From:	Berglund, Jeff
To:	DElia, Jesse
Cc:	Jason Pyron; Jeffrey Dillon; Steve Abele; Laura Romin; Jessica Gonzales; Pat Deibert; Brent Esmoil; Jodi Bush
Subject:	Re: Matrices for analyzing BLM/FS amendments and revisions
Date:	Thursday, May 23, 2013 2:39:51 PM
Attachments:	FWS GSG RMP Review Matrix 1 JB 3-29-13-blank.xls FWS DRAFT GSG RMP Review Matrix 1 JB 4-08-13-Lewistown RMP D Only.xls FWS GSG RMP Review Matrix 1 JB 4-11-13-Miles City All Alts.xls

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Hi all. Here are three tables I'm tinkering with - one is a blank, and the other two are examples of ongoing reviews here in Montana. The Lewistown table provides comments relative to a preferred alternative only. The Miles City table (in progress and very much in draft form) is addressing all alternatives on the same table - we'll see how this works out... Just call with questions. Thanks,

Jeff

On Wed, May 22, 2013 at 3:59 PM, DElia, Jesse <jesse_delia@fws.gov> wrote:

> There are a number of matrices floating around for analyzing the adequacy of BLM/FS plan revisions and amendments. BLM appears to be moving toward using the NW Colorado format (see below).
>
> We need to figure out what will work best for us (FWS) in the Great Basin - either using existing tools or modifying them to meet our needs. Perhaps we can talk more about this when we are all together in June; or on one of the sage-grouse biologists calls.
>
> -Jesse
>
> P.S. - Jeff, can you send us what you ended up with for Montana?
>
> --
> **Jesse D'Elia**
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USFWS BLM RMP Alternative Review Matrix
BLM Plan:
Program Area:
GSG Population(s):

Issue	Conservation Objective	Conservation Measures / Options	Alternative A	Alternative B	Alternative C	Alternative D	Alternative D	Comments
PACs	Retain sage-grouse habitats within PACs	No conservation measures specified. Are locally-derived measures consistent with conservation objective?						
	If PACs are lost to catastrophic events, implement appropriate restoration efforts	No conservation measures specified. Are locally-derived measures consistent with conservation objective?						
	Restore and rehabilitate degraded sage-grouse habitat within PACS.	No conservation measures specified. Are locally-derived measures consistent with conservation objective?						
	Identify areas and habitats outside of PACs which may be necessary to maintain viability of sage-grouse. If development or vegetation manipulation activities outside of PACs are proposed, the project proponent should work with federal, state or local agencies and interested stakeholders to ensure consistency with sage-grouse habitat needs.	No conservation measures specified. Are locally-derived measures consistent with conservation objective?						
	Re-evaluate the status of PACs and adjacent sage-grouse habitat at least once every 5-years, or when important new information becomes available.	No conservation measures specified. Are locally-derived measures consistent with conservation objective?						
	Actively pursue opportunities to increase occupancy and connectivity between PACs.	No conservation measures specified. Are locally-derived measures consistent with conservation objective?						
	Maintain or improve existing habitat conditions in areas adjacent to burned habitat.	No conservation measures specified. Are locally-derived measures consistent with conservation objective?						
Fire	Retain and restore healthy native SB communities within GSG range	Restrict or contain fire within the normal range of fire activity (assuming a healthy native perennial sagebrush community), including size and frequency, as defined by the best available science.						
		Eliminate intentional fires in sagebrush habitats, including prescribed burning of breeding and winter habitats.						
		Design and implement restoration of burned sagebrush habitats to allow for natural succession to healthy native sagebrush plant communities.						

		Implement monitoring programs for restoration activities. To ensure success, monitoring must continue until restoration is complete, with sufficient commitments to make adequate corrections to management efforts if needed.						
		Immediately suppress fire in all sagebrush habitats.						
		Which (if any) of Options 1a - d were applied?						
		Which (if any) of Options 2a - j were applied?						
		Which (if any) of Options 3a - e were applied?						
		Was Option 4 applied?						
		Were locally derived measures applied consistent with the objective?						
Non-native, Invasive Plant Species -	Maintain and restore healthy, native SB communities	Retain all remaining large intact sagebrush patches, particularly at low elevations.						
		Reduce or eliminate disturbances that promote the spread of these invasive species.						
		Monitor and control invasive vegetation post-wildfire for at least three years.						
		Require best management practices for construction projects in and adjacent to sagebrush habitats to prevent invasion.						
		Restore altered ecosystems such that non-native invasive plants are reduced to levels that do not put the area at risk of conversion if a catastrophic event were to occur.						
		Were locally derived measures applied consistent with the objective?						
Energy Development	Energy development should be designed to insure that it will not impinge upon stable or increasing GSG population trends	Avoid energy development in PACs.						
		If avoidance is not possible in PACs due to pre-existing valid rights, adjacent development, or split estate issues, development should only occur in non-habitat areas, including all appurtenant structures, with an adequate buffer that is sufficient to preclude impacts to sage-grouse habitat from noise, and other human activities.						
		If development must occur in sage-grouse habitats due to existing rights and lack of reasonable alternative avoidance measures, the development should occur in the least suitable habitat for sage-grouse and be designed to ensure at a minimum that there are no detectable declines in sage-grouse population trends (see row below and COT report for measures to implement to facilitate this).						

		Which (if any) of Measure 3a - 3e were applied?						
		Were locally derived measures applied consistent with the objective?						
Sagebrush Removal / Elimination	Avoid SB removal or manipulation in GSG breeding or wintering habitats	No conservation measures specified. Are locally-derived measures consistent with conservation objective?						
Grazing	Conduct grazing management for all ungulates in a manner consistent with local ecological conditions that maintains of restores healthy SB shrub and native perennial grass and forb communities and conserves the essential habitat components for GSG (shrub and nesting cover). Areas which do not currently meet this standard should be managed to restore these components. Adequate monitoring of grazing strategies and their results, with necessary changes in strategies, is essential to ensuring that desired ecological conditions and GSG response are achieved. Livestock and wild ungulate numbers must be managed at levels that allow native sagebrush vegetative communities to minimally achieve Proper Functioning Conditions (PFC; for riparian areas) or Rangeland Health Standards (RHS; uplands).	No conservation measures specified. Are locally-derived measures consistent with conservation objective?						
		Which (if any) of Options 1 - 5 were applied?						
Range Management Structures	Avoid or reduce the impact of RMS on GSG	Range management structures should be designed and placed to be neutral or beneficial to sage-grouse.						
		Structures that are currently contributing to negative impacts to either sage-grouse or their habitats should be removed or modified to remove the threat.						
		Were locally derived measures applied that addressed objective?						
FR Equid Management	Protect sage-grouse from the negative influences of grazing by free roaming equids.	Develop, implement, and enforce adequate regulatory mechanisms to protect sage-grouse habitat from negative influences of grazing by free-roaming equids.						
		Manage free-roaming equids at levels that allow native sagebrush vegetative communities to minimally achieve PFC (for riparian areas) or RHS (for uplands).						
		Were locally derived measures applied consistent with the objective?						
Pinyon-juniper Expansion / Conifers	Remove pinyon-juniper from areas of SB that are most likely to support GSG (post-removal) at a rate at least equal to the rate of p-j incursion	No conservation measures specified. Are locally-derived measures consistent with conservation objective?						
		Which (if any) of Options 1 - 4 were applied?						

Agricultural Conversion	Avoid further loss of sagebrush habitat for agricultural activities (both animal and plant production) and prioritize restoration. In areas where taking agricultural lands out of production has benefited GSG, the programs supporting these actions should be targeted and continued (e.g., CRP/SAFE). Threat amelioration activities should, at a minimum, be prioritized within PACS, but should be considered in all GSG habitats.	No conservation measures specified. Are locally-derived measures consistent with conservation objective?						
		Which (if any) of Options 1 - 4 were applied?						
Mining	Maintain stable to increasing GSG populations and no net loss of GSG habitats in areas affected by mining	No conservation measures specified. Are locally-derived measures consistent with conservation objective?						
		Which (if any) of Options 1 - 4 were applied?						
Recreation	In areas subjected to recreational activities, maintain healthy native SB communities based on local ecological conditions and with consideration of drought conditions, and manage direct and indirect human disturbance (including noise) to avoid interruption of normal GSG behavior.	No conservation measures specified. Are locally-derived measures consistent with conservation objective?						
		Which (if any) of Options 1 - 2 were applied?						
Ex-Urban Development / Urbanization	Limit urban and exurban development in GSG habitats and maintain intact native SB communities	No conservation measures specified. Are locally-derived measures consistent with conservation objective?						
		Which (if any) of Options 1 - 5 were applied?						
Infrastructure	Avoid development of infrastructure within PACs	No new development of infrastructure within PACs. Designated, but not yet developed infrastructure corridors should be re-located outside of PACs unless it can be demonstrated that these corridors will have no impacts on the maintenance of neutral or positive sage-grouse population trends or habitats. New infrastructure should be avoided where individual state plans have identified key connectivity corridors outside of PACs.						
		Where state sage-grouse management plans provide an effective strategy for infrastructure those strategies should be implemented. In all other situations the conservation options in the COT report should be considered.						
		Which (if any) of Options 1 - 10 were applied?						
		Were locally derived measures applied consistent with the objective?						
Fences	Minimize the impact of fences on GSG populations	No conservation measures specified. Are locally-derived measures consistent with conservation objective?						
		Which (if any) of Options 1 - 3 were applied?						

USFWS BLM RMP Alternative Review Matrix (DRAFT 4/8/13)
BLM Plan: Lewistown FO Admin Draft EA
Program Area: All
GSG Population(s): Yellowstone Watershed and Belt Mountains

Issue & Ratings (2013 COT Report)	Conservation Objective	Conservation Measures / Options	Alternative D
PACs (no ratings)	Retain sage-grouse habitats within PACs	No conservation measures specified. Is conservation objective addressed applying locally-derived measures?	TTM-Existing=Y; Future=Unk: CTTM w/in 5 years of ROD and no interim measures specified. REC=NA. LAR=Unk (avoidance, not exclusion; additional bio rationale needed; mitigation/conservation measures undefined). RM=Potentially (unsure of timelines involved for land health assessments and corrective actions). FM-New=Y (deferred); Existing=Unk (not excluded in PACs, measures still need work). SM=Unk (not excluded in PACs, but BMPs may apply-mining not threat). FFM=Y. HVRM=NA. ACEC=NA
	If PACs are lost to catastrophic events, implement appropriate restoration efforts	No conservation measures specified. Is conservation objective addressed applying locally-derived measures?	FFM=Y (ES&R). HRVM=Y (restoration in PH is prioritized for GSG, but unclear if PH restoration projects receive priority over other projects in case of catastrophic event).
	Restore and rehabilitate degraded sage-grouse habitat within PACS.	No conservation measures specified. Is conservation objective addressed applying locally-derived measures?	TTM=Unk; may currently restore/close roads; CTTM w/in 5 years of ROD and no interim measures specified. REC=NA. LAR=Y (abandoned powerline and FLPMA ROW reclamation). RM=Potentially (unsure of timelines involved for land health assessments and corrective actions). FM-New=NA (deferred); Existing=Y (reclaim project disturbance). SM=Y (reclaim project disturbance). FFM=Y (ES&R). HRVM=Y(restoration in PH is prioritized for GSG, but unclear if PH restoration projects receive priority over other projects). ACEC=NA
	Identify areas and habitats outside of PACs which may be necessary to maintain viability of sage-grouse. If development or vegetation manipulation activities outside of PACs are proposed, the project proponent should work with federal, state or local agencies and interested stakeholders to ensure consistency with sage-grouse habitat needs.	No conservation measures specified. Is conservation objective addressed applying locally-derived measures?	TTM-Existing=Y; Future=Unk: CTTM w/in 5 years of ROD and no interim measures specified. REC=N (PH measures only). LAR=Partially (PH avoidance all ROWs; GH avoidance for wind only); RM=Partially (PH for most measues; GH included in some). FM-New=Y (deferred); Existing=Partially (measures apply to PH and GH, but still need work). SM=Partially (PH for most measues; GH included in some). FFM=Y. HVRM=N (PH only). ACEC=NA
	Re-evaluate the status of PACs and adjacent sage-grouse habitat at least once every 5-years, or when important new information becomes available.	No conservation measures specified. Is conservation objective addressed applying locally-derived measures?	All - unknown as to if/when such re-evaluations are proposed. Assume this would occur at project level, and in conjunction with land health assessments - but proposed formalized review period unknown.
	Actively pursue opportunities to increase occupancy and connectivity between PACs.	No conservation measures specified. Is conservation objective addressed applying locally-derived measures?	LAR-Partially ("when offered", PH a priority for acquisition). No active pursuit.
	Maintain or improve existing habitat conditions in areas adjacent to (currently) burned habitat.	No conservation measures specified. Is conservation objective addressed applying locally-derived measures?	FFM and HRVM: Potentially (not specifically addressed; may be NA)
Fire - YW = L; BM = L	Retain and restore healthy native SB communities within GSG range	Restrict or contain fire within the normal range of fire activity (assuming a healthy native perennial sagebrush community), including size and frequency, as defined by the best available science.	FFM=Unk (not specifically addressed)
		Eliminate intentional fires in sagebrush habitats, including prescribed burning of breeding and winter habitats.	FFM=N
		Design and implement restoration of burned sagebrush habitats to allow for natural succession to healthy native sagebrush plant communities.	FFM=Y. HRVM=Y .

		Implement monitoring programs for restoration activities. To ensure success, monitoring must continue until restoration is complete, with sufficient commitments to make adequate corrections to management efforts if needed.	RM=Potentially (unsure of timelines involved for land health assessments and corrective actions). FFM=unk ("appropriate" monitoring is proposed, but undefined). HRVM=N (none specified)
		Immediately suppress fire in all sagebrush habitats.	FFM=N (PH only, or GH where threatenes PH)
		Which (if any) of Options 1a - d were applied?	RM=1b&c (address improper grazing). FFM=1a (perennial grassland restoration). HRVM=1a.
		Which (if any) of Options 2a - j were applied?	FFM=2e (training); 2f (conifer removal); 2i (pre-positioning).
		Which (if any) of Options 3a - e were applied?	FFM = 3c (apply seed where effective); 3d (GSG needs in restoration efforts); 3e (prioritize PACs for restoration). HRVM=3c, d, e.
		Was Option 4 applied?	FFM=N
		Were locally derived measures applied that addressed objective?	RM=Potentially (unsure of timelines involved for land health assessments and corrective actions). FFM=Partially (Y within PACs). HVRM=Partially (Y within PACs)
Non-native, Invasive Plant Species - Weeds/Annual Grasses YW = Y; BM = Y	Maintain and restore healthy, native SB communities	Retain all remaining large intact sagebrush patches, particularly at low elevations.	TTM-Existing=Y; Future=Unk: CTTM w/in 5 years of ROD and no interim measures specified. REC=NA. LAR=N. RM=Y. FM-New=Y (deferred); Existing=N. SM=N. FFM=NA. HRVM=NA. ACEC=N
		Reduce or eliminate disturbances that promote the spread of these invasive species.	TTM-Existing=Y; Future=Unk: CTTM w/in 5 years of ROD and no interim measures specified. REC=Y. LAR=Y (reduce). RM=Potentially (unsure of timelines involved for land health assessments and corrective actions). FM-New=Y (deferred); Existing=Y (reduce). SM=Y (reduce). FFM=Y (reduce). HRVM=Y. ACEC=NA
		Monitor and control invasive vegetation post-wildfire for at least three years.	TTM=NA. REC=NA. LAR=NA. RM=N. FM=NA. SM=NA. FFM=N. HRVM=N
		Require best management practices for construction projects in and adjacent to sagebrush habitats to prevent invasion.	TTM-Existing=Y; Future=Unk: CTTM w/in 5 years of ROD and no interim measures specified. REC=NA. LAR=Unk (no measures specified). RM=Y. FM-New=NA (deferred); Existing=Y (RDFs). SM=Y (BMPs). FFM=NA. HRVM=NA. ACEC=NA
		Restore altered ecosystems such that non-native invasive plants are reduced to levels that do not put the area at risk of conversion if a catastrophic event were to occur.	TTM=Unk; may currently restore/close roads; CTTM w/in 5 years of ROD and no interim measures specified. REC=NA. LAR=Y (abandoned powerlines/FLPMA ROWs). RM=Potentially (unsure of timelines involved for land health assessments and corrective actions). FM-New=NA (deferred); Existing=Y (reclaim project disturbance). SM=Y (reclaim project disturbance). FFM=Y (ES&R). HRVM=Y(restoration in PH is prioritized for GSG, but unclear if PH restoration projects receive priority over other projects). ACEC=NA
		Were locally derived measures applied that addressed objective?	TTM-Partially: Existing=Y; Future=Unk: CTTM w/in 5 years of ROD and no interim measures specified. REC=Y. LAR=Partially. RM=Potentially, but unsure of timelines involved for land health assessments. FM-New=Y (deferred); Existing=Partially (minimize & restore/reclaim). SM=Partially (minimize & restore/reclaim). FFM=Y. HRVM=Y. ACEC=N
Energy Development YW = Y; BM = L	Energy development should be designed to insure that it will not impinge upon stable or increasing GSG population trends	Avoid energy development in PACs. Identify areas where leasing is not acceptable, or not acceptable without stipulations for surface occupancy that maintains sage-grouse habitats.	TTM-Existing=Y; Future=Unk: CTTM w/in 5 years of ROD and no interim measures specified. REC=NA; LAR=Unk (avoidance, not exclusion; additional bio rationale needed, no RDFs for Wind). RM=NA. FM-New=Y (deferred); Existing=Unk (measures proposed, but no surf disturbance cap; no mitigation trigger or definition of "acceptable levels"; no buffers). SM=NA (no coal). FFM=NA. HRVM=NA. ACEC=NA
		If avoidance is not possible in PACs due to pre-existing valid rights, adjacent development, or split estate issues, development should only occur in non-habitat areas, including all appurtenant structures, with an adequate buffer that is sufficient to preclude impacts to sage-grouse habitat from noise, and other human activities.	TTM-Existing=Y; Future=Unk: CTTM w/in 5 years of ROD and no interim measures specified. REC=NA. LAR=Unk (avoidance, not exclusion, and no buffers). RM=NA. FM-New=Y (deferred); Existing=N (development not restricted to non-habitat; no buffers). SM=NA (no coal). FFM=NA. HRVM=NA. ACEC=NA

		If development must occur in sage-grouse habitats due to existing rights and lack of reasonable alternative avoidance measures, the development should occur in the least suitable habitat for sage-grouse and be designed to ensure at a minimum that there are no detectable declines in sage-grouse population trends (see row below and COT report for measures to facilitate this).	TTM-Existing=Y; Future=Unk: CTTM w/in 5 years of ROD and no interim measures specified. REC=NA. LAR=Unk (appropriate measures to be developed). RM=NA. FM-New=Y (deferred); Existing= N (development not restricted to least suitable habitat). SM=NA (no coal). FFM=NA. HRVM=NA. ACEC=NA					
		Which (if any) of Measure 3a - 3e were applied?	TTM=Unk: CTTM w/in 5 years of ROD and no interim measures specified. REC=NA. LAR=3c (condolidate structures); 3d (reclamation). RM=NA. FM-New=NA (deferred); Existing=3c (condolidate structures); 3d (reclamation); 3e (minimize tall structures). SM=NA (no coal). FFM=NA. HRVM=NA. ACEC=NA					
		Were locally derived measures applied that addressed objective?	TTM-Existing=Y; Future=Unk: CTTM w/in 5 years of ROD and no interim measures specified. REC=NA. LAR=Partially/Unk (appropriate measures to be developed). RM=NA. FM-New=Y (deferred); Existing=Partially/Unk (some good measures proposed, but no surf disturbance cap; no mitigation trigger or definition of "acceptable levels"; no buffers; additional restrictions "may be added", etc.). SM=NA (no coal). FFM=NA. HRVM=NA. ACEC=NA					
Sagebrush Removal / Elimination YW = L; BM = L	Avoid SB removal or manipulation in GSG breeding or wintering habitats	No conservation measures specified. Is conservation objective addressed applying locally-derived measures?	FFM=N (conditional SB burning allowed for protection and habitat quality conservation; avoid winter range). See also Energy Development, Agricultural Conversion, Infrastructure, Mining, Urbanization.					
Grazing YW = Y; BM = Y	Conduct grazing management for all ungulates in a manner consistent with local ecological conditions that maintains of restores healthy SB shrub and native perennial grass and forb communities and conserves the essential habitat components for GSG (shrub and nesting cover). Areas which do not currently meet this standard should be managed to restore these components. Adequate monitoring of grazing strategies and their results, with necessary changes in strategies, is essential to ensuring that desired ecological conditions and GSG response are achieved. Livestock and wild ungulate numbers must be managed at levels that allow native sagebrush vegetative communities to minimally achieve Proper Functioning Conditions (PFC; for riparian areas) or Rangeland Health Standards (RHS; uplands).	No conservation measures specified. Is conservation objective addressed applying locally-derived measures?	TTM=NA, REC=NA, LAR=NA. RM=Potentially, but unsure of timelines involved for land health assessments and corrective actions. FM=NA. SM=NA. FFM=Y (post-fire rest; fuels reduction). HRVM=Y (post-restoration management could include grazing modifications). ACEC=NA					
		Which (if any) of Options 1 - 5 were applied?	TTM=NA, REC=NA, LAR=NA. RM=1 (ensure allotments meet ecological potential), 2 (inform permittees re GSG needs), 3 (include desired conditions in allotment management plans), 4 (assess habitat-make adjustments). FM=NA. SM=NA. FFM=NA. HRVM=NA. ACEC=NA					
Range Management Structures (no ratings)	Avoid or reduce the impact of RMS on GSG	Range management structures should be designed and placed to be neutral or beneficial to sage-grouse.	TTM-Existing=Y; Future=Unk: CTTM w/in 5 years of ROD and no interim measures specified. RM=Y					
		Structures that are currently contributing to negative impacts to either sage-grouse or their habitats should be removed or modified to remove the threat.	RM=N; states structures will be evaluated periodically, but no commitment to modify/remove problem structures other than fences.					
		Were locally derived measures applied that addressed objective?	TTM-Existing=Y; Future=Unk: CTTM w/in 5 years of ROD and no interim measures specified. RM-Existing=partially (fences only); Future=Y					
FR Equid Management (NA in Montana)	Protect sage-grouse from the negative influences of grazing by free roaming equids.	Develop, implement, and enforce adequate regulatory mechanisms to protect sage-grouse habitat from negative influences of grazing by free-roaming equids.	NA	NA	NA	NA	NA	NA

		Manage free-roaming equids at levels that allow native sagebrush vegetative communities to minimally achieve PFC (for riparian areas) or RHS (for uplands).	NA	NA	NA	NA	NA	NA
		Locally derived measures applied that achieve objective?	NA	NA	NA	NA	NA	NA
Pinyon-juniper Expansion / Conifers YW = L; BM = L	Remove pinyon-juniper from areas of SB that are most likely to support GSG (post-removal) at a rate at least equal to the rate of p-j incursion	No conservation measures specified. Is conservation objective addressed applying locally-derived measures?	FFM=Partially (tree removal w/in 100m of leks and other habitats). HRVM=N. Not specified elsewhere.					
		Which (if any) of Options 1 - 4 were applied?	FFM=Unk. HRVM=Unk.					
Agricultural Conversion YW = Y; BM = Y	Avoid further loss of sagebrush habitat for agricultural activities (both animal and plant production) and prioritize restoration. In areas where taking agricultural lands out of production has benefited GSG, the programs supporting these actions should be targeted and continued (e.g., CRP/SAFE). Threat amelioration activities should, at a minimum, be prioritized within PACS, but should be considered in all GSG habitats.	No conservation measures specified. Is conservation objective addressed applying locally-derived measures?	TTM=NA, REC=NA, LAR=NA. RM=Potentially, but unsure of timelines involved for land health assessments and corrective actions. FM=NA. SM=NA. FFM=NA. HRVM=Potentially (restoration in PH is prioritized for GSG, but unclear if PH restoration projects receive priority over other projects). ACEC=NA					
		Which (if any) of Options 1 - 4 were applied?	TTM=NA, REC=NA, LAR=NA. RM=NA. FM=NA. SM=NA. FFM=NA. HVRM=NA. ACEC=NA					
Mining YW = N; BM = N	Maintain stable to increasing GSG populations and no net loss of GSG habitats in areas affected by mining	No conservation measures specified. Is conservation objective addressed applying locally-derived measures?	SM=Partially (no coal resources present; open to development contingent on Env. Review and BMPs - but no "no net loss" policy, required mitigation, timing restrictions, buffers, etc. included in BMPs).					
		Which (if any) of Options 1 - 4 were applied?	SM=4 (reclamation to healthy SB system)					
Recreation YW = L; BM = L	In areas subjected to recreational activities, maintain healthy native SB communities based on local ecological conditions and with consideration of drought conditions, and manage direct and indirect human disturbance (including noise) to avoid interruption of normal GSG behavior.	No conservation measures specified. Is conservation objective addressed applying locally-derived measures?	TTM-Existing=Y; Future=Unk: CTTM w/in 5 years of ROD and no interim measures specified. REC=Y.					
		Which (if any) of Options 1 - 2 were applied?	None					
Ex-Urban Development / Urbanization YW = N; BM = L	Limit urban and exurban development in GSG habitats and maintain intact native SB communities	No conservation measures specified. Is conservation objective addressed applying locally-derived measures?	See Infrastructure					
		Which (if any) of Options 1 - 5 were applied?	LAR=5 (retain PH in public ownership)					
Infrastructure YW = Y; BM = L	Avoid development of infrastructure within PACs	No new development of infrastructure within PACs. Designated, but not yet developed infrastructure corridors should be re-located outside of PACs unless it can be demonstrated that these corridors will have no impacts on the maintenance of neutral or positive sage-grouse population trends or habitats. New infrastructure should be avoided where individual state plans have identified key connectivity corridors outside of PACs.	TTM-Existing=Y; Future=Unk: CTTM w/in 5 years of ROD and no interim measures specified. REC=NA. LAR=Unk (ROW avoidance, not exclusion; additional bio rationale needed). RM=NA (see RM Structures and Fences). FM-New=Y (deferred); Existing=Unk (infrastructure not precluded in PACs, powerlines required to "not impact" GSG; site linear ROW to "reduce" SB disturbance; maximize consolidation of utility corridors - not tied directly to GSG pop trends/habitats). SM=Unk (infrastructure not precluded in PACs, but BMPs may apply). FFM=NA. HVRM=NA. ACEC=NA					

		Where state sage-grouse management plans provide an effective strategy for infrastructure those strategies should be implemented. In all other situations the conservation options in the COT report should be considered.	NA-In Process
		Which (if any) of Options 1 - 10 were applied?	TTM-Existing=4(Y);10(Unk); Future=Unk: CTTM w/in 5 years of ROD and no interim measures specified. REC=NA. LAR =2 (consolidate - but no habitat function mitigation) and 5 (removal/reclamation). RM=NA (see RM Structures and Fences). FM-New=NA; Existing=2a (bury distribution lines; consolidate; but no habitat function mitigation); 7 (noise). SM=None (but BMPs may apply). FFM=NA. HVRM=NA. ACEC=NA
		Were locally derived measures applied that addressed objective?	TTM-Existing=Y; Future=Unk: CTTM w/in 5 years of ROD and no interim measures specified. REC=NA. LAR=Partially/Unk (appropriate measures to be developed). RM=NA (see RM Structures and Fences). FM-New=Y (deferred); Existing=Partially/Unk (some good measures proposed, but no surf disturbance cap; no mitigation trigger or definition of "acceptable levels"; no buffers; additional restrictions "may be added", etc.). SM=Partially/Unk (discretionary BMPs; however, Mining not an identified threat). FFM=NA. HVRM=NA. ACEC=NA
Fences (no ratings)	Minimize the impact of fences on GSG populations	No conservation measures specified. Is conservation objective addressed applying locally-derived measures?	RM=Y, although fence marking only (no problem fence removal proposed)
		Which (if any) of Options 1 - 3 were applied?	RM=N; No distances from leks specified and no problem fence removal proposed.

Threat Ratings

Y: Pres. and Widespread
L: Pres. and Localized
N: Not Known to be Pres.
NA

Conservation Measures / Options (Subjective Rating Continuim)

High Concern &/or Measure Not Applied
↑
↑
Lower Concern &/or Measure Applied
NA

Programs

TTM = Travel and Transportation Management (CTTM = Comprehensive Travel and Transportation Management)
REC = Recreation
LAR = Lands and Realty
RM = Range Management
FM = Fluid Minerals
SM = Solid Minerals
FFM = Fire and Fules Management
HRVM = Habitat Restoration and Vegetation Management
ACEC = Areas of Critical Environmental Concern

USFWS BLM RMP Alternative Review Matrix
BLM Plan: Miles City Field Office
Program Area: All
GSG Population(s): *Yellowstone Watershed, Powder River Basin

Issue	Conservation Objective	Conservation Measures / Options	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Management Common to All Alternatives & Comments
PACs	Retain sage-grouse habitats within PACs	No conservation measures specified. Are locally-derived measures consistent with conservation objective?	No PACS. SG Action 4:N; PPA Action 37:N	SG Action 4:Y; PPA Action 37:Y	SG Action 4:N:	SG Action 4:N:	SG Action 4:U;	PPA Action 25:U; PPA Action 5:Y; PPA Action 6:Y?
	If PACs are lost to catastrophic events, implement appropriate restoration efforts	No conservation measures specified. Are locally-derived measures consistent with conservation objective?	No PACS.					PPA Action 2:Y?; PPA Action 8:Y?; PPA Action 25:Y?; PPA Action 34:Y?; PPA Action 35:Y?; RA Action 2:Y?
	Restore and rehabilitate degraded sage-grouse habitat within PACS.	No conservation measures specified. Are locally-derived measures consistent with conservation objective?	No PACS.					PPA Action 2:Y?; PPA Action 8:Y?; PPA Action 25:Y?; PPA Action 32:Y?; PPA Action 34:Y?; PPA Action 35:Y?; RA Action 2:Y?
	Identify areas and habitats outside of PACs which may be necessary to maintain viability of sage-grouse. If development or vegetation manipulation activities outside of PACs are proposed, the project proponent should work with federal, state or local agencies and interested stakeholders to ensure consistency with sage-grouse habitat needs.	No conservation measures specified. Are locally-derived measures consistent with conservation objective?	No PACS.					
	Re-evaluate the status of PACs and adjacent sage-grouse habitat at least once every 5-years, or when important new information becomes available.	No conservation measures specified. Are locally-derived measures consistent with conservation objective?	No PACS.					
	Actively pursue opportunities to increase occupancy and connectivity between PACs.	No conservation measures specified. Are locally-derived measures consistent with conservation objective?	SG Action 2:Y?;					SG Action 2:Y; RA Action 2:Y?
	Maintain or improve existing habitat conditions in areas adjacent to burned habitat.	No conservation measures specified. Are locally-derived measures consistent with conservation objective?						PPA Action 2:Y; RA Action 2:Y?
Fire - YW = L; PRB = L	Retain and restore healthy native SB communities within GSG range	Restrict or contain fire within the normal range of fire activity (assuming a healthy native perennial sagebrush community), including size and frequency, as defined by the best available science.						PPA Action 25: U; PPA Action 29:N
		Eliminate intentional fires in sagebrush habitats, including prescribed burning of breeding and winter habitats.						PPA Action 2:N; PPA Action 25:U; PPA Action 29:N; RA Action 2:N
		Design and implement restoration of burned sagebrush habitats to allow for natural succession to healthy native sagebrush plant communities.						PPA Action 2:Y; PPA Action 25:Y? PPA Action 29:Y?; PPA Action 34:Y?; PPA Action 35:Y?; RA Action 2:Y?

		Implement monitoring programs for restoration activities. To ensure success, monitoring must continue until restoration is complete, with sufficient commitments to make adequate corrections to management efforts if needed.						PPA Action 2:U; PPA Action 25:U; RA Action 2:U
		Immediately suppress fire in all sagebrush habitats.						PPA Action 25:N
		Which (if any) of Options 1a - d were applied?						PPA Action 25:a?b?c?; PPA Action 34/35:a?;
		Which (if any) of Options 2a - j were applied?						PPA Action 25:b?i?j?
		Which (if any) of Options 3a - e were applied?						PPA Action 2:d; PPA Action 25:b?c?d?; PPA Action 34/35:d?; RA Action 2:d
		Was Option 4 applied?						No
		Were locally derived measures applied consistent with the objective?						PPA Action 2:Y; PPA Action 25:Y?; RA Action 2:Y?
Non-native, Invasive Plant Species - Weeds/Annual Grasses YW = Y; PRB = Y	Maintain and restore healthy, native SB communities	Retain all remaining large intact sagebrush patches, particularly at low elevations.						PPA Action 25:N; PPA Action 31:U
		Reduce or eliminate disturbances that promote the spread of these invasive species.						PPA Action 25:Y?; PPA Action 31:U; PPA Action 32:Y?
		Monitor and control invasive vegetation post-wildfire for at least three years.						PPA Action 25:N; PPA Action 31:U
		Require best management practices for construction projects in and adjacent to sagebrush habitats to prevent invasion.						PPA Action 25:U; PPA Action 31:U; PPA Action 34:Y?; PPA Action 35:Y?;
		Restore altered ecosystems such that non-native invasive plants are reduced to levels that do not put the area at risk of conversion if a catastrophic event were to occur.						PPA Action 2:Y; PPA Action 25:U; PPA Action 32:Y?; PPA Action 34:Y?; PPA Action 35:Y?; RA Action 2:Y?
		Were locally derived measures applied consistent with the objective?						PPA Action 2:Y; PPA Action 25:Y?; PPA Action 31:U; RA Action 2:Y?
Energy Development YW = Y; PRB = Y	Energy development should be designed to insure that it will not impinge upon stable or increasing GSG population trends	Avoid energy development in PACs.	PPA Action 37:N	PPA Actions 4/25:Y?; PPA Action 37 (PPA):Y; PPA Action 37 (RA):U	PPA Actions 4/25:Y?; PPA Action 37 (PPA):Y; PPA Action 37 (RA):U	PPA Actions 4/25:Y?; PPA Action 37 (PPA):U; PPA Action 37 (RA):N	PPA Actions 4/25:Y?; PPA Action 37 (PPA):Y; PPA Action 37 (RA):U	SG Action 1:U; PPA Action 3:U; RA Action 3:U; No specifics provided for geothermal leasing.
		If avoidance is not possible in PACs due to pre-existing valid rights, adjacent development, or split estate issues, development should only occur in non-habitat areas, including all appurtenant structures, with an adequate buffer that is sufficient to preclude impacts to sage-grouse habitat from noise, and other human activities.	PPA Action 37:N	PPA Action 4/25:Y?; PPA Action 37 (PPA):Y?; PPA Action 37 (RA):U	PPA Action 4/25:Y?; PPA Action 37 (PPA):Y?; PPA Action 37 (RA):U	PPA Action 4/25:U; PPA Action 37 (PPA):U; PPA Action 37 (RA):N	PPA Action 4/25:U; PPA Action 37 (PPA):Y?; PPA Action 37 (RA):U	SG Action 1:U; PPA Action 3:U; RA Action 3:U; No specifics provided for geothermal leasing.

		If development must occur in sage-grouse habitats due to existing rights and lack of reasonable alternative avoidance measures, the development should occur in the least suitable habitat for sage-grouse and be designed to ensure at a minimum that there are no detectable declines in sage-grouse population trends (see row below and COT report for measures to implement to facilitate this).	PPA Action 37:N	PPA Action 4/25:Y?; PPA Action 37 (PPA):Y?; PPA Action 37 (RA):U	PPA Action 4/25:Y?; PPA Action 37 (PPA):Y?; PPA Action 37 (RA):U	PPA Action 4/25:U; PPA Action 37 (PPA):U; PPA Action 37 (RA):N	PPA Action 4/25:U; PPA Action 37 (PPA):Y?; PPA Action 37 (RA):U	SG Action 1:U; PPA Action 3:U; RA Action 3:U; No specifics provided for geothermal leasing.
		Which (if any) of Measure 3a - 3e were applied?		PPA Action 4/25/37:a,b,c?,e?	PPA Action 4/25/37:a,b,c?,e?	PPA Action 4/25/37:c?e?	PPA Action 4/25/37:a?b?c?e?	SG Action 1:U; PPA Action 3:U; RA Action 3:U; No specifics provided for geothermal leasing.
		Were locally derived measures applied consistent with the objective?	PPA Action 37:N	PPA Action 4/25:Y?; PPA Action 37 (PPA):Y?; PPA Action 37 (RA):U	PPA Action 4/25:Y?; PPA Action 37 (PPA):Y?; PPA Action 37 (RA):U	PPA Action 4/25:U; PPA Action 37 (PPA):U; PPA Action 37 (RA):N	PPA Action 4/25:U; PPA Action 37 (PPA):Y?; PPA Action 37 (RA):U	SG Action 1:U; PPA Action 3:U; RA Action 3:U; No specifics provided for geothermal leasing.
Sagebrush Removal / Elimination YW = L; PRB = L	Avoid SB removal or manipulation in GSG breeding or wintering habitats	No conservation measures specified. Are locally-derived measures consistent with conservation objective?	PPA Action 37:N					PPA Action 25/36:N
Grazing YW = Y; PRB = Y	Conduct grazing management for all ungulates in a manner consistent with local ecological conditions that maintains of restores healthy SB shrub and native perennial grass and forb communities and conserves the essential habitat components for GSG (shrub and nesting cover). Areas which do not currently meet this standard should be managed to restore these components. Adequate monitoring of grazing strategies and their results, with necessary changes in strategies, is essential to ensuring that desired ecological conditions and GSG response are achieved. Livestock and wild ungulate numbers must be managed at levels that allow native sagebrush vegetative communities to minimally achieve Proper Functioning Conditions (PFC; for riparian areas) or Rangeland Health Standards (RHS; uplands).	No conservation measures specified. Are locally-derived measures consistent with conservation objective?	SG Action 3:N; PPA Action 37:U	SG Action 3:Y;	SG Action 3:Y;	SG Action 3:Y;	SG Action 3:Y;	PPA Action 17/25:Y?; PPA Action 18:U; PPA Action 19:Y; PPA Action 20:Y; PPA Action 21:Y?; PPA Action 24:U
		Which (if any) of Options 1 - 5 were applied?						PPA Action 17/25:1?3?4?
Range Management Structures (no ratings)	Avoid or reduce the impact of RMS on GSG	Range management structures should be designed and placed to be neutral or beneficial to sage-grouse.	PPA Action 37:N					PPA Action 1:Y; PPA Action 22:U; PPA Action 25:Y?; RA Action 1:Y?
		Structures that are currently contributing to negative impacts to either sage-grouse or their habitats should be removed or modified to remove the threat.						PPA Action 23:Y?; PPA Action 25:N
		Were locally derived measures applied consistent with the objective?						

FR Equid Management (NA in Montana)	Protect sage-grouse from the negative influences of grazing by free roaming equids.	Develop, implement, and enforce adequate regulatory mechanisms to protect sage-grouse habitat from negative influences of grazing by free-roaming equids.	NA	NA	NA	NA	NA	NA
		Manage free-roaming equids at levels that allow native sagebrush vegetative communities to minimally achieve PFC (for riparian areas) or RHS (for uplands).	NA	NA	NA	NA	NA	NA
		Locally derived measures applied consistent with the objective?	NA	NA	NA	NA	NA	NA
Pinyon-juniper Expansion / Conifers YW = L; PRB = L	Remove pinyon-juniper from areas of SB that are most likely to support GSG (post-removal) at a rate at least equal to the rate of p-j incursion	No conservation measures specified. Is conservation objective addressed applying locally-derived measures?						PPA Action 25:U
		Which (if any) of Options 1 - 4 were applied?						PPA Action 25:1?
Agricultural Conversion YW = Y; PRB = N	Avoid further loss of sagebrush habitat for agricultural activities (both animal and plant production) and prioritize restoration. In areas where taking agricultural lands out of production has benefited GSG, the programs supporting these actions should be targeted and continued (e.g., CRP/SAFE). Threat amelioration activities should, at a minimum, be prioritized within PACS, but should be considered in all GSG habitats.	No conservation measures specified. Are locally-derived measures consistent with conservation objective?	PPA Action 37:N					PPA Action 25:N
		Which (if any) of Options 1 - 4 were applied?						
Mining YW = N; PRB = Y	Maintain stable to increasing GSG populations and no net loss of GSG habitats in areas affected by mining	No conservation measures specified. Are locally-derived measures consistent with conservation objective?	PPA Action 37:U	PPA Action 37:U	PPA Action 37:U	PPA Action 37:U	PPA Action 37:U	PPA Action 2:U; PPA Action 26:N; PPA Action 27:U; PPA Action 28:U; RA Action 2:U
		Which (if any) of Options 1 - 4 were applied?						PPA Action 2/34/35:4?
Recreation YW = L; PRB = N	In areas subjected to recreational activities, maintain healthy native SB communities based on local ecological conditions and with consideration of drought conditions, and manage direct and indirect human disturbance (including noise) to avoid interruption of normal GSG behavior.	No conservation measures specified. Are locally-derived measures consistent with conservation objective?						PPA Action 7/33:U; PPA Action 8/25:Y?; PPA Action 10:U; PPA Action 11:U; PPA Action 12:U
		Which (if any) of Options 1 - 2 were applied?						
Ex-Urban Development / Urbanization YW = N; PRB = L	Limit urban and exurban development in GSG habitats and maintain intact native SB communities	No conservation measures specified. Are locally-derived measures consistent with conservation objective?	PPA Action 37:N					PPA Action 25:N
		Which (if any) of Options 1 - 5 were applied?						
Infrastructure YW = Y; PRB = Y	Avoid development of infrastructure within PACs	No new development of infrastructure within PACs. Designated, but not yet developed infrastructure corridors should be re-located outside of PACs unless it can be demonstrated that these corridors will have no impacts on the maintenance of neutral or positive sage-grouse population trends or habitats. New infrastructure should be avoided where individual state plans have identified key connectivity corridors outside of PACs.	PPA Action 37:N	PPA Action 4:Y?; PPA Action 37:Y	PPA Action 4:U; PPA Action 37:Y	PPA Action 4:U; PPA Action 37:U	PPA Action 4:U; PPA Action 37:N	PPA Action 7/33:U; PPA Action 8:U: PPA Action 10:U; PPA Action 11:U; PPA Action 13:N; PPA Action 14:Y; PPA Action 15/25:U; PPA Action 16:Y; Existing motorized travel restricted to existing roads/trails, but new travel unclear: recommend interim travel plan

		Where state sage-grouse management plans provide an effective strategy for infrastructure those strategies should be implemented. In all other situations the conservation options in the COT report should be considered.						
		Which (if any) of Options 1 - 10 were applied?		PPA Action 37:1,2?,3?,6?,9?	PPA Action 37:1,2?,3?,6?,9	PPA Action 37:1?,2?,3?,6?,9		PPA Action 4:1?,4?,6?,7?9?; PPA Action 8:1?5?10?; PPA Action 15/25:3?5?6?; PPA Action 16:11; PPA Action 32:5?10?; PPA Action 34/35:8?
		Were locally derived measures applied consistent with the objective?	PPA Action 37:N	PPA Action 4:Y?; PPA Action 37:Y?	PPA Action 4:U; PPA Action 37:Y?	PPA Action 4:U; PPA Action 37:Y?	PPA Action 4:U; PPA Action 37:U	PPA Action 7/33:U; PPA Action 8:U; PPA Action 10:U; PPA Action 11:U; PPA Action 13:N; PPA Action 14:Y; PPA Action 15/25:U
Fences (no ratings)	Minimize the impact of fences on GSG populations	No conservation measures specified. Are locally-derived measures consistent with conservation objective?	PPA Action 37:U	PPA Action 37:U	PPA Action 37:U	PPA Action 37:U	PPA Action 37:U	PPA Action 23:Y?; NPPA Action 25:Y?
		Which (if any) of Options 1 - 3 were applied?						PPA Action 23:2?