

UPPER RIO GRANDE DEER HERD MANAGEMENT PLAN EXTENSION DATA ANALYSIS UNIT D-36

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GMUs: 76, 79, and 791

Last HMP Approved Year: 2022

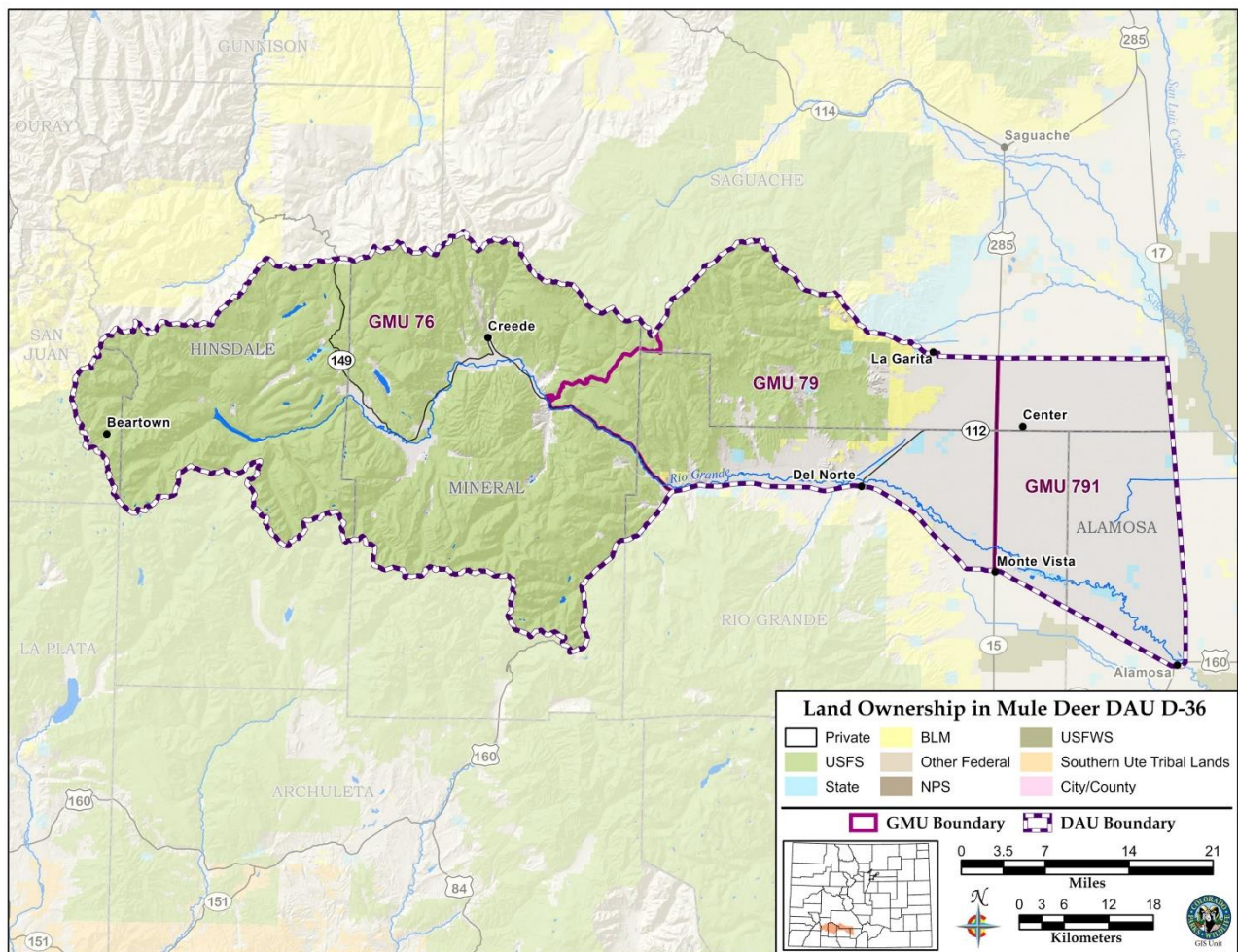
Post-hunt Population: Previous Objective: 2,200-2,800; 2022 Estimate: 2,600 deer.

Preferred Alternative: Maintain population objective at 2,200-2,800 deer

Post-hunt Sex Ratio (bucks:100 does): Previous Objective: 23-28;

2022 observed: 30; 3-yr average modeled: 29.

Preferred Alternative: Status Quo at 23-28 bucks:100 does



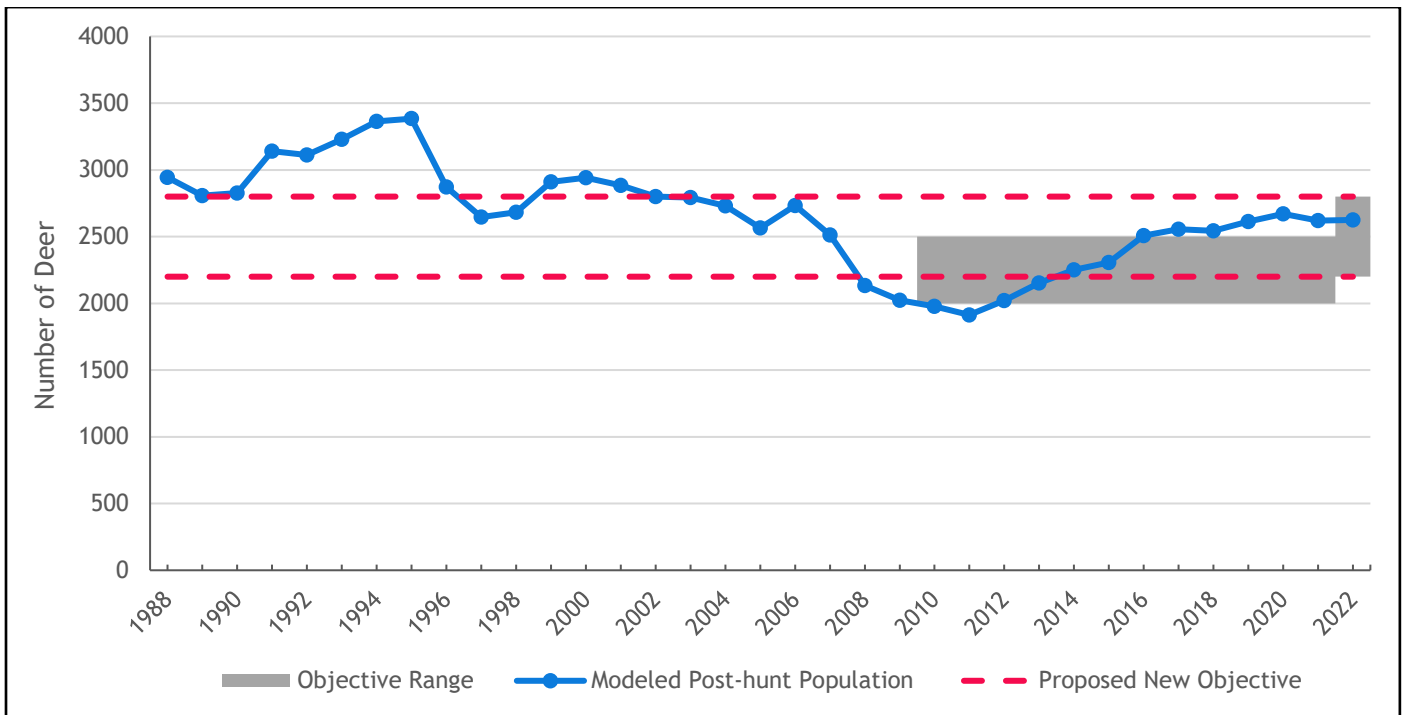


Figure D36-1. Deer DAU D-36 modeled post-hunt population and objective range, 1988-2022.

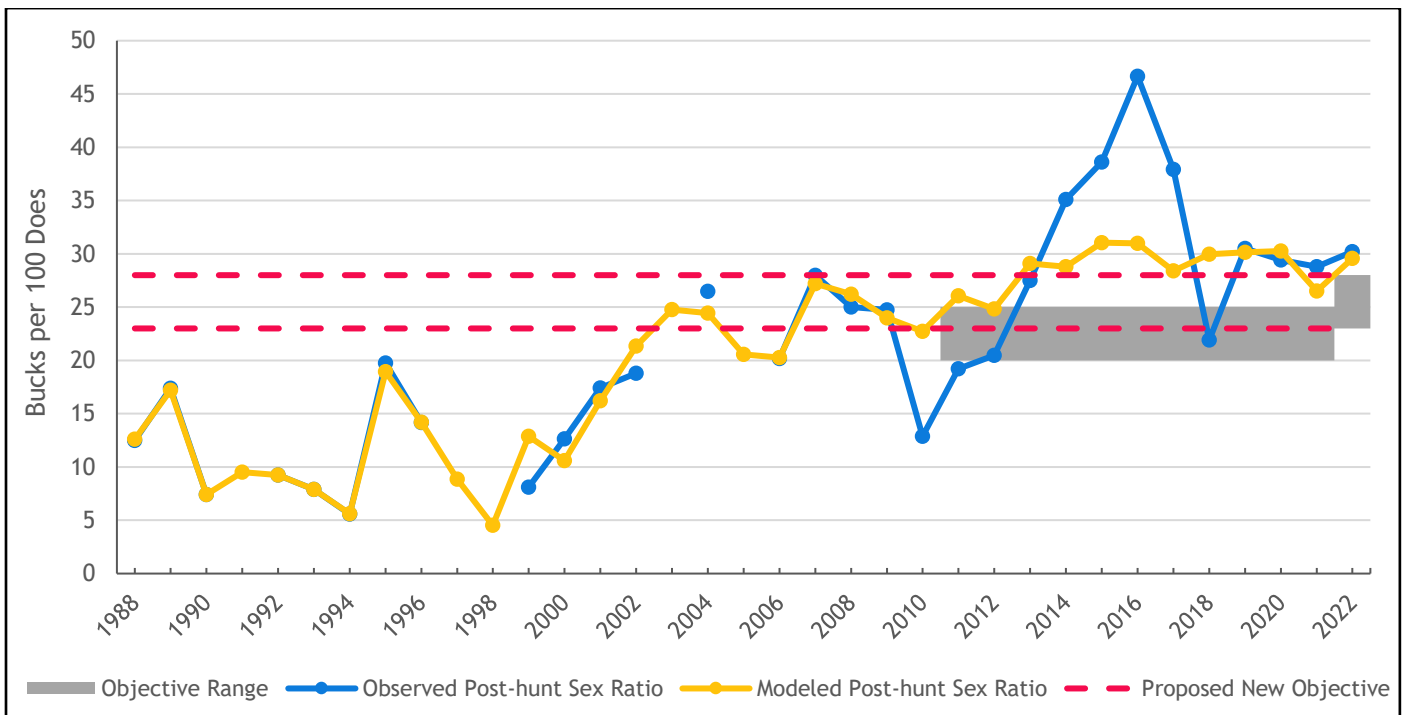


Figure D36-2. Deer DAU D-36 observed and modeled post-hunt sex ratio (bucks:100 does), 1988-2022.

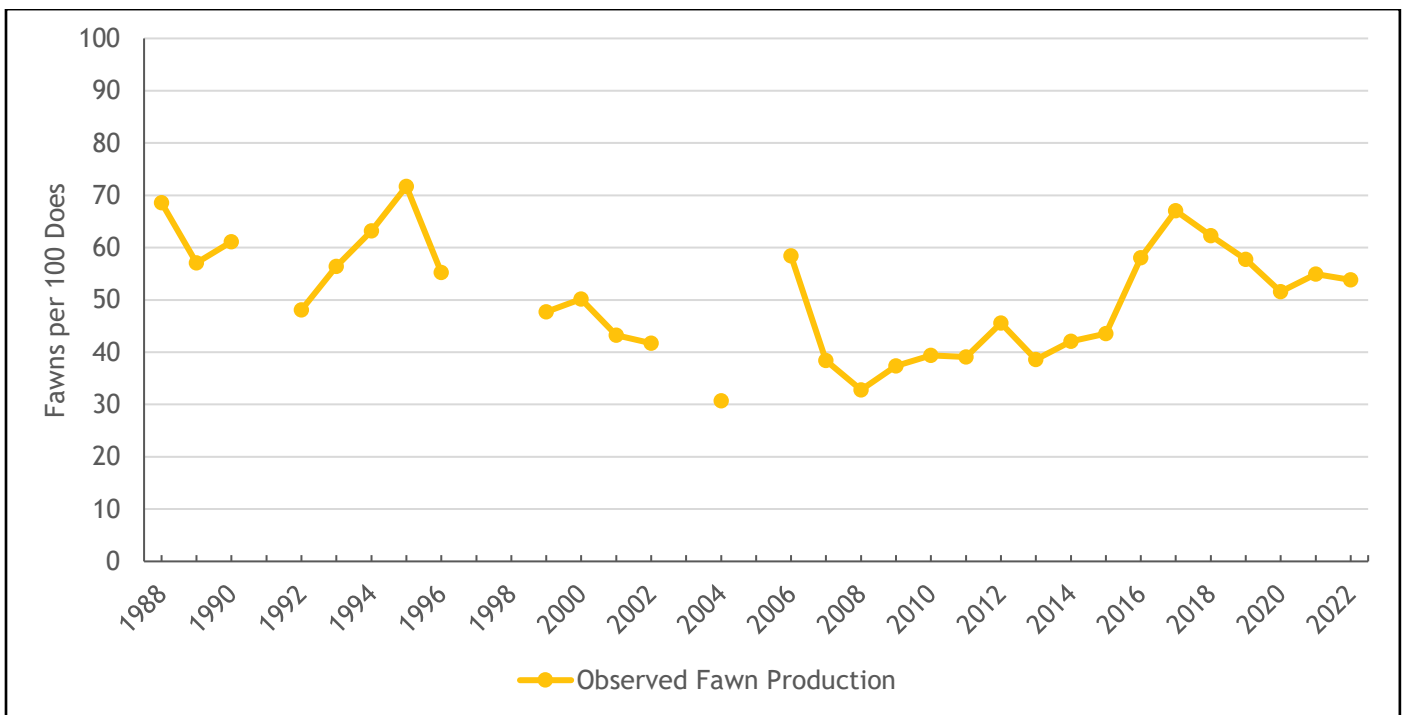


Figure D36-3. Deer DAU D-36 fawn production (observed post-hunt fawns:100 does ratio, 1988-2022).

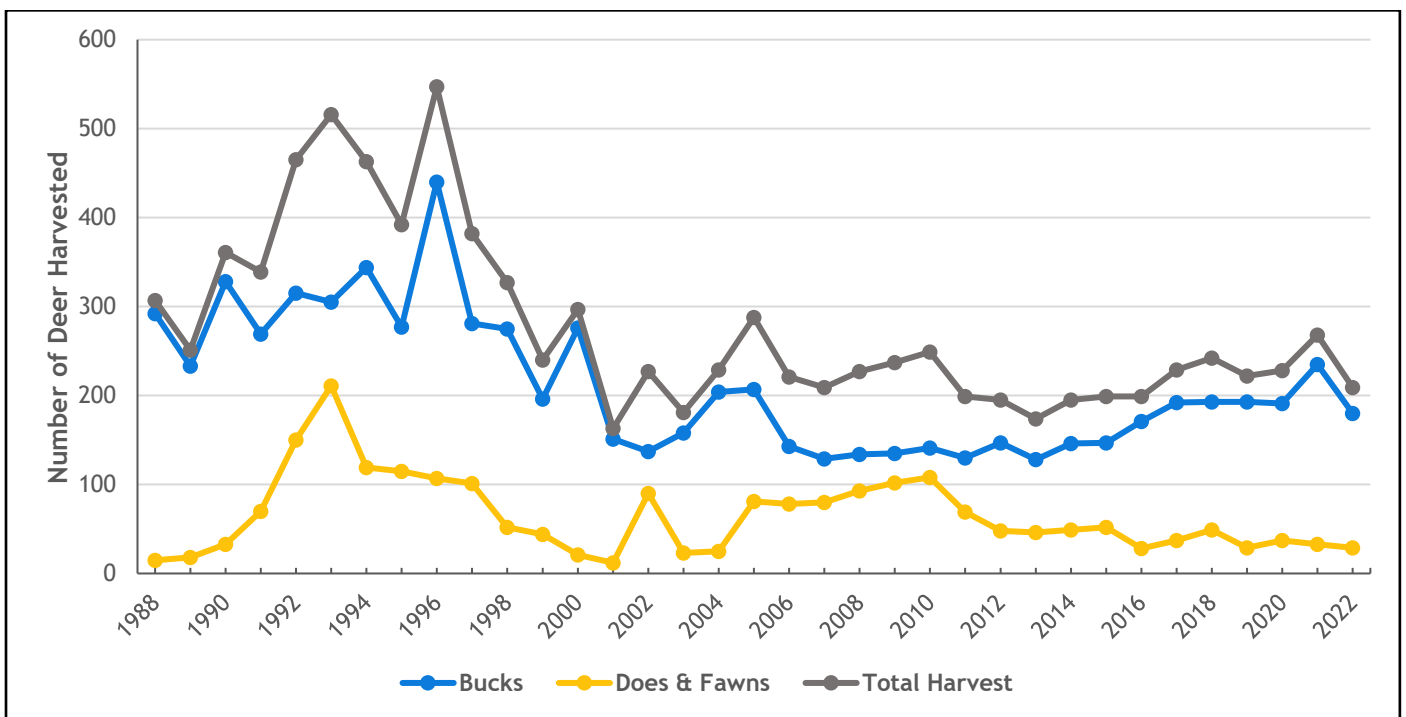


Figure D36-4. Deer harvest estimates in D-36, 1988-2022.

Background Information

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. The 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 the private sector owns almost thirty-two percent.

The estimated post-hunt population size for D-36 has been around 2,500 animals for the past five years. The population peaked at approximately 3,500 mule deer in 1995. Thereafter, the population declined for the next few years, ranging between 2,500 and 2,900 animals, until 2007. The population continued falling to its lowest level at roughly 1,900 animals in 2011. However, within the timeframe of the previous HMP, the population climbed to the upper end of the objective range. In 2022, CPW reassessed the population objective range to incorporate the trend more efficiently within management goals.

The D-36 observed sex ratio fluctuated but closely followed the model estimate 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 at 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 about heightened sex ratios. 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 178 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 in the trend. However, in 2022, CPW reassessed the sex ratio objectives, and an updated range was set to comply more accurately with management goals and constituents' desires.

Doe harvest has fluctuated since 1988, averaging roughly 62 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 2013 to 2022 have averaged approximately fifty-five percent. However, harvest success rates are skewed between the archery, muzzleloader, and rifle seasons. The average archery success since 2013 is around twenty-eight percent. Comparatively, the second and third rifle seasons have averaged roughly fifty-six to fifty-eight percent, and the fourth rifle season's success has averaged about eighty-four percent over the past ten years. Since 2013, the muzzleloader season's success has fallen between the rifle and archery seasons, averaging almost forty-one percent.

Management Concerns

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 affect distribution, reproduction, and fawning efforts restricting population growth. Since 2015, CPW field personnel have observed improved fawn recruitment. The increased forage availability resulting from the 2013 West Fork Complex Fires may support a more robust deer herd; however, this results in 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 CPW offers.

Management Alternatives

In 2022, CPW considered four alternatives for the post-hunt population size objectives and three alternatives for the post-hunt sex ratio objectives in Data Analysis Unit D36:

Table D36-1. Proposed population objective ranges for the 2024 D-36 HMP.

Post-hunt Population Objective Alternatives:	
1,800 to 2,300	(1) Approximately 10% decrease in objectives
2,000 to 2,500	(2) Status Quo
2,200 to 2,800	(3) Approximately 10% increase in objectives - APPROVED
2,400 to 3,000	(4) Approximately 20% increase in objectives

Table D36-2. Proposed buck ratio objective ranges for the 2024 D-36 HMP.

Post-hunt Buck Ratio Objective Alternatives:	
20 to 25 Bucks per 100 does	(1) Status Quo
23 to 28 Bucks per 100 does	(2) Increase buck ratio objective by approximately 3 bucks per 100 does - APPROVED
25 to 30 Bucks per 100 does	(3) Increase buck ratio objective by approximately 5 bucks per 100 does

Public Involvement

In the summer of 2021, CPW held a local public meeting in Creede, CO. Local constituents representing different community stakeholder groups attended the meeting. The overall view from the attendees was that they were somewhat pleased with deer management in the DAU. In addition, CPW provided an initial draft document online to the public for 30 days. CPW also sent the draft to the BLM, local county commissioners, the local Habitat Partnership Program (HPP) committee, and the U.S. Forest Service for commentary and feedback. The draft allowed all constituents to participate in the public process, including non-consumptive recreationists, hunters, landowners, local stores, or business owners. CPW has re-examined and considered biological herd capabilities and social-political tolerance for this updated HMP. CPW will provide a draft of this HMP online for 30 days for public comment but proposes no changes to the objectives.

Preferred Management Objectives:

Post-hunt Population

The preferred management objective for D-36 is a post-hunt **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 deer 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 objective to **23-28 bucks per 100 does**. The range supports most stakeholder desires, 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. However, higher sex ratios may increase CWD risk. The preferred range allows 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 managing to the preferred mule deer population objectives. The population should persist as long as fawn recruitment remains strong without public land doe hunting licenses. Tools to control private land depredation issues will remain in place. CPW will consider doe harvest opportunities once the population estimate reaches the upper region of the preferred objective range or a significant deterioration in habitat conditions occurs.

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

CPW Commission Approved Objectives:

Post-hunt Population: Pending

Post-hunt bull ratio: Pending