SOUTH DAKOTA ELK ACTION PLAN - *DRAFT*

2026-2030

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

WILDLIFE DIVISION REPORT 2025-11

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This action plan will be used by South Dakota Department of Game, Fish and Parks (GFP) 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. All text and data contained within this document are subject to revision for corrections, updates, and data analyses.

A supportive document to this action plan, the "Management of Elk in South Dakota", provides a historical background, research, management surveys and monitoring, challenges and opportunities, and citizen involvement related to elk and can be found at https://gfp.sd.gov/management-plans/. Additionally, biennial population status updates for elk in South Dakota are available at https://gfp.sd.gov/elk/ under "Related Documents".

ACKNOWLEDGMENTS

This plan is a product of substantial discussion, evaluation, and input from many wildlife professionals, constituents, and the 2025 South Dakota Elk Stakeholder Group. In addition, comments and suggestions received from private landowners, hunters, and those who recognize the value of elk and their associated habitats were also considered.

Action Plan Coordinators – Andy Lindbloom and Byron Buckley, GFP.

GFP Elk Action Plan Team that assisted with plan writing, data review and analyses, critical reviews and/or edits – Nathan Baker, Stephanie Buckley, Steve Griffin, Trenton Haffley, John Kanta, Julie Lindstrom, Andrew Norton, Dan Sternhagen, Chad Switzer, and Lauren Wiechmann.

Those who served on the South Dakota Elk Stakeholder Group during this planning process included: Travis Bies (GFP Commissioner); Sean Fulton (Black Hills Sportsmen Club); Jeff Olson (South Dakota Wildlife Federation); Bill Paulton (South Dakota Stockgrowers Association); Todd Russell (United States Forest Service); Sam Silacci (Rocky Mountain Elk Foundation); Carson Sleep (Spearfish Livestock Association); Andrew Snyder (South Dakota Cattlemen's Association); Travis Theel (GFP Commissioner).

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INTRODUCTION

The elk (*Cervus elaphus*) is the largest hunted member of the deer family (Cervidae) residing in South Dakota. Prior to European settlement, elk once ranged over the entire state of South Dakota but were extirpated by the late 1800s due to unregulated harvest and market hunting. Cooperative transplant efforts between western state and federal agencies began in the early 1900s to re-introduce elk into the Black Hills of South Dakota.

The re-establishment of elk in South Dakota is a wildlife management success story. Today several thousand wild elk roam free, primarily in the Black Hills forested region along with several smaller herds occupying prairie and agricultural landscapes. Public demand for elk hunting and viewing opportunities is strong and continues to increase. According to a public opinion survey completed in 2020 (Wolter 2020), only 25% of elk hunters and 12% of landowners would prefer GFP change the current winter elk population objective for Black Hills Elk. Among hunters and landowners that preferred a change to the elk population objective for the Black Hills, 87% of hunters and 58% of landowners preferred an increase in the population objective.

The "*South Dakota Elk Action Plan 2026-2030*" will serve as the guiding document for implementation of actions to ensure elk populations and their habitats are managed appropriately, addressing both biological and social tolerances, while considering the needs of all stakeholders. This plan is intended to guide managers and biologists over the next 5 years but should be considered a working document that will be amended as new biological and social data provide opportunities to improve management of elk resources in South Dakota. Additional information and historical data are included in the *"Management of Elk in South Dakota"* (South Dakota Game, Fish and Parks, 2021). Furthermore, status updates on elk populations are produced biennially for the GFP commission, staff, and all interested constituents (Lindbloom et al. 2024).

MANAGEMENT PRIORITIES

Habitat and Access Management

Quantity and quality of elk habitat in the Black Hills affects elk herd distribution, abundance, and productivity. A healthy, productive, and sustainable elk herd requires quality habitat throughout the year. Any loss or degradation of existing elk habitat in the Black Hills may result in a reduction in elk numbers. Unfortunately, elk habitat in the Black Hills is continuing to be impacted and fragmented by a variety of causes, including human development and expansion. Additionally, the high density of roads in BHNF results in high disturbance to elk and their habitat. Off-highway vehicle (OHV) use has recently been restricted to designated areas instead of forest-wide; however, enforcement is insufficient and participation in OHV use has increased substantially in recent years.

Forest management practices such as logging, timber thinning, and prescribed burning can either help maintain, enhance, or degrade elk habitat, depending on forest management objectives. Silviculture and vegetation treatments that move a large percentage of even-aged forest to a more diverse pine ecosystem are opportunities to enhance and create habitats for a variety of wildlife, including elk. Recently a significant emphasis has been placed on cutting and thinning pine trees on both public and private lands to reduce the wildfire threats and address mountain pine beetle (MPB) infestations. While opening the forest canopy and reducing tree density improves the growth of understory vegetation and big game forage, additional pine mortality due to insects, disease, weather events, and fire have been substantial in recent years. Coupled with the current timber harvesting emphasis on opening pine canopies and basal areas to 40% or less (Graham et al. 2021), the overall impact these habitat changes will have on elk populations in the Black Hills warrants additional research.

Grazing management on public and private land in the Black Hills, like forest management, can either benefit or degrade elk habitat. Most rangeland in the Black Hills is subjected to annual livestock grazing, with the timing, intensity, distribution, and duration greatly affecting forage quality and quantity available to elk. Grazing practices that consider the habitat needs of elk can be beneficial by rejuvenating areas with decadent vegetation. However, grazing practices that give little or no consideration to elk habitat conditions can result in removal of much needed forage, and a general degradation of habitat quality and quantity. Some rangeland management activities used to benefit grazing practices, such as water developments and fencing, can also indirectly impact elk habitat quality and quantity by affecting rotational cattle grazing practices.

Prescribed burning can also affect elk habitat, depending on timing, intensity, size, weather, and the habitat being treated. If enhancing elk habitat was an objective during a prescribed fire project design, forage quality, quantity, and beneficial cover can be greatly improved. Prescribed burns, both in forest or rangeland habitats, will remove overgrown, decadent vegetation, and create openings that can improve elk forage. However, fire results in short-term impacts to browse and forage. Further, poorly timed fires, drought, and invasive weeds can result in less desirable vegetative response overall.

Hunter access to elk in South Dakota, particularly outside of the Black Hills, is critical for effective elk management since the majority of land in South Dakota is privately owned. While GFP has several highly successful programs that create hunting access opportunities on private land, elk are unique enough that they warrant their own program. The GFP Elk Hunter Access Program opens nearly 100,000 acres of privately owned land to hunters possessing elk tags, a total that has more than doubled in the last 5 years.

Population Surveys

The GFP conducts several surveys and assessments to better understand elk population abundance and trends in the Black Hills. Surveys are completed annually or periodically to assess harvest, disease, herd composition, reproduction, survival, and abundance.

Hunter surveys and mandatory elk check-ins are conducted annually to estimate harvest, hunter success and satisfaction, and harvested elk age structure. Harvest age thresholds were established in the South Dakota Elk Action Plan (South Dakota Game, Fish and Parks, 2021). Specifically, these thresholds were to manage Black Hills elk management units (firearm and archery combined) and CSP for an average minimum bull harvest age structure of 60% bulls 4+ years of age. These thresholds have been exceeded in all years since 2020 (Figure 1). Harvest ages are determined by an accurate and consistent aging technique (cementum annuli) at Matson's laboratory in Montana.

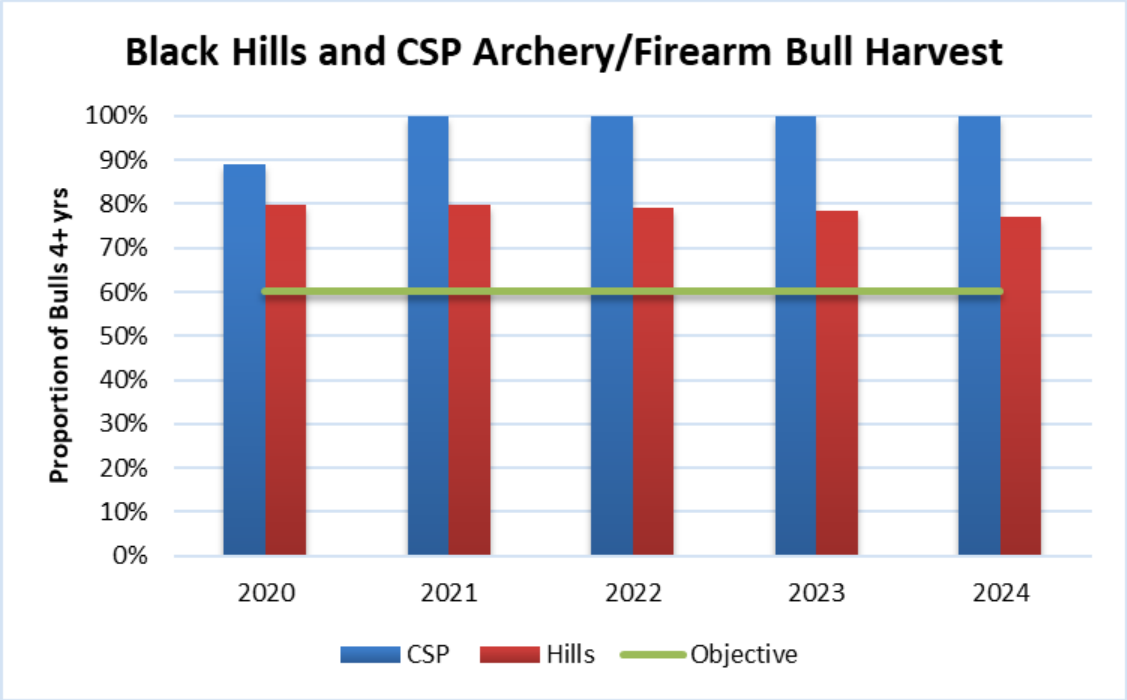

Figure 1. Proportion of harvested bulls that are 4+ years of age in the Black Hills and CSP, 2020-2024.

Herd composition surveys are completed annually and provide critical information on fall recruitment and bull to cow ratios of the elk herd. Periodic capture and radio collaring efforts provide an opportunity to gather important data on survival rates; monitoring of radio collared adult cow elk survival provides insights on the impacts of antlerless harvest rates and

population trends. In addition, herd composition data and survival estimates are used for annually projecting elk populations between abundance surveys.

Sightability surveys are completed every four years (if adequate snow conditions exist) and provide periodic abundance estimates of wintering elk herds, and important "anchor points" for population models. Aerial surveys completed in the winter of 2024/2025 resulted in an estimate of 7,922 (95% CI: 7,604-9,143) elk in the Black Hills and 765 (95% CI:754-846) elk in Custer State Park.

Depredation Program

South Dakota Game, Fish and Parks understands that cooperative partnerships with private landowners are an essential component to elk management and private lands serve an important role regarding elk management in South Dakota. The demand for elk damage abatement services fluctuates annually due to weather events (e.g., drought or harsh winters) and seasonal variation, elk populations, and changes to elk habitat (e.g., impacts of fires, agricultural development, logging practices, and human encroachment).

GFP has designed its elk damage abatement programs to address requests for assistance from private landowners. The most widely used program to address crop damage is cost-share assistance for growing-season food-plots. Landowners that have elk-use in alfalfa fields or other crop fields are eligible for up to $8,000 of cost-share assistance to establish and manage these fields, annually. Additionally, producers experiencing elk-use on fields raised to produce grass hay are eligible for up to $4,000 of cost-share assistance for maintenance of those fields. Another program that provides long-term solutions is the permanent stackyard (i.e., protective fencing) and protective panel program. For these programs, landowners are reimbursed for materials to construct a permanent stackyard or purchase protective panels, up to a maximum of $15,000. Another program available to landowners is cost-share assistance for the replacement of fence materials because of damage caused by elk crossing fences. When elk cross barbed-wire fences, they can cause substantial damage to the fence (Bauman et al. 1999). GFP has utilized aircraft-grade aluminum cable strung along the top of fences to reduce the damage caused by elk when crossing the fence. This technique has proven successful if the area where the cable is applied has a fence in good condition with an adequate number of wooden posts. GFP also provides replacement posts and wire to cooperating landowners. Cooperating landowners are limited to $15,000. Depending upon individual needs and available funding, some landowners may be eligible for multiple stackyard and/or fencing contracts over several years.

Finally, while grazing competition between livestock and elk exists in South Dakota, most hunters and landowners agree that it is possible to manage effectively for both. Longmire (2014) found that 82% of hunters and 80% of landowners agreed that it is possible to manage for both elk and livestock grazing in the Black Hills. Current elk depredation abatement programs do not address requests for assistance regarding grazing impacts to pastures or

meadows, under most circumstances. However, GFP has provided hazing devices (i.e., propane cannons and pyrotechnics) and technical assistance to landowners that have concerns of elk grazing on grasslands. If these conflicts occur near or during on-going hunting seasons, GFP will coordinate with landowners and hunters to increase harvest and hazing pressure in these areas.

Public Input

Public participation is an important aspect of natural resource management and decision making. In addition to biological data, public participation is a crucial aspect in developing and implementing an elk management plan in South Dakota. It is an intentional process that seeks input to shape decisions, actions, impacts, or change. Meaningful public participation seeks to understand people's values, views, and perspectives. The process provides opportunities for the public to engage in the plan development across various stages of the revision, and the goal is to incorporate that input into decision-making. Successful public participation recognizes the diversity of stakeholders who may be interested in or affected by decision-making. It is relationship focused, and provides an opportunity to build trust, resolve conflicts, and inform the public about elk management in the state of South Dakota.

As part of the elk plan revision, the South Dakota Elk Stakeholder Group was held in the summer of 2025 to collect input on elk populations and their habitats. The group included representatives from the following groups: the U.S. Forest Service, the South Dakota Wildlife Federation, Black Hills Sportsmen, Rocky Mountain Elk Foundation, South Dakota Cattleman's Association, South Dakota Stockgrower's Association, and Spearfish Livestock Association. South Dakota Game, Fish and Parks commission members and staff were in attendance. Information and supportive data were presented by GFP staff to provide relevant knowledge about the topics and issues discussed by the group. Key topics and issues included the Black Hills population objective, bull age structure, hunter success, depredation, prairie elk harvest, hunter access, disease, and archery. Individual views and opinions varied amongst the groups represented. Careful consideration of the perceptions and opinions shared was incorporated into identifying the management objectives and strategies necessary to successfully manage elk in the state.

POPULATION OBJECTIVES

The winter population objective for elk is 6,000-8,000 (2.1-2.8 elk/sq mi) in the Black Hills and 500-600 (4.5-5.5 elk/sq mi) in Custer State Park. The Black Hills elk population objective was based on a compromise between cattle grazing interests and elk hunting and viewing opportunities. The CSP elk population objective was established to maximize hunting and viewing opportunity while acknowledging CWD prevalence may increase at a faster rate when ungulate densities are higher (Sargeant et al. 2011, Jennelle et al. 2014). Actual population abundance and estimates may vary within these objective ranges depending on a multitude of

factors such as range conditions, elk vital rates, predator densities, other ungulate densities, public input, and the precision and accuracy of biological monitoring. These population objectives were developed after thorough analyses of elk population data, available habitat resources on public land, private land depredation issues, recreational opportunities, and substantial input from a wide variety of publics with an interest in elk management in South Dakota (GFP 2021). GFP will adopt harvest strategies that allow the elk population to stay within these objective ranges. During periods of drought and subsequent low forage production that last more than one year, GFP will set harvest management strategies that move the elk population towards the lower end of the population objective range. Similarly, during periods of above normal precipitation and forage production, GFP will manage elk populations towards the upper end of the objective range.

Elk residing in the Black Hills are known migrators and often gather in large concentrations during winter months on established wintering grounds; approximately 68% of all elk estimated during 2025 aerial surveys were in Black Hills elk hunting Unit 2, which contains much of the Jasper fire burn area. Estimates of elk distribution in other seasons (i.e., spring, summer, fall) remain unknown, therefore individual elk management units are managed to increase, maintain, or decrease elk populations without specific population objectives. Management unit objective direction (Figure 2) is based on an annual collection and evaluation of biological data, habitat conditions, and social data.

Population objectives for prairie elk units are also specific to desired management unit objective direction and not specific densities. Most survey data are lacking for prairie units and elk densities are primarily managed to abate agricultural damages on private property. Except for Harding County (units PRE-35A and PRE-35B), management unit objectives for all prairie units west of the Missouri River are to increase antlerless license numbers to a level that allows landowners the ability to manage elk at low densities, if they so desire (Figure 2). Due to a high proportion of public land and lower agricultural depredation concerns, population objective direction (decrease, maintain, increase) for Harding County will be evaluated biennially and antlerless license recommendations will be based on the population change objective. Dispersing elk that occur east of the Missouri River will be managed via liberal hunting regulations to prevent the establishment of any elk populations.

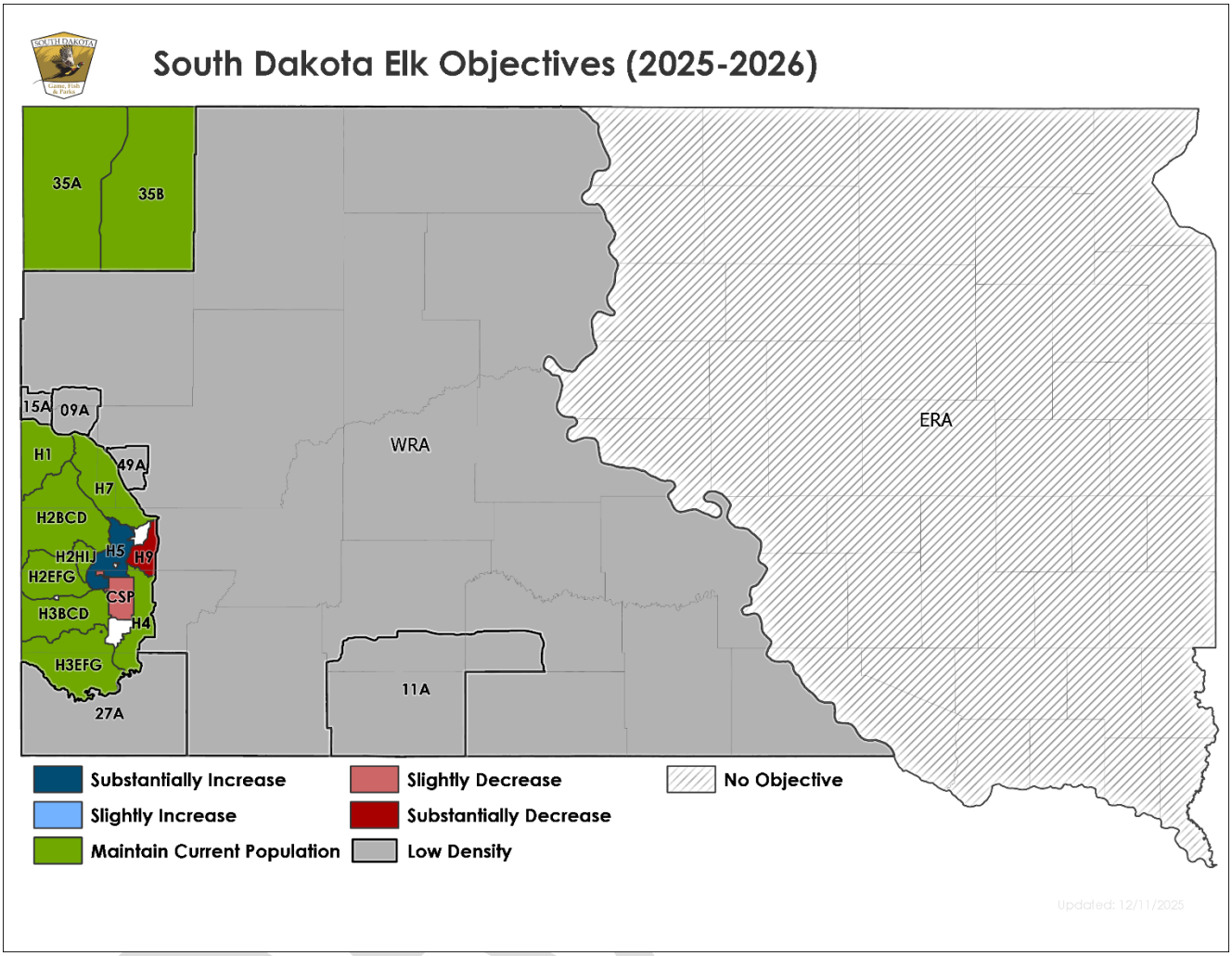

Figure 2. 2025-26 elk management objective directions.

MANAGEMENT STRATEGIES

1. Maintain, manage, and protect existing elk habitat throughout the Black Hills.

    A. Based on habitat conditions and population densities, in concert with input from the public and BHNF range conservationists, periodically evaluate if adjustments to management unit objective directions are warranted.
    B. Biannually (when developing season recommendations in winter and again in mid to late summer) evaluate environmental and range conditions for impacts from drought, wildfires, etc. to determine if harvest management strategies are appropriate for range conditions.

C. Annually work with public land management agencies, conservation organizations, and private landowners to manage and conserve the most important elk habitat areas in the Black Hills.
D. Utilize a pool of "antlerless elk" contingency licenses (ARSD § 41:06:26:06; up to a maximum of 20% of all "antlerless elk" licenses available for all combined Black Hills elk hunting units) that could be issued by GFP Commission resolution in September if summer range conditions dictate an adjustment is needed in the harvest management strategy previously adopted by the GFP Commission. Summer range conditions will be based on forage production estimates produced by the USDA Natural Resources Conservation Service (NRCS), and contingency license allocation based on forage and unit objective directions as outlined in the decision support table below (Table 2).

Table 2. Elk unit contingency license decision support table.

	Contingency Licenses		
NRCS Forage Production	*(% of current year unit antlerless allocation)*		
(% of normal/per elk unit)	Decrease Obj	Maintain Obj	Increase Obj
90-100%	*none*	*none*	*none*
80-89%	*10%*	*5%*	*none*
70-79%	*15%*	*10%*	*5%*
<70%	*20%*	*15%*	*10%*

2. Manage for biologically and socially acceptable elk populations in each elk management unit within the Black Hills, CSP, and Prairie units of South Dakota.

A. Manage for overwinter elk population of 6,000-8,000 elk in the Black Hills and 500-600 in CSP.
B. Manage antlerless elk hunting opportunity in Prairie elk hunting season units west of the Missouri River based on landowner demand and to minimize agricultural damage, excluding Harding County.
C. Manage antlerless elk hunting opportunity in Harding County based on population change objectives considering landowner, hunter, and other stakeholder opinions.
D. Manage all deeded and public lands located east of the Missouri River to prevent the establishment of any elk populations.
    - Promulgate rules to establish liberal hunting regulations that will prevent the establishment of elk populations in eastern South Dakota.
E. Monitor distribution and abundance of elk in the Black Hills using various survey methods (e.g., aerial surveys, herd composition).
F. Use population modeling to estimate elk population trends of Black Hills elk in years with no aerial survey data.

G. Continue to evaluate the utility of trail camera surveys for estimating Black Hills elk population abundance, population trend, and fall distribution.
H. Evaluate age at harvest population modeling using age data from hunter harvest elk.
I. Annually survey hunters to estimate elk harvest and distribution, age of harvested elk, number of hunters, hunter success, and hunter satisfaction.
J. Biennially assess elk unit management unit objective directions and utilize necessary harvest management tools to ensure objectives are met.
K. Maintain quality bull elk hunting opportunities:
    - Manage Black Hills elk hunting seasons (firearm and archery combined) and CSP elk hunting seasons (firearm and archery combined) for an average bull harvest age structure of 60% bulls 4+ years of age. If age structure data are unavailable, a secondary objective in the Black Hills and CSP will be to manage for a minimum of 75% hunter success for hunters with "any elk" Black Hills and CSP firearm license types.
    - Manage bull hunting opportunity in Prairie elk hunting season units west of the Missouri River based on socially acceptable levels related to recreational hunting opportunity.
L. Maintain maximum elk hunting opportunities in the Black Hills by allocating 30% of total "any elk" licenses and 10% of total "antlerless elk" licenses available in the Black Hills as archery licenses, with the remainder (70% any-elk and 90% antlerless elk) issued as firearm licenses.
M. Maintain maximum elk hunting opportunities in CSP by allocating 30% of "any elk" licenses available in CSP as archery licenses, with the remainder (70%) issued as firearm licenses. Antlerless management will be conducted using firearm hunters.
N. Monitor and evaluate Chronic Wasting Disease in wild elk herds in South Dakota as determined by the South Dakota Chronic Wasting Disease Action Plan found at https://gfp.sd.gov/chronic-wasting-disease/ under "Related Documents".

3. Cooperatively work with private landowners to resolve elk depredation to growing crops, stored-feed supplies, and private property.

A. Respond to all elk depredation concerns on private land in a timely manner.
B. Continue to utilize elk depredation pool hunts (ARSD § 41:06:46) when warranted, to address elk depredation concerns.
C. Expand hunting opportunities and hunter access, when and where possible, to help address elk depredation on private lands.
D. Evaluate and implement management methods, including potential hunting opportunities outside existing hunting units, to address elk populations expanding east of the Missouri River.

Please refer to the Management of Elk in South Dakota (https://gfp.sd.gov/management-plans/) for additional information related to achieving the management priorities.

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