

SOUTH DAKOTA GREATER SAGE-GROUSE ACTION PLAN

2021–2026



**SOUTH DAKOTA DEPARTMENT OF GAME, FISH AND
PARKS, PIERRE, SOUTH DAKOTA**

WILDLIFE DIVISION REPORT 2021-15

NOVEMBER 2021

This action plan will be used by South Dakota Department of Game, Fish and Parks staff on an annual basis and will be formally evaluated at least every five years. Plan updates and changes, however, may occur more frequently as needed.

A supportive document to this action plan, the “*Management of Greater Sage-Grouse in South Dakota*”, provides a historical background, research, management surveys and monitoring, challenges and opportunities, and citizen involvement related to greater sage-grouse and can be found at <https://gfp.sd.gov/management-plans/>.

ACKNOWLEDGMENTS

Management Plan Team—Paul Coughlin, Tim Olson, Travis Runia, Alex Solem, Stan Michals, Anna Kopp, Eileen Dowd Stukel, Trenton Haffley, Shelly Deisch, Hilary Morey, Faren Wolter, and Chad Switzer of South Dakota Department of Game, Fish and Parks.

All text and data contained within this document are subject to revision for corrections, updates and data analyses.

Recommended citation:

South Dakota Department of Game, Fish and Parks, Division of Wildlife. 2021. South Dakota greater sage-grouse action plan 2021–2026. Wildlife Division Report Number 2021-15. South Dakota Department of Game, Fish and Parks, Pierre, South Dakota, USA.

PUBLIC INVOLVEMENT

A virtual public meeting was held on August 13, 2020 to facilitate opportunity for public involvement at the beginning of the revision process. A draft of the “*South Dakota Greater Sage-Grouse Action Plan, 2021–2026*” was available for public comment from November 5–December 15, 2021.

INTRODUCTION

The greater sage-grouse (*Centrocercus urophasianus*; hereafter sage-grouse) is the largest of all North American grouse, and often referred to as sage-hen, sage-chicken, or sage-cock. Adult males can weigh in excess of 5 lbs (2.3 kg) and measure 27–34 in (69–86 cm) in length, while adult females can weigh between 2–3 pounds (0.9–1.4 kg) and measure 18–24 in (46–61 cm). Both the male and female sage-grouse have a grayish-brown appearance, narrow pointed tail feathers, and feathering to the toes. Female grouse are more cryptic in coloration and adult males are distinguished by a dark throat surrounded by a V-shaped patch of white feathers on the neck. During courtship display activities, males extend two skin sacs of a yellow-green coloration found near the throat and possess pronounced yellow eyecombs.

Sage-grouse are a sagebrush obligate “landscape species” and thus require large contiguous tracts of sage steppe habitat for population subsistence. Sage-grouse inhabit only 56% of their pre-settlement distribution and populations have declined 80% from 1966–2019. Loss and degradation of sagebrush (*Artemisia* spp.), improper livestock grazing, fire, invasive plant species, construction of anthropogenic infrastructure, oil and gas development, and increased mortality due to West Nile virus have been identified as the major contributing factors. More frequent drought associated with climate change could also be a threat. Overhunting was also a historic factor in the population decline. Declines in sage-grouse abundance and distribution in South Dakota (SD) are consistent with range-wide trends. Sage-grouse once inhabited the western third of the state outside of the Black Hills, but now primarily inhabit only portions of Butte and Harding counties. Sage-grouse is listed as a species of greatest conservation need in the South Dakota Wildlife Action Plan because the species is indicative of or depends upon a unique or declining habitat.

In 2010, the U.S. Fish and Wildlife Service determined that the greater sage-grouse was warranted for protection under the ESA due to the loss and fragmentation of habitat and a lack of adequate regulatory mechanisms to stem habitat loss. The Service did not propose a listing rule at the time due to the need to address higher priority listing actions. When the Service made the warranted but precluded finding in 2010, the sage-grouse became a candidate species. Through a court-ordered work plan, the Service committed to resolve the sage-grouse’s “candidate” designation by September 30, 2015 by either proposing to list the species as threatened or endangered or remove the species from the “Candidate List,” an action already required by the Endangered Species Act (ESA). After evaluating the best available scientific and commercial information regarding the sage-grouse, the Service has determined that protection for the sage-grouse under the ESA is no longer warranted and has removed the species from the candidate species list.

The South Dakota Department of Game, Fish and Parks (GFP) manage wildlife and their associated habitats for their sustained and equitable use, and for the benefit, welfare, and enjoyment of the people of SD and its visitors. This action plan is intended to guide wildlife managers and biologists and aid the decision-making process of the GFP Commission to ensure sage-grouse and their habitats are managed appropriately, addressing both biological and social

considerations. It also serves to inform sportsmen and women, landowners, and all others interested in greater sage-grouse management in South Dakota.

POPULATION STATUS AND MONITORING

Throughout their range, sage-grouse populations are monitored by spring lek counts. Typically, male grouse are counted on leks from the ground by trained observers within 1 hour of sunrise from mid-March through mid-May. The number of displaying males/lek and displaying males/geographic area are used to evaluate population trend.

GFP began collecting lek survey data in 1971; although a consistent lek count protocol was not followed until 1989. Even though a consistent lek count protocol is now used, some leks are not counted every year for various reasons (i.e. inclement weather, access) which creates challenges in data interpretation. Since 2005, it is believed most attended leks have been counted every year. Total males counted has declined since the near-term highs of 2006 (Figure 1). Since 1990, males/attended lek has been somewhat cyclical with a prominent apex in 2006 and valleys in 1996 and 2014 (Figure 2). GFP also contributes all lek data to a coordinated national effort to periodically analyze trends in sage-grouse abundance at many temporal and spatial scales. The results of the comprehensive analysis can be found at: <https://pubs.er.usgs.gov/publication/ofr20201154> .

GFP will continue to survey all leks that have been attended in the past 5 years. Inactive sites will be periodically surveyed to determine status as time allows and may be conducted from fixed-wing aircraft. Results will be updated annually in the "*Management of Greater Sage-Grouse in South Dakota*" document.

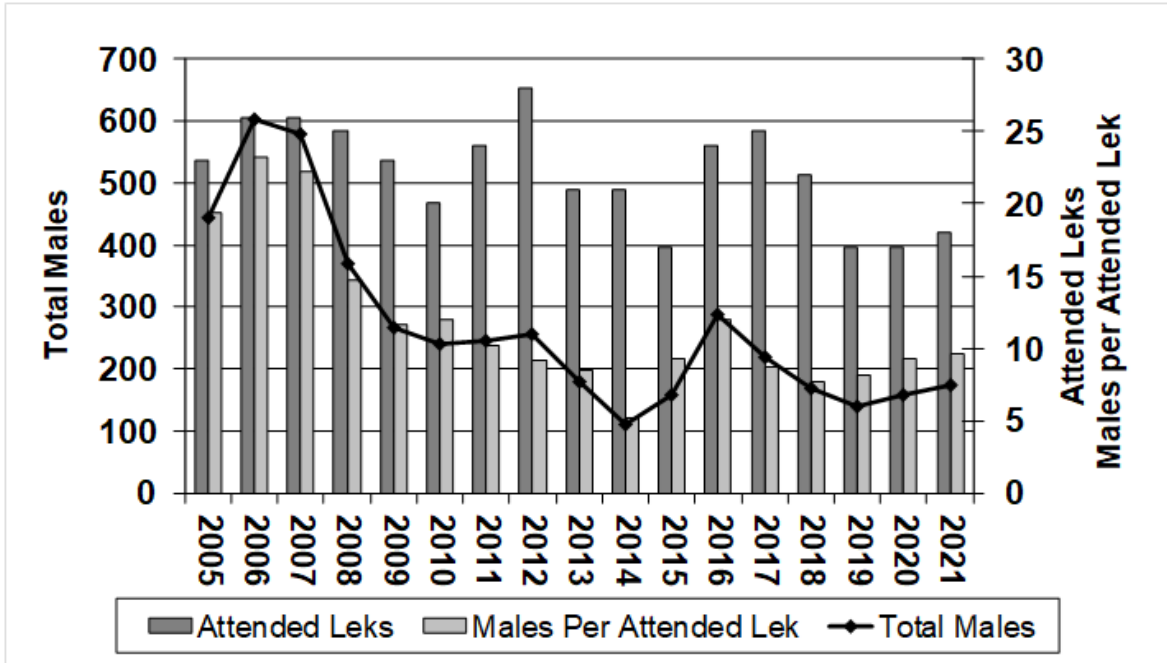


Figure 1. Total males, attended leks, and males per attended lek for sage-grouse in South Dakota, 2005–2021.

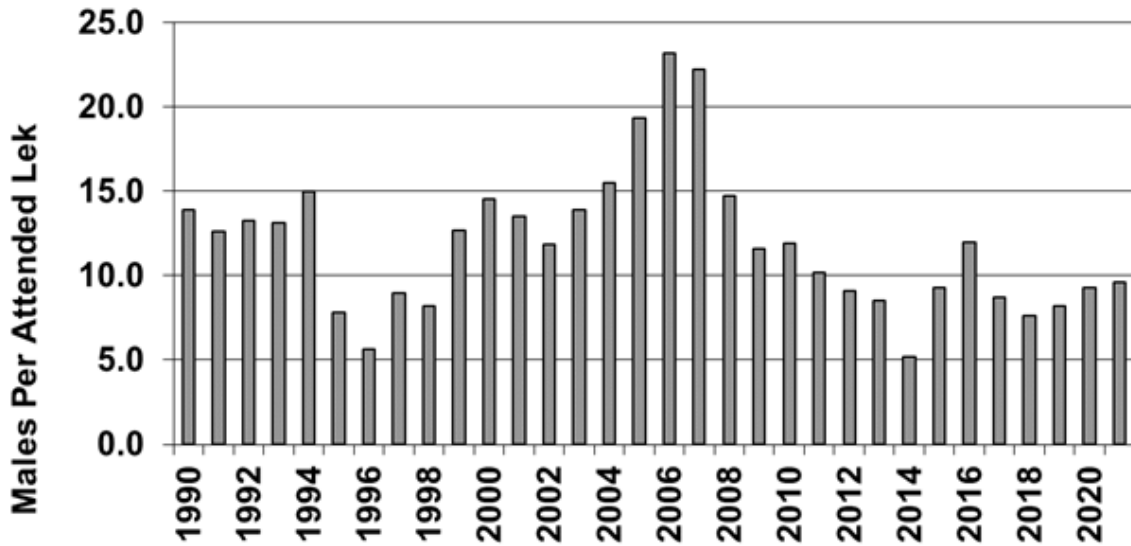


Figure 2. Male sage-grouse per attended lek in South Dakota, 1990–2021.

HUNTING

Sage-grouse hunting seasons have been held intermittently in SD since 1955. Compared to other upland game such as prairie grouse, sage-grouse exhibit higher annual survival and lower reproductive rates, thus a comparatively conservative approach to hunting is needed. A minimum of 300 males counted on leks in Butte and Harding counties for two consecutive years will be used as a minimum threshold before a resident only hunting season will be considered (Table 1). Access permits will be issued through a lottery drawing system to control the number of hunters and subsequent harvest. A sage-grouse season will not be recommended if the species is listed as threatened or endangered under the Federal Endangered Species Act or State Endangered Species Law.

Table 1. Sage-grouse hunting season recommendation guidelines for South Dakota 2021–2026.

Population Index	Hunting Season Recommendation
≥ 300 males counted on all leks in Butte and Harding counties for 2 consecutive years	Option for short (~2-4 day) hunting season in Harding County and Butte County west of US HWY 85, limit 1 sage-grouse per hunter per season. Random drawing for up to 40 access permits
< 300 males counted on all leks in Butte and Harding counties OR ≥ 300 males counted on all leks in Butte and Harding counties for only 1 year	No Hunting Season

MANAGEMENT PRIORITIES

In addition to management activities involved with population monitoring and implementing the harvest strategies found in Table 1, GFP will strive to accomplish the following management priorities:

Core Area Mapping

Across the sage-grouse range, important habitat areas have been delineated using data sources such as lek locations, breeding density maps, telemetry locations, resource selection functions, and landcover data. Commonly referred to as core areas or priority areas for conservation, the mapping products have served a key role in ongoing sage-grouse conservation efforts. The maps have served as the foundation of sage-grouse habitat management on federal lands, have been linked to policy in some states, and have guided prioritization of habitat delivery and protection on public and private lands. Core areas for SD were first delineated in 2014 as a component of the “*Sage-Grouse Management Plan for SD, 2014–2018*”. The core area encompassed 95% of known nests, 93% of breeding female locations, and 99% of winter locations. Core areas were revised in 2021 using additional data sources (Figure 3).

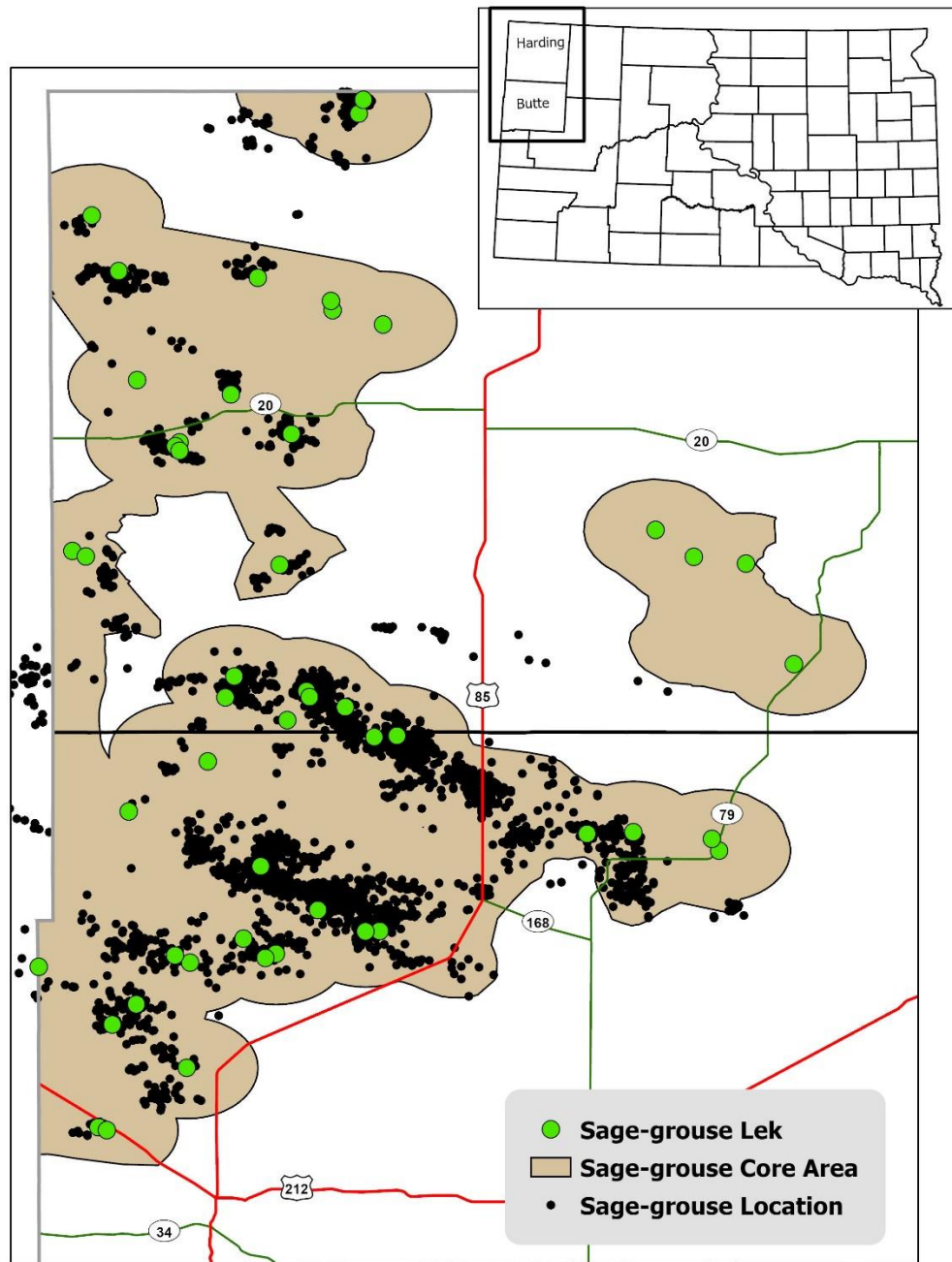


Figure 3. South Dakota sage-grouse leks and sage-grouse locations used in development of sage-grouse core areas. Note, some leks could be alternate locations of the same lek.

Habitat Management

Range-wide, the loss, degradation and fragmentation of sage-steppe habitat has been the primary threat to sage-grouse populations. Therefore, actions to maintain or improve existing habitat and establish new habitat remains a management priority. A description of specific habitat considerations and habitat management guidelines are provided in the “Management of sage-grouse in South Dakota” document.

Partnerships leverage GFP’s capability to deliver habitat-related programs by pooling resources among entities. Since 2010, a key partnership among GFP, United States Department of Agriculture (USDA) and Pheasants Forever has funded a Range and Wildlife Conservationist position in the Belle Fourche Natural Resources Conservation Service (NRCS) office with the primary duty of implementing the USDA’s Sage Grouse Initiative. The biologist utilizes federal conservation funds such as those provided through the Environment Qualities Incentives Program to encourage improved range management on privately managed lands which benefit sage-grouse. Since inception, the program has impacted over 350,000 acres through contracts with over 90 landowners. This partnership will likely remain a cornerstone of habitat management efforts in sage-steppe habitat. GFP is also engaged in a partnership with the American Bird Conservancy and USDA to fund a Conservation Specialist position stationed in the Buffalo NRCS office. Although not specific to sage-steppe habitat, the biologist works with producers on range management projects which have concurrent benefits to wildlife in Harding County. A similar partnership among GFP, Bird Conservancy of the Rockies and USDA support a biologist stationed in the Sturgis NRCS office which includes Butte County as a work area.

GFP works closely with federal land management agencies on sage-grouse management issues. GFP reviewed and provided feedback on the Bureau of Land Management (BLM) Resource Management Plan (RMP) which was ultimately approved in September 2015. The BLM adopted the core areas as delineated in the *sage-grouse management plan South Dakota 2014–2018* as Priority Habitat Management Areas within the RMP. GFP and BLM shared data and expert opinion during the core area mapping process. GFP is committed to collaborating with BLM on sage-grouse management issues including future RMP revisions or Priority Habitat Management Areas designation.

GFP, South Dakota Office of School and Public Lands, and South Dakota Department of Agriculture and Natural Resources have a common interest to conserve sage-grouse and their habitat. There are opportunities collaborate among these 3 agencies to assure sage-grouse and their habitats are considered during state-involved procedures for energy development. An item identified in this action plan is to develop a streamlined environmental review process for state issued energy development permits or lease sales. If agreeable to all parties, the process will be described within a memorandum of agreement which will be signed by department secretaries and made public. Although not regulatory in nature, this potential action is a good faith effort to integrate sage-grouse habitat considerations into state actions related to energy development. GFP will continue to provide environmental review for proposed projects in sage-grouse habitat as described in the larger management document.

Collaboration

GFP is a member of the Western Association of Fish and Wildlife Agencies (WAFWA) sagebrush executive oversight committee, sage and Columbian sharp-tailed grouse technical committee and inter-agency sagebrush conservation team. These groups have coordinated range-wide research and population monitoring; produced technical documents and white papers; and facilitated high level policy direction for the management of sage-grouse. GFP is committed to collaborating through these channels to meet the demanding management needs of sage-grouse across state lines and among management jurisdictions. GFP continues to work with the BLM and USGS on several ongoing research projects including the mapping of seasonal habitats.

DRAFT