

CIMARRON ELK HERD MANAGEMENT PLAN DATA ANALYSIS UNIT E-35

GAME MANAGEMENT UNITS 64 and 65



REVISED BY

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EXECUTIVE SUMMARY

Cimarron Elk Herd (DAU E-35)	GMUs: 64, 65
2020 post-hunt population: 7,800 elk	
2020 post-hunt bull ratio: 24 bulls per 100 cows (estimated 3-yr average)	
Previous Objectives (2007-2021): 5,000-5,500 elk; 20-25 bulls per 100 cows	
Proposed Objective (2022-2032): 6,000-9,000; 20-25 bulls per 100 cows	

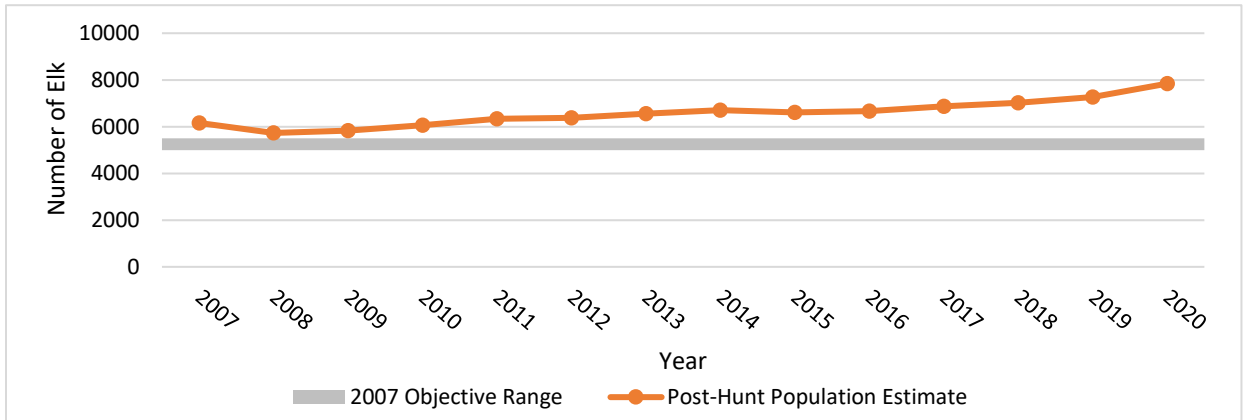


Figure 1. Elk DAU E-35 DAU estimated post-hunt population and objective range: 2007-2020.

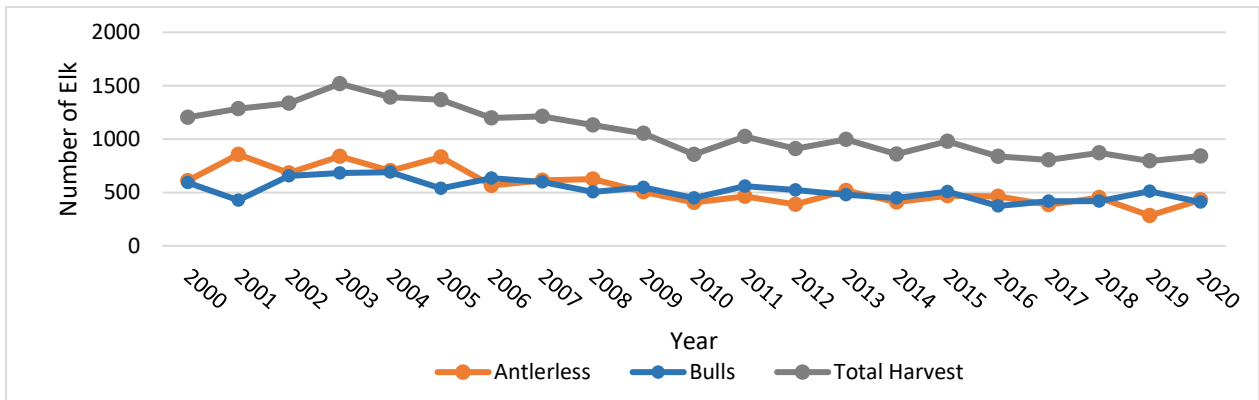


Figure 2. Elk harvest in E-35: 2000-2020.

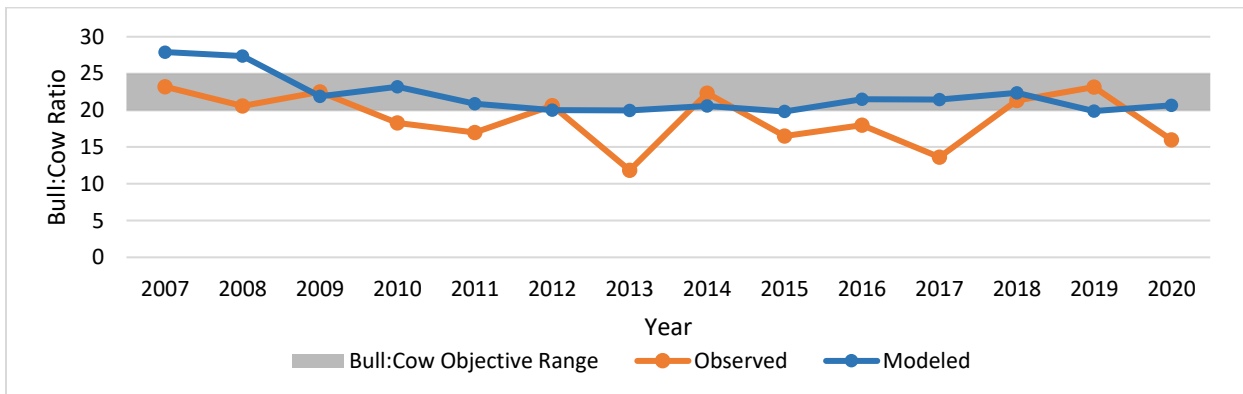


Figure 3. Elk DAU E-35 observed and modeled post-hunt bull ratio (bulls:100 cows): 2007-2020.

Background Information

Data Analysis Unit E-35 is 941 square miles in southwestern Colorado and includes parts of Delta, Gunnison, Hinsdale, Montrose, and Ouray Counties. DAU E-35 consists of Game Management Units 64 (GMU; 269 square miles) and 65 (672 square miles) and includes parts of the Uncompahgre, Gunnison, and Cimarron River drainages.

The current post-hunt population objective of 5,000-5,500 elk was set in 2007. The current, observed post-hunt bull ratio objective of 20 bulls per 100 cows is realistic for an over-the-counter (OTC) unit; however, higher observed ratios can occur based on irregular hunter harvest due to weather conditions, private land refuges within E-35, and movement of bulls into the DAU from other units during the summer months.

From 1980-1990, the estimated post-hunt elk population in E-35 climbed from 4,000 elk to almost 8,000 elk before the population declined to approximately 6,200 in 1992 (Figure 1). The population remained stable to increasing until it reached a peak just under 7,000 animals in 2001. Since then, increased late-season antlerless licenses have been made available on public and private land to make an effort to reduce the population towards a more acceptable objective of 5,000 elk to minimize private land damage issues and impacts to winter range habitats. The 2005 post-hunt elk population for E-35 was estimated to be 6,200. Models have been updated with more years of data and improved techniques since the last plan revision in 2007 and the population estimate has been refined. The 2020 post-hunt population estimate was 7,800 elk.

The average observed post-hunt bull ratio for E-35 between 1986 (the first year the 4 point antler restriction was implemented) and 2005 was 21 bulls:100 cows (Figure 3). The average observed post-hunt bull ratio from 2005 to 2020 was 20 bulls:100 cows. The observed post-hunt bull ratio in 2020 was 16 bulls:100 cows. The three-year average of 26 bulls:100 cows fits within the expected post-hunt bull ratio range for an OTC herd.

Observed post-hunt (December) calf ratios for E-35 averaged 44 calves:100 cows (range 34-57) between 1985 and 2005. Calf:cow ratios in E-35 have generally been in a downward trend for the last decade. The December calf ratio in 2020 was 41 calves:100 cows, which was the highest observed calf ratio since 2011. A number of environmental and habitat-related variables can influence calf survival and thus December calf ratios from year to year. Observed ratios can also vary from year to year as each classification flight can be different depending on the observer, the weather, or the route chosen to observe wildlife.

This elk population has remained stable with a gradual increase since the last herd management plan (HMP) was updated in 2007 (Figure 1). The population was managed to objective until the herd reached objective and CPW began to limit licenses. Since the 2007 HMP was approved, models were updated based on the best available science. As a result, Colorado Parks and Wildlife (CPW) staff and community stakeholders felt that the objective was too low. One priority of this plan is to update objectives with the new data and modeling that has been updated since the last revision. CPW recommends managing the E-35 herd for a moderate increase (10-25%) of the elk population. Once the population reaches the upper end of the objective range, more antlerless licenses can be allocated. The recommended bull ratio will stay at 20-25 bulls per 100 cows because GMUs 64 and 65 are over-the-counter (OTC), or unlimited, for archery and second and third rifle seasons; therefore, making management towards a designated bull ratio objective challenging.

Significant Issues

Habitat capability in E-35 for elk is difficult to assess, but declining calf:cow ratios and poor condition of some winter ranges due to drought and overgrazing are likely limiting population growth. Non-wildlife friendly fences have also been erected as development has increased in these units. Migration corridors have been impeded by exclusion fencing designed to keep wildlife off highways, but inadvertently fragment elk habitat and resources. Additionally, outdoor recreation has increased dramatically over the last decade and can have many impacts including loss of effective habitat, changes in seasonal migration patterns and potentially lower survival rates. Continued development within the DAU and increased recreational use will likely further reduce habitat capability in the future.

Another management issue in E-35 is the number of elk refuging on private lands year-round. This affects management in many ways. Animals are difficult to access during hunting seasons when hunters are unable to find elk on public land. Many of the ranches in the Cimarron area have limited or no hunting access allowing elk to harbor on these ranches throughout the hunting seasons. This has resulted in hunter complaints when CPW offers public land licenses for elk residing primarily on private lands. Unfortunately, most of these ranches are not interested in increasing hunting pressure or properties are too large for a small number of hunters to effectively redistribute elk back to public lands.

Although claims for elk damage in E-35 are not excessive, complaints from landowners and permittees about elk fence and forage damage and elk competition with livestock are common. Game damage complaints have increased on the Montrose County side of the DAU, while complaints on the Ouray/Gunnison County sides have declined. These complaints increased somewhat on summer ranges during severe drought years between 2000 and 2002, but are more critical in GMUs 64 and 65 when above average snowfall occurs. The last 5 years have produced fairly mild winters, but drought conditions still exist, leading elk to refuge on private property in the winter months where water and forage are more plentiful.

Management Objectives

CPW plans to increase populations to meet stakeholder and CPW staff desires. A moderate increase in the elk population would help improve hunter opportunity. More steps need to be taken manage elk refuging on private land. Habitat improvements could help hold elk on public land if it becomes more suitable. Seasonal closures and road restrictions for mechanical and motorized vehicles could help keep elk on public land longer. As an OTC unit, management of this herd mostly occurs with the limited licenses. As populations increase, more antlerless licenses and game damage licenses could be offered. This would help increase landowner tolerance of larger herds, and add hunting opportunities on public land.

Management Alternatives

Three post-hunt population objective alternatives are being considered for E-35 (1) 6,000-9,000, (2) 5,000-5,500 (status quo), or (3) 3,500-6,500 (Table 1). The new possible alternative objective ranges are large due to variability in environmental influences or human-based impacts and within the model to estimate herd populations.

Table 1. Proposed population objective ranges for the E-35 revised 2021 HMP.

Population Objective Alternatives:	
6,000 to 9,000 (midpoint 7,500)	(1) Approximately 17% increase in objectives
5,000 to 5,500 (midpoint 5,250)	(2) Status Quo (no change)
3,500 to 6,500 (midpoint 5,000)	(3) Approximately 17% decrease in objectives

Under current management with OTC bull licenses in E-35, it is not possible to manage for more than 25 bulls:100 cows. Any bull ratio objective above 25 bulls:100 cows would require all antlered elk licenses in E-35 to be limited. Making both GMUs limited and creating quality elk units would have to be nominated through the public limited unit recommendation process outside of this HMP revision. Therefore, an expected bull ratio range is proposed for OTC units: **20-25 bulls per 100 cows**. This range will continue to allow for opportunity and varied age classes of bulls in the population.

CPW Proposed Objectives:

Post-hunt Population

The proposed management objective for E-35 is **6,000-9,000 elk**. This would allow for a moderate increase of elk (10-25%) as requested by stakeholders in the community that participated in the HMP survey (Appendix A). The top of the range of this objective is approximately 17% higher than the current estimated population of 7,800. This objective allows CPW to increase the population, but have flexibility to modify estimated populations as environmental influences or human-induced change effect the population and as model improvements occur. Without better solutions for issues related to elk refuging on private lands, limited licenses cannot be increased. Increasing private land licenses and decreasing public land license may help alleviate some of these issues. Habitat improvements on public land surrounding private land could help keep elk from harboring on private land as well. Public land hunting opportunities will increase as populations increase and elk begin utilizing public lands again. Additionally, hunting pressure on black bears and mountain lions will remain consistent.

Post-hunt bull ratio

CPW recommends the status quo expected bull ratio range of **20-25 bulls:100 cows** because this DAU has OTC licenses for archery, second, and third rifle seasons. This DAU is currently managed for maximum hunter opportunity, which limits CPW's ability to limit hunting pressure and manage bull harvest or bull ratios. CPW can manage limited muzzleloader, first and fourth rifle, and antlerless licenses. The management of these seasons can improve hunt quality and hunter distribution throughout the DAU during the limited seasons.