

Sage Grouse and the **Endangered Species Act (ESA)**

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Summary

Western states have seen conflicts over natural resources for more than a century. These conflicts have involved issues such as grazing, roads, fences, oil and gas development, urban expansion, spread of invasive species, water rights, Native rights, timber harvest, and pollution. Recent additions to the list include development of alternative energy such as wind and solar power. In many cases, the more recent conflicts have involved the protection of endangered and threatened species, often with one group of advocates seeing listed species as an obstacle to their development goals or property rights, and another group advocating protection in line with their environmental, scientific, or economic goals. One such controversy is developing in 11 western states over sage grouse, whose numbers can be threatened by roads, fences, power lines, urban expansion, and energy development. This report describes the state of knowledge about these birds, history of efforts to protect them, and current controversies.

In March 2010, the U.S. Fish and Wildlife Service (FWS), in response to petitions and lawsuits, issued a determination that listing the sage grouse under the Endangered Species Act (ESA) was warranted but precluded by the need to list species with a more urgent need of protection. Thus, the sage grouse is treated as a candidate species and does not have the protections that a listed species would have.

The sage grouse, once abundant in western sagebrush habitat in 16 states, has dropped in numbers, and is now found in 11 states. Its decline can be attributed to several factors—increased use of sage grouse habitat by ranching and oil and gas development, decreased sagebrush due to noxious invasive species, and loss of habitat due to more frequent fires. However, the extent of the decline is not certain, and some dispute that the sage grouse is in peril. There is some discussion over how many different species of grouse there are and how they may be related. Currently, two species are recognized by scientists: the Gunnison grouse and the sage grouse. In addition, some experts divide the sage grouse into various distinct populations. FWS received several petitions to list these entities as endangered or threatened.

One factor in making a listing decision is whether other regulations are in place to provide adequate protections of a species so that federal listing is not necessary to prevent extinction. States in primary sage grouse habitat have taken action to forestall an endangered species listing, which some believe would inhibit energy development on vast amounts of public and private property. These issues are at the forefront as Congress considers increased energy development on federal lands, while balancing the mission of the ESA.

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Introduction

A common theme in controversies over the Endangered Species Act (ESA)¹ is that the conflict is triggered by a need by humans and a listed species for the same dwindling resources. A species' need for a particular habitat and its resources often parallels human desires for the same. The parties to the debate have often struggled for years over the basic allocation of those resources, from Tellico River, to the Edwards Aquifer (TX), to prairie grasslands, to the California Delta. The debate over ESA and species protection typically signals an intensification of an underlying and usually much larger struggle.

Sagebrush habitat in the west is diminishing and becoming fragmented due to urbanization, global climate change, roads, fences, grazing, energy development, water scarcity, power lines, etc. While the remaining habitat is vast, its fragmentation presents special problems. Some species (e.g., pronghorn antelope) have huge home ranges, and others need large treeless areas to discourage the roosting of additional avian predators. Thus, fences, roads, and utility poles can produce a very substantial change in the sagebrush habitat, even though the actual surface disturbance is minimal.

There are several species of grouse in the west, but the group that dominates the sagebrush habitat is in the genus *Centrocercus*. While all of these birds can fly, they do not fly long distances. They escape their predators through concealment or by running under rocky outcrops or brush. Male grouse gather in the spring year after year in the same areas, called *leks*. 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 these males attract the attention of resident females, who survey the spectacular offerings of the displaying males, make their choices, and mate.² The leks are found in open sagebrush areas, usually on broad ridges or valley floors where visibility is excellent and noise will travel well. Once mating has occurred, females leave to nest, sometimes at a distance of several miles from the lek.

Sage Grouse Habitat

The sage grouse was once abundant in 16 western states. Now its current range includes portions of 11 states: North Dakota, South Dakota, Colorado, Wyoming, Montana, Idaho, Washington, Oregon, Utah, Nevada, and California. While it is agreed that the number of sage grouse has declined, there is little agreement as to the rate of decline. The Fish and Wildlife Service (FWS or Service) estimates that sage-grouse population numbers may have declined between 69% and 99% from historic to recent times. It cites data from the Western States Sage and Columbia

¹ Act of December 28, 1973, P.L. 93-205; 87 Stat. 884, codified at 16 U.S.C. § 1531 *et seq.* This report assumes a basic knowledge of the act; an overview of the ESA and its major provisions may be found in CRS Report RL31654, *The Endangered Species Act: A Primer*, by M. Lynne Corn, Kristina Alexander, and Eugene H. Buck.

² Female sage grouse have been documented to travel more than 20 km (13 mi) to their nest site after mating. See 71 Fed. Reg. at 19956 (April 18, 2006).

³ It is no longer found in Nebraska, Kansas, Oklahoma, New Mexico, or Arizona, and has been extirpated in British Columbia, too.

⁴ 69 Fed. Reg. 21484, 21486 (April 21, 2004) (based on data found at 65 Fed. Reg. 51578 (August 24, 2000)). See also 75 Fed. Reg. 13909, 13922 (March 23, 2010) (referring to data that sage grouse populations were two to three times (continued...)

Sharp-Tailed Grouse Technical Committee, which estimated the decline between historic times and 1999 to have been about 86%.⁵

The sage grouse is particularly vulnerable to changes in its habitat. Grazing, oil and gas development, communication towers, utility poles, and wind turbines all pose a threat to sage grouse habitat. Because habitats are becoming fragmented, grouse populations are becoming genetically isolated, leaving them more vulnerable. Development that adversely affects the grouse includes roads, fences, and power lines: the roads provide ingress for invasive species such as cheatgrass; the fences interrupt migration to and from leks as well as seasonal migration of some birds; and both fences and power lines provide perches for avian predators. Cheatgrass is the primary invasive threat to sagebrush habitat. It shows up after an area has been grazed or when roads are developed. The non-native grass spreads quickly, is disliked as forage by grazing mammals and grouse, and burns much more readily than native plants. Both the number of fires and the total area burned in sage grouse habitat have increased dramatically in the last decade when compared to the past 100 years. Drought and global climate change could accelerate the loss of sagebrush by facilitating cheatgrass invasion, increasing the likelihood and severity of fires.

Additionally, many types of development introduce standing pools of water into an environment where none had existed. Coal bed methane production and oil wells both involve a footprint with a pond of some sort. This introduces mosquitoes into the habitat, and mosquitoes can carry the West Nile Virus. According to the U.S. Geological Survey (USGS), the federal agency responsible for tracking wildlife disease, the West Nile Virus is always fatal for the grouse. According to a 2006 report by USGS, West Nile Virus has been reported among sage grouse in every state of the grouse's range except for Washington.⁷

Federal Lands

The Bureau of Land Management (BLM) manages over half of the 57 million acres of sagebrush habitat, with 40 million of those acres either current grouse habitat (30 million acres) or suitable for habitat (10 million acres). This authority is significant as efforts to accelerate development of federal land for energy advance projects across more federal land. Even the alternative energy sources supported by financial incentives during the 111th Congress can and have created conflict in sagebrush habitat.

(...continued)

greater in the 1960s and 1970s than current populations).

⁵ 69 Fed. Reg. 21484, 21486 (April 21, 2004).

⁶ Western Watersheds Project v. Dyer, 2009 WL 484438, *7 (D. Idaho February 26, 2009).

⁷ USGS, Wildlife Health Bulletin #06-08, West Nile Virus in Greater Sage-Grouse (November 6, 2006), available at http://www.nwhc.usgs.gov/publications/wildlife_health_bulletins/WHB_06_08.jsp.

⁸ See BLM, *Sage-grouse and Sagebrush Conservation*, available at http://www.blm.gov/wo/st/en/prog/more/sage_grouse_home2.html.

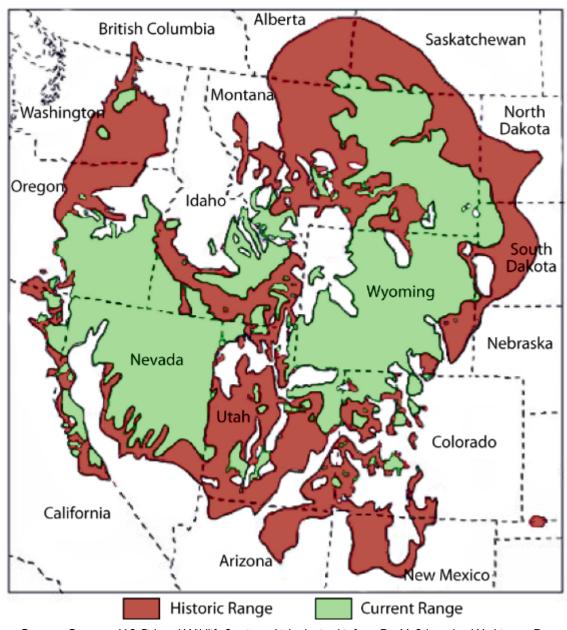


Figure 1. Sage Grouse Range, 2000 (includes Gunnison grouse)

Source: Courtesy: U.S. Fish and Wildlife Service, which obtained it from Dr. M. Schroeder, Washington Dept. of Wildlife.

Note: Available at http://www.fws.gov/mountain-prairie/species/birds/sagegrouse/map_sagegrouse_range2000.JPG.

Endangered Species Act (ESA)

The 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). The ESA also prohibits taking these species, with limited exceptions. In addition, federal agencies are prohibited from destroying or adversely modifying their designated critical habitats.

FWS is the federal agency that manages most species under the ESA (the National Marine Fisheries Service (NMFS) supervises most marine mammals and oceanic species). The Secretary of the Interior, acting through FWS (or the Secretary of Commerce, through NMFS, where relevant) is charged with the decision of whether to list a species.

The listing decision is based on five criteria: habitat, over-harvesting, disease, inadequacy of existing regulatory protection, and other factors affecting its existence. ¹⁰ In making the determination, FWS is charged with relying "solely on the basis of the best scientific and commercial data available." ¹¹

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. Within 12 months of filing the petition, FWS must publish whether listing is warranted or not. A final decision must be made one year after the 12-month notice. FWS receives more petitions than it has resources to address and 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. Failure to meet the deadlines can be a basis for suit.

In addition to listing entire species, the ESA authorizes listing distinct population segments of vertebrates (but not invertebrates or plants). ¹² A Distinct Population Segment (DPS) refers to a portion of a listed species, separated from the rest of the species by genetic distinction and range. According to FWS policy established in 1996, in order to be designated a DPS, a population must be discrete (separated as a consequence of physical, physiological, ecological, or behavioral factors) and significant (meaning its demise would be an important loss of genetic diversity). ¹³

In the late 1990s, FWS developed a program to encourage non-federal landowners to take conservation measures to protect species at risk. The Candidate Cooperative Agreement with Assurances (CCAA) policy was designed to encourage non-federal landowners (including state and local governments) to manage their property in ways that helped vulnerable species before they became listed under the ESA. ¹⁴ According to FWS, the policy was motivated by the practice

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⁹ 16 U.S.C. §§ 1532(6), 1532(20). This section is intended to be a general overview of the ESA. For specific references and detailed analysis of the act, see CRS Report RL31654, *The Endangered Species Act: A Primer*, by M. Lynne Corn, Kristina Alexander, and Eugene H. Buck.

¹⁰ 16 U.S.C. § 1533(a)(1).

¹¹ 16 U.S.C. § 1533(b)(1)(A).

¹² 16 U.S.C. § 1532(16).

¹³ 61 Fed. Reg. 4722 (February 7, 1996).

¹⁴ 64 Fed. Reg. 32705 (June 17, 1999).

of property owners doing things to keep certain species from their land so that if that species became listed, their property would not be subject to any associated restrictions. ¹⁵ That was leading to vulnerable species facing more risks as their numbers dwindled.

A CCAA rewards land management practices that aid species by assuring cooperating landowners that changes in federal policy will not restrict how they manage their property. The agency said, "the ultimate goal of Candidate Conservation Agreements with Assurances is to remove enough threats to the covered species to preclude any need to list them," but to do this, the substantive requirements of the CCAA must be performed by a significant fraction of the landowners in a species' range. 16 There must be a big enough impact to provide noticeable improvement. In exchange for a landowner's agreement to manage property for the benefit of a species, FWS issues an assurance in the form of an incidental take permit, excusing the landowner from prosecution if its actions harm a listed species. ¹⁷ This permit can be extended to include candidate species, so that if they are listed later, the landowner will not face liability.

Listing the Sage Grouse: Warranted but Precluded

In March 2010, FWS determined that listing the sage grouse under the ESA was warranted but precluded. 18 This ESA determination indicates that the Service believes the species needs protection under the act but that protecting other species has a higher priority. 19 FWS found that the threat of continued loss of habitat was significant and formed a basis for the determination.²⁰

Under the ESA, the species for which a warranted but precluded determination has been made are listed and ranked based on their priority for listing. ²¹ The list, known as a candidate notice of review, is issued annually, with the Service reviewing those species' status. Each species is given a listing priority number (LPN) indicating how FWS has ranked the importance of listing to the survival of that species, ranging from 1 to 12. The lower the number, the higher the priority that species has. The Service works to resolve listing on species with the lowest numbers first. The sage grouse's LPN was eight.²² The 2009 candidate notice of review has 305 species, the vast majority of which are a higher priority for listing than the sage grouse.²³ The ESA does not restrict activities affecting species for which a warranted but precluded determination is made, such as would occur if the sage grouse were found to be threatened or endangered. However, the species' status as a candidate could mean federal agencies will pay greater attention to its conservation.²⁴

^{15 64} Fed. Reg. at 32707.

¹⁶ Id.

¹⁷ 50 C.F.R. § 17.22(d)(5).

¹⁸ 75 Fed. Reg. 13909 (March 23, 2010).

¹⁹ 16 U.S.C. § 1533(b)(3)(B)(iii).

²⁰ 75 Fed. Reg. 13909, 13962 (March 23, 2010).

²¹ For a detailed analysis of the warranted but precluded process, see CRS Report R41100, Warranted but Precluded: What That Means Under the Endangered Species Act (ESA), by Kristina Alexander.

²² 75 Fed. Reg. 13909 (March 23, 2010).

²³ 74 Fed. Reg. 57803 (November 9, 2009).

²⁴ See 16 U.S.C. § 1536(a)(4).

Sage Grouse: Species, Subspecies, and Populations

Understanding of relationships among birds in the genus *Centrocercus* has expanded in recent years. In 1980, there was thought to be only one species, the sage grouse (*Centrocercus urophasianus*), the largest grouse in North America.²⁵ Further study and field data caused the American Ornithological Union (AOU), the major scientific society for the study of birds, to recognize a second species, the Gunnison grouse. Some scientists argue that distinct subspecies or populations also should be recognized. The two recognized species, and the various populations (distinct or not) are discussed below.

The bulk of the birds in the genus are now called "sage grouse," and the second species is called the Gunnison grouse (*Centrocercus minimus*). Some scientists would divide *C. urophasianus* into subspecies and further into genetically distinct populations. Because the ESA allows protection of DPS, each of these groups could be eligible for listing. However, for the most part, FWS holds that these finer distinctions do not represent genetic differences, but only geographically isolated populations. The two species and their finer distinctions will be discussed below.

A difficulty in objectively determining the scientific validity of any taxonomic distinction at the subspecies level is that the AOU stopped distinguishing any category below the species level in 1983. Thus, a major scientific referee for these determinations is not available, and FWS must review primary and sometimes conflicting scientific literature. Where experts do not agree, where genetic analyses are in conflict, and where the scale of morphological differences may be in the eyes of scientists, FWS must determine whether the vertebrate population could be considered a Distinct Population Segment (DPS) based on two criteria established by policy:

(1) A population segment's discreteness from the remainder of the species to which it belongs; and (2) the significance of the population segment to the species to which it belongs.²⁷

Sage Grouse

The sage grouse (*C. urophasianus*) is the largest North American grouse, and males weigh up to seven pounds, and females up to five pounds. It is a squat, feathered, chicken-like bird, grayish with a black belly and spiky tail feathers, and highly prized by hunters. Its winter diet of sage leaves give the flesh a strong sage flavor. It remains a game bird in many western states. It primarily gets around by walking and running, but it can fly over short distances. Sage grouse depend almost entirely on the sagebrush habitat for year-round food and shelter, although the spring and summer diet also includes the leaves and seeds of many forbs and grasses. Overgrazing by other animals thins the forbs and grasses, making sagebrush habitat less suitable for raising young. Sage grouse have one of the lowest reproductive rates of any North American

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²⁵ For example, see John K. Terres, ed., *The Audubon Society Encyclopedia of North American Birds* (New York: Alfred A. Knopf, 1980), p. 451.

²⁶ This report will refer to the two recognized species as *sage grouse* and *Gunnison grouse*, except when quoting authors who prefer an alternative. Capitalization and the placement of a hyphen between "sage" and "grouse" vary widely. When a particular subspecies or population is discussed, appropriate modifiers will be added.

²⁷ 69 Fed. Reg. 935 (January 7, 2004).

game bird. Because of this, "its populations are not able to recover from low numbers as quickly as many other upland game bird species." ²⁸

The name greater sage grouse is usually synonymous with *C. urophasiaunus*. ²⁹ Many scientific publications use *sage grouse* and *greater sage grouse* (with variations in capital letters and hyphens) interchangeably.

Eastern Subspecies of Sage Grouse

Some believe the sage grouse can be divided into subspecies. One of the proposed groups is the eastern subspecies. A petition was filed to list the eastern subspecies of the sage grouse under the ESA, premised on those sage grouse being distinct from the western population. FWS said there was a lack of evidence showing the eastern population of the sage grouse was a subspecies or a distinct population segment, noting that the birds moved back and forth across the purported border between eastern and western sage grouse, and there were no known genetic distinctions.³⁰

Western Subspecies of Sage Grouse

The western subspecies of sage grouse (*C. u. phaios*) was recognized by the AOU in 1957. However, the AOU has not maintained its earlier analyses of birds at the subspecies level, the 1957 analysis has not been updated, and the Integrated Taxonomic Information System (ITIS) considers the subspecies "invalid." Compared to the eastern sage grouse, western sage grouse have reduced white markings and darker grayish-brown feathering, resulting in a more dusky overall appearance. To date, no genetic distinction between it and other sage grouse has been found. ³² FWS has refused to designate a western sage grouse DPS, ³³ although a court found the 2003 position arbitrary and capricious (see "Litigation," below). Since then, FWS re-examined the science behind the purported subspecies, again finding no genetic evidence supporting a subspecies. ³⁴ Others argue that morphological and behavioral differences support the designation. ³⁵

The historic distribution of western sage grouse extended from south-central British Columbia southward throughout eastern Washington and Oregon, except in extreme southeastern Oregon near the Idaho/Nevada borders (**Figure 1**). Populations in northern California and western Nevada are thought to represent an intermediate form between the western and eastern subspecies

²⁸ Western Watersheds Project v. Dver, 2009 WL 484438, *5 (D. Idaho February 26, 2009).

²⁹ For example, see National Biological Information Infrastructure, *The Sage Grouse Local Working Group Locator: A Geographic Perspective to Sage Grouse Conservation Efforts*, February 2008, p. 1, http://www.nbii.gov/images/uploaded/8496_1202925760495_SageGrouse_LWG_Locator.pdf.

³⁰ 69 Fed. Reg. 933 (January 7, 2004).

³¹ See http://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=175857. ITIS is a consortium of the U.S. Geological Survey, Environmental Protection Agency, National Oceanic and Atmospheric Administration, U.S. Department of Agriculture, Smithsonian Institution, and the National Biological Information Infrastructure.

³² 66 Fed. Reg. 22984, 22991 (May 7, 2001).

³³ 58 Fed. Reg. 6500 (February 7, 2003).

^{34 75} Fed. Reg. 13909 (March 23, 2010).

³⁵ 68 Fed. Reg. at 6502 (February 7, 2003).

of sage grouse.³⁶ Currently, western sage grouse occupy central and southern Oregon and two relatively small areas in central Washington.³⁷ There are two subpopulations of western sage grouse remaining in Washington, totaling approximately 1,000 birds. The northern subpopulation occurs primarily on private and state-owned lands in Douglas County (roughly 650 birds); the southern subpopulation occurs at the U.S. Army Yakima Training Center in Kittitas and Yakima Counties (roughly 350 birds). This is down from the historic levels that supported annual state hunting quotas of roughly 1,800 birds from 1951 to 1973.³⁸ It is estimated that the western sage grouse once numbered between 200,000 and 2 million, and that the population has declined by an estimated 66% to 99% from its historical high.³⁹

Columbia River Basin Population

In 2001, FWS acknowledged that the Columbia River Basin population of sage grouse was considered a DPS of the western subspecies. ⁴⁰ It consists of the two populations in Washington cited above (Douglas County and Kititas and Yakima Counties). Although the DPS is now isolated from other populations of sage grouse, it was once considerably more widespread. FWS initially gave it a low priority for listing (9 on a 12-point scale), and held that its listing was "warranted but precluded" by the need to list other species in more urgent need. ⁴¹ In 2002, the Columbia Basin population was determined to be sufficiently at risk to warrant moving its priority from a 9 to a 6, on the basis of threats from military training near one population and threats to agricultural lands. ⁴² However, FWS said that these threats were not imminent and so did not warrant listing. In February 2003, FWS said that the western sage grouse is not a subspecies, likely leading to the conclusion that the Columbia River Basin population is a DPS of the sage grouse species, rather than of the formerly acknowledged western subspecies. ⁴³

Mono Basin or Bi-State Population of Sage Grouse

Some groups hold that the sage grouse in the area around Mono Lake (in California and Nevada) constitute a DPS of sage grouse, and that they warrant listing as endangered. FWS referred to this group as the Mono Basin population until its 2010 listing determination regarding the sage grouse. FWS now refers to the population as the Bi-State population, which is how the states refer to it. Two groups petitioned FWS for an emergency listing of the mono basin group, calling it *C. urophasianus phaios*. The petition was denied. FWS argued that morphological information did not indicate that the Mono Basin population was distinct, nor did behavioral observations show any differences. A 2005 petition by multiple groups sought DPS status for the Mono Basin population as well as listing under the ESA. In 2006, FWS found that genetic data did show a

⁴² 67 Fed. Reg. 40657, 40663 (June 13, 2002).

³⁶ AOU 1957, Aldrich 1963.

³⁷ 66 Fed. Reg. 22986 (May 7, 2001).

^{38 66} Fed. Reg. at 22987.

³⁹ 66 Fed. Reg. at 22987.

⁴⁰ 66 Fed. Reg. 22984 (May 7, 2001).

⁴¹ Id

⁴³ 68 Fed. Reg. 6500 (February 7, 2003).

⁴⁴ 67 Fed. Reg. 78811 (December 26, 2002).

distinction worthy of calling the Mono Basin population a DPS. 45 But after the agency examined all of the separate criteria that are considered in a decision to list a species (habitat loss, overuse, disease or predation, inadequacy of existing regulation, and other natural or manmade factors), none of these presented a sufficient threat to justify listing.⁴⁶

In 2008, FWS initiated a second status review of this population, asking for any new data on threats to the DPS. 47 In its 2010 determination that listing the sage grouse was warranted but precluded, FWS also determined that the Bi-State population was a DPS whose listing was warranted but precluded. The Bi-State population received a listing priority number (LPN) of three, 48 meaning its listing is a higher priority than that of the sage grouse (whose LPN was eight).

Gunnison Grouse

As discussed earlier, until 2000, all sage grouse in the United States were considered a single species. 49 But with more information, it gradually became clear that the sage grouse of the Four Corners area—Utah, Colorado, New Mexico, and Arizona—differed in several respects from birds in the rest of the range. These birds were consistently about 2/3 as big as their relatives, had males with different markings and behaviors, and occupied only this particular part of the whole western sagebrush area. Genetic studies showed that the DNA of birds of this region was distinct, and they did not breed with the larger birds. 50 As a result, in 2000 the AOU recognized the grouse of that area as a separate species (Centrocercus minimus), and in 2006 the International Ornithological Congress recommended the common name "Gunnison grouse" and that the remainder of the species be called simply "sage grouse."51

The Gunnison grouse was once abundant in its four-state range. (See Figure B-1 for historic distribution in Colorado.) It is now confined to seven populations in Colorado, plus a very limited number of birds in Utah. (See Figure B-2.) According to FWS, the current range of the Gunnison grouse is 8.5% of its historic range.⁵² The great majority of the remaining population is found in the Gunnison Basin in Colorado; birds in the smaller populations constitute an important source of genetic diversity, as well as a safety valve should the main population be devastated by disease, invasive species, new predators, etc. It is agreed that Gunnison grouse populations have declined.

⁴⁵ 71 Fed. Reg. 76062 (December 19, 2006).

⁴⁶ 71 Fed. Reg. at 76058-79.

⁴⁷ 73 Fed. Reg. 23173 (April 29, 2008).

⁴⁸ 75 Fed. Reg. 13909 (March 23, 2010).

⁴⁹ See, e.g., National Geographic Society, Field Guide to the Birds of North America, 1983.

⁵⁰ S. J. Oyler-McCance, et al., A population genetic comparison of large- and small-bodied sage grouse in Colorado using microsatellite and mitochondrial DNA markers, Molecular Ecology, Vol. 8, No. 9, pp. 1457-65 (1999). Abstract available at http://www3.interscience.wiley.com/journal/119096315/abstract.

⁵¹ Background on the biology of the Gunnison grouse, its habitat requirements, and distribution is taken from several sources: J. R. Young, The Gunnison Grouse, available at http://www.western.edu/faculty/jyoung/gunnison-sagegrouse/gunnison-sage-grouse.html; U.S. Geological Survey, Bird of a Different Feather: DNA Research Reveals a New, Yet Familiar Species, available at http://www.fort.usgs.gov/resources/spotlight/grouse/grouse maps.asp; and Final Listing Determination for the Gunnison Sage-Grouse as Threatened or Endangered, 71 Fed. Reg. 19954 (April 18, 2006).

⁵² 71 Fed. Reg. 19954, 19957-58 (April 18, 2006) (showing that the historic range was 55,350 sq. km. and the current range is 4,720 sq. km.).

although there is no consensus as to the extent of the decline, or whether it is part of a natural cycle. ⁵³ (See **Table B-1** for population estimates.)

Table 1. Sage Grouse: Species and Populations

Type of Grouse (Common name)	Listed under ESA?	Recognized by FWS as a DPS or subspecies?	Scientifically recognized as a species, subspecies, or population?
Gunnison grouse	determination due 6/2010	n/a	yes
Sage grouse	no	n/a	yes
Eastern Subspecies	no	no	no
Western Subspecies	no	no	no
Columbia River Basin Population	no	yes	yesa
Mono Basin Population	no	yes	probably ^{a,b}

Source: Congressional Research Service.

- a. There is no generally accepted scientific association that passes on the validity of a population as distinct or not. Entries here are based on assessments by respected field observers, and literature review of various sources, including those of FWS.
- b. Population status is based on genetic rather than morphological differences.

Existing Regulatory Protection: Federal and State Actions

As noted above, one consideration in an ESA listing determination is whether existing regulatory mechanisms are adequate to conserve the species. Strong conservation programs at the federal, state, local, or private level may be sufficient to avoid listing a species. Existing conservation programs at these levels for sage grouse and Gunnison grouse are described below. These programs help illustrate another issue in sage grouse management: until a species is listed under federal law, it is managed under state law, even on federal lands. The federal role can be limited to habitat protection on those lands.

Bureau of Land Management (BLM) Policy

Under BLM policy, species that are listed, proposed for listing, or candidate species under the ESA are known as special status species. All of the groups of sage grouse fit under one of these categories. The special status species policy dictates that BLM manages its lands to "minimize

(November 2004).

⁵³ The National Audubon Society listed the Gunnison grouse as one of the 20 most imperiled birds in the United States in 2007, estimating that between 2,000-5,000 birds exist. See http://web1.audubon.org/science/species/watchlist/priorityContSpecies.php. A 2004 report by the Colorado Department of Wildlife (CDOW) found that the population had declined between 42% and 90% in the previous 50 years. The Bureau of Land Management (BLM) stated that the peak number of birds has declined in the last 30 years. BLM, *National Sage Grouse Conservation Strategy*, p. 6

the likelihood of and need for listing" the species and to "conserve and/or recover ESA-listed species and the ecosystems on which they depend so that ESA protections are no longer needed." This language very nearly matches the statutory obligations within the ESA. This is a change from the previous policy language which had expanded the statutory obligations to include extra responsibilities toward protecting species at risk. The previous version of Section 6840.02 had required the agency to (a) conserve listed species and their ecosystems and (b) "ensure that actions requiring authorization or approval by [BLM] are consistent with the conservation needs of special status species and do not contribute to the need to list any special status species." The policy was changed December 12, 2008. The difference in the new policy appears to be the changed goal of ensuring that BLM actions do not contribute to a species being listed versus one of minimizing the likelihood of a listing. It also allows BLM to prioritize how it manages sensitive species based on other issues, including financial resources. The policy is applied in BLM land use planning.

In 2004, BLM issued a National Sage-Grouse Habitat Conservation Strategy.⁵⁷ It is not clear that the Habitat Conservation Strategy includes any numeric goals regarding acres of habitat protected or any enforceable obligations. Instead, it sets goals and objectives for BLM land management, such as using the best available science when developing conservation efforts, or ensuring that conservation strategies are consistent with existing laws, and updating land management plans when appropriate with full public participation. In short, it does not appear that the Habitat Conservation Strategy does more than already required under existing laws such as the ESA and the Federal Land Policy and Management Act. However, the Habitat Conservation Strategy may serve the purpose of harmonizing BLM land use planning when sagebrush habitat is involved.

In addition to the nationwide sage grouse policy, BLM developed a Gunnison Sage Grouse Conservation Plan with many stakeholders in the area. A stated goal of the plan was to increase the population of the Gunnison grouse, not merely avoid further losses.⁵⁸ The plan was to be implemented by the different stakeholders in five phases across 15 years, starting in 2005. It does not appear that any parts of the agreement are mandatory.

When it is making a listing determination, FWS is required to consider whether there are adequate regulatory mechanisms in place such that additional protection under the ESA is not needed. ⁵⁹ In evaluating whether to list the sage grouse, FWS considered BLM policies, and suggested that they did not provide much additional protection in practice. It found that under the 2008 policy, BLM had the authority to address sage grouse threats to protect the bird. However, FWS found the application of the policies was inconsistent, especially in the area of energy development, including oil and gas: "BLM's current application of these authorities in some areas

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⁵⁴ BLM Manual 6840.02(B) (December 12, 2008). Available at http://www.blm.gov/pgdata/etc/medialib/blm/wo/Information_Resources_Management/policy/blm_manual.Par.43545.File.dat/6840.pdf.

⁵⁵ See 16 U.S.C. § 1536(a)(1)—"Federal agencies shall ... utilize their authorities in furtherance of the purposes of this chapter by carrying out programs for the conservation of [listed] species;" 16 U.S.C. § 1531(b)—"The purposes of this chapter are to provide a means whereby the ecosystems upon which [listed] species depend may be conserved...."

 $^{^{56}}$ BLM Manual $\$ 6840.02 (January 17, 2001). Available at http://www.blm.gov/pgdata/etc/medialib/blm/ca/pdf/pdfs/pa_pdfs/biology_pdfs.Par.9d22a8ee.File.dat/6840_ManualFinal.pdf.

⁵⁷ BLM, National Sage-Grouse Habitat Conservation Strategy (November 2004), available at http://www.blm.gov/pgdata/etc/medialib/blm/wo/Planning_and_Renewable_Resources/fish__wildlife_and.Par.9151.File.dat/Sage-Grouse_Strategy.pdf.

⁵⁸ BLM, Gunnison Sage Grouse Conservation Plan, available at http://www.blm.gov/co/st/en/fo/gfo/sage_grouse.html.

⁵⁹ 16 U.S.C. § 1533(a)(1)(D).

falls short of meeting the conservation needs of the species."⁶⁰ In fact, FWS said some BLM practices were "exacerbating the effects of threats" to the sage grouse.⁶¹ It refused to rely on BLM's policies as a regulatory practice that would obviate the need to list the species.

Forest Service Policy

While the Forest Service does not manage as much sage grouse habitat as BLM, parts of its grazing lands include sagebrush. The Forest Service has a policy in which regional foresters designate those species in their areas that show a downward trend in population viability or habitat capability. This is called the Sensitive Species Policy. Like the former BLM policy for Special Status Species, an objective is for the Forest Service to develop management practices to "ensure that species do not become threatened or endangered because of Forest Service actions." Additionally, under Department of Agriculture Departmental Regulation 9500-4, the Forest Service is directed to avoid actions that "may cause a species to become threatened or endangered." The Forest Service is also directed to help achieve their goals in protecting wildlife. 4

According to the FWS listing determination regarding the sage grouse, the impact of the Forest Service policy on sage grouse protection is uncertain and inconsistent. FWS stated in the *Federal Register* notice regarding its warranted but precluded determination that there was not enough information available to evaluate the efficacy of the Forest Service's policies regarding sage grouse. FWS indicated that habitat protection on grazing lands varied depending on the plan. FWS could not rely on Forest Service policy as an adequate regulatory mechanism that would avoid the need to list the sage grouse under the ESA.

State and Local Efforts

The sage grouse continues to be listed as a game species in most states. Some of these states, while allowing hunting of the bird, have acted to protect it and its habitat to avoid further reductions in numbers. California, Colorado, Idaho, Nevada, Wyoming, and Montana all have issued conservation plans. ⁶⁶ Additionally, Colorado has entered into a Candidate Conservation

Colorado: CDOW, Gunnison Sage-grouse Rangewide Conservation Plan, p. 21 (April 2005), available at http://wildlife.state.co.us/WildlifeSpecies/SpeciesOfConcern/Birds/GunnisonConsPlan.htm.

 $Idaho, Sage\ Grouse\ Conservation\ Plan\ (2006),\ available\ at\ http://fishandgame.idaho.gov/cms/hunt/grouse/conserve_plan/.$

Montana: Greater Sage-Grouse Habitat Conservation Strategy (June 2009), available at http://fwp.mt.gov/content/getItem.aspx?id=31187.

Wyoming: Wyoming Dept of Fish and Game, Stipulations for Development in Core Sage Grouse Population Areas (July 31, 2008), available at http://gf.state.wy.us/wildlife/wildlife_management/sagegrouse/ (continued...)

^{60 75} Fed. Reg. at 13979.

⁶¹ Id.

⁶² Forest Service Manual (FSM) 2670.5.19.

⁶³ FSM 2670.22.

⁶⁴ FSM 2670.32.1.

^{65 75} Fed. Reg. at 13979.

⁶⁶ California and Nevada: Greater Sage-Grouse Conservation Plan for Nevada and Eastern California (June 30, 2004), available at http://www.ndow.org/wild/conservation/sg/plan/SGPlan063004.pdf.

Agreement with Assurances (CCAA) with FWS regarding the Gunnison grouse, and FWS has issued a proposed CCAA for the State of Idaho. ⁶⁷ The Western Association of Fish and Wildlife Agencies (WAFWA) has addressed sage grouse health and signed Memoranda of Understanding with federal agencies and developed guidelines for best practices for managing sage grouse habitat. ⁶⁸

Some local governments have also taken conservation measures. Because listing additional species, subspecies, or populations might affect land use, especially on federal lands, states and local governments have some incentive to conserve species to avoid listing, and thereby to avoid potential restrictions on energy development, grazing, urban development, and other activities. Discussions of some of these state and local plans are included as appendices to this report.

Courts have questioned how effective certain agreements are in forestalling an ESA listing. The federal District Court for the District of Montana, for example, reviewed whether a memorandum of understanding among FWS, Idaho, Montana, and Wyoming regarding managing resources to protect the grizzly bear met the definition of a regulatory mechanism under the listing criteria of the ESA. The court held that it did not because its terms were voluntary and unenforceable. Another court rejected state conservation plans regarding a type of fish because their actions were all prospective, indicating the ESA does not recognize future plans as current protections of a species. A third court found that the effects of a conservation agreement to protect a salamander were speculative because the protective actions would occur in the future. Accordingly, it was insufficient to serve as a regulatory mechanism to protect the salamander from becoming extinct. Based on this case law, it appears that in order for an agreement to serve as an existing regulatory mechanism to avoid an ESA listing, a court will look for legally enforceable provisions that are currently in place.

Litigation

The story of listing the sage grouse under the ESA is a tale of petitions, missed deadlines, and lawsuits. There are two issues that recur: whether a group should be designated as a subspecies or DPS; and whether that group should be listed. Petitions have been filed to list the Gunnison grouse, the Greater sage grouse, the Western subspecies of the Greater sage grouse, the Mono Basin population, and the Eastern subspecies. To date, no member of this genus has been listed, although two DPSs have been designated. However, FWS agreed in a court settlement to make a listing decision regarding the Gunnison grouse by June 30, 2010.⁷²

(...continued)

FINALStateLandCoreAreaSageGrouseStips7312008.pdf.

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⁶⁷ Colorado - Candidate Conservation Agreement with Assurances. 70 Fed. Reg. 38977 (July 6, 2005).

Idaho - Proposed Candidate Conservation Agreement with Assurances, 74 Fed. Reg. 36502 (July 23, 2009).

⁶⁸ See John W. Connelly, et al., *Guidelines to Manage Sage Grouse Populations and Their Habitats* (prepared for WAFWA, updating the 1977 version) (2000), available at http://gf.nd.gov/conservation/docs/sage-gr-attach-1.pdf.

⁶⁹ Greater Yellowstone Coalition, Inc. v. Servheen, No. 07-134-M-DWM (D. Mont. September 21, 2009).

⁷⁰ Federation of Fly Fishers v. Daley, 131 F. Supp. 2d 1158 (N.D. Cal. 2000).

⁷¹ Save Our Springs v. Babbitt, 27 F. Supp. 2d 739 (W.D. Tex. 1997).

⁷² County of San Miguel v. Salazar, No. 1:06-cv-01946-RBW (D.D.C. August 19, 2009).

Sage Grouse

Litigation over the sage grouse has challenged both the FWS listing process and public lands management by federal land agencies such as BLM and the Forest Service. Plaintiffs have challenged projects on federal lands that plaintiffs believe would harm the species. Despite not being listed under the ESA, and before the warranted but precluded determination was issued, the sage grouse was protected under BLM and Forest Service policies (as discussed above), albeit to a lesser extent.

Three petitions were received to list the sage grouse between 2002 and 2003.⁷³ In 2004, FWS found that the petitions presented substantial evidence in support of the listing.⁷⁴ In the 12-month finding, however, FWS determined that listing was not warranted.⁷⁵ This determination was challenged, questioning the scientific basis for the decision not to list the species. 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 the ESA.⁷⁶ The action was remanded to the agency. FWS issued a notice of status review for the sage grouse.⁷⁷

Following the announcement that listing the sage grouse was warranted but precluded, the suit in Idaho was amended to challenge the determination.⁷⁸ The claim was dismissed on procedural grounds, but the claim could be refiled.

More litigation regarding the sage grouse has occurred in the context of federally authorized projects that some believe could harm the population. As was discussed earlier, BLM manages more sage grouse territory than any other single government unit, and it has a policy regarding project impacts on sage grouse (see "Bureau of Land Management (BLM) Policy," above). The effects on sage grouse by grazing, energy development, and fire management planning have been the subject of suits. Lawsuits have challenged the application of BLM policy. For example, one suit challenged the fire management amendments to BLM resource management plans in Nevada.⁷⁹

A lawsuit in Idaho challenged BLM's grazing policy, arguing that it further imperiled species at risk, such as the sage grouse. The federal court found that BLM had ignored its internal policies regarding sensitive species when it allowed grazing to continue despite a catastrophic fire that destroyed 70% of sage grouse habitat in the area and allowed the grazing during key nesting and brood rearing times. The court did not require BLM to cancel all grazing, but directed it to follow its policy to maintain or enhance populations of sensitive species within the area and

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⁷³ Western Watersheds Project v. Fish and Wildlife Service, 535 F. Supp. 2d 1173, 1176 (D. Idaho 2007).

⁷⁴ 69 Fed. Reg. 21484 (April 21, 2004) (90-day finding).

⁷⁵ 70 Fed. Reg. 2243 (January 12, 2005).

⁷⁶ Western Watersheds Project v. Fish and Wildlife Service, 535 F. Supp. 2d 1173 (D. Idaho 2007).

⁷⁷ 73 Fed. Reg. 10218 (February 26, 2008).

⁷⁸ Western Watersheds Project v. U.S. Fish and Wildlife Service, No. 06-CV-277-BLW (D. Idaho *filed* March 8, 2010).

⁷⁹ Western Watersheds Project v. Bureau of Land Management, 552 F. Supp. 2d 1113 (D. Idaho 2008).

⁸⁰ Western Watersheds Project v. Dyer, CV-04-181-S-BLW, 2009 WL 484438, *21 (D. Idaho February 26, 2008).

ensure that wildlife goals and watershed needs are satisfied prior to increasing livestock use in the area. 81

Energy development in the Powder River Basin was challenged on the grounds that BLM did not consider the adverse effects on sage grouse and prairie dogs when it decided that multiple reviews under the National Environmental Policy Act (NEPA) would be performed for each coalbed methane gas site rather than one over-arching document for the whole area. The court supported BLM, holding that BLM's system of developing a programmatic environmental impact statement for which individual sites could be tiered was adequate under NEPA.⁸²

Western Subspecies of Sage Grouse, Including the Columbia Basin Distinct Population Segment (DPS)

Unlike the listing petitions for the other sage grouse groups, the Columbia Basin DPS of the Western subspecies did not result in a lawsuit, perhaps because the agency initially agreed with the petition. In 2001, FWS issued a finding that the petition to list the Columbia Basin distinct population segment of the Western subspecies of the sage grouse was warranted but precluded by the agency's financial constraints.⁸³

However, the Western subspecies was not litigation-free. In 2003, in response to a petition to list the Western subspecies, and after suit was filed to compel a response, ⁸⁴ FWS issued a 90-day finding that there was not substantial evidence to support that this group of grouse was actually a subspecies. ⁸⁵ This decision was rejected by the Ninth Circuit as being arbitrary and capricious in light of the fact that FWS did not provide adequate justification for reversing its earlier position. ⁸⁶ The subspecies had been recognized by some since 1957, though its validity is in question. (See earlier discussion on status of the species, under "Western Subspecies of Sage Grouse.")

In its *Federal Register* notice of the warranted but precluded determination for the sage grouse, FWS acted on the remand to reconsider the subspecies listing, finding insufficient evidence to support a western subspecies. FWS stated that the genetic evidence did not support recognition of a subspecies.⁸⁷

Mono Basin Population of Sage Grouse

A petition to list the Mono Basin population of sage grouse led to litigation. The petition was an emergency petition, asking FWS to list the bird to prevent a significant risk to the well-being of the species. ⁸⁸ FWS wrote the petitioner denying that there was an emergency situation. Some months later, FWS issued a 90-day finding that the petition did not present substantial evidence in

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⁸¹ Western Watersheds Project v. Dyer, at *31.

⁸² Western Organization of Research Councils v. Bureau of Land Management, 591 F. Supp. 2d 1206 (D. Wyo. 2008).

^{83 66} Fed. Reg. 22984 (May 7, 2001).

⁸⁴ See Institute for Wildlife Protection v. Norton, CV02 1604L (W.D. Wash.).

⁸⁵ 68 Fed. Reg. 6500 (February 7, 2003).

⁸⁶ Institute for Wildlife Protection v. Norton, 174 F.3d 363 (9th Cir. 2006).

⁸⁷ 75 Fed. Reg. at 13988.

⁸⁸ Based on the provisions of 16 U.S.C. § 1533(b)(3)(C)(iii).

favor of listing. ⁸⁹ The Ninth Circuit affirmed that FWS complied with all statutory deadlines. ⁹⁰ The court agreed that there was no act or duty required in responding to an emergency petition that could be compelled. The court said that while the 90-day finding was late, no harm was suffered by the petitioners because the 12-month listing decision was on time. This holding could be seen as legal justification for FWS instituting a practice of skipping the mandated 90-day finding so long as it met the second statutory deadline of 12 months. No similar rulings have been found. As discussed above, listing the Mono Basin (or the Bi-State) population was found to be warranted but precluded. ⁹¹

Gunnison Sage Grouse

In January 2000, citizen organizations petitioned FWS to list the Gunnison grouse. On April 15, 2000, the Service approved the bird as a candidate species, that is, a species that FWS believes is eligible for listing, but for which a formal listing decision has not yet been made. ⁹² In December 2000, the Service published a notice designating the Gunnison grouse as a candidate species, and that listing was warranted but precluded due to resource constraints on the Service. ⁹³ This effectively halted the listing process for the Gunnison grouse until a suit was filed. Pursuant to a settlement in 2005, FWS agreed to publish a listing determination by March 31, 2006. On April 18, 2006, FWS published its determination, finding that no listing was appropriate. In November 2007, several groups filed another suit alleging that the failure to list violated the ESA. ⁹⁴ The parties agreed in August 2009 that FWS would make a listing decision by June 30, 2010. ⁹⁵

Conclusion

As development proceeds in sagebrush territory, habitat for the sage grouse diminishes. This habitat loss in combination with increased fire threats from cheatgrass and climate change could put the sage grouse at risk of extinction. FWS has been petitioned on many occasions to review the statutory factors to determine whether the sage grouse, and/or its subspecies and related species, should be listed under the Endangered Species Act, and found that listing was warranted but precluded. States are taking action to protect the sage grouse, in part to protect a game bird, but also to forestall the listing that many see as an obstruction to development of the sagebrush territory that covers so much of the western United States. Congressional pushes for more energy development, both for oil and gas and for green energy such as wind farms and solar collectors, may end up conflicting with the grouse and the protections offered by the ESA.

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⁸⁹ 67 Fed. Reg. 78811 (December 26, 2002).

⁹⁰ Institute for Wildlife Protection v. Norton, 303 F. Supp. 2d 1175 (W.D. Wash. 2003), aff'd, 149 Fed. Appx. 627 (9th Cir. 2005).

^{91 75} Fed. Reg. 13909 (March 23, 2010).

⁹² 50 C.F.R. § 424.10(b). At the time of the decision, FWS had a formal policy regarding candidate species, including the provision that once a candidate species was named, FWS did not have to comply with the deadlines imposed by ESA § 4. The policy was ruled contrary to the ESA by a court that considered it in the context of the Gunnison grouse. American Lands Alliance v. Norton, 242 F. Supp. 2d 1 (D.D.C. 2003), *vacated in part on other grounds by*, American Lands Alliance v. Norton, 360 F. Supp. 2d 1 (D.D.C. 2003).

⁹³ 65 Fed. Reg. 82310 (December 28, 2000). Subsequent annual candidate listings placed the Gunnison grouse as the number two priority of FWS. See 69 Fed. Reg. 24876 (May 4, 2004), 70 Fed. Reg. 24870 (May 11, 2005).

⁹⁴ County of San Miguel v. MacDonald, 06-CV-01946 (D.D.C. filed November 14, 2006).

⁹⁵ County of San Miguel v. Salazar, No. 1:06-cv-01946-RBW (D.D.C. August 19, 2009).

Appendix A. Wyoming Policy Regarding Core Population Areas

The sage grouse in Wyoming continues to be classified as a game bird, but the state is attempting to protect it. In 2008 the Governor of Wyoming issued an executive order directed at sage grouse protection. ⁹⁶ The order is based on the identification of Core Population Areas by the Governor's Sage Grouse Implementation Team. The plan includes up to two-thirds of the state's sage grouse habitat, intending to focus energy production to those areas with highest predicted yields and lowest numbers of sage grouse.

The Wyoming plan sets aside certain areas and established rules of practice for different types of development in those areas. ⁹⁷ If new state action is planned in a core area, the state action agency must demonstrate that the activity will not cause declines in sage grouse populations, although current management and existing land uses are allowed to continue. On July 31, 2008, the state issued stipulations for oil and gas, wind energy, and uranium development in Core Population Areas, establishing size and date restrictions on development, as well as best practices to avoid encouraging raptor predation. ⁹⁸ The plan requires facilities to be sited to reduce habitat fragmentation and mortality of sage grouse.

Controversy regarding wind energy grew when FWS wrote the Wyoming Game and Fish Department advising that using Core Population Areas for research on the impact of wind energy was inconsistent with protecting those areas for sage grouse because the impacts on the species would be unknown at that point.⁹⁹

The Core Population Areas Policy includes the following:

- Wells are limited to one pad per 640 acres, with no more than 11 well pads within 1.9 miles of the perimeter of occupied sage grouse leks.
- Surface disturbance of sage grouse habitat is limited, including limiting road construction.
- In winter concentration areas, oil exploration and development may occur only between July 1 to December 1.
- Electrical supply lines must be at least one-half mile from the perimeter of occupied sage grouse leks. The lines must be raptor-proof, either by burying them or by installing anti-perching devices.

⁹⁶ Gov. Freudenthal Executive Order 2008-2 (August 1, 2008), available at http://wyld.state.wy.us/uhtbin/cgisirsi/20090624191801/SIRSI/0/520/WS-GOV-EO-2008-02.pdf.

⁹⁷ Letter to Governor Freudenthal from Chairman, Sage Grouse Implementation Team (March 25, 2008), available at http://governor.wy.gov/Media.aspx?MediaId=532.

⁹⁸ Wyoming Dept of Fish and Game, Stipulations for Development in Core Sage Grouse Population Areas (July 31, 2008). Available at http://gf.state.wy.us/wildlife/wildlife_management/sagegrouse/FINALStateLandCoreAreaSageGrouseStips7312008.pdf.

⁹⁹ Letter from Brian T. Kelly, Wyoming Field Office Field Supervisor, FWS, to Steve Ferrell, Director, Wyoming Game and Fish Department (July 7, 2009), available at http://gf.state.wy.us/downloads/pdf/ LettertoWGFDWindCoreAreas.pdf.

- In other areas, exploration and development activity is allowed from July 1 to March 14.
- From March 1 to May 15, noise sources are limited to 10 dBA above natural ambient noise from the perimeter of a lek.
- For wind energy, the stipulations require minimizing the facility footprint, including roads, in sage grouse habitat. The towers should be designed to reduce raptor perches and noise.

Appendix B. Colorado State and Local Plans for the Gunnison Grouse

The Gunnison grouse habitat is the Gunnison Basin in Western Colorado and Eastern Utah. Under Colorado law, the species is not protected and may be hunted as game without violating state laws. 101 At the local level, Gunnison County has addressed habitat protection in local legislation.

Both loss and fragmentation of habitat affect this species:

Low genetic diversity, genetic drift from small population sizes, habitat issues ... the interaction of these with predator communities, and impacts of drought are the most significant threats facing Gunnison sage-grouse. Of these, by far the greatest threat is the permanent loss, and associated fragmentation and degradation of sagebrush habitat associated with urban development and/or conversion. ¹⁰²

Other causes of fragmentation include recreation, roads, oil and gas exploration, and mining operations. In addition, habitat quality is affected by excessive grazing, drought, herbicides, fires, and energy corridors (where towers and poles provide perches for avian predators).

In 1997, a Gunnison Sage Grouse Conservation Plan was enacted to encourage voluntary protections of the bird. ¹⁰³ The plan was authored by the Gunnison Sage Grouse Working Group, which included environmental organizations, county governmental agencies, a stockgrowers association, a state wildlife agency, BLM, FWS, the National Park Service, the Forest Service, and individual members of the public. According to BLM, the plan's 200 proposed conservation actions will be implemented over a 15-year period. ¹⁰⁴

The Colorado Department of Wildlife (CDOW) entered into a Candidate Conservation Agreement with Assurances (CCAA) issued by FWS for the Gunnison grouse. ¹⁰⁵ According to FWS, a CCAA provides non-federal landowners with the assurance that if it takes specified conservation measures to protect a candidate species (or one likely to become a candidate), "additional conservation measures will not be required and additional land, water, or resource use restrictions will not be imposed should the species become listed in the future." ¹⁰⁶ In exchange, the parties to the CCAA agree to implement conservation measures. In the case of the Gunnison grouse, CDOW and other cooperating landowners agreed to take conservation measures as

¹⁰⁰ The only grouse listed under Colorado law as an endangered or threatened species is the Plains Sharp-tailed Grouse (endangered), a bird not on the federal list. 2 C.C.R. 406-8 #1002.

^{101 2} C.C.R. 406-3, #300(A): "Small game, except migratory birds,' means game birds, including grouse ..."

¹⁰² CDOW, Gunnison Sage-grouse Rangewide Conservation Plan, p. 21 (April 2005) (hereinafter Rangewide Conservation Plan), available at http://wildlife.state.co.us/WildlifeSpecies/SpeciesOfConcern/Birds/GunnisonConsPlan.htm.

¹⁰³ Parties to the plan included BLM, Forest Service, CDOW, Gunnison County, Gunnison County Stockgrowers, High Country Citizens' Alliance, and Black Canyon Audubon.

¹⁰⁴ See BLM, Gunnison Sage Grouse Conservation Plan, available at http://www.blm.gov/co/st/en/fo/gfo/sage_grouse.html, suggesting that the 15-year period ends in 2019.

¹⁰⁵ 70 Fed. Reg. 38977 (July 6, 2005) (notice of application for CCAA).

¹⁰⁶ 64 Fed. Reg. 32726 (June 17, 1999). According to the Policy, it is authorized under Section 10(a)(1)(A) of ESA, which provides for permits for acts that enhance the survival of a species.

outlined in the Rangewide Conservation Plan. The measures include modifying grazing practices and preventing invasive species by landowners, and habitat improvement and monitoring for the government entities. ¹⁰⁷ Additionally, CDOW plans to monitor predators and manage recreational uses, as well as establish a captive breeding facility in case grouse populations need to be augmented. ¹⁰⁸

Local Efforts

Gunnison County, in which the largest population of the grouse lives, has passed local legislation addressing habitat issues. A 2007 resolution addressed multiple activities that could disturb the grouse, including domestic pets, lighting and noise, recreation, fencing, utility lines, and land use projects. The law added Gunnison Sage-Grouse Lek and Occupied Habitat maps to those maps the county must consider when reviewing a Land Use Change Permit application. ¹⁰⁹ The lek map shows private lands within 0.6 miles of known leks. This is the key radius for the other restrictions in the law. *Occupied habitat* is defined as an area "of suitable habitat as delineated within the Gunnison Sage-grouse Rangewide Conservation Plan and known to be used by Gunnison Sage-grouse within the last 10 years from the date of mapping."

The County requires land use change permits for projects located on a parcel "wholly or partially within a 0.60-mile radius of a Gunnison Sage-grouse lek." This includes building permits, individual sewage system permits, access permits, and reclamation permits. Projects having major or minor impacts on wildlife will be referred to CDOW for consultation. Construction and recreational activities will be limited when mating, nesting, or brood rearing is occurring on lands within that radius. ¹¹¹

Additionally, the resolution directs the County to recognize perpetual conservation easements and other documented management agreements that are beneficial to the grouse. ¹¹² To satisfy county law, the conservation easement must have sufficient restrictions to show that adverse impacts are "substantially or wholly mitigated" by the easement.

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¹⁰⁷ 70 Fed. Reg. 38977, 38978 (July 6, 2005). See Rangewide Conservation Plan, Conservation Strategy Rangewide, pp. 211-220, 232.

¹⁰⁸ Rangewide Conservation Plan, Conservation Strategy Rangewide, pp. 241-245.

Resolution 2007-17, amending Gunnison County Code § 11-106 (April 2007), available at http://www.gunnisoncounty.org/sage_pdf/2007/Resolution_No._2007-17_LUR%20Wildlife%20Amendments.pdf.

¹¹⁰ Resolution 2007-17 (April 2007), amending Gunnison County Code § 5-102:P.

¹¹¹ Resolution 2007-17, amending Gunnison County Code § 11-106:G(4)(a)(2).

¹¹² Resolution 2007-17, amending Gunnison County Code § 11-106:G(1)(a)(1).

Table B-I. Estimated Populations of Gunnison Grouse

Location of Population	FWS Estimate in 2006 ^a	Rangewide Conservation Plan Estimate in 2005 ^b
Gunnison Basin	4,763 (range of 2,203-4,763)	3,000 (range of 1,730-5,280)
San Miguel Basin	334 (206-446)	450 (260-792)
Monticello, Utah	162 (123-280)	300 (173-528)
Dove Creek ^c	35 (10-358)	200 (115-352)
Piñon Mesa	167 (79-206)	200 (115-352)
Crawford	191 (118-314)	275 (159-484)
Poncha Pass	44 (5-44)	75 (43-132)
Cerro Summit - Cimarron-Sims Mesa	25 (25-83)	no number ^d
Total (ranges not included)	5,721	4,500

Source: Congressional Research Service, compiled from data as noted within table.

- a. 71 Fed. Reg. 19954, 19959 (April 18, 2006).
- b. Rangewide Conservation Plan, Executive Summary at 3.
- c. FWS combines Monticello and Dove Creek into one habitat, with separate population numbers.
- d. The Rangewide Conservation Plan does not consider this population in its data.



Figure B-I. Sage Grouse and Gunnison Grouse: Historical Distribution in Colorado

Source: U.S. Geological Survey, Bird of a Different Feather: DNA Research Reveals a New, Yet Familiar Species, available at http://www.fort.usgs.gov/resources/spotlight/grouse/grouse_maps.asp. The southwest portion is Gunnison grouse habitat, and the remainder is Greater sage-grouse habitat.

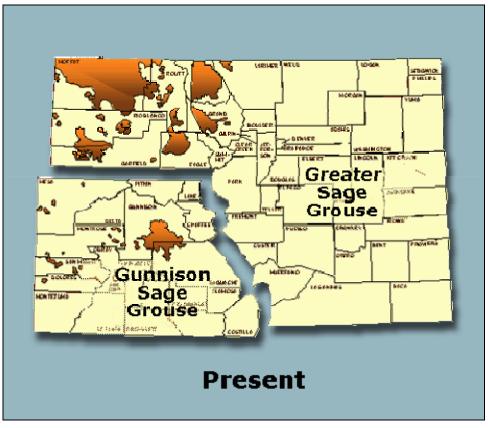


Figure B-2. Sage Grouse and Gunnison Grouse: Current Distribution in Colorado

Source: U.S. Geological Survey, Bird of a Different Feather: DNA Research Reveals a New, Yet Familiar Species, available at http://www.fort.usgs.gov/resources/spotlight/grouse/grouse_maps.asp.

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