

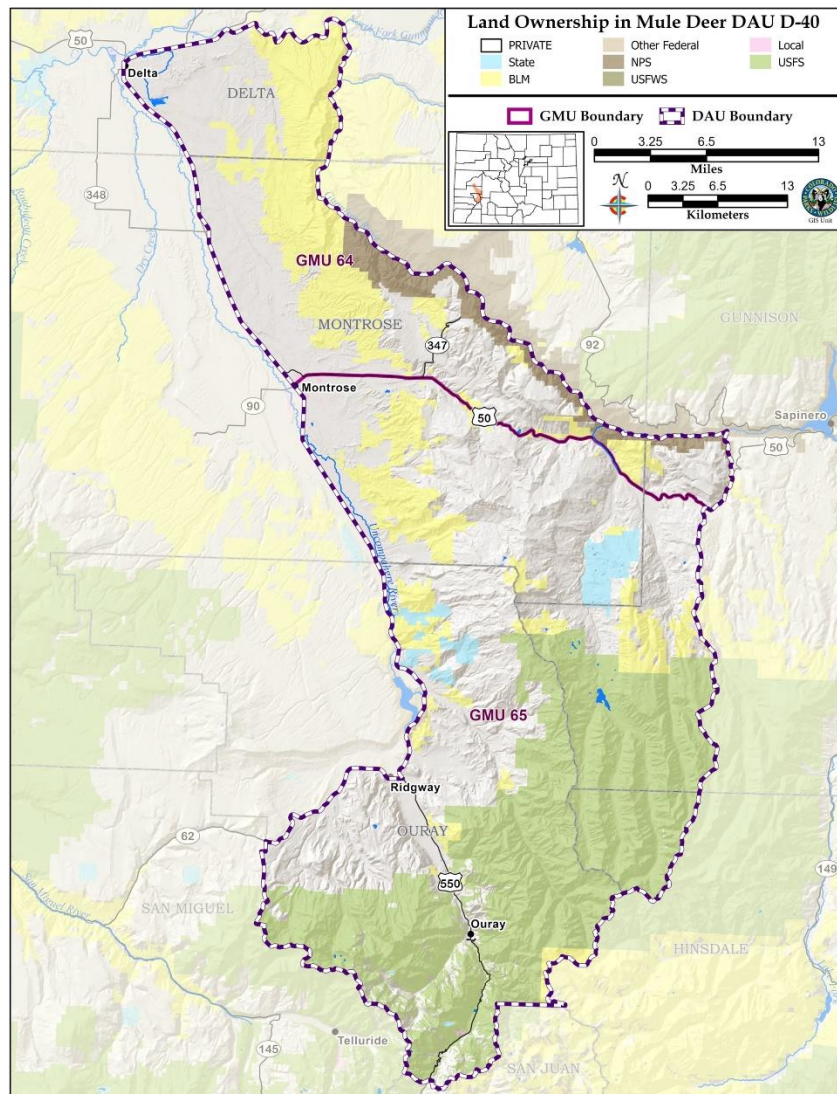
CIMARRON DEER HERD MANAGEMENT PLAN EXTENSION DATA ANALYSIS UNIT D-40

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GMUs: 64 and 65
Last HMP Approval Year: 2022

Post-hunt Population: Previous Objective: 6,500-8,500; 2022 Estimate: 5,900.
Preferred Alternative: Extend the current population objective of 6,500-8,500 deer

Post-hunt Observed Sex Ratio (bucks:100 does): Previous Objective: 25-30;
2022 observed: 23; modeled: 22.
Preferred Alternative: Amend the current sex ratio objective to 22-27 bucks:100 does



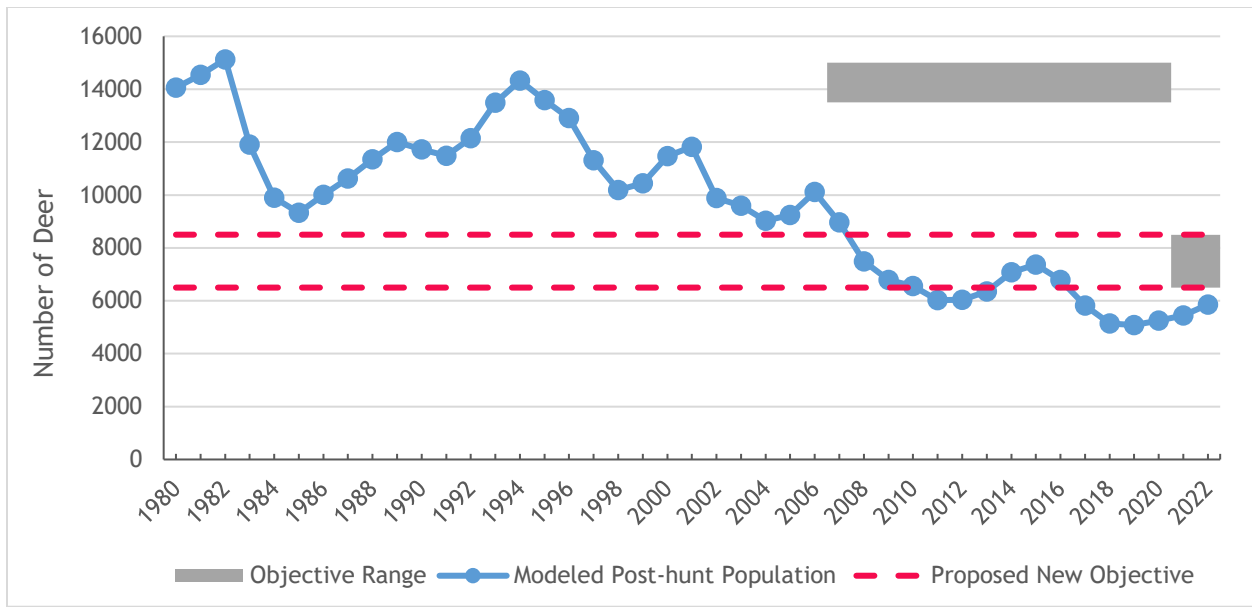


Figure D40-1. Deer DAU D-40 modeled post-hunt population and objective range, years 1980-2022.

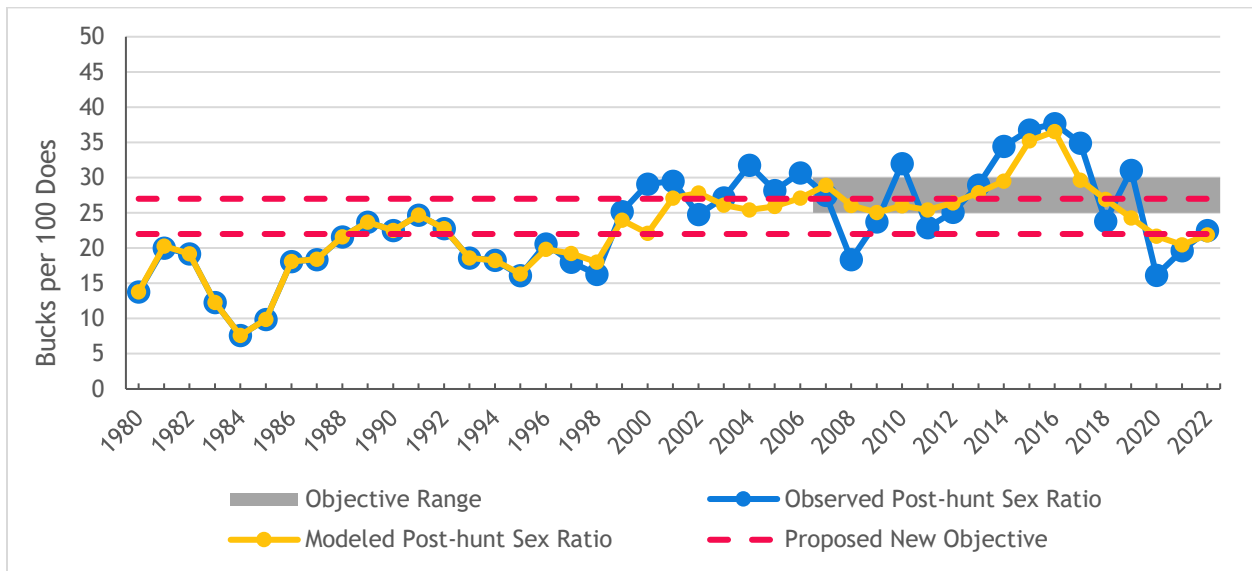


Figure D40-2. Deer DAU D-40 observed and modeled post-hunt sex ratio (bucks:100 does), years 1980-2022.

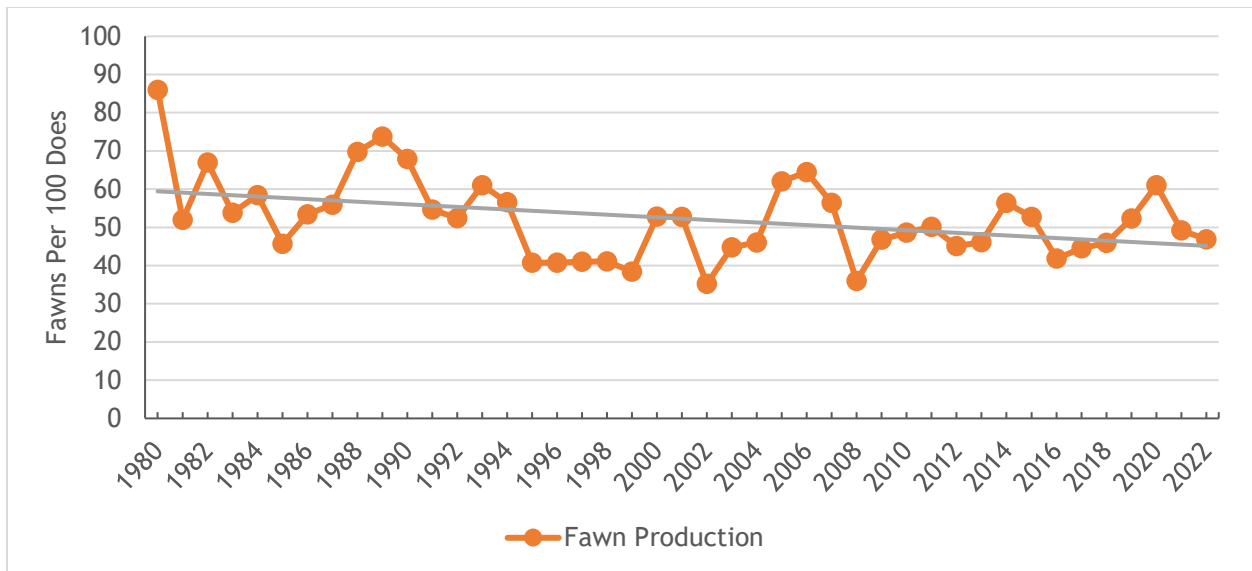


Figure D40-3. Deer DAU D-40 fawn production (observed post-hunt fawns:100 does ratio, years 1980-2022).

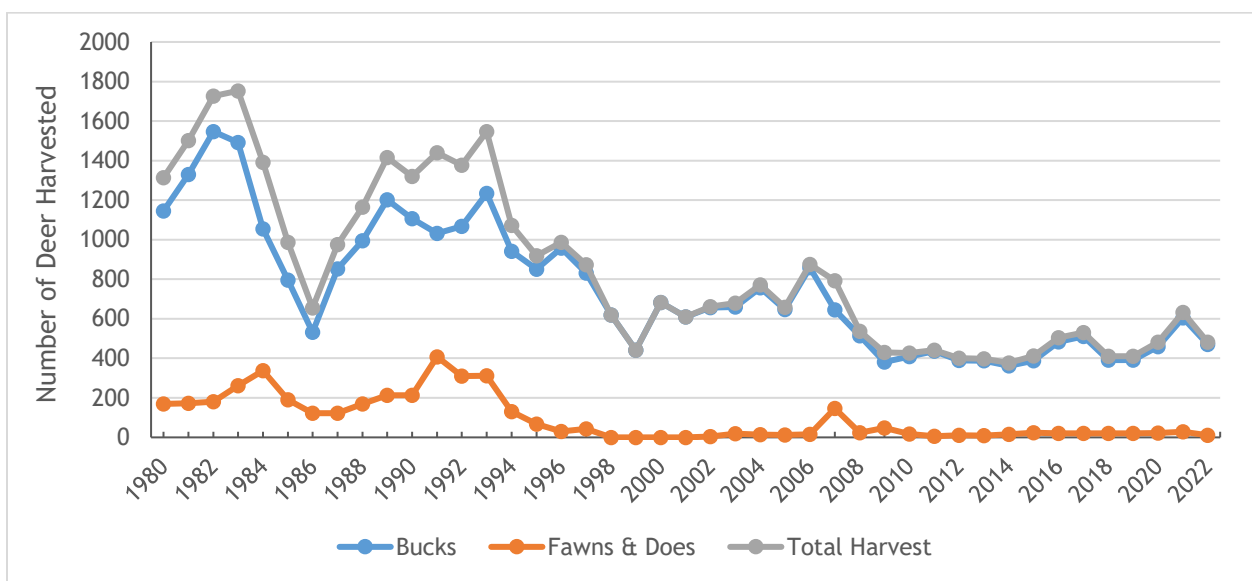


Figure D40-4. Deer harvest estimates in D-40, years 1980-2022.

Background Information

Data Analysis Unit (DAU) D-40 is 941 square miles in southwestern Colorado and includes parts of Delta, Gunnison, Hinsdale, Montrose, and Ouray Counties. DAU D-40 consists of Game Management Units 64 (GMU; 269 mi²) and 65 (672 mi²) and includes parts of the Uncompahgre, Gunnison, and Cimarron River drainages. Land ownership in DAU D-40 is 50% private, 29% US Forest Service, 17% Bureau of Land Management, 3% National Park Service, and 2% state-owned property. There are also two wilderness areas within the DAU: the Uncompahgre Wilderness (~99,000 acres of USFS and 3,400 acres of BLM) and Mount Sneffels Wilderness (16,500 acres of USFS).

Deer are found throughout the DAU. Deer occur in their highest densities in the summer months in higher elevations comprised of aspens, spruce, Douglas fir, and Gambel's oak. In the winter months, deer use the lower elevations and more arid environments of the DAU with pinyon-juniper forests and agricultural fields where the climate is milder. Important wintering areas for deer in GMU 64 include Bostwick Park, Jones Draw, the south side of Poverty Mesa, Coffee Pot Ridge, Cimarron Mesa, and Fitzpatrick Mesa. In GMU 65, important wintering areas include the Cimarron and Billy Creek State Wildlife Areas, Shinn Park, the area between Alkali Creek and Cow Creek, and Miller Mesa. A growing population of residential deer occupy agricultural fields in the Uncompahgre Valley paralleling US Highway 550 and US Highway 50.

DAU D-40 has been on an overall declining trend since the early 1990s. There have been a few small increases in the population over the last 30 years, but it has never recovered to its former high of approximately 15,000 deer in the early 1980s. The population has been on a slight increasing trend for the last five years. The 2007 herd population objective was 13,000-15,000 with an estimated 13,500 deer. The 2022 population was estimated at 5,900 deer. During the 2022 update of this HMP, CPW staff and public stakeholders stated a desired increase in deer populations above current modeled estimates. This plan was updated and approved by the Parks and Wildlife Commission (PWC) in 2022 with a new objective range of 6,500-8,500, acknowledging that the 2007 objective range would be difficult to achieve given current population trends.

The average observed and modeled post-hunt buck ratio over the last five years is 23 bucks:100 does. The buck ratio objective set and approved by the PWC in 2022 was 25-30 bucks:100 does. For the 2024 HMP revision, CPW recommends a lower buck ratio of 22-27 bucks:100 does to better reflect current ratio trend within this herd. Observed post-hunt fawn ratios averaged 51 fawns:100 does over the last five years. Fawn to doe ratios have declined slightly over the previous three years.

Harvest in DAU D-40 has remained stable over the last 10 years. Harvest averaged approximately 460 deer per year the previous ten years compared to about 1,300 deer from 1980-1990 when this population peaked and deer licenses were not yet limited statewide. Preference point minimums for licenses in D-40 range from 0-5 points, with some licenses drawing out as second choice or leftover (depending on residency). Antlerless licenses are limited to private-land-only and game damage licenses to control resident deer populations and minimize game damage in the Uncompahgre Valley. In 2022, 471 bucks and 11 does were harvested by 1,070 hunters with a success rate of 45%.

As a result of persistently declining deer populations on the Uncompahgre Plateau and across the west, CPW and other agencies and organizations have searched for solutions. CPW limited license numbers and established the Uncompahgre Plateau (D-19), adjacent to D-40, as an intensive deer study area beginning in 1997 to monitor over-winter fawn survival and annual doe survival to better inform management of deer populations on the Plateau and in similar habitats across southwestern Colorado. Additional studies have also been completed on the Plateau to investigate declining deer populations.

Significant Issues

The long-term population decline of this deer herd and low fawn recruitment (survival of a fawn from birth to one year of age) over the previous 30-40 years is likely attributed to an overall decrease in carrying capacity across the landscape for various reasons. Suitable winter range habitat has diminished due to land conversions and human development. As human populations rise, vehicle traffic increases, impacting deer survival rates and movement patterns. Roadkill along the US Highway 550 corridor is prevalent, especially for deer. In response to increased wildlife-vehicle collisions, exclusion fencing and jump-outs were added to the highway right-of-way to keep wildlife from entering roadways. Exclusion fencing can inadvertently impact movement within home ranges without adequate crossing structures. CPW, CDOT, and other partners are working to increase permeability on this stretch of highway. Additionally, outdoor recreation has increased dramatically over the last decade. Recreation can have many impacts including loss of effective habitat, changes in seasonal migration patterns, and potentially lower survival rates. Historical and current overgrazing by domestic livestock, persistent drought, and competition with elk have all contributed to decreased habitat quality across the landscape.

Although claims for deer damage are not excessive and are currently lower than historic levels, there are still deer damage claims every year. Game damage outside of the claims process is increasing in the Montrose County portion (Uncompahgre Valley) of the DAU due to an increasing non-migratory deer herd residing year-round on agricultural land. Game damage complaints have decreased in Ouray and Gunnison County portions of the DAU. Frequently, prevention materials and game damage distribution management hunts are requested and given to landowners to proactively deal with damage before a claim is made. These methods also increase landowner tolerance for wildlife on private properties.

Additionally, Chronic Wasting Disease (CWD) is present in D-40. This disease occurs in deer, elk, and moose. CWD is an infectious prion (misfolded protein) disease that affects the nervous system over approximately three years. CWD can spread from the host by direct contact or through resources shared with an infected individual. To add to the complexity, prions can last for many years in the environment, further challenging management. This disease is 100% fatal and a treatment has not yet been developed. CWD was first detected in D-40 in 2017 and the current estimated prevalence rate is 3.7% in the DAU. Although prevalence is low, CPW is taking preventative management actions to limit the spread of CWD. CPW created an August private land disease management hunt in portions of GMUs 62, 64, and 65 when only resident deer are located in the Uncompahgre Valley. This hunt allows hunters to target deer that are more likely to transmit CWD to higher-elevation deer when they migrate to the valley during the winter months. Moreover, CPW has increased buck licenses to decrease spread since adult male deer are more likely to contract CWD. Proactive CWD management will be a crucial part of the D-40 herd management plan.

Management Alternatives

Post-hunt population and buck ratio objective alternatives considered for the 2024 D-40 HMP:

Table D40-1. Proposed population and buck ratio objective ranges for the 2024 D-40 HMP.

Population Objective Alternatives:		Buck Ratio Objective Alternatives:	
6,500 to 8,500 (midpoint 7,500)	(1) Preferred- (Status Quo) 27% increase in the current population estimate to the middle of the proposed objective range.	22 to 27 bucks per 100 does	(1) Preferred
4,000 to 6,000 (midpoint 5,000)	(2) Approximately 15% decrease in the current population estimate to the middle of the proposed objective range. Current population estimate is within this range.	25 to 30 bucks per 100 does	(2) status quo from 2022 HMP
5,000 to 7,000 (midpoint 6,000)	(3) Approximately 2% increase in the current population estimate to the middle of the proposed objective range. Current population estimate is within this range.	30 to 35 bucks per 100 does	(3)

Management Objectives

CPW plans to increase populations to meet stakeholder and CPW staff desires. Overall, the DAU’s habitat carrying capacity has likely decreased compared to historic plans, and current habitat likely cannot support historic deer numbers. However, increasing this herd slightly would align with stakeholder desires (Alternative 1). Decreasing this herd is not desired and would be difficult because the demand for limited licenses is already lower than the quota offered for some licenses (Alternative 2). Increasing license numbers would not necessarily increase harvest. It could also make encountering animals on public lands more difficult because increased pressure on public lands could cause deer to move onto private lands that do not allow hunting or only allow limited hunting. A 2% increase is attainable with the current population, but a larger increase is desired by CPW and stakeholders (Alternative 3).

CPW would like to amend the buck ratio slightly to better reflect how current buck ratios are trending. Stakeholders desire more mature bucks on the landscape; however, CPW feels that the buck ratio should be reflective of allowing opportunity to hunt deer with consideration given to management of CWD prevalence. The preferred objective of 22-27 bucks per 100 does overlaps the current objective range and is a decrease from the current ratio objective (Alternative 1). The current plan’s buck ratio of 25-30 bucks per 100 does has not been achieved since 2019 (Alternative 2). The current 3-year average has hovered around 19 bucks per 100 does. The preferred objective allows for a balance of opportunity for hunters to get a deer license, allows for diverse ages of bucks on the landscape, and allows CPW to work to keep CWD prevalence in check. Increasing the buck:doe ratio to 30-35 bucks:100 does would necessitate a reduction in the current number of deer licenses in this DAU (alternative 3). Increasing the observed buck:doe ratio would be difficult to achieve with so few bucks already on the landscape and slow population growth. Increasing the number of mature bucks on the landscape would have potential to contribute to an increase in CWD prevalence (since mature bucks are more likely to have CWD). For this reason, an increased buck ratio would not be a preferred alternative.

Strategies for addressing management issues and achieving objectives

The population in D-40 has had low fawn recruitment (survival of a fawn from birth to one year of age) in recent years. The population faces reduced habitat availability from increased development and recreation, a decline in habitat quality due to drought and competition with livestock and elk, and a lack of habitat connectivity. These impacts have contributed to reduced population performance for the last decade.

CPW manages sex ratios and population size by increasing or decreasing licenses by total quota, by season, and by sex, depending on the objectives for each herd. This herd has historically been managed for a balance of opportunity and population growth, and staff would like to continue this management strategy. Additionally, the last several years have been managed proactively to limit CWD spread. Although the prevalence is low, this as an important strategy to continue into the future. Antlerless game damage licenses would still be available for landowners to deter deer from causing damage and to increase landowner tolerance, but antlerless licenses are not anticipated to be available in the draw for the near future until populations recover. Buck licenses will continue to be offered to manage CWD concerns and allow for moderate hunting opportunity. Additionally, predator and competing ungulates will continue to be managed.

In addition to license management, CPW recognizes the importance of habitat protection and habitat quality improvement. CPW will continue to support conservation easements that benefit big game habitat and protect habitat connectivity between seasonal ranges. In addition, CPW will continue to support projects that aid in movement across the landscape for wildlife and keep people safe on the roads with structures like underpasses and overpasses. CPW regularly communicates with land management agencies such as the USFS and BLM, landowners, county governments, CDOT, and NGOs and will continue to collaborate with these government agencies and organizations. These agencies can help with large-scale habitat management projects to improve carrying capacity and connectivity and regulate recreation on public lands, which could bolster struggling deer populations, like D-40.

Stakeholder Outreach

During the stakeholder outreach process for the 2022 Herd Management Plan revision, surveys designed with hunters and landowners in mind were sent on September 17, 2021 with an input period ending on October 29, 2021. Emails with a link to the online survey were sent to 2,578 first-choice applicants and license holders from 2017-2020. An additional 20 survey request emails were sent to landowners and outfitters who have expressed interest in herd management. There were 374 respondents to the survey, providing CPW with a comprehensive view of stakeholder thoughts and opinions. Overall, respondents were evenly split between increasing or decreasing the herd and preferred for the buck ratio to remain status quo.

Additionally, hunters were randomly selected to complete the 2022 Deer Hunter Attitude Survey after the completion of their hunting seasons. There were 274 respondents who answered the opt-in questions for D-40. Overall, hunters wanted to see a slight to moderate increase in the deer population and were satisfied with their overall hunting experience. Hunters also preferred hunting bigger bucks (higher buck ratio) than hunting more often (lower buck ratio). The majority of respondents also did not feel crowded while deer hunting.

The draft HMP for D-40 will be sent to local county commissioners in Delta, Gunnison, Montrose, Hinsdale, and Ouray Counties. Draft plans will also be sent to the HPP, USFS, the BLM, and Backcountry Hunter and Anglers (BHA). The HMP will be posted on the CPW website for 30 days, allowing stakeholders to comment on the alternatives in the plan.

CPW Commission Approved Objectives:

Post-hunt Population: Pending

Post-hunt buck ratio: Pending