

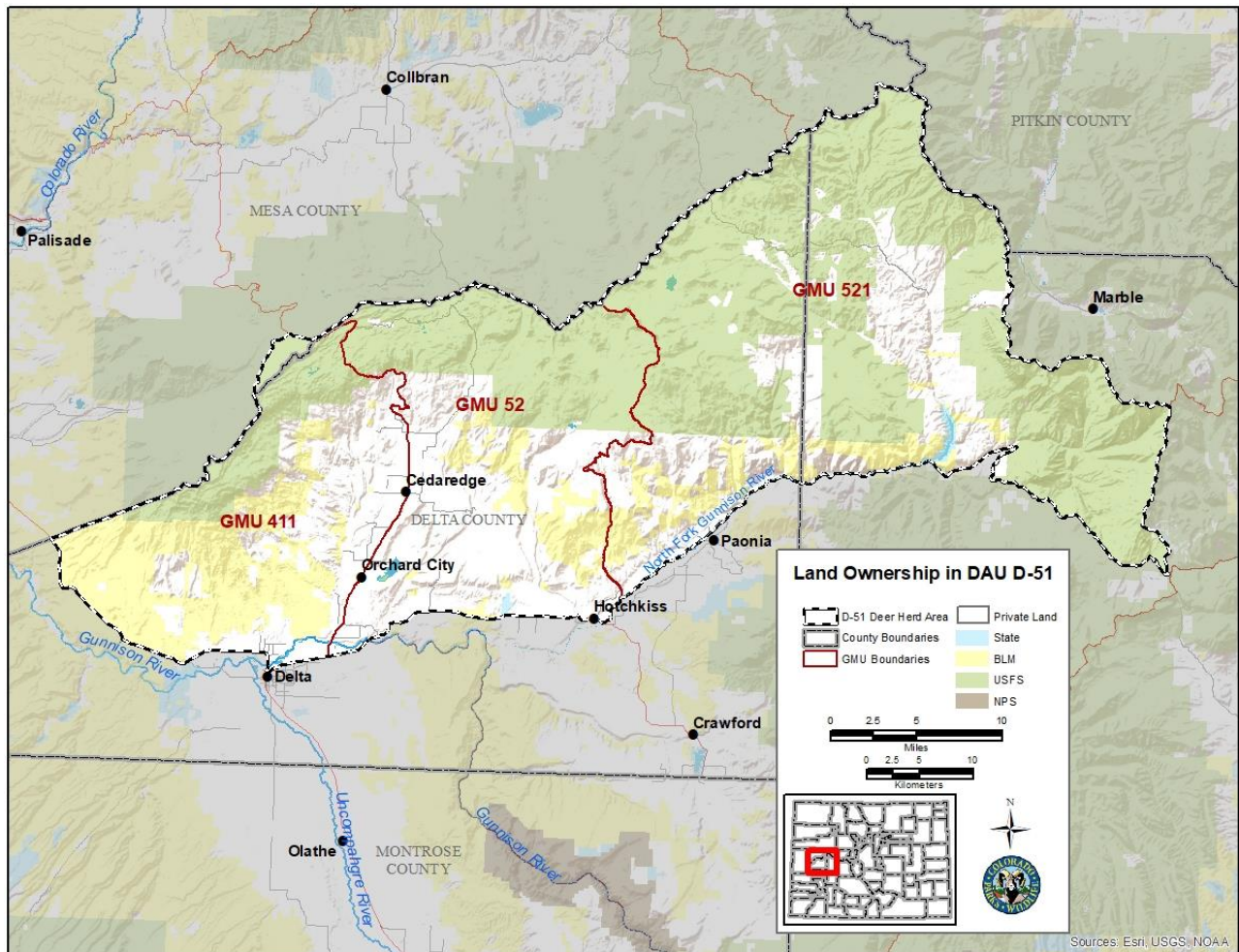
# SOUTH GRAND MESA DEER HERD MANAGEMENT PLAN EXTENSION DATA ANALYSIS UNIT D-51

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GMUs: 52, 411, 521  
Last HMP Approval Year: 2018

Post-hunt Population: Previous Objective: 8,000 - 10,000; 2022 Estimate: 9,100.  
**Preferred Alternative: Extend the current population objective of 8,000 - 10,000 Deer**

Post-hunt Observed Sex Ratio (bucks:100 does): Previous Objective: 25-30;  
2022 observed: 24; modeled: 36  
**Preferred Alternative: Extend the current sex ratio objective of 25-30 bucks:100 does**



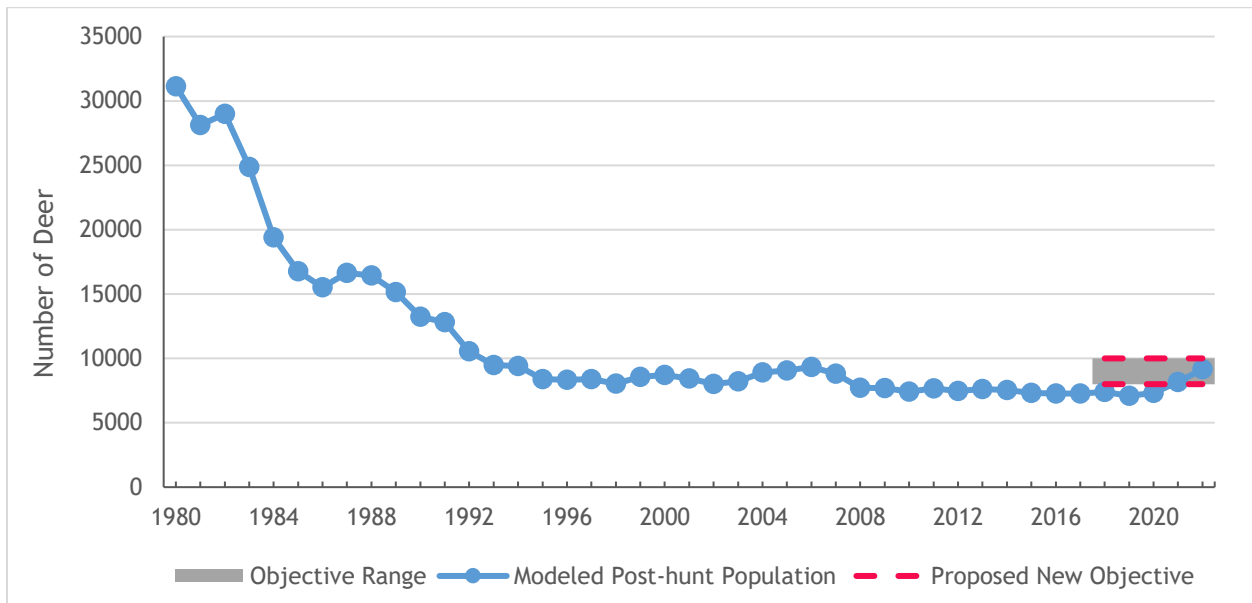


Figure D51-1. Deer DAU D-51 modeled post-hunt population and objective range, years 1980-2022.

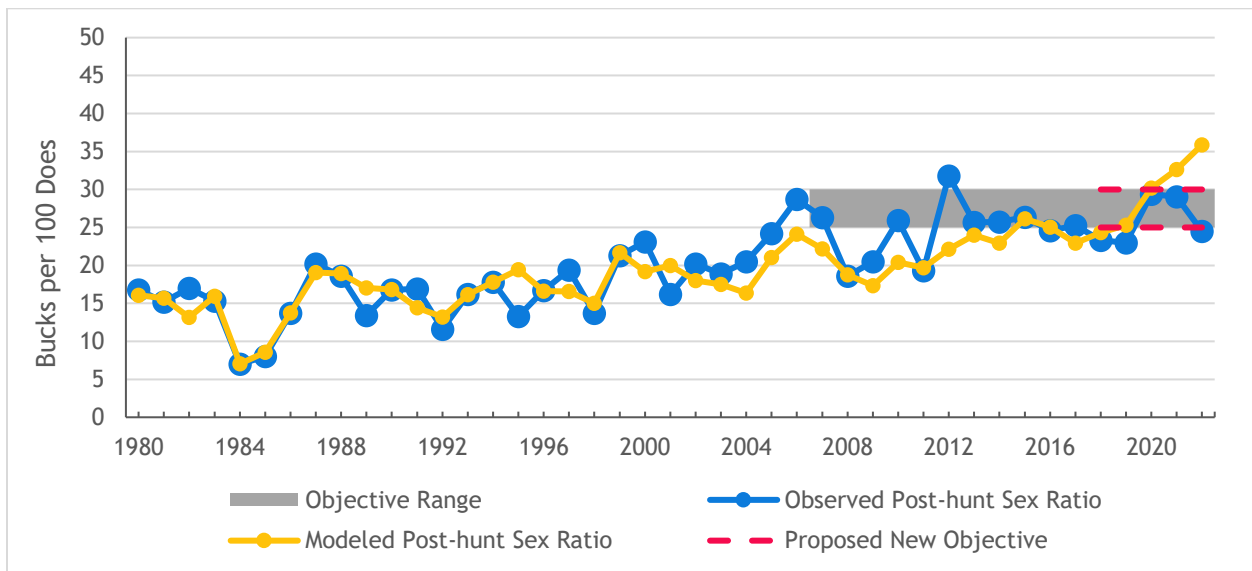


Figure D51-2. Deer DAU D-51 observed and modeled post-hunt sex ratio (bucks:100 does), years 1980-2022.

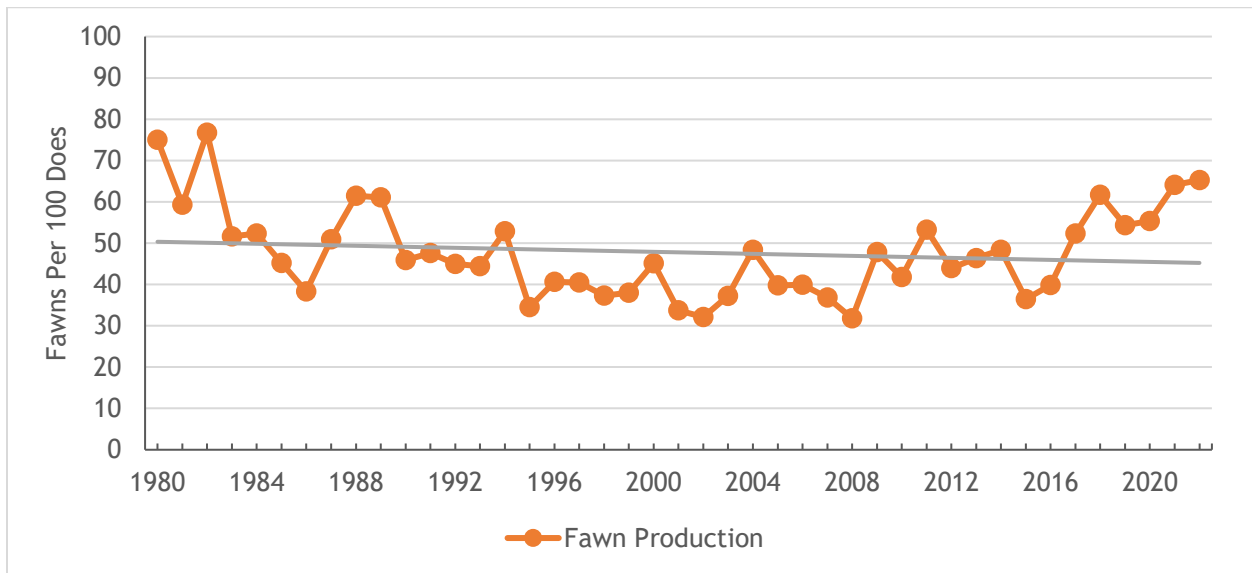


Figure D51-3. Deer DAW D-51 fawn production (observed post-hunt fawns:100 does ratio), years 1980-2022.

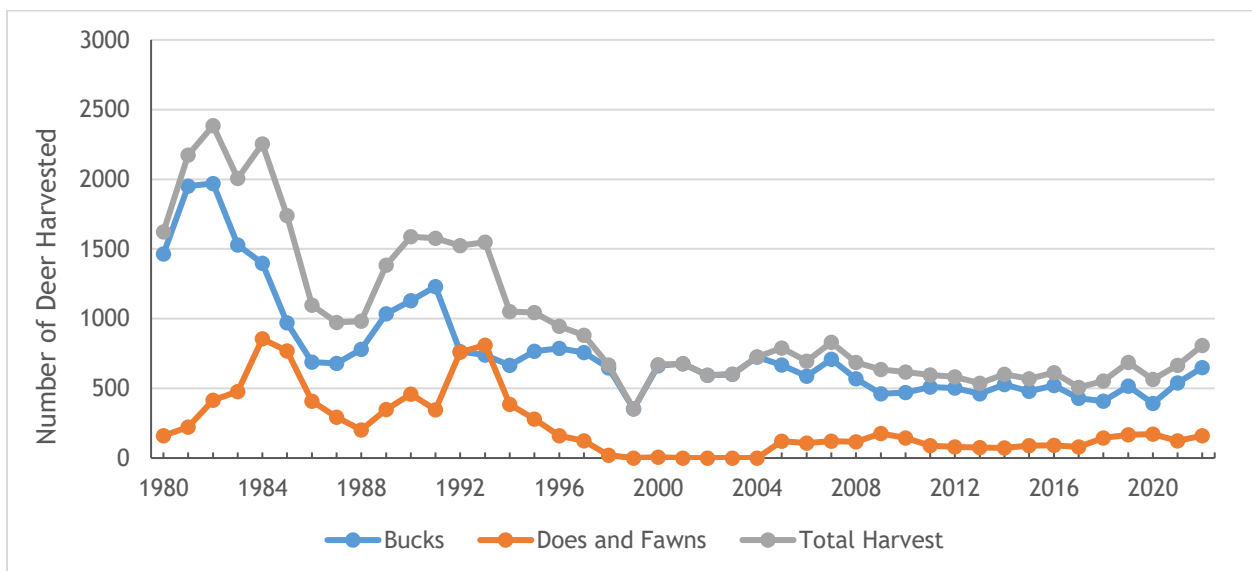


Figure D51-4. Deer harvest estimates in D-51, years 1980-2022.

### Background Information

Data Analysis Unit (DAU) D-51 is 1002 square miles in southwestern Colorado and includes parts of Delta, Gunnison, and Mesa Counties. DAU D-51 consists of Game Management Units (GMUs) 52, 411, and 521. Land ownership in DAU E-43 is 35% private and 65% public (US Forest Service, Bureau of Land Management, National Park Service, and the State of Colorado). There is one wilderness area within the DAU: Raggeds Wilderness.

Deer occur throughout GMUs 52, 411, and 521, but migratory behavior determines spatial and temporal density across the units. The Herd Management Plan was revised in 2018 and the population objective was set to 8,000 to 10,000, which, following public input, targeted increasing the population from the current population at that time. It is well documented that overall, the population of mule deer on the South Grand Mesa, and most of Colorado, has experienced significant declines since the 1980s (Gill et al. 2001). From 1995 to 2020, the South Grand Mesa deer herd population was estimated to be relatively stable at an average of 8,000 deer (Figure D51-1). The estimated population has increased slightly the last few years; the 2022 post-hunt population was 9,100 deer, which is within the population objective range.

The average observed post-hunt sex ratio between 1980 and 2022 was 20 bucks:100 does. The average observed post-hunt sex ratio from 2018 to 2022 was 26 bucks:100 does (Figure D51-2), within the current sex ratio objective of 25-30 bucks:100 does. The 2018 - 2022 fawn: doe ratio was 60 fawns per 100 does. This fawn: doe ratio has increased by approximately 15 fawns per 100 does in a 10-year period; the 2007-2017 average was 43 fawns per 100 does (Figure D51-3).

Deer harvest since 1999, when deer licenses in GMUs 52, 411, and 521 were changed from unlimited to limited, is a function primarily of license allocation and season structure. Weather also plays a role in harvest by affecting success rates. From 2018 to 2022 an average of 501 bucks were harvested annually in D-51 (Figure D51-4). Antlerless licenses were not issued from 1999 to 2004 in an attempt to address deer population declines from the 1980s through the 1990s. In 2005, antlerless deer licenses were issued with private-land-only restrictions to help private landowners alleviate agricultural damage due to deer.

## Significant Issues

Habitat loss and degradation is occurring in D-51 due to increased pressures of human population growth and development and recreation uses of the land, similar to the rest of the Southwest Region of Colorado. Ongoing drought and climate change also negatively impacts the quality of deer habitat that remains. Non-migratory resident deer populations within the developed areas of Cedaredge and the surrounding communities have increased in recent years and problems such as road kill and damage to private property are increasing.

Diseases are an issue in the South Grand Mesa deer herd. Chronic wasting disease (CWD) has been documented with a prevalence rate of 7% in GMU 52, 411, and 521 during mandatory testing in 2020 and 2021. A new early rifle either-sex private-land-only deer season was started to encourage more harvest in specific areas within the DAU to help reduce prevalence and target the lower end of the buck:doe ratio. Epizootic Hemorrhagic Disease Virus (EHDV) has been documented in this area and although mule deer are relatively more resistant than other species, it can impact the population in some cases.

## Management Alternatives

Three post-hunt population objective alternatives were considered in 2018 for D-51:

**Table D51-1.** Proposed population objective ranges considered in 2018 for the D-51 HMP.

Post-hunt Population Objective Alternatives:	
8,000 to 10,000 (midpoint 9,000)	(1) Approximately 10% increase from the current population estimate (STAFF PREFERRED)
7,500 to 9,500 (midpoint 8,500)	(2) Maintain current population size
6,000 to 8,000 (midpoint 7,000)	(3) Approximately 10% decrease from the current population estimate

Three post-hunt sex ratio objective ranges were considered in 2018 for D-51:

**Table D51-2.** Proposed sex ratio (bucks:100 does) objectives ranges considered for the 2018 D-51 HMP.

Post-hunt Sex Ratio Objective Alternatives:	
20-25 bucks:100 does	(1) Decrease from the current sex ratio objective range
25-30 bucks:100 does	(2) Maintain the current sex ratio objective range (STAFF PREFERRED)
30-35 bucks:100 does	(3) Increase from the current sex ratio objective

## Management Objectives

CPW's staff-preferred objective is to extend the D-51 management objectives approved in the 2018 HMP. Continuing to manage to deer population objectives set in 2018 should not significantly increase conflicts with agriculture producers and aligns with the public's desire for this herd based on public involvement. Managing for 25-30 bucks:100 does also corresponds to the majority of responses from public participation.

## Stakeholder Outreach

In 2017, an extensive stakeholder outreach process was conducted, which included a public scoping meeting, a public input survey, a survey of landowners and randomly selected license holders from 2015-2017, and a 30-day open comment period of the draft plan. (Appendix D51-A).

### CPW Commission Approved Objectives:

*Post-hunt Population: Pending*

*Post-hunt buck ratio: Pending*