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# 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, involving issues such as grazing, roads, fences, oil and gas development, urban expansion, spread of invasive species, water rights, timber harvest, and pollution. In many cases, the conflicts involve the protection of endangered and threatened species, often with one group 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.

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 energy 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 species of grouse there are and how they may be related. Currently, two closely related species are recognized by scientists: the Gunnison grouse (*Centrocercus minimus*) and the sage grouse (*Centrocercus urophasianus*), sometimes referred to as the greater sage grouse. At one time, the U.S. Fish and Wildlife Service (FWS or Service) also recognized two subspecies—the eastern sage grouse (*Centrocercus urophasianus urophasianus*) and the western sage grouse (*Centrocercus urophasianus phaios*)—but FWS reversed that position. In addition, FWS has designated distinct population segments (DPS) of sage grouse under the Endangered Species Act (ESA). Parties have filed petitions seeking to protect these birds under the ESA by having them listed as threatened or endangered, but none are listed under the act. On January 11, 2013, however, FWS proposed listing the Gunnison grouse as endangered.

In July 2011, FWS reached a settlement in several lawsuits regarding delays in listing species, include the sage grouse. According to the settlement agreement, a proposed listing rule or a decision that listing is not warranted is due for the Mono Basin sage grouse DPS by the end of FY2013, and for the Columbia River Basin sage grouse DPS and the greater sage grouse by the end of FY2015. At present, those grouses' protection under the ESA has been deemed warranted but precluded by higher protection priorities. Thus, the sage grouse is treated as a candidate species and does not have the protections that a listed species would have.

One factor in making a listing decision is whether other regulations are in place to provide adequate protection 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. Additionally, the Bureau of Land Management (BLM) and the Forest Service have policies to protect the grouse on their lands, although courts have found those policies lacking. These issues are at the forefront as Congress considers increased energy development on federal lands, while balancing the mission of the ESA.

## **Contents**

Introduction .....	1
Endangered Species Act .....	1
Warranted but Precluded Listing Determinations .....	2
Candidate Conservation Agreements with Assurances .....	3
Sage Grouse: Biology, Taxonomy, and ESA Protection.....	3
Biology: Breeding, Behavior, Food, and Habitat .....	3
Taxonomy and Protection: Species, Subspecies, Distinct Population Segments .....	6
Greater Sage Grouse .....	7
Gunnison Grouse .....	8
Proposed Eastern Subspecies .....	9
Proposed Western Subspecies .....	9
Columbia River Basin Distinct Population Segment .....	10
Bi-State or Mono Basin Distinct Population Segment.....	11
State and Federal Actions to Protect the Sage Grouse.....	12
Bureau of Land Management Policy.....	12
Forest Service Policy.....	14
State and Local Efforts.....	15
Efficacy of Conservation Agreements in Avoiding Listing.....	16
Conclusion.....	17

## **Figures**

Figure 1. Male Sage Grouse: Lek Display .....	4
Figure 2. Sage Grouse Range, 2000 .....	6
Figure A-1. Sage Grouse Core Management Areas in 2008 and 2011 Wyoming Executive Orders.....	20
Figure B-1. Sage Grouse and Gunnison Grouse: Historical Distribution in Colorado.....	25
Figure B-2. Sage Grouse and Gunnison Grouse: Current Distribution in Colorado .....	26

## **Tables**

Table 1. Sage Grouse: Species and Populations .....	12
Table B-1. Estimated Gunnison Grouse Population .....	24

## **Appendixes**

Appendix A. Wyoming Sage Grouse Policy Regarding Core Population Areas.....	18
Appendix B. Plans Affecting the Gunnison Grouse .....	22

## **Contacts**

Author Contact Information ..... 26

## Introduction

A common theme in controversies over the Endangered Species Act (ESA)<sup>1</sup> is that a conflict is triggered by the need for the same dwindling resources by humans and a listed species. The parties to the debate often have struggled for years over the basic allocation of those resources, from the Tellico River, 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, especially for sage grouse, which 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. Loss of habitat is the most common factor leading to species' decline.

The story of listing the sage grouse under the ESA is a tale of petitions, missed deadlines, and lawsuits. Petitions have been filed under the ESA to protect the Gunnison grouse, the greater sage grouse, a western subspecies of the greater sage grouse, the Bi-State population, and the Columbia River Basin population. To date, no member of this genus has been listed at any taxonomic level. However, on January 11, 2013, the Fish and Wildlife Service (FWS or Service) proposed listing the Gunnison grouse as endangered.<sup>2</sup> In a court settlement, FWS agreed to decide whether to list the Bi-State population by the end of FY2013 and the Columbia sage grouse population and the greater sage grouse by the end of FY2015.<sup>3</sup>

## Endangered Species Act

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).<sup>4</sup> 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.

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<sup>1</sup> P.L. 93-205, 87 Stat. 884; 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 (name redacted) and (name redacted) .

<sup>2</sup> 78 Fed. Reg. 2486 (January 11, 2013). Critical habitat was proposed at the same time. 78 Fed. Reg. 2540 (January 11, 2013).

<sup>3</sup> In Re: Endangered Species Act Section 4 Deadline Litigation, No. 10-377 (D.D.C. July 12, 2011).

<sup>4</sup> 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 (name redacted) and (name redacted) .

The listing decision is based on five criteria: habitat loss, over-harvesting, disease, inadequacy of existing regulatory protection, and other factors affecting its existence.<sup>5</sup> In making the determination, FWS is charged with relying “solely on the basis of the best scientific and commercial data available.”<sup>6</sup>

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.<sup>7</sup> Within 12 months of filing the petition, FWS must publish whether listing is warranted or not.<sup>8</sup> A final decision must be made one year after the 12-month notice.<sup>9</sup> 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.<sup>10</sup> Failure to meet the deadlines can be a basis for suit.

In addition to listing entire species, the ESA authorizes listing *distinct population segments* (DPS) of vertebrates.<sup>11</sup> This term 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).<sup>12</sup>

## Warranted but Precluded Listing Determinations

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.<sup>13</sup> 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, subspecies, or DPS, ranging from one to 12. The lower the number, the higher the priority that species has. The Service works to resolve listing on candidates with the lowest numbers first. 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.<sup>14</sup>

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<sup>5</sup> 16 U.S.C. §1533(a)(1).

<sup>6</sup> 16 U.S.C. §1533(b)(1)(A).

<sup>7</sup> 16 U.S.C. §1533(b)(3)(A).

<sup>8</sup> 16 U.S.C. §1533(b)(3)(B).

<sup>9</sup> 16 U.S.C. §1533(b)(6)(A).

<sup>10</sup> 16 U.S.C. §1533(b)(3)(B)(iii).

<sup>11</sup> 16 U.S.C. §1532(16). This does not apply to invertebrates or plants.

<sup>12</sup> 61 Fed. Reg. 4722 (February 7, 1996).

<sup>13</sup> For a detailed analysis of the warranted but precluded process, see out-of-print CRS Report R41100, *Warranted but Precluded: What That Means Under the Endangered Species Act*, available upon request from the author.

<sup>14</sup> See 16 U.S.C. §1536(a)(4).

## **Candidate Conservation Agreements with Assurances**

In the late 1990s, FWS developed a program to encourage nonfederal landowners to take conservation measures to protect species at risk. The Candidate Conservation Agreement with Assurances (CCAA) policy was designed to encourage nonfederal landowners (including state and local governments) to manage their property in ways that helped vulnerable species before they became listed under the ESA.<sup>15</sup> According to FWS, the policy was motivated by the practice of property owners doing things to keep certain species from their land so that if that species became listed later, their property would not be subject to any associated restrictions.<sup>16</sup>

A CCAA rewards land management practices that aid species by assuring cooperating landowners that changes in federal policy would not impose additional burdens on them. The Service 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,<sup>17</sup> and must provide noticeable improvement. In exchange for landowners’ agreements to manage property for the benefit of a species, FWS issues assurances in the form of incidental take permits, excusing landowners from prosecution if their actions should take a listed species in the course of an otherwise lawful action.<sup>18</sup> This permit can include species not currently listed, so that if they are listed later, the landowner would not face liability.

## **Sage Grouse: Biology, Taxonomy, and ESA Protection**

### **Biology: Breeding, Behavior, Food, and Habitat**

The sage grouse (*C. urophasianus*) is the largest North American grouse: males weigh up to 7 pounds, and females up to 5 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 gives the flesh a strong sage flavor. It remains a game bird in many western states. 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.”<sup>19</sup>

During winter snows, grouse shelter under sagebrush. Sage grouse feed on sage leaves throughout the year, but particularly in winter. They also eat leaves, flowers, and seeds from other plants, plus insects. Young grouse are dependent on insects for rapid growth.

Male grouse of both species gather in the spring year after year in the same 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

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<sup>15</sup> 64 Fed. Reg. 32705 (June 17, 1999).

<sup>16</sup> 64 Fed. Reg. at 32707.

<sup>17</sup> *Id.*

<sup>18</sup> 50 C.F.R. §17.22(d)(5).

<sup>19</sup> *Western Watersheds Project v. Dyer*, 2009 WL 484438, \*5 (D. Idaho February 26, 2009).

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. Once mating has occurred, females leave the lek to nest, sometimes at a distance of several miles.<sup>20</sup> Females raise their offspring alone, without help from males.

**Figure 1. Male Sage Grouse: Lek Display**



**Source:** U.S. Fish and Wildlife Service. [http://www.flickr.com/photos/usfws\\_pacificsw/tags/sagegrouse/page2/](http://www.flickr.com/photos/usfws_pacificsw/tags/sagegrouse/page2/).

The sage grouse is particularly vulnerable to changes in its habitat. Grazing, oil and gas development, communication towers, roads, utility poles, and wind turbines all pose a threat to sage grouse habitat. The roads provide ingress for invasive species such as cheatgrass; the fences interrupt migration to and from leks; and both fences and power lines provide perches for avian predators.

While the grouse can fly, they do not fly long distances. They escape their predators through concealment, short flights to cover, or running under rocky outcrops or brush. Sage grouse are subject to predation by hawks, and avoid areas near tall objects that afford hawks a perch from which they can easily swoop down to attack an unwary bird.

Cheatgrass is the primary invasive species threat to sagebrush habitat. It appears after an area has been grazed or when roads are developed. The nonnative 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

<sup>20</sup> 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).

last decade when compared to the past 100 years.<sup>21</sup> 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.<sup>22</sup> Because habitats are becoming fragmented, grouse populations are becoming genetically isolated, leaving them more vulnerable.

It is hardly surprising that sagebrush and sage grouse habitat seem virtually synonymous. Yet they are not, because much of the West where sagebrush is still dominant is no longer suitable for these birds. The addition of a transmission line or a long fence can make the area too dangerous.

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.<sup>23</sup> It is agreed that the number of sage grouse has declined severely; FWS estimates that sage-grouse population numbers may have declined between 69% and 99% from historic to recent times.<sup>24</sup> It 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%.<sup>25</sup>

According to a team assembled by FWS to study the sage grouse, habitat loss 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.<sup>26</sup>

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<sup>21</sup> *Western Watersheds Project v. Dyer*, No. CV-04-181-S, 2009 WL 484438, \*7 (D. Idaho February 26, 2009).

<sup>22</sup> 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](http://www.nwhc.usgs.gov/publications/wildlife_health_bulletins/WHB_06_08.jsp).

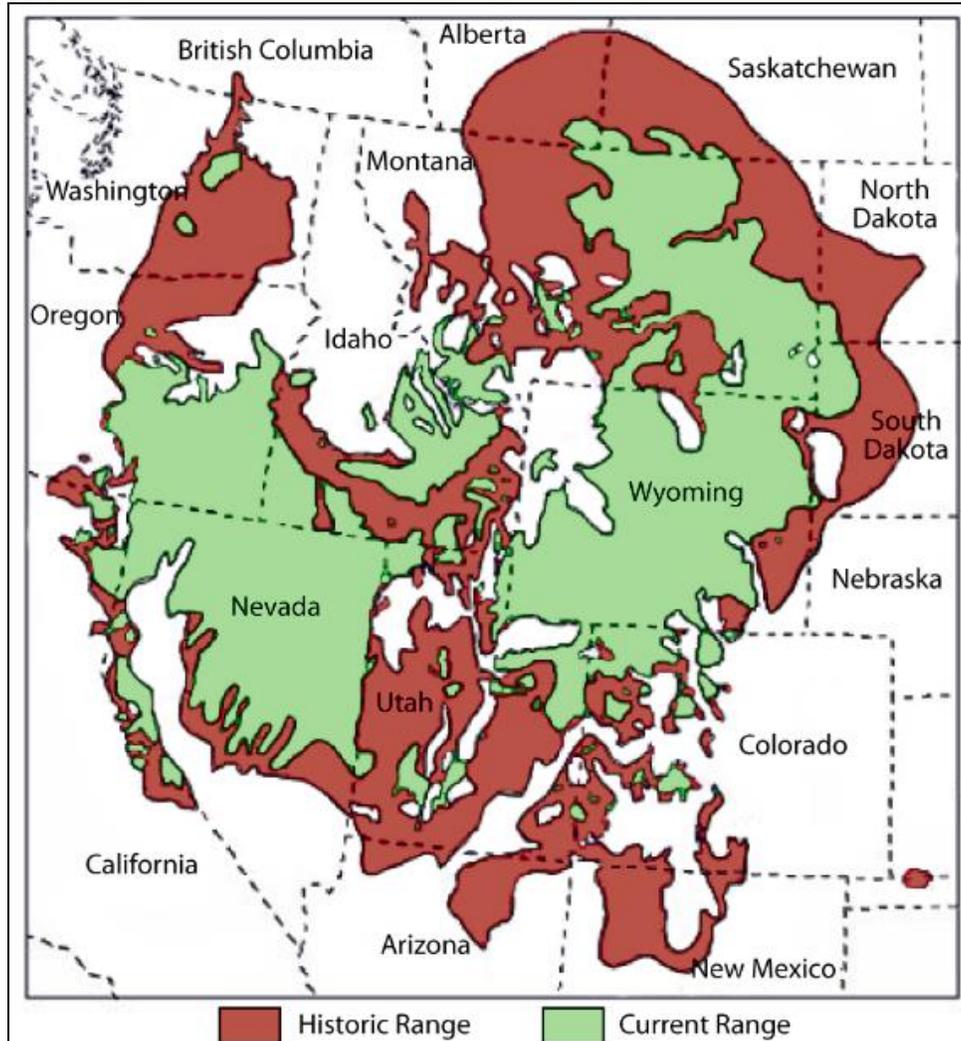
<sup>23</sup> It is no longer found in Nebraska, Kansas, Oklahoma, New Mexico, or Arizona, and has been extirpated in British Columbia, too.

<sup>24</sup> 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 greater in the 1960s and 1970s than current populations).

<sup>25</sup> 69 Fed. Reg. 21484, 21486 (April 21, 2004).

<sup>26</sup> As quoted in *Western Watersheds Project v. U.S. Fish and Wildlife Service*, No. 4:10-CV-229, \*14 (D. Idaho February 2, 2012).

**Figure 2. 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](http://www.fws.gov/mountain-prairie/species/birds/sagegrouse/map_sagegrouse_range2000.JPG).

## Taxonomy and Protection: Species, Subspecies, Distinct Population Segments

There are several species of grouse in the West, but the group that dominates the sagebrush habitat belongs to the genus *Centrocercus*. Within this genus, there are two recognized species: the Gunnison grouse (*Centrocercus minimus*) and the sage grouse (*Centrocercus urophasianus*).<sup>27</sup>

<sup>27</sup> The name *greater sage grouse* is usually synonymous with *C. urophasianus*. This report refers 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 (continued...)

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* (hereinafter *C. urophasianus*)), the largest grouse in North America.<sup>28</sup> Most birds in the genus are “sage grouse,” but 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 and litigants have argued that subspecies and/or distinct populations also should be recognized.

Because the ESA allows protection not only of species and subspecies, but also of DPS, each of these groups could be eligible for listing. However, for the most part, FWS does not recognize proposed subspecies of grouse as valid taxonomic units (see below),<sup>29</sup> but does recognize certain geographically isolated populations known under the ESA as DPS.

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.

### **Greater Sage Grouse**

Three petitions were received to list the sage grouse between 2002 and 2003.<sup>30</sup> In 2004, FWS found that the petitions presented substantial evidence in support of the listing.<sup>31</sup> In the 12-month finding in 2005, however, FWS determined that listing was not warranted.<sup>32</sup> 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.<sup>33</sup> The action was remanded to the agency. FWS issued a notice of status review for the sage grouse in 2008.<sup>34</sup>

In 2010, FWS determined that listing the greater sage grouse was warranted, but precluded by higher listing priorities.<sup>35</sup> FWS assigned the species a listing priority number (LPN) of 8 (with 1 being the highest priority). In a separate court settlement in 2011, FWS agreed to make a decision whether to list the greater sage grouse by the end of FY2015.<sup>36</sup> A plaintiff not involved in that settlement sued, arguing that FWS was not making expeditious progress in listing the species, as required under the ESA,<sup>37</sup> but the court held otherwise.<sup>38</sup> That plaintiff, Western Watersheds

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(...continued)

discussed, appropriate modifiers will be added.

<sup>28</sup> For example, see John K. Terres, ed., *The Audubon Society Encyclopedia of North American Birds* (New York: Alfred A. Knopf, 1980), p. 451.

<sup>29</sup> See 75 Fed. Reg. 13910 (March 23, 2010) (finding that “the western subspecies is not a valid taxon”).

<sup>30</sup> *Western Watersheds Project v. Fish and Wildlife Service*, 535 F. Supp. 2d 1173, 1176 (D. Idaho 2007).

<sup>31</sup> 69 Fed. Reg. 21484 (April 21, 2004) (90-day finding).

<sup>32</sup> 70 Fed. Reg. 2243 (January 12, 2005).

<sup>33</sup> *Western Watersheds Project v. Fish and Wildlife Service*, 535 F. Supp. 2d 1173 (D. Idaho 2007).

<sup>34</sup> 73 Fed. Reg. 10218 (February 26, 2008).

<sup>35</sup> 75 Fed. Reg. 13910 (March 23, 2010).

<sup>36</sup> *In Re: Endangered Species Act Section 4 Deadline Litigation*, No. 10-377 (D.D.C. July 12, 2011).

<sup>37</sup> 16 U.S.C. §1533(b)(3)(B)(iii)(II).

<sup>38</sup> *Western Watersheds Project v. U.S. Fish and Wildlife Service*, No. 4:10-CV-229 (D. Idaho September 26, 2012).

Group, had sued to force listing of the 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.<sup>39</sup>

## Gunnison Grouse

Until 2000, all sage grouse in the United States were considered a single species.<sup>40</sup> But with more information, scientists reached a consensus 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, known as the Gunnison grouse, are consistently about two-thirds as big as their relatives; males have different markings and behaviors; birds with these characteristics do not breed with the larger birds; and these birds occupy only this particular part of the western sagebrush area. Genetic studies showed that the DNA of birds of this region is distinct.<sup>41</sup> 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.”<sup>42</sup>

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 7% of its historic range,<sup>43</sup> a reduction from its 2006 estimate.<sup>44</sup> 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. Populations have declined, although there is no consensus as to the extent of the decline, or whether it is part of a natural cycle.<sup>45</sup> (See **Table B-1** for population estimates.)

In January 2000, citizen organizations petitioned FWS to list the Gunnison grouse, and in December 2000, FWS published a notice designating the Gunnison grouse as a candidate species,<sup>46</sup> finding that listing was warranted but precluded due to resource constraints on the

<sup>39</sup> *Id.* at \*7 (D. Idaho February 2, 2012).

<sup>40</sup> See, e.g., National Geographic Society, *Field Guide to the Birds of North America*, 1983.

<sup>41</sup> 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>.

<sup>42</sup> 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-sage-grouse/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](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).

<sup>43</sup> 75 Fed. Reg. 59843 (September 28, 2010) (showing the historic range of 55,363.58 sq. km. and the current range of 3,794.64 sq. km.).

<sup>44</sup> 71 Fed. Reg. 19954, 19957-58 (April 18, 2006) (showing the historic range of 55,350 sq. km. and the current range of 4,720 sq. km.).

<sup>45</sup> 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. BLM stated that the peak number of birds has declined in the last 30 years. BLM, *National Sage Grouse Conservation Strategy*, p. 6 (November 2004).

<sup>46</sup> 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 (continued...)

service.<sup>47</sup> 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 announced that no listing was appropriate.<sup>48</sup> In November 2007, several groups filed another suit alleging that the failure to list violated the ESA.<sup>49</sup> The parties agreed in August 2009 that FWS would make a listing decision by June 30, 2010.<sup>50</sup> In September 2010, FWS determined that listing the species was warranted but precluded, giving the Gunnison grouse an LPN of two, the second-highest priority.<sup>51</sup> In 2012, the LPN remained at two.<sup>52</sup> On January 11, 2013, FWS proposed listing the Gunnison grouse as endangered.<sup>53</sup>

## Proposed Eastern Subspecies

Some believe the sage grouse can be divided into subspecies, such as an eastern subspecies: the Institute for Wildlife Protection filed a petition to list an eastern subspecies of the sage grouse under the ESA.<sup>54</sup> In response, FWS concluded there was a lack of evidence showing that eastern sage grouse formed either a subspecies or a distinct population segment, noting that the birds moved between eastern and western parts of the range, and there were no known genetic distinctions.<sup>55</sup>

## Proposed Western Subspecies

A western subspecies of sage grouse (*C. u. phaios*) was recognized by the AOU in 1957.<sup>56</sup> Compared to the greater sage grouse population, western birds have reduced white markings and darker grayish-brown feathering, resulting in a more dusky overall appearance.<sup>57</sup> To date, no genetic distinction between western sage grouse and other sage grouse has been found.<sup>58</sup> In fact, the 1957 AOU analysis has not been updated, and the Integrated Taxonomic Information System (ITIS) now considers the subspecies designation “invalid.”<sup>59</sup> FWS does not recognize a western

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(...continued)

ESA Section 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).

<sup>47</sup> 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).

<sup>48</sup> 74 Fed. Reg. 19954 (April 18, 2006).

<sup>49</sup> *County of San Miguel v. MacDonald*, 06-CV-01946 (D.D.C. filed November 14, 2006).

<sup>50</sup> *County of San Miguel v. Salazar*, No. 1:06-CV-01946-RBW (D.D.C. August 19, 2009).

<sup>51</sup> 75 Fed. Reg. 59803 (September 28, 2010).

<sup>52</sup> 77 Fed. Reg. 69994, 70052 (November 21, 2012).

<sup>53</sup> 78 Fed. Reg. 2486 (January 11, 2013). Critical habitat was proposed at the same time. 78 Fed. Reg. 2540 (January 11, 2013).

<sup>54</sup> 69 Fed. Reg. 933 (January 7, 2004).

<sup>55</sup> 69 Fed. Reg. 933 (January 7, 2004).

<sup>56</sup> The 1957 AOU *Check-List of North American Birds* was cited in 66 Fed. Reg. 22985 (May 7, 2001).

<sup>57</sup> 66 Fed. Reg. 22985 (May 7, 2001).

<sup>58</sup> 66 Fed. Reg. 22984, 22991 (May 7, 2001).

<sup>59</sup> See [http://www.itis.gov/servlet/SingleRpt/SingleRpt?search\\_topic=TSN&search\\_value=175857](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.

sage grouse DPS,<sup>60</sup> although others argue that morphological and behavioral differences are sufficient to support a separate designation.<sup>61</sup>

The historic distribution of sage grouse proposed for designation as a separate western subspecies extended from south-central British Columbia south through eastern Washington and Oregon, except in extreme southeastern Oregon near the Idaho/Nevada borders. Populations in northern California and western Nevada are thought to represent an intermediate form between the proposed western and eastern subspecies of sage grouse.<sup>62</sup> The proposed western subspecies occupies central and southern Oregon and two relatively small areas in central Washington.<sup>63</sup>

The question of the validity of a western subspecies was not litigation-free. In 2003, in response to a petition to list a western subspecies, and after suit was filed to compel a response,<sup>64</sup> FWS issued a 90-day finding that there was not substantial evidence to support the conclusion that this group of grouse was actually a subspecies.<sup>65</sup> The Ninth Circuit held the FWS finding was arbitrary and capricious because FWS did not provide adequate justification for reversing its earlier position.<sup>66</sup>

In its 2010 *Federal Register* notice of the warranted but precluded determination for the sage grouse, FWS acted on the remand to reconsider the subspecies listing. FWS concluded that the geographical, morphological, behavioral, and genetic evidence did not support recognition of a western subspecies.<sup>67</sup>

### **Columbia River Basin Distinct Population Segment**

In 2001, FWS agreed that the remaining sage grouse in the Columbia River Basin constituted a DPS.<sup>68</sup> The two populations of sage grouse in Washington total approximately 1,000 birds, making up what FWS has designated the Columbia River Basin DPS. 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.<sup>69</sup> It is estimated that sage grouse in the west once numbered between 200,000 and 2 million, and that the population has declined by an estimated 66% to 99% from its historical high.<sup>70</sup>

Unlike the listing petitions for the other sage grouse groups, the Columbia River Basin DPS did not result in a lawsuit, perhaps because the agency initially agreed with the petition. In 2001, FWS gave the DPS a low priority for listing (9 on a 12-point scale), and held that its listing was

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<sup>60</sup> 75 Fed. Reg. 13910 (March 23, 2010).

<sup>61</sup> 68 Fed. Reg. at 6502 (February 7, 2003).

<sup>62</sup> AOU 1957, Aldrich 1963.

<sup>63</sup> 66 Fed. Reg. 22986 (May 7, 2001).

<sup>64</sup> See *Institute for Wildlife Protection v. Norton*, No. CV-02-1604L (W.D. Wash.).

<sup>65</sup> 68 Fed. Reg. 6500 (February 7, 2003).

<sup>66</sup> *Institute for Wildlife Protection v. Norton*, 174 F.3d 363 (9<sup>th</sup> Cir. 2006).

<sup>67</sup> 75 Fed. Reg. at 13988 (March 23, 2010).

<sup>68</sup> 66 Fed. Reg. 22984 (May 7, 2001). The Columbia River Basin DPS was a population of the *western* sage grouse subspecies. At the time, FWS still held the view that greater sage grouse included a western subspecies.

<sup>69</sup> 66 Fed. Reg. at 22987.

<sup>70</sup> 66 Fed. Reg. at 22987.

“warranted but precluded” by species in more urgent need of protection.<sup>71</sup> In 2002, the Columbia River 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 from encroaching agricultural lands near the other.<sup>72</sup> However, FWS said that those threats were not imminent and so did not warrant listing. In 2003, FWS complicated matters further by holding that western sage grouse are not sufficiently different to constitute a subspecies—a determination that did not erase the DPS status of the Columbia River Basin population. Instead, the Columbia River Basin DPS is a population of the greater sage grouse.<sup>73</sup> In 2012, FWS issued an LPN of 6 for the DPS.<sup>74</sup> In a court settlement, FWS agreed to decide whether to list the Columbia River Basin DPS by the end of FY2015.<sup>75</sup>

### **Bi-State or Mono Basin Distinct Population Segment**

Some groups hold that the sage grouse population in the area around Mono Lake (in California and Nevada) constitutes a DPS of sage grouse.<sup>76</sup> FWS referred to this group as the Mono Basin population until 2010, when it began calling it the Bi-State population. In 2002, two groups petitioned FWS for an emergency listing of the Bi-State population, but the petition was denied.<sup>77</sup> FWS argued that morphological information did not indicate that the Bi-State population was distinct, nor did behavioral observations show any differences. The Ninth Circuit affirmed that FWS complied with all statutory deadlines.<sup>78</sup>

A 2005 petition by multiple groups sought DPS status for the Bi-State population as well as listing under the ESA. In 2006, FWS found genetic differences justifying the designation of a Bi-State DPS.<sup>79</sup> 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), it did not find a sufficient threat to justify listing.<sup>80</sup>

In 2008, FWS initiated a second status review of this population, asking for any new data on threats to the DPS.<sup>81</sup> In 2010, FWS determined that listing the Bi-State DPS was warranted but precluded, giving it an LPN of 3, meaning its listing is a higher priority than that of the species as a whole (which has an LPN of 8).<sup>82</sup> In 2012, the LPN for the Bi-State DPS remained 3. In a court settlement, FWS agreed to decide whether to list the Bi-State DPS by the end of FY2013.<sup>83</sup>

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<sup>71</sup> *Id.*

<sup>72</sup> 67 Fed. Reg. 40657, 40663 (June 13, 2002).

<sup>73</sup> 68 Fed. Reg. 6500 (February 7, 2003).

<sup>74</sup> 77 Fed. Reg. 69994, 70052 (November 21, 2012).

<sup>75</sup> In Re: Endangered Species Act Section 4 Deadline Litigation, No. 10-377 (D.D.C. July 12, 2011).

<sup>76</sup> For example, such a change was proposed by the Center for Biological Diversity. See [http://www.biologicaldiversity.org/species/birds/Mono\\_Basin\\_area\\_greater\\_sage\\_grouse/action\\_timeline.html](http://www.biologicaldiversity.org/species/birds/Mono_Basin_area_greater_sage_grouse/action_timeline.html).

<sup>77</sup> 67 Fed. Reg. 78811 (December 26, 2002).

<sup>78</sup> *Institute for Wildlife Protection v. Norton*, 303 F. Supp. 2d 1175 (W.D. Wash. 2003), *aff'd*, 149 Fed. Appx. 627 (9<sup>th</sup> Cir. 2005).

<sup>79</sup> 71 Fed. Reg. 76058 at 76062 (December 19, 2006).

<sup>80</sup> 71 Fed. Reg. 76058.

<sup>81</sup> 73 Fed. Reg. 23173 (April 29, 2008).

<sup>82</sup> 75 Fed. Reg. 13910 (March 23, 2010).

<sup>83</sup> In Re: Endangered Species Act Section 4 Deadline Litigation, No. 10-377 (D.D.C. July 12, 2011).

**Table I. Sage Grouse: Species and Populations**

Species, Subspecies, or Population	Now Scientifically Recognized as a Species, Subspecies, or Population?	Recognized by FWS as a Subspecies or DPS?	Listed Under ESA?
Gunnison grouse ( <i>C. minimus</i> )	yes	n/a	proposed endangered
Sage grouse ( <i>C. urophasianus</i> )	yes	n/a	warranted but precluded
Eastern Subspecies	no	no	no
Western Subspecies	no	no	no
Columbia River Basin Population	yes <sup>a</sup>	yes	warranted but precluded
Bi-State Population	probably <sup>a,b</sup>	yes	warranted but precluded

**Source:** Compiled by Congressional Research Service. See text.

- 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.
- Population status is based on genetic rather than morphological differences.

## State and Federal Actions to Protect the Sage Grouse

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 (see **Appendix A** and **Appendix B**). 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.

The Bureau of Land Management (BLM) manages more than 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).<sup>84</sup> This authority is significant, as efforts to accelerate development of federal land for energy advance projects across more federal land. Even alternative energy sources create conflict in sagebrush habitat.

### Bureau of Land Management Policy

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

<sup>84</sup> See BLM, *Sage-grouse and Sagebrush Conservation*, available at [http://www.blm.gov/wo/st/en/prog/more/sage\\_grouse\\_home2.html](http://www.blm.gov/wo/st/en/prog/more/sage_grouse_home2.html).

longer needed.”<sup>85</sup> This language very nearly matches the statutory obligations within the ESA.<sup>86</sup> This is a change from previous policy language that had expanded the statutory obligations to include extra responsibilities toward protecting species at risk. Prior to December 12, 2008, Section 6840.02 of the BLM Manual had required the agency to (1) conserve listed species and their ecosystems and (2) “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.”<sup>87</sup> The policy after that date appears to be the somewhat less demanding goal of ensuring that BLM actions do not contribute to a species being listed versus one of minimizing the likelihood of a listing. The new language 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.<sup>88</sup> It is not clear that the strategy includes any numeric goals regarding acres of habitat protected or any enforceable obligations. Instead, it sets goals and objectives for BLM land management processes, 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.<sup>89</sup> 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.<sup>90</sup> In evaluating whether to list the sage grouse, FWS considered BLM policies, and suggested that they did not provide much additional protection in practice.<sup>91</sup> It found that under the 2008 policy, BLM had the authority to address sage grouse threats to protect the bird.<sup>92</sup> 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

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<sup>85</sup> 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](http://www.blm.gov/pgdata/etc/medialib/blm/wo/Information_Resources_Management/policy/blm_manual.Par.43545.File.dat/6840.pdf).

<sup>86</sup> 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....”

<sup>87</sup> 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](http://www.blm.gov/pgdata/etc/medialib/blm/ca/pdf/pdfs/pa_pdfs/biology_pdfs.Par.9d22a8ee.File.dat/6840_ManualFinal.pdf).

<sup>88</sup> 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](http://www.blm.gov/pgdata/etc/medialib/blm/wo/Planning_and_Renewable_Resources/fish__wildlife_and.Par.9151.File.dat/Sage-Grouse_Strategy.pdf).

<sup>89</sup> BLM, Gunnison Sage Grouse Conservation Plan, available at [http://www.blm.gov/co/st/en/fo/gfo/sage\\_grouse.html](http://www.blm.gov/co/st/en/fo/gfo/sage_grouse.html).

<sup>90</sup> 16 U.S.C. §1533(a)(1)(D).

<sup>91</sup> 75 Fed. Reg. at 13979.

<sup>92</sup> *Id.*

some areas falls short of meeting the conservation needs of the species.”<sup>93</sup> In fact, FWS said some BLM practices were “exacerbating the effects of threats” to the sage grouse.<sup>94</sup> It refused to rely on BLM’s policies as a regulatory practice that would obviate the need to list the species.

Since then, the District Court for Idaho has found in two key cases that BLM does not follow its own laws for protecting the bird. One case examined how BLM develops resource management plans for BLM lands, which are used by the agency to evaluate what activities should occur on what lands.<sup>95</sup> The other lawsuit challenged BLM’s review of grazing permit renewals.<sup>96</sup> These are two significant areas of review for sage grouse habitat.

In both cases, the court held that BLM was not acting to protect the species despite having laws and policy in place to do so.<sup>97</sup> What this could indicate is that when FWS evaluates existing regulatory practices in determining whether the sage grouse needs protection under the ESA, it could find BLM policy may not amount to adequate existing regulatory measures that provide sufficient protection such that additional federal protection is not needed. However, in an earlier case, that same court held that BLM adequately considered the impacts on sage grouse of its fire management amendments to BLM resource management plans.<sup>98</sup>

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 overarching document for the whole area.<sup>99</sup> 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.<sup>100</sup> Similarly, in 2010, the District Court for the District of Columbia held that BLM adequately considered the impacts on the sage grouse of oil and gas development in southwest Wyoming.<sup>101</sup>

## 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.<sup>102</sup> 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

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<sup>93</sup> 75 Fed. Reg. at 13979.

<sup>94</sup> *Id.*

<sup>95</sup> *Western Watersheds Project v. Salazar*, No. 4:08-cv-516, 2011 WL 4526746 (D. Idaho September 28, 2011) (Resource Management Plans).

<sup>96</sup> *Western Watersheds Project v. Salazar*, No. 4:08-cv-435, 843 F. Supp. 2d 1105 (D. Idaho 2012) (grazing permit renewals).

<sup>97</sup> *Western Watersheds Project v. Salazar*, No. 4:08-cv-516, 2011 WL 4526746 (D. Idaho September 28, 2011) (Resource Management Plans); *Western Watersheds Project v. Salazar*, No. 4:08-cv-435, 843 F. Supp. 2d 1105 (D. Idaho 2012) (grazing permit renewals).

<sup>98</sup> *Western Watersheds Project v. Bureau of Land Management*, 552 F. Supp. 2d 1113 (D. Idaho 2008).

<sup>99</sup> *Western Organization of Research Councils v. Bureau of Land Management*, 591 F. Supp. 2d 1206 (D. Wyo. 2008).

<sup>100</sup> *Id.*

<sup>101</sup> *Theodore Roosevelt Conservation Partnership v. Salazar*, 744 F.Supp.2d 151 (D.D.C. 2010).

<sup>102</sup> Forest Service Manual (FSM) 2670.5.19.

actions.”<sup>103</sup> 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.”<sup>104</sup> The Forest Service is also directed to help protect wildlife.<sup>105</sup>

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.<sup>106</sup> FWS indicated that habitat protection on grazing lands varied depending on the plan.<sup>107</sup> 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 the bird, have acted to protect it and its habitat to avoid further reductions in numbers. Washington lists the bird as a threatened species,<sup>108</sup> but also includes it in its list of game birds.<sup>109</sup> California, Colorado, Idaho, Nevada, Wyoming, and Montana all have issued conservation plans.<sup>110</sup> Additionally, Colorado has entered into a Candidate Conservation Agreement with Assurances (CCAA) with FWS regarding the Gunnison grouse, and FWS has issued a proposed CCAA for the state of Idaho.<sup>111</sup> 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.<sup>112</sup>

Some local governments have also taken conservation measures (see **Appendix B**). Because listing additional species, subspecies, or populations might affect land use, especially on federal

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<sup>103</sup> FSM 2670.22.

<sup>104</sup> FSM 2670.12.

<sup>105</sup> FSM 2670.32.1.

<sup>106</sup> 75 Fed. Reg. at 13980.

<sup>107</sup> 75 Fed. Reg. at 13979.

<sup>108</sup> Wash. Admin. Code §232-12-011.

<sup>109</sup> Wash. Admin. Code §232-12-004.

<sup>110</sup> 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>.

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/conserves\\_plan/](http://fishandgame.idaho.gov/cms/hunt/grouse/conserves_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/FINALStateLandCoreAreaSageGrouseStips7312008.pdf](http://gf.state.wy.us/wildlife/wildlife_management/sagegrouse/FINALStateLandCoreAreaSageGrouseStips7312008.pdf).

<sup>111</sup> 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).

<sup>112</sup> 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>.

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.

## **Efficacy of Conservation Agreements in Avoiding Listing**

As mentioned, one goal of a CCAA or other form of conservation agreement with FWS is to establish such protection for a species that federal protection is not deemed necessary. The ESA provides that the Service may find that listing is not needed if adequate regulatory mechanisms exist.<sup>113</sup> Courts have looked at three things in determining the existence of adequate 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.

Courts have reviewed CCAs and other conservation agreements in challenges to listing decisions. No court has deemed voluntary state actions 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, reached the decision not because the voluntary state measures amounted to regulation, but because there was so much federal land in the grizzly’s range that the plan was sufficient.<sup>114</sup> It 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.”<sup>115</sup>

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

For example, in the case of listing steelhead trout, the Northern District of California found that the state plans of Oregon and California were voluntary and so they did not count as a regulatory measure, and that the federal plan would only cover 64% of habitat, which was not enough to prevent species’ further decline.<sup>116</sup> Therefore, the regulatory measure affecting federal habitat was not adequate to prevent the need for listing. On the other hand, the Ninth Circuit held that a plan that would have the force of law on federal lands but be voluntary on other lands was adequate to protect the grizzly bear because federal lands constituted 98% of the grizzly’s primary conservation area.<sup>117</sup>

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<sup>113</sup> 16 U.S.C. §1533(a)(1)(D).

<sup>114</sup> Greater Yellowstone Coalition, Inc. v. Servheen, 665 F.3d 1015 (9<sup>th</sup> Cir. 2011). The measures did not include a CCAA.

<sup>115</sup> Greater Yellowstone Coalition, Inc. v. Servheen, 665 F.3d 1015, 1032 (9<sup>th</sup> Cir. 2011).

<sup>116</sup> Federation of Fly Fishers v. Daley, 131 F.Supp.2d 1158 (N.D. Cal. 2000). The measures did not include a CCAA.

<sup>117</sup> Greater Yellowstone Coalition, Inc. v. Servheen, 665 F.3d 1015, 1021 (9<sup>th</sup> Cir. 2011).

The third criterion is that the regulatory mechanisms be in place and not be future or speculative. One court said it would not consider a new agreement to be an adequate regulatory mechanism, requiring a conservation agreement to have a record of two years to be sufficient.<sup>118</sup>

## **Conclusion**

As development proceeds in sagebrush territory, habitat for sage grouse and Gunnison 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 Gunnison grouse, sage grouse, and/or its subspecies, and populations, should be listed under the ESA, and, following litigation, has found that listing was warranted but precluded for all of these groups. 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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<sup>118</sup> *Save Our Springs v. Babbitt*, 27 F. Supp. 2d 739 (W.D. Texas 1997).

## **Appendix A. Wyoming Sage Grouse Policy Regarding Core Population Areas**

While the sage grouse in Wyoming is classified as a game bird, the state is attempting to protect it. A 2011 executive order from the Wyoming governor replaced 2008 and 2010 executive orders directed at sage grouse protection.<sup>119</sup> The 2011 order continues the 2008 practice of using Core Population Areas identified by the governor’s Sage Grouse Implementation Team. The 2011 order affects up to two-thirds of the state’s sage grouse habitat and is intended to direct energy production to those areas with the highest predicted yields and lowest numbers of sage grouse. The 2011 order alters the 2008 order, however, by specifically approving certain energy corridors through core habitat areas, provided construction occurs within established dates.

The state of Wyoming appears to have no general description of its sage grouse plan under the 2013 Sage Grouse Executive Order (SGEO), but it has published a list of frequently asked questions (FAQs).<sup>120</sup> Below are extracts from that document with minor modifications for clarity.

### **What Activities Are Affected by the SGEO?**

Letters from the Wyoming Game and Fish Department will determine whether a project complies with the process and stipulations outlined in the SGEO, and may provide recommendations on whether the permit should be issued and/or recommendations on how impacts to the bird may be minimized. These recommendations may be accepted by the permitting agency and incorporated in the conditions of the permit. If there are changes to the project, the proponent should complete the Density and Disturbance Calculation Tool (DDCT) review process again.

### **What Counts as Suitable Sage Grouse Habitat?**

“Suitable” sage-grouse habitat (nesting, breeding, brood-rearing, or winter) is within the mapped occupied range of sage-grouse, and it

1. has 5% or greater sagebrush canopy cover (for nesting, brood-rearing and/or winter) as measured by the point intercept method. “Sagebrush” includes all species and subspecies of the genus *Artemisia* except the mat-forming sub-shrub species: *frigida* (fringed) and *pedatifida* (birdfoot);
2. is riparian, wet meadow (native or introduced) or areas of alfalfa or other suitable forbs (brood rearing habitat) within 275 meters of sagebrush habitat with 5% or greater sagebrush canopy cover (for roosting/loafing);
3. is reclaimed habitat containing at least two native grasses (at least one bunchgrass) and two native forbs (see “reclamation” in Attachment B of the

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<sup>119</sup> Wyoming Exec. Order No. 2011-5 (June 2, 2011) available at <http://governor.wy.gov/Documents/Sage%20Grouse%20Executive%20Order.pdf>.

Wyoming Exec. Order No. 2010-4 (August 18, 2010), available at <http://wyld.state.wy.us/uhtbin/cgisirsi/20101014150037/SIRSI/0/520/WS-GOV-EO-2010-04.pdf>.

Wyoming Exec. Order No. 2008-2 (August 1, 2008), available at <http://www-wsl.state.wy.us/sis/wydocs/execorders.html>.

<sup>120</sup> See <https://ddct.wygisc.org/Data/Sites/24/files/FAQs.pdf>, from which the following information is taken, unless otherwise noted.

- SGEO) and no point within the grass/forb habitat is more than 60 meters from adjacent 5% or greater sagebrush cover; or
4. is “transitional” sage-grouse habitat, which is land that has been treated or burned prior to 2011, resulting in < 5% sagebrush cover but is actively managed to meet a minimum of 5% sagebrush canopy cover with associated grasses and forbs by 2021 (as determined by analysis of local condition and trend) and may or may not be considered “disturbed.” Land that does not meet the above vegetation criteria by 2021 should be considered disturbed.

## **What Counts as a Surface Disturbance?**

Any anthropogenic development activity or wildfire event that results in removal of sagebrush vegetation or loss of sage-grouse habitat is considered surface disturbance in the DDCT calculation. Surface disturbance includes, but is not limited to, roads, well pads, mining operations, agricultural fields, buildings, some vegetation treatments, wind turbines, power lines, pipelines, or other oil and gas infrastructure. Some linear features are considered exempt from DDCT calculations.

## **Is There a De Minimis Exemption? For What?**

Activities that are designated as de minimis, and exempted from the plan’s requirements, include the following:

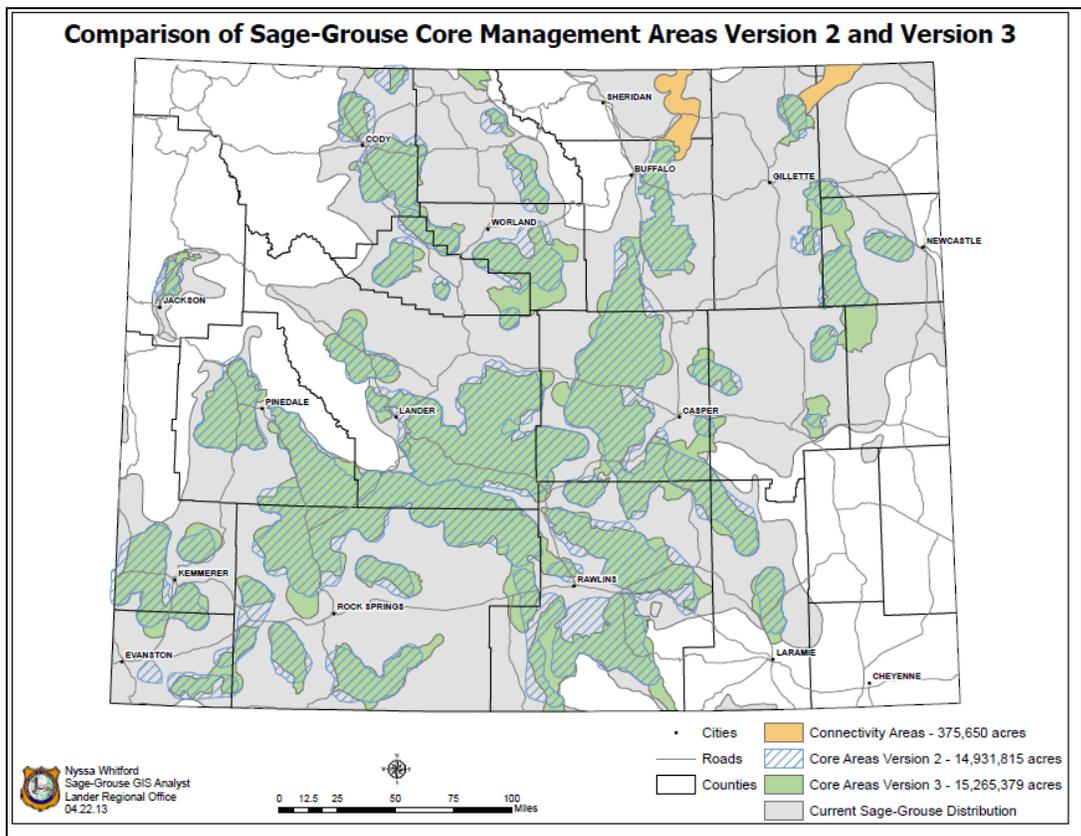
1. Existing animal husbandry practices (including branding, docking, herding, trailing, etc.).
2. Existing farming practices (excluding conversion of sagebrush/grassland to agricultural lands).
3. Existing grazing operations that utilize recognized rangeland management practices (allotment management plans, Natural Resource Conservation Service grazing plans, prescribed grazing plans, etc.).
4. Construction of agricultural reservoirs and aquatic habitat improvements less than 10 surface acres and drilling of agriculture and residential water wells (including installation of tanks, water windmills and solar water pumps) more than 0.6 miles from the perimeter of the lek. Within 0.6 miles from leks, no review is required if construction does not occur March 15 to June 30 and construction does not occur on the lek. All water tanks shall have escape ramps. Any terrestrial habitat improvements <10 acres will require compliance with the SGEO.
5. Agricultural and residential electrical distribution lines more than 0.6 miles from leks. Within 0.6 miles from leks no review is required if construction does not occur March 15 to June 30 and construction does not occur on the lek. Raptor perching deterrents shall be installed on all poles within 0.6 miles from leks.
6. Agricultural water pipelines if construction activities are more than 0.6 miles from leks. Within 0.6 miles from leks no review is required if construction does not occur March 15 to June 30 and construction is reclaimed.
7. Pole fences. Wire fences if fitted with visibility markers where high potential for collisions has been documented.
8. Irrigation (excluding the conversion of sagebrush/grassland to new irrigated lands).

9. Spring development if the spring is protected with fencing and enough water remains at the site to provide mesic (wet) vegetation.
10. Herbicide use within existing road, pipeline, and power line rights-of-way. Herbicide application using spot treatment. Grasshopper/Mormon cricket control following Reduced Agent-Area Treatments protocol.
11. Existing county road maintenance.
12. Cultural resource pedestrian surveys.
13. Emergency response.

## What Are the Core Population Areas, as Defined by the 2011 SGEO, and How Do They Differ from Areas Mapped in 2008?

A map of the core population areas is shown below, with comparison of the 2008 core areas (Version 2), and the more recent 2011 areas (Version 3).

**Figure A-1. Sage Grouse Core Management Areas in 2008 and 2011 Wyoming Executive Orders**



**Source:** Provided by Mary Flanderka, Habitat Protection Supervisor, Wyoming Game and Fish Department, April 22, 2013.

**Notes:** Version 2 is from 2008; Version 3 is 2011. The versions differ in both locations and total acreage.

## **What Are the Stipulations on Activities Regarding Sage Grouse?**

These stipulations are complex and include both general stipulations and industry-specific stipulations. The most comprehensive source is found in Attachment B of the governor's executive order:

These stipulations are designed to maintain existing suitable sage-grouse habitat by permitting development activities in core areas in a way that will not cause declines in sage-grouse populations. General stipulations are recommended to apply to all activities in core areas, with the exception of exempt (“de minimis”) actions defined herein (Attachment C of the SGEO) or specifically identified activities. The specific industry stipulations are considered in addition to the general stipulations.<sup>121</sup>

Greater detail on both general and industry-specific stipulations are also in Attachment B of the SGEO.

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<sup>121</sup> See Wyoming Executive Order 2011-5, p. 8, <http://governor.wy.gov/Documents/Sage%20Grouse%20Executive%20Order.pdf>.

## Appendix B. Plans Affecting the Gunnison Grouse

The Gunnison grouse's known range is the Gunnison Basin in western Colorado and eastern Utah. (See **Table B-1**, **Figure B-1**, and **Figure B-2**.) Multiple conservation plans at the federal, state, and local levels have addressed grouse protection.

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.<sup>122</sup>

### Multi-Party Conservation Plan

In 2005, state and federal agencies completed a Gunnison Sage-Grouse Rangewide Conservation Plan (Rangewide Conservation Plan).<sup>123</sup> According to the plan, its purpose is “to identify measures and strategies to achieve the goal of protecting, enhancing, and conserving [Gunnison sage grouse] and their habitats.”<sup>124</sup> The plan integrates local strategies as well as range-wide goals. The primary goal is to prevent permanent habitat loss in occupied areas.<sup>125</sup> Grazing management practices, wildfire management, and minimizing impacts from mining, oil and gas production, power lines, and utilities are all addressed.

### State Conservation Efforts

Under Colorado law, the species is not protected as a threatened or endangered species.<sup>126</sup> Nor is it listed as a species of concern in the state's Sagebrush and Sage Species Conservation Strategy.<sup>127</sup> Instead, the Gunnison grouse is listed as a game bird, although it has no hunting season and the bag limit is set at zero.<sup>128</sup>

The Colorado Department of Wildlife (CDOW) entered into a Candidate Conservation Agreement with Assurances (CCA) issued by FWS for the Gunnison grouse.<sup>129</sup> According to the agreement, “The conservation goal of this Agreement is to achieve the protection and management necessary to preclude listing by obtaining agreements for grouse habitat protection

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<sup>122</sup> Gunnison Sage-grouse Rangewide Conservation Plan (April 2005) (hereinafter Rangewide Conservation Plan), Executive Summary, p. 2, available at <http://wildlife.state.co.us/WildlifeSpecies/SpeciesOfConcern/Birds/Pages/GunnisonConsPlan.aspx>.

<sup>123</sup> *Id.*

<sup>124</sup> *Id.* at 201.

<sup>125</sup> *Id.* at 203.

<sup>126</sup> 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. 406-10 #1002.

<sup>127</sup> See state of Colorado, *Sagebrush and Sage Species Conservation Strategy* (September 2005), available at <http://wildlife.state.co.us/WildlifeSpecies/SagebrushConservation/Pages/ColoradoSagebrush.aspx>.

<sup>128</sup> 2 C.C.R. 406-3 #317. The bag limit for the Gunnison grouse is given as “none,” but that apparently does not mean there is no limit. Instead, the state uses the term “unlimited” when there is no bag limit. See #325, bobcat.

<sup>129</sup> Candidate Conservation Agreement with Assurances for Gunnison Sage-grouse (*Centrocercus minimus*) between the Colorado Division of Wildlife and the U.S. Fish and Wildlife Service (July 15, 2006) (hereinafter CCA), at <http://wildlife.state.co.us/SiteCollectionDocuments/DOW/WildlifeSpecies/SpeciesOfConcern/GunnisonSageGrouse/CCA/GuSGCCAAfinal.pdf>.

and/or enhancements on private lands.”<sup>130</sup> However, as noted earlier in this report, FWS has proposed listing the Gunnison grouse as endangered.<sup>131</sup>

In the Gunnison grouse CCAA, CDOW and other cooperating landowners agreed to take conservation measures as 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.<sup>132</sup> Participating landowners are covered from incidental takes by the Incidental Take Permit issued by FWS to CDOW.<sup>133</sup> Also, the CCAA provides ESA regulatory assurances for participating landowners. According to the agreement, “There will be a significant measure of security for participating landowners in the knowledge that they will not incur additional land use restrictions if the species is listed under the ESA in the future.”<sup>134</sup> Those assurances may prove necessary in light of the proposed listing and critical habitat designation of January 2013.

Under the CCAA, the state of Colorado will also take conservation steps. For example, 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.<sup>135</sup>

## **Local Efforts**

In addition to actions by private landowners covered in the state agreement discussed above, other local efforts target Gunnison grouse protection. Gunnison County, CO, in which the largest population of the grouse lives, has 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.<sup>136</sup> 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. While for the Occupied Habitat map, *occupied habitat* is defined as an area “of suitable habitat as delineated within the Gunnison Sage-grouse Rangewide Conservation Plan (RCP) and known to be used by Gunnison Sage-grouse within the last 10 years from the date of mapping.”

On February 17, 2009, the county adopted the Gunnison Basin Sage-Grouse Strategic Plan (Strategic Plan).<sup>137</sup> The Strategic Plan referred to the RCP as the “overarching document for Gunnison sage-grouse efforts” and also provided additional detail for county planning.

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.”<sup>138</sup> This includes building permits,

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<sup>130</sup> CCAA §3.

<sup>131</sup> 78 Fed. Reg. 2486 (January 11, 2013).

<sup>132</sup> 70 Fed. Reg. 38977, 38978 (July 6, 2005). See Rangewide Conservation Plan, Conservation Strategy Rangewide, pp. 211-220, 232.

<sup>133</sup> CCAA §1(c)(1).

<sup>134</sup> CCAA §7.

<sup>135</sup> Rangewide Conservation Plan, Conservation Strategy Rangewide, pp. 241-245.

<sup>136</sup> 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](http://www.gunnisoncounty.org/sage_pdf/2007/Resolution_No._2007-17_LUR%20Wildlife%20Amendments.pdf).

<sup>137</sup> Available at [http://www.gunnisoncounty.org/sage\\_pdf/Strategic%20Plan\\_Final\\_Adopted%20by%20BoCC\\_2-17-09%20\\_2\\_.pdf](http://www.gunnisoncounty.org/sage_pdf/Strategic%20Plan_Final_Adopted%20by%20BoCC_2-17-09%20_2_.pdf).

<sup>138</sup> Resolution 2007-17 (April 2007), amending Gunnison County Code §5-102:P.

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.<sup>139</sup>

Additionally, the 2007 resolution directs the county to recognize perpetual conservation easements and other documented management agreements that are beneficial to the grouse.<sup>140</sup> To satisfy county law, the conservation easement must have sufficient restrictions to show that adverse impacts are “substantially or wholly mitigated” by the easement.<sup>141</sup>

**Table B-I. Estimated Gunnison Grouse Population**

Location of Population	2001	2005	2010
Gunnison Basin	3,493	4,700	3,655
San Miguel Basin	392	334	123
Monticello-Dove Creek (combined)	363	196	191 <sup>a</sup>
Piñon Mesa	152	167	74
Cerro Summit-Cimarron-Sims Mesa	59	25	5
Crawford	137	191	20
Poncha Pass	25	44	15
Totals	4,621	5,656	4,083 <sup>b</sup>

**Source:** U.S. Fish and Wildlife Service. 75 Fed. Reg. at 59809 (September 28, 2010).

- a. The Monticello population estimates were not available for 2010 so the combined estimate could not be made. This number represents the 2009 estimate. The Dove Creek estimate for 2010 was 44, up from 10 in 2009, and up from the 2005 estimate of 34.
- b. Using the 2009 estimate for the Monticello-Dove Creek population.

<sup>139</sup> Resolution 2007-17, amending Gunnison County Code §11-106:G(4)(a)(2).

<sup>140</sup> Resolution 2007-17, amending Gunnison County Code §11-106:G(1)(a)(1).

<sup>141</sup> *Id.*

**Figure B-1. 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](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](http://www.fort.usgs.gov/resources/spotlight/grouse/grouse_maps.asp).

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