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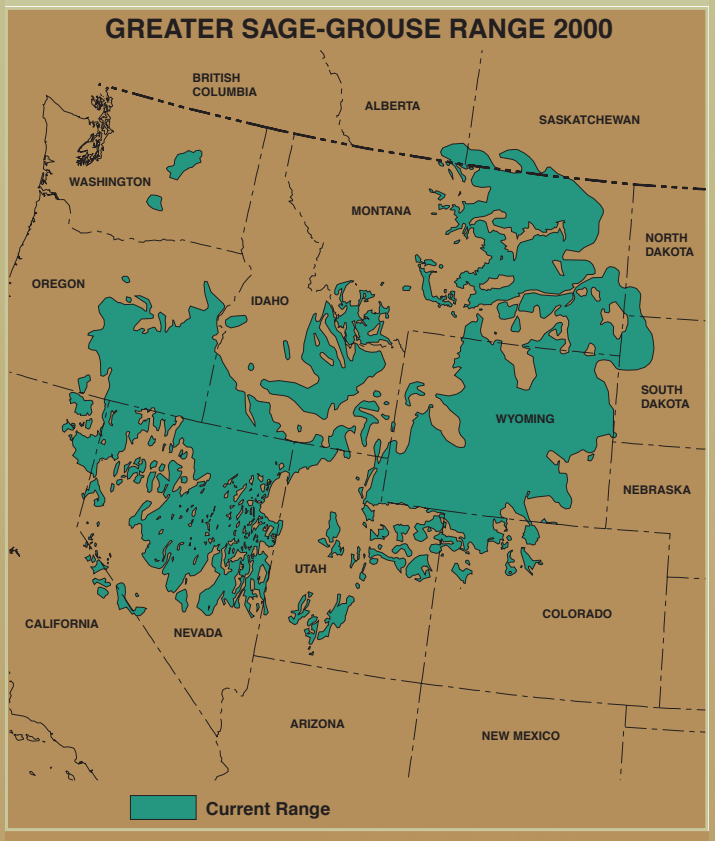
In cooperation with the Western Association of Fish and Wildlife Agencies &
National Sage-Grouse Conservation Planning Framework Team

Range-wide Conservation Assessment of Greater Sage-grouse and Sagebrush Habitats

Greater Sage-grouse are highly dependent on sagebrush habitats throughout the year.



Current distribution of Greater Sage-grouse in western North America.

Background

Declining numbers of Greater Sage-grouse (*Centrocercus urophasianus*) over the past three decades across most of their range accompanied by increasing habitat degradation and loss represent major conservation and management challenges. We are conducting a range-wide Conservation Assessment of Greater Sage-grouse and sagebrush habitats. This assessment is an interagency effort sponsored by the Western Association of Fish and Wildlife Agencies to determine the status of Greater Sage-grouse and their habitats, and identify potential threats to their long-term survival. Agencies, private organizations, and landowners have an urgent need for this assessment because of conflicting views concerning causes of declines and the appropriate management actions.

Multiple petitions have been filed to provide protection for Greater Sage-grouse under the Endangered Species Act. Consequently, activity and interest in Greater Sage-grouse and sagebrush habitats have increased because of the potential implications for land and wildlife management. Greater Sage-grouse have declined in numbers and distribution. In addition, large expanses of sagebrush habitats have been lost or altered. Despite general agreement on population and habitat trends, we lack a definitive range-wide assessment to resolve the conflicting and contradictory information about the status of Greater Sage-grouse, their habitats, and appropriate management actions.

The Conservation Assessment will represent the first extensive analysis of the suite of environmental, habitat, and population factors that influence Greater Sage-grouse across their entire distribution. A related effort to produce a conservation plan for Gunnison Sage-grouse (*Centrocercus minimus*) and their habitats currently is underway. That effort, which is described in a companion paper, is led by the Colorado Division of Wildlife. Taken together, the Greater Sage-grouse Conservation Assessment and the Gunnison Sage-grouse Conservation Plan will provide a comprehensive view of the status and conservation needs of all sage-grouse and the cumulative effects of land use on their habitats.

To ensure the highest standards, the Conservation Assessment will be based on the best scientific knowledge and information available, subjected to independent peer review, and final products will be published in scientific literature. In addition, datasets and other sources used in the analysis will be archived on the SAGEMAP website (http://sagemap.wr.usgs.gov), which is maintained by USGS.

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Project Objectives

The primary objective of the Conservation Assessment is to determine the current status of Greater Sage-grouse and the habitats on which they depend and to provide an analysis of factors influencing their viability and trends. Because this assessment is broad in scope and encompasses the range-wide distribution, the number and variety of issues are large. The potential impacts of these factors on populations and habitats must be considered in regional, range-wide, and local contexts. Some land-uses, such as livestock grazing, are widespread throughout the range of Greater Sage-grouse but their potential impact to habitats likely vary across regions. Other land uses, such as energy and natural resource development, are primarily regional but may have significant local impact.

Cryptic coloration and adequate cover are important for nesting success of Greater Sage-grouse and survival of young.

The Conservation Assessment will provide an historical perspective of Greater Sage-grouse populations and dynamics of sagebrush habitats. The historical perspective forms the foundation against which current factors, such as invasive vegetation and changes in fire regimes, can be evaluated. Similarly, a long-term assessment of hunting and predation is necessary to assess their influence on population dynamics of Greater Sage-grouse.

Radio-marked individuals provide important information on habitat use, nesting success, and population dynamics of Greater Sage-grouse.

The integrated analysis presented in the Conservation Assessment of the critical issues influencing populations of Greater Sage-grouse and their habitats will be used by the U.S. Fish and Wildlife Service to determine if protection for the Greater Sage-grouse is warranted under the Endangered Species Act. As such, our objective is to provide the best scientific information on which to base an important decision that has significant implications for use and management of a large region of the western United States.

Conclusions

The range-wide Conservation Assessment for Greater Sage-grouse and sagebrush habitats represents a significant contribution to the conservation of this species that will provide a platform on which to develop a proactive effort for management. Successful completion requires extensive collaboration among state, federal, and private entities because of the broad array of information, data, and sources required to conduct an indepth analysis of the factors influencing Greater Sage-grouse and their habitats. The Conservation Assessment will provide the basis for developing common databases from which coordinated efforts can be established among individual state and provincial conservation programs. The overall strategies also will assist planning by local area conservation groups. Ultimately, the primary benefit derived from the Conservation Assessment will be the knowledge of the species and its habitat status and trends. As such, the information will benefit not only Greater Sage-grouse, but also the broader range of species associated with sagebrush habitats.

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