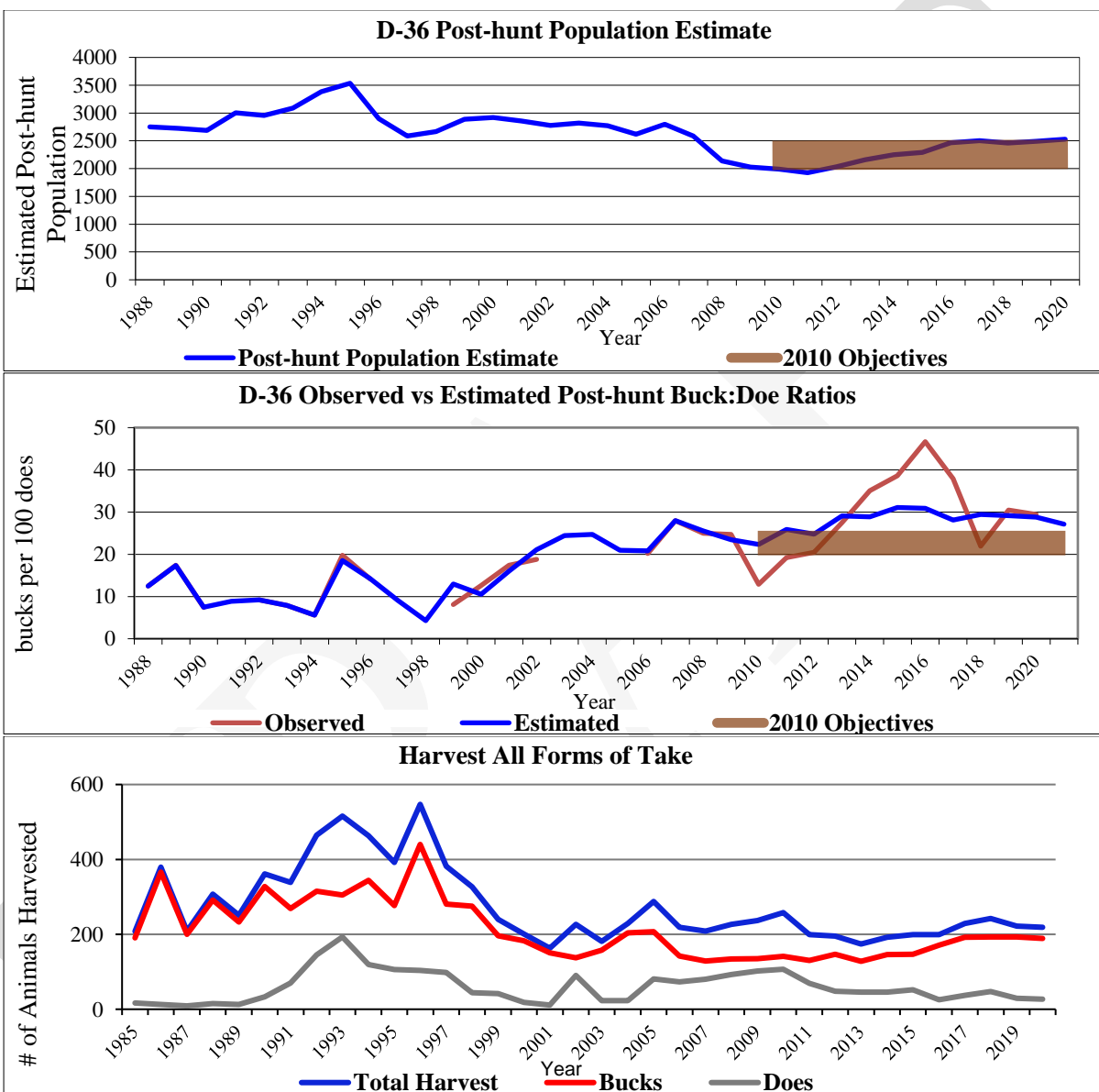


## Upper Rio Grande D-36 HMP Executive Summary

<b>GMUs:</b> 76, 79, and 791	<b>Land Ownership:</b> 2% BLM, <1% CO State, 66% USFS, <1% USFWS, <1% State land Trust, and 32% Private.
<b>2020 Post-hunt Population Estimate:</b> 2,500 deer	<b>Post-hunt Sex Ratio (Bucks per 100 Does):</b> 29 (Estimated 3-yr average)
<b>2010-2021 (Previous Herd Plan Objectives):</b>	2,000 to 2,500 deer; 20-25 Bucks per 100 Does.
<b>2022-2032 (Preferred Herd Plan Objectives):</b>	2,200 to 2,800 deer; 23-28 Bucks per 100 Does.



The D-36 mule deer herd is in the western region of the San Luis Valley. The DAU (geographic area) comprises Game Management Units (GMUs) 76, 79, and 791, approximately 1,806 square miles in area. Mule deer winter range within the DAU includes roughly 352 square miles, whereas the summer range encompasses about 1,469 square miles. Portions of Alamosa, Hinsdale, Mineral, Rio Grande, Saguache, and San Juan counties make up the entire area. Public land constitutes about sixty-eight percent of the DAU, while almost thirty-two percent of the area is privately owned.

The estimated post-hunt population size for D-36 has been relatively stable at around 2,500 animals for the past five years. The population estimate reached its peak at around 3,500 mule deer in 1995. The population declined over the next couple of years and remained relatively stable, ranging between 2,500 and 2,900 animals, until 2007. After that, the population declined further to its lowest level at roughly 1,900 animals in 2011. However, within the timeframe of the previous HMP, the population climbed again to the upper end of the objective range.

The D-36 observed sex ratio was relatively stable until 1999, around 12 bucks per 100 does, at which time buck licenses became limited. From 2000, the sex ratio rose until 2009 (approximately 25 bucks per 100 does), then dropped in 2010 to about 13 bucks per 100 does. After that, the observed sex ratio continued rising to its highest level in 2016 (roughly 47 bucks per 100 does), fluctuating annually. In contrast, the model-estimated sex ratio has been trending above the 2010 objective range, around 29 bucks per 100 does). Since 2019, the observed sex ratio has been closer to the estimated value. In 2020, CPW detected a low prevalence of Chronic Wasting Disease (CWD) in the neighboring DAU (D-30), raising concerns for the heightened sex ratio since males are more likely to contract CWD.

Before CPW limited buck licenses in 1999, the annual buck harvest averaged approximately 294 animals in the DAU. Over the past ten years, buck harvest has averaged about 164 animals yearly. With a rising observed sex ratio, CPW increased the buck licenses slightly in 2017 in GMU 79 and 791 and again in 2018 throughout the DAU to curb the ascent and reduce it to the upper end of the objective range. Harvest from the additional licenses has leveled further increases, and the sex ratio is currently trending downward.

Doe harvest has fluctuated since 1985, averaging roughly 60 animals annually. CPW removed doe licenses in GMU 76 in 2000. Over the previous ten years, the annual doe harvest from GMU 79 and 791 combined has averaged around 43 animals. Private-land-only (PLO) licenses, addressing depredation issues, are the most significant source of doe harvest.

The combined hunting-season success rates from 2011 to 2020 have averaged approximately fifty-four percent. However, harvest success rates are skewed between the archery, muzzleloader, and rifle seasons. The average archery success since 2010 is around twenty-three percent. Comparatively, the second and third rifle seasons have averaged roughly fifty-four to fifty-five percent, and the fourth rifle season's success has averaged about seventy-nine percent over the past ten years. Since 2011, the muzzleloader season success has fallen between the rifle and archery seasons, at almost thirty-seven.

Significant factors limiting the D-36 population are the quantity and quality of winter range habitat. The winter range continues to diminish, with increased development on private land and competition with domestic livestock. Similarly, summer recreational activities continue to increase throughout the DAU. The various anthropogenic impacts may disturb deer, affecting their distribution, reproduction, fawning efforts and ultimately restricting population growth. Since 2015, CPW field personnel have observed relatively high fawn recruitment. However, over the past three years, fawn recruitment has dropped slightly. Alternatively, the increased forage availability resulting from the 2013 West Fork Complex Fires may support a more robust deer herd; however, the open canopy affords a lack of cover for deer during significant winter storms.

Mule deer are not a significant problem on agricultural land in the DAU, and depredation concerns are minimal. CPW continues to provide game damage and dispersal licenses to private landowners to address issues. Localized problems may result from restricted mule deer distribution during the winter months. Private landowners who experience mule deer depredation issues can access various management tools offered by CPW; each is dealt with individually.

### Management Alternatives

In Data Analysis Unit D-36, four alternatives are being considered for the **post-hunt population size** and three alternatives for the **sex ratio** objectives:

Population Objective Alternatives:			Sex Ratio Objectives	
1,800 to 2,300	Approximately 10% decrease in objectives		20 to 25 Bucks per 100 Does	
2,000 to 2,500	Remain the same		23 to 28 Bucks per 100 Does	Preferred
2,200 to 2,800	Approximately 10% increase in objectives	Preferred	25 to 30 Bucks per 100 Does	
2,400 to 3,000	Approximately 20% increase in objectives			

### Preferred Objectives:

#### *Post-hunt Population*

The preferred management objective for D-36 is a **population of 2,200 to 2,800 mule deer**, aiming to maintain management and sustain the herd at its current estimated population level, allowing for a slight increase. This objective range provides the best balance for managing the herd, hunting recreational opportunities, minimizing agricultural conflicts, and maintaining habitat carrying capacity.

#### *Post-hunt Sex Ratio*

The preferred post-hunt sex ratio objective range for the D-36 mule deer herd is increasing the current objective to **23-28 bucks per 100 does**. The range supports most stakeholder desires, who have asserted their opinions to local field personnel, preferring a slightly higher sex ratio objective in the DAU. A higher objective would reduce the need for an aggressive harvest from what CPW has observed recently. However, higher sex ratios would increase the risk of CWD. The preferred range should allow for the best balance between satisfactory hunting experiences and the desired hunting opportunities.

**Strategies for Achieving the Preferred Objectives:**

***Post-hunt Population*** – CPW will continue collecting annual inventory data and appropriately managing to the preferred mule deer population objective. The population should persist as long as fawn recruitment remains strong without public land doe hunting licenses. Tools to control private land depredation issues would stay in place. CPW would consider doe harvest opportunities once the population estimate is within the upper region of the objective range or a significant deterioration in habitat conditions occurs.

***Post-hunt Sex Ratio*** – CPW may need to increase buck-hunting opportunities slightly until the observed sex ratio falls within the preferred objective range. After that, CPW would monitor the herd closely to maintain a balance between buck hunting opportunities and the mature buck level relevant to the objective range. Harvest from these licenses should sustain an acceptable mature buck population and maintain stakeholder satisfaction. The preferred objective would also help reduce the risk of CWD from the sex ratio levels CPW has observed in recent years.

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