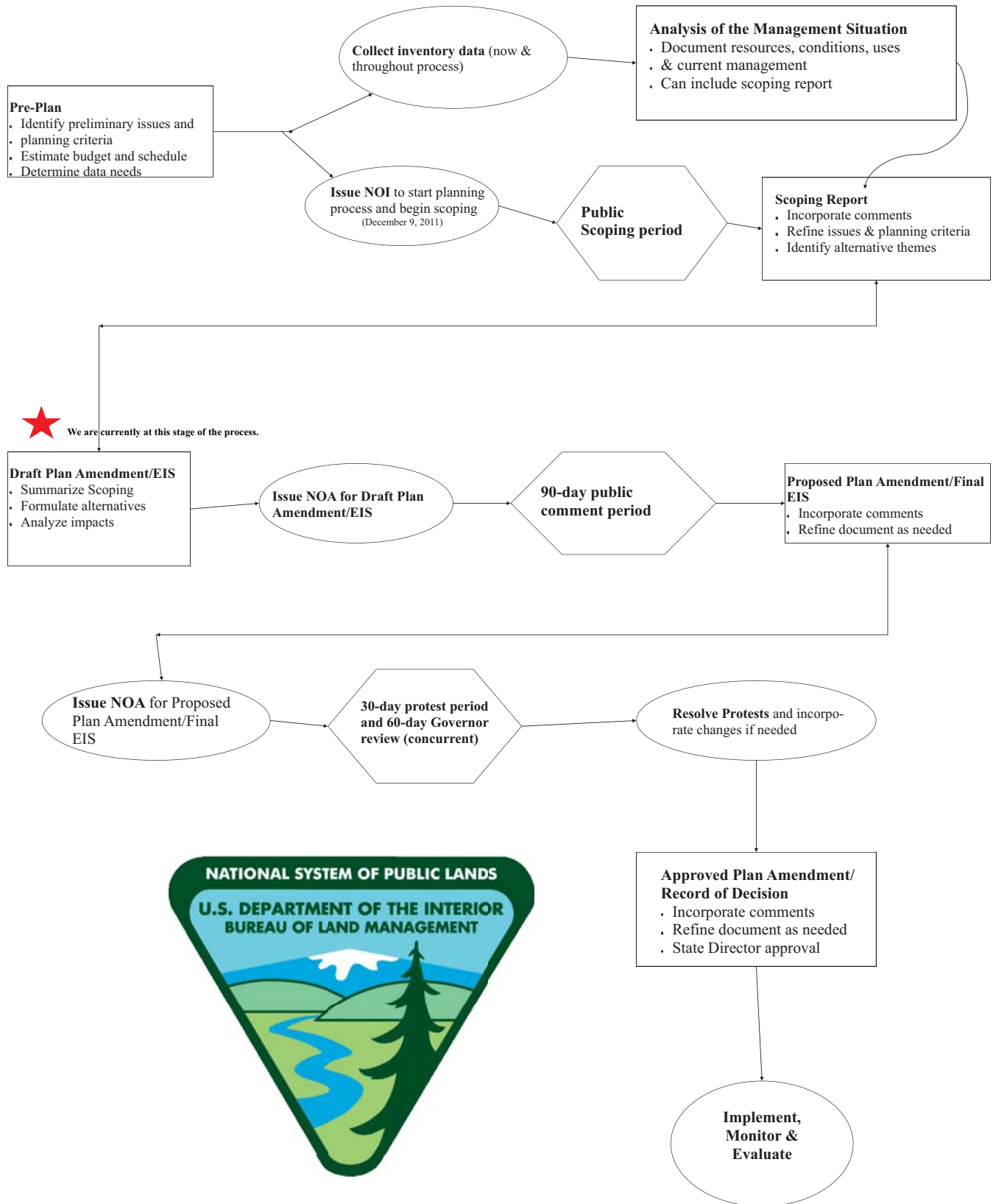
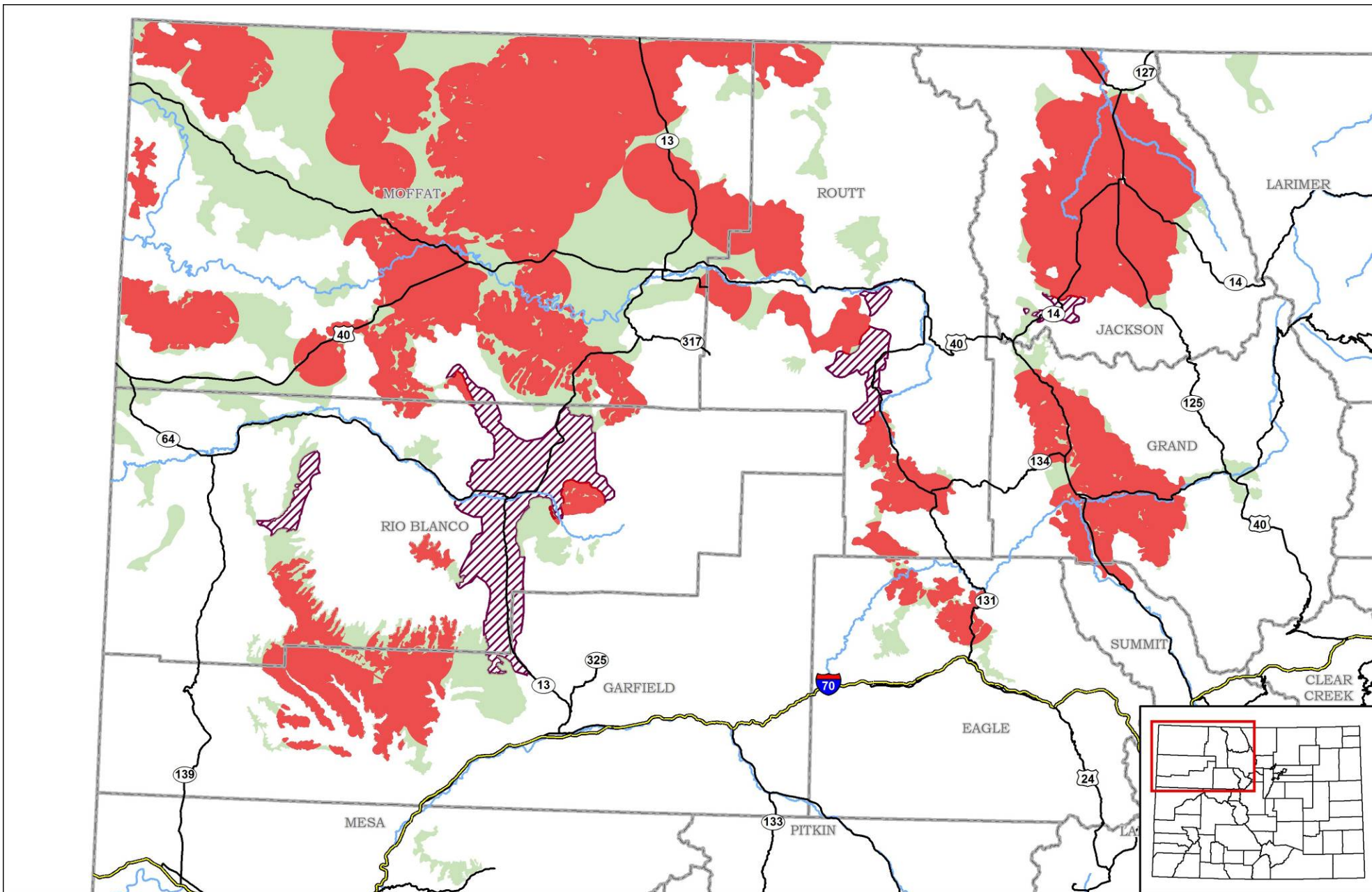


Sage Grouse EIS Planning Process



EIS = Environmental Impact Statement
NOI = Notice of Intent
NOA = Notice of Availability



Greater Sage-grouse Priority Map

Map Created: 3/9/12

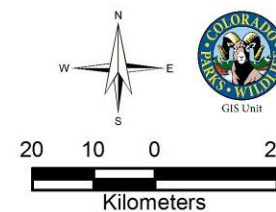
 Linkages

 **Preliminary Priority Habitat (PPH)**

High probability of use
(summer or winter or breeding)
and 4 mi buffer around leks
Active within the last 10 years

 **Preliminary General Habitat (PGH)**

Grouse occupied range
outside of PPH



No.	NTT Pg.	Program Areas	Action	Habitat	NTT Conservation Measures	Current Language in Alt Table DRMP/DEIS Alt A	Current Language in Alt Table DRMP/DEIS Alt B	Current Language in Alt Table DRMP/DEIS Alt C	Current Language in Alt Table DRMP/DEIS Alt D	Can NTT Language be Incorporated into Proposed RMP/Final EIS?
					Section A: Conservation Measures to be Applied as Allocations/Management Actions or Equivalent (see Section B for BMPs/COAs)					
1	11	Travel/Trans	RMP-Allocation	PHA	Limit motorized travel to designated roads, primitive roads, and trails at a minimum. Provide a range of alternatives: one alternative limited to existing roads, another to require road closure(s), etc.					
2	11	Travel/Trans	RMP-MA	PHA	Complete activity level plans within five years of the record of decision.					
3	11	Travel/Trans	RMP-MA	PHA	Use existing roads, or realignments as described above to access valid existing rights that are not yet developed. If valid existing rights cannot be accessed via existing roads, then build any new road constructed to the absolute minimum standard necessary, and add the surface disturbance to the total disturbance in the priority area. If that disturbance exceeds 3 % for that area, then make additional, effective mitigation necessary to offset the resulting loss of sage-grouse habitat (see Objectives).					
4	12	Travel/Trans	RMP-MA	PHA	Allow no upgrading of existing routes that would change route category (road, primitive road, or trail) or capacity unless the upgrading would have minimal impact on sage-grouse habitat, is necessary for motorist safety, or eliminates the need to construct a new road.					
5	11	Travel/Trans	RMP-MA	PHA	Limit route construction to realignments of existing designated routes if that realignment has a minimal impact on sage-grouse habitat, eliminates the need to construct a new road, or is necessary for motorist safety					
6	12	Travel/Trans	RMP-MA	PHA	Conduct restoration of roads, primitive roads and trails not designated in travel management plans. This also includes primitive route/roads that were not designated in Wilderness Study Areas and within lands with wilderness characteristics that have been selected for protection.					
7	12	Travel/Trans	RMP-MA	PHA	When reseeding roads, primitive roads and trails, use appropriate seed mixes (appropriate for sage-grouse ecological conditions) and consider the use of transplanted sagebrush.					

8	11	Travel/Trans	Implementation Guidance	PHA	Travel management should evaluate the need for permanent or seasonal road or area closures. Identify permanent or seasonal closure areas for sage-grouse.					
9	11	Travel/Trans	BMP	PHA	During activity level planning, where appropriate, designate routes with current administrative/agency purpose or need to administrative access only. Criteria for travel planning					
10	12	Recreation	RMP-MA	PHA/GHA	Only allow SRPs that have neutral or beneficial affects to priority habitat areas. Plan level actions may need to be identified.					
11	12	Lands/Realty	RMP- Allocation	PHA	Make priority sage-grouse habitat areas exclusion areas for new ROWs permits. Consider the following exceptions:					
					<ul style="list-style-type: none"> Within designated ROW corridors encumbered by existing ROW authorizations, new ROWs may be collocated within the designated corridors. 					
					<ul style="list-style-type: none"> Subject to valid existing rights including non-federal land inholdings: collocate required new ROWs within existing ROWs or where it best minimizes sage-grouse impacts. Use existing roads, or realignments as described above, to access valid existing rights that are not yet developed. Exception: If valid existing rights cannot be accessed via existing roads, then build any new road constructed to the absolute minimum standard necessary, and add the surface disturbance to the total disturbance in the priority area. If that disturbance exceeds 3% for that area, then make additional effective mitigation necessary to offset the resulting loss of sage-grouse. If such a ROW is subsequently relinquished, the Authorized Officer will require the holder to complete reclamation with objective of ensuring reestablishment of prior affected sage-grouse habitat. 					
12	13	Lands/Realty	RMP- Allocation	PHA/GHA	Make general sage-grouse habitat areas “avoidance areas” for new ROWs. Develop criteria that would be used to determine if a proposed ROW could be sited in an avoidance area or not.					
13	13	Lands/Realty	RMP-MA	PHA/GHA	Where new ROWs are necessary, co-locate new ROWs within existing ROWs where possible.					
14	13	Lands/Realty	Planning Direction Note	PHA	While engaged in this sage-grouse EIS planning process, relocate existing designated ROW corridors crossing					

					priority sage-grouse habitat void of any authorized ROWs, outside of the priority habitat area. If relocation is not possible, un-designate that entire corridor during the planning process.					
15	13	Lands/Realty	BMP	PHA	Evaluate and take advantage of opportunities to remove or modify existing power lines within priority sage-grouse habitat areas. When possible, require perch deterrents on existing or new overhead facilities.					
16	13	Lands/Realty	BMP	PHA	Where existing leases or ROWs have had some level of development (road, fence, well, etc.) and are no longer in use, reclaim the site by removing these features and restoring the habitat. Within designated priority habitat, reclaim by removing these features and restoring the habitat of these ROW that are no longer in use					
17	13	Lands/Realty	RMP- Allocation	PHA	Retain public ownership of priority sage-grouse habitat. Consider exceptions where:					
					<ul style="list-style-type: none"> Disposal Criteria: There is mixed ownership, and land exchanges would allow for additional or more contiguous federal ownership patterns within the priority sage-grouse habitat area. 					
					<ul style="list-style-type: none"> Disposal Considerations: Under priority sage-grouse habitat areas with minority federal ownership, include an additional, effective mitigation agreement for any disposal of federal land. As final preservation measures consider identifying and pursuing off-site compensation/mitigation or the establishment of a conservation easement. 					
18	14	Lands/Realty	RMP-MA	PHA	Where suitable conservation actions cannot be achieved, seek to acquire state and private lands with intact subsurface mineral estate by donation, purchase or exchange in order to best conserve, enhance or restore sage-grouse habitat.					
19	13	Lands/Realty	RMP-MA	PHA	Recommend withdrawal of 3809 mineral lands within priority sage grouse habitat areas based upon the size of the priority habitat areas. In proposed large withdrawals, the analysis that must be made is a review of the adequacy of application of the 43 CFR 3809 surface management regulations with mitigating impacts, consistent with whatever cumulative					

					disturbance threshold is allowed in a particular priority habitat area. Such an analysis should clearly demonstrate that application of the 3809 surface management regulations could not adequately control and mitigate impacts when considering the priority habitat areas as a whole.					
20	14	Lands/Realty	RMP-MA	PHA	Recommend withdrawal proposals not associated with mineral activity unless the land management is consistent with sage grouse conservation measures. (For example; in a proposed withdrawal for a military training range buffer area, manage the buffer area with sage grouse conservation measures.)					
21	14	Range	RMP-MA	PHA	Within priority sage grouse habitat, incorporate sage grouse habitat objectives and management considerations into all BLM grazing allotments through AMPs or permit renewals.					
22	15	Range	RMP-MA	PHA/GHA	Develop specific objectives - through NEPA analysis conducted in accordance with the permit/lease renewal process - to conserve, enhance or restore priority sage-grouse habitat. Based on ESDs and assessments (including within wetlands and riparian areas). If an effective grazing system that meets sage-grouse habitat requirements is not already in place, analyze at least one alternative that conserves, restores or enhances sage-grouse habitat in the NEPA document prepared for the permit renewal (Doherty et al. 2011b, Williams et al. 2011).					
23	15	Range	RMP-MA	PHA/GHA	Base objectives on Ecological Site Descriptions (ESDs) and rangeland health assessments on both upland and riparian/wetland habitats. When existing Ecological Site Descriptions have not been developed, or are too general to serve adequately as benchmarks, identify and document local areas of similar potential that exemplify achievement of sage-grouse habitat objectives, and use these sites as the benchmark reference.					
24		Range	RMP-MA	PHA/GHA	Establish measurable objectives related to sage-grouse habitat from baseline monitoring data, ecological site descriptions, or land health assessments/evaluations.					
25	15	Range	RMP-MA	PHA	Manage for vegetation composition and structure consistent with the Reference					

					State (sometimes referred to as the Historic Climax Plant Community in older ecological site descriptions) described in the State and Transition Model developed for the relevant Ecological Site Description. Utilize the reference state in Ecological Site Descriptions (ESDs) as the site potential benchmark (and not just standards of range land heath or proper function condition objectives) when conducting land health assessments to determine if standards of range-land health related to sage-grouse habitat are being met.					
26	14	Range	RMP-MA	PHA/GHA	Manage riparian areas and wet meadows to achieve or maintain diverse species richness that includes a component of perennial forbs in conjunction with desirable riparian sedges, rushes, bulrushes and grasses.					
27	15	Range	RMP-MA	PHA/GHA	Include terms and conditions on grazing permits and leases that assure plant growth requirement are met, and residual forage remains available for sage-grouse hiding cover. Specify as necessary: 1) Season or timing of use; 2) Numbers of livestock (includes temporary non-use or livestock removal); 3) Distribution of livestock use; 4) Intensity of use (utilization or stubble height objectives) 5) Kind of livestock (e.g., cattle, sheep, horses, llamas, alpacas and goats) 6) Class of livestock (e.g., yearlings versus cow calf pairs)					
28	-	Range	RMP-MA	PHA/GHA	Mange hot season grazing on riparian and meadow complexes to promote recovery or maintenance of appropriate vegetation and water quality. Utilize fencing/herding techniques or seasonal use or livestock distribution changes to reduce pressure on riparian or wet meadow vegetation used by sage-grouse in the hot season (summer).					
29	-	Range	BMP	PHA/GHA	Work cooperatively with permittees, leases and other landowners to develop grazing management strategies that integrate both public and private lands into single management units.					
30	14	Range	RMP-MA	PHA/GHA	Prioritize completion of land health assessments and processing grazing permits within priority sage grouse habitat areas. Focus this process on allotments that have the best					

					opportunities for conserving, enhancing or restoring habitat for sage grouse.					
31	15	Range	RMP-MA	PHA/GHA	When conducting land health assessments include indicators and measurements of structure, condition and, composition of vegetation specific to achieving sage-grouse habitat objectives. If local/state seasonal habitat objectives are not available, use sage-grouse habitat recommendations from Connelly et al. 2000b and Hagen et al. 2007.					
32	14	Range	RMP-MA	PHA/GHA	Monitor measureable objectives and evaluate grazing management to assure that management actions are achieving sage-grouse habitat objectives.					
33	16	Range	RMP-MA	PHA	Authorize new water development for diversion from spring or seep source only when priority sage-grouse habitat would benefit on both upland and riparian habitat from the development or there are no negative impacts to sage grouse. This includes developing new water sources for livestock as part of an AMP/conservation plan to improve sage-grouse habitat.					
34	16	Range	RMP-MA	PHA	Modify existing springs, seeps developments, and associated pipelines as necessary to maintain the continuity of the predevelopment riparian habitat.					
35	18	Range	BMP	PHA/GHA	When conducting NEPA analysis for water developments or other rangeland improvements, address the direct and indirect effects to sage-grouse populations and habitat.					
36	17	Range	RMP-MA	PHA/GHA	Design any new structural range improvements to conserve, enhance, or restore sage-grouse habitat through an improved grazing management system relative to sage-grouse objectives. Structural range improvements, in this context, include but are not limited to: cattleguards, fences, enclosures, corrals or other livestock handling structures; pipelines, troughs, storage tanks (including moveable tanks used in livestock water hauling), windmills, ponds/reservoirs, solar panels and spring developments.					
37	-	Range	RMP-MA	PHA	To reduce sage-grouse strikes and mortality, remove, modify or mark fences in high risk areas.					
38	-	Range	RMP-MA	PHA	Design all range projects in a manner that minimizes potential for invasive species establishment. Monitor for, and treat invasive species associated with existing range improvements					

39	17	Range	RMP-MA	PHA	When developing or modifying water developments, use best management practices in this table's BMP Section C: Locatable Minerals.					
40	17	Range	RMP-MA	PHA/GHA	Locate supplements (salt or protein blocks) in a manner designed to conserve, enhance or restore sage-grouse habitat.					
41	17	Range	RMP-MA	PHA	Retire grazing preference on a case by case basis when the advantage to sage grouse habitat warrants, and a permittee or lessee voluntarily relinquishes their grazing preference in a specific grazing allotment.					
42	18	Range	RMP-MA	PHA/GHA	Offer temporary use on a case by case basis in allotments where grazing preference has been relinquished or non –use warrants, to rest other allotments that include important sage-grouse habitat.					
43	15	Range	RMP-MA	PHA	During drought periods, prioritize evaluating effects of the drought in priority sage-grouse habitat areas relative to their needs for food and cover. Since there is a lag in vegetation recovery following drought (Thurrow and Taylor 1999, Cagney et.al. 2010), ensure that post-drought management allows for vegetation recovery that meets sage-grouse needs in priority habitat areas.					
44	18	Wild Horse and Burro	RMP-MA	PHA/GHA	Manage wild horse and burro population levels within established Appropriate Management Levels (AML).					
45	18	Wild Horse and Burro	RMP-MA	PHA	Prioritize gathers in priority sage-grouse habitat, unless removals are necessary in other areas to prevent catastrophic environmental issues, including herd health impacts.					
46	-	Wild Horse and Burro	RMP-MA	PHA/GHA	Develop objectives, monitor and evaluate rangelands in the same manner described in the range section.					
47	18	Wild Horse and Burro	RMP-MA	PHA	Develop or amend herd management area plans (HMAPs) to incorporate sage-grouse habitat objectives and management considerations for all BLM herd management areas (HMAs).					
48	18	Wild Horse and Burro	RMP-MA	PHA	Prioritize the evaluation of all AMLs based on sage-grouse habitat objectives.					
49	18	Wild Horse and Burro	RMP-MA	PHA/GHA	Conduct land health assessments to determine existing structure/condition/composition of vegetation within all BLM HMAs.					
50	18	Wild Horse and Burro	BMP	PHA	When conducting NEPA analysis for wild horse and burro management					

					activities, water developments or other rangeland improvements for wild horses in priority sage-grouse habitat, address (and apply conservation measures as appropriate) the direct and indirect effects to sage-grouse populations and habitat.					
51	18	Wild Horse and Burro	RMP-MA	PHA	Implement project infrastructure and vegetation treatments in the same manner described in the range section.					
52	22	Fluid Minerals	RMP-Allocation	PHA	Close priority sage-grouse habitat areas to fluid mineral leasing. Upon expiration or termination of existing leases, do not accept nominations/expressions of interest for parcels within priority areas. Exception:					
					<ul style="list-style-type: none"> Where drainage is likely, the BLM may issue new leases with an NSO stipulation with appropriate exception waiver, and modification criteria. 					
53	22	Fluid Minerals	RMP-Allocation/RM P-MA	PHA	Close priority sage-grouse habitat areas to fluid mineral leasing. Consider an exception:					
					<ul style="list-style-type: none"> When an opportunity exists for the BLM to influence conservation measures where surface and/or mineral ownership is not entirely federally owned (e.g., checkerboard or other mixed and/or split-estate ownership). In this case, a plan amendment may be developed that opens the priority habitat area for new leasing. The plan must demonstrate a potential for long-term population increases in the priority habitat area through mitigation (prior to issuing the lease) including lease stipulations, off-site mitigation, etc., and avoid short-term losses that put the sage-grouse population at risk of extirpation from stochastic events leading to extirpation. 					
					<ul style="list-style-type: none"> Where drainage is likely, the BLM may issue new leases with an NSO stipulation with appropriate exception, waiver, and modification criteria. The BLM would consider granting an exception, modification, or waiver to this NSO only in collaboration with the state wildlife agency. 					
54	22	Fluid Minerals	RMP-MA	PHA	Allow geophysical exploration within priority sage-grouse habitat areas to obtain information for existing Federal					

					fluid mineral leases or areas adjacent to state or fee lands within priority sage-grouse habitat areas. Allow geophysical operations only using helicopter-portable drilling, wheeled or tracked vehicles on existing roads , or other approved methods conducted in accordance with seasonal timing limitations and other restrictions that may apply.					
55	22	Fluid Minerals	RMP-MA	PHA	<p>In cases where Federal oil and gas leases have been issued without adequate stipulations for the protection of sage-grouse or their habitats being provided in the applicable RMP decision, as revised or amended, consider their inclusion as permit Conditions of Approval (COAs) when approving exploration and development activities through completion of the environmental record of review (43 CFR 3162.5), including appropriate documentation of compliance with NEPA.</p> <p>Overall consideration shall be given to minimizing the impact to sage-grouse through a project design that avoids, minimizes, reduces, rectifies, and/or adequately compensates for direct and indirect impacts to sage-grouse habitat or use and includes applicable and technically COAs (see this table's Leased Estate Management Actions and BMP Section B: Fluid Minerals). Selection and application of these measures shall be based on current science and research on the effects to important breeding, nesting, brood-rearing, and wintering areas. For proposed operations in priority habitat areas, the Surface Use Plan of Operations (see 43CFR 3162-1(f)) shall address, at a minimum, the anticipated noise, density and amount of disturbance, mechanical movement (e.g., pump jacks), permanent and temporary facilities, traffic, phases of development over time, offsite mitigation, and expected periods of use associated with the proposed project. Seasonal habitats or project features related to potential sage-grouse impacts that are not addressed in the SUPO based on site-specific or project-specific considerations shall be noted in the project file, along with a rationale</p>					

					<p>for not including them.</p> <p>In this process evaluate, among other things:</p> <ul style="list-style-type: none"> • Whether the conservation measure is “reasonable” (43 CFR 3101.1-2) and consistent with valid existing rights; • Whether the action is in conformance with the approved RMP; and • The effectiveness of the proposed mitigation measures. <p>The conservation measures described below represent a hierarchical approach (rows 56 to 58) and important measures (rows 59 to 69) for minimizing impacts from development within the constraints of valid existing rights. These shall be considered relative to all exploration and development applications submitted to the BLM and located within sage-grouse priority habitat areas. Due to site-specific circumstances, some features may not apply to some projects and/or may require deviation from what is described.</p>					
56	23	Fluid Minerals	RMP-MA	PHA	<p>Do not allow new surface occupancy on Federal leases within priority habitat areas, including winter concentration areas during any time of the year (Doherty et al. 2008, Carpenter et al. 2010). Where this is not possible due to valid existing rights and development requirements for the specific geologic and fluid mineral resources, consider the following disturbance and surface occupancy limits to the extent practicable:</p>					
57	23	Fluid Minerals	RMP-MA	PHA	<p>If the lease is partially or entirely within priority habitat areas:</p> <ul style="list-style-type: none"> • Subject to topographic and other environmental constraints, require any development within priority habitat to be placed in the area least harmful to sage-grouse based on vegetation, topography, or other habitat features. 					
					<ul style="list-style-type: none"> • To the extent possible and consistent with valid existing rights, limit disturbances to an average of one site per 640 acres on average, with no more than 3% direct surface disturbance in the analysis area. 					
					<ul style="list-style-type: none"> • Consider an exception to the 3% limit if project siting and design and additional mitigation are 					

					demonstrated to be capable of minimizing or concurrently offsetting resultant losses of sage-grouse or their habitats.					
					<ul style="list-style-type: none"> When additional mitigation is necessary, conduct it in priority sage-grouse habitat areas when possible or, if that is not possible, in general sage-grouse habitat with the ability to increase sage-grouse populations. 					
					<ul style="list-style-type: none"> When additional mitigation is necessary, conduct it within the same population area where the impact occurs if possible or, if that is not possible, within the same Management Zone as the impact. 					
58	23	Fluid Minerals	RMP-MA	PHA	<ul style="list-style-type: none"> To limit impacts to breeding and nesting habitat, surface-disturbing and disruptive activities shall be prohibited or restricted within 4 miles of a lek the extent possible consistent with valid existing rights. If the entire lease is entirely within the 4-mile perimeter of a lek, require any development to be placed at the part of the lease farthest from the lek, or, based depending on topography and other habitat features, in an area demonstrably the least harmful to sage-grouse. 					
59	23	Fluid Minerals	RMP-MA	PHA	To ensure comprehensive planning relative to sage-grouse conflicts, complete Master Development Plans during planning and review of projects involving multiple proposed disturbances within a lease or priority habitat area, with an exception for individual wildcat (exploratory) wells.					
60	23	Fluid Minerals	RMP-MA	PHA	Encourage unitization when deemed necessary for proper development and operation of an area or to facilitate more orderly (e.g., phased and/or clustered) development as a means of minimizing adverse impacts to sage-grouse. (See Federal Lease Form, 3100-11, Sections 4 and 6).					
61	23	Fluid Minerals	RMP-MA	PHA/GHA	See Lands Acquisition: Identify areas where acquisitions (including subsurface mineral rights) or conservation easements, would benefit sage-grouse habitat.					
62	23	Fluid Minerals	RMP-MA	PHA	Apply a seasonal timing restriction on exploratory drilling that prohibits construction, drilling, completion, and reclamation activities, including those for exploratory wildcat wells, during					

					the nesting and early brood-rearing seasons in all priority sage-grouse habitats areas for this period.					
63	23	Fluid Minerals	RMP-MA	PHA	Require a full reclamation bond specific to the site and sufficient to cover costs required for full reclamation (Connelly et al. 2000, Hagen et al. 2007).					
64	24	Fluid Minerals	RMP-MA	PHA	Where applicable and technically feasible, apply Best Management Practices (see this table's BMP Section B: Fluid Minerals) as mandatory Conditions of Approval (COAs) within priority sage-grouse habitat. Note that BMPs listed in this table's BMP Section B: Fluid Minerals differ to some extent between priority and general habitat areas.					
65	64	Fluid Minerals	RMP-MA	PHA	Use only closed-loop systems for drilling operations, with no reserve pits.					
66	64	Fluid Minerals	RMP-MA	PHA	Limit noise to less than 10 decibels (dBa) above ambient measures (typically 20 to 24 dBA) from 2 hours before until 2 hours after at sunrise at the perimeter of a lek during active lek season (Patricelli et al. 2010, Blickley et al. <i>in preparation</i>).					
67	64	Fluid Minerals	RMP-MA	PHA	Require noise shields when drilling during the lek, nesting, brood-rearing, and wintering seasons.					
68	64	Fluid Minerals	RMP-MA	PHA	Design new transmission towers with anti-perching devices and retrofit existing towers to discourage use by raptors.					
69	65	Fluid Minerals	RMP-MA	PHA	When fences are necessary, require a sage-grouse-safe design.					
70	65	Fluid Minerals	RMP-MA	PHA	Locate new compressor stations outside priority habitats and require a design that reduces noise directed toward priority habitat.					
71	65	Fluid Minerals	RMP-MA	PHA	Locate man camps outside priority sage-grouse habitats.					
72	65	Fluid Minerals	Implementation Guideline	PHA/GHA	Include reclamation objectives requiring that sage-grouse habitat needs are adequately addressed and accomplished (Pyke 2011).					
73	65	Fluid Minerals	RMP-MA	PHA	Require proper containment and prompt removal of refuse to avoid attracting predators (Bui et al. 2011).					
74	24	Solid Minerals-Coal	RMP-Allocation	PHA	Surface coal mines: Apply the requirements of 43 CFR 3461 to determine unsuitability. Find unsuitable all surface mining of coal under the criteria set forth in 43 CFR 3461.5 to ensure that the specific Lek instance or reference is adequately addressed).					

75	24	Solid Minerals-Coal	RMP-MA	PHA	Underground Coal Mines : Grant no new mining leases unless all surface disturbances (appurtenant facilities) are placed outside of the priority sage-grouse habitat area [see 43 CFR 3461.1 (a) and (b)]. Also see Part 3460: Environment, Subpart 3461: Federal Lands Review: Unsuitability for Mining, 3461.1 - Underground mining exemption from criteria.					
					(a) Federal lands with coal deposits that would be mined by underground mining methods shall not be assessed as unsuitable where there would be no surface coal mining operations, as defined in? 3400.0-5 of this title, on any lease, if issued.					
					(b) Where underground mining will include surface operations and surface impacts on Federal lands to which a criterion applies, the lands shall be assessed as unsuitable unless the surface management agency find that a relevant exception or exemption applies.					
76	-	Solid Minerals-Coal	RMP-MA	PHA	See 43 CFR 3461.4 (a) and (b) Exploration. An unsuitability finding does not always prohibit exploration.					
77	24	Solid Minerals-Coal	RMP-MA	PHA	Underground mining : in priority sage-grouse habitat areas, plan any new appurtenant facilities outside of priority areas. Where new appurtenant facilities associated with the existing lease cannot be located outside the priority sage-grouse habitat area, co-locate new facilities within existing disturbed areas. If this is not possible, then build any new appurtenant facilities to the minimum standard necessary for the action (Tie this to the appropriate minimize surface impact BMPs). 43 CFR 3461.3-2 specifically excludes applying unsuitability criteria to leased lands. The first lease is generally valid for 20 years. During the time period the operator has existing rights under the lease that prevents a change in the terms and conditions of the lease. The BLM may negotiate with the lessee to achieve certain changes but the BLM cannot require these changes in terms and conditions of the lease. At the end of the first 20 year period BLM can require changes to the terms and conditions of subsequent 10 year lease renewals. If there is a change in regulation such as a species listing, then					

					the BLM can require a change in the terms and conditions of the lease.					
78	24	Solid Minerals-Coal	BMP	PHA/GHA	Recommend minimization of surface-disturbing or disrupting activities (including operations and maintenance) where needed to reduce the impacts of human activities on important seasonal sage-grouse habitats. Apply these measures during activity level planning (Jurisdiction is managed by the State. BLM has no regulatory authority for these activities). The Office of Surface Mining or a delegated State Regulatory authority authorizes active coal mining operations on federal mineral estate. The BLM is not involved in reviewing, regulating or approving permits for active coal mines on federal mineral estate. BLM issues coal leases and exploration licenses for right of entry to promote development of minerals. See the following in regards to BLM exploration: § 3461.4 Exploration. States with delegated authority from the Office of Surface Mining may have their own sage grouse guidance in association with state wildlife agencies. This guidance will likely be on a state by state basis.					
					(a) Assessment of any area as unsuitable for all or certain stipulated methods of coal mining operations pursuant to section 522 of the Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1272) and the regulations of this subpart <u>does not prohibit exploration</u> of such area under subpart 3410 and Part 3480 of this title.					
					(b) An application for an exploration license on any lands assessed as unsuitable for all or certain stipulated methods of coal mining shall be reviewed by the Bureau of Land Management to ensure that exploration does not harm any value for which the area has been assessed as unsuitable.					
79	24	Locatable Minerals	RMP-MA	PHA	Recommend withdrawal from mineral entry based on risk to the sage-grouse and its habitat from conflicting locatable mineral potential and development.					
80	24	Locatable Minerals	RMP-MA	PHA	Make any existing claims within the withdrawal area subject to validity exams. Include claims that have been subsequently determined to be null and avoid in the proposed withdrawal (see 43 CFR 3809.100).					

81	24	Locatable Minerals	RMP-MA/BMP	PHA	In plans of operations required prior to any proposed surface disturbing activities include as appropriate the following: Additional, effective mitigation in perpetuity for conservation. In accordance with existing policy, WO IM 2008-204). Example purchase private land and mineral rights within the priority area and deed to US Government. WO IM 2008-204 IM provides guidance for instances where onsite mitigation is not an option.					
82	25	Locatable Minerals	BMP	PHA	Consider seasonal restrictions if deemed effective.					
83	25	Locatable Minerals	RMP-MA	PHA	Where applicable and technically feasible, apply Best Management Practices (see this table’s BMP Section C: Locatable Minerals) mandatory as conditions of approval within priority sage-grouse habitat (see this table’s BMP Section C: Locatable Minerals).					
84	25	Non-energy Leasable Minerals	RMP- Allocation	PHA	Close priority habitat to non-energy leasable mineral leasing. This includes not permitting any new leases to expand an existing mine.					
85	25	Non-energy Leasable Minerals	COA	PHA	For existing non-energy leasable mineral leases, in addition to the solid minerals BMPs (see this table’s BMP Section C: Locatable Minerals), apply applicable and as appropriate Fluid Mineral BMPs (see this table’s BMP Section B), when wells are used for solution mining. New environmental guidance can be implemented during a lease renewal. If there is a law or regulation change then a lease can be modified.					
86	25	Salables Minerals	RMP- Allocation	PHA	Close priority habitat to mineral material sales.					
87	25	Salables Minerals	RMP-MA	PHA	Restore saleable mineral pits no longer in use to meet sage-grouse habitat conservation objectives. Emphasis needs to be given to reclamation/restoration of sage grouse habitat as a viable long term goal to improve the sage grouse habitat.					
88	25	Mineral Split Estate	RMP-MA	PHA	Where the federal government owns the mineral estate, and the surface is non-federal ownership, apply the same conservation measures as applied on public land. The conservation measures must be consistent with the surface owner’s rights. A solicitor review may be required.					
89	25	Mineral Split Estate	COA	PHA	Where the federal government owns the surface, and the mineral estate is in					

					non-federal ownership, apply appropriate BMPs to surface development.					
					This section identifies conservation measures for vegetation treatments for all programs including those done in rangeland, forest, woodland and riparian ecosystems as well as fuels treatments, post fire stabilization and rehabilitation treatments, and restoration treatments. Vegetation treatments must tie to land use plan objectives for vegetation. An RMP may divide the planning area into smaller geographic units based on ecological sites and/or vegetation classifications. The RMP should outline and identify desired outcomes for vegetative resources, including the desired mix of vegetative types being managed for in each smaller geographic unit, taking in to account structural stages, landscape and riparian functions, and forage allocations. The LUP should establish vegetation objectives specific to each smaller geographic unit that are measurable, outline a monitoring schedule for vegetation, and identify thresholds and management measures that would be taken (adaptive management) if vegetation objectives are not being met. (see BLM Handbook 1601-1, Land Use Planning; and BLM Handbook 1740-2, Integrated Vegetation Management).					
90	28	Vegetation Treatments	RMP-Objective	PHA/GHA	Restore native (or desirable) plants and create landscape patterns which most benefit sage-grouse. Write specific land use plan objectives for vegetation that connects habitats and creates patterns that benefit sage-grouse. Write specific vegetation management objectives relative to invasive annual grass spread and woody plant removal where these are of concern in sage-grouse habitat. Consider management objectives in buffers around intact priority habitats that detect and rapidly respond to invasions in the buffer zones.					
91	26	Vegetation Treatments	RMP-Objective	PHA	Do not reduce sagebrush canopy cover to less than 15% (Connelly et al. 2000, Hagen et al. 2007) unless a vegetation management objective requires additional reduction in sagebrush cover to meet strategic protection of priority sage-grouse habitat and conserve habitat quality for the species.					
92	16	Vegetation Treatments	RMP-MA	PHA/GHA	In sage-grouse habitat, only allow treatments that conserve, enhance or restore sage-grouse habitat (this includes treatments that benefit livestock as part of an AMP/Conservation Plan to improve sage-grouse habitat).					
93	16	Vegetation Treatments	RMP-MA	PHA	Evaluate the role of existing seedings that are currently composed of primarily introduced perennial grasses in and adjacent to priority sage-grouse habitats to determine if they should be restored to sagebrush or habitat of higher quality for sage-grouse. If these seedings are part of an AMP/Conservation Plan or if they provide value in conserving or enhancing the rest of the priority habitats, then no restoration would be necessary. Assess the compatibility of these seedings for sage-grouse habitat or as a component of a grazing system during land health assessments (Davies et al. 2011). For example, some introduced grass seedings are an integral part of a livestock management plan and reduce grazing pressure in important sagebrush habitats, or serve as a strategic fuels management area.					
94	12	Vegetation Treatments	RMP-MA	PHA/GHA	When reseeding roads, primitive roads and trails, use appropriate seed mixes and consider the use of appropriate subspecies of sagebrush seed.					
95	26	Vegetation Treatments	RMP_MA	PHA	Apply appropriate seasonal restrictions for implementing vegetation management treatments according to the type of seasonal habitats present in a priority area.					
96	26	Vegetation Treatments	RMP_MA	PHA	Allow no treatments in known winter range unless the treatments are designed to strategically reduce wildfire risk around or in the winter range and will maintain winter range habitat quality.					
97	26	Vegetation Treatments	RMP_MA	PHA	Do not use fire to treat sagebrush in less than 12-inch precipitation zones (e.g., Wyoming big sagebrush or other xeric sagebrush species; Connelly et al. 2000, Hagen et al. 2007, Beck et al. 2009). However, if as a last resort and after all other treatment opportunities have been explored, and site specific variables allow, the use of prescribed fire that would disrupt fuel continuity or enhance land health could be considered where cheatgrass is a very minor component in the understory (Brown					

					1982).				
98	26	Vegetation Treatments	RMP_MA	PHA/GHA	Monitor and control invasive vegetation post-treatment.				
99	26	Vegetation Treatments	RMP-MA	PHA/GHA	Rest treated areas from grazing for two full growing seasons unless vegetation recovery dictates otherwise (WGFD 2011).				
100	-	Vegetation Treatments	RMP-MA	PHA/GHA	Vegetation treatments must include monitoring to determine achievement of objectives and their long-term success.				
101	27	Vegetation Treatments	RMP-MA	PHA/GHA	Choose native plant seeds for vegetation treatments based on availability, adaptation (site potential), probability for success, and the vegetation management objectives for the area covered by the treatment (Richards et al. 1998). Where probability of success or native seed availability is low, use species that meet soil stability and hydrologic function objectives as well as vegetation and sage-grouse habitat objectives (Pyke 2011).				
102	27	Vegetation Treatments	RMP-MA	PHA/GHA	Reestablish appropriate sagebrush species/subspecies and important understory plants relative to site potential. Identify priority plant species and collect seed of understory plants and sagebrush subspecies important to sage-grouse. Establish seed harvest areas that are managed for seed production (Armstrong 2007) and are a priority for protection from outside disturbances.				
103	27	Vegetation Treatments	RMP-MA	PHA/GHA	Apply post vegetation treatment management and monitoring to ensure long term persistence of seeded native plants. Outline temporary or long-term changes in livestock grazing, wild horse and burro, and travel management, etc., to achieve and maintain vegetation management objectives to benefit sage-grouse and their habitats (Eiswerth and Shonkwiler 2006).				
104	27	Vegetation Treatments	RMP-MA	PHA/GHA	Design vegetation treatments in sage-grouse habitats to strategically reduce wildfire threats in the greatest area. This may involve spatially arranging new vegetation treatments with past treatments, vegetation with fire-resistant serial stages, natural barriers, and roads in order to constrain fire spread and growth. This may require vegetation treatments to be implemented in a more linear versus block design (Launchbaugh et al. 2007).				
105	28	Vegetation Treatments	RMP-MA	PHA/GHA	Include sage-grouse habitat parameters as defined by Connelly et al. (2000), Hagen et al. (2007) or if available, State Sage-Grouse Conservation plans and appropriate local information in habitat restoration objectives. Make maintaining these objectives within priority sage-grouse habitat areas a high restoration priority.				
106	28	Vegetation Treatments	RMP-MA	PHA/GHA	Make reestablishment of sagebrush and desirable understory plant cover (relative to ecological site potential) a high priority for restoration efforts. Write specific vegetation objectives to reestablish sage-brush cover and desirable understory cover.				
107	-	Vegetation Treatments	RMP-MA	PHA/GHA	Where applicable and technically feasible, apply Best Management Practices identified in this table's BMP Section D: Vegetation Treatments				
108	28	Vegetation Treatments	Implementation Guideline	PHA/GHA	Prioritize implementation of restoration projects based on environmental variables that improve chances for project success in areas most likely to benefit sage-grouse (Meinke et al. 2009).				
109	-	Vegetation Treatments	Implementation Guideline	PHA/GHA	Prioritize vegetation treatments that are designed to strategically reduce wildfire threat in areas of high fire risk rather than where the probability of fire is low and the potential for natural post-fire recovery is high.				
110	27	Vegetation Treatments	RMP-MA	PHA/GHA	Prioritize native seed allocation for use in priority sage-grouse habitat in years when preferred native seed is in short supply.				
111	-	Vegetation Treatments	Implementation Guideline	PHA/GHA	Prioritize restoration treatments and monitoring in seasonal habitats that are thought to be limiting sage-grouse distribution				

					and/or abundance. Write specific land use plan objectives and design treatments to achieve vegetation that provides seasonal habitat where it is thought to be limiting.				
112	71	Vegetation Treatments	Implementation Guideline	PHA/GHA	Give priority for implementing specific sage-grouse habitat restoration projects in annual grasslands first to sites which are adjacent to or surrounded by sage-grouse key habitats (e.g., buffers around intact habitats); second to annual grasslands when the sites are not adjacent to key habitat, but are within 2 miles of key habitat; and third to sites beyond 2 miles of key habitat. The intent is to focus restoration outward from existing, intact habitat.				
113	27	Fire Management	RMP-MA	PHA	In priority sage-grouse habitat areas, prioritize suppression, immediately after firefighter and public safety to conserve the habitat.				
114	27	Fire Management	RMP-MA	PHA/GHA	In general sage-grouse habitat assign a high priority for suppression where wildfires threaten priority sage-grouse habitat.				
115	27	Fire Management	RMP-MA	PHA/GHA	Where applicable and technically feasible, apply Best Management Practices identified in this table's BMP Section E: Fire Management.				
116	61	West Nile Virus	BMP	GHA/PHA	Increase the size of freshwater ponds to accommodate a greater volume of water than is discharged. This will result in un-vegetated and muddy shorelines that breeding <i>Culex. tarsalis</i> avoid (De Szalay and Resh 2000). This modification may reduce <i>Cx. tarsalis</i> habitat but could create larval habitat for <i>Culicoides sonorensis</i> , a vector of blue tongue disease, and should be used sparingly (Schmidtman et al. 2000). Steep shorelines should be used in combination with this technique whenever possible (Knight et al. 2003).				
117	61	West Nile Virus	BMP	GHA/PHA	Build steep shorelines to reduce shallow water (>60 cm) and aquatic vegetation around the perimeter of impoundments (Knight et al. 2003). Construction of steep shorelines also will create more permanent ponds that are a deterrent to colonizing mosquito species like <i>Cx. tarsalis</i> which prefer newly flooded sites with high primary productivity (Knight et al. 2003).				
118	61	West Nile Virus	BMP	GHA/PHA	Maintain the water level below that of rooted vegetation for a muddy shoreline that is unfavorable habitat for mosquito larvae. Rooted vegetation includes both aquatic and upland vegetative types. Avoid flooding terrestrial vegetation in flat terrain or low lying areas. Aquatic habitats with a vegetated inflow and outflow separated by open water produce 5-10 fold fewer Culex mosquitoes than completely vegetated wetlands (Walton and Workman 1998). Wetlands with open water also had significantly fewer stage III and IV instars which may be attributed to increased predator abundances in open water habitats (Walton and Workman 1998).				
119	61	West Nile Virus	BMP	GHA/PHA	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 (Knight et al. 2003).				
120	61	West Nile Virus	BMP	GHA/PHA	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, thus precluding shallow surface				

					inflow and accumulation of sediment that promotes aquatic vegetation.				
121	61	West Nile Virus	BMP	GHA/PHA	Line the overflow spillway with crushed rock, and construct the spillway with steep sides to preclude the accumulation of shallow water and vegetation.				
122	61	West Nile Virus	BMP	GHA/PHA	Fence pond site to restrict access by livestock and other wild ungulates that trample and disturb shorelines, enrich sediments with manure and create hoof print pockets of water that are attractive to breeding mosquitoes				
123	63	Fluid Minerals	BMP	PHA/GHA	Design roads to an appropriate standard no higher than necessary to accommodate their intended purpose.				
124	63	Fluid Minerals	BMP	PHA	Locate roads to avoid important areas and habitats.				
125	63	Fluid Minerals	BMP	PHA/GHA	Coordinate road construction and use among Federal fluid mineral lessees and ROW holders.				
126	63	Fluid Minerals	BMP	PHA/PHA	Construct road crossings of ephemeral, intermittent, and perennial streams to minimize impacts to the riparian habitat, such as by crossing at right angles to ephemeral drainages and stream crossings.				
127	63	Fluid Minerals	BMP	PHA/GHA	Establish slow speed limits on BLM-administered roads or design roads for slower vehicle speeds to reduce sage-grouse mortality.				
128	63	Fluid Minerals	BMP	PHA/GHA	Do not issue ROWs to counties on newly constructed energy development roads, unless for a temporary use consistent with all other terms and conditions included in this document.				
129	63	Fluid Minerals	BMP	PHA	Restrict vehicle traffic to only authorized users on newly constructed routes (using signage, gates, etc.)				
130	63	Fluid Minerals	BMP	PHA/GHA	Apply dust abatement on roads, well pads, and other surface disturbances.				
131	63	Fluid Minerals	BMP	PHA/GHA	Close and rehabilitate duplicate roads by restoring original landform and establishing desirable vegetation.				
132	63	Fluid Minerals	BMP	PHA	Cluster disturbances, operations (hydraulic fracture stimulation, liquids gathering, etc.), and facilities.				
133	63	Fluid Minerals	BMP	PHA/GHA	Use directional and horizontal drilling to the extent feasible as a means to reduce surface disturbance in relation to the number of wells.				
134	63	Fluid Minerals	BMP	PHA	Place infrastructure in already disturbed locations where the habitat has not been fully restored.				
135	63	Fluid Minerals	BMP	PHA	Consider using oak (or other material) mats for drilling activities where topography permits to reduce vegetation disturbance and for temporary roads between closely spaced wells to reduce soil compaction and maintain soil structure to increase likelihood of vegetation reestablishment following drilling.				
136	63	Fluid Minerals	BMP	PHA	Apply a phased development approach with concurrent reclamation.				
137	63	Fluid Minerals	BMP	PHA	Place liquid gathering facilities outside priority areas. Do not place tanks at well locations within priority habitat areas to reduce truck traffic and perching and nesting sites for ravens and raptors				
138	-	Fluid Minerals	BMP	PHA/GHA	Use remote monitoring techniques for production facilities and develop a plan to reduce the frequency of vehicle use (Lyon and Anderson 2003).				
139	64	Fluid Minerals	BMP	PHA/GHA	Restrict the construction of tall facilities, distribution powerlines, and fences to the minimum number and amount needed.				
140	64	Fluid Minerals	BMP	PHA	Site and/or minimize linear ROWs to reduce disturbance and fragmentation of sagebrush habitats.				

141	64	Fluid Minerals	BMP	PHA	Collocate new utility developments (power lines, pipelines, etc.) and transportation routes in existing utility or transportation corridors.				
142	64	Fluid Minerals	BMP	PHA	Bury new distribution power lines except when an existing line is already in place.				
143	64	Fluid Minerals	BMP	PHA	Collocate powerlines, flowlines, and small pipelines under or immediately adjacent to existing roads (Bui et al. 2010).				
144	64	Fluid Minerals	BMP	PHA	Design or site permanent structures to minimize impacts to 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 to minimize disturbance of sage-grouse or interference with habitat use.				
145	64	Fluid Minerals	BMP	PHA/GHA	Cover all fluid-containing pits and open tanks with netting (maximum 1.5-inch mesh size).				
146	64	Fluid Minerals	BMP	PHA	Equip tanks and other above-ground facilities with structures or devices that discourage nesting of ravens and raptors.				
147	64	Fluid Minerals	BMP	PHA/GHA	Control the spread and effects of invasive non-native plant species (Evangelista et al. 2011), including treating weeds prior to surface disturbance and washing vehicles and equipment at designated wash stations when constructing in areas with weed infestations).				
148	65	Fluid Minerals	BMP	PHA	Maximize the area of interim reclamation on long-term access roads and well pads, including reshaping, topsoiling, and revegetating cut-and-fill slopes.				
149	65	Fluid Minerals	BMP	PHA	Restore disturbed areas at final reclamation to the pre-disturbance landforms and desired plant community.				
150	65	Fluid Minerals	BMP	PHA	Implement irrigation during interim or final reclamation for sites where establishment of seedlings has been shown or is expected to be difficult due to dry conditions.				
151	65	Fluid Minerals	BMP	PHA	Use mulching, soil amendments, and/or erosion blankets to expedite reclamation and to protect soils.				
167	66				See this table’s BMP Section A: West Nile Virus				
168	68	Locatable Minerals			Design roads to an appropriate standard no higher than necessary to accommodate their intended purposes.				
169	68	Locatable Minerals			Locate roads to avoid important areas and habitats.				
170	68	Locatable Minerals			Coordinate road construction and use among ROW holders.				
171	68	Locatable Minerals			Construct road crossing at right angles to ephemeral drainages and stream crossings.				
172	68	Locatable Minerals			Establish speed limits on BLM system roads to reduce vehicle/wildlife collisions or design roads to be driven at slower speeds.				
173	68	Locatable Minerals			Do not issue ROWs to counties on mining development roads, unless for a temporary use consistent with all other terms and conditions including this document				
174	68	Locatable Minerals			Restrict vehicle traffic to only authorized users on newly constructed routes (e. g., use signing, gates, etc.)				
175	68	Locatable Minerals			Use dust abatement practices on roads and pads.				
176	68	Locatable Minerals			Close and reclaim duplicate roads, by restoring original landform and establishing desired vegetation’				
177	68	Locatable Minerals			Cluster disturbances associated with operations and facilities as close as possible.				

178	68	Locatable Minerals			Place infrastructure in already disturbed locations where the habitat has not been restored.				
179	68	Locatable Minerals			Restrict the construction of tall facilities and fences to the minimum number and amount needed.				
180	68	Locatable Minerals			Site and/or minimize linear ROWs to reduce disturbance to sagebrush habitats.				
181	68	Locatable Minerals			Place new utility developments (power lines, pipelines, etc.) and transportation routes in existing utility or transportation corridors.				
182	68	Locatable Minerals			Bury power lines.				
183	68	Locatable Minerals			Cover (e.g., fine mesh netting or use other effective techniques) all pits and tanks regardless of size to reduce sage-grouse mortality.				
184	68	Locatable Minerals			Equip tanks and other above ground facilities with structures or devices that discourage nesting of raptors and corvids.				
185	69	Locatable Minerals			Control the spread and effects of non-native plant species (Gelbard and Belnap 2003, Bergquist et al. 2007).				
186	69	Locatable Minerals			See this table's BMP Section A: West Nile Virus				
187	69	Locatable Minerals			Require sage-grouse-safe fences around sumps.				
188	69	Locatable Minerals			Clean up refuse (Bui et al. 2010).				
189	69	Locatable Minerals			Locate man camps outside of priority sage-grouse habitats.				
190	69	Locatable Minerals			Include restoration objectives to meet sage-grouse habitat needs in reclamation practices/sites.				
191	69	Locatable Minerals			Address post reclamation management in reclamation plan such that goals and objectives are to protect and improve sage-grouse habitat needs.				
192	69	Locatable Minerals			Maximize the area of interim reclamation on long-term access roads and well pads including reshaping, topsoiling and revegetating cut and fill slopes.				
193	69	Locatable Minerals			Restore disturbed areas at final reclamation to pre-disturbance landform and desired plant community				
194	69	Locatable Minerals			Irrigate interim reclamation as necessary during dry periods. Utilize mulching techniques to expedite reclamation.				
195	-	Vegetation Treatments	BMP	GHA/PHA	Identify and work with partners to increase native seed availability and work with plant material centers to develop new plant materials, especially the forbs needed to restore sage-grouse habitat				
196	27	Vegetation Treatments	BMP	GHA/PHA	Consider potential changes in climate (Miller et al. 2011) when proposing seedlings using native plants. Consider seed collections from the warmer component within a species' current range for selection of native seed. (Kramer and Havens 2009).				
197	-	Vegetation Treatments	BMP	GHA/PHA	Use Ecological Site Descriptions (ESDs) to identify the understory species and sagebrush subspecies needed to restore desirable habitat conditions.				
198	27	Vegetation Treatments	BMP	GHA/PHA	During vegetation management project design, consider the utility of using livestock to strategically reduce fine fuels (Diamond et al. 2009), and implement grazing management that will accomplish this objective (Davies et al. 2011, Launchbaugh et al. 2007). Consult with ecologists to minimize impacts to native perennial grasses.				
199	71	Vegetation Treatments	BMP	GHA/PHA	Provide to personnel planning vegetation treatments information on sage-grouse biology, habitat requirements, and identification of areas utilized locally.				

200	71	Vegetation Treatments	BMP	GHA/PHA	Use vegetation treatment prescriptions that minimize undesirable effects on vegetation or soils (e.g., minimize mortality of desirable plant species and reduce risk of hydrophobicity. Incorporate the standard operating procedures outlined in the 17 states Veg EIS into all treatments.				
201	71	Vegetation Treatments	BMP	GHA/PHA	Ensure that proposed sagebrush treatments are planned with interdisciplinary input from BLM and /or state wildlife agency biologist and that treatment acreage is conservative in the context of surrounding sage-grouse seasonal habitats and landscape.				
202	71	Vegetation Treatments	BMP	GHA/PHA	Ensure that treatments are configured in a manner (e.g., strips) that promotes use by sage-grouse (See Connelly et al., 2000*)				
203	71	Vegetation Treatments	BMP	GHA/PHA	Power-wash all vehicles and equipment involved in vegetation treatment activities prior to entering the area to minimize the introduction of undesirable and/or invasive plant species.				
204	71	Vegetation Treatments	BMP	GHA/PHA	Design vegetation treatments in areas of high wildfire frequency to facilitate firefighter and public safety, reduce the risk of extreme fire behavior; and to reduce the risk and rate of fire spread to sage-grouse habitats.				
205	71	Vegetation Treatments	BMP	GHA/PHA	Restore priority perennial grass/shrub plant communities infested with non-native invasive species to a species composition characterized by perennial grasses, forbs, and shrubs as outlined in Ecological Site Descriptions.				
206	71	Vegetation Treatments	BMP	GHA/PHA	Remove standing and encroaching trees within at least 100 meters of occupied sage-grouse leks and other habitats (e.g., nesting, wintering, and brood rearing) to reduce the availability of perch sites for avian predators.				
207	72	Vegetation Treatments	BMP	GHA/PHA	Protect wildland areas from wildfire originating on private lands, infrastructure corridors, and recreational areas.				
208	72	Vegetation Treatments	BMP	GHA/PHA	Identify roads where the risk of vehicle or human-caused wildfires and the spread of invasive species into sage-grouse habitats could be minimized by planting perennial vegetation (e.g., green-strips) paralleling road rights-of-way. (This BMP could be applied to BLM linear ROW authorizations)				
209	72	Vegetation Treatments	BMP	GHA/PHA	Strategically place and maintain pre-treated strips/areas (e.g., mowing, herbicide application, and strictly managed grazed strips) to aid in controlling wildfire should wildfire occur near key habitats or important restoration areas (such as where investments in restoration have already been made).				
210	72	Fire Management	BMP	PHA/GHA	Develop state-specific sage-grouse reference information and resource materials containing maps, a list of resource advisors, contact information, local guidance, and other relevant information.				
211	72	Fire Management	BMP	PHA/GHA	Provide localized maps to dispatch offices and extended attack incident commanders for use in prioritizing wildfire suppression resources and designing suppression tactics.				
212	72	Fire Management	BMP	PHA/GHA	Assign a sage-grouse resource advisor to all extended attack fires in or near key sage-grouse habitat areas. Prior to the fire season, provide training to sage-grouse resource advisors on wildfire suppression organization, objectives, tactics, and procedures to develop a cadre of qualified individuals.				
213	72	Fire Management	BMP	PHA/GHA	On critical fire weather days, pre-position additional fire suppression resources to optimize a quick and efficient response in sage-grouse habitat areas.				
214	72	Fire Management	BMP	PHA/GHA	During periods of multiple fires, ensure line officers are involved in setting priorities.				
215	72	Fire Management	BMP	PHA/GHA	Locate wildfire suppression facilities (i.e., base camps, spike camps, drop points, staging areas, and heli-bases) in areas where				

					physical disturbance to sage-grouse 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.				
216	72	Fire Management	BMP	PHA/GHA	Power-wash all firefighting vehicles, including engines, water tenders, personnel vehicles, and ATVs prior to deploying in or near sage-grouse habitat areas to minimize noxious weed spread.				
217	72	Fire Management	BMP	PHA/GHA	Minimize unnecessary cross-country vehicle travel during fire operations in sage-grouse habitat.				
218	72	Fire Management	BMP	PHA/GHA	Minimize burnout operations in key sage-grouse habitat areas by constructing direct fireline whenever safe and practical to do so.				
219	72	Fire Management	BMP	PHA/GHA	Utilize retardant and mechanized equipment to minimize burned acreage during initial attack.				
220	72	Fire Management	BMP	PHA/GHA	As safety allows, conduct mop-up where the black adjoins unburned islands, dog legs, or other habitat features to minimize sagebrush loss.				

**NW CO Sage Grouse EIS
Communication Websites
Cooperating Agency Meeting
May 18th, 2012**

I. External Dept. of Interior SharePoint

You all should have received an email with login access instructions for this site.

This is the site we will use for most communication, such as posting of documents.

- a. <https://connect.doi.gov/blm/Portal/GRSG/SitePages/Home.aspx>

II. Secure File Transfer Application – Anonymous login link

Files will stay here for 180 days after posting date

- a. <https://www.blm.gov/sfta/anonymous/anonymousLogin.do>

III. Washington Office Sage Grouse Website

This is the National Sage Grouse website that is housed out of Washington Office

National policies, direction and information that are accessible to the public will be posted here.

- a. <https://www.blm.gov/wo/st/en/prog/more/sagegrouse.html>

IV. Rocky Mountain Region Sage Grouse Website

This website is specific to the Rocky Mountain Region (CO, WY, UT, MT).

- a. <http://www.blm.gov/wo/st/en/prog/more/sagegrouse/eastern.html>

V. Colorado BLM Sage Grouse Website

This website is specific to Colorado regarding Sage Grouse issues and information.

- a. http://www.blm.gov/co/st/en/BLM_Programs/wildlife/sage-grouse.html

No.	Program Area	Habitat	NTT Page	Alternatives
Objective: Maintain and enhance populations and distribution of sage-grouse by protecting and improving sagebrush habitats and ecosystems that sustain sage-grouse populations.				
Travel & Transportation Management				Objective: Manage transportation to 1) reduce mortality from vehicle collisions, 2) limit change in sage-grouse behavior, 3) avoid, minimize, and mitigate habitat fragmentation, 4) limit the spread of noxious weeds, and 5) limit disruptive activity associated with human access.
1	Travel	Priority	11	Limit motorized travel to designated roads, primitive roads, and trails at a minimum. Close roads permanently or seasonally, and designate routes administrative access only as necessary to maintain or improve sage grouse habitat.
2	Travel	Priority	11	Identify permanent or seasonal closure areas for sage-grouse.
3	Travel	Priority	11	Complete activity level plans within five years of the record of decision.
4	Travel	Priority	11	During activity level planning, where appropriate, designate routes with current administrative/agency purpose or need to administrative access only.
5	Travel	Priority	11	Limit route construction to realignments of existing designated routes if that realignment has a minimal impact on sage-grouse habitat, eliminates the need to construct a new road, or is necessary for motorist safety.
6	Travel	Priority	11,63 65,68	Use existing roads, or realignments as described above to access valid existing rights that are not yet developed. If valid existing rights cannot be accessed via existing roads, then build any new road constructed to the absolute minimum standard necessary, and add the surface disturbance to the total disturbance in the priority area. If that disturbance exceeds 3 % for that area, then make additional, effective mitigation necessary to offset the resulting loss of sage-grouse habitat.
7	Travel	Priority	12	Allow no upgrading of existing routes that would change route category (road, primitive road, or trail) or capacity unless the upgrading would have minimal impact on sage-grouse habitat, is necessary for motorist safety, or eliminates the need to construct a new road.
8	Travel	Priority	12	Conduct restoration of roads, primitive roads and trails not designated in travel management plans. This also includes primitive route/roads that were not designated in Wilderness Study Areas and within lands with wilderness characteristics that have been selected for protection.
9	Travel	Priority	12	When reseeding roads, primitive roads and trails, use appropriate seed mixes (appropriate for sage-grouse ecological conditions) and consider the use of transplanted sagebrush.
Recreation Management				Objective: Manage Recreation to avoid 1) disruptive activities, 2) habitat fragmentation, and 3) spread of noxious weeds,
10	Recreation	ADH ²	12	Only allow SRPs that have neutral or beneficial affects to priority habitat areas.
Lands and Realty Management				Objective: Manage the Lands and Realty program to avoid, minimize and mitigate habitat loss or fragmentation and, loss of habitat connectivity, through the authorizations of Rights of Ways (ROWs), land tenure adjustments and propose land withdrawals.
11	Lands/ Realty	Priority	12	Make priority sage-grouse habitat areas exclusion areas for new ROWs permits. Consider the following exceptions:
		Priority	13	Within designated ROW corridors encumbered by existing ROW authorizations, new ROWs may be collocated within the designated corridors if the action may be completed with the existing disturbance.
		ADH	13,63	Where new ROWs are necessary, co-locate new ROWs within existing ROWs where possible. Subject to valid-existing rights require new ROWs within existing ROWs or where it best minimizes sage-grouse impacts. Use existing roads, or realignments as described above, to access valid existing rights that are not yet developed. Exception: If valid existing rights cannot be accessed via existing roads, then build any new road constructed to the absolute minimum standard necessary, and add the surface disturbance to the total disturbance in the priority area. If that disturbance exceeds 3% for that area, then make additional effective mitigation necessary to offset the resulting loss of sage-grouse. If such a ROW is subsequently relinquished, the Authorized Officer will require the holder to complete reclamation with objective of ensuring reestablishment of prior affected sage-grouse habitat.
12	Lands/	Priority	13,63,	Evaluate and take advantage of opportunities to remove, bury, or modify existing power lines. When possible, require perch deterrents on existing or new overhead facilities.

	Realty		64	
13	Lands/ Realty	Priority	13	Where existing leases or ROWs have had some level of development (road, fence, well, etc.) and are no longer in use, reclaim the site by removing these features and restoring the habitat.
14	Lands/ Realty	Priority	13	Relocate existing designated ROW corridors crossing priority sage-grouse habitat void of any authorized ROWs, outside of the priority habitat area. If relocation is not possible, un-designate that entire corridor during the planning process.
15	Lands/ Realty	General	13	Make general sage-grouse habitat areas “avoidance areas” for new ROWs. Develop criteria that would be used to determine if a proposed ROW could be sited in an avoidance area or not.
16	Lands/ Realty	Priority	13	Retain public ownership of priority sage-grouse habitat. Consider exceptions where:
			13	Disposal Criteria: There is mixed ownership, and land exchanges would allow for additional or more contiguous federal ownership patterns within the priority sage-grouse habitat area.
			13	Disposal Considerations: Under priority sage-grouse habitat areas with minority federal ownership, include an additional, effective mitigation agreement for any disposal of federal land. As final preservation measures consider identifying and pursuing off-site compensation/mitigation or the establishment of a conservation easement.
17	Lands/ Realty	Priority	14,23	Where suitable conservation actions cannot be achieved, seek to acquire state and private lands with intact subsurface mineral estate by donation, purchase or exchange in order to best conserve, enhance or restore sage-grouse habitat.
18	Lands/ Realty	Priority	14	Recommend withdrawal of lands open to the Mining Law.
19	Lands/ Realty	Priority	14	Recommend against withdrawals in priority sage grouse habitat that would reserve land for a particular purpose and/or transfer jurisdiction to another department, bureau or agency unless the subsequent land management will be consistent with sage grouse conservation measures. (For example; in a proposed withdrawal for a military training range buffer area, manage the buffer area with sage grouse conservation measures.)
Rangeland Management				<p>Objectives:</p> <ul style="list-style-type: none"> • Authorize livestock grazing in a manner that meets the plant growth requirements of vegetation that offers the best available habitat given site potential. Generally this would involve a sage-brush community with healthy cool season bunchgrass understory such as needle & thread, or bluebunch wheatgrass. • Following grazing, leave sufficient standing crop on the site to provide adequate hiding cover for nesting and early brood rearing the following year. • Avoid, or minimize direct effects of herbivores such as trampling of eggs and nests • Avoid or minimize altering sage-grouse behavior do to the presence of herbivores • Avoid impacts associated with range project infrastructure
20	Range	Priority	14	Incorporate sage grouse habitat objectives and management considerations into all BLM grazing allotments through AMPs or permit renewals.
21	Range	ADH	15	Develop specific objectives - through NEPA analysis conducted in accordance with the permit/lease renewal process - to conserve, enhance or restore priority sage-grouse habitat, based on Ecological Site Descriptions (ESDs) and assessments (including within wetlands and riparian areas). If an effective grazing system that meets sage-grouse habitat requirements is not already in place, select an alternative that conserves, restores or enhances sage-grouse habitat when permits or leases are renewed. (Doherty et al. 2011b, Williams et al. 2011).
22	Range	ADH	15	When existing ESDs have not been developed, or are too general to serve adequately as benchmarks, identify and document local areas of similar potential that exemplify achievement of sage-grouse habitat objectives, and use these sites as the benchmark reference.
23	Range	ADH	15	Establish measurable objectives related to sage-grouse habitat from baseline monitoring data, ecological site descriptions, or land health assessments/evaluations.
24	Range	Priority	15	Manage for vegetation composition and structure consistent with the Reference State (sometimes referred to as the Historic Climax Plant Community in older ecological site descriptions) described in the State and Transition Model developed for the relevant ESDs. Utilize the reference state in Ecological Site Descriptions (ESDs) as the site potential benchmark (and not just standards of range land heath or proper function condition objectives) when conducting land health assessments to determine if standards of range-land health related to sage-grouse habitat are being met.

25	Range	ADH	16	Manage riparian areas and wet meadows to achieve Proper Functioning Condition and maintain diverse species richness that includes a component of perennial forbs in conjunction with desirable riparian sedges, rushes, bulrushes and grasses as specified in the ESD reference state.
26	Range	ADH	15	Include terms and conditions on grazing permits and leases that assure plant growth requirement are met, and residual forage remains available for sage-grouse hiding cover. Specify as necessary: 1) Season or timing of use; 2) Numbers of livestock (includes temporary non-use or livestock removal); 3) Distribution of livestock use; 4) Intensity of use (utilization or stubble height objectives); 5) Kind of livestock (e.g., cattle, sheep, horses, llamas, alpacas and goats); 6) Class of livestock (e.g., yearlings versus cow calf pairs)
27	Range	ADH	15	Mange hot season grazing on riparian and meadow complexes to promote recovery or maintenance of appropriate vegetation and water quality. Utilize fencing/herding techniques or seasonal use or livestock distribution changes to reduce pressure on riparian or wet meadow vegetation used by sage-grouse in the hot season (summer).
28	Range	ADH	15	Work cooperatively with permittees, leases and other landowners to develop grazing management strategies that integrate both public and private lands into single management units.
29	Range	ADH	15	Prioritize completion of land health assessments and processing grazing permits within priority sage-grouse habitat areas. Focus this process on allotments that have the best opportunities for conserving, enhancing or restoring habitat for sage grouse.
30	Range	ADH	15	When conducting land health assessments include indicators and measurements of structure, condition and, composition of vegetation specific to achieving sage-grouse habitat objectives. If local/state seasonal habitat objectives are not available, use sage-grouse habitat recommendations from Connelly et al. 2000b and Hagen et al. 2007.
31	Range	ADH		Monitor measureable objectives and evaluate grazing management to assure that management actions are achieving sage-grouse habitat objectives.
32	Range	Priority	15	Authorize new water development for diversion from spring or seep source only when priority sage-grouse habitat would benefit on both upland and riparian habitat from the development or there are no negative impacts to sage grouse. This includes developing new water sources for livestock as part of an AMP/conservation plan to improve sage-grouse habitat.
33	Range	Priority	16	Modify existing springs, seeps developments, and associated pipelines as necessary to maintain the continuity of the predevelopment riparian habitat.
34	Range	ADH		When conducting NEPA analysis for water developments or other rangeland improvements, address the direct and indirect effects to sage-grouse populations and habitat. For example, consider the manner in which a change in livestock distribution resulting from water development will affect the plant community in the newly accessible areas.
35	Range	ADH	17	Design any new structural range improvements to conserve, enhance, or restore sage-grouse habitat through an improved grazing management system relative to sage-grouse objectives. Structural range improvements, in this context, include but are not limited to: cattleguards, fences, enclosures, corrals or other livestock handling structures; pipelines, troughs, storage tanks (including moveable tanks used in livestock water hauling), windmills, ponds/reservoirs, solar panels and spring developments.
36	Range	Priority	17	To reduce sage-grouse strikes and mortality, remove, modify or mark fences in high risk areas identified based on proximity to lek, lek size, and topography.
37	Range	Priority	17	Design all range projects in a manner that minimizes potential for invasive species establishment. Monitor for, and treat invasive species associated with existing range improvements.
38	Range	Priority	17	When developing or modifying water developments, use best management practices related to West Nile Virus whenever appropriate and technically feasible
39	Range	ADH	17	Locate supplements (salt or protein blocks) in a manner designed to conserve, enhance or restore sage-grouse habitat.
40	Range	Priority	17	Retire grazing preference and do not authorize grazing -other than temporary use designed to rest or defer grazing on priority habitat in another area- when the advantage to sage grouse habitat warrants, and a permittee or lessee voluntarily relinquishes their grazing preference in a specific grazing allotment.
41	Range	ADH	18	Offer temporary use on a case by case basis in allotments where grazing preference has been relinquished or non –use warrants, to rest other allotments that include important sage-grouse habitat, or to mitigate fire danger.
42	Range	Priority	15	During drought periods, prioritize evaluating effects of the drought in priority sage-grouse habitat areas relative to their needs for food and cover. Since there is a lag in vegetation recovery

				following drought (Thurrow and Taylor 1999), ensure that post-drought management allows for vegetation recovery that meets sage-grouse needs in priority habitat areas.
Wild Horse Management				Objective: Manage wild horses in a manner designed to 1) avoid reductions in grass, forb and shrub cover, 2) avoid increasing unpalatable forbes and invasives such as cheatgrass
43	Wild Horses	ADH	18	Manage wild horse and burro population levels within established Appropriate Management Levels (AMLs).
44	Wild Horses	Priority	18	Prioritize gathers in priority sage-grouse habitat, unless removals are necessary in other areas to prevent catastrophic environmental issues, including herd health impacts.
45	Wild Horses	ADH		Develop objectives, monitor and evaluate rangelands in the same manner described in the range section.
46	Wild Horses	Priority	18	Develop or amend herd management area plans (HMAPs) to incorporate sage-grouse habitat objectives and management considerations for all BLM Herd Management Areas (HMAs).
47	Wild Horses	Priority	18	Prioritize the evaluation of all AMLs based on sage-grouse habitat objectives.
48	Wild Horses	ADH		Conduct land health assessments to determine existing structure/condition/composition of vegetation within HMAs.
49	Wild Horses	Priority	18	When conducting NEPA analysis for wild horse and burro management activities, water developments or other rangeland improvements for wild horses in priority sage-grouse habitat, address the direct and indirect effects to sage-grouse populations and habitat.
50	Wild Horses	Priority		Implement project infrastructure and vegetation treatments in the same manner described in the range section.
Fluid Minerals Management				Objective: Manage fluid minerals to avoid, minimize and mitigate 1) Direct disturbance, displacement, or mortality of sage-grouse, 2) Direst loss of habitat, or loss of effective habitat through fragmentation, and cumulative landscape level impacts.
51	Fluid Minerals	Priority	22	Close priority sage-grouse habitat areas to fluid mineral leasing. Upon expiration or termination of existing leases, do not accept nominations/expressions of interest for parcels within priority areas. Consider two exceptions:
			22	When an opportunity exists for the BLM to influence conservation measures where surface and/or mineral ownership is not entirely federally owned (e.g., checkerboard or other mixed and/or split-estate ownership). In this case, a plan amendment may be developed that opens the priority habitat area for new leasing. The plan must demonstrate a potential for long-term population increases in the priority habitat area through mitigation (prior to issuing the lease) including lease stipulations, off-site mitigation, etc., and avoid short-term losses that put the sage-grouse population at risk of extirpation from stochastic events leading to extirpation.
				Where drainage is likely, the BLM may issue new leases with an NSO stipulation with appropriate exception, waiver, and modification criteria. The BLM would consider granting an exception, modification, or waiver to this NSO only in collaboration with the state wildlife agency.
52	Fluid Minerals	Priority	22	Allow geophysical exploration within priority sage-grouse habitat areas to obtain information for existing Federal fluid mineral leases or areas adjacent to state or fee lands within priority sage-grouse habitat areas. Allow geophysical operations only using helicopter-portable drilling, wheeled or tracked vehicles on existing roads, or other approved methods conducted in accordance with seasonal timing limitations and other restrictions that may apply.
53	Fluid Minerals	Priority	22	In cases where Federal oil and gas leases have been issued without adequate stipulations for the protection of sage-grouse or their habitats being provided in the applicable RMP decision, as revised or amended, consider their inclusion as permit Conditions of Approval (COAs) when approving exploration and development activities through completion of the environmental record of review (43 CFR 3162.5), including appropriate documentation of compliance with NEPA. Overall consideration shall be given to minimizing the impact to sage-grouse through a project design that avoids, minimizes, reduces, rectifies, and/or adequately compensates for direct and indirect impacts to sage-grouse habitat or use and includes applicable and technically COAs (see this table's Leased Estate Management Actions and BMP Fluid Minerals and Multiple Programs). Selection and application of these measures shall be based on current science and research on the effects to important breeding, nesting, brood-rearing, and wintering areas. For proposed operations in priority habitat areas, the Surface Use Plan of Operations (see 43CFR 3162-1(f)) shall address, at a minimum, the anticipated noise, density and amount of disturbance, mechanical movement (e.g., pump jacks), permanent and temporary facilities, traffic, phases of development over time, offsite mitigation, and expected periods of use

				<p>associated with the proposed project. Seasonal habitats or project features related to potential sage-grouse impacts that are not addressed in the SUPO based on site-specific or project-specific considerations shall be noted in the project file, along with a rationale for not including them.</p> <ul style="list-style-type: none"> • In this process evaluate, among other things: Whether the conservation measure is “reasonable” (43 CFR 3101.1-2) and consistent with valid existing rights; • Whether the action is in conformance with the approved RMP; and <p>The effectiveness of the proposed mitigation measures.</p>	
54	Fluid Minerals	Priority		The conservation measures described below shall be considered relative to all exploration and development applications submitted to the BLM and located within sage-grouse priority habitat areas within the constraints of valid existing rights. Due to site-specific circumstances, some features may not apply to some projects and/or may require deviation from what is described.	
55	Fluid Minerals	Priority	23	Do not allow new surface occupancy on Federal leases within priority habitat areas, including winter concentration areas during any time of the year (Doherty et al. 2008, Carpenter et al. 2010). Where this is not possible due to valid existing rights and development requirements for the specific geologic and fluid mineral resources, consider the following disturbance and surface occupancy limits to the extent practicable:	
56	Fluid Minerals	Priority	23	If the lease is entirely within priority habitats, apply a 4-mile NSO around the lek and limit permitted disturbances to 1 per section with no more than 3% surface disturbance a designated habitat management zone.	
57	Fluid Minerals	Priority	23	If the entire lease is within the 4 mile lek perimeter, limit permitted disturbances to 1 per section with no more than 3% surface disturbance a designated habitat management zone, and require that development be placed at the most distal part of the lease from the lek, or depending on topography and other habitat aspects, and in an area that is less demonstrably harmful to sage-grouse.	
58	Fluid Minerals	Priority	23	Apply a seasonal timing restriction on exploratory drilling that prohibits construction, drilling, completion, and reclamation activities, including those for exploratory wildcat wells, during the nesting and early brood-rearing seasons in all priority sage-grouse habitats areas for this period.	
59	Fluid Minerals	Priority	23	To ensure comprehensive planning relative to sage-grouse conflicts, complete Master Development Plans during planning and review of projects involving multiple proposed disturbances within a lease or priority habitat area, with an exception for individual wildcat (exploratory) wells.	
60	Fluid Minerals	Priority	23	Consider and exception to the 3% limit if the project siting and design and additional mitigation are demonstrated to be capable of minimizing or offsetting resultant loss of sage grouse habitat.	
61	Fluid Minerals	Priority	23	When mitigation is necessary, conduct it in priority sage-grouse habitat areas, or if that is not possible, in general sage-grouse habitat with the ability to increase sage-grouse populations.	
62	Fluid Minerals	Priority	23	When additional mitigation is necessary, conduct it within the same population area where the impact occurs, or if that is not possible, within the same management zone as the impact.	
63	Fluid Minerals	Priority	23	Encourage unitization when deemed necessary for proper development and operation of an area or to facilitate more orderly (e.g., phased and/or clustered) development as a means of minimizing adverse impacts to sage-grouse. (See Federal Lease Form, 3100-11, Sections 4 and 6).	
64	Fluid Minerals	Priority	23	Require a full reclamation bond specific to the site and sufficient to cover costs required for full reclamation (Connelly et al. 2000, Hagen et al. 2007).	
65	Fluid Minerals	Priority	24	Where applicable and technically feasible, apply Best Management Practices (see this table’s Fluid Minerals and Multiple Program Sections) as mandatory Conditions of Approval (COAs) within priority sage-grouse habitat.	The range of alternatives is articulated in the specific BMP sections.

Coal Management				Manage coal authorizations to avoid, minimize and mitigate adverse impacts to sage-grouse habitat to the extent practical under the law and the BLM’s jurisdiction
66	Solid Minerals-Coal	ADH		<u>Existing Coal Leases:</u> During the term of the lease, encourage the lessee to voluntarily follow BMPs to reduce and mitigate any adverse impacts to sage grouse.
67	Solid Minerals-Coal	Priority	24	<u>New Surface coal mine Leases:</u> Apply the requirements of 43 CFR Subpart 3461 to determine unsuitability. Find unsuitable all surface mining of coal under the criteria set forth in 43 CFR 3461.5 to ensure that the specific Lek instance or reference is adequately addressed.
68	Solid Minerals-Coal	Priority	24	<u>New Underground Coal Mines Leases:</u> Grant no new mining leases unless all surface disturbances (appurtenant facilities) are placed outside of the priority sage-grouse habitat area [see 43 CFR 3461.1 (a) and (b)]. Also see Part 3460: Environment, Subpart 3461: Federal Lands Review: Unsuitability for Mining, 3461.1.
				Underground mining exemption criteria for new leases:
				(a) Federal lands with coal deposits that would be mined by underground mining methods shall not be assessed as unsuitable where there would be no surface coal mining operations, as defined in 43 CFR 3400.0-5 (mm) of this title, on any lease, if issued.
				(b) Where underground mining will include surface operations and surface impacts on Federal lands to which a criterion applies, the lands shall be assessed as unsuitable unless the surface management agency find that a relevant exception or exemption applies. See 43 CFR 3461.1(b).
69	Solid Minerals-Coal	Priority		See 43 CFR 3461.4 (a) and (b) Exploration. Authorized exploration activities may be conducted in priority sage grouse habitat only if the authorized officer reviews any application for an exploration license on such lands to ensure that any exploration does not harm any value for which the area has been assessed as unsuitable, and determines that the exploration will not have an adverse impact on sage grouse or that the impact can be fully mitigated.
70	Solid Minerals - Coal	Priority		<u>Underground mining – Leases renewals:</u> <ul style="list-style-type: none">Require that all surface mining appurtenant facilities for underground mining be located outside of priority habitat (unless the lessee establishes that that such location is not technically feasible).If surface mining facilities must be located in priority habitat, require the facilities be located in areas of existing disturbance and to have the smallest footprint possible utilizing design strategies to minimize disturbance such as those identified in the BMP Section of this table.Apply as conditions of lease renewal all appropriate conservation measures, BMPs, and mitigation designed to avoid, minimize impacts to sage-grouse. <u>Surface mining - leases renewals/readjustments:</u> Apply as conditions of lease renewal all appropriate conservation measures, BMPs, and mitigation designed to avoid, minimize impacts to sage-grouse.
71	Solid Minerals-Coal	ADH		Recommend or require as appropriate during all relevant points of the coal leasing and authorization process, minimization of surface-disturbing or disrupting activities (including operations and maintenance) where needed to reduce the impacts of human activities on important seasonal sage-grouse habitats. Apply these measures during activity level planning (Jurisdiction is managed by the State.) The Office of Surface Mining or a delegated State Regulatory authority under SMCRA authorizes surface disturbance activities of active coal mining operations on federal mineral estate. The BLM coordinates with the SMCRA regulatory authority in overseeing coal leasing and permitting on Federal lands. The resource recovery and protection plan for which BLM recommends approval to the Secretary integrates the reclamation plan recommended by the SMCRA regulatory authority for active coal mines on federal mineral estate. Approval of coal mining plans on lands containing leased Federal coal is reserved to the Secretary of the Interior. 30 CFR 740.4. BLM issues coal leases and exploration licenses for right of entry to promote development of minerals on Federal lands. See the following in regards to BLM exploration: 43 CFR § 3461.4. Exploration. States with delegated authority on Federal lands from the Office of Surface Mining may have their own sage grouse guidance in association with state wildlife agencies and such guidance may differ from state to state.
				(a) Assessment of any area as unsuitable for all or certain stipulated methods of coal mining operations pursuant to section 522 of the Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1272) and the regulations of this subpart does not prohibit exploration of such area under 43 CFR Subpart 3410 and 43 CFR Part 3480.43 CFR 3461.4(a)
				(b) An application for an exploration license on any lands assessed as unsuitable for all or certain stipulated methods of coal mining shall be reviewed by the Bureau of Land Management to ensure that exploration does not harm any value for which the area has been assessed as unsuitable. 43 CFR 3461.4(b)
Solid Minerals Management				Objective: Manage solid mineral authorizations to avoid, minimize and mitigate adverse impacts to sage-grouse habitat to the extent practical under the law and the BLM’s jurisdiction

72	Locatable Minerals	Priority	24	Recommend withdrawal from mineral entry based on risk to the sage-grouse and its habitat from conflicting locatable mineral potential and development.	
73	Locatable Minerals	Priority	24	In accordance with 43 CFR 3809.100, require validity exams for mining claims within withdrawn areas.	
74	Locatable Minerals	Priority	24	In plans of operations required prior to any proposed surface disturbing activities include as appropriate effective mitigation in perpetuity for conservation in accordance with existing policy, WO IM 2008-204).	
75	Locatable Minerals	Priority	25	Apply seasonal restrictions if deemed necessary to prevent unnecessary or undue degradation.	
76	Locatable Minerals	Priority	25	Where applicable to prevent unnecessary or undue degradation, apply Best Management Practices (see this table's BMPs for Locatable Minerals and Multiple Program) as mandatory conditions of approval.	The range of alternatives is articulated in the specific BMP sections.
77	Non-energy Leasable Minerals	Priority	25	Close priority habitat to non-energy leasable mineral leasing. This includes not permitting any new leases to expand an existing mine.	
78	Non-energy Leasable Minerals	Priority	25	For existing non-energy leasable mineral leases apply applicable and as appropriate Solid Mineral, Fluid Mineral and Multiple Program BMPs (see this table's BMP Section), when wells are used for solution mining. New environmental guidance can be implemented during a lease renewal or readjustment.	The range of alternatives is articulated in the specific BMP sections.
79	Salable Minerals	Priority	25	Close priority habitat to mineral material sales.	
80	Salable Minerals	Priority	25	Restore saleable mineral pits no longer in use to meet sage-grouse habitat conservation objectives. Require reclamation/restoration of sage grouse habitat as a viable long term goal to improve the sage grouse habitat.	
Split Estate Minerals Management				Objective: Utilize federal authority to protect sage-grouse habitat on split estate lands to the extent provided by law	
81	All Minerals	Priority	25	Where the federal government owns the mineral estate and the surface is in non-federal ownership, apply conservation measures to the developer (lessee) of the mineral as allowable	

82	All Minerals	Priority	25	Where the federal government owns the surface, and the mineral estate is in non-federal ownership, apply appropriate BMPs to surface development.
Vegetation Treatments				Objective: Manage vegetation to avoid sage-grouse habitat loss, and restore damaged habitat.
83	Vegetation Treatments	ADH	28, 71	Restore native (or desirable) plants and design fuels treatment projects to create landscape patterns which most benefit sage-grouse. Write specific land use plan objectives for vegetation that connects habitats and creates patterns that benefit sage-grouse. Write specific vegetation management objectives relative to invasive annual grass spread and woody plant removal where these are of concern in sage-grouse habitat. Consider management objectives in buffers around intact priority habitats that detect and rapidly respond to invasions in the buffer zones.
84	Vegetation Treatments	Priority	26	Do not reduce sagebrush canopy cover to less than 15% (Connelly et al. 2000, Hagen et al. 2007) unless a vegetation management objective requires additional reduction in sagebrush cover to meet strategic protection of priority sage-grouse habitat and conserve habitat quality for the species.
85	Vegetation Treatments	ADH	16	Only allow treatments that conserve, enhance or restore sage-grouse habitat (this includes treatments that benefit livestock as part of an AMP/Conservation Plan to improve sage-grouse habitat).
86	Vegetation Treatments	Priority	16	Evaluate the role of existing seedings that are currently composed of primarily introduced perennial grasses in and adjacent to priority sage-grouse habitats to determine if they should be restored to sagebrush or habitat of higher quality for sage-grouse. If these seedings are part of an AMP/Conservation Plan or if they provide value in conserving or enhancing the rest of the priority habitats, then no restoration would be necessary. Assess the compatibility of these seedings for sage-grouse habitat or as a component of a grazing system during land health assessments (Davies et al. 2011). For example, some introduced grass seedings are an integral part of a livestock management plan and reduce grazing pressure in important sagebrush habitats, or serve as a strategic fuels management area.
87	Vegetation Treatments	Priority	26	Apply appropriate seasonal restrictions for implementing vegetation management treatments according to the type of seasonal habitats present in a priority area.
88	Vegetation Treatments	Priority	26	Allow no treatments in known winter range unless the treatments are designed to strategically reduce wildfire risk around or in the winter range and will maintain winter range habitat quality.
89	Vegetation Treatments	Priority	26	Do not use fire to treat sagebrush in less than 12-inch precipitation zones (e.g., Wyoming big sagebrush or other xeric sagebrush species; Connelly et al. 2000, Hagen et al. 2007, Beck et al. 2009). However, if as a last resort and after all other treatment opportunities have been explored, and site specific variables allow, the use of prescribed fire that would disrupt fuel continuity or enhance land health could be considered where cheatgrass is a very minor component in the understory (Brown 1982).
90	Vegetation Treatments	ADH	26	Monitor and control invasive vegetation post-treatment.
91	Vegetation Treatments	ADH	26	Rest treated areas from grazing for two full growing seasons unless vegetation recovery dictates otherwise (WGFD 2011).
92	Vegetation Treatments	ADH		Vegetation treatments must include monitoring to determine achievement of objectives and their long-term success.
93	Vegetation Treatments	ADH	26,27 71	Require native plant seeds for vegetation treatments based on availability, adaptation (site potential), probability for success, and the vegetation management objectives for the area covered by the treatment (Richards et al. 1998). Where probability of success or native seed availability is low, use species that meet soil stability and hydrologic function objectives as well as vegetation and sage-grouse habitat objectives (Pyke 2011).
94	Vegetation Treatments	ADH	27,28	Reestablish appropriate sagebrush species/subspecies and important understory plants relative to site potential. Identify priority plant species and collect seed of understory plants and sagebrush subspecies important to sage-grouse. Establish seed harvest areas that are managed for seed production (Armstrong 2007) and are a priority for protection from outside disturbances.
95	Vegetation Treatments	ADH	26,27, 28	Apply post vegetation treatment management and monitoring to ensure long term persistence of seeded native plants. Outline temporary or long-term changes in livestock grazing, wild horse and burro, and travel management, etc., to achieve and maintain vegetation management objectives to benefit sage-grouse and their habitats (Eiswerth and Shonkwiler 2006).
96	Vegetation Treatments	ADH	27,71	Design vegetation treatments in sage-grouse habitats to strategically facilitate firefighter safety, reduce wildfire threats, and extreme fire behavior. This may involve spatially arranging new vegetation treatments with past treatments, vegetation with fire-resistant serial stages, natural barriers, and roads in order to constrain fire spread and growth. This may require vegetation treatments to be implemented in a more linear versus block design (Launchbaugh et al. 2007).

97	Vegetation Treatments	ADH	27	During fuels management project design, consider the utility of using livestock to strategically reduce fine fuels (Diamond et al. 2009), and implement grazing management that will accomplish this objective (Davies et al. 2011 and Launchbaugh et al 2007), consistent with the objectives and conservation measures of the grazing section.	
98	Vegetation Treatments	ADH		Where applicable and technically feasible, apply Best Management Practices identified in this table's BMP Section - Vegetation Treatments	The range of alternatives is articulated in the specific BMP sections.
99	Vegetation Treatments	ADH		Prioritize vegetation treatments that are designed to strategically reduce wildfire threat in areas of high fire risk rather than where the probability of fire is low and the potential for natural post-fire recovery is high	
100	Vegetation Treatments	ADH		Give priority for implementing specific sage-grouse habitat restoration projects in annual grasslands first to sites which are adjacent to or surrounded by sage-grouse key habitats (e.g., buffers around intact habitats); second to annual grasslands when the sites are not adjacent to key habitat, but are within 2 miles of key habitat; and third to sites beyond 2 miles of key habitat. The intent is to focus restoration outward from existing, intact habitat.	
101	Emergency Stabilization/ Rehabilitation	ADH	27	Prioritize native seed allocation for use in priority sage-grouse habitat in years when preferred native seed is in short supply.	
102	Emergency Stabilization/ Rehabilitation	ADH	28	Prioritize implementation of restoration projects based on environmental variables that improve chances for project success in areas most likely to benefit sage-grouse (Meinke et al. 2009).	
103	Emergency Stabilization/ Rehabilitation	ADH	28	Prioritize restoration treatments and monitoring in seasonal habitats that are thought to be limiting sage-grouse distribution and/or abundance. Write specific land use plan objectives and design treatments to achieve vegetation that provides seasonal habitat where it is thought to be limiting.	
104	Emergency Stabilization/ Rehabilitation	ADH	28	Include sage-grouse habitat parameters as defined by Connelly et al. (2000), Hagen et al. (2007) or if available, State Sage-Grouse Conservation plans and appropriate local information in habitat restoration objectives. Make maintaining these objectives within priority sage-grouse habitat areas a high restoration priority.	
105	Vegetation Treatments	ADH	28	Make reestablishment of sagebrush and desirable understory plant cover (relative to ecological site potential) a high priority for restoration efforts. Write specific vegetation objectives to reestablish sage-brush cover and desirable understory cover.	
105	Vegetation Treatments	ADH	72	Give priority for implementing specific sage-grouse habitat restoration projects in annual grasslands first to sites which are adjacent to or surrounded by sage-grouse key habitats (e.g., buffers around intact habitats); second to annual grasslands when the sites are not adjacent to key habitat, but are within 2 miles of key habitat; and third to sites beyond 2 miles of key habitat. The intent is to focus restoration outward from existing, intact habitat.	
Fire Management				Objective: Manage fire to maintain and enhance large blocks of contiguous sagebrush.	
106	Fire Management	Priority	27	Prioritize suppression, immediately after firefighter and public safety to conserve the habitat.	
107	Fire Management	ADH	27	Assign a high priority for suppression where wildfires threaten priority sage-grouse habitat.	
108	Fire Management	ADH	27	Where applicable and technically feasible, apply Best Management Practices identified in this table's	The range of alternatives is articulated in the specific BMP sections.

				BMP Section – Fire Management.	
Best Management Practices – West Nile Virus					
109	West Nile Virus	ADH	61	Increase the size of freshwater ponds to accommodate a greater volume of water than is discharged. This will result in un-vegetated and muddy shorelines that breeding <i>Culex. tarsalis</i> avoid (De Szalay and Resh 2000). This modification may reduce <i>Cx. tarsalis</i> habitat but could create larval habitat for <i>Culicoides sonorensis</i> , a vector of blue tongue disease, and should be used sparingly (Schmidtman et al. 2000). Steep shorelines should be used in combination with this technique whenever possible (Knight et al. 2003).	No Similar Action
110	West Nile Virus	ADH	61	Build steep shorelines to reduce shallow water (>60 cm) and aquatic vegetation around the perimeter of impoundments (Knight et al. 2003). Construction of steep shorelines also will create more permanent ponds that are a deterrent to colonizing mosquito species like <i>Cx. tarsalis</i> which prefer newly flooded sites with high primary productivity (Knight et al. 2003).	

111	West Nile Virus	ADH	61	Maintain the water level below that of rooted vegetation for a muddy shoreline that is unfavorable habitat for mosquito larvae. Rooted vegetation includes both aquatic and upland vegetative types. Avoid flooding terrestrial vegetation in flat terrain or low lying areas. Aquatic habitats with a vegetated inflow and outflow separated by open water produce 5-10 fold fewer Culex mosquitoes than completely vegetated wetlands (Walton and Workman 1998). Wetlands with open water also had significantly fewer stage III and IV instars which may be attributed to increased predator abundances in open water habitats (Walton and Workman 1998).
112	West Nile Virus	ADH	61	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 (Knight et al. 2003).
113	West Nile Virus	ADH	61	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, thus precluding shallow surface inflow and accumulation of sediment that promotes aquatic vegetation.	
114	West Nile Virus	ADH	61	Line the overflow spillway with crushed rock, and construct the spillway with steep sides to preclude the accumulation of shallow water and vegetation.	
115	West Nile Virus	ADH	62	Fence pond site to restrict access by livestock and other wild ungulates that trample and disturb shorelines, enrich sediments with manure and create hoof print pockets of water that are attractive to breeding mosquitoes	
Best Management Practices – Multiple Programs					
Note: In locatable mineral applications the BLM only has authority to restrict activities when they are deemed unnecessary or undue degradation. In this situation the BLM would request that the BMPs be implemented and require implementation only as necessary to restrict unnecessary and undue degradation. This language is inferred whenever it applies to BMPs for Locatable Minerals, notably material taken from pages 68 and 69 from the NTT report.					
116	Multiple Programs	Priority	63,68	Locate roads to avoid important areas and habitats.	
117	Multiple Programs	ADH	63,65, 68	Coordinate road construction and use among ROW holders.	
118	Multiple Programs	ADH	63,65, 68	Construct road crossings of ephemeral, intermittent, and perennial streams to minimize impacts to the riparian habitat, such as by crossing at right angles to ephemeral drainages and stream crossings.	
119	Multiple Programs	ADH	63,65, 68	Establish slow speed limits on BLM-administered roads or design roads for slower vehicle speeds to reduce sage-grouse mortality.	
120	Multiple Programs	Priority	63,68	Restrict vehicle traffic to only authorized users on newly constructed routes (using signage, gates, etc.)	
121	Multiple Programs	ADH	63,66, 68,69	Close and rehabilitate duplicate roads by restoring original landform and establishing desirable vegetation.	

122	Multiple Programs	Priority	63,68	Place infrastructure in already disturbed locations where the habitat has not been fully restored.
123	Multiple Programs	Priority	64,66, 68	Restrict the construction of tall facilities, distribution powerlines, and fences to the minimum number and amount needed
124	Multiple Programs	Priority	64,68	Site and/or minimize linear ROWs to reduce disturbance and fragmentation of sagebrush habitats.
125	Multiple Programs	Priority	64,66, 68	Equip tanks and other above-ground facilities with structures or devices that discourage nesting of ravens and raptors.
126	Multiple Programs	ADH	64,66, 69,72, 72	Control the spread and effects of invasive non-native plant species (Evangelista et al. 2011), including treating weeds prior to surface disturbance and washing vehicles (including fire vehicles) and equipment at designated wash stations when constructing in areas with weed infestations).
127	Multiple Programs	ADH	65,68, 69,71	When fences are necessary, require a sage-grouse-safe design.
128	Multiple Programs	ADH	65, 66, 69	Require proper containment and prompt removal of refuse to avoid attracting predators (Bui et al. 2011).
129	Multiple Programs	Priority	65, 69	Use mulching, soil amendments, and/or erosion blankets to expedite reclamation and to protect soils.
130	Multiple Programs	Priority	66,69	Include restoration objectives to meet sage-grouse habitat needs in reclamation practices/sites (pike 2011). Address post reclamation management in reclamation plans such that goals and objectives are to enhance and restore sage-grouse habitat.
131	Multiple Programs	ADH	63,65, 68	Apply dust abatement on roads, well pads, and other surface disturbances.
132	Multiple Programs	Priority	63,66, 68	Cluster disturbances, operations (hydraulic fracture stimulation, equipment sheds, etc.), and facilities.
133	Multiple Programs	Priority	65,69	Implement irrigation during reclamation for sites where establishment of seedlings has been shown or is expected to be difficult due to dry conditions.
Best Management Practices – Fluid Minerals				
134	Fluid Minerals	Priority	63,66	Use remote monitoring techniques for production facilities and develop a plan to reduce the frequency of vehicle use (Lyon and Anderson 2003). Establish trip restrictions (Lyon and Anderson 2003) or minimization through the use of telemetry and remote well control (e.g., Supervisory Control and Data Acquisition).
135	Fluid Minerals	ADH	63,65 68	Do not issue ROWs to counties on newly constructed energy development roads, unless for a temporary use consistent with all other terms and conditions included in this document.
136	Fluid Minerals	ADH	63,66	Use directional and horizontal drilling to the extent feasible as a means to reduce surface disturbance in relation to the number of wells.
137	Fluid Minerals	Priority	63	Consider using oak (or other material) mats for drilling activities where topography permits to reduce vegetation disturbance and for temporary roads between closely spaced wells to reduce soil compaction and maintain soil structure to increase likelihood of vegetation reestablishment following drilling.
138	Fluid Minerals	Priority	63	Apply a phased development approach with concurrent reclamation.
139	Fluid Minerals	Priority	63	Place liquid gathering facilities outside priority areas. Do not place tanks at well locations within priority habitat areas to reduce truck traffic and perching and nesting sites for ravens and raptors.

140	Fluid Minerals	Priority	64	Co-locate (corridor) powerlines, flowlines, and small pipelines under or immediately adjacent to existing roads.	
141	Fluid Minerals	Priority	64	Design or site permanent structures to minimize impacts to 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 to minimize disturbance of sage-grouse or interference with habitat use.	
142	Fluid Minerals	ADH	64,66	Cover all fluid-containing pits and open tanks with netting (maximum 1.5-inch mesh size).	
143	Fluid Minerals	ADH	64	Use only closed-loop systems for drilling operations, with no reserve pits.	
144	Fluid Minerals	ADH	64,66	See this table's BMP Section West Nile Virus	No similar action
145	Fluid Minerals	ADH	64	Limit noise to less than 10 decibels (dbA) above ambient measures (typically 20 to 24 dbA) from 2 hours before until 2 hours after at sunrise at the perimeter of a lek during active lek season (Patricelli et al. 2010, Blickley et al. <i>in preparation</i>).	
146	Fluid Minerals	ADH	64	Require noise shields when drilling during the lek, nesting, brood-rearing, and wintering seasons.	
147	Fluid Minerals	ADH	65	Locate new compressor stations outside priority habitats and require a design that reduces noise directed toward priority habitat.	
149	Fluid Minerals	ADH	65	Locate man camps outside priority sage-grouse habitats.	
150	Fluid Minerals	ADH	65	Include reclamation objectives requiring that sage-grouse habitat needs are adequately addressed and accomplished (Pyke 2011).	
151	Fluid Minerals	Priority	65	Maximize the area of interim reclamation on long-term access roads and well pads, including reshaping, topsoiling, and revegetating cut-and-fill slopes.	
152	Fluid Minerals	Priority	65	Restore disturbed areas at final reclamation to the pre-disturbance landforms and desired plant community.	
Best Management Practices – Locatable Minerals					
153	Locatable Minerals	ADH	68	Do not issue ROWs to counties on mining development roads, unless for a temporary use consistent with all other terms and conditions included in this document	
154	Locatable Minerals	ADH	68	Request that operators place new utility developments (power lines, pipelines, etc.) and transportation routes in existing utility or transportation corridors; require as necessary to prevent unnecessary or undue degradation under 43 CFR subpart 3809.	
155	Locatable Minerals	ADH	68	Request that operators bury power lines; require as necessary to prevent unnecessary or undue degradation under 43 CFR subpart 3809.	
156	Locatable Minerals	ADH	68	Request that operators cover (e.g., fine mesh netting or use other effective techniques) all pits and tanks regardless of size to reduce sage-grouse mortality; require as necessary to prevent unnecessary or undue degradation under 43 CFR subpart 3809.	
157	Locatable Minerals	ADH	69	See this table's BMP Section West Nile Virus. Request that operators adhere to the provisions of	No similar action

				that BMP sections, require as necessary to prevent unnecessary or undue degradation under 43 CFR subpart 3809.	
158	Locatable Minerals	ADH	69	Request that operators locate man camps outside priority habitat; require as necessary to prevent unnecessary or undue degradation under 43 CFR subpart 3809.	
159	Locatable Minerals	ADH	69	Address post reclamation management such that goals and objectives are to protect and improve sage-grouse habitat needs. Request that operators plan for post reclamation management in their plans of operation.	
160	Locatable Minerals	ADH	69	Request that operator’s reclamation plan target pre-disturbance landform and desired plant community vegetation.	
Best Management Practices – Vegetation Treatments					
161	Vegetation Treatments	ADH	27	Consider seed collections from the warmer component within a species’ current range for selection of native seed. (Kramer and Havens 2009).	
162	Vegetation Treatments	ADH	71	Incorporate roads and natural fuel breaks into fuel break design	
163	Vegetation Treatments	ADH	71	Provide training/information to personnel planning vegetation treatments regarding sage-grouse biology, habitat requirements, and identification of areas utilized locally.	
164	Vegetation Treatments	ADH	71	Use vegetation treatment prescriptions that minimize undesirable effects on vegetation or soils (e.g., minimize mortality of desirable plant species and reduce risk of hydrophobicity. Incorporate the standard operating procedures outlined in the 17 states Veg EIS into all treatments.	
165	Vegetation Treatments	ADH	71	Ensure that proposed sagebrush treatments are planned with interdisciplinary input from BLM and /or state wildlife agency biologist and that treatment acreage is conservative in the context of surrounding sage-grouse seasonal habitats and landscape.	
166	Vegetation Treatments	ADH	71	Ensure that treatments are configured in a manner (e.g., strips) that promotes use by sage-grouse (See Connelly et al., 2000*)	
167	Vegetation Treatments	ADH	71	As funding and logistics permit, restore priority perennial grass/shrub plant communities infested with non-native invasive species to a species composition characterized by perennial grasses, forbs, and shrubs as outlined in Ecological Site Descriptions.	
168	Vegetation Treatments	ADH	71	Remove standing and encroaching trees within at least 100 meters of occupied sage-grouse leks and other habitats (e.g., nesting, wintering, and brood rearing) to reduce the availability of perch sites for avian predators.	
169	Vegetation Treatments	ADH	72	Protect wildland areas from wildfire originating on private lands, infrastructure corridors, and recreational areas.	
170	Vegetation Treatments	ADH	72	Reduce the risk of vehicle or human-caused wildfires and the spread of invasive species into sage-grouse habitats by planting perennial vegetation (e.g., green-strips) paralleling road rights-of-way.	
171	Vegetation Treatments	ADH	72	Strategically place and maintain pre-treated strips/areas (e.g., mowing, herbicide application, and strictly managed grazed strips) to aid in controlling wildfire should wildfire occur near key habitats or important restoration areas (such as where investments in restoration have already been made).	
Best Management Practices – Fire Management					
172	Fire	ADH	72	Develop state-specific sage-grouse reference information and resource materials containing maps, a list of resource advisors, contact information, local guidance, and other relevant	

	Management			information.
173	Fire Management	ADH	72	Provide localized maps to dispatch offices and extended attack incident commanders for use in prioritizing wildfire suppression resources and designing suppression tactics.
174	Fire Management	ADH	72	Assign a sage-grouse as a resource advisor to all extended attack fires in or near key sage-grouse habitat areas. Prior to the fire season, provide training to sage-grouse resource advisors on wildfire suppression organization, objectives, tactics, and procedures to develop a cadre of qualified individuals.
175	Fire Management	ADH	72	On critical fire weather days, pre-position additional fire suppression resources to optimize a quick and efficient response in sage-grouse habitat areas.
176	Fire Management	ADH	72	During periods of multiple fires, ensure line officers are involved in setting priorities.
177	Fire Management	ADH	72	Locate wildfire suppression facilities (i.e., base camps, spike camps, drop points, staging areas, and heli-bases) in areas where physical disturbance to sage-grouse 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.
178	Fire Management	ADH	72	Minimize unnecessary cross-country vehicle travel during fire operations in sage-grouse habitat.
179	Fire Management	ADH	72	Minimize burnout operations in key sage-grouse habitat areas by constructing direct fireline whenever safe and practical to do so.
180	Fire Management	ADH	72	Utilize retardant and mechanized equipment to minimize burned acreage during initial attack.
181	Fire Management	ADH	72	As safety allows, conduct mop-up where the black adjoins unburned islands, dog legs, or other habitat features to minimize sagebrush loss.

¹ - NTT stands for “National Technical Team” as it relates to the “Report on National Greater Sage-Grouse Conservation Measures” released on December 21, 2011. The NTT report, with a cross reference of the line items in this alternative, is included in Appendix XXX of this EIS.

² – All references to Sage – Grouse in this document refer to Greater Sage-Grouse

³ – All Designated Habitat includes, Priority, General and Connectivity habitat.

	Ongoing NW CO Sage Grouse EIS Schedule			
	*Green cells are regulatory timeframes, Orange cells are tasks that require Core ID Team input, Blue cells require Core and FO ID Team Input, Purple cells require Coop Agency Input.			
Line	Today's Date			May 17, 2012
1	Task	Begin Day	Days to complete	End Day
2	Publish Notice of Intent in the Federal Register	December 9, 2011	0	December 9, 2011
3	60-day Public Scoping Period + 15 days Ends	December 9, 2011	75	February 22, 2012
4	NTT Alternative Complete	February 19, 2012	0	February 19, 2012
5	Cooperating Agency Reps Identified	March 2, 2012	0	March 2, 2012
6	Must have Priority and General Habitat Map from CPAW	March 9, 2012	0	March 9, 2012
7	45-day Scoping Period Extension – Scoping Period Ends	February 7, 2012	45	March 23, 2012
8	Incorporate NTT Alternative into Chapter 2 of the 7 NW District EIS documents (Initial Version)	February 29, 2012	30	March 30, 2012
9	Incorporate NTT Alternative into Chapter 2 of the 7 NW District EIS documents (Revised Version)	March 30, 2012	21	April 20, 2012
10	NW District/ID Team Review Chapter 2 NTT Alternative Tables (Final Version)	April 20, 2012	7	April 27, 2012
11	Cooperating Agency Kick Off Meeting	May 18, 2012	0	May 18, 2012
12	Prepare Scoping Report/Identify Issues to be addressed (EMPSI National)	March 23, 2012	60	May 22, 2012
13	Local/State Review of Alternatives	May 22, 2012	7	May 29, 2012
14	Regional Review of Alternatives	May 29, 2012	14	June 12, 2012
15	Washington Office Review of Alternatives	June 12, 2012	14	June 26, 2012
16	Mapping Analysis to estimate current disturbance & mgmt blocks; Develop Affected Env and Chapter 1 (initial Version)	April 23, 2012	74	July 6, 2012
17	Mapping Analysis to estimate current disturbance & mgmt blocks; Develop Affected Env and Chapter 1 (FinalVersion)	July 6, 2012	7	July 13, 2012
18	Impact Analysis – Chapter 4 (Initial Version)	July 6, 2012	60	September 4, 2012
19	Impact Analysis – Chapter 4 (Final Version)	September 4, 2012	10	September 14, 2012
20	Prepare and submit NOA Package to COSO	September 14, 2012	7	September 21, 2012
21	Prepare Draft RMP Amendment/EIS – Clean up loose ends (with EMPSI Contract)	September 21, 2012	35	October 26, 2012
22	ID Team Review Draft RMP Amendment/Draft EIS	October 26, 2012	10	November 5, 2012
23	Cooperating Agencies Review Draft RMP Amendment/Draft EIS	November 5, 2012	30	December 5, 2012
24	Local/State Review of Draft EIS	December 5, 2012	7	December 12, 2012
25	Regional Review of Draft EIS	December 12, 2012	23	January 4, 2013
26	Washington Office Review of Draft EIS	January 4, 2013	14	January 18, 2013
27	Incorporate and respond to comments and finalize Draft RMP/Final EIS	January 18, 2013	14	February 1, 2013
28	COSO/WO Briefing + Permission to Print	February 1, 2013	7	February 8, 2013
29	Document Printing Time	February 1, 2013	21	February 22, 2013
30	Notice of Availability for Draft RMP/Draft EIS in Federal Register	February 22, 2013	7	March 1, 2013
31	90-day Public Comment Period on Draft	March 1, 2013	90	May 30, 2013
32	Incorporate & Respond to Public Comments (with EMPSI Contract)	May 30, 2013	45	July 14, 2013
33	Prepare Proposed RMP/Final EIS	July 14, 2013	45	August 28, 2013
34	Prepare and submit NOA, Comm Plan and Briefing Paper to COSO	August 28, 2013	7	September 4, 2013
35	ID Team Review Proposed RMP/Final EIS	September 4, 2013	10	September 14, 2013
36	Cooperating Agencies Review Proposed RMP/Final EIS	September 14, 2013	30	October 14, 2013
37	Local/State Review of Final EIS	October 14, 2013	7	October 21, 2013
38	Regional Review of Final EIS	October 21, 2013	14	November 4, 2013
39	Washington Office Review of Final EIS	November 4, 2013	14	November 18, 2013
40	Incorporate and respond to comments and finalize Proposed RMP/FEIS	November 18, 2013	14	December 2, 2013
41	COSO/WO Briefing + Permission to Print	December 2, 2013	7	December 9, 2013
42	Document Printing Time	December 9, 2013	21	December 30, 2013
43	Notice of Availability for Proposed RMP Amendments/Final EIS	February 7, 2014	7	February 14, 2014
44	Begin 30-day Protest Period + Governor’s Consistency Review	February 14, 2014	1	February 15, 2014
45	Protest Period	February 15, 2014	30	March 17, 2014
46	Governor’s Consistency Review	February 15, 2014	60	April 16, 2014
47	Resolve Protests/Adopt Plan Amendment	April 16, 2014	60	June 15, 2014
48	Prepare Draft ROD	June 15, 2014	60	August 14, 2014
49	ID Team Review Draft ROD	August 14, 2014	8	August 22, 2014
50	State Office, SOL and WO Review ROD	August 22, 2014	21	September 12, 2014
51	Incorporate comments and finalize ROD	September 12, 2014	14	September 26, 2014
52	COSO/WO Briefing + Permission to Print	September 26, 2014	7	October 3, 2014
53	Issue Record of Decision	October 3, 2014	1	October 4, 2014