

NORTH TABLELANDS DEER MANAGEMENT PLAN D-5

**Game Management Units
87, 88, 89, 90, & 95**



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**Marty Stratman
Colorado Division of Parks & Wildlife
Wildlife Biologist
122 E. Edison St.
Brush, CO 80723**

HERD MANAGEMENT PLAN – D-5 (NORTH TABLELANDS) EXECUTIVE SUMMARY

GMUs: 87, 88, 89, 90, and 95

Land Ownership: 92% Private, 8% Public

Post-Season Population:

Previous Objective – 2,400–2,700; 2019 Estimate – 3,166; Current Objective – 2,500–3,000

Post-Season Sex Ratio (Bucks/100 Does):

Previous Objective – 35–40; 2019 Observed – 38; 2019 Modeled – 38; Current Objective – 30–35

Figure I. D-5 Post-hunt Population

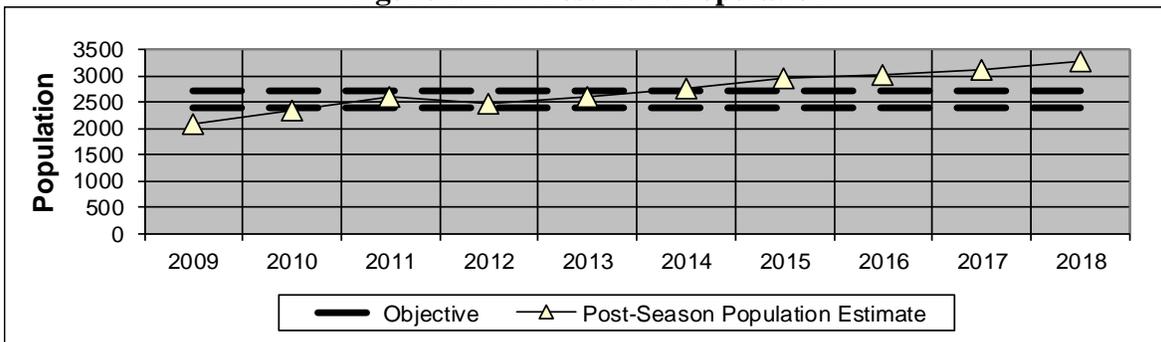


Figure II. D-5 Harvest

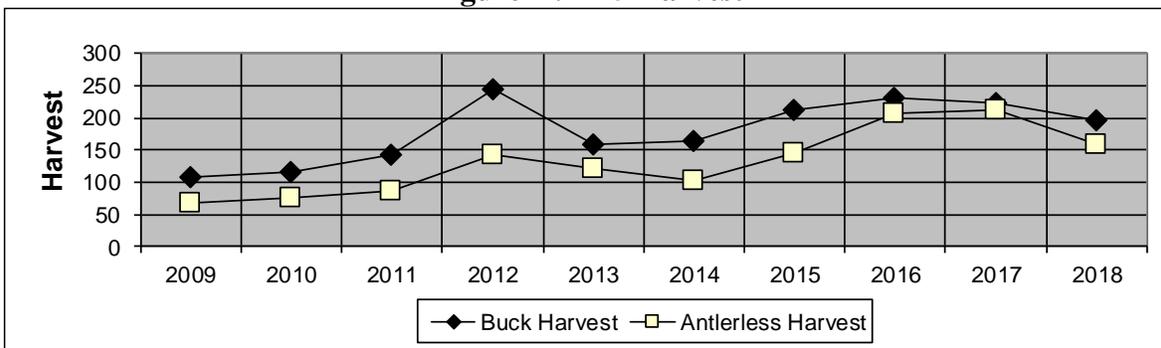
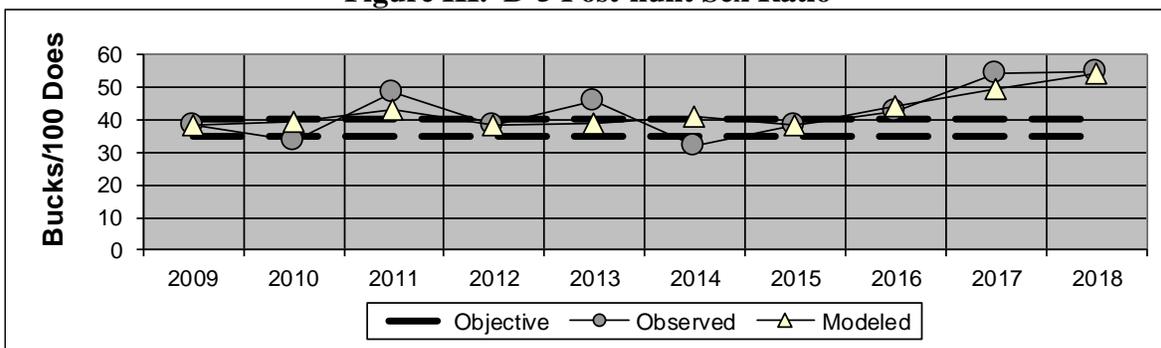


Figure III. D-5 Post-hunt Sex Ratio



Background

Over the past decade, the North Tablelands deer herd has been managed under the current objectives of 2,400–2,700 deer and 35–40 bucks/100 does that were established in 2007. This Herd Management Plan (HMP) and the population and sex ratio alternatives presented are the result of an update and revision of that plan.

Over the past 10 years, the North Tablelands deer herd has been managed to provide quality mule deer hunting opportunities by maintaining a high proportion of 3+ year-old bucks in the population. Since 2009, the mule deer buck/doe ratio has averaged 42 bucks/100 does ranging from 32 bucks/100 does observed in 2014 to 54 bucks/100 does observed in 2017 and 2018. Estimated mule deer numbers for the North Tablelands has increased over the last decade from a low of approximately 1,930 in 2008 to a high of 3,285 in 2018. The 5-year population average for this deer herd is 3,030 mule deer. Observed fawn/doe ratios have varied from a low of 62 fawns/100 does in 2012 to a high of 82 fawns/100 does in 2010 and has averaged 72 fawns/100 does over the past decade.

Significant Issues

The North Tablelands is part of the endemic area for Chronic Wasting Disease (CWD) infection, which was first discovered in 1997. In 2019, mandatory testing of harvested bucks and does revealed that CWD prevalence in mule deer bucks was 32%. Therefore, management changes will be implemented to address CWD in this herd in accordance with the CWD Response Plan. The management actions for the North Tablelands mule deer herd may include reducing the sex ratio, reducing the deer density, or some combination of these management strategies.

The North Tablelands deer herd has been managed to maintain mule deer numbers within the current population and sex ratio objectives. To address white-tailed deer in the North Tablelands, Colorado Division of Parks and Wildlife (CPW) created season choice white-tailed deer only licenses in 2013, which continue to be used in D-5 to provide additional hunter recreation without the risk of over harvesting mule deer.

Preferred Alternatives

The CPW preferred objectives for D-5 are to manage for a post-hunt population of 2,500–3,000 mule deer with an observed post-hunt sex ratio of 30–35 bucks/100 does. Public comments supported maintaining the mule deer population near the current population objective in the North Tablelands. The public also supported to make CWD management an important factor in the future management of this deer herd. Therefore, the sex ratio objective will be reduced to 30–35 bucks/100 does to address the high CWD prevalence in this mule deer herd. Buck licenses will be increased over the long-term to achieve and maintain this sex ratio objective.

Other alternatives considered in this HMP are: 1) reduce the population by 25% to 1,800–2,100 mule deer, 2) increase the population objective to 3,000–3,500 mule deer, 3) maintain the sex ratio objective at 35–40 bucks/100 does, and 4) reduce the sex ratio objective to 25–30 bucks/100 does.

This HMP was approved by the Colorado Parks & Wildlife Commission on January 14, 2021.

NORTH TABLELANDS DEER MANAGEMENT PLAN D-5 (GMUs 87, 88, 89, 90, & 95)

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INTRODUCTION AND PURPOSE

Colorado Parks and Wildlife (CPW) manages big game for the use, benefit, and enjoyment of the people of the state in accordance with CPW's Strategic Plan and mandates from the Parks and Wildlife Commission and the Colorado Legislature. Colorado's wildlife resources require careful and increasingly intensive management to accommodate the many and varied public demands and growing impacts from people. To manage the state's big game populations, CPW uses a "management by objective" approach (Figure 1).

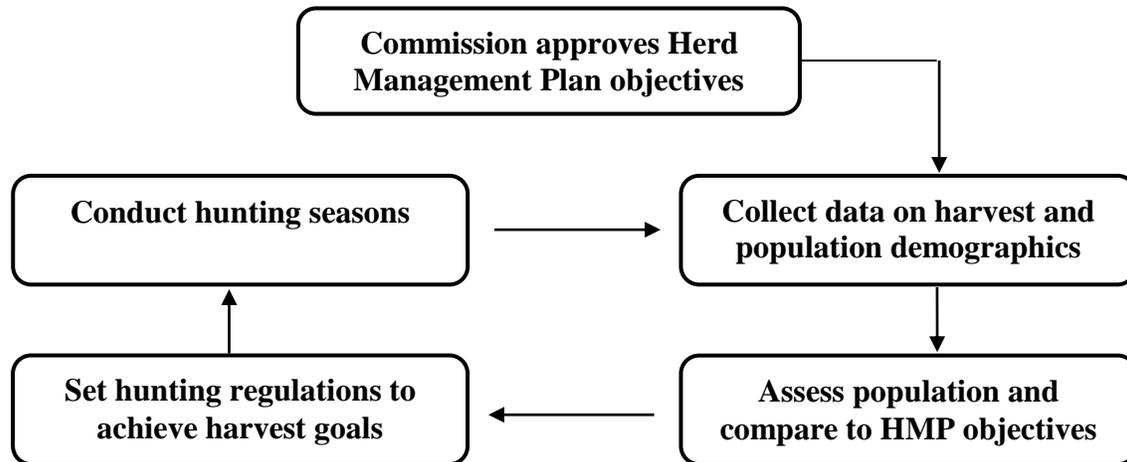


Figure 1. Management by objectives process used by Colorado Parks and Wildlife to manage big game populations.

Big game populations are managed to achieve population and sex ratio objective ranges established by Herd Management Plans (HMPs). The purpose of a HMP is to provide a system or process which integrates the plans and intentions of CPW with the concerns and ideas of land management agencies and interested publics in determining how a big game herd in a specific geographic area should be managed. In preparing a HMP, agency personnel attempt to balance the biological capabilities of the herd and its habitat with the public's demand for wildlife recreational opportunities. Our various publics and constituents, including the U.S Forest Service, the Bureau of Land Management, sports persons, guides and outfitters, private landowners, local chambers of commerce and the general public, are involved in determining the population and sex ratio objectives and related issues. Public input is solicited and collected by way of surveys, public meetings, and comments to the Parks and Wildlife Commission.

A Data Analysis Unit or DAU is the geographic area that represents the year-around range of a big game herd and delineates the seasonal ranges of a specific herd while keeping interchange with adjacent herds to a minimum. A DAU includes the area where the majority of the animals in a herd are born and raised, as well as, where they die either as a result of hunter harvest or natural causes. Each DAU usually is composed of several Game Management Units (GMUs) which are designed to distribute hunters within the DAU, but in some cases only one GMU makes up a DAU.

The primary decisions needed for an individual HMP are how many animals should exist in the big game herd and what is the desired sex ratio for the population of big game animals e.g., the number of males per 100 females. These numbers are referred to as the population and sex ratio objectives, respectively. Secondly, the strategies and techniques needed to reach these objectives also needs to be selected. The selection of population and sex ratio objectives drive important decisions in the big game season setting process, namely, how many animals need to be harvested to maintain or move toward the objectives, and what types of hunting seasons are required to achieve the harvest objective.

The purpose of this HMP is to set the population and sex ratio objectives for the North Tablelands mule deer herd. HMPs are approved by the Parks and Wildlife Commission and are reviewed and updated approximately every 10 years.

NORTH TABLELANDS DESCRIPTION

Location

The North Tablelands encompasses approximately 4,030 mi² in northeast Colorado and includes GMUs 87, 88, 89, 90, & 95 and (Figure 2). This area is bounded on the north by the Wyoming and Nebraska borders; on the east and south by US Highways 138 and 6, Logan County Roads 6 and 17.7, Washington County Road 58, Morgan County Road W.7, 2nd street in Snyder, CO, Morgan County Roads W.5, 28, W, 13.5, W.5, Colorado Highway 144, Morgan County Road 2, Weld County Road 68, and Colorado Highway 392; and on the west by U.S. Highway 85, Colorado Highway 14, and I-25.

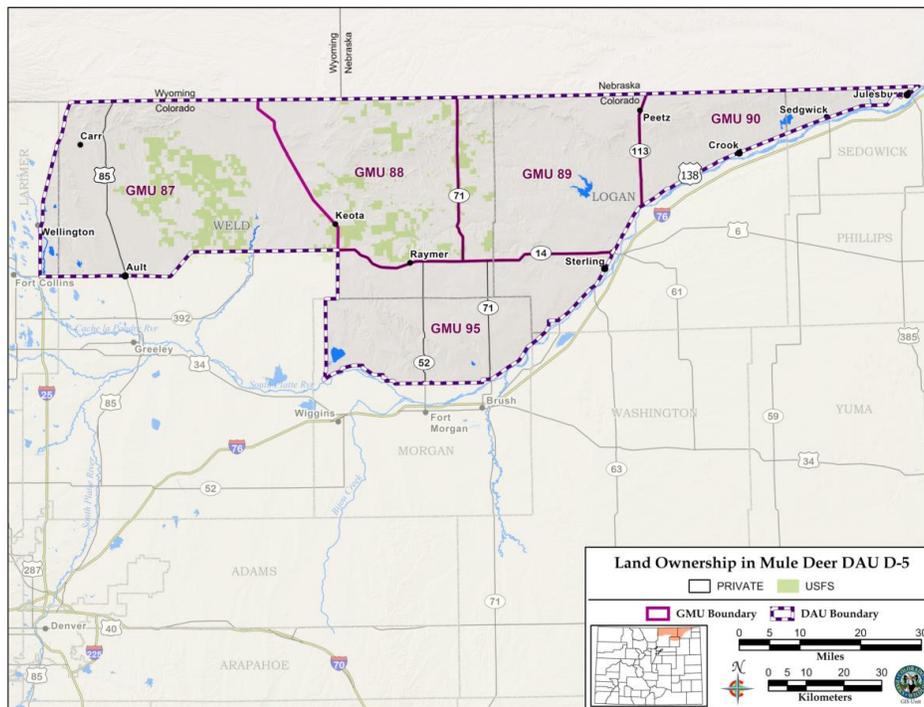


Figure 2. Geographic location of the North Tablelands and its associated Game Management Units in northeast Colorado.

Habitat Composition

There are several habitat types within the North Tablelands, including dry cropland, irrigated cropland, mid-grass prairie, short-grass prairie, rolling juniper breaks and canyons, and Conservation Reserve Program (CRP) lands. Nearly 50% of the North Tablelands is comprised of short-grass prairie. The short-grass prairie is concentrated in the northern half and extends across the entire area. The short-grass prairie has remained stable with little being broken out for farming. However, residential development is encroaching into the short-grass prairie on the western end. Habitat quality has remained stable in the North Tablelands due to CRP lands, managed grazing systems within the short-grass rangelands, and changing cropping practices that emphasize corn and alfalfa. There are 3 small riparian drainages within the North Tablelands; Crow Creek, Pawnee Creek, and Wildcat Creek.

Climate

The climate in the North Tablelands is characterized by hot, dry summers and recently, relatively mild winters. Annual precipitation ranges from 13–16 inches with most occurring during intense summer thunderstorms. Snowfall can be variable in the area and recent winters have been moderate with seasonably colder temperatures.

Land Use

Land ownership in the North Tablelands is typical of eastern Colorado, with the majority of the area being in private ownership. The most notable exception is the Pawnee National Grasslands, which encompasses 193,000 acres scattered across a large portion of GMUs 87 and 88. Other public lands include nearly 10,000 acres administered under the State Trust Lands Program and several smaller parcels owned by the CPW. Public lands comprise 8% of the North Tablelands. Land use is primarily agricultural based with the majority of irrigation occurring on the eastern and southern portions of the North Tablelands. Corn, wheat, and alfalfa are the primary crops produced. On the western end of the North Tablelands, residential development is encroaching into the short-grass prairie of GMU 87, although impacts to deer habitat have not been significant.

Deer Distribution

Mule deer are found in all habitat types, although densities are highest in irrigated cropland settings, CRP lands, and often concentrate in the juniper breaks, canyons, and riparian areas during winter. White-tailed deer are also found throughout most of the North Tablelands, with the highest numbers occurring in GMUs 89, 90, and 95 in the eastern and southern portions, primarily in agricultural areas adjacent to the South Platte River.

HERD MANAGEMENT HISTORY, ISSUES, and STRATEGIES

Previously, the North Tablelands, D-5, D-54, and D-55 were managed as one deer herd, bisected by the South Platte River. In 2001, the GMUs south of the South Platte River were designated as D-54 and D-55 and the GMUs north of the South Platte River (87, 88, 89, 90, & 95) were designated as D-5, in an effort to better estimate the deer

populations, improve harvest management, and differentiate the deer herds that spent most of their lives north and south of the South Platte River. This North Tablelands (D-5) HMP addresses the deer herd within GMUs 87, 88, 89, 90, and 95.

Post-hunt Population Size

Estimating the population of wild animals over large geographic areas is a difficult and approximate science. CPW recognizes this challenge in our management efforts and attempts to minimize this by using the latest technology and inventory methods available. Population estimates for deer are derived using computer model simulations that involve estimates of mortality rates, hunter harvest, and annual production. These simulations are then adjusted to align on measured post-hunt age and sex ratio classification surveys and, in some cases, population estimates derived from line transect or quadrat surveys.

CPW recognizes the limitation of the system and strives to do the best job with the resources available. As better information becomes available, such as new estimates of survival/mortality, wounding loss, sex ratios, density, or new modeling techniques and software, CPW will evaluate these new techniques and information and use them where appropriate. The use of new information may result in substantial changes in the population estimate or management strategies. Therefore, the population estimate presented in this document should be used as an index or approximation and not as a precise enumeration of the deer in this management area.

Estimated mule deer numbers for the North Tablelands have increased over the last decade from a low of approximately 2,100 in 2009 to a high of 3,284 mule deer in 2018 (Figure 3). The deer herd has experienced normal population fluctuations associated with weather conditions, hunting pressure, and population dynamics. The 5 and 10-year population estimate averages for the deer herd are 3,030 and 2,725 deer, respectively.

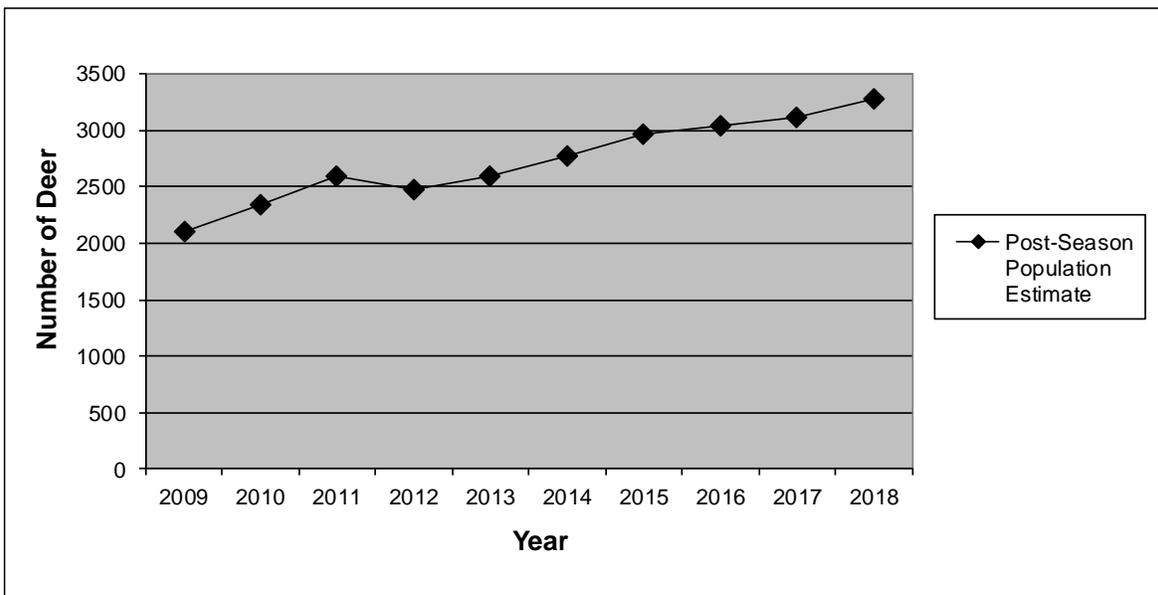


Figure 3. Post-hunt mule deer population estimates for the North Tablelands deer herd, 2009–2018.

White-tailed Deer Management

White-tailed deer became established in eastern Colorado in the late 1950s and have continued to increase in numbers and distribution. During this time, while white-tailed deer numbers were increasing, hunters continued to prefer mule deer. Also, the preference for open habitat and the escape behavior of mule deer make them more vulnerable to harvest by hunters using high-powered rifles than white-tailed deer.

The disproportionate hunting pressure on mule deer and changes in habitat resulted in deer species composition shifting in favor of white-tailed deer in some areas within the North Tablelands. Commonly, white-tailed deer are observed miles from the traditional whitetail habitat of the South Platte River. The largest increase in white-tailed deer numbers occurred in GMUs 90 and 95 adjacent to the South Platte River because of the floods in 2013 and 2015 that displaced a large number of whitetails out of the South Platte riverbottom that never returned. In 2015, the proportion of mule deer to white-tailed deer classified during ground and aerial surveys in GMUs 89, 90, and 95 was 78% mule deer and 22% white-tailed deer. The 5 and 10-year averages for the deer herd are 79% mule deer and 21% white-tailed deer and 82% mule deer and 18% white-tailed deer, respectively. However, these proportions could be biased due to differing sighting probabilities between the two species and may be associated with ground-based surveys.

To address the expanding white-tailed deer population, CPW began using season choice white-tailed deer only licenses in 2013 that incorporates all seasons and methods of take. The primary objective of these whitetail only licenses was to increase the harvest of white-tailed deer in GMUs 89, 90, and 95 to minimize further expansion into traditional mule deer habitats. The season choice whitetail only licenses have been a success by providing additional hunting opportunities and increased whitetail harvest to reduce white-tailed deer numbers in the North Tablelands deer herd.

Post-hunt Herd Composition

Sex ratios, expressed as bucks per 100 does, and age ratios, expressed as fawns per 100 does, have primarily been estimated by classifying deer from ground surveys. Generally, aerial surveys using a helicopter are too cost prohibitive on the eastern plains due to low deer densities. However, aerial surveys using a fixed-wing aircraft were successfully used in 2014 and 2015 when snow conditions and sightability were optimal. Surveys are conducted annually by district wildlife managers and biologists during a specified time frame in January after the hunting seasons have ended. Observed sex and age ratios, along with harvest estimates are used in computer simulation models to estimate deer numbers, predict population trends, and assess impacts of reported harvest. The Division recognizes that ground-based surveys for any species, although cost-effective, can be biased. However, aerial surveys using a fixed-wing aircraft will be used to augment ground surveys when snow conditions and sightability are optimal.

Much of the focus in the North Tablelands has been to provide quality mule deer buck hunting opportunities by maintaining a high buck/doe ratio and a higher proportion of 3+ year-old bucks in the population. The current post-hunt management objective is to maintain this deer herd at a sex ratio objective of 35–40 bucks/100 does. Since 2009, the buck/doe ratio has averaged 42 bucks/100 does ranging from 32 bucks/100 does observed

in 2014 to 54 bucks/100 does observed in 2017 and 2018 (Figure 4). Observed fawn/doe ratios have varied from a low of 62 fawns/100 does in 2012 to a high of 82 fawns/100 does in 2010 and has averaged 72 fawns/100 does over the past decade (Figure 4).

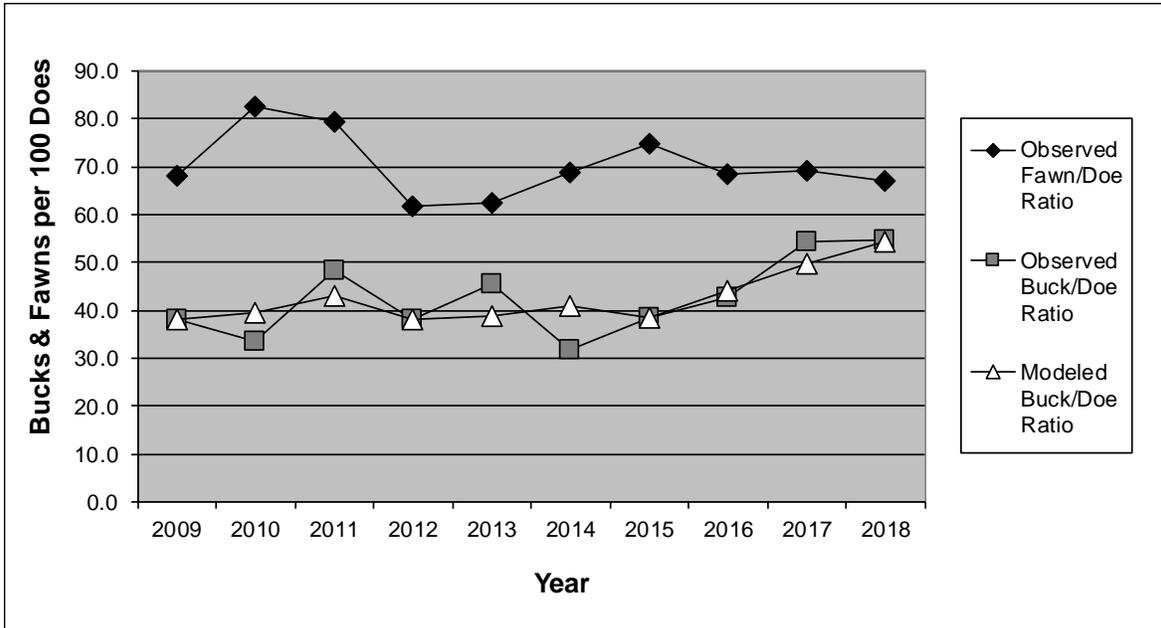


Figure 4. Observed post-hunt fawn/doe ratio estimates and observed and modeled buck/doe ratio estimates for the North Tablelands deer herd, 2009–2018.

Harvest

Over the last 10 years, mule deer harvest has ranged from a high of 437 animals in 2016 to a low of 177 in 2009 (Figure 5). Average mule deer harvest for the past 10 years is 312 animals. Antlered mule deer harvest ranged from a low of 109 bucks in 2009 to a high of 245 in 2012. Average mule deer buck harvest for the past 10 years is 180 animals. Mule deer doe harvest has ranged from a high of 211 does in 2017 to a low of 68 in 2009. Average mule deer doe harvest for the past 10 years is 132 animals. The two rifle seasons account for the majority of the mule deer harvest in this deer herd, with archery and muzzleloader seasons contributing significant opportunity (16%), but less harvest (11%). In most years, mule deer are accessible to hunters and harvest objectives are achieved. However, in some years, corn harvest is delayed resulting in large acreages of standing corn during the regular plains rifle deer season. Delayed corn harvest reduces hunter access to deer resulting in lower than average success rates and deer harvest, primarily in GMUs 89, 90, and 95. In contrast, the late-plains rifle season consistently produces good mule deer harvest, as well as, increased opportunities for hunters to take large, mature bucks. Most if not all crops have been removed from fields by this time, which makes the late-plains season very popular with hunters and landowners.

In 2013, hunters harvested a total of 165 white-tailed deer in the first year of the season choice whitetail only licenses (Figure 5). Over the past decade, the harvest of white-tailed deer in this deer herd has increase from a low of 38 in 2009 to a high of 208 in

2016 (Figure 5). The 5 and 10-year average annual harvest of white-tailed deer is 181 and 125 animals, respectively. Since 2009, the number of white-tailed deer harvested has averaged 25% of the total deer harvested in the North Tablelands. Overall, the season choice whitetail only licenses have been a success by providing additional hunter recreation and harvest without placing additional hunting pressure on mule deer.

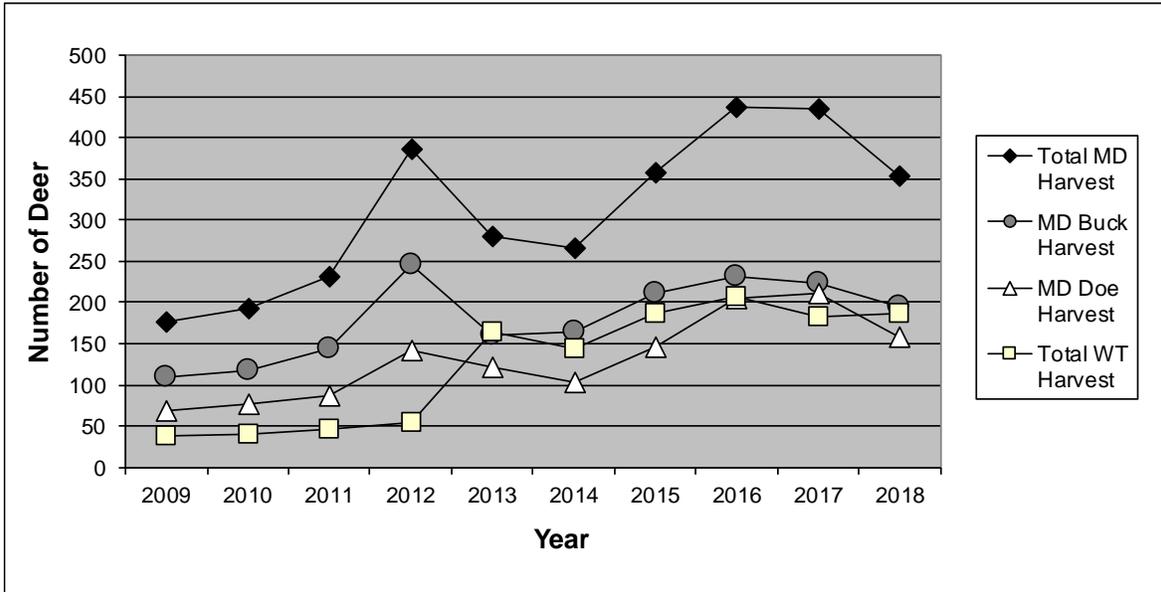
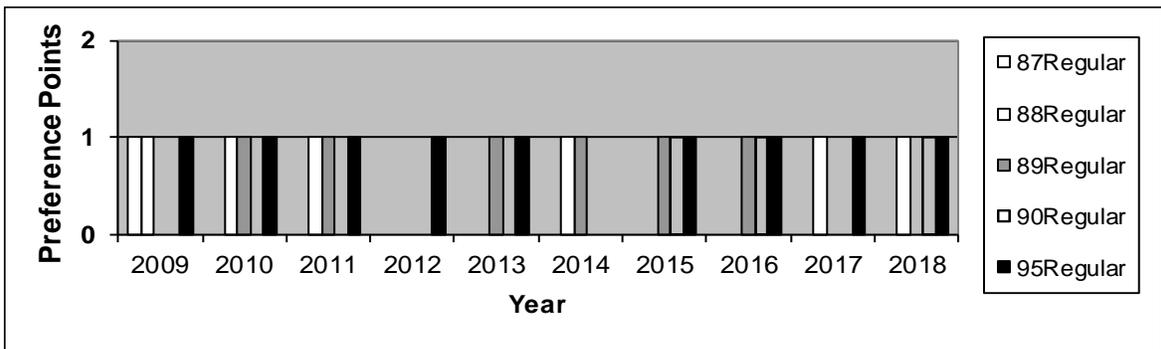


Figure 5. Total mule deer and white-tailed deer harvest and number of antlered and antlerless mule deer harvested in the North Tablelands deer herd, 2009–2018.

Hunters

In 2018, regular season rifle mule deer buck licenses required 1 preference point to draw in GMUs 88, 90, and 95 and zero points to draw in GMUs 87 and 89 (Figure 6). The late rifle season required 1 point to draw in GMUs 90 and 95. Doe licenses for either season are drawn with zero points. Season choice white-tailed deer licenses were also drawn with zero points. Both archery and muzzleloader licenses are drawn with zero points for either. Landowner preference licenses for bucks are over-subscribed in all GMUs, but landowner applicants for doe licenses are under-subscribed in all units.



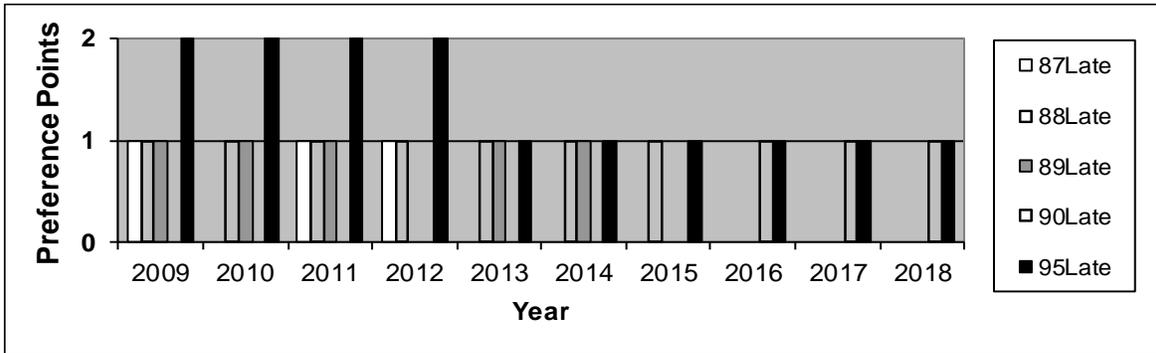


Figure 6. Number of preference points needed to draw a mule deer buck license for the regular and late-plains rifle seasons in the North Tablelands, 2009–2018.

The number of hunters in the North Tablelands has varied from 421 in 2009 to 1,157 in 2018 depending on the number of limited licenses allocated (Figure 7). The number of buck licenses since 2009 has varied from a high of 790 buck licenses in 2018 to a low of 375 buck licenses in 2009–2011 (Figure 7). The number of doe licenses ranged from a high of 725 licenses in 2018 to a low of 155 licenses in 2009 and 2010 (Figure 7).

Harvest rates are based on the number animals harvested/number of licenses allocated. These rates are used to determine license allocations because they account for both hunter success and the number of license holders that did not hunt. Thus, harvest rates are generally lower than hunter success rates and provide a more appropriate measure for predicting harvest. Therefore, only harvest rates are presented.

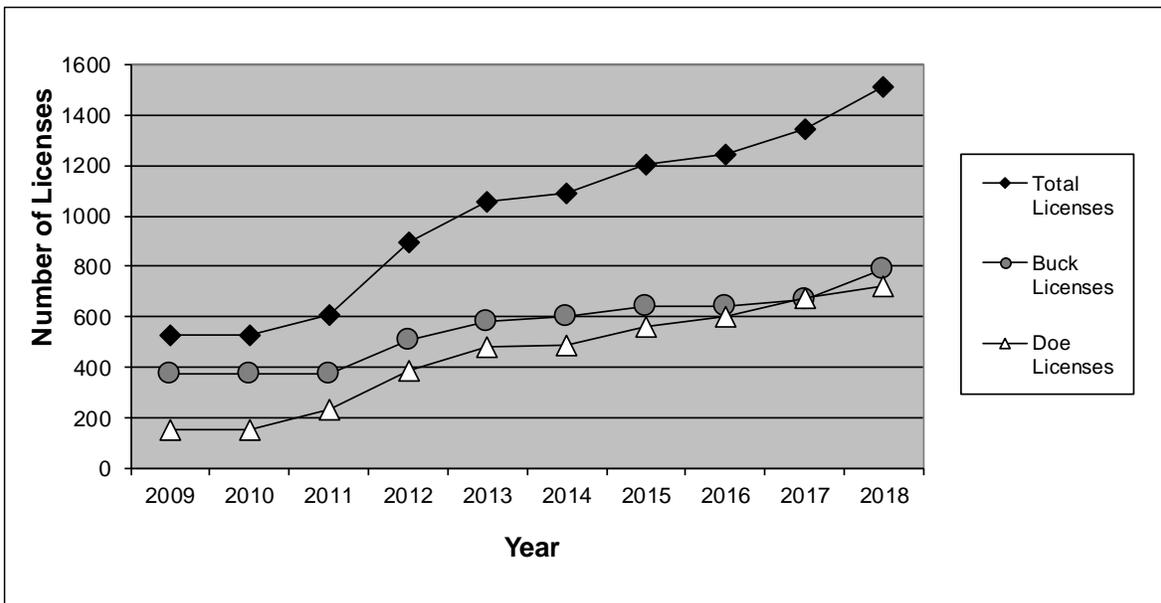


Figure 7. Total number of licenses and number of rifle buck and doe licenses allocated for the North Tablelands deer herd, 2009–2018.

Harvest rates for all methods of take generally approach the 55% mark ranging from a high of 57% in 2012 and 2015 to a low of 33% in 2018 (Figure 8). The 10-year average harvest rate for all methods of take was 50%. The 5 and 10-year average harvest rates for antlered deer are 47% and 48%, respectively. The 5 and 10-year average harvest rates for antlerless deer are 47% and 52%, respectively (Figure 8).

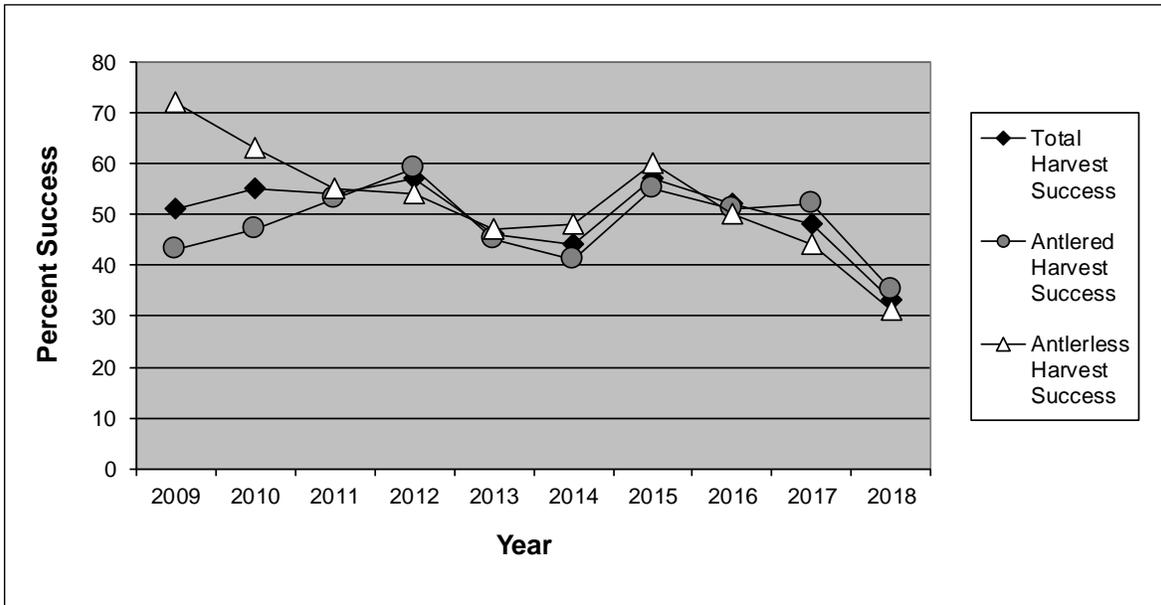


Figure 8. Total, antlered, and antlerless deer harvest success (%) in the North Tablelands deer herd, 2009–2018.

Past Management Strategies

In D-5, a limited number of licenses have been issued for the regular rifle season since 1980. Since 1987, a limited number of licenses have been issued for the late-plains rifle season in GMU 95, while the remaining GMUs continued to offer only regular rifle season licenses until 1995. Since 1996, all deer hunting licenses for all methods of take have been limited in number in GMU 95, while the remaining GMUs continued to offer over-the-counter archery and muzzleloader licenses until 1998. Since 1998, all deer hunting licenses for the North Tablelands deer herd have been limited in number. Since 2013, whitetail only licenses have been issued in GMUs 89, 90, and 95 to increase the harvest of white-tailed deer and minimize further expansion into traditional mule deer habitats.

The late-plains rifle season was established on the eastern plains of Colorado in 1983 to provide additional hunting days to more effectively achieve harvest objectives and reduce crowding by spreading the hunting pressure across two seasons. However, in the North Tablelands, licenses were not issued for the late-plains rifle season until 1987 in GMU 95 and in the remaining GMUs until 1995, because achieving harvest objectives and hunter crowding were not an issue prior to being implemented. Licenses have been allocated between the regular and late-plains deer seasons to meet harvest objectives, reduce conflicts with agricultural producers, and provide quality mule deer hunting opportunities.

For the past 10 years, the management strategy for the North Tablelands deer herd was based on providing quality mule deer buck hunting opportunities. Licenses have been allocated to maintain a high buck/doe ratio and a higher proportion of 3+ year-old mule deer bucks in the population. In addition, strategies were implemented to increase the hunting opportunity and harvest of white-tailed deer where they have expanded their range.

Agricultural Conflicts

Irrigated corn and alfalfa fields provide important food sources for both deer species, which can result in high concentrations of animals and game damage complaints from landowners, primarily in GMUs 89, 90, and 95 along the South Platte River. Over the past 10 years, deer damage has not been an issue with only two deer damage claims being filed. If habitats continue to improve, CPW will need to closely monitor population responses along with game damage complaints and adjust license numbers accordingly.

Chronic Wasting Disease

The North Tablelands deer herd is part of the endemic area for Chronic Wasting Disease (CWD) infection and CWD was a primary factor in the management of this deer herd from 2001–2006. The first CWD positive deer was found in GMU 95 in 1997. In 2003, CWD prevalence was 9.4% in mule deer bucks and 0.7% in mule deer does. From 2007–17, through voluntary hunter submissions, there were eight mule deer and five white-tailed deer that were harvested and tested positive for CWD in this deer herd. In 2019, mandatory testing for rifle buck and doe hunters in the North Tablelands revealed that from the 377 samples collected, CWD prevalence had increased to 31.9% in mule deer bucks, 12.0% in mule deer does, 17.3% in whitetail bucks, and 5.9% in whitetail does.

CWD Management Strategies

Given the high CWD prevalence in this herd, management strategies will be implemented to reduce the prevalence of CWD in the North Tablelands in accordance with the CWD Response Plan. The management actions will initially include reducing the sex ratio objective to reduce the age structure of bucks in the North Tablelands mule deer herd. Additional management actions may be implemented in the future that may include reducing the age structure of the entire herd, reducing the deer density, or some combination of these management strategies, depending on the level of CWD in this deer herd in the future.

PUBLIC INVOLVEMENT

The purpose of the herd management planning process is to determine objectives for the size and structure of the post-hunt population. Input for this herd management planning process was solicited through a public survey. All first-choice deer license applicants from 2018–2019 for D-5 were notified via postcards and encouraged to complete an online survey. Furthermore, a draft of this HMP was posted on the CPW website and copies were distributed to land management agencies, for review and comments.

A majority of public respondents believed that CWD management should be an important factor in the future management of the North Tablelands mule deer herd. The public also supported maintaining the mule deer herd near the current population objective. (Appendix A).

HERD MANAGEMENT ALTERNATIVES

Population Objective Ranges

The population objective is selected independently from the herd composition objective. CPW acknowledges that estimating wildlife populations is an inexact science and habitat conditions and carrying capacity vary with fluctuations in weather and trends in agriculture; therefore, the long-term population objective will be expressed as a range rather than a specific number.

Alternative 1: 1,800–2,200.

Reduce the long-term post-hunt mule deer population by 25% from the current objective. Initially, this alternative would result in an increase in deer licenses, but once deer numbers are reduced to objective, hunting opportunity would decline from the current level. This strategy could decrease hunting opportunities for both bucks and does in the long-term unless there was a strong density dependent response resulting in increased fawn production and survival. Reducing the mule deer population to this objective would require substantial increases in antlerless licenses over the next 3–5 years. This alternative would substantially reduce deer density and age structure to address CWD prevalence in this deer herd.

Alternative 2: 2,500–3,000.

Maintain the post-hunt mule deer population near the current population objective. The public supported managing the population near the current objective level. Under this alternative, an increase in antlerless licenses will be necessary to reduce the population to objective. Damage complaints are expected to remain negligible. This alternative would provide the flexibility to reduce the current deer density by nearly 20% and manage the population at the low end of this objective to further address CWD prevalence in the North Tablelands if needed.

Alternative 3: 3,000–3,500.

Increase the long-term post-hunt mule deer population objective by 25% to 3,000–3,500 deer. This objective will maintain the current estimated mule deer population; thus, no management action would be needed to maintain this objective. Deer damage complaints are expected to remain negligible. Damage by deer would need to be closely monitored if the population increases above the current level. Maintaining the current population level may not provide adequate management to address CWD in this deer herd.

Sex Ratio Objective Ranges

The following 3 sex ratio objectives are presented.

Alternative 1: 35–40 bucks/100 does.

Maintain the sex ratio objective at 35–40 bucks/100 does. The current estimated sex ratio is above this objective, therefore, an increase in buck licenses will be necessary to maintain this sex ratio objective. However, due to the high CWD prevalence rate, under this alternative, the herd would be managed to the low end of the objective per the CWD Response Plan, which may not adequately address the high prevalence in this deer herd.

Alternative 2: 30–35 bucks/100 does.

Reduce the sex ratio objective to 30–35 bucks/100 does which is a 5–10 bucks/100 does reduction from the current sex ratio objective. This would result in fewer bucks and a reduction in the number of mature bucks in the population. The demand for buck licenses may decline because quality buck hunting opportunities will decrease. This alternative would require more buck licenses to be issued because an increase in buck harvest would be necessary to achieve and maintain this objective. Fewer mature bucks in the population should reduce CWD prevalence in this herd.

Alternative 3: 25–30 bucks/100 does.

Reduce the sex ratio objective to 25–30 bucks/100 does which is a 10–15 bucks/100 does reduction from the current sex ratio. This would result in significantly fewer bucks and a large reduction in the number of mature bucks in the population. Quality buck hunting opportunities would be significantly reduced. This alternative would likely provide enough buck licenses to meet the current demand as substantial increases in buck harvest would be needed to achieve and maintain this lower objective. This alternative would significantly reduce the male age structure in the population to address CWD in this herd.

PREFERRED ALTERNATIVES

The CPW preferred objectives for the North Tablelands mule deer herd are to manage for a post-hunt population of **2,500–3,000 (Alternative 2)** with an observed post-hunt sex ratio objective of **30–35 bucks/100 does (Alternative 2)**.

Public comments supported maintaining the mule deer population near the current population objective in the North Tablelands. Game damage complaints have not been an issue thus far, and are not expected to change under this alternative. Doe licenses would be increased for 1–2 years depending upon fawn recruitment to achieve this objective.

A majority of the public responses believed that CWD management should be an important factor in the future management the North Tablelands mule deer herd. Since CWD prevalence in adult mule deer bucks is currently at 32%, the sex ratio objective will be reduced from its current level to 30-35 bucks/100 does in an effort to reduce CWD prevalence in this mule deer herd. Buck licenses will be increased over the long-term to achieve and maintain this sex ratio objective. Quality buck hunting opportunities will be significantly reduced once this objective is achieved.

APPENDIX A

PUBLIC SURVEY

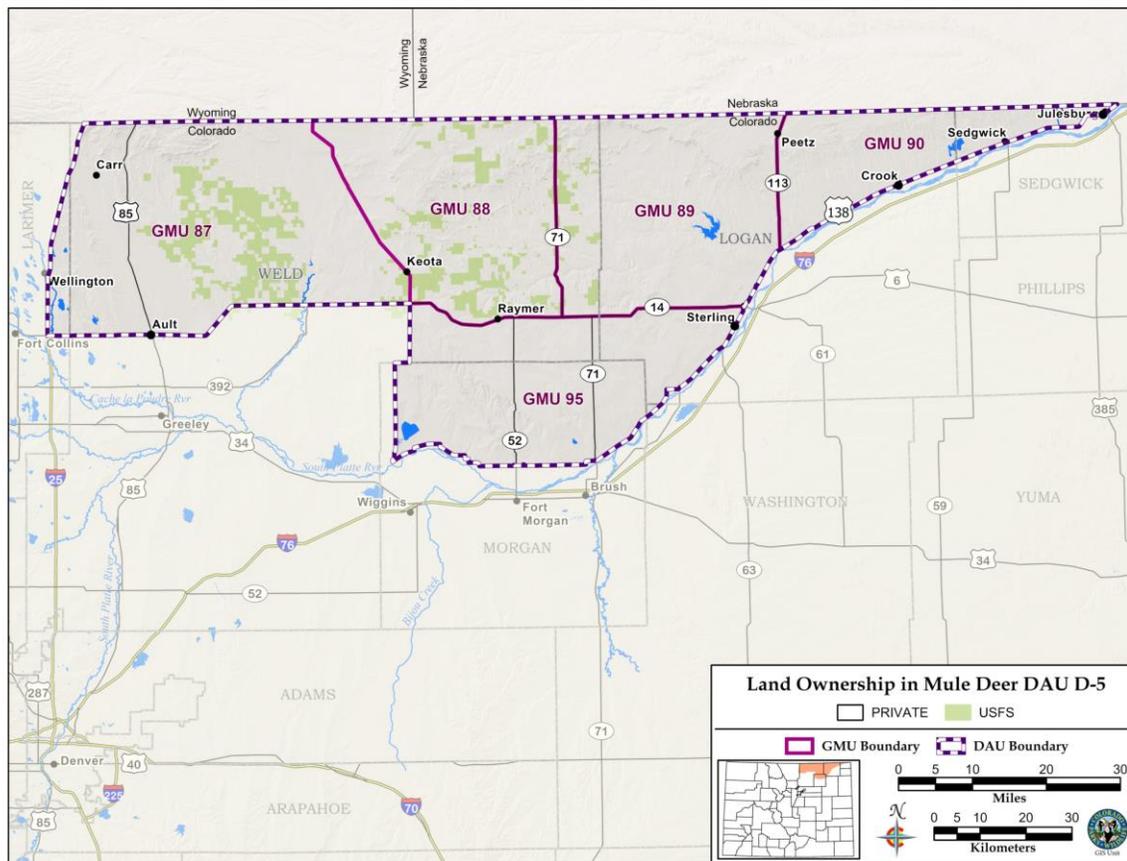
Dear Interested Citizen:

Wildlife managers have begun the process of updating the deer management plan for the North Tablelands deer herd (GMU's 87, 88, 89, 90 & 95), which is the area north of the South Platte River drainage. Colorado Parks & Wildlife is seeking your input on the future management of this herd. We are gathering public input through a short online survey. **Surveys must be completed by November 15, 2019.**

Please complete the following survey and return it to:

Marty Stratman
Colorado Parks & Wildlife
122 E. Edison St., Brush, CO 80723

North Tablelands (D-5) Deer Management Area



1. Do you own land in the North Tablelands (D-5), If so, how much? **(160 Responses)**

- No – **57%**
- <160 acres – **18%**
- 160-319 acres – **4%**
- 320-639 acres – **8%**
- 640-999 acres – **3%**
- 1000+ acres – **10%**

Chronic Wasting Disease (CWD) is a disease of deer and elk that causes behavioral changes and progressive loss of body condition, eventually leading to death. There is no known treatment of the disease. CWD was first detected in the North Tablelands deer herd in 1995. Currently, it is unknown how much of this deer herd is infected with CWD.

It is thought that high deer densities and a higher proportion of males in a population leads to higher disease prevalence rates. CWD surveillance has shown that older/mature bucks have higher prevalence rates than females and young deer (generally two times higher). It may be that maintaining a low density and younger age herd with fewer older/mature bucks would result in lower CWD rates in a population.

The previous management plan for the North Tablelands deer herd did not consider CWD in determining the herd size objective or the male:female ratio objective.

2. Should CWD management be an important factor in the future management of the North Tablelands mule deer herd? **(164 Responses)**

- Yes – **57%**
- No – **26%**
- I'm not sure – **17%**

Population Objective:

Colorado Parks and Wildlife (CPW) strives to manage big game populations within both the biological and social carrying capacity of the herd. CPW has been managing the North Tablelands deer herd at a target **population objective** of 2,400–2,700 mule deer. Currently, the population is **estimated** to be above the target objective at 3,100 mule deer.

3. Which population alternative would you prefer CPW use to manage the North Tablelands mule deer herd for the next ten years? **(164 Responses)**

1. Reduce the population objective to 1,800-2,200 (25% reduction) AND reduce the current estimated population to 2,100 animals (33% reduction) – **8%**
2. Maintain the population near the current objective at 2,500-3,000 animals AND reduce the current estimated population by 10-15% – **50%**
3. Increase the population objective to 3,000-3,500 to maintain the current estimated population – **42%**

Male:Female Ratio Objective:

Currently, the North Tablelands mule deer herd is managed to provide hunting **opportunity** for a relatively high number of mature/large bucks. However, some licenses require 3 or more years to draw a buck license and it is important to note that older, mature bucks have a significantly higher prevalence of CWD than younger bucks or does.

4. How would you like to see the number of buck licenses managed, for the North Tablelands mule deer herd over the next ten years? (164 Responses)

1. Manage for moderate levels of **opportunity** and high quality of bucks (This is the current management strategy) – **50%**
2. Increase the number of buck licenses to increase hunting opportunity and reduce the number of mature bucks for CWD management – **43%**
3. I am not sure – **7%**