



Billings and Pompey’s Pillar National Monument Draft Resource Management Plan and Environmental Impact Statement

Sage-Grouse Conservation Issue	Billings-Pompey’s Pillar Draft RMP/EIS (Preferred Alternative D)
<p>Priority Sage-Grouse Habitat</p> <p>Greater Sage-grouse are a landscape species (Connelly et al. 2011a). Migratory populations have large annual ranges that can encompass >2,700 km² (1,042 mi²/667,184 ac) (Knick and Connelly 2011, <i>citing</i> Dalke et al. 1963; Schroeder et al. 1999; Leonard et al. 2000) (the species may use up to 2,500 mi² per population (Rich and Altman 2001)). Large-bodied birds are generally more strongly affected by habitat loss and fragmentation (Winter et al. 2006). Although conclusive data on minimum patch size is unavailable (Connelly et al. 2011a), conserving large expanses of sagebrush steppe is the highest priority to conserve sage-grouse (Aldridge et al. 2008; Connelly et al. 2011b; <i>see</i> Manier et al. 2013: 25-26).</p> <p>Sage-grouse conservation plans should designate and manage large areas of priority sage-grouse habitat to conserve the species. Priority habitat is generally defined as “having the highest conservation value to maintaining sustainable Greater Sage-grouse populations” (BLM Memo 2010-071) and should include all active sage-grouse leks, and brood-rearing, transitional and winter habitats. “Priority habitat will be areas of high quality habitat supporting important sage-grouse populations, including those populations that are vulnerable to localized extirpation but necessary to maintain range-wide connectivity and genetic diversity” (BLM Memo 2010-071).</p>	<p>The planning area is 10,804,549 acres, of which only 434,154 acres are BLM surface estate (ES-1). The preferred alternative would designate 154,140 surface acres and 191,543 acres of subsurface estate (inclusive) as protection priority areas for sage-grouse (2-19, Table 2.1; 2-34). The acreages and locations of priority habitat areas are the same for all alternatives in the plan (ES-7).</p>
<p>Prohibit new surface disturbance in priority sage-grouse habitat. Where new disturbance cannot be avoided (e.g., due to valid existing rights), (A) minimize impacts by limiting preexisting and permitted disturbance to one instance per section of sage-grouse habitat regardless of ownership, (B) with less than three percent surface disturbance per section or priority area (SGNTT 2011: 8; Knick et al. 2013). Disturbances include but are not limited to highways, roads, transmission lines, substations, wind turbines, oil and gas wells, heavily grazed areas, range developments, pipelines, landfills, mines, and vegetation treatments that reduce sagebrush cover. (C) Where possible, buffer active sage-grouse leks against surface disturbance or occupancy by 4 miles¹ (SGNTT 2011: 23).</p>	<p>Surface occupancy associated with fluid mineral development would not be permitted in priority habitat (2-77, Table 2-6.1) (191,543 acres mineral estate, 2-19, Table 2.1; 2-34), <i>although waiver, exceptions and modifications to this restriction would be available</i> (C-174). Priority habitat areas would be closed to new salable mineral development (2-107), and open to development of locatable minerals (2-105; Map 61). Renewable energy development and new rights-of-ways would be “avoided” in priority habitat areas (2-77 – 2-78, Table 2-6.1). Coal mining could only occur via sub-surface methods from outside priority habitat areas (2-100). MMCAs, <i>if applied</i>, may guide resource extraction and development activities in priority habitat. (A) MMCAs, <i>if applied</i>, would limit fluid minerals development to one site per section (AB-11), but the preferred alternative does not impose a general density cap for development in priority habitat. (B) While the MMCAs discuss 3 percent and 5 percent disturbance caps, the preferred alternative does not adopt a disturbance cap for priority habitat in the planning area; the MMCAs, <i>if applied</i>, could limit fluid minerals development to 3 percent surface disturbance in priority habitat (AB-11) (<i>see also</i> discussion of sage-grouse winter habitat, below); no other land use would be subject to a disturbance cap. (C) The MMCAs, <i>if applied</i>,</p>

¹ Smaller sage-grouse lek buffers may be justified where research demonstrates that most sage-grouse nests (i.e., > 90 percent) would be protected by the smaller buffer (*see, e.g., Conservation Plan for Greater Sage-Grouse in Utah, unpublished: 9*), although the impacts from continued and future land use (pursuant to valid existing rights) in nesting habitat would still advise adopting larger 4-mile lek buffers to conserve the species.

	<p>would restrict fluid minerals development within 4 miles of leks in priority habitat (AB-11); lek buffers are not imposed for other activities in priority habitat in the preferred alternative, although various buffers may be prescribed depending on application of the MMCAs and other BMPs.²</p>
<p>Identify³ and protect sage-grouse winter habitat (Braun et al. 2005, <i>citing</i> Connelly et al. 2000 and others; Moynahan et al. 2007).</p>	<p>Sage-grouse winter habitat is not identified in the plan. Alternative B indicates that 381,518 acres of sage-grouse winter range exists in the planning area (4-263), but the same data is not carried into the preferred alternative.⁴ The plan also indicates that surveys may be conducted for sage-grouse winter range at the project level (H-21), suggesting that winter range might currently be unknown.</p> <p>No management alternative specifically excludes development or disturbance in winter habitat (unless it is located within priority habitat, where prescriptions for that habitat designation would also protect winter habitat) (also, the MMCAs, <i>if applied</i>, recommend prohibiting surface occupancy associated with fluid minerals development in winter range, AB-10).⁵ In the preferred alternative, stipulations for fluid minerals development (<i>which could be waived, modified or exempted</i>), would prohibit surface use in winter habitat from Dec. 1 to Mar. 1 (C-184). Where winter range was not identified due to lack of inventories, it would be delineated by a 3-mile buffer from lek sites (C-184). (Although the plan also indicates that the timing limitation would apply to “sage-grouse winter range within 2 miles of a lek,” 2-44, Table 2.5). It is presumed these stipulations would be applied in addition to other restrictions and stipulations for fluid minerals extraction in sage-grouse priority habitat (2-76 – 2-77, Table 2-6.1). In restoration and general habitat, project proponents would be required to prepare a plan for surface occupancy in winter habitat that maintains habitat integrity and also does not exceed one disturbance per 640 acres or cumulative 5 percent disturbance <i>of sage-grouse habitat</i> per 640 acres, although these stipulations can be waived, modified or excepted.</p> <p>These same stipulations would apply to potential renewable energy development in winter habitat (2-136, Table 2-6.2). Winter habitat is not specially protected from other land uses that may be allowed in sage-grouse general habitat.</p>

² “Programmatic guidance” for developing project plans also recommend “mimiz[ing]” disturbance in sagebrush within 4 miles of a lek, although it is unclear what effect the guidance would have on future project-level planning (H-30).

³ Failure to map sage-grouse winter habitat could be grounds for remanding an RMP/EIS back to BLM to address the omission. WWP v. Salazar, 4:08-CV-516BLW, Slip Op. at 3.

⁴ The acreage listed in Alternative B also exceeds total sage-grouse habitat on BLM lands (3-85, Table 3-29); it is presumed that the total includes some subsurface estate(?)

⁵ “Programmatic guidance” for developing project plans also recommend “mimiz[ing]” disturbance in “sagebrush with documented winter use by sage-grouse,” although it is unclear what effect the guidance would have on future project-level planning (H-30).

<p>Manage or restore sage-grouse habitat so that at least 70 percent of the land cover is sagebrush sufficient to meet sage-grouse needs⁶ (SGNITF 2011: 7; Knick et al. 2013).⁸</p>	<p>There is not a specific prescription for maintaining 70 percent of land cover in sage-grouse habitat in sagebrush steppe in the plan, but the MMCAs include a 70 percent prescription (AB-3) that may be effective, <i>if applied</i>.</p>
<p><i>Restoration Sage-Grouse Habitat</i></p>	
<p>Designate restoration sage-grouse habitat to focus habitat restoration efforts to extend sage-grouse habitat and mitigate for future loss of priority habitat (BLM Memo MT-2010-017). Restoration habitat may be degraded or fragmented habitat that is currently unoccupied by sage-grouse, but might be useful to the species if restored to its potential natural community. Restoration habitat should be identified in management planning based on its importance to sage-grouse and the likelihood of successfully restoring sagebrush communities (Meinke et al. 2009; Wisdom et al. 2005a). Effective restoration requires a regional approach (e.g., sub/regional EISs) that identifies appropriate options across the landscape (Pyke 2011). Passive restoration should be prioritized over active restoration methods in these areas.</p>	<p>The preferred alternative would designate 45,555 surface acres and 63,437 acres of BLM subsurface estate as Sage-Grouse Restoration Areas ((2-19, Table 2.1; 2-34). Surface occupancy associated with fluid minerals development would be allowed within 0.6 miles of sage-grouse leks (2-78, Table 2-6.1). This small lek buffer is inconsistent with conserving sage-grouse (4-286). Other development and activities, including geophysical exploration, renewable energy development and new rights-of-way, could also be allowed in restoration habitat and could harm sage-grouse (2-77 – 2-78, Table 2-6.1).</p>
<p><i>Specially Designated Sage-Grouse Habitat</i></p>	
<p>Designate a subset of sage-grouse priority habitat areas as sagebrush reserves (e.g., Areas of Critical Environmental Concern (Bureau of Land Management), Zoological Areas (Forest Service),⁹ research natural areas (Bureau of Land Management, Forest Service), or national wildlife refuges (Fish and Wildlife Service), etc.) to be specially managed refugia for sage-grouse and other sagebrush-dependent species.¹⁰ Sagebrush reserves should encompass centers of sage-grouse abundance on the landscape and protect a sufficiently large proportion of habitat in each planning area to sustain biological processes, recover species and mitigate for the systematic effects of climate change, invasion by nonnative plants and unnatural fire.¹¹ Sagebrush reserves should offer additional conservation benefits for sage-grouse and other sagebrush-dependent species over priority habitat. They may be withdrawn from locatable and leasable minerals development (43 U.S.C. § 1714); closed to new surface disturbance; and prioritized for grazing permit retirement and removal of infrastructure (unneeded oil and gas equipment, roads, range developments, fencing, etc.).</p>	<p>The DRMP/EIS analyzed, but did not propose to designate, a Greater Sage-Grouse Habitat ACEC (154,140 acres) (E-44 – E-46; 2-36). WildEarth Guardians et al. proposed establishing ACECs in the planning area to conserve sage-grouse. The ACEC Nomination Evaluation form indicated that the area proposed for designation is not rare, irreplaceable, unique or vulnerable to adverse change, despite the paucity of BLM-administered surface estate with essential sage-grouse habitat in the planning area (E-45).</p>

⁶ While ≥ 70 percent of land cover is sagebrush, the remainder of the landscape should be other natural habitats or areas that could be restored to sagebrush steppe.

⁷ Seventy-nine percent of the area within 5 km of active sage-grouse leks was in sagebrush cover.

⁸ See also Karl and Sadowski (2005): 15.

⁹ The Sage-Grouse Recovery Alternative referred to specially designated areas on Forest Service lands as “Sagebrush Conservation Areas,” p. 30 (www.sagebrushsea.org/pdf/Sage-Grouse_Recovery_Alternative.pdf).

¹⁰ More than 350 species of conservation concern occur in sagebrush steppe (Wisdom et al. 2005a: 21 and App. 2).

¹¹ See Sage-Grouse Recovery Alternative for criteria for designating sagebrush reserves, p. 50 (www.sagebrushsea.org/pdf/Sage-Grouse_Recovery_Alternative.pdf).

Fluid Minerals Development (unleased)			
	NTT Report Recommendations	Sage-Grouse Ecology	Billings-Pompey's Pillar Draft RMP/EIS (Preferred Alternative D)
Lek Buffers	No surface occupancy throughout priority habitat; exceptions may be considered if a 4-mile no surface occupancy buffer is applied, and if an entire lease is within priority habitat, then a limitation of one well-pad per section might be applied.	Development negatively affects sage-grouse 1.9 miles from occupied leks (Holloran 2005). Most sage-grouse hens nest within 4 miles of leks (Moynahan 2004; Holloran and Anderson 2005). Effects of drilling on sage-grouse were noticeable out to 12.4 miles from leks (Taylor et al. 2012; Taylor et al. 2013).	Surface occupancy associated with fluid mineral development would not be permitted in priority habitat (2-77, Table 2-6.1) <i>although waiver, exceptions and modifications to this restriction are possible</i> (C-174). The MMCAs, <i>if applied</i> , could restrict fluid minerals development within 4 miles of leks in priority habitat (AB-11).
Density	Limit disturbance to 1 well per 640 acres.	Maximum development density of 1 well per 640 acres to 1 well per 699 acres (Holloran 2005; Doherty et al. 2010a; Doherty 2008).	MMCA, <i>if applied</i> , may limit fluid minerals development to one site per section (AB-11).
Disturbance	Surface disturbance may not exceed 3 percent per 640 acres or project area (exceptions may be considered in limited circumstances).	Ninety-nine percent of active sage-grouse leks are in landscapes with less than 3 percent disturbance within 5 km of the lek (Knick et al. 2013).	The MMCAs, <i>if applied</i> , could limit fluid minerals development to 3% disturbance in priority habitat (AB-11).
Winter Habitat	No surface occupancy in winter habitat during any time of the year; exceptions may be considered if a 4-mile no surface occupancy buffer is applied, and if an entire lease is within priority habitat, then a limitation of one well site per section might be applied.	No surface disturbance in or adjacent to winter habitat any time of year (Walker 2008).	Stipulations for fluid minerals development (<i>which could be waived, modified or exempted</i>), would prohibit surface use in winter habitat from Dec. 1 to Mar. 1 (C-184). Where winter range was not identified due to lack of inventories, it would be delineated by a 3-mile buffer from lek sites (C-184). (Although the plan also indicates that the timing limitation would apply to "sage-grouse winter range within 2 miles of a lek," 2-44, Table 2.5).
Livestock Grazing			
	<p>For range management, sage-grouse habitat objectives should be based on, in priority order, potential natural community within the applicable Ecological Site Description, Connelly et al. (2000: 977, Table 3), or other objectives that have been demonstrated to be associated with increasing sage-grouse populations.</p> <p>Utilization levels should not exceed 25 percent annually on uplands, meadows, flood plains and riparian habitat (Holecheck et al. 2010). Habitat objectives should be applied to all sage-grouse habitat areas.</p> <p>Management plans should:</p> <ol style="list-style-type: none"> 1. Maintain \geq 18 cm average grass height in nesting and brood-rearing habitat (Connelly et al. 2000; Braun et al. 2005). 2. Control livestock grazing to avoid contributing to the spread of cheatgrass (<i>Bromus tectorum</i>) (Reisner et al. 2013). 3. Facilitate voluntary grazing permit retirement in sage-grouse priority habitat (<i>see</i> SGNTT 2011: 17). 		<p>Objectives for grazing management in the DRMP/EIS in sage-grouse habitat are not based on potential natural community within the applicable Ecological Site Description or Connelly et al. (2000). The MMCAs, <i>where applied</i>, recommend use of Connelly et al. (2000) to assess land health where local objectives are not available (AB-7). Grazing management in priority sage-grouse habitat will be more closely monitored and managed (4-281, 4-283). The MMCAs, <i>where applied</i>, would also require terms and conditions on grazing that "assure plant growth requirements are met, and residual forage remains available for greater sage-grouse hiding cover" (AB-7). Grazing utilization levels are not specifically prescribed. (1) No specific standard for grass height is included in the plan, although the MMCAs may achieve the objective, if applied. (2) While the DRMP/EIS acknowledges significant consequences of cheatgrass incursion in sagebrush steppe (4-156; 4-492), and that "excessive</p>

	<p>grazing” can increase cheatgrass abundance in sagebrush steppe (3-88; 4-156 – 4-157), the plan does not proscribe grazing where cheatgrass occurs in sage-grouse habitat. In fact, the preferred alternative proposes using early spring grazing as a treatment to control cheatgrass (2-59), without reference to supporting research and which may also have the effect of spreading cheatgrass on the landscape (<i>see</i> Reisner et al. 2013). By contrast, the MMCAs generally recommend developing and implementing “management techniques that minimize the risk of [weed] infestation” and isolating livestock from known infestations, “where feasible” (AB-9). (3) Under the preferred alternative, grazing allotments within priority sage-grouse habitat areas where the grazing preference is relinquished would be considered for retirement (2-116 – 2-117, Table 2-6.2).</p>
<p><i>Climate Change Effects</i></p>	
<p>Account for the effects of climate change in management planning (Secretarial Order 3289, 02-22-2010; CEQ Memo, 02-18-2010 (draft)). Climate change is a recognized threat to sage-grouse (Connelly et al. 2011b: 556, Table 24.2; Blomberg et al. 2012; van Kooten et al. 2007) that is also predicted to have deleterious impacts on sagebrush steppe (Schlaepfer et al. 2012; Neilson et al. 2005). Most climate change simulations predict sagebrush steppe will contract as mean temperatures increase and the frost line shifts northward (Blomberg et al. 2012; Neilson et al. 2005). In the worst case scenario, sagebrush species are simulated to contract to just 20 percent of current distribution (Wisdom et al. 2005b: 206, <i>citing</i> Neilson et al. 2005). The largest remaining areas will be in southern Wyoming and in the gap between the northern and central Rocky Mountains, followed by areas along the northern edge of the Snake River Plateau and small patches in Washington, Oregon and Nevada (<i>see</i> Miller et al. 2011: 181, Fig. 10.19). Sagebrush steppe may also shift northward in response to increased temperatures (Schlaepfer et al. 2012; Shafer et al. 2001).</p> <p>Measures for ameliorating the effects of climate change on species and landscapes include increasing the size and number of protected areas, maintaining and enhancing connectivity between protected areas, and identifying and protecting areas likely to retain suitable climate/habitat conditions in the future (even if not currently occupied by the species of concern). Management should also repulse invasive species, sustain ecosystem processes and functions, and restore degraded habitat to enhance ecosystem resilience to climate change (Chester et al. 2012; NFWPCAS 2012).</p>	<p>The plan acknowledges that climate change poses a challenge to resource management (3-26 – 3-29) and notes that “sensitive species in the planning area, such as the greater sage-grouse, which are already stressed by declining habitat, increased development, and other factors, could experience additional pressures due to climate change” (3-28; 4-39) (effects of climate change could have “very serious impacts” on sage-grouse, 4-39). These additional stressors may include reduced soil moisture, increased drought, diminished water quantity, and increased wildfire (3-25, 3-27, 3-28). However, rather than accounting for the anticipated and cumulative effects of climate change on sage-grouse and sagebrush habitats in the plan, the DRMP/EIS instead defers to an adaptive management strategy to be applied, as appropriate, to future management activities in the planning area (2-52, 2-57).</p>
<p><i>Wind Energy Development</i></p>	
<p>Prohibit wind energy development in priority sage-grouse habitat (Jones 2012; SGN'TT 2011: 12). If development is permitted, locate turbines and infrastructure at least four miles from sage-grouse leks (Manville 2004; Jones 2012); do not site wind energy development in or adjacent to sage-grouse wintering areas.</p>	<p>Wind energy development would be “avoided” in the priority, general and restoration habitat areas, as well as sage-grouse winter habitat (2-136, Table 2-6.2). Where permitted, development would be subject to constraints and restrictions consistent with fluid minerals development (2-136, Table 2-6.2). Some moderate and high wind energy potential exists on BLM land in sage-grouse priority and general habitats in the planning area (Map 152).</p>

<p><i>Bureau of Land Management Sensitive Species Management</i></p> <p>Greater sage-grouse are a candidate species for listing under the Endangered Species Act (ESA) and a designated Bureau of Land Management “sensitive species” across their range. BLM policy directs that actions authorized, funded or implemented by BLM do not contribute to the need to list a candidate species under the ESA (BLM WO IM 97-118; BLM Manual 6840). “As a federal agency, the BLM is obligated to develop and implement a strategy to avoid having its management activities contribute to the need to list greater sage-grouse under the [Endangered Species Act] (Lander RMP/FEIS: 1282). This includes “[p]rioritizing Bureau sensitive species and their habitats for conservation action based on considerations such as human and financial resource availability, immediacy of threats and relationship to other BLM priority programs and activities (BLM Manual 6840.2(C)(5)).</p>	<p>It is unclear from the brief, general analysis included in the plan (4-285 – 4-287) whether and which alternatives might comply with the agency’s sensitive species policy as applied to sage-grouse. However, and even accounting for the uncertainties and ambiguities in the current analysis, it is likely that management under all alternatives would continue to impact sage-grouse (4-285). Existing and foreseeable energy development on all land ownerships in the planning area (4-285 – 4-286; 3-164; Map 24); inadequate protections in general habitat areas (e.g., 0.6-mile lek buffer, 2-45, Table 2-5); and agricultural conversion on private lands (4-287 – 4-288) would all likely negatively affect sage-grouse.</p>
<p><i>Sage-Grouse Recovery Alternative</i></p> <p>Conservation organizations submitted the Sage-Grouse Recovery Alternative as a complete alternative to be analyzed and considered in management plans affecting sage-grouse in accordance with the National Environmental Policy Act (42 U.S.C. §§ 4321- 4347). The recovery alternative seeks to maintain and increase sage-grouse abundance and distribution by conserving, enhancing and restoring sagebrush steppe. It is comprehensive, reasonable and feasible to implement, and prescribes scientifically valid conservation measures to provide the best opportunity to conserve and recover sage-grouse.</p>	<p>The DRMP/EIS declined to separately analyze the Sage-Grouse Recovery Alternative, contending that components of the “conservation groups alternative” were substantially considered in the range of other alternatives analyzed in the plan (2-16)—although it is unclear whether the DRMP/EIS is referring specifically to the Recovery Alternative, since different conservation organizations submitted at least three different conservation alternatives to BLM during the scoping process for the National Greater Sage-Grouse Planning Strategy.</p>

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