

The Shrinking Geography of Sage Grouse Conservation

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A Report from



JULY 2015



Cover photo:

Sage grouse near gas fields, Upper Green River Valley, Wyoming, courtesy Joel Sartore.

Inset photos:

Aerial view of West Hay Coal Mine, Wyoming, courtesy Noppadol Paothong/LightHawk.

Transmission lines near North Valmy, Nevada, Erik Molvar photo.

Aerial view of irrigated croplands near Farson, Wyoming, courtesy Noppadol Paothong/LightHawk.

Acknowledgments

Paul Mitchell of Conservation Geography created most of the Geographic Information System (“GIS”) analyses and maps presented in this report. We also acknowledge the important role that Amy Haak of Conservation Geography had in keeping this project moving forward. Kurt Menke of Bird’s-Eye View GIS provided the analysis of the acreage of federal lands and minerals encompassed by the original Priority Areas for Conservation boundaries. This report also reproduces GIS-based maps previously generated and released by the Wyoming Game and Fish Department and Biodiversity Conservation Alliance (with the GIS mapping assistance of the Wyoming Geographic Information Science Center). We owe a debt of gratitude to Greta Anderson of Western Watersheds Project for providing the first compelling encapsulation of the shrinking geography of sage grouse conservation at the Public Interest Environmental Law Conference in Eugene, Oregon in March of 2015.

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EXECUTIVE SUMMARY

The Priority Habitats proposed for designation in federal land use plans form the backbone of sage grouse conservation efforts across the West, but the boundaries of these Priority Habitats were radically reduced in the most recent plans, undermining the effectiveness of sage grouse conservation on our federal public lands. Overall, some 16 million acres originally designated as “Priority Areas for Conservation” by the U.S. Fish and Wildlife Service based on state recommendations were eliminated from the system of Priority Habitats proposed for elevated protections in federal sage grouse plan amendments. In addition, for many states, a major percentage of the highest-density sage grouse habitats were excluded from Priority Habitats, rendering the populations vulnerable to extirpation. In Idaho, Nevada, and Montana approximately one-fourth of the densest sage grouse populations were excluded from Priority Habitats under proposed federal plans. The efficacy of sage grouse Priority Habitat designations varied widely among states with federal plans in Oregon, Colorado, and North Dakota performing well overall, while Idaho, Utah, Montana, and California’s plans present major problems for sage grouse habitat protection. By slashing the geographic extent of Priority Habitats, federal planners are undermining sage grouse conservation efforts and amplifying the need to protect the greater sage grouse under the Endangered Species Act.



Figure 1. Current range of the greater sage grouse overlaid atop historic range (pale green).

INTRODUCTION

For years, the U.S. Bureau of Land Management (“BLM”) and U.S. Forest Service (“Forest Service”) have designated the greater sage grouse as a Sensitive Species, implementing special restrictions on activities occurring near leks (sage grouse breeding and nesting sites) on BLM and Forest Service administered public lands. Standard protections include a quarter-mile “No Surface Occupancy” (“NSO”) buffer preventing road and wellpad construction around leks, and a two-mile timing restriction around leks allowing roads and wells to be constructed only outside the breeding and nesting seasons. Beginning in 2005, scientific researchers began to test the effectiveness of these conservation measures when applied to full-field oil and gas development (Holloran 2005, Walker et al. 2007, Doherty et al. 2008). These studies show that even when these protections were applied, significant sage grouse population declines occurred. *Ibid.* The protections were far too weak. In the western half of the species’ range — where for decades livestock grazing has stripped away the grasses that nesting grouse require for hiding cover, accelerating the rapid expansion of cheatgrass, and increasing the severity and frequency of range fires that follow cheatgrass invasions — Sensitive Species status never translated into meaningful protections for the grouse from livestock grazing.

In 2007, Wyoming Governor Dave Freudenthal convened a Sage Grouse Summit in Casper, Wyoming to discuss a new way forward. At this meeting, Wyoming Game and Fish Director Terry Cleveland criticized the quarter-mile lek buffers as inadequate, and stated, “Research near Pinedale and in the Powder River Basin shows that best

management practices are insufficient to protect sage grouse when well pads exceed one per square mile.”¹ In 2008, Governor Freudenthal signed the first state Executive Order on sage grouse conservation, which established “Core Areas” where elevated levels of protection apply. Although the Executive Order increased protections for Core Areas, according to the Wyoming Public Service Commission, “Outside of Core Areas, the executive order clarifies that stipulations are to be relaxed, so that there are enhanced resource development opportunities.”² The question of whether the State’s proposed protections — generated from compromises amongst industrial interests, conservationists, and state and local governments — are enough, is an ongoing controversy. The lone scientific study to test the effectiveness of the Executive Order’s Core Area strategy (Copeland et al. 2013) predicted a 17% decline in sage grouse across Wyoming if the Core Area protections are fully implemented without any exceptions (thus far, exceptions have been granted), and a 6% decline in sage grouse populations inside the Core Areas.

In 2010, the U.S. Fish and Wildlife Service (“Service”) found the greater sage grouse faced multiple threats, had a declining population at increasing risk of extinction, and was “warranted, but precluded” by higher priorities for listing under the Endangered Species Act (“ESA”). A 2011 lawsuit settlement with WildEarth Guardians required the Service to tackle the backlog of 252 species on the Candidate Species list, and set a deadline

¹ Brodie Farquhar, *Grouse Summit: Status Quo Won't Do*, CASPER STAR-TRIBUNE (June 28, 2007).

² Wyoming Public Service Comm’n, *Sage Grouse Core Area Protection*, <http://psc.state.wy.us/pscdocs/SAGEGROUSE.html> (last visited July 23, 2015).

for a proposed decision for the Greater sage grouse no later than September 30, 2015. A Congressional budget rider has since deprived the Service of federal funding to complete its legally mandated listing decision between November 2014 and October 2015.

In 2010, the Forest Service and BLM embarked on an ambitious program to amend all agency land use plans across ten western states to increase sage grouse protections and, hopefully, reverse population declines. These plans incorporated the concept of establishing Core Areas for heightened conservation effort by establishing “Priority Habitat Management Areas” (“Priority Habitats”) targeted for strong grouse protections, and “General Habitat Management Areas” (“General Habitats”), where industrial development and commercial land uses would face fewer restrictions.

The BLM assembled a National Technical Team (“NTT”) made up of state and federal sage grouse experts to review all of the available science on sage grouse and habitat impacts and make recommendations for conservation measures that should apply inside Priority Habitats. Among the key recommendations of the National Technical Team’s final report (NTT 2011) were recommendations to: (1) close Priority Habitats to future mining claims and leasing for oil, gas, and coal; (2) apply four-mile NSO buffers around sage grouse leks for existing oil and gas leases; and (3) cap cumulative habitat disturbance at 3% of the landscape and one industrial site per square-mile.

The prospect for sage grouse recovery — and the intertwined prospect for protecting the species under the ESA — depends on whether protections will meet the biological needs of the sage grouse

and the extent to which sage grouse habitats will receive these protections. This report focuses almost exclusively on the degree to which the boundaries of Priority Habitats designated under federal land use plans are appropriate and identifies state-by-state where the most important sage grouse habitats fall outside the umbrella of Priority Habitat designation.

PROTECTING ALL HABITATS VERSUS PROTECTING PRIORITY HABITATS: THE FIRST STEP DOWN

When the sage grouse were listed as a Candidate Species under the ESA, their known populations had been oscillating downward for at least 60 years. George Bird Grinnell (1910), one of America’s foremost naturalists of the 19th Century, recounted an experience viewing sage grouse before the big declines:

In October, 1886, when camped just below a high bluff on the border of Bates Hole, in Wyoming, I saw great numbers of these birds, just after sunrise, flying over my camp to the little spring which oozed out of the bluff 200 yards away. Looking up from the tent at the edge of the bluff above us, we could see projecting over it the heads of hundreds of the birds, and, as those standing there took flight, others stepped forward to occupy their places. The number of Grouse which flew over the camp reminded me of the old time flights of Passenger Pigeons that I used to see when I was a boy. Before long the narrow valley where the water was, was a moving mass of gray. I have no means whatever of estimating the number of birds which I saw, but there must have been thousands of them.

No one alive today is old enough to have seen flocks approaching this size. A range-wide population that once numbered perhaps 16 million birds has dropped to an estimated 200,000, and continues to oscillate downward. If the greater sage grouse deserved ESA protection in 2010, and is at even lower populations today, can we really afford to protect fewer than all of the birds, or allow any further habitat degradation or destruction? An argument can easily be made that today — with the sage grouse declining toward extinction — the goal should be net habitat improvement and population recovery, rather than continued habitat destruction, albeit at a slower pace.

And this is, in fact, the case. Although setting aside large tracks of unspoiled habitat for sage grouse, as originally proposed by Holloran (2005), is unquestionably an improvement over current land management, which allows the industrialization of even the most sensitive sage grouse habitats at levels that lead to extinction, the new plans allow continued habitat destruction.

Conservation organizations are broadly supportive of the Priority Habitat model as long as science-based thresholds on development, as outlined by the National Technical Team (2011), are required in these areas. If these science-based limitations on industrial use are applied in Priority Habitats, and habitat enhancements (such as fence removals, burial of overhead power lines, juniper removal in habitats with a healthy sagebrush understory, net reduction in open road density, and voluntary retirement of grazing permits) are pursued through programs like the Sage-Grouse Initiative and others, this combination could result in a net population increase over the occupied range of sage grouse. That's a mighty big "if," to be sure, and it needs to be the floor, not the ceiling. The

National Technical Team was not tasked with delineating the ideal protections for sage grouse – it was asked to clarify the minimum necessary to conserve the species.

The success of the strategy to focus sage grouse conservation on Priority Habitats hinges on three key factors: (1) Are the Priority Habitat protections adequate to at least prevent further population declines, and better yet, foster population recoveries inside the Priority Habitats? (2) Have the Priority Habitats been delineated appropriately to encompass the best remaining sage grouse habitats and most abundant remaining populations? (3) Are protections in the rest of the occupied sage grouse habitats adequate to maintain some level of sage grouse populations there, and maintain sufficient connectivity between the Priority Habitat areas to prevent them from becoming isolated and prone to extirpation from inbreeding or stochastic events like outbreaks of West Nile virus, fire or climate shifts?

One emerging outcome of the federal planning effort undermines the potential for successfully achieving this outcome: the same customary BLM sage grouse protections (a quarter-mile NSO lek buffer paired with a 2-mile timing restriction on drilling and construction) that was shown to be such a failure in the context of past oil and gas projects is still proposed as the backbone of sage grouse conservation in General Habitats for the Wyoming federal sage grouse plans. In the Montana and South Dakota plans, the 0.6-mile NSO buffer in General Habitats and a 2- to 3-mile timing restriction on construction and drilling are also woefully inadequate. In Idaho, a minority of non-Priority Habitat lands fall under the "Intermediate Habitat Management Area" designation, which requires NSO throughout, and in the remainder of

Historic Occupied Range	516,898 square miles
Current Occupied Habitat	275,898 square miles
53% of original habitat	
Priority Habitats	84,259 square miles
30% of current occupied habitat as proposed for federal plans	
Sagebrush Focal Areas	20,709 square miles
25% of Priority Habitats as proposed for federal plans	

Table 1. Land area in various sage grouse habitat types and designations, based on GIS analysis.

General Habitats, a 3.1-mile buffer applies around leks, but can be waived. This latter approach is also proposed for adoption in Oregon, Nevada, California, Utah, and North Dakota. In Colorado, the approach is similar, but a smaller, 2-mile NSO buffer is applied in General Habitats. The plan considers a minimally adequate lek buffer against the likelihood that this buffer distance is likely to be waived with great frequency, if past BLM statistics for waiver approvals are repeated in the future. The bottom line is that survival of sage grouse populations occurring in General Habitats varies by state — ranging from questionable at best, to highly doubtful — and is largely dependent on whether industrial development happens to be pursued or not, based on economic considerations.

In this context, the shrinking focus of sage grouse conservation from all occupied habitats, totaling 160 million acres, to the “Priority Areas for Conservation” (“PACs”), as designated by the U.S. Fish and Wildlife Service and totaling 78 million acres (of which 56 million acres are managed in trust on behalf of the public as federal lands and minerals), is cause for circumspection. The Priority Habitats actually proposed in

the federal plans total even less — approximately 57 million acres *of varying land ownerships*, including state and private lands. For Priority Habitats that fall under state or private ownership, federal land use plan protections will not apply, and the degree to which comparable conservation measures will occur varies by state. By focusing the strongest conservation effort on the best remaining subset of sage grouse habitats, sage grouse would certainly get a lesser level of protection across much of its range than would occur under the ESA, in which all occupied habitats would need to be designated as Critical Habitat entitled by law to protection from destruction or “adverse modification.” Thus, the Priority Habitat model of sage grouse conservation is, by its very nature, even when applied in its most protective form, a compromise that affords more permissive management of the industrial and commercial uses that harm sage grouse outside the Priority Habitats, in exchange for stronger protections inside Priority Habitats.

**DESIGNATING PRIORITY HABITATS:
KEY HABITATS ELIMINATED**

In proposing Priority Habitat designations for their sage grouse plan amendments, federal agencies decided which of the most important remaining populations would receive elevated habitat protections, and which would be left out. If federal agencies had followed the science in deciding which habitats to designate as Priority Habitats, the population density of sage grouse would be the key (and perhaps overriding) factor: the areas with the biggest remaining sage grouse populations, focused around the leks with the greatest numbers of strutting males each year, would all be inside Priority Habitats. Unfortunately, that is not what occurred.

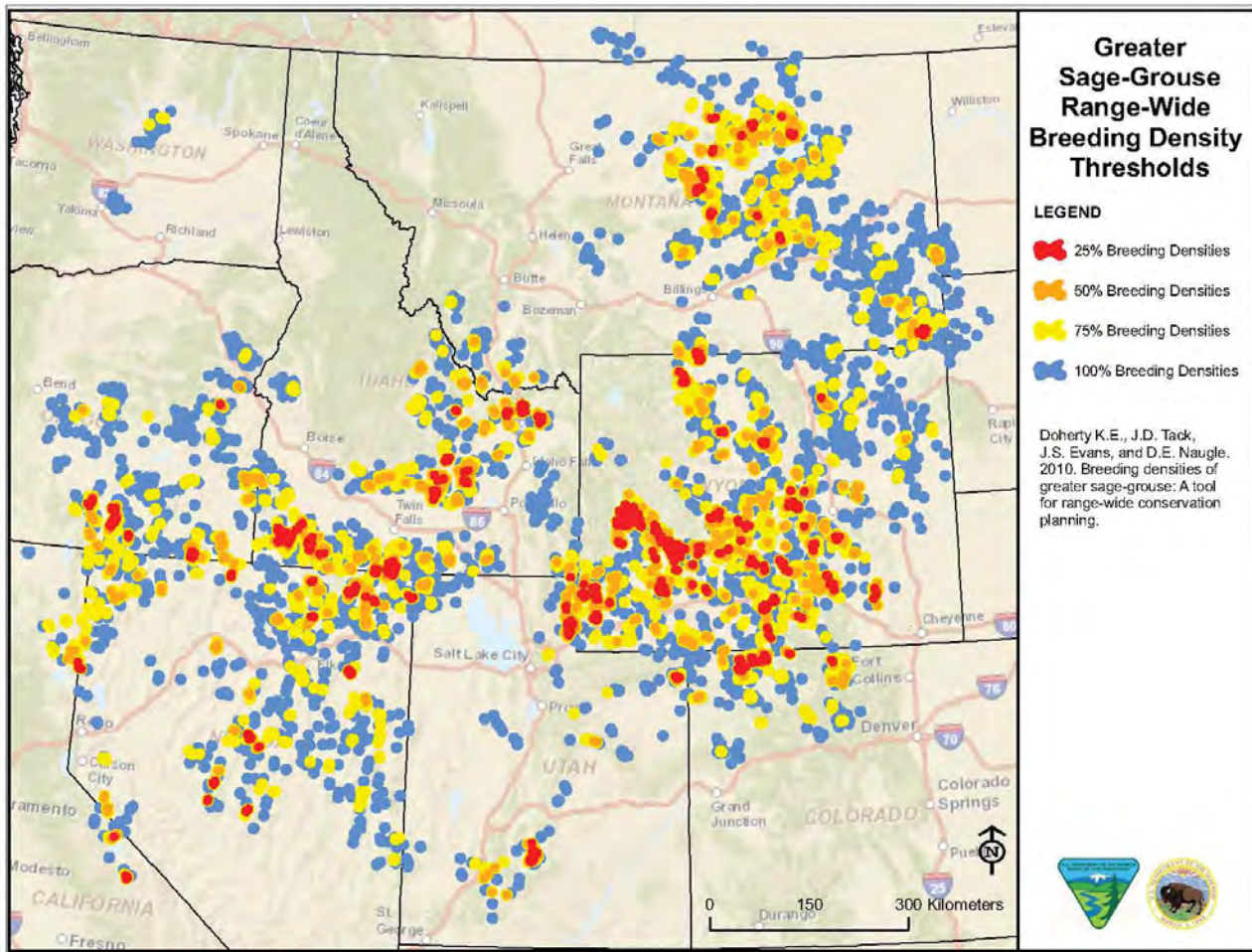


Figure 2.

In a parallel process, the U.S. Fish and Wildlife Service worked collaboratively with states to designate Priority Areas for Conservation. The degree to which these areas accurately reflect the most important remaining habitats to protect varies by state and the degree to which political interest groups were able to push the science aside and influence these designations. In the end, as our analysis shows, even these sometimes-flawed state-driven designations were rolled back.

The Exclusion of High-Density Sage Grouse Populations

Initially, Priority Habitats were intended to encompass about 80% of the sage grouse populations in a given state by

focusing on protecting, first and foremost, all of the densest remaining sage grouse populations and most pristine habitats within the bounds of Priority Habitats. Doherty *et al.* (2011) mapped the relative breeding density of sage grouse range-wide (Figure 2), providing the most current range-wide data for sage grouse population density. Priority Habitats delineated based on the science should include areas within 5.3-miles of a lek that fall within the 25%, 50% and 75% population density categories (taken together, 75% of the sage grouse population that includes the highest-density leks). For some states, substantial proportions of the densest lek populations fall outside Priority Habitats (Figure 3). In our analysis, we used the percentage of

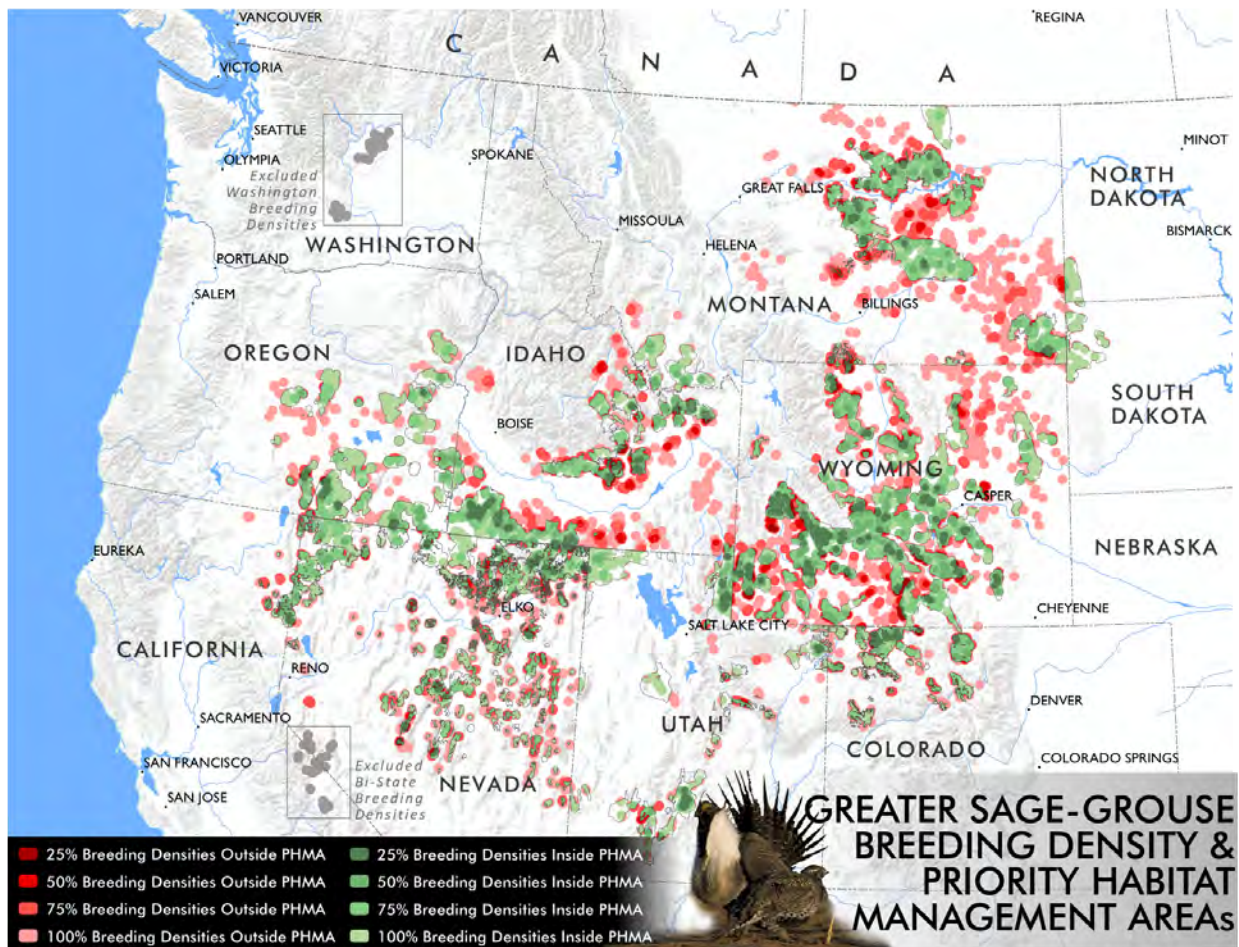


Figure 3.

the two classes of highest sage grouse population density (the fewest, largest remaining lek populations that total half of the range-wide sage grouse population) as an index to how well the final Priority Habitat designations protect the most important remaining sage grouse habitats (see Table 2, and raw data in Appendix A).

Wyoming Rigs its Priority Habitat Designations

The State of Wyoming was the first to designate the lands that were to become Priority Habitats (which Wyoming calls “Core Areas”), with adoption of the first map in 2008. The initial Core Area boundaries were developed through a collaborative process in which boundaries were drawn by consensus between varied political interests, including

representatives from oil and gas, agriculture, conservation, and local governments. As a result of political compromise, significant areas of high-density sage grouse habitat were excluded from the original Core Areas to accommodate planned oil, gas, and coalbed methane development in habitats that were often pristine when the Core Areas were originally adopted (see Figure 4). Some of these excluded lands are still pristine today, but many have already been destroyed. But, despite being sage grouse hotspots, they remain unprotected.

The Wyoming Core Area policy allows for boundaries to be redrawn periodically (currently, every 5 years), which allows industrial interests to petition the state to remove Core Area lands from protection to accommodate industrial uses. In 2010,

State	Top 2 Density Classes Inside Priority Habitat	Top 2 Density Classes Outside Priority Habitat
Idaho	75%	25%
Montana	76%	24%
Nevada	77%	23%
Wyoming	83%	17%
California	89%	11%
Colorado	91%	9%
Utah	92%	8%
Oregon	96%	4%
North Dakota	100%	0%

Table 2. Proportion of the habitat supporting the top 50% breeding density populations (Doherty et al 2010) inside versus outside the boundaries of Priority Habitat as proposed in federal sage grouse plans. South Dakota lacked any acreage in the top two Breeding Densities.

one case, a coal-to-liquids conversion plant and associated strip mine, were planned (see Figure 5). In order to maintain a comparable population of sage grouse within the Core Area system, Core Areas were expanded elsewhere into habitats with less-dense populations to compensate.

As a result of this deliberate recalibration to exclude lands of high interest to the oil and gas industry, 83% of the lands in Wyoming in the top two breeding density categories were ultimately proposed for Priority Habitat designation, while 17%

Core Area boundaries were redrawn to remove protections from important sage grouse habitats where wind farms or, in

of these top-density lands in Wyoming were excluded from Priority Habitats, and instead fall within lands that are

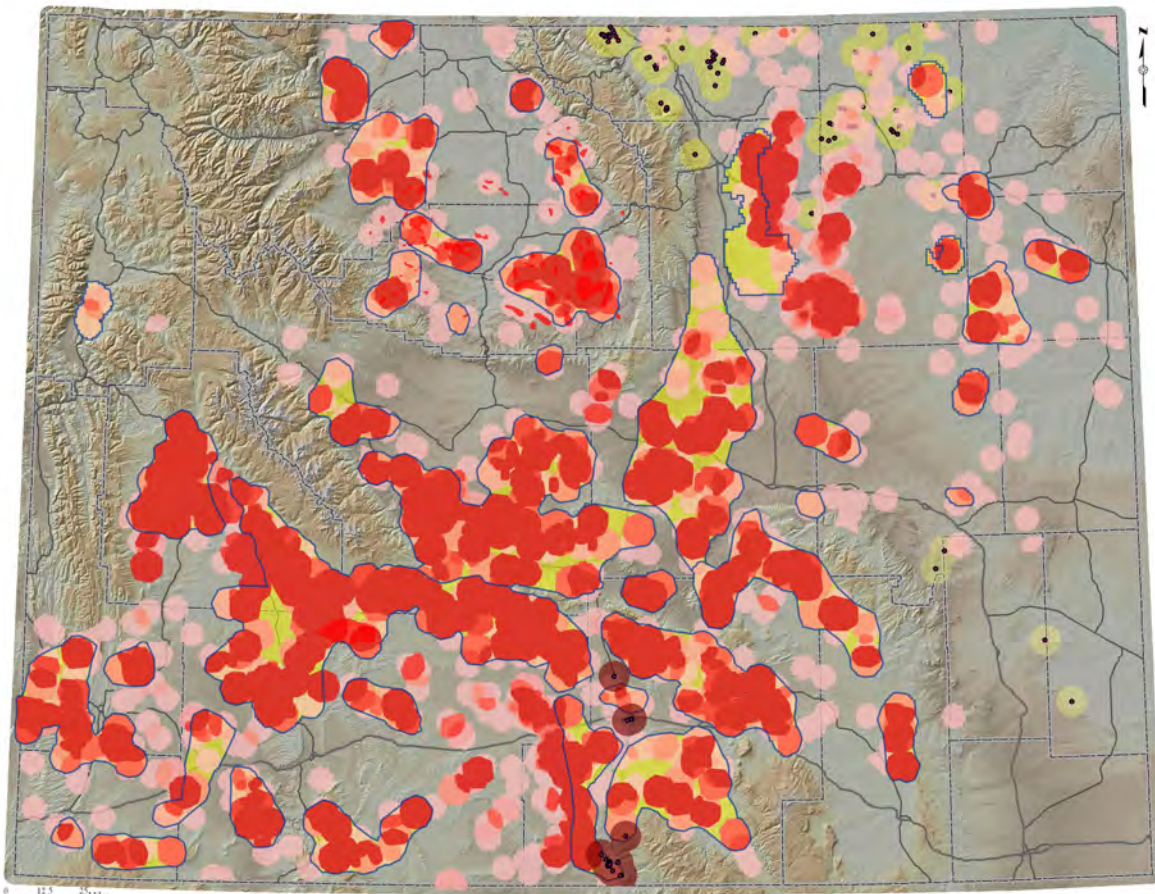


Figure 4. Wyoming Core Areas (outlined in blue) and grouse density as of 2008.

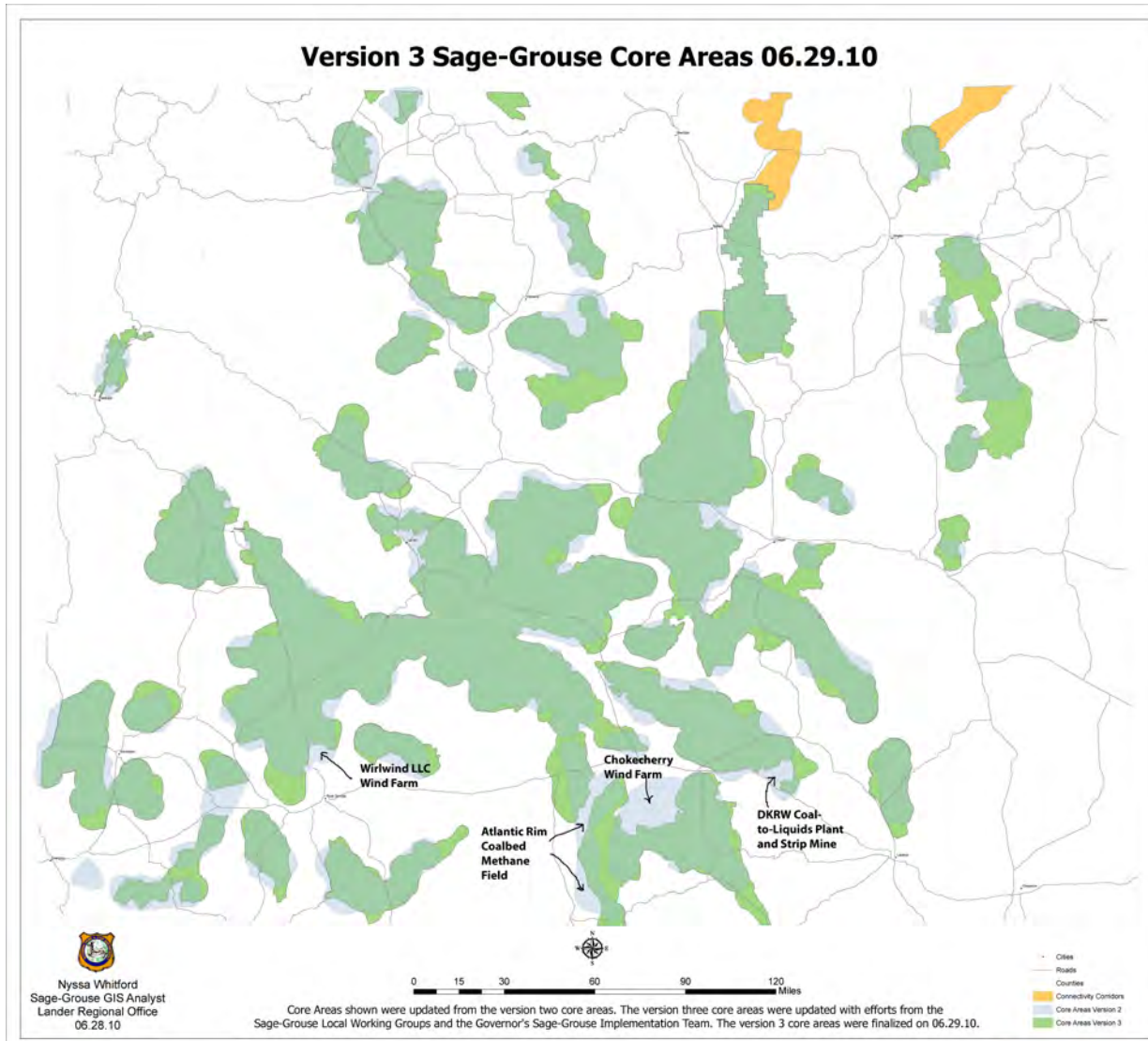


Figure 5. Wyoming Core Area boundaries as redesigned, in part to allow heavy industrial projects into designated Core habitats without applying grouse protections.

prioritized for industrial development rather than sage grouse conservation.

Other States Follow Suit

Wyoming is the state for which we know the most about how and why some of the highest-density sage grouse habitats remaining were excluded from Priority Habitat designations. But, despite all of its known problems, Wyoming actually winds up in the middle of the pack based on the proportion of highest-density habitats proposed for Priority Habitat designation. Several states did substantially worse.

In Montana, the Priority Habitat designations ultimately proposed for the federal plans encompass just 76% of the top two habitat categories in terms of population density, leaving 24% of these lands exposed (see Figure 3 and Table 2). Federal agencies did slightly worse in Idaho, capturing just 75% of the top two population density classes in Priority Habitat. Some of the 25% left out was lumped into a unique category called “Intermediate Habitat Management Areas,” which get modest protections roughly equivalent to “Connectivity

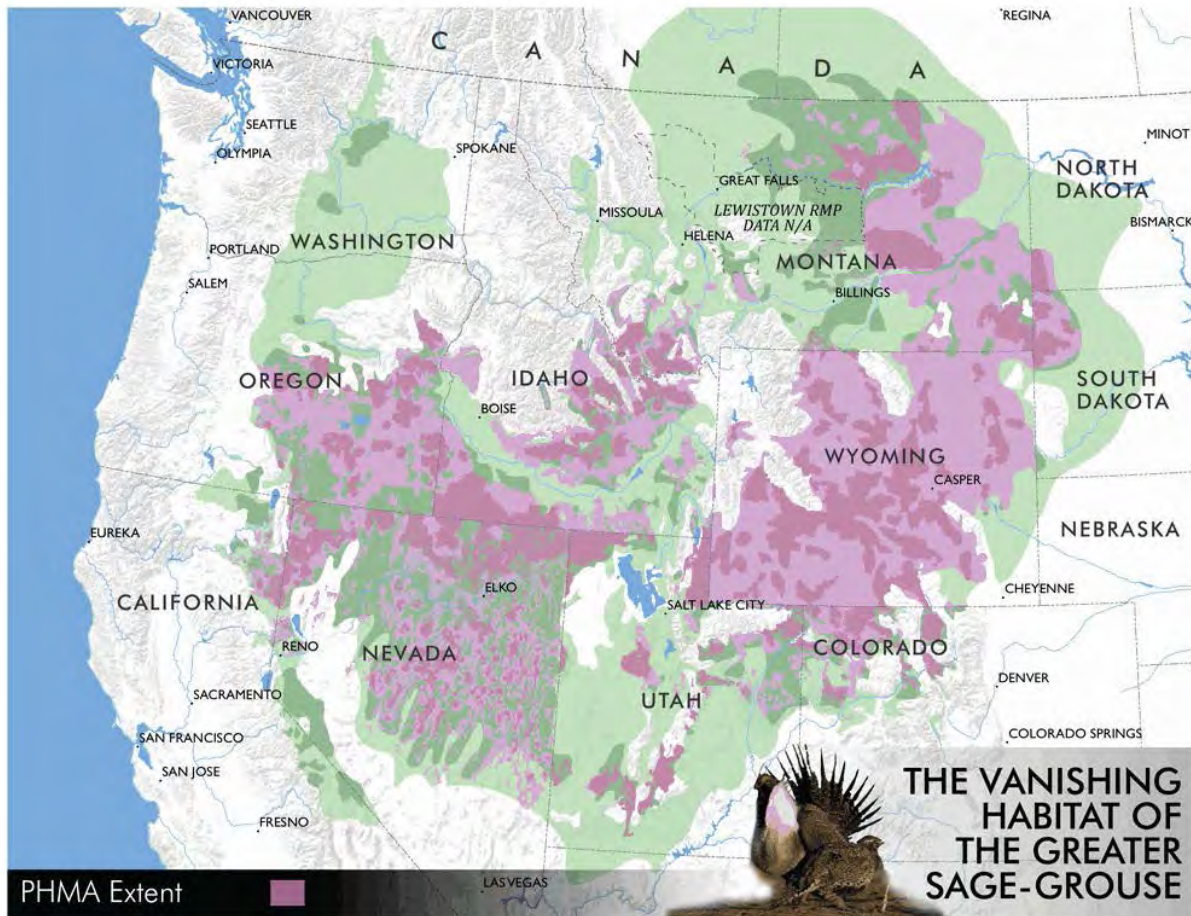


Figure 6. Priority Habitats (conventional Priority Habitat Management Areas plus Focal Areas) as proposed for designation in federal sage grouse plans.

Areas” in other states. Federal lands in Nevada have about 77% of their top two sage grouse population density categories proposed for Priority Habitat designation, leaving 23% of these best remaining sage grouse habitats exposed. In Utah, Priority Habitat designations proposed under the federal plans cover 92% of the top two population density categories. But, the resulting land areas that became Priority Habitats in the federal plans are so small, fragmented, and isolated (*see* Figure 6) that the ability for sage grouse to persist on them is dubious, which is why the substantially larger and more connected areas originally proposed by the State of Utah (*see* below) would have done much more to improve the long-term conservation prospects of sage grouse populations in that state.

States that Kept their Priorities Straight

Federal agencies in North Dakota did the best job in capturing virtually 100% of the densest remaining sage grouse populations inside the boundaries of its proposed Priority Habitats. Agencies in Oregon and Colorado also did a credible job, with 96% and 91% of the top-density sage grouse habitats captured within Priority Habitat proposals. South Dakota did not possess any habitats containing the top two categories of nationwide population density, and so does not have a comparable score to other states. Nevertheless, 78% of all population density classes in South Dakota fall within Priority Habitats under its proposed federal plan. While California had 89% of the highest-density habitats in its

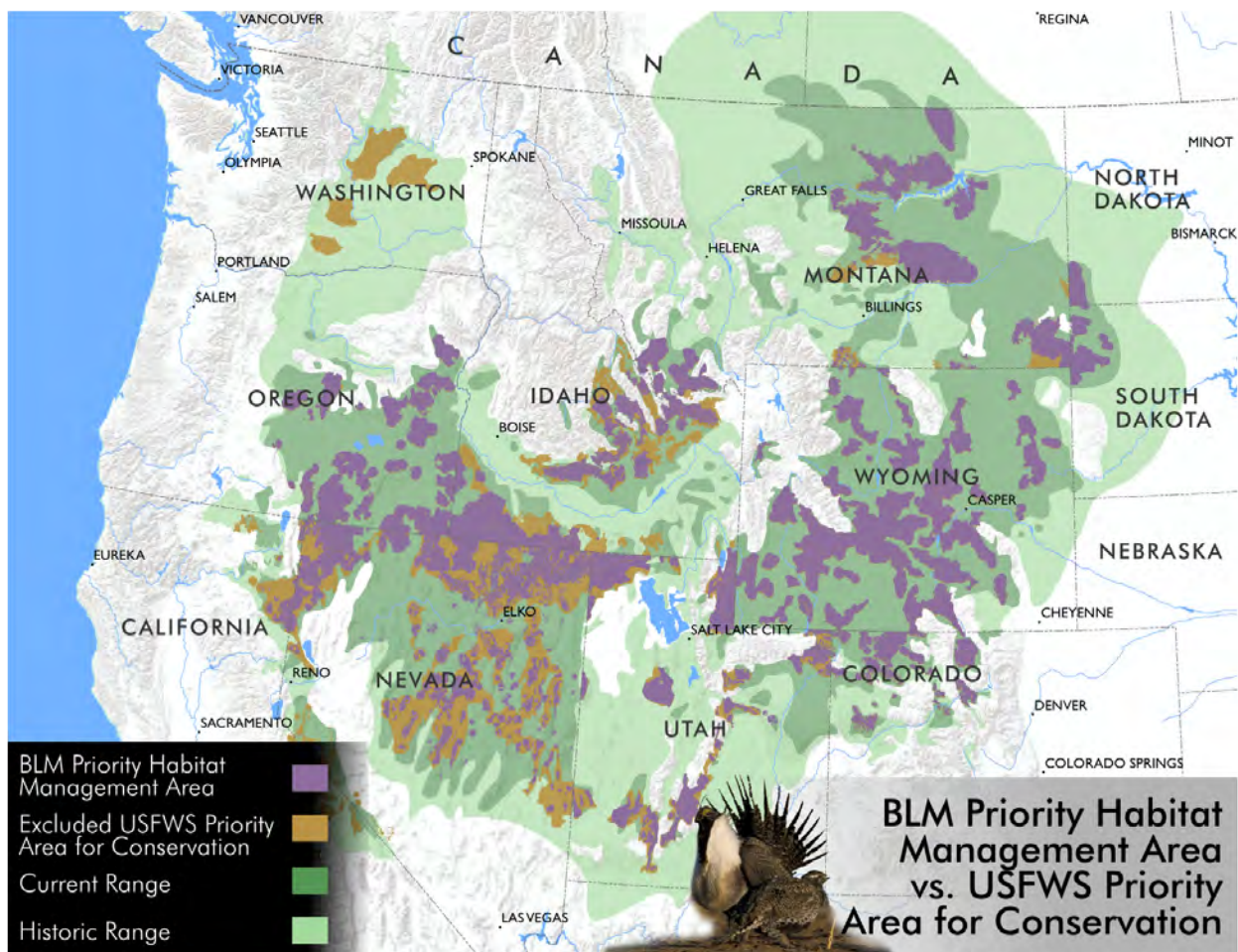


Figure 7. Priority Areas for Conservation that were included (plum) versus excluded (tan) from final Priority Habitat proposals in federal plans.

proposed Priority Habitats, due to the extreme scarcity of sage grouse in that state, these designations tallied a tiny fraction of the state’s occupied habitats, and a disappointingly small proportion of the state’s proposed Priority Areas for Conservation (*see below*).

The Disappearing ‘Priority Areas for Conservation’

In 2012, the Service convened a collaborative group of state and federal officials to delineate Priority Habitats for sage grouse on a nationwide basis and to rank regional threats to the survival of the species. In its final report (COT 2013), this group established the boundaries of

areas it called “Priority Areas for Conservation” (“PACs”), which are “the most important areas needed for maintaining sage-grouse representation, redundancy, and resilience across the landscape.” The Service recognized PACs as “key habitats that are essential for sage-grouse conservation.”³ But, for some states, the boundaries of Priority Habitats established for heightened protection

³ Memorandum from Dan Ashe, USFWS, to Neil Kornze, BLM, and Tom Tidwell, USFS, Greater Sage-Grouse: Additional Recommendations to Refine Land Use Allocations in Highly Important Landscapes, (Oct. 27, 2014).

under federal plans⁴ do not match up to the PAC boundaries. These discrepancies highlight the areas where key habitats were excluded from the Priority Habitat level of protection (see Figure 7 and Table 3).

The Hall of Shame

California performed the worst of any state in the proportion of PACs ultimately proposed for Priority Habitat designation under the federal plans, with only 30% of PACs designated for elevated protection. Nevada (designating 53%), Idaho (designating less than 62%), and Utah (designating 74%), were also big losers of PACs acreage in this regard. And while sage grouse in California lost out on 0.9 million acres of PACs that were designated with less protection than Priority Habitat levels, in Nevada, that figure was about 9.5 million acres removed from Priority Habitat designation. Additionally, 3.8 million acres of PACs were removed in Idaho and 2 million acres of PACs were lost in Utah. Thus, while these three states appear at first blush to outperform California on the basis of the percentage of PACs that became Priority Habitats in the federal plans, in fact, federal agencies left out a greater acreage of top-quality sage grouse habitats in Nevada, Idaho,

⁴ For this part of our analysis, Priority Habitats include all types of “Priority Habitat Management Areas” (“PHMAs”), including Sagebrush Focal Areas. Sagebrush Focal Areas are a special subset of PHMAs, having all of the protections of PHMAs in most plans, plus some added layers of protection. To exclude Sagebrush Focal Areas from the Priority Habitat acreage would have skewed the acreage of Priority Habitats, creating an impression of less Priority Habitat due to the designation of the new Sagebrush Focal Area category late in the planning process, when in fact, this new designation added further protections to these areas.

Priority Habitat Acreage by State

State	USFWS Proposed	Federal Plans	% Change
California	1.3 million	0.4 million	-70%
Nevada	19.9 million	10.5 million	-47%
Idaho	9.8 million	6.0 million	-38%
Utah	7.5 million	5.5 million	-26%
Montana	9.0 million	8.8 million	-3%
Colorado	2.4 million	2.4 million	no change
N. Dakota	0.5 million	0.5 million	no change
Wyoming	15.3 million	15.3 million	no change
Oregon	6.6 million	6.6 million	+1%
S. Dakota	0.6 million	1.0 million	+58%
Total	72.8 million	56.9 million	-22%

Table 3. Acreage changes between Priority Areas for Conservation recommended by USFWS in 2013 and Priority Area proposed in 2015 for final federal sage grouse plans, based on GIS analysis.

and Utah than in California when they made Priority Habitat designations.

Top Performers

North Dakota, Oregon, and Wyoming proposed just as much, or slightly more, acreage for Priority Habitat protections in the federal land use plans compared to PACs designated by the Service. South Dakota performed best in this category by designating more than half as many acres of Priority Habitats as were designated to be PACs. These were the states that held steady or improved based on their original agreement with the Service to designate PACs. However, good performance in this category does not translate into the strongest possible showing in capturing the most biologically important areas in Priority Habitats (*see* preceding section). Overall, almost 16 million acres nationwide that were designated as PACs — almost one-third of these important habitats range-wide — have mysteriously disappeared from Priority Habitat

designation, receiving lesser protections in the proposed federal sage grouse plans.

PROTECTING FOCAL AREAS VERSUS PROTECTING PRIORITY HABITATS: THE FINAL STEP DOWN

In October 2014, the Service proposed a further level of protection for sage grouse by recommending the designation of sage grouse “stronghold” areas.⁵ Stronghold areas were to receive “the highest levels of protection,” over and above protections planned for Priority Habitats. The Service emphasized “strong, durable, and meaningful” protections in these stronghold areas would “help obtain confidence for long-term sage-grouse persistence” in the context of the pending ESA listing decision. In a memorandum from Service Director Dan Ashe, the agency specifies: “To be clear, enhanced protections in the stronghold areas do not obviate the need to follow the NPT [National Policy Team] guidance in the entirety of PHMAs [Priority Habitat Management Areas] (and in PACs in those instances where gaps between PHMAs and PACs exist) and in general habitat.”⁶

The federal sage grouse plans, as proposed in the agencies’ Final Environmental Impact Statements, include the designation of most — but, by no means all — of the sage grouse

⁵ Memorandum from Dan Ashe, USFWS, to Neil Kornze, BLM, and Tom Tidwell, USFS, Greater Sage-Grouse: Additional Recommendations to Refine Land Use Allocations in Highly Important Landscapes, (Oct. 27, 2014).

⁶ *Id.* The letter’s reference to the NPT (National Policy Team) rather than the NTT (National Technical Team) is significant because the National Technical Team issued recommendations for specific, measurable sage grouse protections, while the National Policy Team was directed only to maintain communications and issue interim guidance for sage grouse management. Thus, “NPT guidance” amounts to very little.

25,803 square miles
proposed as Strongholds
by U.S. Fish & Wildlife Service

20,709 square miles
proposed as Focal Areas
for Federal Sage Grouse Plans

3.3 million acres
of proposed ‘Strongholds’
excluded from Focal Areas

Table 4. Area comparison between USFWS proposed strongholds and corresponding Focal Areas in federal land-use plans, based on GIS analysis.

strongholds recommended by the Service as Sagebrush Focal Areas (“Focal Areas”) (see Table 4 and Figure 8). Focal Area designations are notably absent for the BLM’s Lander plan (covering a single Field Office in central Wyoming), which was finalized prior to the Service’s memo on the protection of strongholds. Accordingly, this plan will require amendment to increase protection levels. More troubling still is that the level of protection for Focal Areas is weaker than that recommended for the Priority Habitats by the National Technical Team (2011). While these Focal Areas are closed to hard-rock mining claims, they remain open to oil and gas leasing under NSO restrictions. This means that while roads and well sites cannot be sited inside Sagebrush Focal Areas, they can be sited right along the border. As a result, disturbance may extend into Focal Area habitats for 0.6-mile, which will negatively affect nesting sage grouse (Holloran et al. 2007), or may extend an even greater distance and directly impact leks (Holloran 2005).

In Wyoming, Focal Areas get the same paltry protections from oil and gas

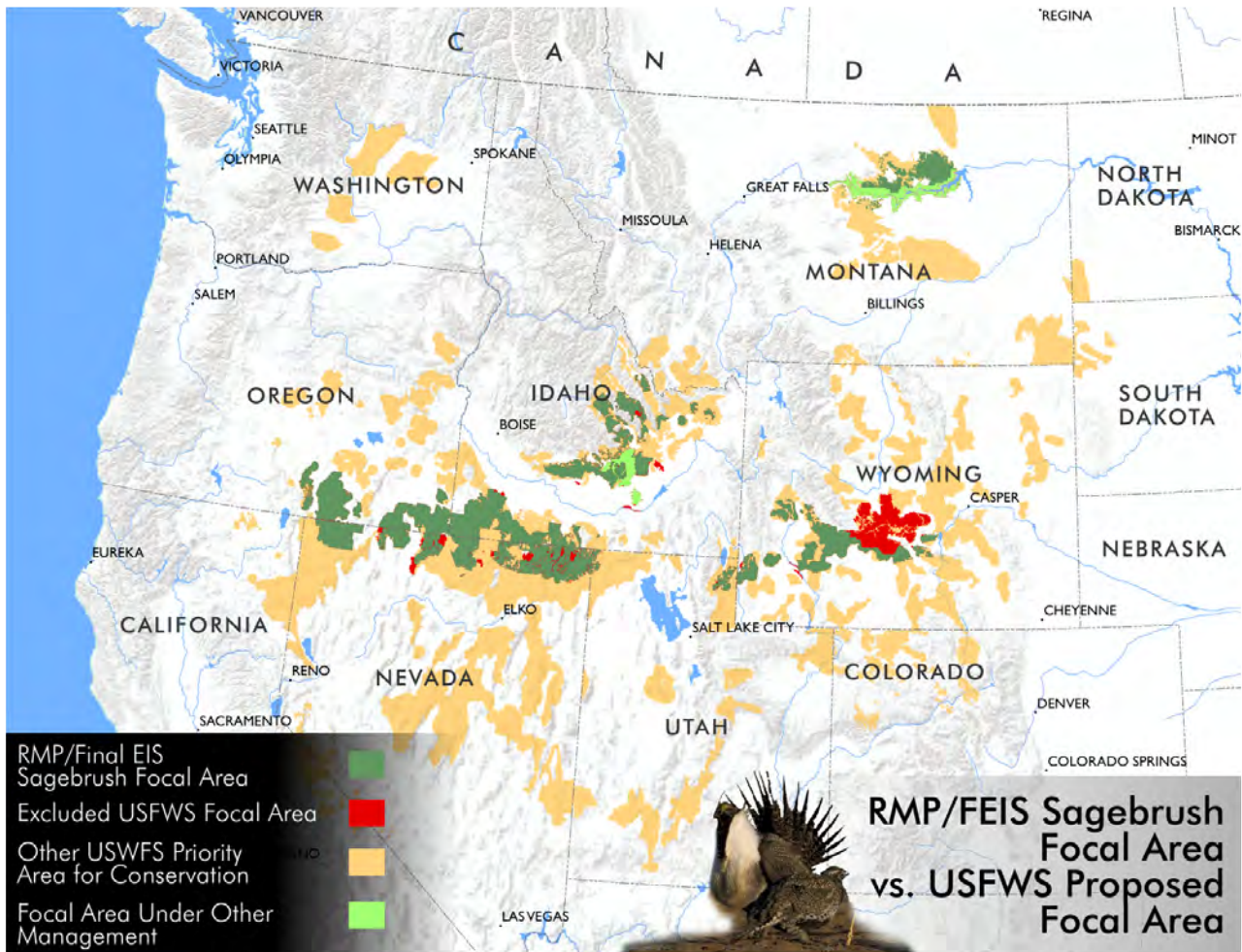


Figure 8.

development as the state applies to Priority Habitats. NSO buffers of only 0.6-mile apply, versus 4 miles recommended by NTT (2011), and outside the range of 3.1- to 5-miles recommended by the available science (Manier et al. 2014). In addition, Focal Areas are subject to a 5% allowable disturbance limit, almost twice the 3% recommended by the science (NTT 2011, Knick et al. 2013).⁷ While Wyoming faces

⁷ Knick et al. (2013) measured “development” in the western part of the sage grouse range, where energy development is not widespread. The “development” measured in the Knick et al. study was defined as exurban development (commercial or residential), which causes similar types and

the heaviest drilling pressure of any western state, the Focal Areas in Wyoming receive a lower level of protection than Priority Habitats in any other sage grouse state.

Meanwhile, even as Focal Areas do not include even the minimal level of protection recommended by agency experts for Priority Habitats (NTT 2011), the level of protection for Priority Habitats remains substantially below that of Focal Areas. So, the sage grouse suffered from a bait-and-switch when the

patterns of disturbance in terms of impacts to sage grouse as energy development.

protections for Priority Habitats were shifted instead to Focal Areas, and then subsequently weakened so that not even Focal Areas get a science-based level of protection to safeguard against population declines.

CONCLUSIONS

The geography of sage grouse conservation has shrunk steadily throughout the course of the federal planning process designed to provide adequate protections for the remaining sage grouse populations. Of the 160 million acres of remaining occupied habitat, only 57 million acres in all ownership classes are eligible for the elevated protections that apply (at least on public lands and minerals) to federally designated Priority Habitats.

In Priority Habitats designated for elevated conservation, human activities should be managed with a goal of maintaining or increasing the populations of sage grouse that live within their bounds. The strategy of designating these Priority Habitats was systematically and substantially undermined as federal agencies, in collaboration with state governments, redrew the boundaries of Priority Habitats. Almost 16 million acres nationwide originally designated as PACs under state guidance — almost one-third of these important habitats range-wide — were given less-protective designations in the proposed federal sage grouse plans.

a dramatically reduced prospect of survival.

This report focuses on the inadequacies of spatial designation of Priority Habitats, not the adequacies of sage grouse protections that are proposed for these areas. Yet, it is important to note that the proposed protections inside Priority Habitats do not meet the science-based benchmarks of the agencies' own scientists (NTT 2011). Additionally, when a category of high protection was devised across an even smaller geography of isolated sage grouse strongholds (the Sagebrush Focal Areas), the protection levels proposed for these lands do not even measure up to the science-based protections originally proposed for the 57 million acres of Priority Habitats. The failure to achieve spatially adequate and appropriate Priority Habitat designations in many states undermines the effort to provide adequate protections for sage grouse and halt long-term population declines, leading to the ultimate recovery of sage grouse populations to healthy and secure levels. By rolling back Priority Habitat designations on a large scale across many western states, federal agencies undermine the effectiveness of their sage grouse conservation plans and amplify the need to protect the greater sage grouse under the ESA.

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Appendix A

Breeding density raw data by state, for area of habitat included in federal plan Priority Habitats (inside PHMA) and excluded from Priority Habitats (outside PHMA). The 25% breeding density category represents the 25% of the rangewide sage grouse population in the most densely populated habitat (by lek count, Doherty et al. 2010). The 50% category includes the 25% of the sage grouse population in the next least dense habitats (totaling 50% of the overall population when combined with the 25% density category), and so on until reaching the 100% breeding density category, which is the most sparsely inhabited habitat that harbors the 25% of the sage grouse population in the least dense habitats. Combining the four categories yields 100% of the rangewide breeding population.

California

Breeding Density	Acres Outside PHMA	Acres Inside PHMA
25	994	28,112
50	12,964	88,292
75	282,427	185,549
100	245,558	52,840
Total	541,942	354,793

North Dakota

Breeding Density	Acres Outside PHMA	Acres Inside PHMA
25	0	0
50	9	21,274
75	5	25,439
100	17,878	351,096
Total	17,892	397,809

Colorado

Breeding Density	Acres Outside PHMA	Acres Inside PHMA
25	36,902	316,643
50	26,130	345,147
75	500,298	774,207
100	1,209,548	819,159
Total	1,772,879	2,255,156

Oregon

Breeding Density	Acres Outside PHMA	Acres Inside PHMA
25	18,982	355,966
50	20,378	654,273
75	383,798	1,777,409
100	2,872,760	2,822,010
Total	3,295,918	5,609,657

Idaho

Breeding Density	Acres Outside PHMA	Acres Inside PHMA
25	130,615	1,095,580
50	643,593	1,243,452
75	2,527,973	1,974,346
100	4,402,107	913,636
Total	7,704,288	5,227,014

South Dakota

Breeding Density	Acres Outside PHMA	Acres Inside PHMA
25	0	0
50	0	0
75	4,676	16,610
100	120,760	728,770
Total	125,436	745,379

Montana

Breeding Density	Acres Outside PHMA	Acres Inside PHMA
25	69,848	619,385
50	657,489	1,689,313
75	3,455,578	3,406,893
100	8,899,281	2,154,286
Total	13,082,197	7,869,877

Utah

Breeding Density	Acres Outside PHMA	Acres Inside PHMA
25	53	413,445
50	73,475	464,848
75	357,834	591,218
100	1,431,883	1,972,650
Total	1,863,245	3,442,161

Nevada

Breeding Density	Acres Outside PHMA	Acres Inside PHMA
25	163,736	646,947
50	292,460	915,286
75	2,163,211	3,416,114
100	5,888,239	3,741,779
Total	8,507,646	8,720,125

Wyoming

Breeding Density	Acres Outside PHMA	Acres Inside PHMA
25	429,410	2,800,908
50	856,609	3,391,940
75	4,150,015	5,335,733
100	8,533,044	2,894,040
Total	13,969,078	14,422,622