# SOUTH TABLELANDS DEER HERD MANAGEMENT PLAN 

## DATA ANALYSIS UNIT D-54

Game Management Units
93, 97, 98, 99, \& 100


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## DAU D-54 (SOUTH TABLELANDS) EXECUTIVE SUMMARY

GMU's: 93, 97, 98, 99 and 100 Land Ownership: 99\% Private, 1\% State
Post-Season Population:
Previous Objective - 3,000; 2005 Estimate - 2,840; Current Objective - 2,900-3,100
Post-Season Sex Ratio (Bucks/100 Does):
Previous Objective - 40; 2005 Observed - 39; 2005 Modeled - $\underline{35}$; Current Objective - $\underline{35-40}$

Figure I. D-54 Post-Season Population Estimate


Figure II. D-54 Harvest


Figure III. D-54 Post-Season Sex Ratios


## Background

The South Tablelands Data Analysis Unit (DAU) was initially created in 2001 and modified to its current form in 2002. At that time, the Division established interim population and sex ratio objectives of 3,000 deer and 40 bucks/ 100 does until a formal management plan could be developed through the DAU planning process.

Estimated deer numbers for the South Tablelands deer herd have varied over the last decade from a high of approximately 3,410 in 1994 to a low of 2,560 in 2002. The 5 and 10 -year population estimate averages for the DAU are 2,730 and 2,830 deer, respectively. Observed fawn/doe ratios have varied from a low of 34 fawns/100 does in 1995 to a high of 81 fawns/100 does in 1994 and has averaged 64 fawns/ 100 does over the past decade.

Much of the focus in D-54, the South Tablelands deer herd, has been to provide quality hunting opportunities by maintaining a high buck/doe ratio and a higher proportion of $3+$ year-old bucks in the population. Since 1992, the buck/doe ratio has averaged 39 bucks/100 does ranging from 31 bucks/100 does observed in 1993 and 2002 to 53 bucks/100 does observed in 1998.

## Significant Issues

The South Tablelands deer herd provides quality deer hunting opportunities. Public comments emphasized that the DAU should continue to be managed for quality hunting opportunities and expressed an interest in maintaining the current long-term population objective. The public did not support increasing the population objective because of the possible increase in game damage complaints.

Concerns have been raised about the impacts that the expanding white-tailed deer population may have on mule deer. To address these concerns, the Colorado Division of Wildlife (CDOW) created a special white-tailed deer only season in 2003. White-tailed deer only licenses were issued in GMU's 93 and 98 and GMU 101 in DAU D-55 to the south. The primary objective of this special whitetail only season was to increase the harvest of white-tailed deer. This whitetail season has been successful by providing additional hunter recreation without the risk of over harvesting mule deer.

## Management Alternatives

The CDOW's preferred objectives for D-54 are to manage for a post-season population of 2,900-3,100 with an observed post-season herd composition 35-40 bucks/100 does. Public comments strongly supported maintaining the deer population at the current objective level and continuing to manage the South Tablelands deer herd for quality buck hunting opportunities. The 2004 post-season observed sex ratio was 38 bucks/100 does. Therefore, no change in management strategy is necessary to maintain the preferred sex ratio objective. Quality buck hunting opportunities would continue at the current rate under this alternative.

Other alternatives being considered in this DAU plan are: 1) reduce the population by $20 \%$ to $2,300-2,500$ deer, 2 ) increase the population by $25 \%$ to $3,500-3,700$ deer, and 3 ) reduce the sex ratio objective to $25-30$ bucks/ 100 does.

This DAU plan was approved by the Colorado Wildlife Commission on January 11, 2007.

# SOUTH TABLELANDS DEER MANAGEMENT PLAN DAU D-54 (GMU's 93, 97, 98, 99, \& 100) <br> <br> TABLE OF CONTENTS 

 <br> <br> TABLE OF CONTENTS}
INTRODUCTION AND PURPOSE ..... 1
SOUTH TABLELANDS DAU DESCRIPTION
Location ..... 3
Habitat Composition ..... 3
Climate ..... 3
Land Use ..... 3
Deer Distribution ..... 4
HERD MANAGEMENT HISTORY
Post-Season Population Size ..... 5
White-tailed Deer Management ..... 5
Post-Season Herd Composition ..... 6
Harvest ..... 7
Hunters ..... 8
Past Management Strategies ..... 10
CURRENT HERD MANAGEMENT
Population and Sex Ratio Objectives ..... 11
Current Management Strategies ..... 11
Current Management Problems ..... 11
Chronic Wasting Disease ..... 12
MANAGEMENT ISSUES AND STRATEGIES ..... 12
ALTERNATIVE DEVELOPMENT
Post-Season Population Objectives ..... 13
Post-Season Herd Composition Objectives ..... 14
PREFERRED OBJECTIVES AND ALTERNATIVES ..... 14
APPENDICES
Appendix A - Public Meeting Announcement ..... 15
Appendix B - Public Comments ..... 17

## LIST OF FIGURES

FIGURE PAGE

1. Colorado's big game management by objective process. .................................. 2
2. Geographic location of the South Tablelands deer DAU and its associated Game Management Units in northeast Colorado.4
3. Post-season deer population estimates for the South Tablelands DAU, 1992-2005.6
4. Observed post-season fawn/doe ratios estimates and observed and modeled buck/doe ratio estimates for the South Tablelands DAU, 1992-2005.7
5. Total harvest and number of antlered and antlerless deer harvested in the South Tablelands DAU, 1992-2005.8
6. Number of preference points needed to draw a buck license for the regular and late-plains rifle seasons in the South Tablelands DAU, 1995-2005.
7. Total number of licenses and number of buck and doe licenses allocated for the South Tablelands DAU, 1994-2005.10
8. Total, antlered, and antlerless deer harvest success (\%) in the South Tablelands DAU, 1994-2005. 10

## INTRODUCTION AND PURPOSE

The Colorado Division of Wildlife (CDOW) manages wildlife for the use, benefit, and enjoyment of the people of the state in accordance with the CDOW's Strategic Plan and mandates from the 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, the CDOW uses a "management by objective" approach (Figure 1). Big game populations are managed to achieve population and sex ratio objectives established for Data Analysis Units (DAU's).

A Data Analysis Unit or DAU is the geographic area that represents the year-around range of a big game herd and includes all of 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, live, and die either as a result of hunter harvest or natural causes. Each DAU usually is composed of several Game Management Units (GMU's), but in some cases only one GMU makes up a DAU.

The purpose of a DAU plan is to provide a system or process which integrates the plans and intentions of the Division of Wildlife with the concerns and ideas of land management agencies and interested publics in determining how a big game herd in a DAU should be managed. In preparing a DAU plan, agency personnel attempt to balance the biological capabilities of the herd and its habitat with the public's demand for wildlife recreational opportunities. Various publics and constituents, including the U.S Forest Service, the Bureau of Land Management, hunters, guides and outfitters, private landowners, local chambers of commerce, and the general public are involved in determining DAU population and sex ratio objectives and related issues. Public input is solicited and collected by way of questionnaires, public meetings, and comments to the Wildlife Commission.

The primary decisions needed for an individual DAU plan are how many animals should exist in the DAU 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 DAU population and herd composition objectives, respectively. Secondarily, the strategies and techniques needed to reach the population size and herd composition objectives also are selected. The selection of population and herd composition objectives drive important decisions in the big game season setting process, namely, how many animals must be harvested to maintain or move toward the objectives and what types of hunting seasons are required to achieve the harvest objective. These primary objectives are set for a 10-year period of time.


Figure 1. Colorado’s Big Game Management by Objective Process.

# SOUTH TABLELANDS DAU DESCRIPTION 

## Location

The South Tablelands DAU is located in northeast Colorado (Figure 2). The DAU is bounded by I-76 and the Nebraska border on the north; the Nebraska border on the east; US 34, Colorado Highway 61, and US 36 on the south; Colorado Highway 79 and $144^{\text {th }}$ Ave., on the west; and on the south and west by Adams County Road 25 N and $152^{\text {nd }}$ Ave.. This DAU contains Game Management Units, 93, 97, 98, 99, and 100, and encompasses approximately 6,042 square miles.

## Habitat Composition

There are several habitat types within the South Tablelands DAU, including dry cropland, irrigated cropland, tall-grass prairie, sandsage/mid-grass prairie, short-grass prairie, and Conservation Reserve Program (CRP) lands. Nearly 30\% of the DAU is comprised of sandsage/mid-grass prairie sandhills. The sandsage/mid-grass prairie is part of two sandhill complexes that run through the DAU. One extends along the entire northern boundary of the DAU and the other is located in the southeastern portion of the DAU adjacent to the Nebraska border. The sandsage/mid-grass prairie has remained stable with little being broken out for farming or development. Short-grass prairie comprises 10$15 \%$ of the DAU. The largest blocks of short-grass prairie are located in the central and extreme northeast portions of the DAU. Habitat quality has increased across large portions of the DAU due to CRP lands, managed grazing systems within the sandsage and shortgrass rangelands, and changing cropping practices that emphasize dryland corn and domestic sunflowers as an alternative to a wheat-fallow system. There are 3 small riparian drainages within the DAU; Beaver Creek, Bijou Creek, and Frenchman Creek.

## Climate

The climate in the DAU 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, but recent winters have been dry with moderate temperatures.

## Land Use

Land ownership patterns within the South Tablelands DAU are typical of eastern Colorado, with the majority of the area being in private ownership. Notable exceptions include the South Tamarack State Wildlife Area, and several smaller parcels owned by the Colorado Division of Wildlife, which comprise $<1 \%$ of the DAU. Land use within the DAU is almost exclusively agricultural based. Center pivot irrigation occurs throughout the DAU, including the sandhill complexes, with the majority occurring on the eastern end of the DAU. Corn, wheat, and alfalfa are the primary crops under pivot irrigation. On the western end of the DAU, residential development is encroaching into GMU 99, although to this point, impacts to deer habitat have been insignificant.


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

## Deer Distribution

Both mule deer and white-tailed deer can be found within the DAU. Mule deer are commonly found in all habitat types in the DAU, although densities are highest in sandsage rangeland, irrigated cropland settings, and within large complexes of CRP lands. Whitetailed deer can also be found throughout the DAU, with the highest concentrations occurring in GMU 98 on the east end of the DAU.

## HERD MANAGEMENT HISTORY

Previously, this deer DAU, D-55, and D-5 were managed as one DAU, bisected by the South Platte River deer DAU. In 2001, the GMU's north of the South Platte River were designated as D-5 and the units south of the South Platte River (93, 97, 98, 99, 100, 101, \& 102) were designated as D-54, in an effort to better estimate and survey the deer populations. In 2002, D-54 was further reduced in size by designating GMU’s 101 and 102 as a separate DAU to improve harvest management and computer modeling for both DAU's.

## Post-Season Population Size

Estimated deer numbers for the South Tablelands deer DAU have declined over the last decade from a high of approximately 3,410 in 1994 to a low of 2,560 deer in 2002 (Figure 3). The DAU has experienced normal population fluctuations associated with weather conditions, hunting pressure, and population dynamics. The 5 and 10-year population estimate averages for the DAU are 2,730 and 2,830 deer, respectively.

Estimating population numbers of wild animals over large geographic areas is a difficult and approximate science. The CDOW recognizes this as a challenge in our management efforts and attempts to minimize this by using the latest technology and inventory methodology 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-season age and sex ratio classification counts and, in some cases, population estimates derived from line transect and quadrat surveys.

The CDOW 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, the CDOW 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 as trend data and not as a completely accurate enumeration of the deer in this DAU.

## White-tailed Deer Management

Until recently, Colorado's eastern plains were almost exclusively populated by mule deer. White-tailed deer became established in eastern Colorado during the middle of the last century 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 are.

The disproportionate hunting pressure on mule deer and changes in habitat has resulted in deer species composition shifting in favor of white-tailed deer in some areas within the DAU. Commonly, white-tailed deer are being observed miles from traditional whitetail habitat, and Division staff and local communities have expressed concerns about


Figure 3. Post-season deer population estimates for the South Tablelands DAU, 19922005.
the impacts that white-tailed deer may have on mule deer. The largest increase in whitetailed deer numbers has occurred in GMU 98 on the eastern end of the DAU. In 2005, the proportion of mule deer to white-tailed deer classified during ground surveys in GMU 98 was $70 \%$ mule deer and $30 \%$ white-tailed deer. However, these proportions could be biased due to differing sighting probabilities between the two species and may be associated with ground-based surveys.

In an effort to address the concerns about the expanding white-tailed deer population, the CDOW created a special white-tailed deer only season in 2003. Hunting for whitetailed deer was allowed in GMU's 93 and 98 in this DAU and GMU 101 in DAU D-55 to the south. The primary objective of this special whitetail only season was to increase the harvest of white-tailed deer to minimize further expansion into traditional mule deer habitats. Since this was the first time Colorado has issued species specific deer licenses, the special season was set up outside of the regular and late-plains seasons to evaluate its applicability and success. The whitetail only licenses have been a success and a separate season was no longer needed. Beginning in 2006, whitetail only deer licenses will be issued concurrent with the late-plains deer season to increase hunter participation and harvest of white-tailed deer.

## Post-Season Herd Composition

Sex ratios, expressed as bucks per 100 does, and age ratios, expressed as fawns per 100 does, have been estimated by classifying deer from ground surveys. Surveys are conducted by district wildlife managers and biologists during a specified time frame in January after the hunting seasons have ended. Generally, aerial surveys are too cost prohibitive on the eastern plains due to low deer densities. 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. Therefore, the Division may explore other management strategies, such as landowner and hunter surveys, to assist in the management of deer in the South Tablelands DAU.

Much of the focus in this DAU has been to provide quality buck hunting opportunities by maintaining a high buck/doe ratio and a higher proportion of $3+$ year-old bucks in the population. Since 1992, the buck/doe ratio has averaged 39 bucks/ 100 does ranging from 31 bucks/100 does observed in 1993 and 2002 to 53 bucks/100 does observed in 1998 (Figure 4). Since 2002, when the DAU was established, management strategies and license allocations have been implemented to maintain this DAU at a sex ratio objective of 40 bucks/100 does.

Observed fawn/doe ratios have varied from a low of 41 fawns/100 does in 1995 to a high of 80 fawns/100 does in 1994 and has averaged 60 fawns/ 100 does over the past decade (Figure 4). In 2002, fawn:doe ratios were lower than normal, indicating the widespread drought had adversely impacted fawn recruitment in the DAU.


Figure 4. Observed post-season fawn/doe ratios estimates and observed and modeled buck/doe ratio estimates for the South Tablelands DAU, 1992-2005.

## Harvest

Over the last 14 years, harvest has ranged from a high of 674 animals in 1993 to a low of 410 in 2004 (Figure 5). Average harvest for the past 10 years is 506 animals. Antlered harvest ranged from a low of 217 bucks in 2004 to a high of 333 in 1994. Average buck harvest for the past 10 years is 264 animals. Doe harvest has ranged from a high of 354 does in 1993 to a low of 184 in 2005. Average doe harvest for the past 10 years is 242 animals. The two rifle seasons account for the majority of the deer harvest in the DAU,
with archery and muzzleloader seasons contributing significant opportunity (26\%), but less harvest (17\%). In most years, 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 rifle plains deer season. Delayed corn harvest reduces hunter access to deer resulting in lower than average success rates and deer harvest. In contrast, the late-plains rifle season consistently produces good 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 2003, hunters harvested a total of 36 white-tailed deer in the first year of the special whitetail only season. Within this DAU, hunters harvested 21 white-tailed deer in GMU's 93 and 98 in 2003. In 2004 and 2005, hunters harvested 12 and 21 white-tailed deer from this DAU, respectively. Since 2003, the number of white-tailed deer harvested on these special licenses has averaged $4 \%$ of the total deer harvested in this DAU. Overall, the whitetail season has been a success by providing additional hunter recreation without placing additional hunting pressure on mule deer. Beginning in 2006, whitetail only deer licenses will be issued concurrent with the late-plains deer season to increase hunter participation and harvest of white-tailed deer.


Figure 5. Total harvest and number of antlered and antlerless deer harvested in the South Tablelands DAU, 1992-2005.

## Hunters

The South Tablelands DAU has been managed to provide quality buck hunting opportunities by maintaining a high buck/doe ratio in the population. As a result, the demand for antlered licenses exceeds the supply in most GMU’s. In 2005, late season rifle buck licenses required 4 preference points to draw in GMU's 98 and 99 and 2 preference
points to draw in GMU 100. Regular season rifle buck licenses required 3 preference points to draw in GMU 99, 2 preference points to draw in GMU’s 98, and 1 preference point to draw in GMU 100 (Figure 6). Doe licenses for either season are drawn with zero points. Archery and muzzleloader licenses are less difficult to draw than buck rifle licenses, taking 0 points for either. Landowner preference licenses for bucks are oversubscribed in all GMU's, but landowner applicants for doe licenses are under-subscribed in all units except in GMU 99.


Figure 6. Number of preference points needed to draw a buck license for the regular and late-plains rifle seasons in the South Tablelands DAU, 1995-2005.

The number of hunters has varied from 828 in 2004 to 986 in 2003 depending on the number of limited licenses allocated for the DAU (Figure 7). The number of buck licenses since 1994 has varied from a high of 380 buck licenses in 2005 to a low of 310 buck licenses in 1996-1999 (Figure 7). The number of doe licenses ranged from a high of 590 licenses in 2003 to a low of 410 licenses in 1996-1999 (Figure 7).

Success rates for all methods of take generally approach the 60\% mark (Figure 8), but success varies with weather conditions and progression of crop harvest. Success rates for rifle hunting have ranged from a high of $84 \%$ in 1994 to a low of $56 \%$ in 2004. The 5 and 10 -year average harvest success rates for antlered deer are $70 \%$ and $73 \%$, respectively. The 5 and 10-year average harvest success rates for antlerless deer are $58 \%$ and $62 \%$, respectively.


Figure 7. Total number of licenses and number of buck and doe licenses allocated for the South Tablelands DAU, 1994-2005.


Figure 8. Total, antlered, and antlerless deer harvest success (\%) in the South Tablelands DAU, 1994-2005.

## Past Management Strategies

A limited number of licenses have been issued for the regular rifle season since 1985 and late-plains rifle seasons since 1993. Over-the-counter archery and muzzleloader licenses were still available until 1996. Since 1996, all deer hunting licenses for all
methods of take have been limited in number in GMU 99, while the remaining GMU's in the DAU continued to offer over-the-counter archery and muzzleloader licenses until 1999. Since 1999, all deer hunting licenses for the South Tablelands DAU have been limited in number and available only through the drawing.

The late-plains rifle season was established in 1993 to more effectively achieve harvest objectives and reduce crowding especially on public lands. Prior to 1993, achieving adequate harvest was largely dependant upon the progress of corn harvest. Years in which the corn harvest was delayed resulted in lower hunter success and reduced deer harvest, as well as, an increase in conflicts between landowners and hunters. Licenses have been allocated between the regular and late-plains deer seasons to meet harvest objectives, reduce conflicts with agricultural producers, and provide quality hunting opportunities.

## CURRENT HERD MANAGEMENT

## Population and Sex Ratio Objectives

The 2005 post-season estimate was approximately 2,840 deer, which is slightly under the current interim population objective. In 2002, when this DAU was established an interim population objective of 3,000 deer was set until a formal management plan could be developed. Likewise, in 2002, an interim sex ratio objective was set at 40 bucks/100 does. The current sex ratio for the DAU is estimated to be 39 bucks/ 100 does.

## Current Management Strategies

The management strategy for this DAU is based on providing quality buck hunting opportunities. Licenses have been allocated to maintain a high buck/doe ratio and a higher proportion of $3+$ year-old bucks in the population. Also, strategies have been implemented to increase the harvest of white-tailed deer in the eastern portion of the DAU where they have recently expanded their range and this encroachment has become a concern for both local Division staff and the public.

## Current Management Problems

Most of the habitat changes that have occurred in the DAU over the last 10 years have been beneficial to deer, as in the case of CRP and changing cropping practices. Habitat manipulations beneficial to deer will continue to occur as a result of agricultural cropping systems that emphasize dryland corn and domestic sunflowers as an alternative to a wheatfallow system. Deer damage is not an issue with only one deer damage claim being filed in the past 12 years. If habitats continue to improve, the Division will need to closely monitor population responses along with game damage complaints and adjust license numbers accordingly.

Interspecific competition between mule deer and white-tailed deer is a growing concern in the South Tablelands DAU and elsewhere on the eastern plains. Prior to 1960, Colorado's eastern plains were almost exclusively populated by mule deer. White-tailed deer have progressively established themselves in more traditional mule deer habitats. Concerns expressed by the public and Division staff range from impacts of competition to hybridization. In response, the Division created white-tailed deer only licenses and a
special white-tailed deer only season in 2003 to put more hunting pressure on the whitetailed deer population in the eastern portion of the South Tablelands DAU. This season has provided increased harvest of white-tailed deer and hunting opportunity without risk of over harvesting mule deer.

Currently, ground surveys are conducted annually to collect fawn/doe and buck/doe ratio estimates because aerial surveys are too cost prohibitive due to relatively low deer densities. However, the Division recognizes that ground surveys have limited accuracy and may be biased. Therefore, the Division may explore other monitoring strategies, such as a landowner survey or other means to assist in the management of deer herd in the South Tablelands DAU.

## Chronic Wasting Disease

Currently, only two deer have tested positive for CWD in this DAU; one CWD positive animal was found south of Julesburg in unit 93 in 1999, and another CWD positive animal was harvested during the 2001 hunting season, again, in GMU 93. Since 2001, 441 deer have been tested from the DAU, and no further evidence of CWD was discovered, however, it is important to recognize that past efforts in other areas of the state have failed to detect CWD when prevalence was low. In 2005, a CWD positive animal was discovered in GMU 101 in D-55, which is adjacent to D-54 on the south. The South Tablelands deer DAU is at risk for CWD infection because it lies adjacent to the South Platte River, which is the nearest known source of CWD. The close proximity of this DAU to the South Platte River and known deer movement patterns between the South Platte River and this DAU underscores the probability that CWD will expand into the DAU. Testing hunter harvested deer will continue to be the primary surveillance method for CWD. In addition, submissions of deer suspected of having the disease and road-killed deer are the most efficient methods to detect CWD in areas with low prevalence.

## MANAGEMENT ISSUES AND STRATEGIES

The primary purpose of the DAU planning process is to determine objectives for the size and composition of the post-season population. Input for the DAU planning process has been solicited through a public meeting held on March 15, 2005 in Yuma, CO, which was sponsored and attended by the Republican River Habitat Partnership Program (HPP) committee. The public meeting was advertised in the local papers of Yuma, Wray, Sterling, Akron, Brush, and Fort Morgan in northeast Colorado (Appendix A). Furthermore, a draft of the DAU plan will be available at the Brush CDOW office and copies will be distributed to the Republican River HPP committee, land management agencies, and conservation organizations for review and comments.

Public comments emphasized a continued desire to manage for quality deer hunting in this DAU by maintaining the current sex ratio (Appendix B). Likewise, public input indicated a desire to maintain the current long-term population objective. The largest issue in D-54 is continuing to monitor for CWD. Secondarily, D-54 will likely experience a continued increase in hunting popularity because of the quality buck hunting opportunities that currently exist.

## ALTERNATIVE DEVELOPMENT

## Post-Season Population Objectives

The population objective is selected independently from the herd composition objective. The Division 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: 2,300-2,500.
Reduce the long-term post-season population objective by $20 \%$ from the current estimate of 2,900. Initially, this alternative would result in an increase in deer hunting licenses, but once deer numbers are reduced to objective, hunting opportunity would decline. This strategy could substantially 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 deer population to this objective would require substantial increases in antlerless licenses over the next $2-3$ years. The strategy necessary to achieve adequate harvest may require designating, at least a portion of, the antlerless tags as additional licenses and/or lengthening the seasons. There could be long-term negative fiscal impact to individuals and businesses benefiting from deer hunting. Deer damage complaints would remain negligible under this alternative. Public input was not supportive for reducing the deer population below the current level.

Alternative 2: 2,900-3,100.
Maintain the post-season population at the current objective level of 2,900-3,100. Under this alternative, an increase in antlerless licenses will be necessary to stabilize the increasing population. The demand for buck licenses will continue to be greater than the supply and the number of preference points needed to draw a license will increase at the current rate. Damage complaints are expected to remain negligible. Maintaining deer numbers at the current level would allow the current hunting opportunities to continue with no fiscal impacts to individuals or businesses.

Alternative 3: 3,500-3,700.
Increase the long-term post-season deer population by $25 \%$ to $3,500-3,700$ deer. This objective will provide more buck hunting opportunities that are obviously in demand. Increases in the number of antlerless licenses will also be necessary once this objective is reached. With increased deer numbers, the potential for deer damage complaints would likely increase. Damage by deer would need to be closely monitored as the population increases to objective. There would most likely be an increase in revenue for individuals and businesses involved in hunting recreation. Hunter success should remain at or above current levels. Public comments did not support increasing the population level above the current estimate.

## Post-Season Herd Composition Objectives

The following 2 sex ratio objectives are presented.
Alternative 1: 35-40 bucks/100 does.
Maintain the sex ratio at $35-40$ bucks/100 does. This objective will continue to provide quality buck hunting opportunities. Public comments strongly supported maintaining the sex ratio at the current level.

Alternative 2: 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 fewer bucks and a considerable reduction in the number of mature bucks in the population. From this alternative, two scenarios could develop regarding the demand for buck licenses; first, the demand for buck licenses could continue to increase with the overall reduction in the buck population; or the demand for buck licenses may decline because quality buck hunting opportunities will substantially decrease. This alternative would allow for more buck licenses to be issued because an increase in buck harvest would be necessary to maintain this lower objective. Public comments were not in favor of a reduction in the buck/doe ratio.

## PREFERRED OBJECTIVES AND ALTERNATIVES

The CDOW's preferred objectives for D-54 are to manage for a post-season population of 2,900-3,100 (Alternative 2) with an observed post-season herd composition objective of $35-40$ bucks/100 does (Alternative 1).

The majority of public comments support maintaining the current deer population in the South Tablelands DAU. Game damage complaints have not been an issue thus far, and are not expected to significantly increase under this alternative. Hunting opportunities would continue at the current level. Further encroachment of white-tailed deer into traditional mule deer habitat is a distinct possibility. Strategies to manage whitetail expansion in GMU 98 are available using white-tailed deer only licenses.

Public comments strongly supported managing the South Tablelands deer herd for quality buck hunting opportunities. The 2005 post-season observed sex ratio was 39 bucks/ 100 does. Therefore, no change in management actions is necessary to maintain this objective. Quality buck hunting opportunities will continue at the current rate. The South Tablelands deer herd is valued as a deer hunting destination and hunters, local communities, and businesses have encouraged the Division to continue to manage D-54 for quality hunting opportunities.

## APPENDIX A

## PUBLIC MEETING ANNOUNCEMENT

## ANNOUNCEMENT OF PUBLIC MEETING COLORADO DIVISION OF WILDLIFE DAU PLANNING MEETING

The Colorado Division of Wildlife is currently writing a pronghorn management plan for Game Management Units 93, 97, 98, 101 and 102 and 2 deer management plans, one for Game Management Units 93, 97, 98, 99 and 100 and one for Units 101, and 102 (see below). These units are managed together in a DAU, or Data Analysis Unit, which signifies a "herd" of pronghorn or deer. DAU plans set future management direction with regards to total population size in the DAU, as well as the desired buck:doe:fawn ratio. Public input is requested for formulating new population objectives to guide management for the next 10 years, as well as assist us in setting an overall population target. A public meeting is set for March 15th at 6:00 pm at the Yuma Community Center, 421 E. 2nd, Yuma, CO. For more information, contact Marty Stratman at (970) 842-6314.


## APPENDIX B

## PUBLIC COMMENTS

## YUMA PUBLIC MEETING COMMENTS FOR SOUTH TABLELANDS DAU

- Keep the buck/doe ratio at the current level or higher. PUBLIC-(All)
- Quality deer hunting should be maintained. PUBLIC-(Majority)
- Deer numbers are fine where they are now. PUBLIC-(All)
- Deer numbers should not be increased because deer damage could increase. PUBLIC-(HPP Committee)
- Surveillance for CWD should be continued or increased. PUBLIC-(All)
- Whitetail only deer season should be eliminated in Game Management Unit 93. PUBLIC-(2 People)

