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Sage-Grouse Conservation: Background and Issues

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Summary

The greater sage-grouse (*Centrocercus urophasianus*) is a squat, feathered, chicken-like bird that is currently found in 11 western states. For more than 25 years, there has been considerable controversy concerning whether to list sage-grouse for protection under the Endangered Species Act (ESA; P.L. 93-205).

On October 2, 2015, the Fish and Wildlife Service (FWS, Department of the Interior) published its decision not to list the greater sage-grouse as threatened or endangered under ESA. Under the act, one of the factors that can lead to a listing is the inadequacy of existing regulatory mechanisms. However, FWS concluded that existing regulatory mechanisms for lands under federal, tribal, state, or local control were adequate to avoid the need to list the species. Before the listing decision, federal, state, and local governments, as well as other stakeholders in the states where sage-grouse are still found had undertaken extensive efforts to develop conservation plans, monitoring, and other actions to obviate the need for listing sage-grouse. These efforts included collaboration across levels of government, action plans by state governments, voluntary federal programs to assist private landowners in conserving sage-grouse habitat, and revisions in the land management plans of federal agencies.

To be considered adequate regulatory mechanisms, various courts held that these efforts had to meet certain tests. Prior court cases meant that FWS had to determine, in order to reach its conclusion not to list the species, that the regulatory mechanisms of these various levels of government were (1) in effect at the time, (2) not discretionary, and (3) adequate to avoid the need to list the species.

After FWS decided not to list sage-grouse, it fell to other federal agencies and other levels of government to carry out the commitments that had served to avoid listing. All 11 states have plans and programs to address the varying threats to the species in each state. For private lands, the Natural Resources Conservation Service (NRCS, Department of Agriculture) has led voluntary conservation efforts. NRCS uses existing federal conservation programs to help farmers and ranchers benefit sage-grouse.

On federal lands, the Bureau of Land Management (BLM, Department of the Interior) and the Forest Service (FS, Department of Agriculture) have had the greatest role in conserving sage-grouse because more than half of the bird's remaining habitat is found on BLM and FS lands. In September 2015, after a review process including public notice and comment, the two agencies signed records of decision amending 98 land and resource management plans covering the range of the sage-grouse. Lands identified as the most valuable habitat will be given the highest level of protection. The plans have three goals: (1) to improve sage-grouse habitat condition; (2) to minimize new or additional surface disturbance; and (3) to reduce the threat of rangeland fire to sage-grouse and sage-grouse habitat.

Controversy after the FWS decision has focused particularly on the revised land management and conservation strictures adopted on federal lands. The amended plans are proving controversial with various industries, including energy developers, which argue that the development restrictions on high-value habitat under the plans are placing a burden on their activities that is as restrictive as a decision to list the species.

A number of bills and amendments have been introduced in the 114th Congress to address aspects of sage-grouse conservation on specific lands. A common theme in the bills and amendments is a greater role for states in species conservation, with varying amounts of state preemption of federal land management plans. Some measures would provide exemptions from judicial review.

Contents

Introduction 1
Sage-Grouse Breeding and Biology 2
Threats to Sage-Grouse Habitat 2
How Does ESA Work? 4
How Do Different Types of Conservation Agreements Qualify to Avoid Listing? 5
Chronology of Petitions and FWS Sage-Grouse Action 6
Why Did FWS Decide Not to List Sage-Grouse? 8
Collaborative Mechanisms to Protect Sage-Grouse 8
State and Private Actions 8
BLM and FS Sage-Grouse Strategy and Conservation Plans 10
Improve Sage-Grouse Habitat Condition 11
Minimize Surface Disturbances 12
Reduce Wildfire Threat 12
Conflicting Views on BLM and FS Plans 12
Implementation and Other Issues 13

Figures

Figure 1. Male Sage-Grouse: Lek Display 4

Contacts

Author Information 14
Acknowledgments 14

Introduction

There has been controversy for more than 25 years concerning whether to list sage-grouse for protection under the Endangered Species Act (ESA).[1] As with many controversies over rare species, a theme in the sage-grouse controversy is the use of dwindling resources by both humans and sage-grouse—in this case, broad, unfragmented expanses of sagebrush lands. Loss of habitat is the most common factor leading to species' decline.[2] Sagebrush habitat in the western United States is diminishing and becoming fragmented due to energy development, infrastructure, agricultural conversion, wildfire, invasive plants, and other factors.[3] Although the total remaining sagebrush habitat is vast, its fragmentation is problematic for sage-grouse, which need large treeless areas to discourage the roosting of avian predators and to permit travel between breeding and nesting sites. Thus, fences, roads, drilling rigs, and utility poles can produce a substantial change in available sagebrush habitat, even when the actual surface disturbance is minimal.

The sage-grouse (*Centrocercus urophasianus*) is found in 11 western states. The species first appeared as a candidate for listing under ESA in 1991,[4] and its subsequent history with regard to the act has included various petitions, missed deadlines, and lawsuits. Multiple petitions were filed under ESA to ask the Fish and Wildlife Service (FWS, Department of the Interior) to protect the sage-grouse. (See "Chronology of Petitions and FWS Sage-Grouse Action," below.)

Most recently, on September 22, 2015, FWS announced its decision not to list the sage-grouse under ESA, based on the adequacy of existing regulatory mechanisms to protect the species. Some have praised the decision as affording the proper protection through state, local, and private conservation efforts. Others have opposed the decision for varying reasons, including assertions that the existing regulatory mechanisms are not sufficiently protective or that the regulatory mechanisms result in excessive restrictions on land uses. (See "Implementation and Other Issues," below.)

[1] Endangered Species Act (ESA; P.L. 93-205, 87 Stat. 884; 16 U.S.C. §§1531 et seq.). For background on ESA, see CRS Report RL31654, *The Endangered Species Act: A Primer*, by M. Lynne Corn. This report uses the term *sage-grouse*, rather than the nearly equally common *sage grouse*, because the hyphen is used in documents and databases of the Fish and Wildlife Service (FWS) Endangered Species Program. Exceptions are made for quoted material using the alternative form. When the term *sage-grouse* is used in the remainder of the report, it is understood to mean greater sage-grouse (the focus of this report), unless otherwise specified. Moreover, at times various distinct population segments and subspecies of *C. urophasianus* have been proposed, both for taxonomic recognition and for protection under ESA, but that recognition has not been upheld. (See CRS Report R40865, *Sage Grouse and the Endangered Species Act (ESA)*, by M. Lynne Corn.) In addition, a related species called the Gunnison sage-grouse (*Centrocercus minimus*), found in parts of Colorado and Utah, was listed as threatened in 2014.

[2] Estimating population levels of widely scattered animals is exceedingly difficult. In the case of sage-grouse, estimates are usually based on models rating number, size, and distribution of breeding areas to extrapolate total population sizes. More critically, available data show clear downward trends, though the extent of decline varies in time and from area to area. See "Sage-Grouse Breeding and Biology," and "Threats to Sage-Grouse Habitat," below.

[3] For an analysis of these and other factors affecting sage-grouse populations, see FWS, "Endangered and Threatened Wildlife and Plants: 12-Month Finding on a Petition to List Greater Sage-Grouse (*Centrocercus urophasianus*) as an Endangered or Threatened Species," 80 *Federal Register* 59858-59941, October 2, 2015.

[4] Technically, only a portion of the species was considered at that time. See FWS, "Endangered and Threatened Wildlife and Plants; Animal Candidate Review for Listing as Endangered and Threatened Species," 56 *Federal Register* 58804-58836, November 21, 1991.

Sage-Grouse Breeding and Biology

The sage-grouse is a squat, feathered, chicken-like bird, grayish with a black belly and spiked tail feathers; it is highly prized by hunters. (See **Figure 1**.) Sage-grouse have one of the lowest reproductive rates of any North American game bird. Because of this, "its populations are not able to recover from low numbers as quickly as many other upland game bird species."[5]

A particular issue has been conservation of the locations where male sage-grouse gather in the spring year after year—areas called *leks*. The leks are found in open sagebrush areas, usually on broad ridges or valley floors where visibility is excellent and noise will travel well. There, the males strut, raise and lower their wings, fan their tail feathers, and make loud booming noises with the aid of bright yellow inflatable air sacs in their necks. Under optimal conditions, these sounds carry for hundreds of yards. Dozens or even hundreds of males attract the attention of resident females, who survey the offerings of the displaying males, make their choices, and mate. Once mating has occurred, females leave the lek to nest, sometimes at a distance of several miles.[6] Females raise their offspring alone, without help from males. Due to the importance of leks in the breeding cycle, maintenance and protection of traditional lek areas are key concerns for species conservation.

Threats to Sage-Grouse Habitat

The sage-grouse is vulnerable to multiple interrelated changes in its habitat. The construction of a road in sagebrush habitat, for example, may have diverse effects. Sage-grouse hens may hesitate to cross a road with their chicks. A road can also provide ingress for invasive species such as cheatgrass, which is the primary invasive species threat to sagebrush habitat. The plant tends to appear after an area has been grazed or when roads are developed. The nonnative grass spreads quickly, is disliked as forage by grazing mammals and sage-grouse, and burns more readily than native plants. Moreover, the fire threat posed by cheatgrass could be exacerbated by pervasive drought and climate change. Both the number of fires and the total area burned in sage-grouse habitat have increased in the last 100 years.[7] This example illustrates the links among a range of threats to sage-grouse.

Additionally, certain types of development, such as coal-bed methane production and oil wells, introduce standing pools of water into an environment where none existed previously. These pools provide habitat for mosquitoes, and mosquitoes can carry the West Nile Virus. According to the U.S. Geological Survey, the federal agency responsible for tracking wildlife disease, the West Nile Virus is always fatal for the sage-grouse. By 2006, West Nile Virus had been reported among sage-grouse in every state of the sage-grouse's range except for Washington.[8]

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[5] Western Watersheds Project v. Dyer, 2009 WL 484438, *5 (D. Idaho February 26, 2009).

[6] Female sage-grouse typically travel 0.8 miles to 3.2 miles to nest after mating (FWS, "Endangered and Threatened Wildlife and Plants: 12-Month Finding on a Petition to List Greater Sage-Grouse (*Centrocercus urophasianus*) as an Endangered or Threatened Species," 80 *Federal Register* 59887, October 2, 2015), but some have been documented to travel more than 13 miles to their nest site after mating. (See FWS, "Endangered and Threatened Wildlife and Plants; Final Listing Determination for the Gunnison Sage-Grouse as Threatened or Endangered; Final Rule," 71 *Federal Register* 19956, April 18, 2006.)

[7] See "Altered Fire Cycle" in FWS, "Endangered and Threatened Wildlife and Plants: 12-Month Finding on a Petition to List Greater Sage-Grouse (*Centrocercus urophasianus*) as an Endangered or Threatened Species," 80 *Federal Register* 59896-59897, October 2, 2015.

[8] U.S. Geological Survey, "West Nile Virus in Greater Sage-Grouse," Wildlife Health Bulletin #06-08, November 6, 2006, at http://www.nwhc.usgs.gov/publications/wildlife_health_bulletins/WHB_06_08.jsp.

The various threats cited above also sum to form a larger threat: fragmentation of the sagebrush landscape. Although much of the West is still dominated by sagebrush, much of this habitat is no longer intact. As a result, such areas have become unsuitable for successful breeding. Moreover, because habitats are becoming fragmented, sage-grouse populations are becoming genetically isolated, leaving them more vulnerable. Habitat fragmentation, along with lek protection, is a key concern in species conservation.

According to a team assembled by FWS to study the sage-grouse, habitat fragmentation is severely affecting the viability of the species:

> The primary threat to greater sage grouse is fragmentation. Large expanses of intact sagebrush habitat are necessary to maintain viable sage grouse populations. Only two areas in the 11-state range currently provide such expanses and both are already heavily fragmented and are projected to experience additional significant fragmentation in the foreseeable future. Dramatic population declines and local extirpations have already occurred and future fragmentation and habitat degradation is expected to result in remnant, isolated, and dysfunctional populations of greater sage grouse that are in danger of extinction in the foreseeable future.[9]

The sage-grouse was once abundant in 16 western states. Its current range includes portions of 11 states: California, Colorado, Idaho, Montana, Nevada, North Dakota, Oregon, South Dakota, Utah, Wyoming, and Washington.[10] Multiple sources point to a severe decline in the number of sage-grouse; FWS estimates that sage-grouse population numbers may have declined between 69% and 99% from historic to more recent times.[11] FWS also cites data from the Western States Sage and Columbia Sharp-Tailed Grouse Technical Committee, which estimated the decline between historic times and 1999 to have been about 86%.[12]

The increasing threats and declining sage-grouse populations eventually led to eight proposals to list the species or portions of the species under ESA. (See "Chronology of Petitions and FWS Sage-Grouse Action," below.) In making its decision, FWS was required to consider the general requirements for listing a species (see "How Does ESA Work?" below) and the minimum requirements for conservation agreements to be considered adequate to avoid listing. The specific decision not to list the sage-grouse is discussed below in "Why Did FWS Decide Not to List Sage-Grouse?"

[9] As quoted in Western Watersheds Project v. U.S. Fish and Wildlife Service, No. 4:10-CV-229, *14 (D. Idaho February 2, 2012).

[10] The sage-grouse is no longer found in Arizona, Kansas, Nebraska, New Mexico, or Oklahoma, or in the Canadian province of British Columbia.

[11] FWS, "Endangered and Threatened Wildlife and Plants; 90-day Finding and Commencement of Status Review for a Petition To List the Western Sage Grouse in Washington as Threatened or Endangered," 65 *Federal Register* 51578, August 24, 2000. (Reference is to range-wide statistics.) FWS further states, "Little substantiated information is available regarding the historic abundance of sage grouse throughout their range. However, within the literature, the general consensus is that considerable declines have occurred from historic population levels, and much of the overall decline occurred from the late 1800s to the mid 1900s.... " (p. 51580.)

[12] FWS, "Endangered and Threatened Wildlife and Plants; 90-day Finding for Petitions To List the Greater Sage-grouse as Threatened or Endangered," 69 *Federal Register* 21486, April 21, 2004.

Figure 1. Male Sage-Grouse: Lek Display

Source: U.S. Fish and Wildlife Service. Photo available at https://www.flickr.com/photos/usfws_pacificsw/6948199942/. Used under license https://creativecommons.org/licenses/by/2.0/.

How Does ESA Work?

ESA is intended to protect plants and animals from becoming extinct. It authorizes creating a list of protected species, either *endangered* (defined as being in danger of extinction) or *threatened* (defined as likely to become endangered in the foreseeable future).[13] ESA prohibits taking these species, with limited exceptions. In addition, it prohibits federal agencies from jeopardizing the continued existence of listed species and from destroying or adversely modifying listed species' designated critical habitats.

FWS is the federal agency that manages most species under ESA.[14] The Secretary of the Interior, acting through FWS, is charged with deciding whether to list a species. ESA specifies that a listing decision is to be based on five criteria:

[13] 16 U.S.C. §§1532(6), 1532(20). This section is intended to be a brief overview of ESA. For a more detailed analysis of the act, see CRS Report RL31654, *The Endangered Species Act: A Primer*, by M. Lynne Corn.

[14] The National Marine Fisheries Service (Department of Commerce) supervises most marine mammals and oceanic species.

1. The present or threatened destruction, modification, or curtailment of a species' habitat or range.
2. Overutilization for commercial, recreational, scientific, or educational purposes.
3. Disease or predation.
4. Inadequacy of existing regulatory mechanisms.
5. Other natural or man-made factors affecting a species' continued existence.[15]

In making a listing determination, FWS is charged with relying "solely on the basis of the best scientific and commercial data available."[16]

FWS may list a species independently, or citizens may petition the agency to make a listing. When a petition is filed, certain deadlines are imposed by statute. FWS must determine and publish a decision in the *Federal Register* within 90 days of the filing of the petition on whether the petition presents substantial evidence in support of a listing.[17] Within 12 months of filing the petition, FWS must publish a notice on whether listing is warranted.[18] A final decision must be made one year after the 12-month notice.[19] FWS has the option of publishing a determination at the time of a 12-month finding that a listing is "warranted but precluded" due to limited FWS resources.[20] If the adequacy of existing regulatory mechanisms provides the rationale not to list a species, those mechanisms must meet certain criteria, described below.

How Do Different Types of Conservation Agreements Qualify to Avoid Listing?

Under a candidate conservation agreement with assurances (CCAA), FWS provides incentives to nonfederal property owners to carry out voluntary conservation measures that may help to make listing unnecessary. In return, the property owner receives a permit "containing assurances that if they engage in certain conservation actions for the species included in the CCAA, the owner will not be required to implement additional measures beyond those in the CCAA."[21] Moreover, there will be no additional obligations imposed if the species is listed later, unless the owner agrees. Courts have looked at three criteria in determining the adequacy of existing regulatory mechanisms:

1. Courts have found that *voluntary* actions are not *regulatory*; the protections must be enforceable.
2. Courts define *adequate* as sufficient to keep populations at a level such that listing will not prove necessary.
3. *Existing* means the plans for protection must be in place and are not future or speculative.

[15] 16 U.S.C. §1533(a)(1). (Between the fourth and fifth criteria, neither *and* nor *or* appears; in the case of sage-grouse, it appears that the adequacy of existing regulatory mechanisms was the focus, because the mechanisms addressed other threats.)

[16] 16 U.S.C. §1533(b)(1)(A).

[17] 16 U.S.C. §1533(b)(3)(A).

[18] 16 U.S.C. §1533(b)(3)(B).

[19] 16 U.S.C. §1533(b)(6)(A).

[20] 16 U.S.C. §1533(b)(3)(B)(iii).

[21] FWS, "Candidate Conservation Agreements," fact sheet, March 2011, at https://www.fws.gov/endangered/esa-library/pdf/CCAs.pdf.

Regarding the first criterion, no court has deemed a voluntary state action as a *regulatory* action sufficient to avoid federal listing. Even the Ninth Circuit, which found there were adequate regulatory measures to remove the grizzly bear from the threatened species list, expressly ignored the state voluntary actions: "For the purposes of the [existing adequate regulatory mechanisms] determination, however, we need not, and do not consider those [state] measures, some or all of which may not be binding."[22]

The second criterion is whether the measures are *adequate*—that is, sufficient to keep populations at a level such that listing will not prove necessary. Courts have typically looked at the types of measures being taken, in addition to the size of areas being protected, as a way of finding adequacy.

For example, in the case of listing steelhead trout, the Northern District of California found that the state protection plans of Oregon and California for this species were voluntary and thus did not count as a regulatory measure. The court also found that a federal plan for protecting the species would cover only 64% of habitat, which was not enough to prevent species' further decline.[23] Therefore, the regulatory measure affecting federal habitat was not adequate to prevent the need for listing. By contrast, in the previously cited case on grizzly bears, the Ninth Circuit held that a plan that would have the force of law on federal lands but would be voluntary on other lands was adequate to protect the grizzly bear because federal lands constituted 98% of the grizzly's primary conservation area.[24]

The third criterion is that the regulatory mechanisms be in place—*existing*—and not future or speculative. One court said it would not consider a new agreement to be an adequate regulatory mechanism and would require a conservation agreement to have a record of two years to be sufficient.[25]

Chronology of Petitions and FWS Sage-Grouse Action[26]

This section provides a brief chronology of major sage-grouse protection actions, beginning with petitions filed in 1999 to list the sage-grouse for protection under ESA and ending with the FWS decision in 2015 not to list the species. Major events are listed below and followed by discussion.

- Between 1999 and 2005, eight petitions were filed to protect sage-grouse in all or portions of the species' range. Some petitions were rejected because they were not considered substantive enough to be eligible. In 2004, FWS found that three of the petitions (received from 2002 to 2003) were substantive—that is, the petitions presented substantial evidence in support of the listing.[27]

[22] Greater Yellowstone Coalition, Inc. v. Servheen, 665 F.3d 1015, 1032 (9th Cir. 2011).

[23] Federation of Fly Fishers v. Daley, 131 F. Supp. 2d 1158 (N.D. Cal. 2000). The measures did not include a CCAA.

[24] Greater Yellowstone Coalition, Inc. v. Servheen, 665 F.3d 1015, 1021 (9th Cir. 2011).

[25] Save Our Springs v. Babbitt, 27 F. Supp. 2d 739 (W.D. Texas 1997).

[26] For a more comprehensive history of actions discussed in this section, see FWS, "Endangered and Threatened Wildlife and Plants; 12-Month Finding on a Petition to List Greater Sage-Grouse (*Centrocercus urophasianus*) as an Endangered or Threatened Species Proposed Rule," 80 *Federal Register* 59858-59860, October 2, 2015.

[27] FWS, "Endangered and Threatened Wildlife and Plants; 90-day Finding for Petitions To List the Greater Sage-grouse as Threatened or Endangered," 69 *Federal Register* 21486, April 21, 2004.

- In 2005, FWS determined that listing was not warranted.[28] This determination was challenged, questioning the scientific basis for the decision not to list the species. In a 2007 court decision, the District Court for the District of Idaho held that the Deputy Assistant Secretary of the Department of the Interior wrongfully interfered with the listing decision and that FWS did not use the best science as required by ESA.[29] The case was remanded to the agency, and in 2008 FWS issued a notice of status review for the species.[30]
- In 2010, FWS found that "that the inadequacy of existing regulatory mechanisms is a significant threat to the greater sage-grouse now and in the foreseeable future" and announced that "listing the greater sage-grouse (rangewide) is warranted, but precluded by higher priority listing actions. We will develop a proposed rule to list the greater sage-grouse as our priorities allow."[31] FWS assigned the species a listing priority number of 8 (out of 12, with 1 being the highest priority).
- In a separate court settlement in 2011, FWS agreed to make a decision on whether to list the sage-grouse by the end of FY2015.[32] A plaintiff not involved in that settlement sued, arguing that FWS was not making expeditious progress in listing the species, as required under ESA,[33] but the court held otherwise.[34] That plaintiff, Western Watersheds Project, had sued to force listing of the sage-grouse prior to the compromise deadline, but the court held that "despite troubling aspects of the FWS decision process," the warranted but precluded finding was not arbitrary or capricious.[35]
- As part of a court-ordered settlement agreement concerning prior decisions on sage-grouse,[36] FWS filed a work plan in 2011 that committed either to publish proposed rules to list the species or to find that listing was not warranted for sage-grouse by September 30, 2015.
- On December 16, 2014, the President signed the Consolidated and Further Appropriations Act, 2015,[37] which included a provision to prohibit funding to issue a proposed rule for sage-grouse before September 30, 2015.
- On September 22, 2015, FWS announced its decision not to list the sage-grouse under ESA, based on the adequacy of existing regulatory mechanisms to protect

[28] FWS, "Endangered and Threatened Wildlife and Plants; 12-Month Finding for Petitions To List the Greater Sage-Grouse as Threatened or Endangered; Proposed Rule," 70 *Federal Register* 2243-2282, January 12, 2005.

[29] Western Watersheds Project v. Fish and Wildlife Service, 535 F. Supp. 2d 1173 (D. Idaho 2007).

[30] FWS, "Endangered and Threatened Wildlife and Plants; Initiation of Status Review for the Greater Sage-Grouse (*Centrocercus urophasianus*) as Threatened or Endangered," 73 *Federal Register* 10218-10219, February 26, 2008.

[31] FWS, "Endangered and Threatened Wildlife and Plants; 12-Month Findings for Petitions to List the Greater Sage-Grouse (*Centrocercus urophasianus*) as Threatened or Endangered; Proposed Rule," 75 *Federal Register* 13909-14014, March 23, 2010.

[32] In Re: Endangered Species Act Section 4 Deadline Litigation, No. 10-377 (D.D.C. July 12, 2011).

[33] 16 U.S.C. §1533(b)(3)(B)(iii)(II).

[34] Western Watersheds Project v. U.S. Fish and Wildlife Service, No. 4:10-CV-229 (D. Idaho September 26, 2012).

[35] Ibid. at *7 (D. Idaho February 2, 2012).

[36] In Re: Endangered Species Act Section 4 Deadline Litigation, No. 10-377 (D.D.C. July 12, 2011).

[37] P.L. 113-235.

the species. This decision was published in the *Federal Register* on October 2, 2015.[38]

Why Did FWS Decide Not to List Sage-Grouse?

In response to the 2010 FWS finding that sage-grouse warranted ESA listing, federal, state, and private landowners undertook many and varied actions to conserve the species and prevent listing. Secretary of the Interior Sally Jewell later referred to the federal, state, and private collaborative actions to preserve sage-grouse as the most comprehensive conservation effort in the nation's history.[39] As a result, in September 2015, FWS concluded that sage-grouse met the ESA standard of having adequate existing regulatory mechanisms, at several levels. These collaborative, governmental, and nongovernmental efforts are discussed below.

Collaborative Mechanisms to Protect Sage-Grouse

Many efforts involved multiple agencies and landowners. In 2011, several federal agencies signed a memorandum of understanding to coordinate and cooperate in management of sage-grouse habitat.[40] Also in 2011, Wyoming Governor Matt Mead and then-secretary of the Interior Ken Salazar cohosted a meeting to coordinate a multistate effort to protect sage-grouse across land ownerships. As a result of the meeting, two entities were established: a Sage-Grouse Task Force, chaired by the governor of Wyoming, governor of Colorado, and director of the Bureau of Land Management (BLM), and a Conservation Objectives Team (COT), consisting of FWS and state representatives. The COT team issued a report setting out objectives for the conservation and survival of the sage-grouse.[41] FWS Director Dan Ashe indicated that the report was not only for his use in making decisions regarding the sage-grouse but also for guiding other federal land management agencies, state sage-grouse teams, and others in conserving the species.[42]

State and Private Actions

Many western states were concerned about the prospect of listing the sage-grouse on the grounds that listing might affect land use through potential restrictions on energy development, grazing, urban development, and other activities. In particular, states were concerned that listing would affect management of BLM and FS lands, where economic uses such as mining, fossil and alternative fuel development, grazing, hunting, fishing, and outdoor recreation may all be important to local and regional economies.

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[38] FWS, "Endangered and Threatened Wildlife and Plants; 12-Month Finding on a Petition to List Greater Sage-Grouse (*Centrocercus urophasianus*) as an Endangered or Threatened Species Proposed Rule," 80 *Federal Register* 59858-59942, October 2, 2015.

[39] Department of the Interior (DOI), "Historic Conservation Campaign Protects Greater Sage-Grouse," press release, September 22, 2015, at https://www.fws.gov/news/ShowNews.cfm?ID=F5B7455D-0824-997C-47667F8ABBFFBA86.

[40] "Interagency Agreement Between the United States Department of Agriculture Natural Resources Conservation Service, and the USDA Forest Service, and the United States Department of the Interior Bureau of Land Management and the Fish and Wildlife Service," Forest Service (FS) Agreement Number: 11-IA-11132400-104, 2011, at http://www.blm.gov/style/medialib/blm/wo/Planning_and_Renewable_Resources/fish__wildlife_and/sage-grouse.Par.6386.File.dat/MOU%20on%20Greater%20Sage-Grouse.pdf.

[41] FWS, *Greater Sage-grouse Conservation Objectives Team Final Report*, March 2013, http://www.fws.gov/greatersagegrouse/documents/COT-Report-with-Dear-Interested-Reader-Letter.pdf.

[42] Ibid., see preface (p. ii).

To avoid potential adverse impacts on these sectors, states took diverse steps to conserve the species and to avoid a listing. For example, the Western Association of Fish and Wildlife Agencies (WAFWA) developed guidelines for best practices to assist states in managing sage-grouse habitat; WAFWA also signed memoranda of understanding with federal agencies.[43] Some states acted to protect sage-grouse and its habitat to avoid further reductions in numbers.[44] California, Colorado, Idaho, Montana, Nevada, and Wyoming all issued conservation plans whose measures varied but included bag limits;[45] where, when, and whether hunting was allowed; control of nonnative predators; limits on placement of utility lines; vegetative treatments to reduce invading juniper trees; habitat restoration after energy development; and other actions.[46]

For private lands, the Natural Resources Conservation Service (NRCS, U.S. Department of Agriculture) has led voluntary conservation efforts through its Sage-Grouse Initiative (SGI), which began in 2010.[47] The SGI uses existing federal conservation programs, namely the Environmental Quality Incentives Program (EQIP) and the Agricultural Conservation Easement Program (ACEP), to provide technical and financial assistance to help farmers and ranchers accelerate installation of conservation practices beneficial to sage-grouse. Examples of approved conservation practices include implementing grazing systems to improve cover for birds, removing invasive conifers from grasslands to improve habitat and increase forage for livestock, and marking or moving fences near breeding sites to reduce bird collisions. The initiative is

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[43] John W. Connelly et al., "Guidelines to Manage Sage Grouse Populations and Their Habitats," *Wildlife Society Bulletin*, vol. 28, no. 4 (2000), pp. 967-985.

[44] Washington lists the sage-grouse as a threatened species (Wash. Admin. Code §232-12-011) but also includes the species in its list of game birds (Wash. Admin. Code §232-12-004).

[45] A bag limit is a limit on the number of birds that may be taken by a hunter during a hunting season. Limits may specify different limits on male or female sage-grouse.

[46] California and Nevada: Nevada Department of Wildlife, *Greater Sage-Grouse Conservation Plan for Nevada and Eastern California*, June 30, 2004, at http://www.ndow.org/wild/conservation/sg/plan/SGPlan063004.pdf.

Colorado: Colorado Parks and & Wildlife, *Colorado Greater Sage-Grouse Conservation Plan*, January 2008, at http://cpw.state.co.us/learn/Pages/GreaterSagegrouseConservationPlan2.aspx.

Idaho: Idaho Fish and Game, *Conservation Plan for the Greater Sage-grouse in Idaho*, July 2006, at http://fishandgame.idaho.gov/public/wildlife/sageGrouse/conservPlan.pdf.

Montana: Montana Fish, Wildlife, & Parks, *Management Plan and Conservation Strategies for Sage Grouse in Montana-Final*, February 2005, at http://fwp.mt.gov/fishAndWildlife/management/sageGrouse/mgmtPlan.html.

Nevada: Nevada Department of Wildlife, "Sage Grouse Conservation Plans" (variously divided, with most recent portion dated 2012), at http://www.ndow.org/Nevada_Wildlife/Sage_Grouse/Conservation_Plans/.

North Dakota: North Dakota Game and Fish Department, *Management Plan and Conservation Strategies for Greater Sage-Grouse in North Dakota*, 2014, at https://gf.nd.gov/publications/535.

Oregon: SageCon Partnership, *Oregon Sage-Grouse Action Plan*, 2015, at http://oregonexplorer.info/content/oregon-sage-grouse-action-plan?topic=203&ptopic=179.

South Dakota: South Dakota Wildlife Division, Department of Game, Fish, and Parks, *Greater Sage-Grouse Management Plan South Dakota, 2008-2017*, at http://gfp.sd.gov/wildlife/docs/sage-grouse-management-plan.pdf.

Utah: Utah Division of Wildlife Resources, *Conservation Plan for Greater Sage-Grouse in Utah*, 2013, at http://wildlife.utah.gov/uplandgame/sage-grouse/pdf/greater_sage_grouse_plan.pdf.

Washington: Washington Department of Fish and Wildlife, Wildlife Program, *Sage-Grouse Conservation in Washington: 2013*, at http://wdfw.wa.gov/publications/01602/wdfw01602.pdf.

Wyoming: State of Wyoming, Office of the Governor, Executive Order 2010-4, "Sage-Grouse Core Area Protection," 2010, at http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_026366.pdf.

[47] For additional information on the Sage-Grouse Initiative (SGI), see U.S. Department of Agriculture (USDA). Natural Resources Conservation Service (NRCS), "Sage Grouse Initiative," at http://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/programs/initiatives/?cid=steldevb1027671.

offered in the 11 western states with areas of high sage-grouse populations.[48] Between FY2010 and FY2015, NRCS through the SGI obligated more than $296 million through 1,289 contracts on more than 5 million acres. In August 2015, NRCS expanded the initiative (referred to as *SGI 2.0*), committing approximately $211 million through FY2018 to bring the total to more than 8 million acres conserved.[49]

SGI is part of a larger Working Lands for Wildlife (WLFW) initiative at NRCS.[50] In addition to financial and technical assistance, the WLFW initiative ensures that participating producers who continue to maintain NRCS conservation practices to benefit the targeted species will be considered compliant with ESA for periods as long as 30 years, even if the species is subsequently listed under ESA.[51]

BLM and FS Sage-Grouse Strategy and Conservation Plans[52]

An estimated 271,604 square miles of sage-grouse habitat remain; of this total, two federal agencies manage more than half: BLM manages 45%, and FS manages 6%.[53] In response to the FWS 2010 finding that sage-grouse warranted ESA listing, BLM and FS began a coordinated and cooperative effort to develop and implement a joint conservation strategy to "protect, enhance, and restore sage-grouse and its habitat and to provide sufficient regulatory certainty" to warrant FWS not listing the species.[54] In 2011, both agencies published a notice of intent to prepare environmental impact statements (EISs) to incorporate sage-grouse conservation measures into the agencies' land and resource management plans across the range of the species.[55] The final COT report, mentioned above, other research efforts,[56] WAFWA, state conservation plans, and conservation activities on private lands all contributed to the development of the federal conservation strategy.

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[48] A map illustrating the SGI boundary is at http://www.nrcs.usda.gov/Internet/FSE_MEDIA/nrcsdev11_023999.png.

[49] USDA, NRCS, *Sage Grouse Initiative 2.0*, Investment Strategy, FY2015-FY2018, August 2015, at http://www.nrcs.usda.gov/wps/PA_NRCSConsumption/download?cid=nrcseprd391816&ext=pdf.

[50] Seven species are eligible under the Working Lands for Wildlife (WLFW) initiative: lesser prairie-chicken, New England cottontail, southwestern willow flycatcher, greater sage-grouse, gopher tortoise, bog turtle, and golden-winged warbler. For additional information, see USDA, NRCS, "Working Lands for Wildlife," at http://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/programs/initiatives/?cid=stelprdb1046975.

[51] Conservation practices under the WLFW were developed in partnership by NRCS and FWS. Landowners who voluntarily enroll in WLFW and carry out recommended conservation practices will be allowed to obtain incidental take permits valid through July 30, 2040. See USDA and FWS, Working Lands for Wildlife Greater Sage-Grouse, "ESA Predictability: Frequently Asked Questions," August 2014, at http://www.nrcs.usda.gov/wps/PA_NRCSConsumption/download?cid=nrcseprd334450&ext=pdf.

[52] This section was prepared by Carol Hardy Vincent and Katie Hoover. For additional information on Bureau of Land Management (BLM) activities pertaining to sage-grouse, contact Carol Hardy Vincent. For additional information on Forest Service (FS) activities pertaining to sage-grouse, contact Katie Hoover.

[53] FWS, "Endangered and Threatened Wildlife and plants; 12-Month Finding on a Petition to List Greater Sage-Grouse (*Centrocercus urophasianus*) as an Endangered or Threatened Species; Proposed Rule," 80 *Federal Register* 59866, October 2, 2015. Table 2. Other federal agencies (including the National Park Service) manage 2% of remaining sage-grouse habitat, tribes manage 3%, states manage 5%, and private owners manage 39%.

[54] FS, *Greater Sage-grouse Record of Decision for Idaho and Southwest Montana, Nevada, and Utah*, September 2015, p. 12, at http://www.fs.fed.us/sites/default/files/great-basinROD-package-.pdf.

[55] BLM, "Notice of Intent to Prepare Environmental Impact Statements and Supplemental Environmental Impact Statements to Incorporate Greater Sage-Grouse Conservation Measures into Land Use Plans and Land Management Plans," 76 *Federal Register* 77008-77011, December 9, 2011.

[56] For example, U.S. Geological Survey, *Conservation Buffer Distance Estimates for GRSG - A Review*, 2014.

In 2013, BLM and FS released for public comment and review draft EISs to amend 98 land and resource management plans covering the range of the sage-grouse in 10 states.[57] The final EISs were published in May 2015, and the records of decision were signed in September 2015.[58] These plans establish management goals, objectives, and direction for sage-grouse habitat and conservation on FS and BLM lands but do not require specific on-the-ground activities. However, any FS or BLM project or on-the-ground activity planned within these areas must comply with the management direction established by the plans.

The plans build on the multitiered approach identified by WAFWA and state conservation plans and establish different land allocations, with different land management prescriptions, based on habitat conditions. Lands identified as the most valuable habitat will be afforded the highest levels of protection, whereas other lands may permit more flexible management and resource development. The land allocations are identified as follows:

- Priority Habitat Management Areas (PHMAs): Lands identified as having the highest habitat value for maintaining sustainable sage-grouse populations.
    - Sagebrush Focal Areas (SFAs): Subsets of PHMAs, these lands were identified as having the highest densities of sage-grouse and other criteria important for the persistence of the species. These areas include the highest protections from new surface disturbances, such as mining activities, to protect sensitive habitats.
- General Habitat Management Areas (GHMAs): Lands that are seasonal or year-round habitat outside of PHMA where some special management would apply to sustain sage-grouse populations.[59]

The FS and BLM plans are based on three objectives for conserving and protecting sage-grouse habitat as identified by the final COT report: improve habitat condition, minimize new or additional surface disturbance, and reduce the threat of rangeland fire to sage-grouse and sagebrush habitat.[60] Each of these objectives is briefly summarized below.

Improve Sage-Grouse Habitat Condition

The plans seek to enhance sage-grouse habitat through varied means. One such means pertains to mitigation by avoiding, minimizing, and compensating for impacts of development. Another relates to consideration for sage-grouse habitat management during the permitting and monitoring processes for livestock grazing, for example. A third involves monitoring and evaluation of

[57] The 10 states are California, Colorado, Idaho, Montana, Nevada, North Dakota, Oregon, Utah, South Dakota, and Wyoming. Washington was not included in the BLM-FS planning effort because sage-grouse habitat in that state is primarily located on state and private lands, according to BLM. See the BLM's sage-grouse website, Frequently Asked Questions, under "How many states are involved in the greater sage-grouse conservation effort?" at http://www.blm.gov/wo/st/en/prog/more/sagegrouse/frequently_asked_questions.html.

[58] The records of decision, together with other documents and resources related to sage-grouse conservation on federal, state, and private lands, are on the Documents and Resources page of the BLM website at http://www.blm.gov/wo/st/en/prog/more/sagegrouse/documents_and_resources.html.

[59] This description of the layered management approach is drawn in part from BLM's sage-grouse website, Frequently Asked Questions, under "How do the plans achieve conservation?" at http://www.blm.gov/wo/st/en/prog/more/sagegrouse/frequently_asked_questions.html.

[60] BLM and FS, "Fact Sheet: BLM, USFS Greater Sage-Grouse Conservation Effort," September 22, 2015, at http://www.fs.fed.us/sites/default/files/fact-sheet-greater-sage-grouse.pdf. The discussion that follows is drawn from this fact sheet.

population changes, habitat condition, and mitigation efforts. A fourth provides for adjustment of plans to correct for declines in population or habitat.

Minimize Surface Disturbances

The plans describe several strategies to minimize surface disturbances in sage-grouse habitat, including capping surface disturbances at different levels for different habitat areas. One strategy involves reducing surface disturbances from mineral and energy resource uses, such as locating renewable energy and other projects outside of priority habitat areas. As part of that strategy, the Secretary of the Interior has proposed to withdraw from location and entry under the U.S. mining laws approximately 10 million acres of BLM and National Forest System land in specified sage-grouse habitat in six states,[61] subject to valid existing rights.[62] During the ongoing segregation period, which can last up to two years while the Secretary decides whether to make the withdrawal, the location and entry of new mining claims in these areas are prohibited. During the segregation, BLM is coordinating the National Environmental Policy Act (NEPA) process, including conducting environmental surveys and analyses and inviting public input on the proposed withdrawal.[63]

Reduce Wildfire Threat

The COT report identified fire, and the post-fire spread of invasive grasses, as one of the most immediate threats to sage-grouse habitat. The FS and BLM plans provide guidance and strategies to address this threat, including positioning wildland fire management resources to maximize response capacity, managing vegetation to reduce fire risk, and promoting the post-fire restoration of native grassland species.[64]

Conflicting Views on BLM and FS Plans

The BLM and FS plans have received both support and opposition. Supporters have commended the collaborative process that generated the protections on federal and other lands. Some conservationists and others have praised the plans as containing the necessary safeguards for sage-grouse to recover. However, other environmental organizations have objected to the plans as not protective enough of sensitive sage-grouse habitat and called for an ESA listing or more stringent conservation provisions in the plans. Some states, industries, and others have argued that

[61] Provisions of the Federal Land Policy and Management Act (codified at 43 U.S.C. §1714) authorize the Secretary of the Interior to withdraw lands. The provisions define withdrawal as "withholding an area of Federal land from settlement, sale, location, or entry, under some or all of the general land laws, for the purpose of limiting activities under those laws in order to maintain other public values in the area or reserving the area for a particular public purpose or program; or transferring jurisdiction over an area of Federal land.... " (43 U.S.C. §1702(j)). Except in emergency situations, the Secretary is authorized to withdraw lands outside the Department of the Interior only with the consent of the head of the agency or department (43 U.S.C. §1714(i)).

[62] BLM, "Notice of Proposed Withdrawal; Sagebrush Focal Areas; Idaho, Montana, Nevada, Oregon, Utah, and Wyoming and Notice of Intent to Prepare an Environmental Impact Statement," 80 *Federal Register* 57635-57637, September 24, 2015. A correction notice was subsequently issued, See 80 *Federal Register* 63583, October 20, 2015.

[63] National Environmental Policy Act (NEPA; 42 U.S.C. §§4321-4347). This and other information on the proposed withdrawal is contained in BLM, Documents and Resources, "Withdrawal Order Fact Sheet," at http://www.blm.gov/wo/st/en/prog/more/sagegrouse/documents_and_resources.html.

[64] For more information, see DOI, *Rangeland Fire Prevention, Management, and Restoration*, Secretarial Order No. 3336, January 5, 2015, and DOI, *Implementation Plan for Secretarial Order 3336*, January 30, 2015, at https://www.forestsandrangelands.gov/rangeland/documents/ImplementationPlan_SecretarialOrder3336.pdf.

the plans could unnecessarily restrict uses of federal land, including energy and mineral development, livestock grazing, hunting, and recreation. Other questions have centered on whether the federal government or states should take the lead in conserving the sage-grouse. Some states that had adopted conservation plans disputed the need for federal plans or opposed provisions of those plans as in conflict with their own. Some critics questioned whether the plans were based on adequate science.

More broadly, other concerns have been raised about the overall protection afforded through federal, state, and local efforts. These efforts eliminated only the ESA listing per se, because they formed the basis for the FWS decision not to list the species. However, some conflated an FWS decision not to list with the opportunity to avoid strong conservation measures. For such individuals, the FWS decision seemed like a "bait and switch" because the effects of the federal, state, and local efforts seemed similar to effects that would have been expected from an ESA listing.[65]

Implementation and Other Issues

Although controversy over sage-grouse conservation began decades ago with the question of whether the species was depleted enough to need protection, the current debate has turned to the validity of the FWS decision not to list the species and the impacts of the protections that avoided ESA listing, especially the revised BLM and FS land management plans. Among the issues that have been raised by various parties are the following:

- the efficacy of state management and whether management of federal lands for sage-grouse conservation should be made subordinate to state management;
- the variation among states in protecting the species from recurring threats, and in some cases the failure to limit activities that pose the greatest risk in a given state, such as energy development in Wyoming or geothermal development in Nevada;
- whether restrictions on grazing will be implemented soon enough to reduce nest trampling from cattle;
- whether the decision not to list the species was predicated on the best available science;
- whether federal land management plans to protect sage-grouse habitat disregard the mandates of BLM and FS for multiple use and sustained yield; and
- whether any relaxation of land management plans in a manner to favor economic development might increase the possibility that FWS would revisit its decision not to list the species.

For these and other reasons, states and interest groups have filed lawsuits. In addition, a number of bills have been introduced in the 114th Congress to address aspects of sage-grouse conservation on specific lands.[66] Provisions in various bills overlap considerably but include

- preventing delay of a future listing of the species (e.g., H.R. 4739; H.R. 4909 (§2864)/S. 2943 (§2864));

[65] For example, see "The Sage Grouse Switcheroo," *Wall Street Journal*, September 27, 2015.

[66] These bills include H.R. 1793/S. 468; H.R. 1997/S. 1036, H.R. 4739; H.R. 4909 (§2864)/S. 2943 (§2864); H.R. 5538 (§114)/S. 3068 (§115); S. 2132 (§119); and P.L. 114-113 (Division G, §117). In some cases, certain versions of these bills may lack provisions on sage-grouse.

- exempting certain vegetative management practices designed to benefit sage-grouse from the NEPA (e.g., H.R. 1793 / S. 468);
- allowing states to develop their own sage-grouse management plans (e.g., H.R. 1997/S. 1036);
- allowing state preemption of federal land management plans regarding sage-grouse (e.g., H.R. 1997/S. 1036);
- reversing prior land withdrawals made to protect sage-grouse (e.g., H.R. 4739; H.R. 4909 (§2864)/S. 2943 (§2864)); and
- exempting sage-grouse provisions from judicial review (e.g., H.R. 4739).

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