

he U.S. Fish and Wildlife (FWS) identified a lack of adequate regulatory mechanisms to conserve greater sage grouse as a primary factor necessitating listing of the species under the Endangered Species Act. The agency determined that the lack of existing regulatory protections was especially pronounced on public lands administered by the Bureau of Land Management (BLM) and the U.S. Forest Service. The FWS identified BLM resource management plans and Forest Service land and resource management plans as the principle mechanism by which these agencies could adequately regulate land management to conserve sage grouse, but determined that current plans lacked adequate measures and/or are inconsistently applied to conserve the species.

The BLM and the Forest Service must adopt new conservation prescriptions in land use and resource management plans in order to conserve* sage grouse. Consistent with the National Greater Sage grouse Planning Strategy and associated instruction memoranda, the agencies should amend the plans with a combination of land allocations and management prescriptions, including new terms and conditions, on activities permitted in sage grouse habitat. These measures must be non-discretionary, enforceable, demonstrated to be effective based on the best available science,† and fully implemented in each planning area to ensure the survival and recovery of sage grouse throughout its range.

The measures listed below are the minimum required to conserve sage grouse. New research may demonstrate that additional measures are needed. Given the difficulty and expense of restoring sagebrush steppe, conservation strategies on public lands must preserve all remaining habitat and avoid compensatory mitigation schemes to facilitate further disturbance or disruption in sage grouse habitat. This precautionary approach, combined with additional proactive measures to manage public lands and resources, will help provide for a sustainable surplus of sage grouse to support state management goals for the species.

^{* &}quot;Conserve" is defined in the Endangered Species Act to mean "to use and the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this chapter are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking" (16 U.S.C. § 1532(c)).

[†] 68 Fed. Reg. 15100 (Policy for Evaluation of Conservation Efforts When Making Listing Decisions); 75 Fed. Reg. 13910 (12-Month Findings for Petitions to List the Greater Sage grouse (*Centrocercus urophasianus*) as Threatened or Endangered).

Sage Grouse Conservation Prescriptions

Sage grouse Priority and Winter Habitat Identification and Conservation ☐ Designate all identified priority habitat in sage grouse range.¹ ☐ Identify, designate and protect sage grouse wintering areas.² ☐ Manage or restore priority habitat so that at least 70 percent of the land cover is sagebrush steppe sufficient to support sage grouse³ with 15 to 40 percent sagebrush canopy cover.⁴ ☐ Identify and protect habitat connectivity corridors to prevent or redress population isolation.⁵ Development Impacts Restrict development to one site per section in priority habitat.⁶ Limit surface disturbance to less than 3 percent per section in priority habitat.⁷ Prohibit noise levels associated with any anthropogenic activity to not exceed 10 dBA above scientifically established natural ambient noise levels at the periphery of sage grouse mating, foraging, nesting, broodrearing and winter habitat during each season of use by sage grouse.8 Minerals Development ☐ Close and recommend for immediate withdrawal lands from location, leasing or sale (including coal) under the mineral laws for the maximum period allowed under law.9 Require conditions of approval for existing fluid minerals leases as outlined in the National Technical Team (NTT) report, including 4-mile no-surface-occupancy lek buffers. ¹⁰ Larger buffers may be required to conserve the species.‡ ☐ Limit geophysical exploration on existing fluid minerals leases to helicopter-portable methods or vehicles confined to existing roads in priority habitat, and in accordance with seasonal and other applicable restrictions.11 ☐ Prohibit surface storage of wastewater generated from fluid minerals development; 12 breach and eliminate existing coalbed methane development reservoirs.¹³ Renewable Energy ☐ Exclude renewable energy development.¹⁴ Rights-of-Way ☐ Exclude new rights-of-way.¹⁵ ☐ Develop valid existing rights-of-way in accordance with NTT report prescriptions. 16 ☐ Bury existing transmission lines, where possible.¹⁷

Require that grazing strategies maintain at least 7 inches average grass height in nesting and brood-rearing

Livestock Grazing

habitat 18

^{*} A 4-mile lek buffer may include an average of 80 percent of nesting females (SGNTT 2011: 21); larger buffers may be recommended to conserve the species (<u>6.2 miles</u>, Aldridge & Boyce 2007; <u>6.2 miles</u>, Doherty et al. 2010; <u>5.3 miles</u>, Holloran and Anderson 2005; <u>4.6 miles</u>, Coates et al. 2013).

	Restrict grazing until the completion of sage grouse breeding and nesting period, and seasonally remove livestock from late brood-rearing habitat to allow sufficient regrowth of native grasses to ensure adequate residual height. Limited winter grazing may be appropriate, as long as it leaves sufficient residual grass height prior to the next breeding season. ¹⁹
	Control grazing to avoid contributing to the spread of cheatgrass in sage grouse habitat. ²⁰
	Manage riparian and wetlands to meet properly functioning condition; manage wet meadows to maintain native species diversity and cover to support sage grouse brood-rearing. ²¹
	Avoid new structural range and livestock water developments; institute best management practices to limit and mitigate the potential spread of West Nile virus. ²²
Vegei	tation Management
	Prohibit prescribed fire in sagebrush steppe with less than 12 inches annual precipitation ²³ or areas with moderate or high potential for cheatgrass incursion. ²⁴
	Prohibit vegetation treatments that reduce sagebrush canopy cover to less than 15 percent. ²⁵ §
	In areas of pinyon/juniper, avoid treating old-growth or persistent woodlands. In areas where sagebrush is prevalent or where cheatgrass is a concern, utilize mechanical methods rather than prescribed fire.
	Restore non-native seedings with native vegetation where it would benefit sage grouse. ²⁶
	Prohibit herbicide application within 1 mile of sage grouse habitats during season of use; prohibit use of insecticides. ²⁷
Trave	el Management and Infrastructure
	Limit motorized travel to designated routes trails in priority habitat. ²⁸ Implement appropriate seasonal restrictions on motorized travel to avoid disrupting sage grouse during season of use. ²⁹ Close existing trails and roads to achieve an open road and trail density not greater than 1 km/1km² (.6 mi²). ³⁰
	Where valid existing rights-of-way are developed, restrict road construction within 1.9 miles of sage grouse leks. ³¹
	Limit the construction of tall facilities and fences to the minimum number and amount needed in priority habitat. Install anti-perching devices on transmission poles and towers. ³² Dismantle unnecessary infrastructure.
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0 0	rouse General Habitat Identify all active leks in general habitat and apply minimum 4-mile no-surface occupancy buffers to protect breeding, nesting and brood-rearing habitat from disruption and disturbance. ¶
	Identify and protect habitat connectivity corridors to prevent or redress population isolation.
	Implement conservation measures for general habitat as recommended in the NTT report.

[§] Vegetation treatments may not be advised within 2 - 2.7 miles of sage grouse leks (Beck and Mitchell 1997; Heath et al. 1997) or where sagebrush canopy cover is less than 20 percent (Beck and Mitchell 1997) or in sage grouse winter habitat (Connelly et al. 2000; Eng and Schladweiler 1972).

⁵ A 4-mile lek buffer may include an average of 80 percent of nesting females (SGNTT 2011: 21); larger buffers may be recommended to conserve the species (<u>6.2 miles</u>, Aldridge & Boyce 2007; <u>6.2 miles</u>, Doherty et al. 2010; <u>5.3 miles</u>, Holloran and Anderson 2005; <u>4.6 miles</u>, Coates et al. 2013).

Additional Measures

In addition to the biologically imperative measures in the checklist above, the following additional measures would help ensure sage grouse recovery range-wide, support state management goals for the species and serve as a hedge against the uncertainty inherent in managing sagebrush habitats.

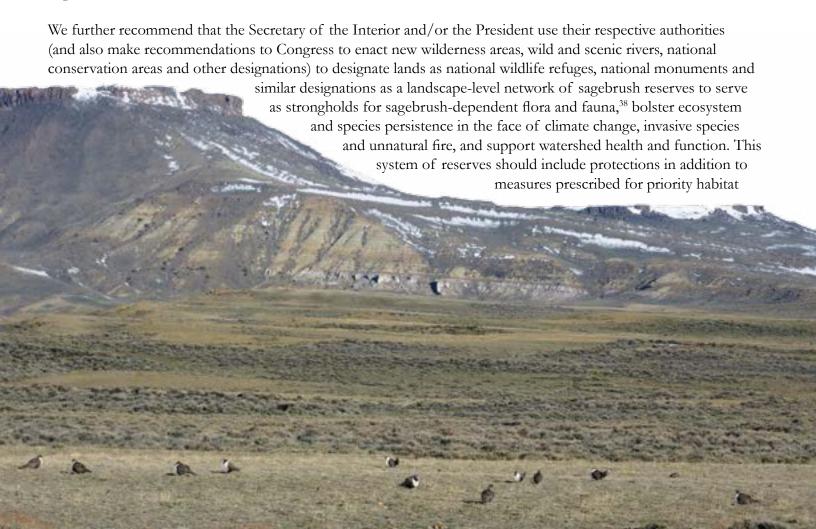
Additional Priority Habitat

Federal and state agencies should establish mechanisms for designating additional priority habitat to compensate for degraded priority habitat on federal public lands,³³ or priority habitat areas on state and private lands that are not managed to the standards prescribed above. In some areas, such as Wyoming's Powder River Basin, priority habitat was inappropriately excluded from final designation through state processes, resulting in insufficient habitat to maintain population viability across larger scales.³⁴

Areas of Critical Environmental Concern/Zoological Areas

We also recommend that the BLM designate important and relevant sage grouse habitat as Areas of Critical Environmental Concern (ACECs)³⁵ and the Forest Service similarly designate Zoological Areas³⁶ to conserve sage grouse. Designating ACECs in the final plans meets Congress' directive to prioritize designation and protection of ACECs³⁷ and would bolster the durability of conservation prescriptions implemented to protect and recover sage grouse. Additional protections beyond those prescribed for priority habitat would apply to ACECs/Zoological Areas and may include prioritization for land acquisition, habitat restoration, and retirement of lease rights and grazing privileges.

Sagebrush Reserves



that would maximize habitat suitability by preventing additional impacts and restoring degraded areas through mechanisms such as grazing permit retirement, energy lease buyout, mining claim retirement, land acquisition, and removal of infrastructure. The reserve system must be large enough to achieve the goals of biological representation, and ecological redundancy and resiliency across the sagebrush steppe and over time.³⁹ Establishing a system of reserves could preclude future conflicts with conservation and species protection in the Sagebrush Sea.

Sage grouse Restoration Habitat

The BLM and Forest Service should identify and designate restoration habitat in land use plan revisions to focus restoration efforts to expand sage grouse habitat and account for future loss of sagebrush steppe.⁴⁰ Recognizing the difficulties of restoring sagebrush steppe, restoration areas should be designated where environmental variables improve the chances of success.⁴¹

Innovative, Equitable Conservation

The BLM and the Forest Service should adopt new, innovative and equitable conservation actions to conserve and recover sage grouse and their habitat. These may include facilitating voluntary grazing permit retirement, ⁴² compensated mineral lease retirement, and partnerships with states, resource users and non-governmental organizations to conserve and restore sagebrush steppe.



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Bird Conservation Network, Chicago, Ill

Conservation Northwest

Endangered Species Coalition

Environmental Protection Information Center

Grassroots Coalition (CA)

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Klamath Forest Alliance

Network for Oil and Gas Accountability and Protection (OH)

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Wild Utah Project









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Endnotes

- ¹ Connelly et al. 2011; Manier et al. 2013; COT 2013; Aldridge et al. 2008.
- ² SGNTT 2011: 21; Braun et al. 2005, *citing* Connelly et al. 2000 and others; Moynahan et al. 2007; WWP v. Salazar, 4:08-CV-516BLW, Slip Op. at 3.
- ³ SGNTT 2011: 6, *citing* Aldridge et al. 2008, Doherty et al. 2010, Wisdom et al. 2011; *also* SGNTT 2011: 7; Karl and Sadowski 2005; Doherty 2008; Connelly et al. 2000: 977, Table 3; Knick et al. 2013: 5-6.
- ⁴ Connelly et al. 2000; SGNTT 2011: 26, citing Connelly et al. 2000, Hagen et al. 2007.
- ⁵ SGNTT 2011: 5, 7.
- ⁶ SGNTT 2011: 21, 24; Holloran 2005; Doherty et al. 2010; Doherty 2008.
- ⁷ SGNTT 2011: 7-8; Knick et al. 2013: 9, Fig. C; Baruch-Mordo et al. 2013: 237, Fig. B.
- ⁸ Patricelli et al. 2013; Patricelli et al. 2012 (report); SGNTT 2011: 64, citing Patricelli et al. 2010.
- ⁹ SGNTT 2011: 22, 24-25, 26.
- ¹⁰ SGNTT 2011: 22-24.
- ¹¹ SGNTT 2011: 21, 22.
- ¹² SGNTT 2011: 64.
- ¹³ GNTT 2011: 64.
- ¹⁴ SGNTT 2011: 13.
- ¹⁵ SGNTT 2011: 12.
- ¹⁶ SGNTT 2011: 13.
- ¹⁷ SGNTT 2011: 13.
- ¹⁸ Connelly et al. 2000.
- ¹⁹ W. Watersheds Project v. Salazar, 843 F.Supp.2d 1105, 1115 (D. Idaho 2012), citing Braun (2006, unpublished); W. Watersheds Project v. Dyer, 2009 WL 484438, at * 21 (D. Idaho 2009).
- ²⁰ Reisner et al. 2013; Chambers 2008; Reisner 2010.
- ²¹ SGNTT 2011: 16.
- ²² SGNTT 2011: 17.
- ²³ SGNTT 2011: 26, citing Connelly et al. 2000, Hagen et al. 2007, Beck et al. 2009.
- ²⁴ Miller et al. 2011.
- ²⁵ SGNTT 2011: 26, citing Connelly et al. 2000, Hagen et al. 2007.
- ²⁶ SGNTT 2011: 16-17.
- ²⁷ Blus et al. 1989.
- ²⁸ SGNTT 2011: 11.
- ²⁹ Holloran 2005; Aldridge et al. 2012.
- ³⁰ Knick et al. 2013.
- ³¹ Holloran 2005.
- ³² SGNTT 2011: 64, citing Lammers and Collopy 2007.
- ³³ Manier et al. 2013.
- ³⁴ Taylor et al. 2012 (report).
- ³⁵ 43 U.S.C. § 1701(11).
- ³⁶ Forest Service Manual 2372.
- ³⁷ 43 U.S.C. § 1712(c).
- ³⁸ Rodrigues and Gaston 2001.
- ³⁹ Svancara et al. 2005.
- ⁴⁰ BLM Memo MT-2010-017.
- ⁴¹ SGNTT 2011: 28, citing Meinke et al. 2009.
- ⁴² E.g., SGNTT 2011: 17.