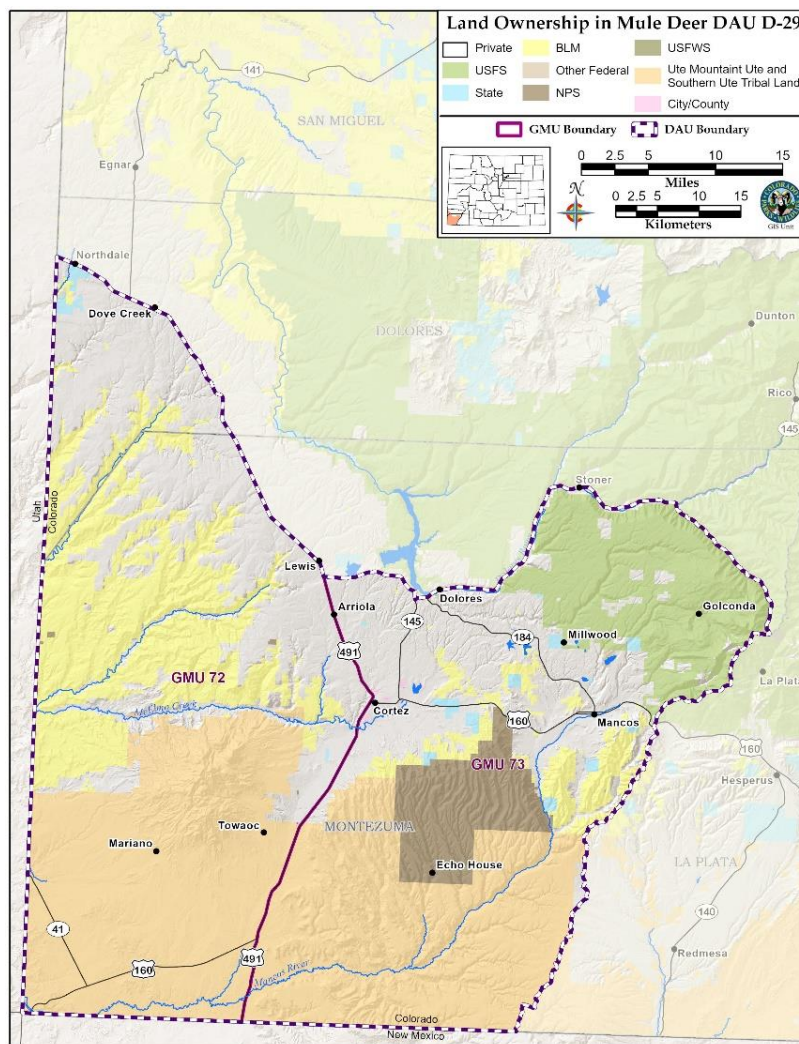


MESA VERDE MULE DEER HERD MANAGEMENT PLAN

DATA ANALYSIS UNIT D-29

Brad Weinmeister, Wildlife Biologist, Durango
 October 2023

Mesa Verde Deer Herd (DAU D-29)	GMUs: 72 and 73
Post-hunt Population: Previous Objective: 5,500-7,000 2022 Estimate: 9,300 Preferred Alternative: <u>9,000-12,000 deer</u>	
Post-hunt Sex Ratio (bucks:100 does): Previous Objective: 23-28 2022 observed: 27; modeled: 31 Preferred Alternative: <u>23-28</u>	



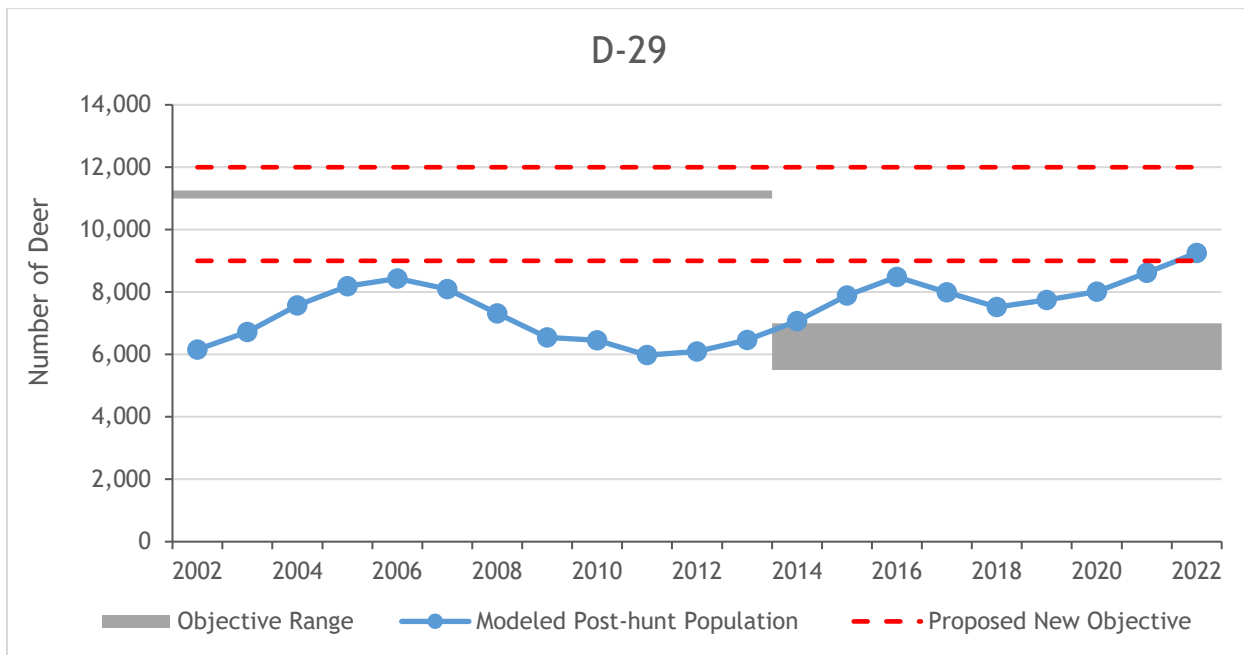


Figure D29-1. Deer DAU D-29 modeled post-hunt population estimate and objective range, years 2002-2022.

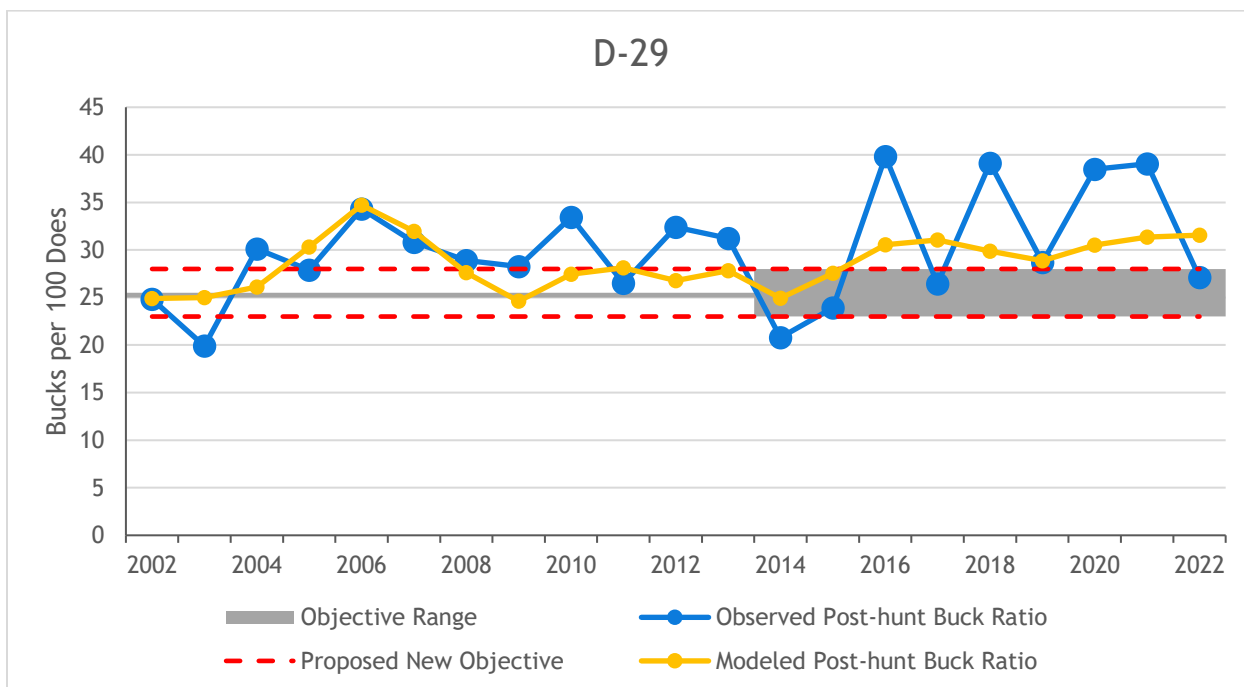


Figure D29-2. Deer DAU D-29 observed and modeled post-hunt sex ratio (bucks:100 does), years 2002-2022.

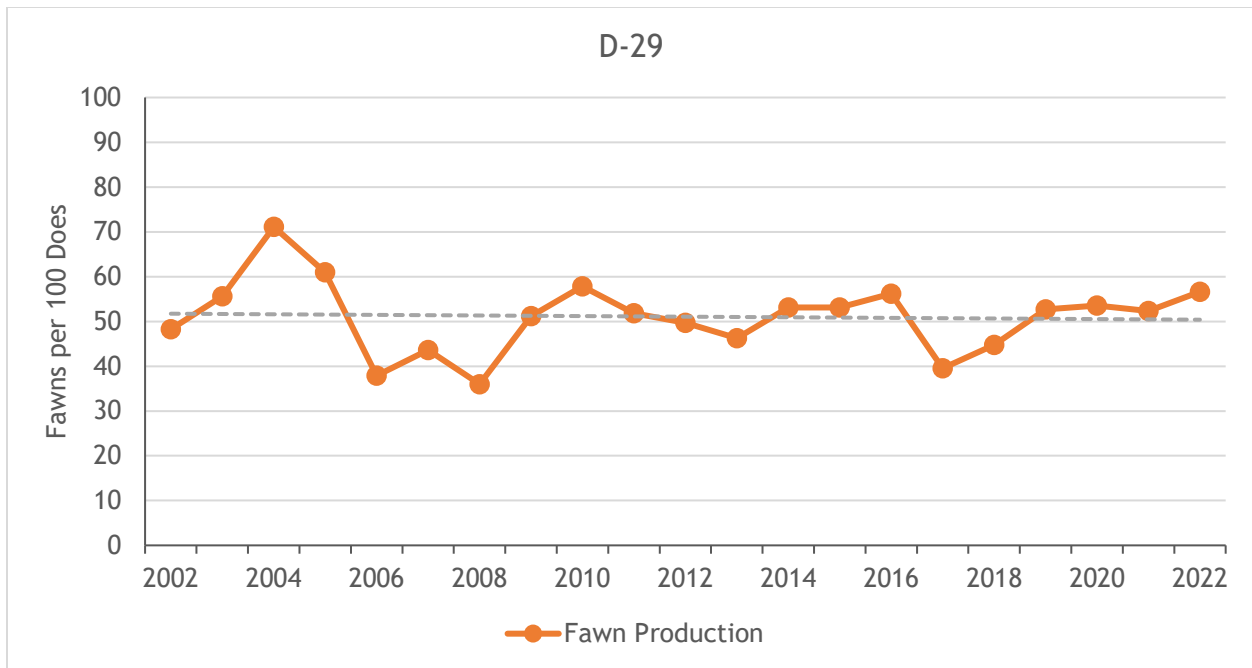


Figure D29-3. Deer DAU D-29 fawn production (observed post-hunt fawns:100 does ratio, years 2002-2022).

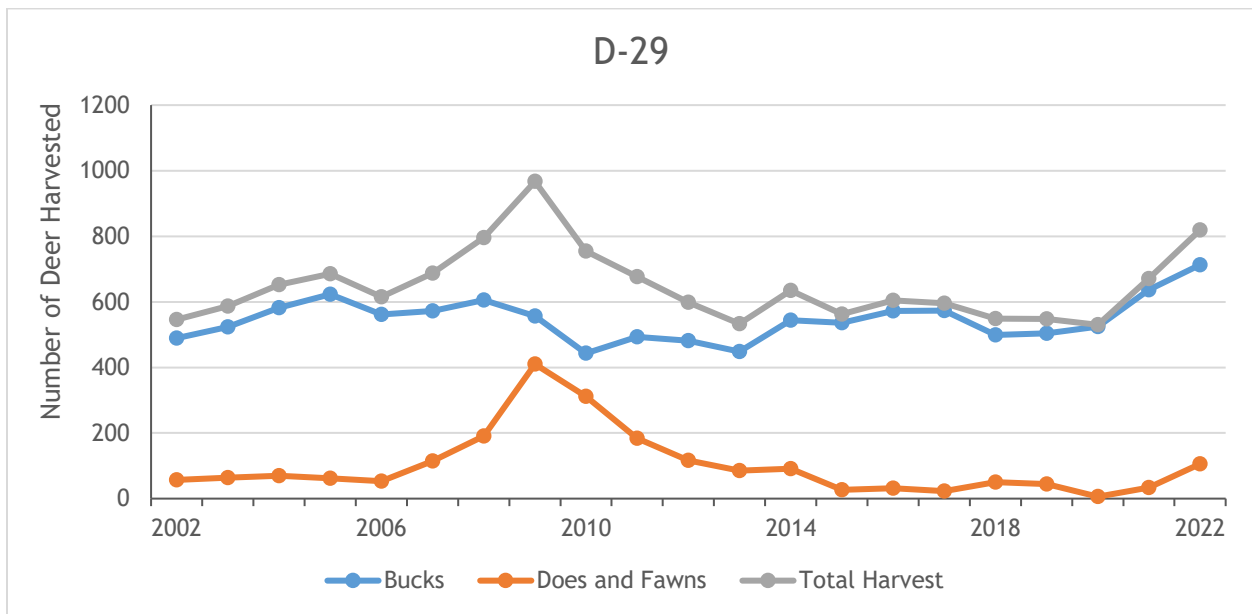


Figure D29-4. Deer harvest estimates in D-29, years 2002-2022.

Background Information

The Mesa Verde Deer Population consists of Data Analysis Unit (DAU) D-29. It is located in the southwest corner of Colorado and contains Game Management Units (GMUs) 72 and 73. The DAU is 1,871 square miles and includes portions of Montezuma and Dolores counties. The DAU is bounded on the north by Highways 491, 184, and 145, and Bear Creek, on the east by the Montezuma/La Plata County line, on the south by New Mexico, and on the west by Utah. The towns of Cortez and Mancos occur within the DAU, while Dove Creek and Dolores are on the northern boundary. Land ownership in the DAU is 37% Ute Mountain Ute tribal land, 31% private, 18% BLM, 9% U.S. Forest Service, 4% National Park, and less than 1% CPW and State Land Board.

The current post-hunt population objective of 5,500-7,000 deer was set in 2014. Over the past 20 years, the deer population has been on an increasing trend and has been estimated between 6,000 (2011) and 9,250 (2022) (Figure D29-1).

The average observed post-hunt buck ratio from 2002 to 2022 was 30 bucks:100 does with a range of 19-39 (Figure D29-2). The observed three-year (2020-2022) average of 34 bucks:100 does is above the post-hunt buck ratio management objective. The observed buck ratio has fluctuated a lot and is most likely from observer bias or error rather than from changes in buck numbers. In years of high sample size the buck ratio is often the lowest. Observed post-hunt fawn ratios averaged 51 fawns:100 does (range 36-71) between 2002 and 2022 (Figure D29-3). In 2022 the three-year and five-year averages were 51:100 and 49:100, respectively.

Buck harvest has varied over the last 20 years with a low of 443 bucks harvested (2010) to a high of 713 (2022), averaging 546 annually (Figure 5). Success rates for hunters do not vary much and the number of bucks harvested is driven more by the number of licenses available. Doe harvest is on private land through Private Land Only (PLO) licenses or game damage permits. In the past 20 years, doe harvest has ranged from six (2021) to 405 (2009) with an average of 100 (Figure D29-4). An estimated 106 does were harvested in 2022.

When the last management objectives were determined for this population in 2014, deer populations statewide were on a long-term decreasing trend. At the time the HMP was written, the D-29 deer herd had reached its lowest population level on record. At that time, the 1998 objective seemed unrealistic given current herd performance. In the past ten years, the population has grown and the old 1998 objective of 11,000 is not unrealistic. The majority of growth in the population has occurred on private lands, especially around the towns of Pleasant View and Cahone. The portion of the population that use public lands hasn't experienced the same increasing trend. Based on the herd performance over the past ten years, minimal game damage issues, and the desire to see more animals on public lands, CPW recommends increasing the population objective.

Buck licenses were limited in the DAU in 1999 when all over-the-counter buck licenses changed to limited. A fourth-season buck hunt is available in the DAU with limited opportunity. It is proposed to keep the same sex ratio objective from the previous plan.

Significant Issues

Due to human population growth, a significant concern in the DAU is the cumulative impacts to critical habitat, including winter ranges, migration corridors, production areas, and high-

elevation summer ranges. Exurban development is occurring in Montezuma and Dolores Counties and homes are replacing open lands that currently support wintering deer. Energy development has also increased in deer habitat on private and public lands resulting in direct and indirect habitat loss. Lastly, outdoor recreation continues to expand, placing more people in areas important to deer. Increases in recreation trails and recreation use is decreasing the amount of effective deer habitat. Managers and the public are concerned over the cumulative and prolonged impacts of development and recreation, which is disrupting migration and decreasing quality and quantity of habitat. Actions to enhance and protect important deer habitat will be essential to increase the deer population.

Drought has been present in southwest Colorado for more than two decades, negatively impacting deer habitat and decreasing the amount and quality of forage. Quality habitat provides food, shelter, space, and water and are important to produce robust mule deer populations.

Game damage caused by deer is present but minimal in the DAU. However, there are concerns about the distribution and harvest of deer. Portions of the deer population are more robust on agricultural fields and less so on public lands. To address this, managers would like to apply more harvest pressure on animals in agricultural areas and non-migratory deer, while reducing harvest pressure on migratory deer and those occurring on public lands.

Chronic Wasting Disease (CWD) was detected in the DAU in 2020 with a prevalence rate of 2.1%. Guidelines in CPW's CWD Response Plan (December 2018) will be used to address the spread of the disease. Hemorrhagic disease is also present in D-29. Within the DAU, the disease can cause die-offs of mule deer in the driest years. However, infection and sometimes death of individual animals are more common, with minimal impacts to on the overall population.

Management Objectives

CPW staff recommend increasing the population objective from the previous objective. This new proposed population objective is the same as the one implemented in 1998. Game damage is minimal in the DAU and would continue to be addressed as needed through game damage permits and PLO licenses. Management would allow the migratory population to grow on public lands, while maintaining the resident populations of deer occurring on and around agriculture fields. The majority of hunters who responded to the CPW survey in 2021 and 2022 indicated that they prefer a slight or moderate increase in the population, supporting CPW's proposed alternative.

The current sex ratio objective for D-29 is 23-28 bucks per 100 does. CPW proposes to keep the same objective. The majority of hunters who responded to CPW surveys in 2021 and 2022 were generally satisfied with the number of bucks in the population.

Management Alternatives

Three post-hunt population objective alternatives were considered for D-29:

Table D29-1. Proposed and recommended population objective ranges for the 2024 D-29 revised HMP.

Population Objective Alternatives:	
9,000 to 12,000 (midpoint 10,500)	(1) Approximately 50% increase in the proposed objective range midpoint
5,500 to 7,000 (midpoint 6,250)	(2) Status Quo (Maintain current population)
3,000 to 5,000 (midpoint 4,000)	(3) Approximately 40% decrease in the proposed objective range midpoint

Three post-hunt sex ratio objective alternatives were considered for D-29:

Table D29-2. Proposed and recommended sex ratio objective ranges for the 2024 D-29 revised HMP.

Sex Ratio Objective Alternatives:	
25-30	(1) Approximately 10% increase in the proposed objective range midpoint
23-28	(2) Status Quo (Maintain current sex ratio)
20-25	(3) Approximately 10% decrease in the proposed objective range midpoint

CPW Commission Approved Objectives:

Post-hunt Population: Pending

Post-hunt buck ratio: Pending