

TWO BUTTES PRONGHORN HERD MANAGEMENT PLAN

DATA ANALYSIS UNIT PH-18, TWO BUTTES

GAME MANAGEMENT UNITS 132, 139, 145



Created for:



By:
Jonathan Reitz
Wildlife Biologist

Date: May 2020

EXECUTIVE SUMMARY

Two Buttes Pronghorn Herd (DAU PH18)	GMUs: 132, 139, 145
Post-Hunt Population: Previous Objective: 300-500; Estimate for 2019: 1,000	
CPW Recommendation: 300-1500	
Post-Hunt Sex Ratio (Bucks:100 Does): Previous Objective: 33-40	
CPW Recommendation: No Sex Ratio Objective; Expected Sex Ratio Range: 40-100	

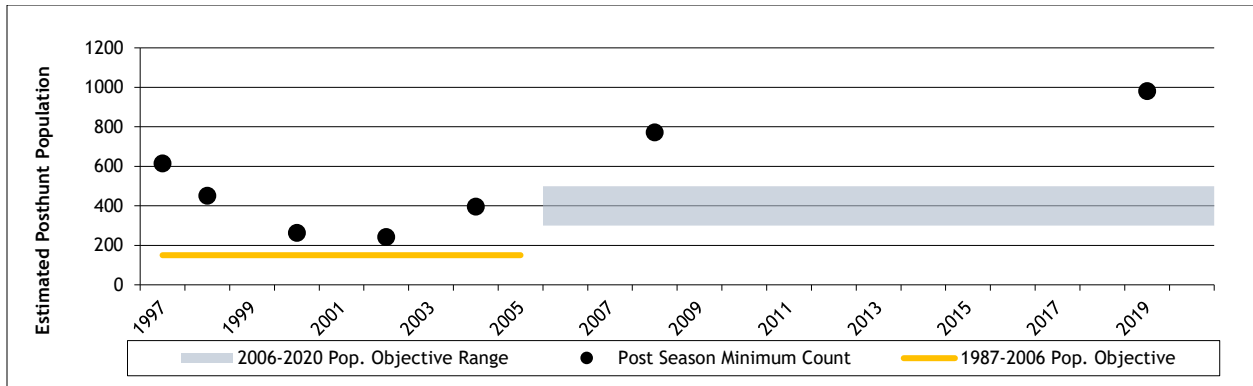


Figure 1. Two Buttes DAU population objectives and post-season minimum counts since 1997.

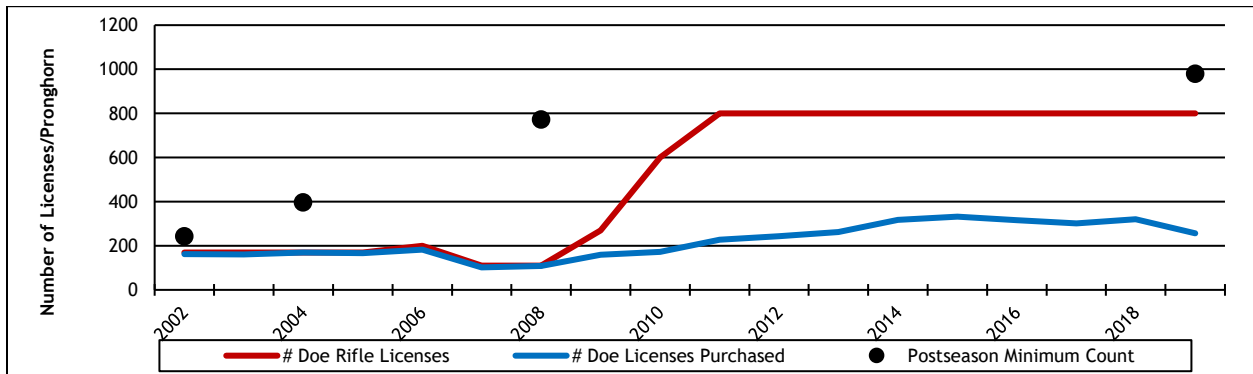


Figure 2. Numbers of doe rifle licenses issued, numbers of doe rifle licenses purchased, and post-season minimum counts for the Two Buttes DAU since 2002.

Background Information

The Two Buttes Data Analysis Unit (DAU), hereafter referred to as Two Buttes, encompasses a large area between the Arkansas River and the Oklahoma/Colorado border. Approximately 93% of the DAU is privately owned. The primary public land holder is the US Forest Service, managing 4% of the DAU. Only 7% of the DAU offers public pronghorn hunting opportunity.

Due to Two Buttes' relatively low pronghorn population and limited resources, CPW has not conducted sex/age classification flights there since 2011. For the same reasons, it is unlikely that pre-season sex/age classification flights will be conducted for the foreseeable future. The lack of classification data results in models that inaccurately estimate populations and sex ratios. For this reason, we are proposing a wide range for the population objective. We are also proposing a wide ranging "expected sex ratio" instead of a standard sex ratio objective.

The management plan for the preferred alternatives include the following management actions:

- Conducting post-season minimum count flights every 3 years in order to verify that the population is within the objective.

- Conducting post-season ground surveys in years when no minimum count flight will occur. Ground surveys can be used to determine if the population is at least above the minimum of its range. This acts as a preventative measure of overharvest.
- If ground survey data suggests that the population may be below objective, then an additional minimum count flight may be conducted to verify that the population is below objective.
- Doe license numbers would be set above the level of leftover sale demand. Doe license numbers would be decreased if the population were to go below objective.
- Annual buck license numbers would be set close to the number of 1st choice applicants that applied for the license during the previous year. Buck license numbers may be decreased if the population were to go below population objective.
- The population objective would be set at a wide range: 300-1,500.
- There would be no sex ratio objective for the DAU, but instead an “expected sex ratio range”. Expected sex ratio ranges have traditionally been utilized for over-the-counter elk DAUs, where it’s difficult to control sex ratios.

CPW has 10 years of history managing Two Buttes with this license setting strategy. The strategy has shown to be successful. With doe license numbers set so high, hunter opportunity has been maximized and game damage issues have been minimized. Even with the liberal license allocation, the population has been increasing.

CPW conducted both extensive landowner and hunter surveys for the development of this plan. The landowner and hunter majority support a population at this level. One of the primary concerns with this strategy is that there is opportunity to overharvest pronghorn. This plan utilizes minimum counts and ground counts as safeguards against overharvest.

Population Objective Alternatives

Alternative 1: 300-1,500 pronghorn (*preferred alternative*): This alternative would be paired with the license strategy of setting doe license numbers above demand and setting buck license numbers at demand, unless the population goes below the minimum of the range. This strategy lines up with the management strategy used for the previous ten years, and is supported by the majority of landowners and hunters.

Alternative 2: 300-500 pronghorn (*status quo*): This alternative was the objective of the previous plan, and would call for a ~50% decrease of the current estimated population. The majority of landowners and hunters do not support this alternative.

Sex Ratio Objective Alternatives (Post-Hunt)

Alternative 1: Expected sex ratio range of 40-100 (*preferred alternative*): This alternative takes into account the unlikelihood that sufficient data would be collected annually in this DAU to generate reasonably accurate sex ratio estimates. This alternative would be paired with the license strategy of setting doe license numbers above demand and setting buck license numbers at demand, unless the population goes below the minimum of the population objective range.

Alternative 2: 36-40 bucks per 100 does (*status quo*): This alternative would require managing with the use of annual sex/age classification flights. In order to manage within this range, CPW would need to utilize limited flight resources that may be better utilized in other pronghorn DAUs with higher populations and/or densities.