condition (e.g., satisfactory or unsatisfactory), vegetation type (e.g., alpine or non-native seeding), or other categories (e.g., greenline, key area, age class). Seral and Structure objectives vary by the Geographic Area.

3.2.7 WILDLAND FIRE

The wildland fire threat and impacts on greater sage-grouse are disclosed in the 2015 Final EISs (Table 3-1). From 2015 to 2017 there have been additional large-scale wildfires within the decision area (Table 3-6). These wildfires burned approximately 3.3 million acres of Greater Sage-Grouse PHMA, GHMA, IHMA, and OHMA rangewide. Of those acres, approximately 63,000 acres were within the FS planning area.

Table 3-6. Acres of GRSG habitat burned by wildfire.

State	2015	2016	Forest Service 2016	2017	Forest Service 2017
Colorado	3,359	3,215	0	27,780	0
Idaho	260,931	104,849	176	251,443	1,064
Nevada	12,233	215,073	3	967,324	4,056
Utah	377	33,269	4,077	93,295	35,164
Wyoming	20,777	55,152	2,138	69,410	0
TOTAL¹	562,734	626,268	6,394	2,073,859	40,284
Forest Service	16,121	14,008	-	102,987	-

¹Includes acreage from states not included in this analysis effort: California, Montana, Oregon, and Washington
Data from the National Interagency Fire Center

3.2.8 RECREATION

The existing condition of Recreation in the planning area is described in the 2015 Final EISs (Table 3-1). The recreation program remains as described in the 2015 FEISs and the program's impacts on greater sage-grouse are also as disclosed. Within the planning area authorized recreation uses included outfitter and guide permits, recreation site infrastructure, and special recreation use permits (such as races).

Since 2015, authorized recreation uses were consistent with the state-specific 2015 ROD direction (USDA FS 2017b and USDA FS 2018d). The FS continues to manage the Recreation programs following the management direction in the 2015 RODs.

3.2.9 COMPREHENSIVE TRAVEL MANAGEMENT

The existing condition of Travel Management in the planning area is described in the 2015 Final EISs (Table 3-1). Travel Management remains as described in the 2015 FEISs and impacts on greater sage-grouse are

also as disclosed. Within the planning area, authorized activities regarding travel management include road reconstruction, trail improvements, and unauthorized route closures.

Since 2015, authorized travel management activities were consistent with the state-specific 2015 ROD direction (USDA FS 2017b and USDA FS 2018d). The FS continues to manage Travel Management following the direction in the 2015 decision.

3.2.10 MINERAL AND ENERGY RESOURCES

The existing condition of Mineral and Energy Resources in the planning area is described in the 2015 Final EISs (Table 3-1). The Mineral and Energy Resources program remains as described in the 2015 FEISs and the program’s impacts on greater sage-grouse are also as disclosed. Within the planning area authorized mineral and energy resource projects included coal lease (permit only, activity not permitted), gravel pit reauthorization, quarry expansion, and oil and gas leasing (no lease alternative selected).

Since 2015, authorized mineral and recreation resource projects have been consistent with state-specific 2015 ROD direction (USDA FS 2017b and USDA FS 2018d). The FS continues to manage the Mineral and Energy Resource programs following the management direction in the 2015 decision.

No economically viable coal resources have been discovered in Idaho. As there is no development potential in Idaho, the lands are determined to be unsuitable for leasing. Impacts to greater sage-grouse were not analyzed in the 2015 EIS and will not be analyzed in this EIS (Table 3-1, Section 3.12 Idaho).

3.3 RESOURCES NOT CARRIED FORWARD FOR ANALYSIS

The following resources and resource uses analyzed in the 2015 Final EIS were reviewed to determine if they could have potentially significant effects based on the actions considered in Chapter 2. The changes proposed in the action alternative would not substantially alter management direction or result in different outcomes for the resources listed below. Because of this, no additional analysis was completed for the resources shown in Table 3-7, below; therefore, no new information on affected environment is provided.

References to Wild Horse and Burros are removed from the Preferred Alternative in Idaho because there are no herd management areas on FS lands in Idaho.

Table 3-7. Resources and resource uses not carried forward for analysis.

Air Quality	Social and Economic Conditions and Environmental Justice
Climate Change	Soil Resources
Cultural Resources	Soundscapes
Fish, Wildlife, and Special Status Species	Special Designations
Forest and Woodland Products	Tribal Interests
Paleontological Resources	Visual Resources
Roadless Areas	Wild Horses and Burros

Commented [CB12]: No research justified the proposed road closures. Failure to evaluate benefits and costs of such closures is a major flaw in the FEIS. Local governments strongly object to the premise that all roads and motorized travel threaten sage grouse or its habitat.

Attachment 3

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CHAPTER 4. Environmental Consequences

4.1 INTRODUCTION

This chapter presents the anticipated direct, indirect, and cumulative impacts on the human and natural environment that may be caused by implementing the alternatives described in Chapter 2. Discussions of environmental consequences in this chapter allow a reasonable prediction of consequences. However, this document does not describe every environmental process or condition. Chapter 4 also describes to decision-makers and the public how the environment could change if either of the alternatives were implemented. This chapter is organized by topic, based on the affected resources identified in Chapters 1 and 3. Only those issues listed in Table 1-2 were carried forward for analysis.

Impact analysis is a cause-and-effect process. Discussions of potential effects draw on existing analysis included in the 2015 RODs and FEISs, resource reports and related information, literature reviews, and other sources as indicated. Impact analysis is also based on information provided by experts in the Forest Service, other agencies, cooperating agencies, interest groups, and concerned citizens.

This Draft EIS is a programmatic document. It discloses the environmental consequences on a large scale, at the planning level. This is in contrast to analyses conducted for site-specific projects. The draft EIS presents a programmatic action at the Forest and Grassland level of ~~analysis, but~~ analysis but does not predict what will happen each time the standards and guidelines are implemented. Environmental consequences of individual, site-specific projects on each of the Forests or Grasslands are not described. The environmental effects of individual projects will depend on the implementation of each project, the environmental conditions at each project location, and the application of the standards and guidelines in each case.

The baseline used for the impact analysis is the current condition or situation, as described in Chapter 3. Impacts on resources and resource uses are analyzed and discussed in detail, commensurate with resource issues and concerns identified through the process. At times, impacts are described in qualitative terms or using ranges of potential impacts.

4.2 USE OF BEST AVAILABLE SCIENTIFIC INFORMATION

The 2012 planning rule, as amended, requires the responsible official to use the best available scientific information to inform the planning process for developing, amending, or revising a forest plan, including plan components. The plan components developed for the Forests and Grasslands were based on the best available scientific information and analyses therein. New best available science published since the 2015 RODs has been used by resource specialists to develop the plan components and inform this draft EIS.

Commented [CB1]: The 2018 FEIS assertion that the 2015 FEIS used the “best available scientific information” fails to recognize the Information Quality Act petitions filed by Garfield, Moffat and Rio Blanco counties and Western Energy Alliance. The respective petitions raised material issues regarding the quality of the science and the omissions of other work that did not support the assumptions. Because DOI did not address the petitions until December 2015 and even then, did not address the issues, it is not possible to state categorically that the 2015 FEIS was the best available science. At a minimum, this EIS needs to address the areas of scientific controversy. This has never occurred.

This information includes material that was readily available from public sources (libraries, research institutions, scientific journals, and online literature). It also includes information obtained from other sources, such as participation and attendance at scientific conferences, scientific knowledge from local experts, findings from ongoing research projects, workshops and collaborations, professional knowledge and experience, and information received during public participation periods. Resource specialists considered what is most accurate, reliable, and relevant in their use of the best available scientific information. The best available scientific information includes the publications and other sources listed in the references section and provided in the project record. Cooperation between State and Federal agencies and tribes described in Chapter 1 also contributed to the best available scientific information. Information that was used was applied to the issues considered and is described under each section, where applicable.

4.3 ANALYTICAL ASSUMPTIONS

Several overarching assumptions have been made to facilitate analysis of project impacts. These assumptions set analytical constraints and provide reasonably foreseeable projected levels of development that would occur in the planning area during the planning period. These assumptions should not be interpreted as constraining or redefining the management objectives and actions proposed for each alternative, as described in Chapter 2.

The following general assumptions apply to all resource categories; any specific resource assumptions are provided in the methods of analysis section for that resource:

- Forest Service budget directly affects the level of activities and outputs that may occur when a forest plan is implemented. Budgets are expected to remain flat or decrease in the future. Objectives in the forest plan ~~are based on the assumption~~ assume that there will not be a significant increase to current budget levels. To analyze effects without consideration of expected budgets would be a misrepresentation of expected outcomes.
- Project-level actions necessary to execute the LMP-level decisions in this DEIS would be subject to further environmental review, including under NEPA.
- Direct and indirect impacts of implementing the DEIS would primarily occur on public lands administered by the Forest Service in the planning area.
- The discussion of impacts is based on best available scientific information and data as described in Section 4.2. Knowledge of the planning area and decision area and professional judgment, based on observation and analysis of conditions and responses in similar areas, are used for environmental impacts where data are limited.
- Restrictions (such as siting, design, and mitigation measures) would apply, where appropriate, to surface-disturbing activities associated with land use authorizations and permits issued on Forest Service administered lands and federal mineral estate.
- GIS data have been used in developing acreage calculations and to generate the figures in this DEIS. Calculations depend on the quality and availability of data. Acreage figures and other numbers are approximate projections for comparison and analysis only; readers should not infer that they reflect exact measurements or precise calculations. In the absence of quantitative data, best professional judgment was used. Impacts were sometimes described

Commented [CB2]: The Coalition believes that limiting the focus to only published work done since fall of 2015 is insufficient. The administrative record for the 2015 FEIS reveals fundamental bias on the part of the Forest Service, BLM, and USGS.

using ranges of potential impacts, or they were described qualitatively, when appropriate.

4.4 IMPACTS FROM NO ACTION

The impacts of the No Action Alternative, or current management, of this LMPA were analyzed as Preferred Alternatives in the 2015 Final EIS. The impacts of sagebrush focal area withdrawals were analyzed in the Sagebrush Focal Area Withdrawal Draft EIS (BLM 2016). The Forest Service has reviewed new information to verify that the analysis in the 2015 Final EISs remains sound; therefore, impacts from implementing the No Action Alternative are substantially the same as those analyzed the 2015 Final EISs. The Forest Service is tiering to the previous analysis and Table 4-1 shows where the analysis of impacts of the No Action Alternative can be found in the 2015 FEISs.

Table 4-1. Environmental consequences for the No Action Alternative incorporated by reference.

Related Resource Topic	State	Location in 2015 FEIS or 2016 DEIS ¹
Air Quality	CO	Chapter 4, Air Quality Section 4.18.3, page 4-468
	ID	Chapter 4, Nature and Type of Effects Section 4.0, page 4-1
	NV	Chapter 4, Air Quality Section 4.2 (Air Quality Impacts), pages 4-7 to 4-57 Chapter 4, Air Quality Section 4.2.4 (Air Quality Impacts associated with Oil and Gas Development), pages 4-56 to 4-57 Chapter 4, Air Quality Section 4.2.5 (Air Quality Impacts associated with Non-Oil and Gas Development Activities), page 4-57
	UT	Chapter 4, Air Quality Section 4.4, Alternatives Analysis Section 4.4.2, pages 4-136 to 4-137
	WY	Chapter 4, Air Quality Section 4.2, pages 4-5 to 4-58 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-488 to 4-490
Cultural Resources	CO	Chapter 4, Cultural Resources Section 4.23.4, pages 4-551 to 4-553
	ID	Chapter 4, Nature and Type of Effects Section 4.0, page 4-1
	NV	Chapter 4, Introduction Section 4.1, pages 4-2; See Tribal Interests
	UT	Chapter 4, Cultural Resources Section 4.12, Alternatives Analysis Section 4.12.2, pages 4-200 to 4-202
	WY	Chapter 4, Cultural Resources Section 4.3, pages 4-58 to 4-67 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-490 to 4-491
Tribal Interests (including Native American Religious Concerns)	CO	Chapter 4, Cultural Resources Section 4.23.4, pages 4-510 to 4-514; 4-533 to 4-536; 4-544 to 4-549; 4-551 to 4-553
	ID	Chapter 4, Nature and Type of Effects Section 4.0, page 4-1
	NV	Chapter 4, Tribal Interests (including Native American Religious Concerns Section Concerns) Section 4.19, Impacts Common to All Alternatives Section 4.19.3, pages 4-370 to 4-372 Alternative D Section 4.19.7, pages 4-376 to 4-378 Proposed Plan Section 4.19.10, pages 4-380 to 4-382
	UT	Chapter 4, Tribal Interests Section 4.24, pages 4-404 to 4-407
Special Status Species - Greater Sage- Grouse (and Habitat)	CO	Chapter 4, Special Status Species, Section 4.5.2, page 4-109
	ID	Chapter 4, Greater Sage-Grouse and Habitat Section 4.2, Impacts Common to All Alternatives Section 4.2.3, pages 4-20 to 4-31 Alternatives D and E Sections 4.2.8 and 4.2.9, pages 4-65 to 4-77

Related Resource Topic	State	Location in 2015 FEIS or 2016 DEIS ¹
		Proposed Plan Section 4.2.1, pages 4-80 to 4-91
	NV	Chapter 4, Greater Sage-Grouse and Habitat Section 4.4, Impacts Common to All Alternatives Section 4.4.3, pages 4-20 to 4-21 Alternative D Section 4.4.7, pages 4-37 to 4-42 Proposed Plan Section 4.4.10, pages 4-51 to 4-60
	UT	Chapter 4, Greater Sage-Grouse and Habitat Section 4.3, Alternative D Section 4.3.5, pages 4-81 to 4-97 Proposed Plan Section 4.3.7, pages 4-113 to 4-135
	WY	Chapter 4, Special Status Species Section 4.14, pages 4-250 to 4-347 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-498 to 4-504
	ID, NV, UT, WY	Chapter 4, Wildlife and Special Status Species Section 4.5.5, pages 4-92 to 4-96; Cumulative Wildlife Impacts Section 4.5.9, pages 4-105 to 4-107 (BLM 2016)
Other Special Status Species	CO	Chapter 4, Special Status Terrestrial Wildlife Section 4.5.3, Pages 4-109 to 4-123; 4-130 to 4-131 Chapter 4, Special Status Plants Section 4.5.3, pages 4-131 to 4-142; 4-178
	ID	Chapter 4, Nature and Type of Effects Section 4.0, page 4-1
	NV	Chapter 4, Special Status Species Section 4.7, pages 4-148 to 4-149
	UT	Chapter 4, Other Special Status Species Section 4.9, Alternatives Analysis Section 4.9.2, pages 4-172 to 4-183
	WY	Chapter 4, Special Status Species Section 4.14, pages 4-250 to 4-347 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-498 to 4-504
Soil	CO	Chapter 4, Soil and Water Resources Section 4.17.4, pages 4-445 to 4-446
	ID	Chapter 4, Nature and Type of Effects Section 4.0, page 4-1
	NV	Chapter 4, Vegetation and Soils Section 4.5, Impacts Common to All Alternatives Section 4.5.3, pages 4-65 to 4-66 Alternative D Section 4.5.7, pages 4-37 to 4-42
	UT	Chapter 4, Soil Resources Section 4.6, Alternatives Analysis Section 4.6.2, pages 4-147 to 4-151
	WY	Chapter 4, Soils Section 4.12, pages 4-220 to 4-241 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-496 to 4-497
Riparian Areas and Wetlands and Water Resources	CO	Chapter 4, Soil and Water Resources Section 4.17.4, pages 4-445 to 4-446
	ID	Chapter 4, Nature and Type of Effects Section 4.0, page 4-1
	NV	Chapter 4, Water Resources Section 4.18, Impacts Common to All Alternatives Section 4.18.3, pages 4-344 to 4-348 Alternative D Section 4.18.7, pages 4-356 to 4-360 Proposed Plan Section 4.6.10, pages 4-136 to 4-148 Proposed Plan Section 4.18.10, pages 4-365 to 4-369
	UT	Chapter 4, Water Resources Section 4.7, Alternatives Analysis Section 4.7.2, pages 4-151 to 4-153
	WY	Chapter 4, Watershed and Water Quality Section 4.18, pages 4-374 to 4-396 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-505 to 4-506
Vegetation (Including Invasive, Exotic Species, and Noxious)	CO	Chapter 4, Vegetation Section 4.7.4, page 4-210
	ID	Chapter 4, Vegetation Section 4.3, Impacts Common to All Alternatives Section 4.3.3, pages 4-97 to 4-98

Related Resource Topic	State	Location in 2015 FEIS or 2016 DEIS ¹
Weeds)		Alternatives D and E Sections 4.3.7 and 4.3.8, pages 4-131 to 4-135 Proposed Plan Section 4.3.10, pages 4-136 to 4-140
	NV	Chapter 4, Vegetation and Soils Section 4.5, Impacts Common to All Alternatives Section 4.5.3, pages 4-65 to 4-66 Alternative D Section 4.5.7, pages 4-37 to 4-42 Proposed Plan Section 4.5.10, pages 4-91 to 4-98
	UT	Chapter 4, Vegetation (Including Noxious Weeds, Riparian Areas and Wetlands) Section 4.8, Alternatives D Section 4.8.5, pages 4-164 to 4-167 Proposed Plan section 4.8.7, pages 4-168 to 4-171
	WY	Chapter 4, Forestry Section 4.4, pages 4-67 to 4-70 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, page 4-491 Chapter 4, Vegetation Section 4.16, pages 4-352 to 4-365 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-504 to 4-505
	ID, NV, UT, WY	Chapter 4, Vegetation, including Special Status Plants, Section 4.4.5, pages 4-73 to 4-75; Cumulative Vegetation Impacts, Section 4.4.9, pages 4-81 to 4-82 (BLM 2016)
Fisheries and Wildlife	CO	Chapter 4, Terrestrial Wildlife, Section 4.3.2, pages 4-48 to 4-49; Chapter 4, Aquatic Wildlife, including Special Status Fish and Other Aquatic Species, Section 4.4.3, page 4-74
	ID	Chapter 4, Nature and Type of Effects Section 4.0, page 4-1
	NV	Chapter 4, Introduction Section 4.1, page 4-2; Also see Riparian Areas and Wetlands and Water Resources
	UT	Chapter 4, Fish and Wildlife Section 4.10, Alternatives Analysis Section 4.10.2, pages 4-184 to 4-195
	WY	Chapter 4, Wildlife and Fisheries Section 4.21, pages 4-418 to 4-464 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-507 to 4-508
Wild Horse and Burros	CO	Chapter 4, Wild Horse Management Section 4.15.4, page 4-374-375
	ID	Chapter 4, Wild Horse and Burro Management Section 4.4, Impacts Common to All Alternatives Section 4.4.3, pages 4-142 Alternatives D and E Sections 4.2.7 and 4.4.8, pages 4-131 to 4-135
	NV	Chapter 4, Wild Horse and Burros Section 4.8, Impacts Common to All Alternatives Section 4.8.3, pages 4-151 to 4-152 Alternative D Section 4.8.7, pages 4-156 to 4-158 Proposed Plan Section 4.8.10, pages 4-162 to 4-165
	UT	Chapter 4, Wild Horse and Burros Section 4.11, Alternatives Analysis Section 4.11.2, pages 4-196 to 4-199
	WY	Chapter 4, Wild Horses Section 4.19, pages 4-396 to 4-408 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-506 to 4-507
Paleontological Resources	CO	Chapter 4, Paleontological Resources Section 4.24.4, pages 4-584 to 4-585
	ID	Chapter 4, Nature and Type of Effects Section 4.0, page 4-1
	NV	Chapter 4, Incomplete or Unavailable Information Section 4.3.2, page 4-6
	WY	Chapter 4, Paleontology Section 4.9, pages 4-118 to 4-127

Related Resource Topic	State	Location in 2015 FEIS or 2016 DEIS ¹
		Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-494
Visual Resources	CO	Chapter 4, Visual Resources Section 4.20.4, page 4-491
	ID	Chapter 4, Nature and Type of Effects Section 4.0, page 4-1
	NV	Chapter 4, Introduction Section 4.1, page 4-2
	UT	Chapter 4, Visual Resources Section 4.13, Alternatives Analysis Section 4.13.2, pages 4-203 to 4-205
	WY	Chapter 4, Visual Resources Section 4.17, pages 4-365 to 4-374 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-505
Wildland Fire and Fuel's Management	CO	Chapter 4, Wildland Fire Ecology and Management Section 4.8.4, pages 4-211 to 4-213; 4-231
	ID	Chapter 4, Wildland Fire Management Section 4.5, Impacts Common to All Alternatives Section 4.5.3, pages 4-157 to 4-159 Alternatives D and E Sections 4.5.7 and 4.5.8, pages 4-164 to 4-168 Proposed Plan Section 4.5.10, pages 4-170 to 4-173
	NV	Chapter 4, Wildland Fire and Fire Management Section 4.9, Alternative D Section 4.9.6, pages 4-180 to 4-186 Proposed Plan Section 4.9.9, pages 4-195 to 4-201
	UT	Chapter 4, Wildland Fire Management Section 4.14, Alternative D Section 4.14.5, pages 4-214 to 4-216 Proposed Plan Section 4.14.7, pages 4-218 to 4-221
	WY	Chapter 4, Wildland Fire and Fuels Section 4.20, pages 4-408 to 4-418 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-507; 4-547 to 4-548; 4-571 to 4-572
Lands with Wilderness Characteristics	CO	Chapter 4, Lands with Wilderness Characteristics Section 4.21.4, page 4-504
	ID	Chapter 4, Lands with Wilderness Characteristics and Roadless Areas Section 4.14, Impacts Common to All Alternatives Section 4.14.3, pages 4-279 Alternatives D and E Sections 4.14.7 and 4.14.8, pages 4-285 to 4-287
	NV	Chapter 4, Lands With Wilderness Characteristics Section 4.14, Impacts Common to All Alternatives Section 4.16.3, pages 4-328 to 4-329 Alternative D Section 4.16.7, pages 4-331 Proposed Plan Section 4.16.10, pages 4-333 to page 4-334
	UT	Chapter 4, Wilderness Characteristics Section 4.15, Alternatives Analysis Section 4.15.2, pages 4-222 to 4-227
	WY	Chapter 4, Lands with Wilderness Characteristics Section 4.6, pages 4-81 to 4-89
Roadless Areas	ID	Chapter 4, Lands with Wilderness Characteristics and Roadless Areas Section 4.14, Impacts Common to All Alternatives Section 4.14.3, pages 4-279 Alternatives D and E Sections 4.14.7 and 4.14.8, pages 4-285 to 4-287
Special Designations	CO	Chapter 4, Areas of Critical Environmental Concern and Zoological Areas Section 4.16.1, pages 4-391 to 4-393 Chapter 4, Wilderness Study Areas Section 4.16.2, pages 4-404 to 4-405 Chapter 4, Wild and Scenic Rivers Section 4.16.3, pages 4-413 to 4-414 Chapter 4, National Trails and Byways Section 4.16.4, pages 4-430-4-431
	ID	Chapter 4, Nature and Type of Effects Section 4.0, page 4-1 Chapter 4, Areas of Critical Environmental Concern and Zoological Areas Section 4.13.1,

Related Resource Topic	State	Location in 2015 FEIS or 2016 DEIS ¹
		Nature and Type of Effects Section 4.13.3, pages 4-267 to 4-273 Alternatives D and E Sections 4.13.7 and 4.13.8, pages 4-273
	NV	Chapter 4, Areas of Critical Environmental Concern Section 4.17, pages 4-334 to 4-338
	UT	Chapter 4, Areas of Critical Environmental Concern and Zoological Areas Section 4.22.1, pages 4-367 to 4-369 Chapter 4, Wilderness Study Areas Section 4.22.2, pages 4-369 to 4-370 Chapter 4, Other Special Designations Section 4.22.3, pages 4-370 to 4-372
	WY	Chapter 4, Special Designations and Management Areas Section 4.13, pages 4-241 to 4-250 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-497 to 4-498
Recreation	CO	Chapter 4, Recreation Section 4.13.4, page 4-334
	ID	Chapter 4, Nature and Type of Effects Section 4.0, page 4-1
	NV	Chapter 4, Recreation Section 4.11, Impacts Common to All Alternatives Section 4.11.3, pages 4-242 Alternative D Section 4.11.7, pages 4-245 to 4-246 Proposed Plan Section 4.11.10, pages 4-248 to 4-249
	UT	Chapter 4, Recreation Section 4.17, Alternatives Analysis Section 4.17.2, pages 4-253 to 4-255
	WY	Chapter 4, Recreation Resources Section 4.10, pages 4-127 to 4-134 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-494 to 4-495; 4-547 to 4-548; 4-572 to 4-575
Comprehensive Travel Management	CO	Chapter 4, Travel Management Section 4.12.4, page 4-315
	ID	Chapter 4, Travel Management Section 4.7, Impacts Common to All Alternatives Section 4.7.3, pages 4-206 Alternatives D and E Sections 4.7.7 and 4.7.8, pages 4-207
	NV	Chapter 4, Travel and Transportation Management Section 4.12, Impacts Common to All Alternatives Section 4.12.3, pages 4-250 Alternative D Section 4.12.7, pages 4-251 to 4-252
	UT	Chapter 4, Comprehensive Travel and Transportation Management Section 4.18, Alternatives Analysis Section 4.18.2, pages 4-256 to 4-258
	WY	Chapter 4, Transportation and Access Management Section 4.15, pages 4-347 to 4-352 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-504
Livestock Grazing (Range Management)	CO	Chapter 4, Range Management Section 4.14.4, page 4-353
	ID	Chapter 4, Livestock Grazing/Range Management Section 4.6, Impacts Common to All Alternatives Section 4.6.3, pages 4-178 to 4-179 Alternatives D and E Sections 4.6.7 and 4.6.8, pages 4-190 to 4-194 Proposed Plan Section 4.6.10, pages 4-196 to 4-203
	NV	Chapter 4, Livestock Grazing Section 4.10, Impacts Common to All Alternatives Section 4.10.3, pages 4-208 Alternative D Section 4.10.7, pages 4-221 to 4-224 Proposed Plan Section 4.10.10, pages 4-232 to 4-241
	UT	Chapter 4, Livestock Grazing/Range Management Section 4.16, Alternative D Section 4.16.5, pages 4-239 to 4-242 Proposed Plan Section 4.16.7, pages 4-246 to 4-252
	WY	Chapter 4, Livestock Grazing Section 4.7, pages 4-89 to 4-106 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-

Related Resource Topic	State	Location in 2015 FEIS or 2016 DEIS ¹
		492 to 4-493; 4-540 to 4-547; 4-566 to 4-571
Land Use and Realty	CO	Chapter 4, Lands and Realty Section 4.6.4, page 4-188
	ID	Chapter 4, Lands and Realty Section 4.8, Impacts Common to All Alternatives Section 4.8.3, pages 4-211 Alternatives D and E Sections 4.8.7 and 4.8.8, pages 4-216 to 4-219 Proposed Plan Section 4.8.10, pages 4-220 to 4-224
	NV	Chapter 4, Land Use and Realty Section 4.13, Impacts Common to All Alternatives Section 4.13.3, pages 4-256 to 4-257 Alternative D Section 4.13.7, pages 4-263 to 4-265 Proposed Plan Section 4.13.10, pages 4-269 to 4-273
	UT	Chapter 4, Lands and Realty Section 4.19, Alternative D Section 4.19.5, pages 4-266 to 4-269
	WY	Chapter 4, Lands and Realty Section 4.5, pages 4-71 to 4-81 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-491 to 4-492
Renewable Energy	CO	Chapter 4, Wind and Solar Energy Development, pages 4-18 to 4-20; 4-57 to 4-58; 4-83 to 4-85; 4-152; 4-154; 4-196 to 4-197; 4-219 to 4-220
	ID	Chapter 4, Renewable Energy Section 4.2.2, pages 4-18 to 4-20; 4-42; 4-56; 4-63 to 4-64; 4-79; 4-150; 4-210; 4-214; 4-217 to 4-218; 4-278; 4-309
	NV	Chapter 4, Renewable Energy Resources Section 4.14, Impacts Common to All Alternatives Section 4.14.3, pages 4-278 to 4-279 Alternative D Section 4.14.7, pages 4-282 to 4-283
	UT	Chapter 4, Renewable Energy Section 4.20, Alternative D Section 4.20.5, pages 4-283 to 4-285
	WY	Chapter 4, Minerals and Energy Section 4.8, pages 4-106 to 4-118 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-493 to 4-494; 4-537 to 4-540; 4-563 to 4-565
Solid Minerals	CO	Chapter 4, Coal Section 4.9.2, pages 4-66-4-69; 4-287-4-290
	ID	Chapter 4, Nature and Type of Effects Section 4.9.1 and 4.11.2, page 4-227; 4-256; 4-259 to 4-260; 4-264 to 4-266
	NV	Chapter 4, Mineral Resources Section 4.15, pages 4-290; 4-306; 4-320
	UT	Chapter 4, Coal Section 4.21.3, pages 4-332 to 4-346
	WY	Chapter 4, Minerals and Energy Section 4.8, pages 4-106 to 4-118 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-493 to 4-494; 4-529 to 4-530; 4-556 to 4-557
Fluid Minerals	CO	Chapter 4, Fluid Leasable Minerals Section 4.9.1, page 4-263
	ID	Chapter 4, Leasable Minerals (Leased and Unleased), Including Fluid Minerals and Nonenergy Solid Leasable Minerals Section 4.9, pages 4-224 Chapter 4, Fluid Minerals Section 4.9.1, pages 4-224 to 4-236 Chapter 4, Geothermal Section 4.9.2, pages 4-236 to 4-248
	NV	Chapter 4, Fluid Minerals Section 4.15.1, pages 4-286 to 4-304
	UT	Chapter 4, Oil and Gas Section 4.21.1, pages 4-288 to 4-318
	WY	Chapter 4, Minerals and Energy Section 4.8, pages 4-106 to 4-118 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-493 to 4-494; 4-524 to 4-529; 4-552 to 4-556
Leasable Minerals	CO	Chapter 4, Minerals (Leasable) Section 4.9, pages 4-231-4-234; 4-263-4-266
	ID	Chapter 4, Nonenergy Leasable Minerals Section 4.12, Nature and Types of Effects Section 4.12.2, pages 4-260 Alternatives D and E Sections 4.12.6 and 4.12.7, pages 4-263 to 4-264

Related Resource Topic	State	Location in 2015 FEIS or 2016 DEIS ¹
	NV	Chapter 4, Solid (Nonenergy) Leasable Minerals Section 4.15.4, pages 4-319 to 4-325
	UT	Chapter 4, Nonenergy Leasable Minerals Section 4.21.2, pages 4-318 to 4-332
	WY	Chapter 4, Minerals and Energy Section 4.8, pages 4-106 to 4-118 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-493 to 4-494; 4-534 to 4-553; 4-560 to 4-563
Locatable Minerals	CO	Chapter 4, Locatable Minerals Section 4.10.4, page 4-298
	ID	Chapter 4, Locatable Minerals Section 4.10, Impacts Common to All Alternatives Section 4.10.3, pages 4-251 Alternatives D and E Sections 4.10.7 and 4.10.8, pages 4-253 to 4-254 Proposed Plan Section 4.10.10, page 4-254
	NV	Chapter 4, Locatable Minerals Section 4.15.2, pages 4-304 to 4-311
	UT	Chapter 4, Locatable Minerals Section 4.21.4, pages 4-346 to 4-353
	WY	Chapter 4, Minerals and Energy Section 4.8, pages 4-106 to 4-118 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-493 to 4-494; 4-532 to 4-534; 4-558 to 4-559
	ID, NV, UT, WY	Chapter 4, Geology and Mineral Resources Section 4.2.5, pages 4-13 to 4-14; Cumulative Geology and Mineral Resource Impacts Section 4.2.9, pages 4-18 to 4-20 (BLM 2016)
Salable Minerals	CO	Chapter 4, Salable Minerals Section 4.11.4, pages 4-308 to 4-309
	ID	Chapter 4, Mineral Materials (Salable) Section 4.11, Nature and Types of Effects Section 4.11.2, pages 4-255 Alternatives D and E Sections 4.11.6 and 4.11.7, pages 4-257 to 4-258
	NV	Chapter 4, Salable Minerals Section 4.15.3, pages 4-311 to 4-319
	UT	Chapter 4, Mineral Materials Section 4.21.5, pages 4-353 to 4-363 Chapter 4, Oil Shale and Tar Sands Section 4.21.6, pages 4-363 to 4-367
	WY	Chapter 4, Minerals and Energy Section 4.8, pages 4-106 to 4-118 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-493 to 4-494; 4-530 to 4-532; 4-557 to 4-558
Social and Economic Conditions and Environmental Justice	CO	Chapter 4, Economic Impacts Section 4.25.3, pages 4-585 to 4-608 Chapter 4, Social Impacts Section 4.25.4, pages 4-608 to 4-617 Chapter 4, Environmental Justice Section 4.25.5, pages 4-617 to 4-619
	ID	Chapter 4, Social and Economic Conditions (Including Environmental Justice) Section 4.15, Chapter 4, Economic Impacts Section 4.15.3, pages 4-293 to 4-310 Chapter 4, Social Impacts Section 4.15.4, pages 4-310 to 4-316 Chapter 4, Environmental Justice Impacts Section 4.15.5, pages 4-316 to 4-319
	NV	Chapter 4, Economic Impacts Section 4.21.2, pages 4-407 to 4-430 Chapter 4, Social Impacts Section 4.21.3, pages 4-430 to 4-439 Chapter 4, Environmental Justice Section 4.21.4, pages 4-439 to 4-442
	UT	Chapter 4, Social and Economic Conditions (Including Environmental Justice) Section 4.23, page 4-372 Chapter 4, Economic Impacts Section 4.23.3, pages 4-375 to 4-395; Summary 4-398 to 4-402 Chapter 4, Social Impacts Section 4.23.4, pages 4-395 to 4-402 Chapter 4, Environmental Justice Impacts Section 4.23.6, pages 4-402 to 4-404
	WY	Chapter 4, Socioeconomics Section 4.11, pages 4-134 to 4-220 Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-495 to 4-496

Related Resource Topic	State	Location in 2015 FEIS or 2016 DEIS ¹
	ID, NV, UT, WY	Chapter 4, Social and Economic Conditions Section 4.3.3 to 4.3.12, pages 4-25 to 4-64; Cumulative Economic and Social Impacts Section 4.3.13, pages 4-64 to 4-68 (BLM 2016)
Climate Change	CO	Chapter 4, Climate Change Section 4.19, page 4-469
	ID	Chapter 4, Methods and Assumptions Section 4.2.1, page 4-7 Nature and Type of Effects Section 4.2.2, pages 4-10 to 4-12; 4-51 to 4-52; 4-81; 4-127; 4-165; 4-172
	NV	Chapter 4, Climate Change Section 4.20, Impacts Common to All Alternatives Section 4.20.3, pages 4-382 to 4-387 Alternative D Section 4.20.7, pages 4-376 to 4-378 Proposed Plan Section 4.20.10, pages 4-399 to 4-402
	UT	Chapter 4, Climate Change Section 4.5, Alternatives Analysis Section 4.5.2, pages 4-137 to 4-147
	WY	Chapter 4, Air Quality Impacts Associated with Non-Oil and Gas Development Activities Section 4.2.5, pages 4-57; 4-491; 4-523 to 4-524; 4-544; 4-551;
Noise/Soundscape	CO	Chapter 4, Soundscape Section 4.22.4, page 4-506
	ID	Chapter 4, Sage-Grouse and Sage-Grouse Habitat Section 4.2, pages 4-15 to 4-31 Chapter 4, Fluid Minerals Section 4.9.1, pages 4-227; 4-230 Chapter 4, Geothermal Section 4.9.2, pages 4-239 to 4-247 Chapter 4, Locatable Minerals Section 4.10, pages 4-250 to 4-254 Chapter 4, Mineral Materials (Salable Section) 4.11, pages 4-254 to 4-258 Chapter 4, Nonenergy Leasable Minerals Section 4.12, pages 4-259 to 4-264 Chapter 4, Chapter 4 Impacts on lands with Wilderness Characteristics Common to All Alternatives Section 4.14.3, pages 4-279
	NV	Chapter 4, Greater Sage-Grouse and GRSG Habitat Section 4.4, pages 4-10 to 4-59 Chapter 4, Renewable Energy Resources Section 4.14, pages 4-282 to 4-286 Chapter 4, Mineral Resources Section 4.15, pages 4-286 to 4-298; 4-316; 4-323 Chapter 4, Tribal Interests Section 4.19, pages 4-370
	UT	Chapter 4, Surface Disturbance Restrictions for GRSG in Existing Land Use Plans Table 4.1; pages 4-11 to 4-14 Chapter 4, Special Status Species - Greater Sage-Grouse Section 4.3, pages 4-83 to 4-91; 4-117 to 4-135 Chapter 4, Other Special Status Species Section 4.9, pages 4-174 to 4-182 Chapter 4, Fish and Wildlife Section 4.10, pages 4-193 to 4-194 Chapter 4, Comprehensive Travel and Transportation Management Section 4.18, pages 4-255 Chapter 4, Renewable Energy Section 4.20, pages 4-282 to 4-288 Chapter 4, Oil and Gas Section 4.21.1, pages 4-297; 4-304 to 4-315 Chapter 4, Nonenergy Leasable Minerals Section 4.21.2, pages 4-326 to 4-330 Chapter 4, Coal Section 4.21.3, pages 4-341 to 4-346 Chapter 4, Mineral Materials Section 4.21.5, pages 4-358 to 4-363 Chapter 4, Oil Shale and Tar Sands Section 4.21.6, pages 4-363 to 4-366 Chapter 4, Economic Impacts Section 4.23.3, pages 4-384
	WY	Chapter 4, Lands with Wilderness Characteristics Section 4.6, pages 4-82 to 4-88 Chapter 4, Minerals and Energy Section 4.8, pages 4-110 to 4-117 Chapter 4, Recreation Resources Section 4.10, pages 4-128 to 4-132 Chapter 4, Economic Impacts by Alternative Section 4.11.5, pages 4-191 to 4-210

Related Resource Topic	State	Location in 2015 FEIS or 2016 DEIS ¹
		Chapter 4, Special Designations and Management Areas Section 4.13, pages 4-244 to 4-248 Chapter 4, Special Status Species Section 4.14, pages 4-257 to 4-417 Chapter 4, Wildlife and Fisheries Section 4.21, pages 4-426 to 4-463 Chapter 4, Cumulative Impacts Section 4.22, pages 4-495 to 4-573

¹Information for Table 4-1 is found in Chapter 4 in the following documents:

- Northwest Colorado Greater Sage-Grouse Proposed LUPA and Final EIS 2015 (https://eplanning.blm.gov/epl-front-office/projects/lup/36511/58677/63740/NWCO_4_FEIS_201506_508.pdf)
- Idaho and Southwestern Montana Proposed LUPA and Final EIS 2015 (https://eplanning.blm.gov/epl-front-office/projects/lup/31652/58564/63627/08_ID_swMT_FEIS_Chapter_4.pdf)
- Nevada and Northeastern California Greater Sage-Grouse Proposed LUPA and Final EIS 2015 (https://eplanning.blm.gov/epl-front-office/projects/lup/21152/58710/63773/9_Volume_2_Chapter_4_NVCA_GRSF.pdf)
- Utah Greater Sage-Grouse Proposed LUPA and Final EIS 2015 (<https://eplanning.blm.gov/epl-front-office/projects/lup/68351/93845/113166/Chapter4.pdf>)
- Wyoming Greater Sage-Grouse Land Use Plan Amendment and Final EIS 2015 (https://eplanning.blm.gov/epl-front-office/projects/lup/9153/58493/63913/11_Chapter-4_Environmental-Consequences_FEIS_052115.pdf)
- Sagebrush Focal Area Withdrawal Draft EIS 2016 (https://eplanning.blm.gov/epl-front-office/projects/lup/103347/143428/176389/SFA_DEIS_Main_Text.pdf)

4.5 ENVIRONMENTAL IMPACTS OF THE PROPOSED ACTION AND STATE OF UTAH ALTERNATIVE

Section 4.5 identifies potential direct and indirect impacts identified with implementation of the Proposed Action and/or the State of Utah Alternative. Please refer to Table 2-5 (Colorado), 2-6 (Idaho), 2-7 (Nevada), 2-8 (Utah) and 2-9 (Wyoming) for detailed information regarding the proposed management actions and Table 2-8a (Utah) for detailed information regarding the State of Utah alternative. Table 1-1 identifies which LMPs would be affected by the proposed alternative and Table 1-2 identifies which of the issues carried forward apply to which state.

Table 4-2. Location of environmental analysis in 2015 FEIS by resource topic.

Related Resource Topic	State	Location in 2015 FEIS or 2016 DEIS ¹
Special Status Species - Greater Sage- Grouse (and Habitat)	CO	Chapter 4, Special Status Species, Section 4.5.2, page 4-76 to 4-109
	ID	Chapter 4, Greater Sage-Grouse and Habitat Section 4.2 Nature and Type of Effects Section 4.2.2, pages 4-9 to 4-20 Impacts Common to All Alternatives Section 4.2.3, pages 4-20 to 4-31 Alternatives A through F Sections 4.2.4 and 4.2.10, pages 4-31 to 4-80 Proposed Plan Section 4.2.1, pages 4-80 to 4-91
	NV	Chapter 4, Greater Sage-Grouse and Habitat Section 4.4 Impacts Common to All Alternatives Section 4.4.3, pages 4-20 to 4-21 Alternative A through F Section 4.4.4 to 4.4.9, pages 4-21 to 4-51 Proposed Plan Section 4.4.10, pages 4-51 to 4-60
	UT	Chapter 4, Greater Sage-Grouse and Habitat Section 4.3, Alternatives A through E Section 4.3.2 to 4.3.6, pages 4-10 to 4-113

Related Resource Topic	State	Location in 2015 FEIS or 2016 DEIS ¹
		Proposed Plan Section 4.3.7, pages 4-113 to 4-135
	WY	Chapter 4, Special Status Species Section 4.14, pages 4-250 to 4-347 Alternatives A through D Sections 4.14.3 to 4.14.6 pages 4-252 to 4-334 Proposed LUP Amendments Section 4.14.7, pages 4-334 to 4-347
	ID, NV, UT, WY	Chapter 4, Wildlife and Specials Status Species Section 4.5.4, pages 4-87 to 4-92 (BLM 2016)
Riparian Areas and Wetlands and Water Resources	CO	Chapter 4, Soil and Water Resources Sections 4.17.2 to 4.17.4, pages 4-431 to 4-446
	ID	Chapter 4, Vegetation Section 4.3, Impacts Common to All Alternatives Section 4.3.3, pages 4-97 to 4-98 Alternatives A and F Sections 4.3.4 and 4.3.9, pages 4-98 to 4-136 Proposed Plan Section 4.3.10, pages 4-136 to 4-140
	NV	Chapter 4, Riparian Areas and Wetlands Section 4.6 and Water Resources Section 4.18 Impacts Common to All Alternatives Section 4.6.3, pages 4-105 to 4-106 Impacts Common to All Alternatives Section 4.18.3, pages 4-344 to 4-348 Alternatives A through F Section 4.6.4 to 4.6.9, pages 4-106 to 4-136 Alternatives A through F Section 4.18.4 to 4.18.9, pages 4-348 to 4-365 Proposed Plan Section 4.6.10, pages 4-136 to 4-148 Proposed Plan Section 4.18.10, pages 4-365 to 4-369
	UT	Chapter 4, Water Resources Section 4.7, Alternatives Analysis Section 4.7.2, pages 4-151 to 4-153 Chapter 4, Vegetation (Including Riparian Areas and Wetlands) Section 4.8, Alternatives A through E Section 4.8.2 to 4.8.6, pages 4-155 to 4-168 Proposed Plan section 4.8.7, pages 4-168 to 4-171
	WY	Chapter 4, Watershed and Water Quality Section 4.18, pages 4-374 to 4-375 Alternatives A to D Sections 4.18.3 to 4.18.6, pages 4-375 to 4-391 Proposed LUP Amendments Section 4.18.7, pages 4-391 to 4-396
	CO	Chapter 4, Vegetation Section 4.7.2 to 4.7.4 , page 4-189 to 4-211
Vegetation (Including Invasive, Exotic Species, and Noxious Weeds)	ID	Chapter 4, Vegetation Section 4.3, Impacts Common to All Alternatives Section 4.3.3, pages 4-97 to 4-98 Alternatives A and F Sections 4.3.4 and 4.3.9, pages 4-98 to 4-136 Proposed Plan Section 4.3.10, pages 4-136 to 4-140
	NV	Chapter 4, Vegetation and Soils Section 4.5, Impacts Common to All Alternatives Section 4.5.3, pages 4-65 to 4-66 Alternatives A through F Section 4.5.4 to 4.5.9, pages 4-66 to 4-91 Proposed Plan Section 4.5.10, pages 4-91 to 4-98
	UT	Chapter 4, Vegetation (Including Noxious Weeds, Riparian Areas and Wetlands) Section 4.8, Alternatives A through E Section 4.8.2 to 4.8.6, pages 4-155 to 4-168 Proposed Plan section 4.8.7, pages 4-168 to 4-171
	WY	Chapter 4, Forestry Section 4.4, pages 4-67 to 4-70 Chapter 4, Vegetation Section 4.16, Alternatives A through D, Section 4.16.3 to 4.14.6 pages 4-352 to 4-362 Proposed LUP Amendments Section 4.16.7, pages 4-362 to 4-365
	ID, NV, UT, WY	Chapter 4, Vegetation, including Special Status Plants, Section 4.4.4, pages 4-71 to 4-73 (BLM 2016)
	CO	Chapter 4, Vegetation, including Special Status Plants, Section 4.4.4, pages 4-71 to 4-73 (BLM 2016)
Wildland Fire and Fuels Management	CO	Chapter 4, Wildland Fire Ecology and Management Section 4.8.2 to 4.8.4, pages 4-211 to 231

Related Resource Topic	State	Location in 2015 FEIS or 2016 DEIS ¹
	ID	Chapter 4, Wildland Fire Management Section 4.5, Impacts Common to All Alternatives Section 4.5.3, pages 4-157 to 4-159 Alternatives A and F Sections 4.5.4 and 4.5.9, pages 4-159 to 4-170 Proposed Plan Section 4.5.10, pages 4-170 to 4-173
	NV	Chapter 4, Wildland Fire and Fire Management Section 4.9, Alternatives A through F Section 4.9.3 to 4.9.8, pages 4-170 to 4-195 Proposed Plan Section 4.9.9, pages 4-195 to 4-201
	UT	Chapter 4, Wildland Fire Management Section 4.14, Alternatives A through E Section 4.14.2 to 4.14. 6, pages 4-206 to 4-218 Proposed Plan Section 4.14.7, pages 4-218 to 4-221
	WY	Chapter 4, Wildland Fire and Fuels Section 4.20, pages 4-408 to 4-418 Alternatives A through D Sections 4.20.3 to 4.20.6 pages 4-409 to 4-415 Proposed LUP Amendments Section 4.20.7, pages 4-415 to 4-418
Recreation	CO	Chapter 4, Recreation Section 4.13.2 to 4.13.4, page 4-316 to 4-335
	ID	Chapter 4, Nature and Type of Effects Section 4.0, page 4-1
	NV	Chapter 4, Recreation Section 4.11, Impacts Common to All Alternatives Section 4.11.3, pages 4-242 Alternative A through F Section 4.11.4 to 4.11.9, pages 4-242 to 4-248 Proposed Plan Section 4.11.10, pages 4-248 to 4-249
	UT	Chapter 4, Recreation Section 4.17, Alternatives Analysis Section 4.17.2, pages 4-253 to 4-255
	WY	Chapter 4, Recreation Resources Section 4.10, pages 4-127 to 4-134 Alternatives A through D Sections 4.10.3 to 4.10.6 pages 4-128 to 4-132 Proposed LUP Amendments Section 4.10.7, pages 4-132 to 4-134
Comprehensive Travel Management	CO	Chapter 4, Travel Management Section 4.12.2 to 4.12.4, page 4-309 to 4-315
	ID	Chapter 4, Travel Management Section 4.7, Impacts Common to All Alternatives Section 4.7.3, pages 4-206 Alternatives A and F Sections 4.7.4 and 4.7.9, pages 4-206 to 4-207
	NV	Chapter 4, Travel and Transportation Management Section 4.12, Impacts Common to All Alternatives Section 4.12.3, pages 4-250 Alternative A through F Section 4.12.4 to 4.14.9, pages 4-250 to 4-252
	UT	Chapter 4, Comprehensive Travel and Transportation Management Section 4.18, Alternatives Analysis Section 4.18.2, pages 4-256 to 4-258
	WY	Chapter 4, Transportation and Access Management Section 4.15, pages 4-347 to 4-352 Alternatives A through D Sections 4.15.3 to 4.15.6 pages 4-347 to 4-351 Proposed LUP Amendments Section 4.15.7, pages 4-351 to 3-352
Livestock Grazing (Range Management)	CO	Chapter 4, Range Management Section 4.14.2 to 4.14.4, page 4-338 to 4-353
	ID	Chapter 4, Livestock Grazing/Range Management Section 4.6, Impacts Common to All Alternatives Section 4.6.3, pages 4-178 to 4-179 Alternatives A and F Sections 4.6.4 and 4.6.9, pages 4-179 to 4-196 Proposed Plan Section 4.6.10, pages 4-196 to 4-203
	NV	Chapter 4, Livestock Grazing Section 4.10, Impacts Common to All Alternatives Section 4.10.3, pages 4-208 Alternatives A through F Section 4.10.4 to 4.10.9, pages 4-208 to 4-232 Proposed Plan Section 4.10.10, pages 4-232 to 4-241
	UT	Chapter 4, Livestock Grazing/Range Management Section 4.16, Alternatives A through E Section 4.16.2 to 4.16.6, pages 4-228 to 4-246 Proposed Plan Section 4.16.7, pages 4-246 to 4-252

Related Resource Topic	State	Location in 2015 FEIS or 2016 DEIS ¹
	WY	Chapter 4, Livestock Grazing Section 4.7, pages 4-89 to 4-106 Alternatives A through D Sections 4.7.3 to 4.7.6 pages 4-90 to 4-100 Proposed LUP Amendments Sections 4.7.7, pages 4-100 to 4-106
Land Use and Realty	CO	Chapter 4, Lands and Realty Section 4.6.2 to 4.6.4, page 4-181 to 4-188
	ID	Chapter 4, Lands and Realty Section 4.8, Impacts Common to All Alternatives Section 4.8.3, pages 4-211 Alternatives A and F Sections 4.8.4 and 4.8.9, pages 4-212 to 4-220 Proposed Plan Section 4.8.10, pages 4-220 to 4-224
	NV	Chapter 4, Land Use and Realty Section 4.13, Impacts Common to All Alternatives Section 4.13.3, pages 4-256 to 4-257 Alternatives A through F Section 4.13.4 to 4.13.9, pages 4-257 to 4-269 Proposed Plan Section 4.13.10, pages 4-269 to 4-273
	UT	Chapter 4, Lands and Realty Section 4.19, Alternatives A through E Section 4.19.2 to 4.19.6, pages 4-260 to 4-271 Proposed Plans Section 4.19.7, pages 4-271 to 4-275
	WY	Chapter 4, Lands and Realty Section 4.5, pages 4-71 to 4-81 Alternatives A to D Sections 4.5.3 to 4.5.6 pages 4-72 to 4-78 Proposed LUP Amendments Section 4.5.7, pages 4-78 to 4-81
Renewable Energy	CO	Chapter 4, Wind and Solar Energy Development, pages 4-18 to 4-20; 4-57 to 4-58; 4-83 to 4-85; 4-152; 4-154; 4-196 to 4-197; 4-219 to 4-220
	ID	Chapter 4, Renewable Energy Section 4.2.2, pages 4-18 to 4-20; 4-42; 4-56; 4-63 to 4-64; 4-79; 4-150; 4-210; 4-214; 4-217 to 4-218; 4-278; 4-309
	NV	Chapter 4, Renewable Energy Resources Section 4.14, Impacts Common to All Alternatives Section 4.14.3, pages 4-278 to 4-279 Alternatives A through F Section 4.14.4 to 4.14.9, pages 4-279 to 4-284
	UT	Chapter 4, Renewable Energy Section 4.20, Alternatives A to E Section 4.20.2 to 4.20.6, pages 4-278 to 4-287
	WY	Chapter 4, Minerals and Energy Section 4.8.1 to 4.8.2, pages 4-106 to 4-108 Alternatives A through D Sections 4.8.3 to 4.8.6, pages 4-108 to 4-115 Proposed LUP Amendments Section 4.8.7, pages 4-115 to 4-118
Solid Minerals	CO	Chapter 4, Coal Section 4.9.2, pages 4-266 to 4-290
	ID	Chapter 4, Nature and Type of Effects Section 4.9.1 and 4.11.2, page 4-227; 4-256; 4-259 to 4-260; 4-264 to 4-266
	NV	Chapter 4, Mineral Resources Section 4.15.4, pages 4-319 to 326
	UT	Chapter 4, Coal Section 4.21.3, pages 4-332 to 4-346
	WY	Chapter 4, Minerals and Energy Section 4.8.1 to 4.8.2, pages 4-106 to 4-108 Alternatives A through D Sections 4.8.3 to 4.8.6, pages 4-108 to 4-115 Proposed LUP Amendments Section 4.8.7, pages 4-115 to 4-118
Fluid Minerals	CO	Chapter 4, Fluid Leasable Minerals Section 4.9.1, page 4-231 to 4-266
	ID	Chapter 4, Leasable Minerals (Leased and Unleased), Including Fluid Minerals and Nonenergy Solid Leasable Minerals Section 4.9, pages 4-224 Chapter 4, Fluid Minerals Section 4.9.1, pages 4-224 to 4-236 Chapter 4, Geothermal Section 4.9.2, pages 4-236 to 4-248
	NV	Chapter 4, Fluid Minerals Section 4.15.1, pages 4-286 to 4-304
	UT	Chapter 4, Oil and Gas Section 4.21.1, pages 4-288 to 4-318
	WY	Chapter 4, Minerals and Energy Section 4.8.1 to 4.8.2, pages 4-106 to 4-108 Alternatives A through D Sections 4.8.3 to 4.8.6, pages 4-108 to 4-115 Proposed LUP Amendments Section 4.8.7, pages 4-115 to 4-118
Leasable Minerals	CO	Chapter 4, Fluid Leasable Minerals Section 4.9.1, page 4-231 to 4-266
	ID	Chapter 4, Nonenergy Leasable Minerals Section 4.12,

Related Resource Topic	State	Location in 2015 FEIS or 2016 DEIS ¹
		Nature and Types of Effects Section 4.12.2, pages 4-260 Alternatives A to F Sections 4.12.3 and 4.12.8, pages 4-261 to 4-265
	NV	Chapter 4, Solid (Nonenergy) Leasable Minerals Section 4.15.4, pages 4-319 to 4-325
	UT	Chapter 4, Nonenergy Leasable Minerals Section 4.21.2, pages 4-318 to 4-332
	WY	Chapter 4, Minerals and Energy Section 4.8.1 to 4.8.2, pages 4-106 to 4-108 Alternatives A through D Sections 4.8.3 to 4.8.6, pages 4-108 to 4-115 Proposed LUP Amendments Section 4.8.7, pages 4-115 to 4-118
Locatable Minerals	CO	Chapter 4, Locatable Minerals Section 4.10.2 to 4.10.4, page 4-290 to 4-298
	ID	Chapter 4, Locatable Minerals Section 4.10, Impacts Common to All Alternatives Section 4.10.3, pages 4-251 to 4-252 Alternatives A to F Sections 4.10.4 and 4.10.8, pages 4-252 to 4-254 Proposed Plan Section 4.10.10, page 4-254
	NV	Chapter 4, Locatable Minerals Section 4.15.2, pages 4-304 to 4-311
	UT	Chapter 4, Locatable Minerals Section 4.21.4, pages 4-346 to 4-353
	WY	Chapter 4, Minerals and Energy Section 4.8.1 to 4.8.2, pages 4-106 to 4-108 Alternatives A through D Sections 4.8.3 to 4.8.6, pages 4-108 to 4-115 Proposed LUP Amendments Section 4.8.7, pages 4-115 to 4-118
	ID, NV, UT, WY	Chapter 4, Geology and Mineral Resources Section 4.2.4, page 4-13 to 4-20 (BLM 2016)
Salable Minerals	CO	Chapter 4, Salable Minerals Section 4.11.2 to 4.11.4, pages 4-299 to 4-308
	ID	Chapter 4, Mineral Materials (Salable) Section 4.11, Nature and Types of Effects Section 4.11.2, pages 4-255 to 4-256 Alternatives A and F Sections 4.11.3 and 4.11.8, pages 4-256 to 4-258
	NV	Chapter 4, Salable Minerals Section 4.15.3, pages 4-311 to 4-319
	UT	Chapter 4, Mineral Materials Section 4.21.5, pages 4-353 to 4-363 Chapter 4, Oil Shale and Tar Sands Section 4.21.6, pages 4-363 to 4-367
	WY	Chapter 4, Minerals and Energy Section 4.8.1 to 4.8.2, pages 4-106 to 4-108 Alternatives A through D Sections 4.8.3 to 4.8.6, pages 4-108 to 4-115 Proposed LUP Amendments Section 4.8.7, pages 4-115 to 4-118

4.5.1 HABITAT MANAGEMENT AREA DESIGNATIONS

Table 4-3. HMA designations considered in the 2015 Final EIS.

Issue	Considered in 2015 Final EIS
Identify a process for evaluating and updating habitat management area (HMA) boundaries	Idaho: Common to All Alternatives, Appendix F Nevada: Alternatives D and E Utah: Common to All Alternatives, Appendix N Great Basin and Rocky Mountain RODs
Changes in HMA boundaries	Nevada: Not considered Wyoming: Alternatives B, C, D (partial- PHMA-core and connectivity identified as GHMA)
Incentivize GRSG habitat disturbance outside of PHMA; focus protection in PHMAs	Prioritization of PHMA was analyzed: Idaho: Alternatives B, D, F and Proposed Plan Alternative Utah: Alternatives B, D, and Proposed Plan Alternative Nevada: Alternatives B, D, E, F and Proposed Plan Alternative Wyoming: Alternatives B, C, D and Proposed LUP Amendments

Issue	Considered in 2015 Final EIS
Change the Anthro Mountain HMA designation to PHMA designation	Utah: Not considered
Eliminate the GHMA and Anthro Mountain designation	Utah: Anthro Mountain and GHMA was not identified as a HMA or any other habitat designation in the E1 Alternative.

Identify a process for evaluating and updating habitat management area (HMA) boundaries

Both the Rocky Mountain and Great Basin Records of Decision addressed updating of HMA boundaries: “As new information about GRSG habitat becomes available, including seasonal habitats, in coordination with the State wildlife agency and USFWS, and based on best available scientific information, the Forest Service may revise the GRSG habitat management area maps and associated management decisions through LMP amendment/revision, as appropriate” (page 21 and 22, respectively).

The Proposed Action for Idaho, Nevada, Utah, and Wyoming include a management approach that identifies the process for evaluating and updating HMA boundary maps. HMAs in Colorado and Idaho would remain the same as in the 2015 Final EISs; therefore, this is not discussed further. A plan amendment is required for modification of management areas where plan components apply (36 CFR 219.13). Appendix A includes maps for each alternative by state and forest.

Changes in HMA boundaries

Nevada

The HMA boundaries in Nevada have been adjusted during this amendment process. PHMA decreased by 99,500 acres, GHMA increased by 298,800 acres, and OHMA decreased by 194,900 acres (Tables 2-1 and 2-2). Overall, the change represents an increase in acreage in HMAs. PHMA, GHMA, and OHMA acres have been better classified based on incorporation of current science including new lek locations, improved understanding of sage-grouse space-use from marked birds and modelling work, and removal of areas of non-habitat including areas near town and city centers (Coates et al. 2016). No impact to GRSG is anticipated from the HMA boundary adjustment.

Wyoming

The HMA boundaries in Wyoming have been adjusted during this amendment process. In the 2015 EIS, PHMA, PHMA-Core, and PHMA-Connectivity designations were identified. PHMA decreased by 63,500 acres, GHMA decreased by 19,500 acres, PHMA-Connectivity (CHMA) decreased by 62,400 acres, and the PHMA-Core designation was eliminated (Tables 2-1 and 2-2).

The change in PHMA acreage is due to 56,000 acres being changed to GHMA because the PHMA designation was not consistent with the State of Wyoming’s updated mapping effort. An additional 6,940 acres of PHMA were also not consistent with the Wyoming Version 4 map because of being timbered non-habitat. There were 138,000 acres of GHMA removed from HMA designation because they were not consistent with the Wyoming Version 4 map because of being timbered non-habitat.

The CHMA designation acreage decreased because 53,000 acres identified in the 2015 EIS as PHMA-Connectivity on the Bridger-Teton NF were designated inappropriately and did not align with the State of Wyoming mapping effort. The former PHMA-Connectivity habitat on the Bridger-Teton NF that aligned with the State of Wyoming’s updated mapping effort have been designated as GHMA. There were 9,400

Commented [CB3]: The Wyoming Plan does not include “general habitat.” In fact, the Wyoming Plan clearly states that the core areas were first identified to address all life-stage habitat needs. For this reason, the Coalition believes general habitat should be deleted.

acres of CHMA removed from HMA designation because they were not consistent with the Wyoming Version 4 map. The PHMA-Core was mapped by the State of Wyoming and overlaid PHMA. The PHMA-Core designation is being eliminated because it overlaid PHMA and created confusion. In this amendment, boundaries have been aligned with the State of Wyoming's updated mapping effort which reflects more accurate habitat mapping. The acres that were dropped were non-habitat or private land. No impact to GRSG is anticipated from the HMA boundary adjustment.

Change the Anthro Mountain HMA designation to PHMA designation

Utah

In the 2015 FEIS, all plan components that applied to the Anthro Mountain habitat designation also applied to PHMA designation. The exception was GRSG-M-FML-ST-81-Standard that outlined conditions for approval on existing fluid mineral leases on Anthro Mountain. The change in designation would have all plan components relevant to PHMA be applicable to the portion of habitat formerly known as Anthro Mountain. No impact to GRSG is anticipated from the PHMA designation.

Eliminate the GHMA and Anthro Mountain designation

Utah

Under the State of Utah Alternative, GHMA and Anthro Mountain habitat designations would be removed along with corresponding plan components from the 2015 plan amendments. Disturbance would be focused outside of PHMA, which is similar to the 2015 plan amendments. This alternative would eliminate protections given to GHMA in all plan components.

GHMA areas on NFS lands is approximately 5.6 percent of the Forest Service decision area in Utah. These habitat areas tend to be fragmented habitats, areas containing small isolated populations, and many acres of unoccupied and non-habitats and is of low-biological significance to sage-grouse.

Prior to the development of the 2015 Plan Amendments, the State of Utah conducted an analysis of the GHMAs relative to the State SGMAs (Alternative E1). Utah's SGMA (which corresponded with PHMA in federal plans), encompassed over 96 percent of the known sage-grouse population areas in Utah and the habitats which offer the best ecological potential (UT GRSG Working group 2013). GHMA on FS lands makes up only 1 percent of the habitat utilized by sage-grouse based on Utah's known GPS and telemetry data. In 2017, fewer than 300 male sage-grouse were found in all GHMA and other non-PHMA habitat throughout Utah in 2017. Sage-grouse tracked by telemetry have very little interaction or use with USFS's lands designated as GHMA (State of UT 2018b).

A recently-released study (Cross et al. 2018) attempted to quantify the importance of connectivity across the range of GRSG. The study identified certain portions of Utah as important for connectivity. However, the study did not consider the impacts that translocated birds have had in Utah. Since the 1950s to the present, the Utah has utilized hundreds of translocated birds from all parts of the State as a tool to move birds and recover or supplement populations. Many of the areas identified in the paper as being important for "gene-flow" or connectivity, have been artificially connected through state management and translocation of sage-grouse.

The idea that GHMA is important for gene-flow and connectivity is not supported by the best available local data and science. The removal of habitat management designation from GHMA would serve to incentivize protections in PHMA. There are currently plan components addressing GHMA which prioritize protection of PHMA and allow development in GHMA. The long-term effect of this alternative on GRSG is expected to ultimately be similar to effects in the No Action and Proposed Action Alternatives.

The State of Utah Alternative considers eliminating HMA designation from the Anthro Mountain area located on the Ashley National Forest. There are 119 leks within northeastern Utah, in the Anthro Mountain, Blue Mountain, Emma Park, Diamond Mountain, Little Mountain, Uinta South Slope, Strawberry Valley, Three Corners, West Tavaputs, ~~Deadmans~~Deadman's Bench, and Book Cliffs areas. The Ashley NF lies within this broader complex of sage-grouse populations. There are 13 leks occurring on the Ashley NF; 6 of which occur in the Anthro Mountain area. In 2018, Ashley NF personnel, who count males on leks for UDWR, counted a total of 62 males on the Anthro Mountain leks, an increase of 8% over the 2017 lek count. Anthro Mountain leks account for between 10 to 48% of the total males counted on the Ashley NF, depending upon the year (Rodriguez 2018).

The State of Utah analyzed population trends in this area using the methods in the State's Draft Conservation Plan for the 119 lek locations in northeastern Utah using 2018 lek count data.

The State of Utah evaluated the proportion of the population, population trends, and population growth rates of the area with Anthro Mountain sage-grouse included, and with Anthro Mountain sage-grouse excluded. There is a 20-year average of 958 males on leks in the broader northeastern Utah area, of which 30 were from Anthro Mountain which represents 3 percent of total males. When evaluating population trends using the most recent 20 years of lek count data, population trends and growth rates were highly positive, both with and without Anthro Mountain sage-grouse included in the analysis. Sage-grouse populations in northeastern Utah are growing at a rate of over 45 birds per year on average over the course of the last 20 years. When the Anthro Mountain birds are excluded from the analysis, the sage-grouse populations in northeastern Utah are growing at a rate of over 42 birds per year on average over the course of the last 20 years (State of Utah 2018b).

Telemetry data (over 1,700 locations) collected from 2002 to 2008 by UDWR and FS staff demonstrated that the Anthro Mountain area provides connectivity between the Emma Park and West Tavaputs populations (Christensen 2008). There has been no documentation of bird movements between West Tavaputs and Emma Park; however, movements to and from Anthro Mountain to both these populations has been recorded (Christensen 2008, Gruber 2012, and Duvuvuei 2013). Telemetry data also demonstrated that birds trapped on Anthro Mountain may also breed in West Tavaputs (Christensen 2008). Anthro Mountain's connectivity to these other two populations was also substantiated by Utah State University in 2009-2013 (Gruber 2012 and Duvuvuei 2013). This study demonstrated that Anthro Mountain birds wintered in West Tavaputs and Emma Park, thus illustrating connectivity between populations, and without the Anthro Mountain population, possible genetic exchange between these two populations may be lost. The Anthro Mountain population of sage-grouse was augmented with translocated sage-grouse in 2009 and 2010 (Gruber 2012); however, the Anthro Mountain sage-grouse movements to Emma Park and West Tavaputs were documented as early as 2002 (Christensen 2008).

Based on the analysis above, the Anthro Mountain or PHMA designation is not necessary to ensure biological persistence of greater sage-grouse in northeastern Utah, however, the leks in the Anthro Mountain area have relevance to species persistence on the Ashley NF as this area has nearly half of the know leks on the Forest. Other sage-grouse habitats on the Ashley NF remain designated as PHMA under

the State of Utah Alternative, however, Anthro Mountain not being retained as PHMA would not provide for sufficient distribution of sage-grouse on the Ashley NF.

Commented [CD4]: State of Utah gets rid of all GHMA.

4.5.2 ELIMINATION OF SAGEBRUSH FOCAL AREA DESIGNATIONS/WITHDRAWALS

Table 4-4. Elimination of SFA designations/withdrawals considered in the 2015 Final EIS.

Issue	Considered in 2015 Final EIS
Sagebrush Focal Areas (SFAs) duplicate many protections that are already in place through the designation of priority habitat management areas (PHMAs) in the absence of mineral withdrawals.	Idaho: Analyzed in Alternatives A, B, C, D, E, and F Nevada: Analyzed in Alternatives A, B, C, D, E, and F Utah: Analyzed in Alternatives A, B, C, D, and E1 Wyoming: Analyzed in Alternatives A, B, C, and D All: SFA Withdrawal DEIS, No Action Alternative

Sagebrush Focal Areas

SFAs are a subset of PHMA and are managed as PHMA with some additional management, however that additional management overlaps significantly with management of PHMA. Both SFA and PHMA are managed as NSO for fluid Mineral leasing, the only difference is that PHMA allows for a limited exception and the exceptions must meet a stringent series of criteria to be approved. The removal of SFA designations would have no measurable effect on the conservation of greater sage-grouse because the management direction proposed for PHMA would remain in place and continue to protect greater sage-grouse habitat. SFA removal would add flexibility for responsible development with stringent requirements including mitigation to achieve a no net loss to Greater Sage-Grouse habitat in PHMA.

Commented [CB5]: The Coalition supports the deletion of SFA areas. The administrative record showed that SFAs were identified by Director Ashe in coordination with NGOs and entirely without any support.

Commented [CD6]: This statement is entirely too broad to satisfy the USFS responsibility under NEPA to explain why an integral component of the 2015 Plans is no longer necessary. The administrative record for the 2015 Plans demonstrates that the USFWS insisted that the plans protect “the best of the best”. The Coalition, and others, repeatedly argued that these “subsets” were not necessary, but the BLM and USFS deferred to the USFWS. Now, the USFS expects the public and eventually the courts to accept the conclusion that the Coalition previously offered *without any explanation* as to what changed between 2015 and 2018.

Sagebrush Focal Area Mineral Withdrawal

The proposed mineral withdrawal was canceled with a Notice of Cancellation published in the Federal Register on October 11, 2017, which canceled the BLM’s application to withdraw SFA from locatable mineral entry (82 Federal Register 195, October 11, 2017, p. 47248). The impacts associated with not pursuing withdrawal were analyzed in the 2016 Sagebrush Focal Area Draft EIS which analyzed the impacts of not moving forward with a withdrawal in the No Action Alternative. Applicable analyses from the 2015 Final EIS and 2016 Draft EIS explain the impacts from these actions, and actions and are incorporated by reference (Table 4-1). There were no SFA mineral withdrawals in Colorado.

The Coalition appreciates that PHMA do, in the agency’s opinion, adequately protect sage-grouse habitat and populations, but that *does not* explain why the “additional management” in SFAs is no longer necessary when it was so essential in the 2015 Plans.

This section must be revised or else the document will remain gravely flawed.

4.5.3 CHANGING NET CONSERVATION GAIN

Table 4-5. Changing Net Conservation Gain and adjustment of compensatory mitigation frameworks considered in the 2015 Final EIS.

Issue	Considered in 2015 Final EIS
Net conservation gain changed to no net loss of habitat to align with the state mitigation strategies.	“No net loss” analyzed in: Idaho: Alternative D Utah: Not considered Wyoming: Not considered
Alignment with the Idaho Governor’s Task Force Plan	Idaho: Proposed Plan Alternatives
Prioritization of protection of PHMA by emphasizing compensatory mitigation in IHMA	
Alignment with the Wyoming Compensatory Mitigation Framework	Wyoming: Proposed LUP Amendments

Commented [CD7]: Net Conservation Gain is a landscape-scale management provision that is unauthorized in light of Congress’ revocation of the Planning 2.0 Rule, violates the Mining Law and FLPMA, and is inconsistent with the following Secretarial and Executive Orders:

- Secretary Zinke’s June 2017 Secretarial Order 3353 “Greater Sage-Grouse Conservation and Cooperation with Western States;”
- President Trump’s March 2017 Energy Independence Executive Order (EO 13783); and
- Secretary Zinke’s March 2017 Secretarial Order 3349 implementing EO 13783.

The concept does not conform to other judicial review of agency compensatory mitigation.

Issue	Considered in 2015 Final EIS
Alignment with the State of Nevada’s Mitigation Strategy	Nevada: Proposed Plan Alternatives
Alignment with State of Utah Compensatory Mitigation Program	Utah: Proposed Plan Alternatives

Idaho

Net conservation gain was incorporated into the Mitigation Strategies between the 2015 DEIS and the FEIS, which did not provide the public opportunity to comment on this approach. In Idaho, the Mitigation Strategy is being modified to align with the Idaho State Mitigation Strategy by changing “net conservation gain” to “no net habitat loss”. Conceptually, “no net loss” would result in fewer acres being restored, improved, or protected as compared with “net conservation gain”. However, if the proponent is not willing to provide mitigation that exceeds the minimal net gain standard, the resulting acreage would be similar. There are very few large-scale projects requiring compensatory mitigation on Forest Service lands in Idaho; the acres of habitat not restored because of the reduction in the mitigation standard from net gain to no net loss would be much less than one percent of the vegetation treatments completed each year. The mitigation strategy for the Proposed Action in Idaho can be found in Appendix C.

In Idaho, mitigation would not be required in GHMA, and a primary goal of the Governor’s Greater Sage-Grouse plan is to push development out of PHMA and IHMA into GHMA or outside of habitat; therefore, greater sage-grouse in GHMA or outside designated habitat would be at increased risk of habitat loss or displacement; however, this area typically contains lower quality or marginal Greater Sage-Grouse habitat. The Forest Service would continue to avoid and minimize impacts in GHMA, but there would be loss and degradation of habitat. This change would encourage proponents to develop in GHMA or outside of greater sage-grouse habitat.

Utah

Net conservation gain was incorporated into the Mitigation Strategies between the 2015 DEIS and the FEIS, which did not provide the public opportunity to comment on this approach. In Utah, the change to compensatory mitigation would also change “net conservation gain” to “no net habitat loss” to align with the State of Utah’s Compensatory Mitigation Program which was developed subsequent to the 2015 FEIS. Mitigation would only be required in PHMA, where protections are being focused under the Proposed Action, because PHMA provides higher quality habitat. Improving higher quality habitat would be expected to benefit greater sage-grouse rather than focusing efforts in the lower quality habitat that GHMA provides. The Forest Service would continue to avoid and minimize impacts in GHMA, but there would be loss and degradation of habitat in the Proposed Action and the State of Utah Alternative. This change would encourage proponents to develop in GHMA or outside of greater sage-grouse habitat. The mitigation strategy for the Proposed Action in Utah can be found in Appendix E.

Nevada

Net conservation gain was analyzed in Alternative E in the 2015 FEIS and remains in place for the No Action Alternative and the Proposed Action. Environmental analysis would occur at the project level for current or future projects. When authorizing third-party actions that would result in direct, indirect, or cumulative impacts on greater sage-grouse or their habitat, the FS would require those impacts to be quantified using the State of Nevada’s Habitat Quantification Tool (HQT) to ensure consistency in tracking/reporting

changes to habitat quality and quantity. Applicable analyses from the 2015 Final EIS explain the impacts from these ~~actions, and actions and~~ are incorporated by reference. No additional analysis is needed. The mitigation strategy for the Proposed Action in Nevada can be found in Appendix D.

Wyoming

The FS would use the State of Wyoming’s Greater Sage-Grouse Compensatory Mitigation Framework if the need for compensatory mitigation is identified by the State of Wyoming through the Executive Order review process and appropriate coordination. The mitigation strategy for the Proposed Action in Wyoming can be found in Appendix F.

Determination of the applicability of the framework and amount of compensatory mitigation would be made by the State of Wyoming. Any impacts associated with the need for compensatory mitigation, or the applicability of compensatory mitigation, would be identified at the site-specific project level.

The impacts associated with the removal of the compensatory mitigation standard of “net conservation gain” would have minimal impacts across the range of greater sage-grouse in Wyoming. This is because the State of Wyoming’s compensatory mitigation framework provides a replacement of habitat, including indirect effects, with assurances and durability over the life of the impact; however, there is the potential for local adverse impacts on greater sage-grouse as a result of modifying the decisions associated with compensatory mitigation ~~and net conservation gain~~. Site-specific impacts would be identified at the time of site-specific environmental review.

4.5.4 MODIFYING LEK BUFFERS

Table 4-6. Modifying Lek Buffers Considered in the 2015 Final EIS.

Issue	Considered in 2015 Final EIS
Prioritization of protection of PHMA by allowing flexibility in lek buffer application	Idaho: Proposed Plan Amendments

Idaho

Lek buffers would remain the same in PHMA, which contain approximately two thirds of all known occupied leks. There would be no effect to greater sage-grouse in PHMA.

The minimum recommended buffer distances documented by a USGS literature review (Manier et al. 2014) would be applied in IHMA, which has approximately a quarter of all known occupied leks, and GHMA, which contains less than 10 percent of all known leks. These buffers, which are smaller than the buffers identified for use in the 2015 ROD/LMPA, would be applied tall structures and would vary for different types of structures. Other restrictions in IHMA such as mitigation, disturbance cap, and NSO with limited exception would serve to ensure responsible development; however, infrastructure would be allowed closer to leks, subject to the before mentioned restrictions. There is very little new development of infrastructure in PHMA or IHMA. The reduction of buffers in IHMA would not result in increased development around most leks because disturbance in FS HMAs is limited; ~~however~~ if development were to occur nearer than the buffers identified in the No Action, those leks would be at

Commented [CD8]: This analysis is inadequate.

First, the USFS may not assume that the Compensatory Mitigation Framework can be implemented by the USFS pursuant to the USFS guiding rules, regulations and statutes. *There is no authority to implement a “gain” policy on USFS lands.*

Second, the USFS may not assume that the State’s framework can be implemented expediently to compensate for impacts on federal lands. The State’s framework has not been implemented, will likely not be a streamlined process for several years, and yet the USFS makes no disclosure of these problems here. The USFS must discuss the process that the State uses and how long it may take for conservation credits to be generated and for those credits to be approved, and then purchased.

Finally, the Net Conservation Gain was a “nonnegotiable” element of the 2015 Plans according to administrative record and emails from Dan Ashe and the USFWS to the BLM and USFS. Thus, it is essential that the USFS explain why the net conservation gain standard is no longer necessary.

Commented [CD9]: Uniform lek buffer zones, are landscape-scale management provisions that are unauthorized in light of Congress’ revocation of the Planning 2.0 Rule, violate the Mining Law and FLPMA, and are inconsistent with the following Secretarial and Executive Orders:

- Secretary Zinke’s June 2017 Secretarial Order 3353 “Greater Sage-Grouse Conservation and Cooperation with Western States;”
 - President Trump’s March 2017 Energy Independence Executive Order (EO 13783); and
 - Secretary Zinke’s March 2017 Secretarial Order 3349 implementing EO 13783.
- The FS buffers greatly exceed what is prescribed in the Wyoming Plan.

Commented [CD10]: This statement is inaccurate. Mainer actually acknowledged that “because of variation in populations, habitats, development patterns, social context, and other factors, for a particular disturbance type, there is no single distance that is an appropriate buffer for all populations and habitats across the sage-grouse range.” Thus, the USFS took the exact approach that Mainer did not recommend.

an increased risk of being abandoned. GHMA contains very few leks and is lower quality habitat compared to PHMA and IHMA.

The reduced buffer distance in IHMA and GHMA would improve alignment with the Governor’s Plan by having the most restrictive management in PHMA and reducing those restrictions in IHMA and further reducing restrictions in GHMA.

4.5.5 INCLUDING WAIVERS, EXCEPTIONS, AND MODIFICATIONS ON NSO STIPULATIONS

Table 4-7. Including Waivers, Exceptions, and Modifications on NSO Stipulations considered in the 2015 Final EIS.

Issue	Considered in 2015 Final EIS
The no surface occupancy (NSO) exception includes appropriate surface use and timing stipulations. Change in requirements for the USFWS to approve waivers, exceptions, or modifications	Idaho: Proposed Plan Amendments
The no surface occupancy (NSO) exception includes appropriate use of mitigation hierarchy. Change in requirements for the USFWS to approve waivers, exceptions, or modifications	Nevada: Proposed Plan Amendments
Exceptions must result in no effects to GRSG or habitat or all impacts could be offset through mitigation. Clarified geothermal leases included in fluid leases Change in requirements for the USFWS to approve waivers, exceptions, or modifications	Utah: Proposed Plan Amendment
Connectivity habitat added to NSO or surface disturbing activities being not authorized within 0.6 miles of occupied leks	Wyoming: Proposed LUP Amendments

Commented [CB11]: The NSO areas are too large to permit development. No EIS has adequately quantified the impacts of the NSO restrictions on future oil and gas recovery. By assuming development will occur, the EIS will fail to disclose these economic and social impacts.

Commented [CB12]: USFWS lacks management authority. The sage grouse is no longer a candidate species and management is vested solely in the respective states.

Idaho

The removal of the requirement for a unanimous finding between FS, FWS, and the State of Idaho to grant an exception for NSO in fluid minerals development would be replaced by the authorization being granted by the authorized officer. The deciding official must disclose effects of and rationale for the decision, but decision authority cannot be deferred to other agencies or the state. Coordination with an interagency team, which would include both FWS and the State of Idaho, would still be required under the adaptive management, mitigation, and HMA boundary modification processes.

Nevada

The removal of the requirement for a unanimous finding between FS, FWS, and the State of Nevada to grant an exception for NSO in fluid minerals development would be replaced by the authorization being granted by the authorized officer. The deciding official must disclose effects of and rationale for the

decision, but decision authority cannot be deferred to other agencies or the state. Coordination with an interagency team, which would include both FWS and the State of Nevada, would still be required under the adaptive management, mitigation, and HMA boundary modification processes.

Utah

The removal of the requirement for a unanimous finding between FS, FWS, and the State of Utah to grant an exception for NSO in fluid minerals development would be replaced by the authorization being granted by the authorized officer. The deciding official must disclose effects of and rationale for the decision, but decision authority cannot be deferred to other agencies or the state. Coordination with an interagency team, which would include both FWS and the State of Utah, would still be required under the adaptive management, mitigation, and HMA boundary modification processes.

Wyoming

Including CHMA is merely a clarification since this designation is a component of PHMA.

The removal of the requirement for a unanimous finding between FS, FWS, and the State of Wyoming to grant an exception for NSO in fluid minerals development would be replaced by the authorization being granted by the authorized officer. The deciding official must disclose effects of and rationale for the decision, but decision authority cannot be deferred to other agencies or the state. Coordination with an interagency team, which would include both FWS and the State of Wyoming, would still be required under the adaptive management, mitigation, and HMA boundary modification processes.

4.5.6 MODIFYING DESIRED CONDITIONS

Table 4-8. Modifying desired conditions considered in the 2015 Final EIS.

Issue	Considered in 2015 Final EIS
Local ecological site potential considered, broader description of appropriate GRSG habitat requirements identified, and seasonal use periods and habitat preferences values moved to appendix.	Nevada: Alternatives B, D, E , and <u>E</u> , and F and Proposed Plan Wyoming: Alternative B, C and D
Updating desired condition table values	Utah: Alternative D

Nevada

The seasonal use periods and habitat preferences table is identified as a management approach and is included in Appendix D. This will allow the table to be revised to incorporate best available science in coordination with partners. The best available science would be reviewed and incorporated and recommend adjustments would be based on regionally and locally derived data. Modifying seasonal use periods and habitat preferences would better align with state conservation plans and management strategies resulting in improved management of great sage-grouse.

Desired conditions are identified in the 2015 Final EIS and in the Proposed Action at GRSG-GEN-DC-003-Desired Condition. The seasonal use periods and habitat preferences table would be implemented following the guidance that these are broad goals based on habitat selection that may not be achievable in all areas and should be based on sources such as ecological site descriptions and associated state-and-transition models.

Wyoming

The values for greater sage-grouse habitat attributes table is identified as a management approach and is included in Appendix F. This will allow the table to be revised to incorporate best available science in coordination with partners. The best available science would be reviewed and incorporated and recommend adjustments would be based on regionally and locally derived data. Modifying habitat attributes would better align with state conservation plans and management strategies resulting in improved management of the greater sage-grouse.

Utah

In the 2015 FEIS, Alternative D includes an objective to “maintain or restore vegetation to provide habitat for lekking, nesting, brood rearing, winter, and transition areas” and specifies that the “desired cover percentages and heights for sagebrush, grasses, and forbs in seasonal habitats will be managed to meet habitat guidelines from scientific literature (e.g., Connelly et al. 2000 and Hagen et al. 2007), where such standards can be met” (page 2-85 to 2-86). Additionally, “adjustments from the guidelines may be made, but must be based on documented regional variation of habitat characteristics (e.g., sagebrush type, ecological site potential), quantitative data from population and habitat monitoring, and evaluation of local research” (page 2-86). Applicable analyses from the 2015 Final EIS explain the impacts from these actions, and actions and are incorporated by reference. No additional analysis is needed.

4.5.7 CHANGING LIVESTOCK GRAZING GUIDELINES

Table 4-9. Changing livestock grazing guidelines considered in the 2015 Final EIS.

Issue	Considered in 2015 Final EIS
Replace specific grass-height guidelines with management approaches that would have greater sage-grouse habitat assessments conducted in allotments to determine if livestock management is a causal factor.	Colorado: Alternatives A, B, C, and D Idaho: Alternatives A, B, D Utah: Alternatives A, B, D Nevada: Alternatives A, B, D Wyoming: Alternatives A, B, D
Replace specific grass-height guidelines with guidelines for riparian and meadow areas.	Nevada: Alternatives A, D, and E
Modify language regarding water developments in HMAs	Idaho: Alternatives A and E Nevada: Alternatives A and E Utah: Alternatives A and E

Colorado, Idaho, Nevada, Utah, and Wyoming

Desired Condition

The 2015 Amendments listed a Desired Condition for livestock grazing being “managed to maintain or move towards desired conditions”. This desired condition is being modified or removed because it does not provide any specific direction and is a circular statement; a desired condition cannot be to maintain or move toward a desired condition. The desired conditions for breeding, nesting, upland summer, and winter habitats are defined for each state (Table 2-5)

Replace specific grass-height guidelines with management approaches that would have greater sage-grouse habitat assessments conducted in allotments to determine if livestock management is a causal factor.

Commented [CD13]: As commented in Chapter 2, habitat objectives create unreasonable expectations and therefore cannot be used as a management approach pursuant to USFS direction and regulations. *Because* USFS (and BLM for that matter) have no data regarding which pastures and which allotments may or may not meet these habitat objectives, field personnel will rely on the values in the table as the *de facto* values to be implemented even though the site may not have the precipitation, may have an abundance of other herbivores, and different livestock grazing systems. Thus, the values create the expectation that each allotment will be managed for a one-size-fits all numerical value without any evidence that the site is *capable* (capability is not “potential) of meeting that value.

The Coalition appreciates that the USFS took samples from 113 sites on the Bridger-Teton. Single point-in-time data must be matched with trend data that account for drought years, wild ungulate grazing, etc.

Commented [CB14]: Where applicable, the Forest Service needs to delete the 2015 FEIS policies that called for leaving allotments vacant when waived to the Forest Service. While actual figures are not provided, the Forest Service in Colorado and in Wyoming has not reauthorized grazing allotments waived back to the FS upon sale of the ranch.

Based on the new understanding of habitat characteristics, plant phenology and sampling bias (Hanser et al. 2018), the biological foundation for the development of the 2015 Amendments grazing guidelines has changed and this changed condition warrants removal of the grazing guidelines, which are not necessary as conservation measures for sage-grouse.

Monitoring of greater sage-grouse seasonal habitats that occurred in 2016 and 2017 showed that in the majority of the cases, nesting, breeding, upland summer, and winter habitats were in suitable condition with grazing being managed to direction in existing land management plans (USDA FS 2018). Existing plan components, when compared to published scientific findings, are generally compatible with habitat requirements for sage-grouse and monitoring showed that livestock grazing is not affecting the achievement or maintenance of desired conditions described in the 2015 Amendments.

Monitoring associated with droop heights on grasses showed that the existing land management plan direction was also providing for perennial grass at or above the droop heights planned for in the 2015 Amendment grazing guidelines (Table 3-5). While stubble height monitoring was more limited; it also showed that the existing land management plan direction was providing sufficient direction for meeting that identified in the 2015 Amendment grazing guidelines and that existing plan management plan direction is adequate in addressing potential grazing impacts to seasonal sage-grouse habitats (Table 3-6, 3-7, 3-8, and 3-9). The work done to date did not consider season-end senescence that also reduces stubble height. If grazing is determined to be a causal agent for less than suitable habitat conditions, Forests may implement specific management changes on those respective allotments. It is more appropriate to address these issues at the forest or allotment level rather than through grazing guidelines applied at a regional scale. Monitoring data specific to the Humboldt-Toiyabe National Forest indicate that many riparian areas and mesic meadows in HMAs are not in proper functioning condition or moving toward desired conditions for sage-grouse brood-rearing habitat. Additional plan components are included in the Nevada proposed action to address this issue.

Modify language regarding water developments in HMAs

This standard addressing water developments stated that in PHMAs (CO, ID, UT, NV), IHMAs (ID), and GHMAs (NV), construction was not to be approved unless beneficial to sage-grouse habitat. Limiting approval or construction of water developments only to situations that are beneficial to sage-grouse can preclude the use of water developments as an effective tool to help ensure proper grazing management. The original intent of this standard was to ensure that construction of water developments would not cause adverse effects to sage-grouse or cause the degradation or loss of sage-grouse habitat, however the standard as written does not communicate that intent clearly. Water developments are a tool that could improve or maintain habitat indirectly over time and often benefit wildlife as well. The approval and/or the construction of a water development is inherently a site-specific determination, which would be considered in a separate analysis process which would consider effects to biological resources, including greater sage-grouse.

4.5.8 ADAPTIVE MANAGEMENT REVIEW PROCESS

Table 4-10. Adaptive management review process considered in the 2015 Final EIS.

Issue	Considered in 2015 Final EIS
Allow for process for reviewing or reverting to an adaptive management response when causal factor is resolved.	Adaptive management triggers and response were analyzed in: Idaho: Alternative D, E, and Proposed Plans; described

Commented [CD15]: This statement mirrors what the Coalition has emphasized for the past 5 years: modern livestock grazing does not negatively impact sage-grouse habitat or populations.

This statement also undercuts any need to add additional "management approaches" in the appendix or otherwise since the existing land use plans protect sage-grouse habitat.

Commented [CB16]: All of the grazing analysis omits the impacts of big game or attributes them all to livestock grazing. Either approach is incorrect.

Issue	Considered in 2015 Final EIS
	in Appendix G Utah: Proposed Plans; described in Appendix B Wyoming: Alternatives B, C, D, and Proposed LUP Amendments; described in Appendix D
Ensure federal, state, and local partners are part of the causal factoranalysis process Identify process to evaluate and respond to hard and soft triggeradaptive management responses	Adaptive management triggers and response were analyzed in: Nevada: Proposed Plans; described in Chapter 2 (2.7.1) of FEIS

Idaho

The Proposed Action adds clarification to the adaptive management process to more closely align with the State of Idaho’s process. The identification of causal factors and the identification of a reversal process if habitat or populations improve allows for more flexibility and applicability of the adaptive management process. The FS and the State of Idaho, along with partners, would do a causal factor analysis and recommend actions to prevent further declines if there is a soft trigger trip. This would facilitate better coordination and management of greater sage-grouse. Refer to Appendix C.

Nevada

Adaptive management hard and soft triggers would be updated as summarized and described in Table 2-2 and Appendix D. This update would ensure that the FS is utilizing the best available data and decision support tools to guide management at the appropriate spatial scale. Analysis scale, population and habitat warnings and triggers, and the response and monitoring process would be addressed in coordination with USGS, NDOW, USFWS, and others as described in Appendix D.

Impacts on Greater Sage-Grouse and its habitat would be beneficial as a result of this update to adaptive management triggers, providing the ability to detect declining populations and/or habitat and change management on the ground.

Utah

The identification of causal factors and the identification of a reversal process if habitat or populations improve allows for more flexibility and applicability of the adaptive management process. The FS and partners would review the scientific information, complete causal factor analysis, and identify corrective strategy. If necessary, the FS would also undertake any appropriate plan amendments or revisions. More information regarding the adaptive management strategy can be found in Appendix E.

No appreciable additive impacts are anticipated from updating the adaptive management process as described in Proposed Action. This update would ensure that the FS is utilizing the best available science and decision support tools to guide management at the appropriate spatial scale, thus improving the FS’s assessment and response to changing conditions that could impact greater sage-grouse populations and/or habitat.

Wyoming

Impacts associated with returning greater sage-grouse management to previous management actions once adaptive management action objectives in the interim response strategy have been met would be similar to those identified in Proposed LUP Amendments of the 2015 Final EIS. There would be no change as to the identification of triggers, nor to the application of adaptive management. The only change for adaptive management would be at the implementation level, when the Adaptive Management Working Group identifies a process for returning to previous management. The impacts associated with returning to previous management would be the same as those identified in Proposed LUP Amendments for the 2015 Final EIS. Refer to Appendix F.

4.5.9 TREATMENT OF INVASIVE SPECIES

Table 4-11. Treatment of invasive species considered in the 2015 Final EIS.

Issue	Considered in 2015 Final EIS
Emphasize treatment of invasive plant species in PHMA.	Idaho: Alternative D, E Nevada: Alternatives D, E, and Proposed Plan Utah: Alternatives B, D, E1 Wyoming: Alternatives B, C, and D

The Proposed Action includes the addition of desired conditions and management approaches that emphasize invasive plant treatments, with a focus on annual grasses. The impact of invasive species and the effect of treatments on sage-grouse habitat was analyzed in each state 2015 FEIS and analysis is incorporated by reference. Impacts are similar to those disclosed in the 2015 analysis. The addition of these plan components is to emphasize mapping and treatment of invasive species, which are one the greatest threats to greater sage-grouse.

4.6 INCOMPLETE OR UNAVAILABLE INFORMATION

The CEQ established implementing regulations for NEPA, requiring that a federal agency identify relevant information that may be incomplete or unavailable for evaluating reasonably foreseeable significant adverse impacts in an EIS (40 CFR, 1502.22). If the information is essential to a reasoned choice among alternatives, it must be included or addressed in an EIS, unless the cost of obtaining such information is exorbitant. Knowledge and information ~~is~~are, and would always be, incomplete, particularly with infinitely complex ecosystems considered at various scales.

The best available information pertinent to the decisions to be made was used in developing the DEIS. The Forest Service has made a considerable effort to acquire and convert resource data into digital format for use in the DEIS, both their own and from outside sources.

Some of the major types of data that are incomplete or unavailable are the following:

- Comprehensive planning area-wide inventory of wildlife and special status species occurrence and condition
- GIS data used for disturbance calculations on private lands
- Site-specific surveys of cultural and paleontological resources
- Amount of acres of HMA burned during the 2018 fire year.

For these resources, estimates were made concerning their number, type, and significance, based on previous surveys and existing knowledge.

In addition, some impacts could not be quantified, given the proposed management actions. Where there was this gap, impacts were projected in qualitative terms or, in some instances, were described as unknown. Subsequent site-specific, project-level analyses would provide the opportunity to collect and examine site-specific inventory data to determine appropriate application of forest plan level guidance. In addition, the Forest Service and other agencies in the planning area continue to update and refine information used to implement this plan.

4.7 CUMULATIVE EFFECTS ANALYSIS

4.7.1 INTRODUCTION

This section presents the anticipated cumulative impacts on the environment that could occur from implementing the alternatives presented in Chapter 2. A cumulative impact is the impact on the environment that results from the incremental impact of the action, when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) or person undertakes such actions. Actions may occur inside or outside habitat management areas (HMAs).

Cumulative impacts can result from individually minor, but collectively significant, actions taking place over time. The cumulative impacts resulting from the implementation of the alternatives in this DEIS may be influenced by other actions, as well as activities and conditions on other public and private lands, including those beyond the planning area boundary. These include the concurrent BLM planning effort to amend resource management plans for BLM field offices and BLM national monuments in Idaho, Nevada, Utah, Colorado, and Wyoming. These were previously amended in September 2015 to incorporate conservation measures to support the continued existence of the greater sage-grouse. As a result, the sum of the effects of these incremental impacts involves determinations that often are complex, limited by the availability of information, and, to some degree, subjective.

4.7.2 ANALYSIS INCORPORATED BY REFERENCE

This DEIS incorporates by reference the analysis in the 2015 FEISs and the 2016 Sagebrush Focal Areas Withdrawal Draft EIS. The preparers of these documents comprehensively analyzed the cumulative impacts associated with the planning decisions under consideration in those processes, including the impacts associated with what became the Selected Alternative in the 2015 RODs.

The 2015 Final EISs evaluated the cumulative impacts associated with the No Action Alternative in this DEIS, as well as the cumulative impacts associated with this DEIS's Proposed Action, which comprises planning decisions evaluated by the 2015 FEIS. This includes the six state-wide BLM LMPA/EISs occurring in the greater sage-grouse range and similar plan amendment efforts being undertaken by the BLM; therefore, the Proposed Action's effects, including its cumulative effects, are entirely within the range of effects analyzed by the 2014 and 2015 Final EISs. Refer to Tables 4-1 and 4-2 for a list of environmental consequences incorporated by reference for the No Action Alternative, and other alternatives as applicable.

While the analysis for the 2015 Final EIS is quite recent, the Forest Service has reviewed conditions to verify that they have not changed significantly. The assessment that conditions have not changed significantly is based, in part, on the USGS science review (see Chapter 3), as well the Forest Service’s review of additional past, present, and reasonably foreseeable actions in 2018 (See Table 4-13). Since the nature and context of the cumulative effects scenario has not appreciably changed since 2015, and the 2015 analyses covered the entire range of the greater sage-grouse, the cumulative effects analysis in the 2015 Final EISs applies to this planning effort and provides a foundation for the Forest Service to identify any additional cumulative impacts.

Table 4-12, below, identifies the resource topic and location of applicable cumulative effects analysis from the 2015 Final EISs. Unless otherwise addressed in this chapter, the cumulative effects of the alternatives analyzed in this Draft EIS are covered by the 2015 Final EISs. This includes the incremental impacts across the range of BLM and Forest Service lands being amended in concurrent plan amendment efforts.

Cumulative impact analyses from the 2015 Final EISs are hereby incorporated by reference into this Draft EIS. The location of the applicable cumulative impact analysis on all resources identified in are shown in Table 4-12.

Table 4-12. Cumulative effects analysis for the No Action Alternative incorporated by reference.

Related Resource Topic	State	Location in 2015 Final EIS ¹
Air Quality	CO	Chapter 5, Air Quality Section 5.15, page 5-89 to 5-91
	ID	Chapter 4, Introduction, page 4-1, Air Resources not discussed in detail
	NV	Chapter 4, Introduction 4.1, page 4-2, Air Quality not discussed in detail
	UT	Chapter 5, Air Quality Section 5.5, pages 5-161 to 5-162
	WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-488 to 4-490
Cultural Resources	CO	Chapter 5, Cultural Resources Section 5.20, pages 5-95 to 5-96
	ID	Chapter 4, Introduction, page 4-1, Cultural Resources not discussed in detail
	NV	Chapter 4, Introduction 4.1, page 4-2, Cultural Heritage Resources not discussed in detail
	UT	Chapter 5, Cultural Resources Section 5.13, pages 5-173 to 5-174
	WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-490 to 4-491
Tribal Interests (including Native American Religious Concerns)	ID	Chapter 4, Introduction, page 4-1, Tribal Interests not discussed in detail.
	NV	Chapter 5, Tribal Interests (including Native American Religious Concerns) Section 5.17, pages 5-235 to 5-236
	UT	Chapter 5, Tribal Interests Section 5.25, pages 5-195 to 5-196
Special Status Species - Greater Sage-grouse (and Habitat)	CO	Chapter 5, Special Status Species Greater Sage-grouse, Conclusions, Section 5.4, page 5-65 to 5-77
	ID	Chapter 5, discussed in detail all areas
	NV	Chapter 5, discussed in detail all areas
	UT	Chapter 5, Special Status Species - Greater Sage-Grouse Section 5.4
	WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-498 to 4-504
	ID, NV, UT, WY	Cumulative Wildlife Impacts Section 4.5.9, pages 4-105 to 4-107 (BLM 2016)

Related Resource Topic	State	Location in 2015 Final EIS ¹
Other Special Status Species	CO	Chapter 5, Special Status Species (Other Species of Issue) Section 5.5, page 5-78
	ID	Chapter 4, Introduction, page 4-1, Special Status Species (Other than GRSG) not discussed in detail
	UT	Chapter 5, Other Special Status Species Section 5.10, pages 5-170 to 5-171
	WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-498 to 4-504
Soil	CO	Chapter 5, Soil and Water Resources Section 5.14, pages 5-87 to 5-89
	ID	Chapter 4, Introduction, page 4-1, Soil Resources not discussed in detail
	NV	Chapter 5, Conclusions Section 5.1.15, pages 5-131 to 5-140 Chapter 5, Soil Section 5.5, pages 5-181 to 5-182
	UT	Chapter 5, Soil Resources Section 5.7, pages 5-164 to 5-165
	WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-496 to 4-497
Riparian Areas and Wetlands and Water Resources	CO	Chapter 5, Soil and Water Resources Section 5.14, pages 5-87 to 5-89
	ID	Chapter 4, Introduction, page 4-1, Water Resources not discussed in detail
	NV	Chapter 5, Conclusions Section 5.1.15, pages 5-131 to 5-140 Chapter 5, Riparian Areas and Wetlands Section 5.6, pages 5-183 to 5-187 Chapter 5, Water Resources Section 5.16, pages 5-232 to 5-235
	UT	Chapter 5, Water Resources Section 5.8, pages 5-165
	WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-505 to 4-506
Vegetation (Including Invasive, Exotic Species, and Noxious Weeds)	CO	Chapter 5, Vegetation (Forest, Rangelands, Riparian and Wetlands, and Noxious Weeds) Section 5.7, page 5-80
	ID	Chapter 5, Vegetation Section 5.3.1, page 5-156 to 5-159
	NV	Chapter 5, Spread of Invasive Plants Section 5.1.6, pages 5-23 to 5-25 Chapter 5, Conifer Encroachment Section 5.1.6, pages 5-25 to 5-26 Chapter 5, Spread of Invasive Plants Section 5.1.10, pages 5-72 to 5-74 Chapter 5, Conifer Encroachment Section 5.1.10, pages 5-74 to 5-75 Chapter 5, Spread of Invasive Plants Section 5.1.14, pages 5-105 to 5-106 Chapter 5, Conifer Encroachment Section 5.1.14, pages 5-105 to 5-107 Chapter 5, Conclusions Section 5.1.15, pages 5-131 to 5-140 Chapter 5, Vegetation Section 5.4, pages 5-179 to 5-180
	UT	Chapter 5, Vegetation (Including Noxious Weeds, Riparian Areas and Wetlands) Section 5.9, pages 5-165 to 5-169
	WY	Chapter 4, Planning Area Cumulative Impacts by Resource (Forestry) Section 4.22, page 4-491; (Vegetation) Section 4.22, pages 4-504 to 4-505
	CO	Chapter 5, Fish and Wildlife, Section 5.3, page 5-12
	ID	Chapter 4, Introduction, page 4-1, Fish and Wildlife not discussed in detail
Fisheries and Wildlife	NV	Chapter 4, Introduction 4.1, page 4-2, Fish and Wildlife not discussed in detail
	UT	Chapter 5, Fish and Wildlife Section 5.11, pages 5-171 to 5-172
	WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-507 to 4-508
	CO	Chapter 5, Wild Horse Management Section 5.12, page 5-86
	ID	Chapter 5, Wild Horse and Burro Section 5.3.2, pages 5-159 to 5-160
Wild Horse and Burros	NV	Chapter 5, Wild Horse and Burros Section 5.7, page 5-187

Related Resource Topic	State	Location in 2015 Final EIS ¹
	UT	Chapter 5, Wild Horse and Burros Section 5.12, pages 5-172 to 5-173
	WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-506 to 4-507
Paleontological Resources	CO	Chapter 5, Paleontological Resources Section 5.21, pages 5-96 to 5-97
	ID	Chapter 4, Introduction, page 4-1, Paleontological Resources not discussed in detail
	NV	Chapter 4, Incomplete or Unavailable Information Section 4.3.2, page 4-6
	WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-494
Visual Resources	CO	Chapter 5, Visual Resources Section 5.17, page 5-92 to 5-92
	ID	Chapter 4, Introduction, page 4-1, Visual Resources not discussed in detail
	NV	Chapter 4, Introduction 4.1, page 4-2, Visual Resources not discussed in detail
	UT	Chapter 5, Visual Resources Section 5.14, pages 5-174
	WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-505
Wildland Fire and Fuel's Management	CO	Chapter 5, Wildland Fire Ecology and Management Section 5.8, pages 5-80 to 5-82
	ID	Chapter 5, Wildland Fire Section 5.3.3, pages 5-160 to 5-161
	NV	Chapter 5, Wildfire Section 5.1.6, pages 5-20 to 5-23
		Chapter 5, Wildfire Section 5.1.10, pages 5-70 to 5-72
		Chapter 5, Wildfire Section 5.1.14, pages 5-103 to 5-105
	Chapter 5, Conclusions Section 5.1.15, pages 5-131 to 5-140	
Chapter 5, Wildland Fire and Fire Management Section 5.8, pages 5-188 to 5-192		
UT	Chapter 5, Wildland Fire Management 5.15, pages 5-174 to 5-176	
WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-507; 4-547 to 4-548; 4-571 to 4-572	
Lands with Wilderness Characteristics	CO	Chapter 5, Lands with Wilderness Characteristics Section 5.18, page 5-93 to 5-94
	ID	Chapter 5, Lands with Wilderness Characteristics Section 5.3.12, pages 5-173 to 5-174
	UT	Chapter 5, Wilderness Characteristics Section 5.16, pages 5-176 to 5-178
	WY	Chapter 4, Lands with Wilderness Characteristics Section 4.6, pages 4-81 to 4-89
Special Designations	CO	Chapter 5, Special Designations Section 5.13, pages 5-86 to 5-87
	ID	Chapter 5, Special Designations Section 5.3.11, pages 5-172 to 5-173
	NV	Chapter 5, Special Designations - Areas of Critical Environmental Concern Section 5.15, page 5-231
		Chapter 4, Introduction 4.1, page 4-2, Special Designations not discussed in detail
	UT	Chapter 5, Special Designations Section 5.23, pages 5-190 to 5-191
WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-497 to 4-498	
Recreation	CO	Chapter 5, Recreation and Travel Management Section 5.10, page 5-83 to 5-85
	ID	Chapter 5, Recreation Section, page 5-47 to 5-50
	NV	Chapter 5, Recreation Section 5.1.6, pages 5-58 to 5-61
		Chapter 5, Recreation Section 5.1.10, pages 5-97 to 5-99
	Chapter 5, Recreation Section 5.1.14, pages 5-128 to 5-130	
UT	Chapter 5, Recreation Section 5.18, page 5-179	
WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-494 to 4-495; 4-547 to 4-548; 4-572 to 4-575	

Related Resource Topic	State	Location in 2015 Final EIS ¹
Comprehensive Travel Management	CO	Chapter 5, Recreation and Travel Management Section 5.10, page 5-83 to 5-85
	ID	Chapter 5, Travel and Transportation Section 5.3.5, pages 5-164 to 5-165
	NV	Chapter 5, Transportation and Travel Management Section 5.11, pages 5-199 to 5-200
	UT	Chapter 5, Comprehensive Travel and Transportation Management Section 5.19, pages 5-180 to 5-180
	WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-504
Livestock Grazing (Range Management)	CO	Chapter 5, Range Management Section 5.11, page 5-85 to 5-86
	ID	Chapter 5, Livestock Grazing Section 5.3.4, pages 5-162 to 5-164
	NV	Chapter 5, Livestock Grazing and Free Roaming Equids Section 5.1.6, pages 5-33 to 5-44 Chapter 5, Livestock Grazing and Free Roaming Equids Section 5.1.10, pages 5-81 to 5-85 Chapter 5, Livestock Grazing and Free Roaming Equids Section 5.1.14, pages 5-114 to 5-119 Chapter 5, Conclusions Section 5.1.15, pages 5-131 to 5-140 Chapter 5, Livestock Grazing Section 5.9, pages 5-192 to 5-198
	UT	Chapter 5, Livestock Grazing/Range Management Section 5.17, pages 5-177 to 5-179
	WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-492 to 4-493; 4-540 to 4-547; 4-566 to 4-571
Land Use and Realty	CO	Chapter 5, Lands and Realty Section 5.6, page 5-79
	ID	Chapter 5, Lands and Realty Section 5.3.6, pages 5-165 to 5-168
	NV	Chapter 5, Infrastructure Section 5.1.6, pages 5-26 to 5-31 Chapter 5, Infrastructure Section 5.1.10, pages 5-75 to 5-78 Chapter 5, Infrastructure Section 5.1.14, pages 5-108 to 5-111 Chapter 5, Conclusions Section 5.1.15, pages 5-131 to 5-140 Chapter 5, Land Use and Realty Section 5.12, pages 5-200 to 5-207
	UT	Chapter 5, Lands and Realty Section 5.20, pages 5-180 to 5-182
	WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-491 to 4-492
Renewable Energy	CO	Chapter 5, Lands and Realty Section 5.6, page 5-79
	ID	Chapter 5, Renewable Energy, page 5-27 to 5-29; 5-52; 5-56; 5-69; 5-71; 5-81; 5-167; 5-169; 5-170 to 5-175
	NV	Chapter 5, Renewable Energy (Wind and Solar) Section 5.1.6, pages 5-31 to 5-33 Chapter 5, Renewable Energy (Wind and Solar) Section 5.1.10, pages 5-78 to 5-81 Chapter 5, Renewable Energy (Wind and Solar) Section 5.1.14, pages 5-111 to 5-114 Chapter 5, Conclusions Section 5.1.15, pages 5-131 to 5-140 Chapter 5, Renewable Energy Section 5.13, pages 5-207 to 5-211
	UT	Chapter 5, Renewable Energy Section 5.21, page 5-182
	WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-493 to 4-494; 4-537 to 4-540; 4-563 to 4-565
Solid Minerals	ID	Chapter 5, Nonenergy Leasable Section 5.3.10, page 5-172
	NV	Chapter 5, Coal Section 5.1.6, pages 5-50 to 5-51 Chapter 5, Coal Section 5.1.14, pages 5-123 Chapter 5, Conclusions Section 5.1.15, pages 5-131 to 5-140 Chapter 5, Solid (Nonenergy) Leasable Minerals Section 5.14.4, pages 5-227 to 5-

Related Resource Topic	State	Location in 2015 Final EIS ¹	
		231	
	UT	Chapter 5, Coal Section 5.22.3, page 5-186	
	WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-493 to 4-494; 4-529 to 4-530; 4-556 to 4-557	
Fluid Minerals	ID	Chapter 5, Leasable Minerals Section 5.3.7, pages 5-168 to 5-170	
	NV	Chapter 5, Oil and Gas Section 5.1.6, pages 5-44 to 5-48 Chapter 5, Geothermal Section 5.1.6, pages 5-49 to 5-50 Chapter 5, Oil and Gas Section 5.1.10, pages 5-86 to 5-89 Chapter 5, Geothermal Section 5.1.10, pages 5-89 to 5-90 Chapter 5, Oil and Gas Section 5.1.14, pages 5-119 to 5-123 Chapter 5, Geothermal Section 5.1.14, pages 5-123 to 5-124 Chapter 5, Conclusions Section 5.1.15, pages 5-131 to 5-140 Chapter 5, Fluid Minerals Section 5.14.1, pages 5-211 to 5-218	
	UT	Chapter 5, Fluid Minerals Section 5.22.1, pages 5-182 to 5-184	
	WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-493 to 4-494; 4-524 to 4-529; 4-552 to 4-556	
	Leasable Minerals	CO	Chapter 5, Minerals – Leasable, Locatable, Salable, and Nonenergy Leasable Section 5.9, pages 5-82 to 5-83
		ID	Chapter 5, Nonenergy Leasable Section 5.3.10, page 5-172
		NV	Chapter 5, Nonenergy Leasable Section 5.1.6, pages 5-56 to 5-57 Chapter 5, Nonenergy Leasable Section 5.1.10, pages 5-95 to 5-97 Chapter 5, Nonenergy Leasable Section 5.1.14, pages 5-128
UT		Chapter 5, Nonenergy Leasable Section 5.22.2, pages 5-184 to 5-186	
WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-493 to 4-494; 4-534 to 4-553; 4-560 to 4-563		
Locatable Minerals	CO	Chapter 5, Minerals – Leasable, Locatable, Salable, and Nonenergy Leasable Section 5.9, pages 5-82 to 5-83	
	ID	Chapter 5, Locatable Minerals Section 5.3.8, pages 5-170 to 5-171	
	NV	Chapter 5, Locatable Minerals Section 5.1.6, pages 5-53 to 5-56 Chapter 5, Locatable Minerals Section 5.1.10, pages 5-93 to 5-95 Chapter 5, Locatable Minerals Section 5.1.14, pages 5-126 to 5-128 Chapter 5, Conclusions Section 5.1.15, pages 5-131 to 5-140 Chapter 5, Locatable Minerals Section 5.14.2, pages 5-218 to 5-223	
	UT	Chapter 5, Locatable Minerals Section 5.22.4, pages 5-186 to 5-188	
	WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-493 to 4-494; 4-532 to 4-534; 4-558 to 4-559	
	Salable Minerals	CO	Chapter 5, Minerals – Leasable, Locatable, Salable, and Nonenergy Leasable Section 5.9, pages 5-82 to 5-83
ID		Chapter 5, Mineral Materials Section 5.3.9, pages 5-171 to 5-171	
NV		Chapter 5, Mineral Materials Section 5.1.6, pages 5-51 to 5-53 Chapter 5, Mineral Materials Section 5.1.10, pages 5-91 to 5-93 Chapter 5, Mineral Materials Section 5.1.14, pages 5-124 to 5-126 Chapter 5, Conclusions Section 5.1.15, pages 5-131 to 5-140 Chapter 5, Mineral Materials Section 5.14.3, pages 5-223 to 5-227	
UT		Chapter 5, Mineral materials Section 5.22.5, pages 5-188 to 5-189	
WY		Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-493 to 4-494; 4-530 to 4-532; 4-557 to 4-558	
Social and Economic Conditions and		CO	Chapter 5, Social and Economic Conditions (Including Environmental Justice) Section 5.22, pages 5-97 to 5-103

Related Resource Topic	State	Location in 2015 Final EIS ¹
Environmental Justice	ID	Chapter 5, Social and Economic Conditions (Including Environmental Justice) Section 5.3.13, pages 5-174 to 5-177
	NV	Chapter 5, Social and Economic Impacts (including Environmental Justice) Section 5.19, pages 5-238 to 5-241
	UT	Chapter 5, Social and Economic Impacts (Including Environmental Justice) Section 5.24, pages 5-191 to 5-195
	WY	Chapter 4, Planning Area Cumulative Impacts by Resource Section 4.22, pages 4-495 to 4-496
Climate Change	CO	Chapter 5, Climate Change Section 5.16, page 5-91 to 5-92
	ID	Chapter 5, Climate Change, pages 5-5 to 5-6; 5-17 to 5-18, 5-160 to 5-163; 5-167; 5-172 to 5-173
	NV	Chapter 5, Climate Change Section 5.18, pages 5-236 to 5-238
	UT	Chapter 5, Climate Change Section 5.6, pages 5-163 to 5-164
Noise/Soundscape	WY	Chapter 4, Air Quality Impacts Associated with Non-Oil and Gas Development Activities Section 4.2.5, pages 4-57; 4-491; 4-523 to 4-524; 4-544; 4-551;
	CO	Chapter 5, Soundscape Section 5.19, page 5-94 to 5-95
	ID	Chapter 5, Wildfire, page 5-18 Chapter 5, Infrastructure, page 5-23 Chapter 5, Renewable Energy, page 5-27 Chapter 5, Oil and Gas, pages 5-36 to 5-37 Chapter 5, Geothermal, page 5-40 Chapter 5, Locatable Minerals, page 5-43 Chapter 5, Recreation, pages 5-47 to 5-48; 5-78 Chapter 5, Fluid Minerals, page 5-60 Chapter 5, Special Designations, pages 5-172 to 5-173 Chapter 5, Lands with Wilderness Characteristics, page 5-173
	NV	Chapter 5, Noise, pages 5-20; 5-27; 5-31; 5-44; 5-47; 5-49; 5-50; 5-53; 5-58 to 5-59; 5-97; 5-129; 5-198
	UT	Chapter 5, Noise, pages 5-47 to 5-48; 5-53; 5-57; 5-64; 5-67 to 5-68; 5-70 to 5-71; 5-74; 5-77 to 5-78; 5-82; 5-87; 5-89; 5-97; 5-99 to 5-100; 5-102; 5-105 to 5-106; 5-111; 5-114 to 5-115; 5-114; 5-118; 5-121; 5-125; 5-133; 5-134; 5-177; 5-179
	WY	Chapter 4, Cumulative Impacts Section 4.22, pages 4-495 to 4-573

¹Information incorporated by reference for Table 4-12 is found in the following documents:

- Northwest Colorado Greater Sage-Grouse Proposed LUPA and Final EIS 2015, Chapter 5 (https://eplanning.blm.gov/epl-front-office/projects/lup/36511/58678/63741/NWCO_5_FEIS_201506_508.pdf)
- Idaho and Southwestern Montana Proposed LUPA and Final EIS 2015, Chapter 5 (https://eplanning.blm.gov/epl-front-office/projects/lup/31652/58565/63628/09_ID_swMT_FEIS_Chapter_5.pdf)
- Nevada and Northeastern California Greater Sage-Grouse Proposed LUPA and Final EIS 2015, Chapter 5 (https://eplanning.blm.gov/epl-front-office/projects/lup/21152/58711/63774/10_Volume_3_Chapter_5_NVCA_GRSF.pdf)
- Utah Greater Sage-Grouse Proposed LUPA and Final EIS 2015, Chapter 5 (<https://eplanning.blm.gov/epl-front-office/eplanning/planAndProjectSite.do?methodName=dispatchToPatternPage¤tPageId=99423>)
- Wyoming Greater Sage-Grouse Land Use Plan Amendment and Final EIS 2015, Chapter 4 (https://eplanning.blm.gov/epl-front-office/projects/lup/9153/58493/63913/11_Chapter-4_Environmental-Consequences_FEIS_052115.pdf)

4.7.3 PAST, PRESENT, AND REASONABLY FORSEEABLE ACTIONS

Some 350 species of plants and wildlife rely on sagebrush steppe ecosystems, coexist with greater sage-grouse, and may be similarly affected by development or disturbance; however, nothing in the considered alternatives would lessen the Forest Service's authority or responsibility to provide for the needs of threatened, endangered, and sensitive plants and animals, as described in Forest Service land management plans, policies, and laws, including Forest Service Manual 2600, the Endangered Species Act, and NFMA.

Increased flexibility for other uses within greater sage-grouse habitat do not necessarily increase potential impacts on other wildlife or plant species. Site-specific NEPA analyses, including an evaluation of impacts on special status species, is required for on-the-ground projects within the planning area.

In addition to tiering to the analysis in the 2015 Final EISs and 2016 Draft EIS (listed in Table 4-12), other anticipated incremental impacts are discussed below in association with planning issues and related resource topics carried forward and analyzed in this DEIS.

While the Proposed Action removes the greater sage-grouse specific language, it emphasizes wildlife/special status species standards that would include greater sage-grouse, as long as they retain sensitive species status. As greater sage-grouse will continue to be considered at the implementation level with site-specific analysis, following management prescriptions analyzed in the 2014 and 2015 Final EISs, no additive impact of this change is anticipated.

Table 4-13 represents the past, present, and reasonably foreseeable actions across the entire range for greater sage-grouse, which are separated by state. When assessing the cumulative impact of the Draft EIS on greater sage-grouse and its habitat, there are multiple geographic scales that the Forest Service has considered. Forest Service projects being analyzed or completed are listed on the Forest Service's Schedule of Proposed Actions (SOPA, <https://www.fs.fed.us/sopa/>). Specific projects that could contribute to cumulative impacts are included in Table 4-13 under the applicable state. This table also includes BLM and NRCS projects identified in the BLMs 2018 Draft EIS.

Further, the entire sum of past, present, and reasonably foreseeable actions listed below represent cumulative effects across the range of greater sage-grouse habitat and management areas. These effects are important to consider for future management of the species as a whole and are not solely being analyzed at the local or state level. That is why all ongoing Forest Service LMPAs/EISs refer to past, present, and reasonably foreseeable actions across states undergoing a plan amendment.

The increased flexibility in these amendments is not expected to result in a large increase in development proposals on public land. Similarly, the increased protections from the 2015 Final EISs have not resulted in a large decrease in ROW applications or an increase in rejected applications; therefore, the changes proposed under the Proposed Action and the State of Utah Alternative are not expected to result in large changes to the rate of development in the five states or in their economy.

Table 4-13. Greater sage-grouse range-wide impacts from past, present, and reasonably foreseeable

future actions.

Action	Location and Activity	Cumulative Effects
General – Past projects on National Forest System (NFS) lands in the planning area		
<i>Data Summarized From: Forest Service Greater Sage-grouse Monitoring Annual Reports, First and Second Year Summaries: September 2015-September 2017. Information is being gathered for FY2018.</i>		
Greater sage-grouse conservation - Fence Clips/Tags/Markers	USFS, Bridger-Teton, Caribou-Targhee, Humboldt-Toiyabe, and Medicine Bow-Routt National Forests (NFs): Past habitat restoration and improvement projects (fiscal years ¹ 2015, 2016, 2017).	79,641 acres of habitat improvement projects benefiting GRSG on NFS lands. GRSG are most at-risk of hitting fences that are close to leks, spring courtship dancing grounds, where males gather and fly in before dawn in the darkness. The flatter the landscape, the harder it is for the sage grouse to see fences.
Greater sage-grouse conservation - Fence Removal	USFS, Ashley, Bridger-Teton, Humboldt-Toiyabe, and Uinta-Wasatch-Cache NFs: Past habitat restoration and improvement projects (fiscal years 2015, 2016, 2017).	35,208 acres and 2 miles of habitat improvement projects benefiting GRSG on NFS lands.
Greater sage-grouse conservation - Fence Exlosures	USFS, Caribou-Targhee and Humboldt-Toiyabe NFs: Past habitat restoration and improvement projects (fiscal years 2015, 2016, 2017).	21,927 acres of habitat improvement projects benefiting GRSG on NFS lands.
Greater sage-grouse conservation - Install gates to improve wildlife habitat and water quality	USFS, Sawtooth NF: Past habitat restoration and improvement projects (fiscal years 2015, 2016, 2017).	8 Miles of habitat improvement projects benefiting GRSG on NFS lands.
Greater sage-grouse conservation - Wildlife Habitat Improved (Includes Game Improvements, Conifer/Pinion/Juniper/ Invasive Tree Removal/ GRSG Habitat Improvement/ Thinning)	USFS, Ashley, Boise, Caribou-Targhee, Dixie, Fishlake, Humboldt-Toiyabe, Manti-La Sal, Medicine Bow-Routt, Salmon-Challis, Sawtooth, and Uinta-Wasatch-Cache National Forests: Habitat restoration and improvement projects. Past Actions (fiscal years 2015, 2016, and 2017).	60,177 Acres and 4 miles of habitat improvement projects benefiting GRSG on NFS lands.
Greater sage-grouse conservation - Non-native/Invasive/ Noxious Weed Treatments	USFS, Boise, Bridger-Teton, Humboldt-Toiyabe, Medicine Bow-Routt, and Salmon-Challis National Forests: Habitat restoration and improvement projects. Past Actions (fiscal years 2015, 2016, and 2017).	14,172 acres and 55 miles of habitat improvement projects benefiting GRSG on NFS lands.
Greater sage-grouse conservation - Native Plant Treatment and Restoration	USFS, Boise, Bridger-Teton, and Sawtooth National Forests: Habitat restoration and improvement projects. Past Actions (fiscal years 2015, 2016, and 2017).	2,121 acres of habitat improvement projects benefiting GRSG on NFS lands.

¹ A fiscal year is from October 1 to September 30.

Action	Location and Activity	Cumulative Effects
Greater sage-grouse conservation - Prescribed Fire	USFS, Ashley, Bridger-Teton, and Salmon-Challis NFs: Past habitat restoration and improvement projects (fiscal years 2015, 2016, 2017).	1,609 acres of habitat improvement projects benefiting GRSG on NFS lands.
Greater sage-grouse conservation - Connector spur, spur, road decommission, User-created spur road barrier and obliteration, Road obliteration, road improvement	USFS, Bridger-Teton, Salmon-Challis, Sawtooth, Uinta-Wasatch-Cache National Forests: Past habitat restoration and improvement projects (fiscal years 2015, 2016, 2017).	30,330 acres and 2.2 miles of habitat improvement projects benefiting GRSG on NFS lands.
Greater sage-grouse conservation - Spring, Gully, Meadow, Wetland, Riparian improvement and rehabilitation	USFS, Bridger-Teton, Caribou-Targhee, Dixie, Humboldt-Toiyabe, Sawtooth National Forests: Past habitat restoration and improvement projects. Past Actions (fiscal years 2015, 2016, 2017).	3,100 acres and 0.27 miles of habitat improvement projects benefiting GRSG on NFS lands.
General – Activities taking place in multiple Agencies, Regions, or Forests		
Wildland Fires	National Forest System lands located in: California, Colorado, Idaho, Montana, Nevada, North Dakota, Oregon, South Dakota, Utah, Washington, Wyoming: Past acres burned on National Forest System lands (fiscal years 2015, 2016, 2017).	<p>Since the ROD was signed in 2015 (i.e., fiscal years 2015 to 2017), 3,262,861 acres have burned for all administrative agencies tracked by the National Interagency Fire Center in 11 states.</p> <p>During that timeframe, 133,116 acres of GRSG HMA burned on NFS lands in eleven states. The number of NFS lands burned represents less than 1% of the acres burned on various agency lands. The percentage is even lower for the five states included in the analysis area for this DEIS. Wildland fires continues to be a threat to GRSG and its habitat.</p> <p>As a result of wildfires, post-fire rehabilitation and Burned Area Emergency Response (BAER) activities have taken place since the ROD was signed in 2015. However, it is too soon to determine the effectiveness of rehabilitation. (See tables 4-4 to 4-6 for additional fire data).</p> <p>Wildland fires are actively occurring in Fiscal Year 2018; however, acres of GRSG HMAs burned is not known at this time.</p>
Continued oil and gas development	USFS, BLM, and Other Agencies: Disturbance and fragmentation	Development is consistent with the reasonably foreseeable development

Action	Location and Activity	Cumulative Effects
		scenarios analyzed as part of the 2015 Final EIS and the associated LMPs. Additional impacts are expected to be within the range analyzed in 2015 Final EIS cumulative impacts analysis.
Livestock grazing permit reissuance, allotment improvements (cattle and sheep)	USFS, Forests in the Planning Area: Ongoing projects.	Forests in each state are reissuing grazing permits, authorizing improvements to fences, riparian areas, and waterlines, etc. Refer to the SOPA for a list of forests and current grazing projects: https://www.fs.fed.us/sopa/ Impacts are covered in the cumulative impacts of the 2015 Final EIS as reasonably foreseeable. Some actions, such as projects that result in better livestock distribution, may result in increased habitat effectiveness to GRSG.
Travel management	USFS and BLM: Ongoing projects. Some forests and BLM field offices are considering area-wide travel route designations in Travel Management plans.	These actions represent implementation of objectives from 2015 LMPA to prioritize travel management in GRSG habitat. Impacts are covered in the cumulative impacts of the 2015 Final EIS as reasonably foreseeable.
Habitat Restoration Programmatic EIS	BLM: Great Basin-wide programmatic habitat restoration project	Programmatic document effects will be realized when the field implements projects. This action will provide opportunities to improve and enhance habitat through vegetation treatments.
Fuel Breaks Programmatic EIS	BLM: Great Basin-wide programmatic habitat fuel break project	Programmatic document effects will be realized when the field implements projects. This action will help to reduce the loss of habitat due to catastrophic fires.
Northwest Colorado		
Yampa Valley Electric Association, Columbine North, Powerline Realignment Categorical Exclusion (CE)	USFS, Medicine Bow-Routt NF, Hahns Peak/Bears Ears Ranger District (RD) (CO): Permit amendment to authorize installation of 4,553 feet of new underground powerline.	This project is not in GRSG HMA. Therefore, this project would not contribute to cumulative effects.
Northwest Colorado Programmatic Vegetation Treatment Environmental Assessment (EA) and Decision (DOI-BLM-CO-N000-2017-0001-EA)	BLM-administered lands in Colorado: Programmatic NEPA document for streamlining habitat treatments in sagebrush	Programmatic document effects will be realized when the field implements projects. This action will help to reduce the loss of habitat due to catastrophic fires and improve GRSG habitat.
Idaho		

Action	Location and Activity	Cumulative Effects
Salmon-Challis Forest Plan Revision EIS	USFS, Salmon-Challis NF: The Salmon-Challis National Forest is revising and updating the 1987 Challis and the 1988 Salmon Land and Resource Management Plan (Forest Plan).	This is a programmatic document. Effects will be realized when the field implements projects.
Boise & Sawtooth Forest-wide Invasive Plant Species Treatments EIS	USFS, Boise and Sawtooth NFs (ID and UT): Analyze and disclose the effects of treating invasive and noxious weeds forest-wide on the Boise & Sawtooth National Forests.	Programmatic document effects will be realized when the field implements projects. This action will provide opportunities to improve and enhance habitat through vegetation treatments. Invasive plant treatments allow the native vegetation to outcompete invasive plants, which could result in improved GRSG habitat.
Black Pine Exploration Plan of Operations EA	USFS, Sawtooth NF, Minidoka RD: Pilot Gold (USA), a subsidiary of Liberty Gold, plans to drill reverse circulation and/or core drill holes from 371 proposed drill sites for the purposes of exploring for gold mineralization at the former Black Pine Mine. Acres of new disturbance is estimated at 69 acres. Disturbance associated with opening reclaimed areas is estimated at 37 acres.	This project is located in General HMA. Activities associated with exploration could result in loss of GRSG GHMA and vehicle mortality due to increased traffic. Most of these impacts should be removed by forest plan components identified in the selected alternative.
Stibnite Gold Plan of Operations EIS	USFS, Boise NF, Cascade RD and Krassel RD: The Forest is processing a plan of operations for open pit mining, processing, new road construction, utility upgrades, reclamation, and restoration at the Stibnite mine site.	There are no GRSG HMAs on the Krassel or Cascade RD. Therefore, this project would not contribute to cumulative effects.
2018 CuMo Exploration Project EA	USFS, Boise NF, Idaho City RD: Locatable minerals exploration. Proposal to drill 259 new exploratory holes to retrieve core samples. Project will construct about 13.3 miles of new temporary road and use of about 4.7 miles existing unauthorized road as temporary roads.	There are no GRSG HMAs on the Idaho City RD. Therefore, this project would not contribute to cumulative effects.
Kilgore Project EA	USFS, Caribou-Targhee NF, Dubois RD: A multi-year mineral exploration program within valid mining claims near Kilgore, Idaho.	There are no GRSG HMAs located in the project area. Therefore, this project would not contribute to cumulative effects.
Dairy Syncline Phosphate Mine EIS	USFS, Caribou-Targhee NF, Soda Springs RD: Analyze a proposed new phosphate mine plan and associated projects and infrastructure on existing lease I-28115 and I-0258, encompassing approximately 1,672 acres on lease and approximately 1,058 acres off lease. Considers land exchange proposal.	This project is located in General HMA. Activities associated with development of the lease could result in loss of GRSG GHMA and vehicle mortality due to increased traffic. Most of these impacts should be removed by forest plan components identified in the selected alternative.
East Smoky Panel Mine EIS	USFS, Caribou-Targhee NF, Soda Springs RD: Analyze a proposed phosphate mine	There are no GRSG HMAs located in the project area. Therefore, this project

Action	Location and Activity	Cumulative Effects
	expansion plan and associated projects and infrastructure at the existing J.R. Simplot Company's Smoky Canyon Mine on leases I-26843, I-012890, and I-015259. 710 acres of disturbance on lease, 164 acres off lease.	would not contribute to cumulative effects.
Colson Copper Exploration Drilling Project CE	USFS, Salmon-Challis NF, North Fork RD: Reopening of 2,400 feet of previously reclaimed road, construction of four drill pads, and core drilling of up to 6 holes at each pad to delineate anticipated mineralization.	There are no GRSG HMAs located in the project area. Therefore, this project would not contribute to cumulative effects.
Arnett Creek Drilling EA	USFS, Salmon-Challis NF, Salmon-Cobalt RD: Drill on up to 53 drill sites. Total disturbance up to 15 acres. Operations are anticipated to start in summer 2018 with final reclamation by October 2020. Existing, undesignated mine roads and temporary roads would be used and decommissioned.	There are no GRSG HMAs located in the project area. Therefore, this project would not contribute to cumulative effects.
Iron Creek Trenching and Drilling Project EA	USFS, Salmon-Challis NF, Salmon-Cobalt RD: The Operator proposes to trench approximately 1,435 linear feet, drill on up to six drill pads, and remove up to 10 tons of sample material removed for further analysis.	There are no GRSG HMAs located in the project area. Therefore, this project would not contribute to cumulative effects.
Big Creek Geothermal Leasing Project EIS	USFS, Salmon-Challis NF, Salmon-Cobalt RD: The Forest proposes to consent with stipulations to BLM issuance of three contiguous, noncompetitive geothermal leases.	There are no GRSG HMAs located in the project area. Therefore, this project would not contribute to cumulative effects.
Valley County Quarry Development CE	USFS, Boise NF, Cascade RD: Analyze request from Valley County to develop and operate a quarry on NFS lands. Material would be used for road maintenance along backcountry roads. Quarry development would coincide with reclamation of the Valdez Pit.	There are no GRSG HMAs on the Cascade RD. Therefore, this project would not contribute to cumulative effects.
Lower Valley Energy Natural Gas Pipeline EIS	USFS, Caribou-Targhee NF, Montpelier RD (ID and WY): Construct a 50 mile, eight inch natural gas pipeline between Bear Lake County and Afton, Wyoming. Approximately 20 miles of this pipeline would be on NFS lands.	Approximately 3 miles of this pipeline is located in GRSG HMA on NFS lands. Activities associated with the pipeline may result in the removal of vegetation due to construction activities. Increased maintenance activities could lead to an increase in collision mortalities. However, most of these impacts should be removed by forest plan components identified in the selected alternative.
Idaho Power Company (IPC) - Horseshoe Bend to Garden Valley	USFS, Boise NF, Idaho City RD, Emmett RD: Issuance of a FLPMA permit authorizing IPC to use NFS lands for the	There are no GRSG HMAs on the Idaho City or Emmett RDs. Therefore, this

Action	Location and Activity	Cumulative Effects
Project EA	purpose of operating and maintaining a 34.5-kilovolt distribution power line. The line would run from Horseshoe Bend to Placerville and Placerville to Garden Valley.	project would not contribute to cumulative effects.
Century Link Fiber Optic Cable Project 2018 CE	USFS, Boise NF, Idaho City RD: CenturyLink proposes to add 20 miles of fiber optic cable, approximately 6.0 miles of which crosses NFS lands; new cable on NFS lands will be installed in/along existing roads in Grimes Greek, Idaho City and Centerville areas.	There are no GRSG HMAs on the Idaho City RD. Therefore, this project would not contribute to cumulative effects.
Buckboard Gulch Sage-Grouse Habitat Improvement CE	USFS, Caribou-Targhee NF, Dubois RD: Removes encroaching Douglas fir in 2,400 acres of sagebrush steppe to enhance and restore habitat for Greater Sage-Grouse, pygmy rabbits, and sagebrush songbirds of conservation concern.	This project will provide opportunities to improve, enhance, and restore 2,400 acres of GRSG habitat through vegetation treatments. This project and other habitat improvement projects will result in beneficial cumulative effects to GRSG and its habitat.
Salmon-Challis Conifer Encroachment CE	USFS, Salmon-Challis NF, All Units: Reduce conifers encroaching into sage steppe GRSG habitat. The project would authorize approx. 199,500 acres and treat roughly 3,000 acres per year. Trees would be hand felled, lopped, and/or piled for burning.	This project will provide opportunities to improve, enhance, and restore approximately 199,500 acres (roughly 3,000 per year) of GRSG habitat through vegetation treatments. These habitat improvement projects will result in beneficial cumulative effects to GRSG and its habitat.
Toponce Habitat Enhancement CE	USFS, Caribou-Targhee NF, Westside RD: Improve and maintain aspen and mountain brush habitat for wildlife benefits and manage forest fuels near multiple ownership jurisdictions.	This project will provide opportunities to improve and maintain habitat for wildlife through vegetation treatments and manage forest fuels. These habitat improvement projects will result in beneficial cumulative effects for wildlife.
Goose Creek Sage-Grouse Habitat Restoration Project EA	USFS, Sawtooth NF, Minidoka RD: Proposing approximately 18,488 acres of hand thinning and 13,816 acres of mechanical treatment of juniper to maintain and improve sage-grouse habitat in the Goose Creek area of the Cassia Div.	This project will provide opportunities to improve, maintain, and restore 32,304 acres of GRSG habitat through vegetation treatments. These habitat improvement projects will result in beneficial cumulative effects to GRSG and its habitat.
Pahsimeroi Aspen Restoration Project CE	USFS, Salmon-Challis NF, Challis-Yankee Fork RD: Cut conifers from aspen stands by either hand (chainsaw) cutting or girdling. To protect natural resources, the cutting of conifers will be done by hand with chainsaws. No roads, temporary roads or any type of ground disturbing activities will occur.	GRSG HMA is present within the project area. This project will provide aspen restoration. Cutting of conifers will be done by hand, and no ground disturbing activities will occur. Conifer removal would improve GRSG habitat and open areas to GRSG that were previously unavailable because of juniper encroachment. Therefore, this project will result in beneficial cumulative

Action	Location and Activity	Cumulative Effects
		effects and will provide beneficial impacts to aspen restoration on the district.
Withington Aspen Improvement Project CE	USFS, Salmon-Challis NF, Salmon-Cobalt RD: Remove small diameter (<4 inch) conifers out of and within 100 feet of 210 acres of aspen clones in the project area. Conifers would be cut, lopped, and scattered on site. No ground disturbing equipment would be used.	There are no GRSG HMAs located in the project area. Therefore, this project would not contribute to cumulative effects.
Albion-Raft River Aspen Habitat Restoration Project CE	USFS, Sawtooth NF, Minidoka RD (ID, UT): Restore aspen ecosystems in key wildlife habitats. Implementation of proposed treatments would progress towards meeting the Sawtooth National Forest Plan goals and IDFG habitat goals.	There are no GRSG HMAs located in the project area. Therefore, this project would not contribute to cumulative effects.
French Hazard WUI EA	USFS, Boise NF, Cascade RD: Create or enhance defensible space for suppression resources, restore vegetative conditions more reflective of fire-adapted ecosystems, reduce hazardous fuels, and minimizing risks to public health and safety.	There are no GRSG HMAs on the Cascade RD. Therefore, this project would not contribute to cumulative effects.
Teton Canyon Hazardous Fuels Reduction Project EA	USFS, Caribou-Targhee NF, Teton Basin RD: Reduce hazardous fuels adjacent to private property, the town of Alta, the Alta municipal water supply, the Treasure Mountain Boy Scout Camp, Teton and Reunion Flats Campgrounds. Improve access along Teton Canyon Road for public safety.	There are no GRSG HMAs on the Teton Basin RD. Therefore, this project would not contribute to cumulative effects.
John Wood Forest Management Project EIS	USFS, Caribou-Targhee NF, Soda Springs RD: The Forest Service proposes to conduct forest vegetation management activities (mechanical timber harvest and pre-commercial thinning) and road work (temporary and permanent).	There are no GRSG HMAs located in the project area. Therefore, this project would not contribute to cumulative effects.
Buffalo TSI EIS	USFS, Caribou-Targhee NF, Ashland/Island Park RD: Precommercially thin approximately 3,900 acres to reduce/prolong the overall susceptibility to mountain pine beetle attacks & crown fires in previously harvested areas.	There are no GRSG HMAs located in the project area. Therefore, this project would not contribute to cumulative effects.
Elk Mountain East Vegetation Management CE	USFS, Sawtooth NF, Sawtooth National Recreation Area: Proposal to conduct vegetation management activities to address insect infestations and resulting fuel build-up in the Elk Mountain and Dry Creek Area.	There are no GRSG HMAs located in the project area. Therefore, this project would not contribute to cumulative effects.
West Side Divide – Cottonwood CE	USFS, Boise NF, Emmett RD: Manage forest structure and species composition	There are no GRSG HMAs on the Emmett RD. Therefore, this project

Action	Location and Activity	Cumulative Effects
West Side Divide - Ola Summit CE West Side Divide – Tripod CE	to improve forest landscape resiliency to recover from uncharacteristic insect and disease disturbance.	would not contribute to cumulative effects.
Boise Ridge Forest Health Project CE Sinkers Creek Project CE	USFS, Boise NF, Mountain Home RD: These projects will treat vegetation on approximately 6,000 acres to reduce insect and disease disturbance in the wildland urban interface.	There are no GRSG HMAs located in the project area. Therefore, this project would not contribute to cumulative effects.
Lodgepole Springs Restoration Burn CE	USFS, Boise NF, Emmett RD: Implement a series of prescribed burns to restore species composition and stand structure by reducing undesirable species and stand densities.	There are no GRSG HMAs on the Emmett RD. Therefore, this project would not contribute to cumulative effects.
Crane Basin Timber Stand Improvement CE	USFS, Salmon-Challis NF, Challis-Yankee Fork RD: Mixed severity prescribed fire in Crane Basin and adjoining McGowan Creek will introduce fire back into an ecosystem that has missed historic fire return intervals. This will improve stand health and provide positive changes to wildlife habitat.	There is GRSG HMA within the project area. However, prescribed fire is not planned within IHMA. This project will provide positive improvements to GRSG and wildlife habitat, within the 5,760 acre project area.
Bartlett Creek Vegetation Project CE	USFS, Salmon-Challis NF, Lost River RD: Prescribed fire over a majority of the 3,000 acre project area. Manual thinning using chainsaws may occur in site specific locations.	There are no GRSG HMAs located in the project area. Therefore, this project would not contribute to cumulative effects.
Boise Basin Experimental Forest Project EA	USFS, Boise NF, Idaho City RD: The Boise Basin Experimental Forest Project would conduct vegetation management and prescribed fire activities in the Boise Basin Experimental Forest as part of a Rocky Mountain Research Station research project.	There are no GRSG HMAs on the Idaho City RD. Therefore, this project would not contribute to cumulative effects.
West Lowman Natural Fuels Reduction Project CE	USFS, Boise NF, Lowman RD: The Forest proposes to utilize prescribed fire and non-commercial thinning to improve forest health conditions within the Lowman WUI and other forest lands by reducing tree densities, ladder fuels and other fuel loads.	There are no GRSG HMAs on the Lowman RD. Therefore, this project would not contribute to cumulative effects.
Salmon Municipal Watershed EA	USFS, Salmon-Challis NF, Salmon-Cobalt RD: Use thinning treatments and prescribed fire to reduce hazardous fuel loading, restore forest resilience to insects and disease, reduce unauthorized usage that lowers water quality, and improve wildland firefighter safety.	There are no GRSG HMAs located in the project area. Therefore, this project would not contribute to cumulative effects.
Wildland fires 2015–2017	BLM-administered lands in Idaho: Past acres burned on BLM-administered land	534,744 acres of HMA burned since the ROD was signed in 2015. Post-fire rehabilitation was implemented. Too

Action	Location and Activity	Cumulative Effects
		soon to determine the effectiveness of rehabilitation.
Habitat treatments 2015–2017	BLM-administered lands in Idaho: Past habitat improvement projects	431,295 acres treated to restore or improve potential GRSG habitat. Too soon to determine the effectiveness of treatment
Bruneau-Owyhee Sage-Grouse Habitat Project (BOSH)	BLM-administered lands in Idaho: Future removal of juniper encroaching into GRSG habitat	BOSH would remove encroaching juniper from GRSG habitat and render the habitat usable for GRSG. Results in a net benefit to GRSG habitat.
ROWs issued 2015–2017	BLM-administered lands in Idaho: Past ROWs issued on BLM-administered land	97 ROWs were issued in the planning area but fewer than 10 were in GRSG habitat and resulted in new habitat loss. The effects were mitigated, using the mitigation hierarchy.
Pending ROWs 2015–2017	Future ROW under analysis on BLM-administered land	123 ROW applications have been submitted and are pending review and analysis.
Soda Fire restoration	BLM-administered lands in Idaho: Present habitat restoration and fuel break construction	Restoration of previously burned GRSG habitat. Results in a net benefit to GRSG habitat.
Tristate Fuel Breaks Project	BLM-administered lands in Idaho: Future GRSG habitat protection	Fuel breaks would protect habitat from wildfires. Some sagebrush may be lost during fuel break construction. Results in a net benefit to GRSG habitat.
Boise District Vegetation Project	BLM-administered lands in Idaho: Future habitat treatment project that improves GRSG habitat district-wide	Restoration of GRSG habitat and improved rangeland conditions result in a net benefit to GRSG habitat.
Twin Falls Vegetation Project	BLM-administered lands in Idaho: Present habitat treatment project that improves GRSG habitat district-wide	Restoration of GRSG habitat and improved rangeland conditions. Results in a net benefit to GRSG habitat.
Idaho Falls Vegetation Project	BLM-administered lands in Idaho: Present habitat treatment project that improves GRSG habitat district-wide	Restoration of GRSG habitat and improved rangeland conditions. Results in a net benefit to GRSG habitat.
Conifer removal	NRCS in Idaho: Present (2018) 1,862 acres of conifer removal on private land to improve GRSG habitat Future (2019–2023) 5,541 acres of conifer removal on private land to improve GRSG habitat	Conifer removal would improve GRSG habitat and open areas to GRSG that were previously unavailable because of juniper encroachment. Conifer removal would improve GRSG habitat and open areas to GRSG that were previously unavailable because of juniper encroachment.
Weed treatments	NRCS in Idaho: Present (2018) 95 acres of weed treatments on private land to reduce noxious weeds in GRSG habitat Future (2019–2023) 357 acres of weed treatments on private land to reduce noxious weeds in GRSG habitat	Weed treatments allow the native vegetation to outcompete weeds on treated acres. Weed treatments allow the native vegetation to outcompete weeds on treated acres.

Action	Location and Activity	Cumulative Effects
Water development	<p>NRCS in Idaho: Present (2018) 21,308 feet of pipeline and 40 watering tanks installed on private land</p> <p>Future (2019–2023) 82,502 feet of pipeline and 46 watering tanks installed on private land</p>	<p>Water development to move livestock out of natural springs and wet meadows.</p> <p>Water development to move livestock out of natural springs and wet meadows</p>
Nevada		
Humboldt-Toiyabe Integrated Invasive Plant Treatment Project EIS	<p>USFS, Humboldt-Toiyabe NF, All Units: Update current management to provide for integrated and timely management of invasive species, now and in the future, with the goal of promoting healthy and thriving native plant communities across the HTNF.</p>	<p>Programmatic document effects will be realized when the field implements projects. This action will provide opportunities to improve and enhance habitat through vegetation treatments. Invasive plant treatments allow the native vegetation to outcompete invasive plants, which could result in improved GRSG habitat.</p>
California Integrated Weed Management EA	<p>USFS, Humboldt-Toiyabe NF, Carson RD and Bridgeport RD (CA and NV): The proposed action includes the development and implementation of an Integrated Weed Management System (IWMS) to treat noxious and invasive weeds on Humboldt-Toiyabe National Forest System Lands in California.</p>	<p>Programmatic document effects will be realized when the field implements projects. This action will provide opportunities to improve and enhance habitat through vegetation treatments. Invasive plant treatments allow the native vegetation to outcompete invasive plants, which could result in improved GRSG habitat.</p>
Hickison Wild Burro Territory Appropriate Management Levels and Management Actions Project EA	<p>USFS, Humboldt-Toiyabe NF, Austin RD: Project proposes to establish appropriate wild burro herd management levels, authorize population management actions, and approve reconstruction of water developments.</p>	<p>There is GRSG HMA within the project area. Wild horse and burros can have an impact on GRSG habitat, as described in the FEIS (see Table 4-2, Wild Horse and Burros for page number). Wild burro management efforts are projected to increase over the analysis period. When wild horse and burro management within Nevada is added to conservation actions, this would result in a net conservation gain to GRSG habitats and populations. Impacts may be reduced, where AMLs are evaluated with consideration of GRSG habitat objectives and Forest Plan components for Forest Service administered lands.</p>
Spring Mountains Wild Horse & Burro Complex Project EA	<p>USFS, Humboldt-Toiyabe NF, Spring Mountains NRA: Analyze appropriate management levels and horse gathers on the Spring Mountains NRA and the Southern NV BLM District.</p>	<p>This project is not in GRSG HMA. Therefore, this project would not contribute to cumulative effects.</p>
Indian Valley Greater Sage-grouse Habitat Improvement Project CE	<p>USFS, Humboldt-Toiyabe NF, Austin RD: Remove pinyon pine and juniper on up to 17,000 acres within the Indian Valley project area. Treatment would be done on</p>	<p>There is GRSG HMA within the project area. This project will provide opportunities to improve, maintain, and restore 17,000 acres of GRSG habitat through vegetation treatments. These</p>

Action	Location and Activity	Cumulative Effects
	foot using chainsaws and other hand tools. No vehicles or mechanized equipment would be operated off road.	habitat improvement projects will result in beneficial cumulative effects to GRSG and its habitat.
Bodie Hills Habitat Improvement Project CE	USFS, Humboldt-Toiyabe NF, Bridgeport RD: This project will remove conifers from about 4,700 acres of sagebrush ecosystems in the Bodie Hills to improve habitat for the Bi-State sage-grouse.	This project is not in a GRSG HMA. Bi-State sage-grouse habitat areas are managed separately from other GRSG. This project will provide opportunities to improve, maintain, and restore 4,700 acres of Bi-State sage-grouse habitat through vegetation treatments. These habitat improvement projects will result in beneficial cumulative effects to Bi-State sage-grouse and its habitat.
Sagebrush Habitat Restoration Project CE	USFS, Humboldt-Toiyabe NF, Ely RD: Use crews with chainsaws to cut and leave Phase I and II (Less than 100 years old) pinyon-Juniper trees to restore sagebrush and mountain brush communities.	There is GRSG HMA within the project area. This project will provide opportunities to restore GRSG habitat through vegetation treatments. This habitat improvement project will result in beneficial cumulative effects to GRSG and its habitat.
West Carson Habitat Restoration Project CE	USFS, Humboldt-Toiyabe NF, Carson RD: Aspen stand restoration, and habitat improvement activities for TES species. Aspen stand restoration would consist of reducing conifer encroachment to increasing aspen regeneration and diversity.	This project is not located in GRSG HMA. Therefore, this project would not contribute to cumulative effects.
Ruby Mountains Oil and Gas Leasing Availability Analysis EA	USFS, Humboldt-Toiyabe NF, Ruby Mountains RD: Proposal is to make available for oil and gas leasing approximately 54,000 acres of NFS land in the Ruby Mountains.	There is GRSG HMA within the project area. The act of making NFS land available for leasing would have no direct or indirect effects, and therefore no cumulative effects, as no specific disturbance is taken as a result of purchasing a lease. If future development is proposed following the EA decision (expected November 2018), environmental analysis would occur. Lease stipulations would apply as described in the leases according to GRSG HMA category. The development of wells within these areas could lead to fragmentation and loss of habitat due to construction activities. Increased noise levels associated with traffic and compressors may impact lek attendance. Increased traffic associated with day to day operations may also increase the

Action	Location and Activity	Cumulative Effects
		potential for collision mortality. However, most of these impacts should be removed by forest plan components identified in the selected alternative.
B2Gold Rockland Exploration Drilling Project CE	USFS, Humboldt-Toiyabe NF, Bridgeport RD: B2Gold Corporation proposes an exploration drilling project for locatable minerals in the Wilson Mining District (aka, Rockland Mining District), Lyon County, Nevada. Activities proposed under the project include the drilling of exploration core holes.	This project is not in GRSG HMA, it is in the bi-state area. Therefore, this project would not contribute to cumulative effects.
Pine Grove Geotechnical Project CE	USFS, Humboldt-Toiyabe NF, Bridgeport RD: Exploration drilling for locatable minerals in the Wilson Mining District. Activities would include drilling 4 groundwater exploration wells, 9 mineral exploration holes, 6 geotechnical engineering auger holes, and 11 test pits for soil evaluation.	This project is not in GRSG HMA, it is in the bi-state area. Therefore, this project would not contribute to cumulative effects.
Barcelona Minerals Exploration Project CE	USFS, Humboldt-Toiyabe NF, Austin RD: Minerals exploration project in the Toquima Range. Seven drill sites on FS administered land.	There is GRSG HMA within the project area. Approximately 1.05 acres will be disturbed to collect samples of rock for mineral and chemical analysis from below the ground surface by means of boreholes using truck mounted, core drill rigs. May remove a minor amount of vegetation due to drilling activities (approximately 1.05 total acres spread across seven sites). Increased activities could lead to an increase in collision mortalities. However, most of these impacts should be removed by forest plan components identified in the selected alternative. This project would not contribute to cumulative effects, as it would be minimal and result in less than 1% of total GRSG HMA acreage disturbed.
Corcoran Canyon Exploration Project CE	USFS, Humboldt-Toiyabe NF, Tonopah RD: Exploration drilling project in the Toquima mountain range north of Belmont NV (up to 29 drill sites and 2 groundwater monitoring wells at two drill sites). Groundwater monitoring wells will be used to collect baseline water quality data and groundwater characteristics (e.g., recharge/discharge rates) for a potential future mine proposal.	There is GRSG HMA within the project area. Approximately 3.47 total acres will be disturbed to explore for precious metal mineral resources. May remove a minor amount of vegetation due to drilling activities (approximately 3.47 total acres spread across 29 sites). Increased activities could lead to an increase in collision

Action	Location and Activity	Cumulative Effects
	Groundwater monitoring wells and access routes will be used for a period of five years following construction and reclaimed.	mortalities. However, most of these impacts should be removed by forest plan components identified in the selected alternative. This project would not contribute to cumulative effects, as it would be minimal and result in less than 1% of total GRSG HMA acreage disturbed.
Danbo Exploration Project CE	USFS, Humboldt-Toiyabe NF, Tonopah RD: Exploration drilling project, nine proposed drill holes all on existing disturbance, no new road construction, widening or maintenance proposed.	This project is not located in GRSG HMA. Therefore, this project would not contribute to cumulative effects.
Keystone Jumbo CE	USFS, Humboldt-Toiyabe NF, Tonopah RD: Exploration project near the Keystone and Jumbo Pits adjacent to Manhattan NV. A total of 29 proposed exploration drill holes, up to 3 holes drilled per site. A total of 1.44 acres of proposed disturbance. No new road construction or maintenance.	This project is not located in GRSG HMA. Therefore, this project would not contribute to cumulative effects.
Longstreet 2018 Exploration Project CE	USFS, Humboldt-Toiyabe NF, Tonopah RD: Exploration drilling program in the southern Monitor Range including new road construction, installation of 1 production well and 7 groundwater monitoring wells and 12 exploration drill holes. 1.97 acres of total disturbance.	This project is not located in GRSG HMA. Therefore, this project would not contribute to cumulative effects.
Bordertown to California 120kV Transmission Line EIS	USFS, Humboldt-Toiyabe NF, Carson RD (CA and NV): Construct 120kV transmission line connecting the Bordertown and California substations.	This project is not located in GRSG HMA on the Humboldt-Toiyabe NF. Therefore, this project would not contribute to cumulative effects.
Wildland fires 2015–2017	BLM-administered lands in Nevada and Northeastern California: Past acres burned on BLM-administered land	Approximately 1.3 million acres of GRSG HMA burned between 2015-2017. Post fire restoration is being implemented as described below.
Fire Restoration (Emergency Stabilization and Rehabilitation)	BLM-administered lands in Nevada and California: Past and Present – Habitat restoration following wildland fires	1.8 million acres of habitat are either currently being treated or scheduled to be treated according to specific prescriptions outlined in Emergency Stabilization and Burned Area Rehabilitation plans following wildfire.
Habitat treatments 2015–2017	BLM-administered lands in Nevada and Northeastern California: Past habitat improvement projects	Over 176,000 acres of GRSG habitat was treated between 2015 and 2017 to maintain or improve conditions for GRSG. Treatments included conifer removal, fuel breaks, invasive species removal and habitat protection/ restoration.
Land Use and Realty (issued and pending)	BLM-administered lands in Nevada: Past ROWs issued on BLM land	227 ROWs were issued in the planning area between 2015-2017. This includes

Action	Location and Activity	Cumulative Effects
2015-2018		amendments and reauthorizations, which may not have resulted in new disturbance. For ROWs occurring in GRSG habitat, effects were offset using the mitigation hierarchy.
	Future pending ROWs	85 ROW applications are pending review and analysis. New ROWs would be held to the same mitigation standard under the management alignment alternative as described in the 2015 EIS, so no additional cumulative impacts beyond those described in 2015 are anticipated. In addition, BLM Nevada is also currently evaluating a proposed withdrawal for expansion of the Fallon Naval Air Station, Fallon Range Training Complex for defense purposes.
Oil and Gas	<p>BLM-administered lands in Nevada: Past oil and gas projects</p> <p>Future pending oil and gas projects</p>	<p>BLM has offered for lease 425,711 acres in HMAs; 407,478 of that total was leased. Lease stipulations apply as described in the leases according to GRSG HMA category.</p> <p>BLM has a scheduled lease sale in June 2018 that will offer 110,556 acres in GRSG HMAs. Lease stipulations would still be as described in 2015 until a decision is made on this draft.</p>
Geothermal	BLM-administered lands in Nevada: Past and present geothermal projects	<p>Between 2015 and 2017, the BLM has offered for lease 24,468 acres within HMAs. Lease stipulations apply as described in the leases as analyzed in the 2015 Final EIS.</p> <p>6 geothermal development permits have been approved and drilled on existing pads on existing leases. McGinness Hills Phase 3 EA authorized up to 42 acres of disturbance on existing leases, which will be offset according to the mitigation hierarchy.</p>
Geothermal	Forest Service in Nevada: Future Pending geothermal projects	6,901 acres of HMA pending Forest Service concurrence to lease, no pending geothermal development permits. If in HMAs, stipulations would be as described in 2015.
Locatable Mineral Projects	BLM-administered lands in Nevada: Past and present locatable mineral projects	Between 2015 and 2017, the BLM has approved 18 new mines and/or expansions in the planning area, which is within the reasonably foreseeable development scenario outlined in the 2015 Final EIS (Section 5.1.16).

Action	Location and Activity	Cumulative Effects
	Future Pending locatable minerals projects	The BLM is currently reviewing 20 plans of development for new mines or expansions, which is within the reasonably foreseeable development scenario outlined in the 2015 Final EIS (Section 5.1.16).
Fuel Breaks PEIS	BLM-administered lands in Nevada: Future – Great Basin-wide programmatic habitat fuel break project	Programmatic document effects will be realized when the field implements projects.
Utah		
Manti-La Sal National Forest Land and Resource Management Plan EIS	USFS, Manti-La Sal NF: Forest Plan Revision. The Manti-La Sal National Forest is in the process of revising its Forest Plan pursuant to the 2012 Planning Rule (36CFR219). For more information, visit http://bit.do/mlsnfplanningpage	This is a programmatic document. Effects will be realized when the field implements projects.
Bears Ears National Monument (BENM) Management Plan EIS	USFS, Manti-La Sal NF: FS to serve as a co-lead and cooperating agency to the BLM in development of a management plan for the Shash Jaa unit of the BENM	This is a programmatic document. Effects will be realized when the field implements projects.
Brian Head Fire Rehabilitation Project EA	USFS, Dixie NF, Cedar City RD: In the summer of 2017 the Brian Head fire burned more than 71,000 acres of private, state, and federal land. This project focuses on rehabilitation for the burned area and areas immediately adjacent.	The Brian Head fire burned through some areas identified as PHMA. In some areas encroaching conifers were reduced, enhancing sage-steppe habitat for sage-grouse. These habitat improvement projects could result in beneficial cumulative effects to GRSG and its habitat.
Brian Head Fire Rehabilitation Project CE	USFS, Dixie NF, Cedar City RD: This project will strive to improve public health and safety and natural resource conditions impacted by the Brian Head fire while continuing to promote multiple use management.	The Brian Head fire burned through some areas identified as PHMA. In some areas encroaching conifers were reduced, enhancing sage-steppe habitat for sage-grouse. These habitat improvement projects could result in beneficial cumulative effects to GRSG and its habitat.
North Hills Wild Horse Management Plan EA	USFS, Dixie NF, Pine Valley RD: Collaborative analysis for continued wild horse management in southern Utah lands administered by USDI Bureau of Land Management and USDA Forest Service-Dixie National Forest.	There are no GRSG HMAs on the Pine Valley RD. Therefore, this project would not contribute to cumulative effects to GRSG and its habitat.
Mud Springs Wildlife Habitat Improvement Project CE	USFS, Dixie NF, Powell RD: Protect and restore sage-steppe habitats for the benefit of the threatened Utah prairie dog and the Forest Service sensitive sage-grouse. Restore watershed conditions to facilitate improved wildlife habitat effectiveness. Reduce encroaching conifers.	This project will provide opportunities to reduce encroaching conifers and protect and restore sage-steppe habitat for sage-grouse. These habitat improvement projects will result in beneficial cumulative effects to GRSG and its habitat.

Action	Location and Activity	Cumulative Effects
Paunsaugunt Plateau Wildlife Habitat Improvement Project CE	USFS, Dixie NF, Powell RD: Maintain and improve the status of the Paunsaugunt boreal toad population and other key wildlife species by increasing the availability of woody browse, such as aspen, adjacent to current, historic and potential use areas.	This project is located in an area that does not support suitable sage-grouse habitat and improvements to that are going to enhance aspen and will not enhance habitat for sage-grouse. Therefore, this project would not contribute to cumulative effects to GRSG and its habitat.
Green Canyon and Providence Canyon Watershed Wildlife Habitat Improvement CE	USFS, Logan RD, Uinta-Wasatch-Cache NF: Remove juniper in Green Canyon, Logan Dry Canyon and Providence Canyon. Juniper would be removed by hand cutting and the area seeded with browse species to improve the quality and quantity of forage for wildlife.	This project is located in an area that does not support suitable sage-grouse habitat. Therefore, this project would not contribute to cumulative effects to GRSG and its habitat.
Uinta-Wasatch-Cache Phase 1 Pinyon/Juniper Treatments CE	USFS, Forest-wide, Uinta-Wasatch-Cache NF: Mechanically treat, by lop and scatter, juniper and pinyon pine whips on approximately 71,868 acres.	This project is in locations across the forest that could provide opportunities to improve GRSG habitat through vegetation treatments. These habitat improvement projects could result in beneficial cumulative effects to GRSG and its habitat.
Jacob's Valley Vegetation Management Project EA	USFS, Dixie NF, Escalante RD: Address forest health at the stand and landscape level to maintain and enhance ecosystem function, watershed characteristics, visual aesthetics, recreational and implementation of the motorized travel plan.	This project will provide opportunities to reduce encroaching conifers and protect and restore sage-steppe habitat for sage-grouse. These habitat improvement projects will result in beneficial cumulative effects to GRSG and its habitat.
North End Habitat Improvement project CE	USFS, Manti-La Sal NF, Moab RD: Vegetation management project on the north side of the La Sal Mountains to improve forage production for big game and to reduce the continuity of fuels for wildland fire management, utilizing mechanical (bullhog) and hand (chainsaw) treatments.	This area on the Manti-La Sal National Forest does not contain suitable sage-grouse habitat. Therefore, this project would not contribute to cumulative effects to GRSG and its habitat.
Red Ryder Vegetation Management Project EA	USFS, Ogden and Logan RDs, Uinta-Wasatch-Cache NF: Proposal includes a combination of commercial timber harvesting, pre-commercial thinning, and prescribed fire to treat approx. 13,263 acres. Access to the project area would involve use of temporary and existing roads.	This project is a timber sale outside of suitable habitat for the greater sage-grouse. Therefore, this project would not contribute to cumulative effects to GRSG and its habitat.
Upper Midway Salvage Project CE	USFS, Dixie NF, Cedar City RD: Salvage of 168 acres of dead (beetle killed) spruce using tractor logging, mechanical harvest equipment and whole tree removal. Slash would be available as biomass or fuel load. Slash at landing burned through a	This project is a timber sale outside of suitable habitat for the greater sage-grouse. Therefore, this project would not contribute to cumulative effects to GRSG and its habitat.

Action	Location and Activity	Cumulative Effects
	burn plan. Replanting if needed.	
Canyons Project EA	USFS, Manti-La Sal NF, Sanpete RD: Salvage dead Engelmann spruce trees and implement fuels reduction treatments under HFRA. About 33,500 acres of treatment proposed.	There are no GRSG HMAs on the Sanpete RD. Therefore, this project would not contribute to cumulative effects to GRSG and its habitat.
Upper Provo Watershed Fuels Project – Addition CE	USFS, Heber-Kamas RD, Uinta-Wasatch-Cache NF: Proposal is an addition to the approved and partially implemented Upper Provo Watershed EA signed in 2014. Of the 1,316 acres, 500 acres are polygons within the 91,000 acre boundary.	This project is a fuels reduction project outside of suitable habitat for the greater sage-grouse. Therefore, this project would not contribute to cumulative effects to GRSG and its habitat.
Pinto Watershed and Defensible Fire Space Improvement Project EA	USFS, Dixie NF, Pine Valley RD: WUI fuels reduction, winter range enhancement, grass and forb diversity improvement, and watershed improvement to reduce TMDL to Newcastle reservoir.	There are no GRSG HMAs on the Pine Valley RD. Therefore, this project would not contribute to cumulative effects to GRSG and its habitat.
Fishlake National Forest & Boulder Mountain Pinyon- Juniper Project EA	USFS, Fishlake NF, All Units: Pinyon-juniper removal to improve and maintain sage-steppe, grassland, oak, and open woodland cover. Treatments include hand-cutting, mechanical and prescribed burning to address encroachment.	This project is located in an area that does not occur in PHMA, however, small areas of PHMA designated habitat occur within the analysis boundary. These habitat improvement projects will result in some beneficial cumulative effects to GRSG and its habitat.
South Beaver Vegetation Management Project EA	USFS, Fishlake NF, Beaver RD: Analyze the potential effects of thinning and burning within the 42,900 acre South Beaver project area.	This project is a thinning and fuels reduction project outside of suitable habitat for GRSG. Therefore, this project would have no cumulative effect to GRSG and its habitat.
Trail Mountain Wildlife Habitat Enhancement and Aspen Regeneration Project CE	USFS, Manti-La Sal NF, Ferron RD: Prescribe burn approximately 4,004 acres within a 17,115 project area to regenerate aspen, improve wildlife habitat, protect watershed values, and reduce hazardous fuel conditions.	Project design is to enhance big game habitat by regenerating aspen. A wildfire occurred and burned much of the project area, impacting limited areas of General habitat. This project had minimal cumulative impacts on GRSG and GHMA habitat.
South Fork Lease Modification Project EA	BLM and U.S. Forest Service, Fishlake NF, Richfield RD and Manti-La Sal NF, Ferron RD: Analyze the impacts of a request by Canyon Fuel Company, LLC to modify the lease boundaries for federal coal leases UTU-84102 (Greens Hollow) and U-63214 (Quitcupah).	This project in part occurs in PHMA in the Greens Hollow area. If the project is implemented it will have adverse cumulative effects to GRSG and its habitat in the Greens Hollow Area. While activities associated with development of the lease could result in loss of habitat and vehicle mortality due to increased traffic. Most of these impacts should be removed by management standards identified in the selected alternative.
Diamond Fork	USFS, Spanish Fork RD, Uinta-Wasatch-Cache NF: Proposal to conduct phosphate	This project is located in an area that does not support suitable sage-grouse

Action	Location and Activity	Cumulative Effects
Phosphate Project EA	mining activities on a lease area regulated by the BLM with concurrence from the USFS as the surface landowner.	habitat. Therefore, this project would not contribute to cumulative effects to GRSG and its habitat.
Jim and Iver #1 and 2 Mining Claims Plan of Operations EA	USFS, Fishlake NF, Beaver RD: In accordance with mining law, evaluate the potential effects of mining the Jim and Iver claims as described in the plan of ops. This includes reopening a collapsed adit and taking geologic samples.	This project is located in an area that does not support suitable sage-grouse habitat. Therefore, this project would not contribute to cumulative effects to GRSG and its habitat.
North Fork North Creek Mineral Material Pit Management Plan CE	USFS, Fishlake NF, Beaver RD: Proposing to implement a pit management plan for the North Fork of North Creek Mineral Material Pit, which will define future development, production, and reclamation in order to respond to requests for permits.	This project is located in an area that does not support suitable sage-grouse habitat. Therefore, this project would not contribute to cumulative effects to GRSG and its habitat.
South Central Communications Upper Boulder Fiber Optic Project CE	USFS, Dixie NF, Escalante RD: South Central Communications is proposing to construct, operate and maintain a telecommunications system north of Boulder on Hwy 12. Project components include placement of fiber and installation of access vaults, needed for improved services.	This project is located in an area that does not support suitable sage-grouse habitat. Therefore, this project would not contribute to cumulative effects to GRSG and its habitat.
Wildland fires 2015–2017	BLM-administered lands in Utah: Past acres burned by wildfire	<i>Past:</i> Approximately 61,262 acres of PHMA/GHMA burned between 2015 and 2017. Post fire restoration is being implemented across all population areas that are affected. <i>Effects:</i> Potential loss of habitat value due to the removal of vegetation by fire.
Fire Restoration (Emergency Stabilization and Rehabilitation)	BLM-administered lands in Utah: Acres of habitat restoration following wildland fires	<i>Past:</i> Approximately 173,100 acres of HMA were treated/restored between 2015 and 2017. All of these acres are being restored according to specific prescriptions outlined in Emergency Stabilization and Burned Area Rehabilitation plans following wildfire across all population areas that are affected. <i>Effect:</i> Potentially improve or increase habitat due to vegetative restoration activities.
State of Utah Greater Sage-Grouse Management	State of Utah: Update of the State’s Conservation Plan for GRSG in Utah, as well as implementation of the State’s compensatory mitigation rule	<i>Past:</i> The Conservation Plan for GRSG in Utah was finalized in 2013; it was designed to be updated every 5 years. While it requires a 4:1 mitigation ratio in the State’s Sage-Grouse Management

Action	Location and Activity	Cumulative Effects
		<p>Areas (SGMA), there was no established approach to implement that mitigation standard to the State's 11 SGMA's.</p> <p><i>Effect:</i> The plan establishes the management actions necessary for the State of Utah to continue to enhance and conserve the GRSG while still allowing for economic opportunities.</p> <p><i>Future:</i> The State is updating their GRSG plan and incorporating the compensatory mitigation rule that provides a process to develop a banking system to apply the state's 4:1 mitigation ratio that is designed to improve habitat for GRSG.</p> <p><i>Effect:</i> This effort will help to refine and identify areas to improve management actions and allow for the incorporation of new and local science to better balance GRSG management across the state. It will also provide an opportunity for economic development to occur while offsetting the impacts to habitat quality.</p>
Habitat Treatments	BLM-administered lands in Utah: Acres of habitat improvement projects	<p><i>Past:</i> Over 219,000 acres of GRSG habitat was treated between 2015-2017 to maintain or improve conditions for GRSG across all populations. Treatments included conifer removal, fuel breaks, invasive species removal and habitat protection/restoration.</p> <p><i>Effect:</i> Potentially improve or increase habitat due to vegetative restoration activities.</p> <p><i>Future:</i> Over 524,702 acres of GRSG habitat is being proposed for treatment over the next 5 years. Treatments will include conifer removal, fuel breaks, invasive species removal and habitat protection/restoration across all populations.</p> <p><i>Effect:</i> Potentially improve or increase habitat due to vegetative restoration activities.</p>

Action	Location and Activity	Cumulative Effects
Land Use and Realty (issued and pending) 2015-2018	BLM-administered lands in Utah: Past ROWs issued or pending on BLM land	<p><i>Past:</i> 841 ROWs were issued in the planning area between 2015 and 2017.</p> <p>This includes amendments and reauthorizations, which may not have resulted in new disturbance. For ROWs occurring in GRSG habitat, effects were offset using the mitigation hierarchy.</p> <p><i>Future:</i> 380 ROW applications are pending review and analysis.</p> <p><i>Effect:</i> New ROWs would be held to the same mitigation standard under the management alignment alternative as described in the 2015 EIS, so no additional cumulative impacts beyond those described in 2015 are anticipated.</p>
Zephyr Transmission Line	BLM-administered lands in Utah: 500 kV transmission line	<p>Application received – could impact the Bald Hills, Uintah, Carbon, Strawberry, Emery, and Sheepricks populations.</p> <p>Effects: May remove vegetation due to construction activities. Towers may provide perching opportunities for avian predators. However, most of these impacts should be removed by management standards identified in the selected alternative.</p>
Parker Knoll Pump Storage Hydroelectric Federal Energy Regulatory Commission Project	BLM-administered lands in Utah: Create electricity using a two-reservoir, gravity-fed system; approximately 200 acres of GRSG habitat would be lost; mitigation involves GRSG habitat-improvement work in areas adjacent to the lost habitat.	<p>Still in planning and NEPA stages – could impact the Parker Mountain population.</p> <p>Effects: May remove vegetation due to construction activities. Increased maintenance activities could lead to an increase in collision mortalities. Any associated tall structures may provide perching opportunities for avian predators. However, most of these impacts should be removed by management standards identified in the selected alternative.</p>
Enefit Utility Project	BLM-administered lands in Utah: Five rights-of-way across public lands for infrastructure (a road, 3 pipelines, and 2 powerlines) to support development of a mine on private lands. Estimated 1,037 acres of disturbance for the rights-of-way (7,000 to 9,000 acre mine and 320-acre processing plant).	<p>Still in planning and NEPA stages – could impact the Uintah population.</p> <p>Effects: May remove vegetation due to construction activities. Increased maintenance activities could lead to an increase in collision mortalities. Any associated tall structures may provide perching opportunities for avian</p>

Action	Location and Activity	Cumulative Effects
Oil and Gas Leases	BLM-administered lands in Utah: Acres of BLM land leased for Oil and Gas development	<p>predators. However, most of these impacts should be removed by management standards identified in the selected alternative.</p> <p><i>Past:</i> From 2105-2017 the BLM has leased approximately 25,000 acres in HMAs, of which approximately 25 of those acres were located in PHMA. Lease stipulations apply as described in the leases according to HMA category. BLM had a scheduled lease sale in June 2018 that offered 646 acres in HMAs.</p> <p><i>Effects:</i> The act of leasing would have no direct effect.</p> <p><i>Future:</i> The BLM is required to conduct quarterly lease sales which could include parcels in HMA. Lease stipulations would still be as described in 2015 until a decision is made on this RMPA/EIS.</p> <p><i>Effect:</i> The act of leasing would have no direct effect, as no specific disturbance is taken as a result of purchasing a lease.</p> <p>Leasing could occur in any of the populations, but would be most likely to impact the Uintah, Carbon, Emery, and Rich populations due to mineral potential.</p>
Oil and Gas Wells	BLM-administered lands in Utah: Oil and Gas exploration and development	<p><i>Future:</i> Based on the reasonably foreseeable development assumptions, it is anticipated that 2,968 oil and gas wells will be drilled within occupied GRSG habitat within the population areas of which 2,289 wells are anticipated to be producing wells. Exploration wells expected in all populations. Development wells anticipated in Uintah, Carbon, Emery, and Rich populations.</p> <p><i>Effect:</i> The development of wells within these areas could lead to fragmentation and loss of habitat due to construction activities. Increased noise levels associated with traffic and compressors may impact lek attendance. Increased</p>

Action	Location and Activity	Cumulative Effects
		<p>traffic associated with day to day operations may also increase the potential for collision mortality. However, most of these impacts should be removed by management standards identified in the selected alternative.</p>
Asphalt Ridge Tar Sands Development	<p>BLM-administered lands in Utah: Lease approximately 6,000 acres of Tar Sands Lands described in the Asphalt Ridge Tract, which is directly adjacent to existing approximately 16,000 acres of State leases</p>	<p><i>Future:</i> In planning and NEPA stages – could impact the Uintah population.</p> <p><i>Effect:</i> As a largely underground operation on BLM-administered lands, this would disturb a small amount of land associated with ancillary features. On the portions of the mine that would be mined through surface means, habitat would be lost and noise, dust and light would affect adjacent areas.</p>
Flat Canyon Coal Lease by application	<p>BLM-administered lands in Utah: The Flat Canyon Coal Lease Tract is approximately 2, 692 acres of federal coal reserves</p>	<p><i>Present:</i> Forest Service completed the consent to BLM. Approximately 23 acres out of the 2,692 acres are within the Emery Population Area.</p> <p><i>Effect:</i> The act of leasing would have no direct effect. However, the activities associated with development of the lease could result in loss of habitat and vehicle mortality due to increased traffic. Most of these impacts should be removed by management standards identified in the selected alternative.</p>
Alton Coal Tract Lease-by-Application	<p>BLM-administered lands in Utah: Add 3,576 acres of federal surface or mineral estate to existing 300-acre mine on private land.</p>	<p><i>Future:</i> In planning and NEPA stages – could impact the Panguitch population.</p> <p><i>Effect:</i> Activities associated with development of the lease could result in loss of habitat and vehicle mortality due to increased traffic. Most of these impacts should be removed by management standards identified in the selected alternative.</p>
Williams Draw Coal Lease by Application	<p>BLM-administered lands in Utah: The proposed action includes 4,200 acres of federal surface and mineral estate; the proposal may have several vents, drilling exploration holes on the surface and underground, and load-out facilities</p>	<p><i>Future:</i> In planning and NEPA stages; could impact the Carbon population.</p> <p><i>Effect:</i> The act of leasing would have no direct effect. However, the activities associated with development of the lease could result in loss of habitat and vehicle mortality due to increased traffic. Most of these impacts should be removed by management standards identified in the selected alternative.</p>

Action	Location and Activity	Cumulative Effects
Greens Hollow Coal Lease by Application	BLM-administered lands in Utah: Proposal includes 6,700 acres; a vent is proposed off site; minimal surface disturbances with the exception for exploration drilling	<p><i>Future:</i> The area has been leased, but development is on hold due to litigation. Would affect the Emery population.</p> <p><i>Effect:</i> Activities associated with development of the lease could result in loss of habitat and vehicle mortality due to increased traffic. Most of these impacts should be removed by management standards identified in the selected alternative.</p>
Flat Canyon Coal Lease by Application	BLM-administered lands in Utah: Lease by Application 3,792 acres; and Exploration License, 595 acres	<p><i>Present:</i> Leased and under production in the Carbon population.</p> <p><i>Effect:</i> The act of leasing would have no direct effect. However, the activities associated with development of the lease could result in loss of habitat and vehicle mortality due to increased traffic. Most of these impacts should be removed by management standards identified in the selected alternative.</p>
Gilsonite Leasing	BLM-administered lands in Utah: 16,810 acres that are currently under prospecting permit application; the permits would either be issued or a Known Gilsonite Leasing Area would be established, thus allowing competitive leasing.	<p>The prospecting permit applications have been in place since the late 1980s; Known Gilsonite Leasing Area report ongoing, after which NEPA will begin to address backlogs for these areas in the Uintah population.</p> <p><i>Effect:</i> Activities associated with development or prospecting of the permit/lease could result in loss of habitat and vehicle mortality due to increased traffic. Most of these impacts should be removed by management standards identified in the selected alternative.</p>
Phosphate Fringe Acreage Lease	BLM-administered lands in Utah: 1,627 acres of fringe acreage lease on BLM-administered lands.	<p><i>Future:</i> NEPA has started and awaiting a Development Scenario to complete the NEPA for this area in the Uintah population.</p> <p><i>Effect:</i> The act of leasing would have no direct effect. However, the activities associated with development of the lease could result in loss of habitat and vehicle mortality due to increased traffic. Most of these impacts should be removed by management standards identified in the selected alternative.</p>

Action	Location and Activity	Cumulative Effects
Phosphate Competitive Lease Application	BLM and Forest Service in Utah: 1,186 acres on National Forest System lands	<p><i>Future:</i> NEPA has started and awaiting a Development Scenario to complete the NEPA for this area in the Uintah population.</p> <p><i>Effect:</i> Activities associated with development of the lease could result in loss of habitat and vehicle mortality due to increased traffic. Most of these impacts should be removed by management standards identified in the selected alternative.</p>
Hard Rock Prospecting Permits being considered on Bankhead Jones	BLM-administered lands in Utah: Hard rock exploration permits	<p><i>Future:</i> Pending consideration for this area in the Sheeprocks population.</p> <p><i>Effect:</i> Activities associated with development of the lease could result in loss of habitat, vehicle mortality due to increased traffic and disruption of seasonal use areas. Most of these impacts should be removed by management standards identified in the selected alternative.</p>
Gooseberry Narrows Reservoir	BLM, BOR, USFS in Utah: Bureau of Reclamation project on Forest Service and private land; project is approximately 1,200 acres	<p><i>Future:</i> EIS is complete, pending EPA review and approval for this portion of the Carbon population.</p> <p><i>Effect:</i> Activities associated with construction and operation of the reservoir would result in loss of habitat within the project area and a potential increase for vehicle mortality due to increased traffic. However, the habitat lost within the project area may be supplemented by improving the quality and seasonal functionality of the adjacent habitat. Most of the impacts should be removed by management standards identified in the selected alternative.</p>
Grand Staircase-Escalante National Monument Management Plan	BLM-administered lands in Utah: Development of a resource management plan	<p>Still in early planning stages for this area that overlaps the Panguitch population.</p> <p><i>Effect:</i> This action would provide a framework to manage both the remaining monument areas and the areas no longer within the monument boundaries. It is too early in the process to determine a cumulative effect since the proposed plan is unknown.</p>

Wyoming

Action	Location and Activity	Cumulative Effects
Invasive Plant Management EIS	USFS, Bridger-Teton NF, All Units: Control of noxious and other invasive plants through the integration of manual, mechanical, biological, and ground and aerial herbicide control methods.	Programmatic document effects will be realized when the field implements projects. This action will provide opportunities to improve and enhance habitat through vegetation treatments. Invasive plant treatments allow the native vegetation to outcompete invasive plants, which will result in improved GRSG habitat.
Riley Ridge Natural Gas Development (Forest Service Portion) EA	USFS, Bridger-Teton NF, Big Piney RD: Authorization of one existing gas well & construction of approximately 1,200 feet of buried pipeline.	This project is not located in GRSG HMA. Therefore, this project would not contribute to cumulative effects.
True Oil Lander Peak Area Exploratory Proposal EA	USFS, Bridger-Teton NF, Big Piney RD: True Oil has submitted the Lander Peak Exploration Proposal for two exploratory wells; one from an existing pad and one from a reclaimed pad.	Location of well pad 23-15 occurs within GRSG PHMA. The Forest Service analyzed potential effects to GRSG using the Wyoming Game and Fish Department Density Disturbance Calculation Tool (DDCT). Decision will contribute to cumulative effects, but effects but does not cause exceedance of density or disturbance thresholds set by Guidelines 21 and 22 of the 2015 ROD and FEIS.
Encampment Minerals Core Drilling CE	USFS, Brush Creek/Hayden RD, Medicine Bow-Routt NF: Mineral exploration and sampling conducted through boring four geologic cores for analysis. Cores will be removed and remaining holes plugged with concrete.	There is GRSG HMA within the project area. Less than 1 acre will be disturbed to bore four geological cores for analysis. May remove a minor amount of vegetation due to drilling activities. Increased activities could lead to an increase in collision mortalities. However, most of these impacts should be removed by forest plan components identified in the decision. Effects would be minimal and result in less than 1% of total GRSG HMA acreage disturbed.
Encampment Minerals Core Drilling - Muddy Mountain CE	USFS, Brush Creek/Hayden RD, Medicine Bow-Routt NF: Encampment Minerals to drill three core samples for the purpose of minerals exploration. Cores will be 3.25 inches in diameter and range from 300 to 800 feet in length.	There is GRSG HMA within the project area. Less than 1 acre will be disturbed to drill three core samples for mineral exploration. May remove a minor amount of vegetation due to drilling activities. Increased activities could lead to an increase in collision mortalities. However, most of these impacts should be removed by forest plan components identified in the decision. Effects would

Action	Location and Activity	Cumulative Effects
Encampment Minerals Core Drilling Prospect Mountain CE	<p>USFS, Brush Creek/Hayden RD, Medicine Bow-Routt NF: Encampment Minerals proposes to drill six core samples for minerals exploration purposes. Cores will be 3.25 inches diameter and anywhere from 250 - 550 feet in length. Drilling area is accessed by one open public road and two decommissioned roads.</p>	<p>be minimal and result in less than 1% of total GRSG HMA acreage disturbed.</p> <p>There is GRSG HMA within the project area. Less than 1 acre will be disturbed to drill six core samples for minerals exploration purposes.</p> <p>May remove a minor amount of vegetation due to drilling activities. Increased activities could lead to an increase in collision mortalities. However, most of these impacts should be removed by forest plan components identified in the decision. Effects would be minimal and result in less than 1% of total GRSG HMA acreage disturbed.</p>
Converse County Oil and Gas Project EIS	<p>USFS, Douglas and Thunder Basin RD, Medicine Bow-Routt NF: An Operator Group (OG) proposed an oil and natural gas development project. They propose to conduct drilling to develop the hydrocarbon resources from oil and gas leases owned, at least in part, by members of the OG within the Converse County Project Area (CCPA) in Converse County, Wyoming. The OG has identified approximately 5,000 oil and natural gas wells on 1,500 well pads.</p> <p>The CCPA encompasses approximately 1.5 million acres of land owned or administered as follows:</p> <ul style="list-style-type: none"> •Approximately 88,466 surface acres (6% of the CCPA) are administered by the BLM Casper Field Office; •Approximately 63,911 surface acres (4% of the CCPA) are administered by the USFS; •Approximately 101,012 surface acres (7%) administered by the State of Wyoming; and •Approximately 1,247,477 surface acres (83%) are privately owned. <p>The DEIS for this project is located at: https://eplanning.blm.gov/epl-front-office/eplanning/docset_view.do?projectId=66551&currentPageId=95977&documentId=131874</p>	<p>The CCPA contains 199,281 acres of GRSG PHMA. There are 1,287,429 acres of GRSG GHMA within the CCPA.</p> <p>Environmental effects are currently being analyzed. The project will contribute to cumulative effects. Lease stipulations would apply as described in the leases according to GRSG HMA category.</p> <p>The development of wells within these areas could lead to fragmentation and loss of habitat due to construction activities. Increased noise levels associated with traffic and compressors may impact lek attendance. Increased traffic associated with day to day operations may also increase the potential for collision mortality. However, most of these impacts should be lessened or removed by forest plan components identified in the selected alternative.</p> <p>Development is consistent with the reasonably foreseeable development scenarios analyzed as part of the 2015 Final EIS and the associated LMPs. Additional impacts are expected to be within the range analyzed in 2015 Final EIS cumulative impacts analysis.</p>

Action	Location and Activity	Cumulative Effects
Jibilian Federal Oil and Gas Development - True Oil LLC CE	USFS, Douglas and Thunder Basin RD, Medicine Bow-Rouff NF: Oil and gas development that includes access road, well pad, and wells.	<p>There is GRSG HMA within the project area. This project may disturb approximately 10 acres.</p> <p>The development of wells within these areas could lead to fragmentation and loss of habitat due to construction activities. Increased noise levels associated with traffic and compressors may impact lek attendance. Increased traffic associated with day to day operations may also increase the potential for collision mortality. However, most of these impacts should be removed by forest plan components identified in the selected alternative.</p> <p>Development is consistent with the reasonably foreseeable development scenarios analyzed as part of the 2015 Final EIS and the associated LMPs. Additional impacts are expected to be within the range analyzed in 2015 Final EIS cumulative impacts analysis.</p>
Special Use Authorization for Use and Occupancy of Additional NFS Lands at Black Thunder Mine EA	USFS, Douglas and Thunder Basin RD, Medicine Bow-Rouff NF: Amendment of existing permit to add 353 acres for overstripping of topsoil and overburden and stockpiling material for reclamation and other mining activities at Black Thunder Mine, and restrict public access to an additional area.	<p>There is GRSG HMA within the project area. This project may disturb approximately 353 acres.</p> <p>The use of the 353 acres could lead to fragmentation and loss of habitat due to construction activities. However, most of these impacts should be removed by forest plan components identified in the selected alternative.</p>
34.5-kilovolt Power Line and Right-of-Way at Antelope Mine CE	USFS, Douglas and Thunder Basin RD, Medicine Bow-Rouff NF: Amend an existing special use authorization, named DGL344, to include construction and operation of a new power line segment at Antelope Mine within a new right-of-way in order to provide electricity to an existing entrance guard facility.	<p>There is GRSG HMA within the project area. The new power line segment is located within a new right of way. The project may result in the removal of vegetation due to construction activities. Increased maintenance activities could lead to an increase in collision mortalities. Any associated tall structures may provide perching opportunities for avian predators. However, most of these impacts should be removed by management standards identified in the selected alternative.</p>
West Fork Post & Pole CE	USFS, Bridger-Teton NF, Big Piney RD: Commercial thinning of live/dead/diseased lodgepole pine (35 acres). Harvesting would include a combination	<p>This project is not located in GRSG HMA. Therefore, this project would not contribute to cumulative effects.</p>

Action	Location and Activity	Cumulative Effects
	of ground based mechanized equipment and/or hand falling with chainsaws. Construction of ½ mile of temporary roads.	
Togwotee Lodge Vegetation Management CE	USFS, Bridger-Teton NF, Buffalo RD: Harvest of dead and dying trees infested with spruce beetle in the wildland urban interface zone to prevent the spread of infestation and subsequent increase in fuel loading adjacent to the resort.	This project is not located in GRSG HMA. Therefore, this project would not contribute to cumulative effects.
Tribasin Salvage Commercial Timber Project CE	USFS, Bridger-Teton NF, Greys River RD: Commercial harvest of timber suffering mortality and decline due to insect and disease infestation.	This project is not located in GRSG HMA. Therefore, this project would not contribute to cumulative effects.
Medicine Bow Landscape Vegetation Analysis (LaVA) Project EIS	USFS, Brush Creek/Hayden and Laramie RDs, Medicine Bow-Routt NF: Insect and disease vegetation management project on 360,000 acres over 15-20 years to mitigate the negative effects of the current beetle epidemic.	There is 1,927 acres of PHMA and 17,281 acres of GHMA in this project. Effects for the project will be mitigated. However, the Biological Evaluation for the project states, "May adversely impact individuals, but not likely to result in a loss of viability in the Planning Area, nor cause a trend toward federal listing." The project may contribute to cumulative effects to GRSG or its habitat.
North Savery Project EIS	USFS, Brush Creek/Hayden RD, Medicine Bow-Routt NF: Treat hazardous trees and fuels - Up to 6,834 acres hazard tree clearing, precommercial thinning & timber harvest; associated road proposals to improve motorized public access to the forest while minimizing road impacts to other resources	This project is not located in GRSG HMA. Therefore, this project would not contribute to cumulative effects to GRSG and its habitat.
Ryan Park Vegetation and Fuels Project CE	USFS, Brush Creek/Hayden RD, Medicine Bow-Routt NF: Treat up to 3,000 acres of vegetation to decrease hazardous fuels and increase resiliency of timber stands	This project is not located in GRSG HMA. Therefore, this project would not contribute to cumulative effects to GRSG and its habitat.
Fox Creek Vegetation Management Project CE	USFS, Laramie RD, Medicine Bow-Routt NF: Treat up to 3,000 acres in Mountain Pine Beetle infested stands of lodgepole pine.	This project is not located in GRSG HMA. Therefore, this project would not contribute to cumulative effects.
Illinois River Vegetation Management Project CE	USFS, Parks RD, Medicine Bow-Routt NF: Treat up to 3,000 acres of mountain pine beetle effected timber stands	This project is not located in GRSG HMA. Therefore, this project would not contribute to cumulative effects.
Red Vista Vegetation Management Project CE	USFS, Yampa RD, Medicine Bow-Routt NF: Harvest treatments of up to 3,000 acres in mostly beetle killed conifers	This project is not located in GRSG HMA. Therefore, this project would not contribute to cumulative effects.
Wildland fires 2015–2017	BLM-administered lands in Wyoming: Past acres burned on BLM-administered land	Approximately 137,000 acres of HMA burned between 2015 and 2017. Post fire restoration and habitat treatments are being implemented, as described

Action	Location and Activity	Cumulative Effects
		below, to diminish impacts of habitat lost to wildland fire.
Fire Restoration (Emergency Stabilization and Rehabilitation)	BLM-administered lands in Wyoming: Past and Present – Habitat restoration following wildland fires	Approximately 4,030 acres of BLM-administered habitat are either currently being treated or scheduled to be treated according to specific prescriptions outlined in Emergency Stabilization and Burned Area Rehabilitation plans following wildfire.
Habitat Treatments	BLM-administered lands in Wyoming: Past – Habitat improvement projects	More than 96,000 acres of GRSG habitat were treated between 2015 and 2017 to maintain or improve conditions for Greater Sage-Grouse. Treatments included conifer removal, fuel breaks, invasive species removal and habitat protection/ restoration.
Land Use and Realty (issued and pending) 2015-2018	BLM-administered lands in Wyoming: Past ROWs issued on BLM land BLM: Future pending	BLM Wyoming issued approximately 3,000 ROWs in the planning area between 2015-2017. This includes amendments and reauthorizations, which may not have resulted in new disturbance. For ROWs occurring in sage grouse habitat, effects were offset by the management prescriptions in the RMPs and ARMPA. There are approximately 590 ROW applications pending review and analysis. New ROWs under the Management Alignment Alternative would align with the management prescriptions of the Core Area Strategy and State of Wyoming Mitigation Framework. No additional cumulative impacts are anticipated, beyond those described.
Oil and Gas	BLM-administered lands in Wyoming: Past	BLM Wyoming has offered for lease 861,634 acres; 812,123 acres of that total was leased. Leases followed management prescriptions in the RMPs and ARMPA and stipulations apply as described in the leases according to HMA category.
	BLM-administered lands in Wyoming: Future pending	BLM Wyoming has a scheduled lease sale in June 2018 that will offer 198,588 acres for lease. The actions proposed in the Management Alignment Alternative to not propose to change stipulations analyzed in the 2014 and 2015 plans.

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Action	Location and Activity	Cumulative Effects
Locatable Mineral Projects	BLM-administered lands in Wyoming: Past and present locatable mineral projects	Between 2015-2017, the BLM has approved 17 new mines and/or expansions within the planning area (including non-habitat). The Management Alignment Alternative does not propose changes to any decisions associated with locatable minerals, which were sufficiently analyzed on the existing plans.
	BLM-administered lands in Wyoming: Future pending locatable mineral projects	The BLM is currently reviewing 26 plans of operation for new mines, mine expansions and notice-level activities. This number also includes 10 pending mine patents, which are in the process of being patented into private ownership. The Management Alignment Alternative does not propose changes to any decisions associated with locatable minerals, and future impacts would be analyzed in future EISs, adhering to existing requirements of the RMPs and ARMPA.
Leasable Mineral Projects (Coal)	BLM-administered lands in Wyoming: Past and present leasable mineral projects (coal)	Two coal lease modifications were issued in 2018, totaling 1,306.61 acres. For lease modifications occurring in sage grouse habitat, effects were offset by the management prescriptions in the RMPs and ARMPA.
Leasable Mineral Projects (Coal)	BLM-administered lands in Wyoming: Future pending leasable mineral projects (coal)	BLM Wyoming is currently reviewing 4 coal lease applications/modifications totaling 10,148.56 acres. No management decisions for leasable minerals are proposed for change under the Management Alignment Alternative.

4.7.4 CUMULATIVE EFFECTS - WILDLAND FIRE

The Forest Service has committed resources to habitat restoration. From 2015 to 2017, the Forest Service completed habitat restoration and various projects that benefit GRSG and its habitat on approximately 248,285 acres and 71 miles (see Table 4-13). The BLM has committed resources to habitat restoration and has treated 1.4 million acres of Greater Sage-Grouse habitat range-wide over the past 5 years.

Wildland fire and invasive species remain the greatest threat to greater sage-grouse in the Great Basin. Between 2008 and 2017, wildfires burned an average of 900,000 acres per year in greater sage-grouse

habitat management areas range-wide²; this is within the range of projected wildland fire analyzed in the 2015 Final EIS.

Since the ROD was signed in 2015, wildland fire data was compiled by the National Interagency Fire Center and summarized by the Forest Service from September 2015 to September 2017³. During that timeframe, 133,116 acres of greater sage-grouse HMA has burned on National Forest System lands in eleven states and 3,262,861 acres burned on all administrative agencies in those 11 states. The acres of NFS lands burned represents less than 1% of the acres burned on public lands or 0.25% in three years. Data for wildland fires that occurred in fiscal year 2018 is still being collected and entered into databases.

Table 4-14. Cumulative acres of GRSG habitat burned from 2015-2017 by administrative agency¹, across eleven states².

ADMINISTRATIVE AGENCY	2017 GRSG Acres Burned	2016 GRSG Acres Burned	2015 GRSG Acres Burned
Bureau of Indian Affairs	26,792	30,239	0
Bureau of Land Management	1,182,871	342,450	366,751
Fish and Wildlife Service	1,448	0	200
Forest Service	102,987	14,008	16,121
National Park Service	219	1,956	0
Private Lands	651,154	180,017	156,779
State Lands	50,878	23,775	22,623
Other Federal Lands	57,510	33,823	260
TOTAL	2,073,859	626,268	562,734

¹Data compiled by the National Interagency Fire Center and summarized in the *Forest Service Greater Sage-grouse Monitoring Annual Report, Second Year Summary: October 2016-September 2017*.

²The eleven states include: California, Colorado, Idaho, Montana, Nevada, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming.

Table 4-15. Cumulative acres of GRSG habitat burned from 2015-2017 representing all administrative agencies by states located in analysis area¹

State	2017 GRSG Acres Burned	2016 GRSG Acres Burned	2015 GRSG Acres Burned	Total Acres by State
Colorado	27,780	3,215	3,359	34,354
Idaho	251,443	104,849	260,931	617,223
Nevada	967,324	215,073	12,233	1,194,630
Utah	93,295	33,269	377	126,941
Wyoming	69,410	55,152	20,777	145,339
TOTAL	1,409,253	411,558	297,677	2,118,488

² Removing 2012 and 2017, which were above-average wildland fire years, the 8-year average is approximately 500,000 acres burned per year.

³ Information can be found in: *Forest Service Greater Sage-grouse Monitoring Annual Report First Year Summary: September 2015-September 2016*; and *Forest Service Greater Sage-grouse Monitoring Annual Report, Second Year Summary: October 2016-September 2017*.

Table 4-16. Acres of GRSG habitat burned in 2016 and 2017 on National Forest System lands by states located in analysis area.

State	USFS GRSG Acres Burned 2016	USFS GRSG Acres Burned 2017
Colorado	0	0
Idaho	176	1,064
Nevada	3	4,056
Utah	4,077	35,164
Wyoming	2,138	0
Total	6,394	40,284

Wildland fires remain a threat to greater sage-grouse and its habitat. The Forest Service and other agencies implement some form of burned area emergency responses to address immediate threats following a fire in some areas, depending on the issue. The Forest Service has vegetation projects to restore habitat and projects intended to reduce impacts to greater sage-grouse and its habitat should a fire become established (see Table 4-13). Desired conditions, standards, guidelines, and management approaches in Chapter 2 have been developed and are intended to reduce the impacts of wildfire and invasive species.

Wildland fires burn an average of 900,000 acres per year in greater sage-grouse habitat management areas range-wide; this is within the range of projected wildland fire analyzed in the 2015 FEIS and this DEIS. Wildland fires and invasive species will continue to contribute toward negative cumulative effects, including loss of habitat and threats to greater sage-grouse itself in all alternatives. Under the State of Utah Alternative, 80,500 acres of GHMA and 41,200 acres of Anthro Mountain HMA designations would be removed along with corresponding plan components from the 2015 plan amendments. While this does reduce the number of acres of HMA, treatment of invasive species and planned projects in Utah will continue.

4.7.5 CUMULATIVE EFFECTS - HABITAT MANAGEMENT AREA DESIGNATIONS

Since the ROD was signed in 2015, the Forest Service has coordinated with various state wildlife agencies and the USFWS to collect additional data and review new research about GRSG and its habitat. The Proposed Action includes a management approach that identifies a process for evaluating and updating HMA boundaries. As HMA boundaries were updated, the underlying HMA allocations developed to conserve greater sage-grouse would not change, and these updates reflect the most recent knowledge concerning greater sage-grouse habitat use and distribution. Changes in HMA acreage did not result in any direct or indirect impacts to GRSG or its habitat as discussed in Section 4.5.1. Because of this there would be no appreciable additive impact from the implementation of the Proposed Action on greater sage-grouse.

Under the State of Utah Alternative, GHMA and Anthro Mountain habitat designations would be removed along with corresponding plan components from the 2015 plan amendments. This alternative would eliminate protections given to 41,200 acres of Anthro Mountain HMA and 80,500 acres of GHMA in all plan components. GHMA areas on NFS lands is approximately 5.6 percent of the Forest Service

management area in Utah. These habitat areas tend to be fragmented habitats, areas containing small isolated populations, and many acres of unoccupied and non-habitats and is of low-biological significance to sage-grouse. In addition, GHMA on FS lands makes up only 1 percent of the habitat utilized by sage-grouse based on Utah's known GPS and telemetry data.

Management actions, including lek buffers, required design features, fluid mineral leasing prioritization, and habitat objectives—which are part of the No Action and Proposed Action—seek to minimize impacts on greater sage-grouse habitat within GHMA. They provide a hierarchy of potential conditions to minimize effects while still allowing for development. Thus, development could still occur in GHMA. Although GHMA remains a part of the No Action and Proposed Action, the potential decline for Greater Sage-Grouse in GHMA exists. Under the State of Utah Alternative, removing GHMA and its associated management actions would likely incentivize development in areas formally identified as GHMA, resulting in the continued long-term declines of greater sage-grouse population in GHMA. The long-term effect of this alternative on GRSG is expected to ultimately be similar to effects in the No Action and Proposed Action. In Conclusion, protections in PHMA will continue to be incentivized, development is allowed in GHMA and would be allowed without the designation, there would be minimal impacts to the 1% of GHMA habitat utilized by GRSG in Utah. The cumulative impacts from the alternatives would ultimately be the same, though the State of Utah Alternative would likely accelerate the effect.

The PHMA designation is not necessary for the Anthro Mountain population areas to ensure biological persistence of greater sage-grouse in northeastern Utah. However, the Anthro Mountain sage grouse population is important for persistence on the Ashley NF. In conclusion, removal of the 41,200 acres of Anthro Mountain HMA protections would result in similar impacts previously described.

4.7.6 CUMULATIVE EFFECTS - ELIMINATION OF SAGEBRUSH FOCAL AREA DESIGNATIONS/ WITHDRAWALS

Direct and indirect effects of eliminating sagebrush focal area designations/withdrawals were discussed in Section (4.5.2). No appreciable additive impacts are anticipated for the removal of SFAs or the recommendation to withdraw SFAs from location and entry under the Mining Law of 1872. Under the Proposed Action and State of Utah Alternative, the recommendation to withdraw SFAs from location and entry under the Mining Law of 1872 would be removed, as the EIS process considering the withdrawal was cancelled on October 11, 2017. In its 2016 SFA Withdrawal EIS, the BLM quantified the possible adverse effects from locatable mineral exploration and mining on the approximately 10 million acres of SFAs proposed for withdrawal, finding that they would be limited to approximately 9,000 acres of surface disturbance over 20 years, with approximately 0.58 percent of greater sage-grouse male birds affected per year. The other action alternatives evaluated in the 2016 SFA Withdrawal EIS similarly demonstrated minimal benefit of the proposed withdrawal to greater sage-grouse and its habitat. The cumulative effects of implementing the Proposed Action and State of Utah Alternative are as described in the 2016 SFA Withdrawal EIS, under the No Action Alternative, in which SFAs are not carried forward.

Additionally, mining operations that do occur are subject to regulation under the BLM's surface management regulations at 43 CFR Part 3809. These regulations ensure that operators comply with environmental standards in conducting exploration, mining, and reclamation. For example, the Forest Service must approve a plan of operations for locatable mining operations on public lands, which includes compliance with the National Environmental Policy Act, National Historic Preservation Act, and

Commented [CB19]: This sentence expresses the viewpoint in 2015. But as Wyoming Plan states "Core Population Areas have been mapped to include additional habitat beyond that strictly necessary to prevent listing of Greater sage-grouse (GSG). The additional habitat included within the Core Population Area boundaries is adequate to accommodate continuation of existing land uses and landowner activities."

There was never any factual basis to put 6 million acres of land in Wyoming under general habitat management. This needs to be corrected.

Endangered Species Act. Plans of operation must also include those measures to meet specific performance standards and to prevent unnecessary or undue degradation of the lands (43 CFR 3809.411).

4.7.7 CUMULATIVE EFFECTS - CHANGING NET CONSERVATION GAIN AND ADJUSTMENT OF COMPENSATORY MITIGATION FRAMEWORKS

Direct and indirect effects of changing net conservation gain were discussed in Section 4.5.3. Under the Proposed Action Alternative, language would be added to clarify how project level decisions would be guided regarding the compensatory mitigation framework for a broad set of actions and the proposed modifications to the language will be more in line with state strategies.

Net conservation gain was analyzed in Alternative E in the 2015 FEIS and remains in place for the No Action Alternative and the Proposed Action for Nevada and Colorado. Applicable analyses from the 2015 FEIS explain the impacts from these actions, and are incorporated by reference. No additional analysis is needed.

As a result of changing “net conservation gain” to “no net habitat loss,” there is the potential for incremental contributions to cumulative effects in Idaho, Utah, and Wyoming (see Section 4.5.3). This change would encourage proponents to develop in GHMA or outside of greater sage-grouse habitat. Improving higher quality habitat in PHMAs would be expected to benefit greater sage-grouse rather than focusing efforts in the lower quality habitat that GHMA provides. Conceptually, “no net loss” would result in fewer acres being restored, improved, or protected as compared with “net conservation gain.” The Forest Service would continue to avoid and minimize impacts in GHMA, but there would be loss and degradation of habitat in the Proposed Action (1,998,400 acres of GHMA) and slightly more in the State of Utah Alternative (1,970,300 acres of GHMA). Any impacts associated with the need for compensatory mitigation, or the applicability of compensatory mitigation, would be identified during the environmental analysis at the site-specific project level.

Table 4-17. Comparison summary of habitat management areas in acres by Alternative.

NFS Surface Acres	No Action Alternative ¹	Proposed Action Alternative	State of Utah Alternative
PHMA	2,685,400	2,355,000	2,276,700
GHMA	2,006,000	1,998,400	1,970,300
IHMA (ID Only)	415,900	415,900	415,900
OHMA (NV Only)	621,400	426,500	426,500
Priority-Core (WY only)	309,200 ²	-	-
Priority-Connectivity (WY only)	68,800	-	-
Connectivity (WY Only)	-	6,400	6,400
Anthro Mountain HMA (UT Only)	41,200	-	-
Sagebrush Focal Areas (SFAs)	865,700 ²	-	-

¹The No Action Alternative includes acreage in Montana.

²These acres overlay designated HMAs; the acres are not additive.

4.7.8 CUMULATIVE EFFECTS - MODIFYING LEK BUFFERS

Direct and indirect effects of modifying lek buffers were discussed in Section 4.5.4. The change to the Proposed Action was to apply the minimum recommended buffer distances to IHMAs and GHMAs documented by a USGS literature review (Manier et al. 2014). Other restrictions in IHMA would ensure

responsible development, although there is very little development in IHMA. Although this would be closer to leks, the distance would be within the minimum identified in literature (Manier et al. 2014). The reduced buffer distance in IHMA and GHMA would improve alignment with the Governor's Plan and the best available science supports the distances.

No additive impact is anticipated by the change proposed to buffer distances under the Proposed Action. Site-specific impacts would be identified at the time a project-level application is received, and additional additive impacts would be analyzed at that time. Applicable analysis from the 2015 Final EIS explain the impacts of lek buffers, and is incorporated by reference.

4.7.9 CUMULATIVE EFFECTS - INCLUDING WAIVERS, EXCEPTIONS, AND MODIFICATIONS ON NSO STIPULATIONS

Direct and indirect effects of including waivers, exceptions, and modifications on NSO stipulations were discussed in Section 4.5.5. The changes to the proposed action included a clarification to decision making (removal of the requirement for a unanimous finding between FS, USFWS, and the State), and including CHMA for clarification in Wyoming. Because the proposed changes were clarifications, these actions would not result in any direct or indirect effects, therefore, it will not result in any contribution to cumulative effects. At a site-specific project level, the deciding official must disclose effects of and rationale for the decision, but decision authority cannot be deferred to other agencies or the state. Coordination with an interagency team, which would include both FWS and the State the project is located in, would still be required under the adaptive management, mitigation, and HMA boundary modification processes according to each States process (see Appendices B through F).

No additive impact is anticipated by the change proposed to fluid mineral leasing prioritization under the Proposed Action or State of Utah Alternative. A fluid mineral lease does not authorize surface-disturbing activities; therefore, impacts related to changes in the prioritization of leasing outside of PHMA would be likely to beneficially affect greater sage-grouse conservation. Site-specific impacts would be identified at the time a project-level application is received, and additional additive impacts would be analyzed at that time.

4.7.10 CUMULATIVE EFFECTS - MODIFYING DESIRED CONDITIONS

Direct and indirect effects of modifying desired conditions were discussed in Section 4.5.6. Under the Proposed Action and State of Utah Alternative, language would be modified in the habitat objectives table. This will allow the tables to be revised to incorporate best available science in coordination with partners. The best available science would be reviewed and incorporated and recommend adjustments would be based on regionally and locally derived data. Modifying seasonal use periods and habitat preferences would better align with state conservation plans and management strategies resulting in improved management of greater sage-grouse. The proposed language is intended to clarify the use of the tables and does not alter management actions associated with the tables. The No Action Alternative does not preclude the use of the science supporting the objective defined by the No Action Alternative. Because the Proposed Action Alternative either does not alter management actions, or is included in the

No Action Alternative, there are no cumulative effects from this change. Applicable analyses from the 2015 Final EIS explain the impacts from these actions, and are incorporated by reference. No additional analysis is needed.

4.7.11 CUMULATIVE EFFECTS - CHANGING LIVESTOCK GRAZING GUIDELINES

Direct and indirect effects of changing livestock grazing guidelines were discussed in Section 4.5.7. The 2015 Amendments listed a Desired Condition for livestock grazing being “managed to maintain or move towards desired conditions”. The desired condition is being modified or removed in the Proposed Action and State of Utah Alternative because it does not provide any specific direction and is a circular statement; a desired condition cannot be to maintain or move toward a desired condition. The desired conditions for breeding, nesting, upland summer, and winter habitats are defined for each state. Changes and clarifications will not result in any direct, indirect, or cumulative effects.

The Proposed Action and State of Utah Alternative proposes to modify language regarding water developments in HMAs. Water developments can be an effective tool to ensure proper grazing management that could improve or maintain GRSG habitat indirectly over time. The approval and/or the construction of a water development is inherently a site-specific determination, which would be considered in a separate analysis process which would consider effects to biological resources, including greater sage-grouse. These changes and clarifications will not result in any direct, indirect, or cumulative effects.

Under the Proposed Action and State of Utah Alternative, specific grass-height guidelines are replaced with management approaches that would have greater sage-grouse habitat assessments conducted in allotments to determine if livestock management is a causal factor. Based on the new understanding of habitat characteristics, plant phenology and sampling bias (Hanser et al. 2018), the biological foundation for the development of the 2015 Amendments grazing guidelines has changed and this changed condition warrants removal of the grazing guidelines, which are not necessary as conservation measures for sage-grouse.

As described in section 4.5.6, monitoring of greater sage-grouse seasonal habitats, monitoring associated with droop heights on grasses, and stubble height monitoring during 2016-2017 showed the majority in suitable condition and showed that the existing land management plan direction was providing sufficient direction for meeting that identified in the 2015 Amendment grazing guidelines (USDA FS 2018). Monitoring data specific to the Humboldt-Toiyabe National Forest indicate that many riparian areas and mesic meadows in HMAs are not in proper functioning condition or moving toward desired conditions for sage-grouse brood-rearing habitat. Additional plan components are included in the Nevada proposed action to address this issue. Monitoring will continue.

Replacing specific grass-height guidelines with management approaches and guidelines will not result in any direct, indirect, or cumulative effects. Existing plan components, when compared to published scientific findings, are generally compatible with habitat requirements for sage-grouse and monitoring shows that livestock grazing is not affecting the achievement or maintenance of desired conditions described in the 2015 Amendments.

In the few cases where grazing is a causal agent for not providing suitable habitat or adequate plant species diversity or cover, Forests may implement specific management changes on the respective allotments. It is more appropriate to address these issues at the forest or allotment level rather than through grazing guidelines applied at a regional scale.

4.7.12 CUMULATIVE EFFECTS - ADAPTIVE MANAGEMENT REVIEW PROCESS

Direct and indirect effects were discussed in Section 4.5.8. There is no anticipated additive impact from updating the adaptive management process as described in the Proposed Action or the State of Utah Alternative. The updated language does not alter the adaptive management actions described and analyzed in the No Action Alternative; instead, it aims to codify the intent and ability to return to previous management actions once an identified threat has been alleviated.

This update would ensure that the FS is more closely aligned with State processes, the process is clarified, and best available data and decision support tools to guide management are utilized at the appropriate spatial scale. It also allows for more flexibility and applicability of the adaptive management process. Impacts on Greater Sage-Grouse and its habitat would be beneficial as a result of this update to adaptive management triggers, providing the ability to detect declining populations and/or habitat and change management on the ground.

4.7.13 CUMULATIVE EFFECTS - TREATMENT OF INVASIVE SPECIES

Direct and indirect effects were discussed in Section 4.5.9. The Proposed Action and the State of Utah Alternative includes the addition of desired conditions, objectives, and management approaches that emphasize invasive plant treatments, with a focus on annual grasses. The impact of invasive species and the effect of treatments on sage-grouse habitat was analyzed in each state 2015 FEIS and analysis is incorporated by reference. Impacts are similar to those disclosed in the 2015 analysis. The addition of these plan components is to emphasize mapping and treatment of invasive species, which are one the greatest threats to greater sage-grouse. Therefore, the addition of the forest plan components will create beneficial cumulative effects.

4.8 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Section 102(2)(C) of NEPA requires a discussion of any irreversible or irretrievable commitments of resources from an alternative, should it be implemented. An irreversible commitment of a resource is one that cannot be reversed, such as the extinction of a species or loss of a cultural resource site without proper documentation; an irretrievable commitment of a resource is one in which the resource or its use is lost for a period of time, such as extraction of oil and gas.

Implementation of the Proposed Action and State of Utah Alternative would still allow for surface-disturbing activities, including mineral and energy development and infrastructure development that would result in irreversible or irretrievable commitments of resources. These surface-disturbing activities

would result in long-term or permanent alterations to soil, removal of vegetation cover, fragmentation of wildlife habitat, and damage to cultural and paleontological resources. Wildlife dependent on affected habitats may be displaced and populations may be reduced as the carrying capacity of the range is reduced.

Increases in sediment, salinity, and nonpoint source pollution that result from these activities could result in degradation of water quality and an irretrievable loss of water utility, aquatic habitats, and aquatic-dependent species. Impacts on these resources are detailed in the 2015 FEIS and ROD, and are not repeated in this DEIS; however, management prescriptions and mitigation prescribed under the existing LMP decisions that are designed to protect greater sage-grouse habitat would reduce the magnitude of these impacts by limiting surface disturbance and disruptive activities.

Because none of the proposed changes identified in this DEIS identify additional irreversible or irretrievable commitments of resources, there is no expectation that impacts additional to or different from those identified in the 2015 FEISs would occur.

4.9 UNAVOIDABLE ADVERSE IMPACTS

Section 102(C) of NEPA requires disclosure of any adverse environmental impacts that could not be avoided should the proposal be implemented. Unavoidable adverse impacts are those that remain following the implementation of mitigation measures or impacts for which there are no mitigation measures. Some unavoidable adverse impacts happen from implementing the LMPA; others are a result of public use of Forest Service-administered lands in the planning area.

There are no unavoidable adverse impacts identified that would be additional to, or different from those identified in the 2015 Final EISs. It is likely that local adverse effects may occur as a result of the implementation of the Proposed Action or State of Utah Alternatives; however, they would be similar to those local adverse effects identified in the 2015 FEISs and would not affect greater sage-grouse conservation.

4.10 RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES AND LONG-TERM PRODUCTIVITY

Section 102(C) of NEPA requires a discussion of the relationship between local, short-term uses of human environment and the maintenance and enhancement of long-term productivity of resources. Short-term is defined as anticipated to occur within the first 5 years of implementation of the activity; long-term is defined as following the first 5 years of implementation but within the life of the LMPA.

Any use of natural resources within the planning area is likely to adversely impact long-term productivity of these natural resources. The short-term uses that would result in the greatest impact on long-term productivity include mineral and energy development, dispersed recreation, livestock grazing, and infrastructure development. These uses result in surface-disturbing and disruptive activities that remove vegetation, increase soil erosion and compaction, create visual intrusions and landscape alterations, increase noise, impair water quality, and degrade and fragment wildlife habitat.

Although management actions, BMPs, surface use restrictions, and lease stipulations are intended to minimize the effect of short-term uses, some impact on long-term productivity of resources would occur, regardless of management approach; however, because allocations are not being affected and impacts as a result of the Proposed Action or State of Utah Alternative would be minimal, no additional or different impacts on short-term uses and long-term productivity than those that were identified in the 2015 FEISs would occur.

Attachment 4



COALITION OF LOCAL GOVERNMENTS

925 SAGE AVENUE, SUITE 302

KEMMERER, WY 83101

COUNTY COMMISSIONS AND CONSERVATION DISTRICTS FOR LINCOLN,
SWEETWATER, Uinta, LITTLE SNAKE, AND SUBLETTE - WYOMING

July 18, 2018

VIA EMAIL

John Shivik
National Sage-Grouse
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Re: July 12, 2018 Cooperating Agency Meeting

Dear Mr. Shivik:

Last week, the U.S. Forest Service held an interactive cooperating agency meeting to discuss potential amendments to the 2015 Sage-Grouse Plans. During the meeting, you requested input on proposed changes to Guideline GRSG-LG-GL-037. This guideline previously implemented habitat objectives found in Table 2 of the Final Environmental Impact Statement such as stubble height and utilization requirements into grazing permits. Now, however, it appears that Table 2 will be eliminated from the 2018 Plan. See Proposed Changes to the Greater Sage-Grouse Forest Plan Amendment in Wyoming at pp. 15 (July 12, 2018).

It has been the Coalition's perspective that the literature and best available science do not support minimum grass height requirements and, moreover, *new literature* demonstrates that grass height objectives in the 2015 plans were premised on a false assumption. Specifically, new research demonstrates that grass around a successful nest is allowed to grow several more days or weeks than the grass around a predated nest, and necessarily, the grass near a predated nest will be less due to the earlier measurement date. During the meeting, you acknowledged this false assumption and, moreover, that science used to justify the habitat objectives in the 2015 Plans was ~~ere~~ too imprecise to require rigid compliance with those objectives.

The Coalition agrees entirely with your assessment. From extensive review of the Administrative Record produced in the Coalition's lawsuit with the U.S. Forest Service and the Bureau of Land Management, it appears that the Table 2 habitat objectives originated from a few Forest Service personnel motivated to remove livestock grazing from forest land.

John Shivik
July 18, 2018
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The problem, however, is that the Forest Service is still implementing the Habitat Assessment Framework (“HAF”) to determine if livestock grazing is “trending away from desired conditions.” Table 5 in the HAF sets out site-scale habitat indicators and suitability characteristics. Chief among those characteristics is perennial grass and forb height of 7 inches or greater. Thus, the proposed plan revisions, although a significant and warranted step in the right direction, do not completely resolve the issue because HAF assumes the validity of, and measures for, the Table 2 criteria.

The HAF rests on the *exact same* literature for the *exact same objectives* that the Forest Service has correctly recognized *should not* be used to determine whether sage-grouse habitat at the site-scale is suitable and whether livestock grazing is impeding those objectives. Put simply, if the Forest Service intends to correct mistakes made in the 2015 Plans, it must do so comprehensively.

Sincerely,

/s/ Kent Connelly
Kent Connelly, Chairman
Coalition of Local Governments

cc: Patricia O’Connor, Bridger-Teton National Forest
Dennis Jaeger, Medicine Bow-Routt National Forest and Thunder Basin National Grassland
John R. Erickson, Ashley National Forest
David Wittekiend, Uinta Wasatch-Cache National Forest

Attachment 5



COALITION OF LOCAL GOVERNMENTS

925 SAGE AVENUE, SUITE 302

KEMMERER, WY 83101

COUNTY COMMISSIONS AND CONSERVATION DISTRICTS FOR LINCOLN,
SWEETWATER, Uinta, Little Snake, and Sublette - WYOMING

June 12, 2018

VIA sandraunderhill@fs.fed.us

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Re: Cooperating Agency Comments to Proposed Key Changes

Dear Ms. Underhill, Ms. Rasure, and Forest Supervisors:

In January, the Wyoming Coalition of Local Governments (“CLG” or “Coalition”) submitted extensive scoping comments to assist the U.S. Forest Service (“Forest Service”) in developing durable and defensible proposed changes to the 2015 Sage-Grouse Plans. The Coalition also commented on the lack of effort by the Forest Service to gain the insights of both state and local government agencies. Since the submission of those comments, the Forest Service has not contacted Coalition members once – no meetings have been held nor has any exchange of information occurred since January to further the Forest Service’s analysis.

On May 31, 2018, certain members of the Coalition were informed that a meeting on June 5 would take place in Cheyenne to discuss proposed changes, the planning process moving forward, and to receive further comment on significant changes that must occur. The Coalition did not receive this information from the Forest Service.

Most Coalition members were unable to travel on such short notice and, with prior obligations, were unable to participate telephonically on June 5. Counsel for the Coalition contacted the Forest Service liaison by email on June 7 to confirm that the Forest Service would be accepting input on a draft document dated June 6 that was titled “Key Changes for Coop Review.” The Forest Service liaison confirmed that comments on the draft document were due June 12 and that the Notice of Intent would be published on June 21.

Thus, the Coalition will have had *a single* opportunity to provide input on a 4 page document that proposes only “key” changes *without any analysis*, disclosure of monitoring data, if any, under the 2015 Plans, or any real attempt to provide meaningful consideration of the changes proposed before the public is given an opportunity to review the Forest Service’s proposed changes. This level of cooperation will not satisfy Forest Service and CEQ regulations.¹

The Coalition provided extensive comments in January that the Forest Service is obligated to consider. The glaring lack of a formal document (rather than a list of “key” changes) demonstrates that the Forest Service does not take seriously it’s duty to “use the environmental analysis and proposals of cooperating agencies . . . to the maximum extent possible.” 40 C.F.R. § 1501.6(a)(2). The Forest Service has literally provided *no evidence* – no documents – other than four pages of “proposed changes” that demonstrate the Forest Service’s commitment to consider cooperating agency input.² The four page document is also apparently responsive to the more than 51,000 scoping comments received by the Forest Service. The Forest Service clearly does not appreciate the flaws in the 2015 Sage-Grouse Plans if after such extensive scoping comments, four pages could cover the changes suggested.

Attached to this letter are the requested comments to the Key Changes document made in track-changes. Because the Forest Service’s proposed changes did not capture even a small fraction of the Coalition’s previous comments, the Coalition added rows for language found in the 2015 ROD that should be revised or deleted entirely along with supporting rationale. Where the Coalition has

¹The Coalition will not belabor the Forest Service’s obligations here as it has in its Scoping Comments from January.

²The Coalition notes that the Forest Service has not, as the date of this letter, extended cooperating agency status to any Coalition member despite special expertise and jurisdiction under law. *See* 40 C.F.R. 1501.6. The Coalition explicitly requests, again, that its members including Sweetwater County, Lincoln County, Sublette County, Sweetwater County Conservation District, Lincoln Conservation District, Sublette County Conservation District, Star Valley Conservation District, and Little Snake Conservation District be offered formal Memoranda of Understanding as Cooperating Agencies to the 2018 Forest Service sage-grouse plan amendments. These comments are submitted on behalf of the Coalition as cooperating agencies.

Sandra Underhill
June 12, 2018
Page 3

added management actions or language that must be revised, the Coalition has provided a pin cite to the exact page in the ROD.

The Coalition looks forward to the next iteration of what the Forest Service consider's "key changes" and will, of course, provide additional information or analysis upon request prior to the public draft if necessary. The Coalition suggests that a cooperating agency meeting would provide an efficient forum to better understand what the Forest Service hopes to accomplish and for the Forest Service to better understand the issues the Coalition members see with leaving the bulk of the plan intact.

Sincerely,

/s/ Kent Connelly
Kent Connelly, Chairman
Coalition of Local Governments