

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Mountain-Prairie Region

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Memorandum

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From:

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Region 8, Sacramento, California

Subject:

Service Position on Livestock Grazing and Working with Rangeland Owners to

Conserve Sage-Grouse

Introduction

The purpose of this memorandum is to clarify the Service's perspective on the relationship between livestock grazing and the conservation of sagebrush ecosystems on private lands occurring within the range of greater sage-grouse. This document provides more specific guidance to Service staff as they carry out their conservation mission in this area, including the development and implementation of Candidate Conservation Agreements/with Assurances (CCAs/CCAs), Partners for Fish and Wildlife program projects, and other activities and technical assistance. Credit goes to the Oregon Fish and Wildlife Office, under Dr. Paul Henson's leadership, for providing this direction recently to all employees of that station. Because this direction is relevant throughout the sage-grouse range in Region One, we are now expanding the coverage to all Service offices in greater sage-grouse range to assist in their efforts to conserve sage-grouse. Many of you have already been working in the manner described below for many years, and this memorandum simply affirms and supports your approach and communicates it to others.

Background

The mission of the Service is, "Working with others, to conserve, protect and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people." One of our challenges, consistent with this mission, is to identify or help improve land use practices that are compatible with the conservation of the greater sage-grouse. For those practices that have negative impacts, we want to identify ways to moderate these impacts such that they are compatible with the species' conservation and the economic, recreational, or other appropriate uses of these habitat areas. Researchers have documented both positive and negative effects of livestock grazing on western grouse species and their habitats (Beck and Mitchell 2000; Davies et al. 2011; Pyke 2011; Boyd et al. 2014a,b; Chambers et al. 2014a,b).

However, there are conflicting opinions about the respective magnitude of the positive and negative impacts on sagebrush systems (e.g., Beschta et al. 2013, Svejcar et al. 2014), especially when comparing historic grazing versus current practices.

There is clear scientific documentation that historic grazing by non-native ungulates has in some instances altered sagebrush ecosystems during the previous 150 years and in some places affected sage-grouse habitat conditions. Many of the grazing-associated problems we face today are a legacy of these past impacts. Grazing of various intensities can degrade habitat conditions and exacerbate sage-grouse nest predation and nest abandonment; modify vegetation structure and plant species composition in ways that decrease food and cover; increase the spread of nonnative plant species; and aggravate fire conditions (Reisner et al. 2013; Boyd et al. 2014a,b; Chambers et al. 2014a,b). Although less pressing than several other widespread threats, the Service's Conservation Objectives Team report notes the need to ameliorate grazing-related threats to secure a number of sage-grouse populations.

On the positive side, grazing can improve habitat and food conditions in certain habitats at certain times and under certain conditions. For example, it can reduce excessive shrub cover conditions for sage-grouse; increase habitat heterogeneity; improve stand establishment of some desirable woody species; and reduce fine fuels and some fire risk (Strand et al. 2008; Davies et al. 2009, 2010, 2011, 2014; Boyd et al. 2011; Strand and Launchbaugh 2013; Chambers et al. 2014a; Sheley et al. 2014). As most of you know, there is little that is black and white in this area – there is tremendous complexity in interpreting this information and deciding where and how to apply different types of management under varied local ecological conditions (Boyd and Svejcar 2009).

Taking this complexity into account, this scientific information forms the foundation for our decisions and recommendations regarding sage-grouse conservation. However, another important consideration that also informs our decisions is the potential positive and negative impacts of our policies on the land management decisions of private landowners. This includes effects on the economic and social stability of ranching communities and the subsequent effect these impacts might have on decisions made by landowners regarding conservation of fish and wildlife on their working rangelands.

It is good for conservation across the range of sage-grouse to have healthy, economically stable private rangelands. In many places, functioning livestock ranches provide wildlife habitat and often maintain many basic ecological processes on these landscapes (Davies et al. 2011). In contrast, unsuccessful ranches are often sold, developed, broken up into smaller land parcels, or converted to other uses (Brunson and Huntsinger 2008).

Also, intact rural communities provide local services, expertise and infrastructure to help address important landscape level conservation challenges, such as suppressing undesirable wildfire, treating exotic species invasions, and monitoring local field conditions (Murphy et al. 2013, Davies et al. 2014). Loss or decline of these local communities can make meeting these challenges more difficult.

Last, but no less important, is the Service's ability to maintain and improve positive working relationships with private landowners that better enable long-term conservation. Recent research has documented the disproportionately high value of privately-owned lands in the Great Basin to wildlife such as sage-grouse. This is especially true for summering habitat such as natural and farmed wet meadows used by sage-grouse broods on private lands (Donnelly et al. unpublished data).

Unfortunately, many landowners view ESA-listed species on their property as a financial and legal liability (Jackson-Smith et al. 2005; Paulich 2010; Sorice et al. 2011, 2013) and are sometimes discouraged from working collaboratively on conservation (Baur et al. 2009). Although many of these same landowners have a strong land stewardship ethic that often results in positive conservation, these values sometimes conflict with perceived legal or financial liabilities posed by environmental regulation (Olive and Raymond 2010, Mir and Dick 2012). As a result, some landowners may actively or passively resist maintaining or improving habitat conditions on their property to protect their long-term financial or legal interests.

An important role for the Service, then, is to find ways to reduce or eliminate this real or perceived conflict so that more conservation occurs on private lands. We accomplish this by developing relationships with these landowners and their representative organizations (e.g., Farm Bureau, Cattlemen's Association, etc.), understanding their concerns and operational constraints, and addressing financial and legal disincentives for species conservation. We also need to understand how these ranches use neighboring public lands and the extent to which some of these private operations depend on public rangelands to maintain an economically viable ranch. We do not just sign individual agreements or provide technical advice; we develop collaborative strategies that provide for long-term conservation while enabling basic economic goals to be met. This approach will increase the likelihood of landowners actively allowing or implementing conservation on their private lands (Brook et al. 2003, Henderson et al. 2014). Sometimes these strategies must accept some localized negative impacts to sage-grouse while encouraging broader or longer term beneficial practices that outweigh these short term impacts. Evaluating these tradeoffs is rarely a simple or straightforward exercise, but it is one that must be done to achieve durable and broader conservation outcomes.

The Service's job – whether for sage-grouse or any other fish, wildlife, and plant species – is to work with others to find the most effective ways to protect the nation's natural heritage. We will always advocate a conservative approach that helps address threats to a species, in this case sage-grouse, now and into the future.

Given the complexities and unknowns surrounding sage-grouse, which include climate change, fire, and other variables that we are hard-pressed to control, we are recommending our Federal partners embrace a conservative approach to managing these highly important landscape and remove any potential for development and additional disturbance, whether that potential is imminent or distant, and add a significant degree of certainty to the protections afforded these landscapes into the future.

Service Policy Perspective

The Service recognizes that well-managed grazing practices can be compatible with long-term sage-grouse conservation. The following list summarizes the Service's perspective on livestock grazing and how the Service will proceed on working with private rangeland owners to conserve sage-grouse.

- 1. Historically, grazing has altered the sagebrush-steppe ecosystem in parts of sage-grouse range.
- 2. In more recent times, poorly managed grazing continues to degrade sagebrush-steppe ecosystems and exacerbate existing negative conditions for sagebrush and sage-grouse in some areas.
- 3. In many areas across the range of sage-grouse, well-managed grazing practices can improve habitat conditions or minimize future negative declines.
- 4. Grazing practices need to be better defined, scientifically evaluated, and strategically applied as CCAs/CCAAs and BLM RMPs are implemented.
- 5. Working with agency staff and local range scientists, private range managers and landowners can provide important information, expertise, and the capacity to help monitor and improve local range conditions on both private and public lands.
- 6. Private rangelands provide important open space, habitat, and ecological processes for conserving sagebrush ecosystems. They are critically important components of sagegrouse habitats, especially wet meadows.
- 7. The Service will work with landowners to improve habitat conditions wherever possible. Even if well-managed grazing practices result in some local adverse impacts to sagegrouse, the Service will weigh these impacts in the context of achieving broader sagebrush conservation goals on private lands and a landscape scale.
- 8. The Service will actively add to the knowledge base on appropriate sage-grouse management.
- 9. Maintaining healthy, viable, locally managed private rangelands and ranching operations is integral to achieving sage-grouse conservation for the reasons described above.
- 10. The Service will work with BLM and FS on ensuring areas of high priority to sagegrouse are not experiencing poorly managed grazing practices, but instead use wellmanaged grazing practices to improve existing conditions.

Conclusion

Conserving sage-grouse in the face of multiple threats is no easy task and it will take successful collaboration with local communities to meet this goal. One cause for optimism is that many stakeholders with different perspectives are coming together on some key issues and discovering the issues on which they agree outnumber those about which they disagree. For example, most of us agree that fire and invasive species are the largest threats to sage-grouse in the Great Basin. We also agree that we want to improve the conservation of private lands and the economic well-being of rural communities. Community health is directly tied to maintaining undeveloped open landscapes where actions such as wildfire management and restoration can be applied, and private lands have some of the most important sage-grouse habitat. If we continue to focus on these and other areas of agreement, we believe we have a good chance at stabilizing and maintaining viable populations of sage-grouse through much of their historic range in a way that is sensitive to local community goals.

Thank you for applying this vision in your area of jurisdiction, and please feel free to discuss this perspective with your ARD at any time.

Literature Cited

Baur, D.C., M.J. Bean, and W.R. Irwin. 2009. A recovery plan for the Endangered Species Act. Environ. Law Reporter 39(1):10006-10011.

Beck, J.L., and D.L. Mitchell. 2000. Influences of livestock grazing on sage-grouse habitat. Wildl. Soc. Bull. 28:993-1002.

Beschta, R.L. et al. 2013. Adapting to climate change on western public lands: addressing the ecological effects of domestic, wild, and feral ungulates. Environ. Manage. 51:474-491.

Boyd, C. S, and T.J. Svejcar. 2009. Managing complex problems in rangeland ecosystems. Rangeland Ecol. Manage. 62:491–499.

Boyd, C. et al. 2011. Looking toward a brighter future for lekking grouse. Rangelands 33(6): 2-11.

Boyd, C. et al. 2014a. Of grouse and golden eggs: can ecosystems be managed within a species-based regulatory framework? Rangeland Ecol. Manage. 67:358-368.

Boyd, C. et al. 2014b. Livestock grazing and sage-grouse habitat: impacts and opportunities. J. Rangeland Applications 1:58-77.

Brook, A., M. Zint, and R. De Young. 2003. Landowners' responses to an Endangered Species Act listing and implications for encouraging conservation. Cons. Bio. 17:1638-1649.

Brunson, M.W., and L. Huntsinger. 2008. Ranching as a conservation strategy: can old ranchers save the New West? Range. Ecol. Manage. 61:137-147.

Chambers, J.C. et al. 2014a. Resilience to stress and disturbance, and resistance to *Bromus tectorum* L. invasion in cold desert shrublands of western North America. Ecosystems 17:360-375.

Chambers, J.C. et al. 2014b. Using resistance and resilience concepts to reduce impacts of invasive annual grasses and altered fire regimes on the sagebrush ecosystem and greater sagegrouse: A strategic multi-scale approach. Gen. Tech. Rep. RMRS-GTR-326. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 73 p. Davies, K.W. et al. 2009. Interaction of historical and nonhistorical disturbances maintains native plant communities. Ecol. Applications 19: 1536-1545.

Davies, K.W. et al. 2010. Effects of long-term livestock grazing on fuel characteristics in rangelands: an example from the sagebrush steppe. Rangeland Ecol. Manage. 63: 662-669.

Davies, K.W. et al. 2011. Saving the sagebrush sea: an ecosystem conservation plan for big sagebrush plant communities. Biol. Conserv. 144: 2573-2584.

Davies, K.W. et al. 2014. Implications of longer term rest from grazing in the sagebrush steppe. J. Rangeland Applications 1:14-34.

Donnelly et al. Unpublished data. Public lands and private waters: decision support for sage-grouse conservation through range wide mapping of scarce wetland resources. http://iwjv.org/resource/public-lands-and-private-waters-decision-support-sage-grouse-conservation-through-range. Accessed August 14, 2014.

Henderson, A.E., M. Reed, and S.K. Davis. 2014. Voluntary stewardship and the Canadian Species At Risk Act: exploring rancher willingness to support species at risk in the Canadian prairies. Human Dimen. Wildl. 19:17-32.

Jackson-Smith, D., U. Krueter, and R.S. Krannich. 2005. Understanding the multidimensionality of property rights orientations: evidence from Utah and Texas ranchers. Society and Nat. Res. 18:587-610.

Mir, D.F., and K. Dick. 2012. Conservation approaches to protecting critical habitats and species on private property. Nat. Areas Jour. 32:190-198.

Murphy, T. et al. 2013. Trial by fire: improving our ability to reduce wildfire impacts to sage-grouse and sagebrush ecosystems through accelerated partner collaboration. Rangelands 35(3): 2-10.

Olive, A., and L. Raymond. 2010. Reconciling norm conflict and endangered species conflict on private land. Nat. Res. Jour. 50:431-454.

Paulich, N. 2010. Increasing private conservation through incentive mechanisms. Stanford J. Animal Law and Policy 3: 107-158.

Pyke, D. A. 2011. Restoring and rehabilitating sagebrush habitats. Pp. 531–548 in S. T. Knick and J. W. Connelly (editors). Greater Sage-Grouse: ecology and conservation of a landscape species and its habitats. Studies in Avian Biology (vol. 38). University of California Press, Berkeley, CA.

Reisner, M.D. et al. 2013. Conditions favouring Bromus tectorum dominance of endangered sagebrush steppe ecosystems. Journal of Applied Ecology 50: 1039–1049

Sheley, R. et al. 2014. Cost/benefit analysis of managing invasive annual grasses in partially invaded sagebrush steppe ecosystems. Weed Science 62:38-44.

Sorice, M.G., et al. 2011. Incentive structure of and private landowner participation in an endangered species conservation program. Cons. Bio. 25:587-596.

Sorice, M.G., et al. 2013. Increasing participation in incentive programs for biodiversity conservation. Ecol. Appl. 23:1146-1155.

Strand, E.K., and K.L. Launchbaugh. 2013. Livestock grazing effects on fuel loads for wildland fire in sagebrush dominated ecosystems. Great Basin Fire Science Delivery Report—April 2013. University of Idaho Rangeland Center. Unpublished report, 21 pgs.

Strand, E.K. et al. 2008. Interactions among grazing, fire, and invasive plants in the sagebrush steppe ecosystem. University of Idaho Fire-Fuels-Grazing Report. University of Idaho Rangeland Center. Unpublished report, 19 pgs.

Svejcar, T. et al. 2014. Western land managers will need all available tools for adapting to climate change, including grazing: a critique of Beschta et al. Environmental Management 53: 1035-1038.

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