

ARIKAREE DEER HERD MANAGEMENT PLAN

DATA ANALYSIS UNIT D-55

**Game Management Units
101 & 102**



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DAU D-55 (ARIKAREE) EXECUTIVE SUMMARY

GMU's: 101 and 102

Land Ownership: 98% Private, 2% State

Post-Season Population:

Previous Objective – 1,600; 2004 Estimate – 1,600; Current Objective – 1,900–2,100

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

Previous Objective – 40; 2004 Observed – 38; 2004 Modeled – 38; Current Objective – 35–40

Figure I. D-55 Post-Season Population Estimate

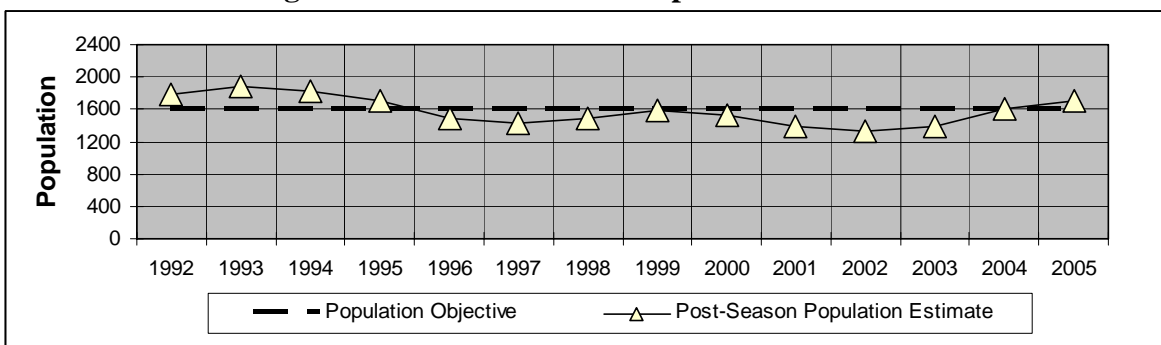


Figure II. D-55 Harvest

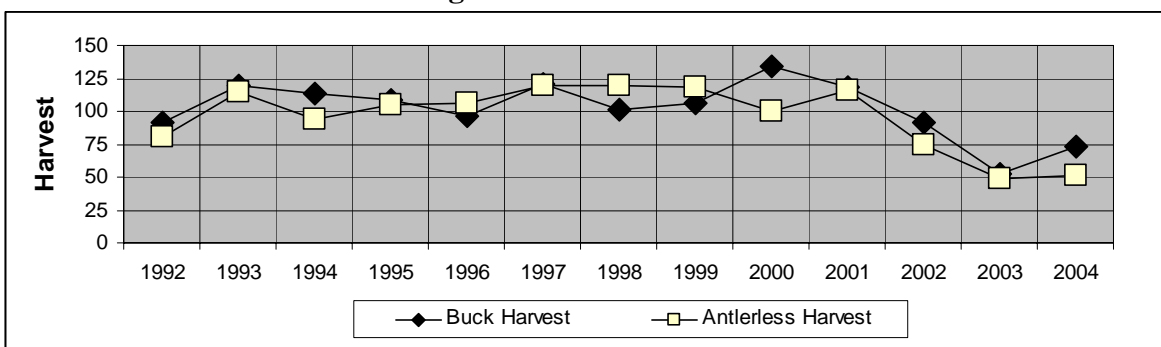
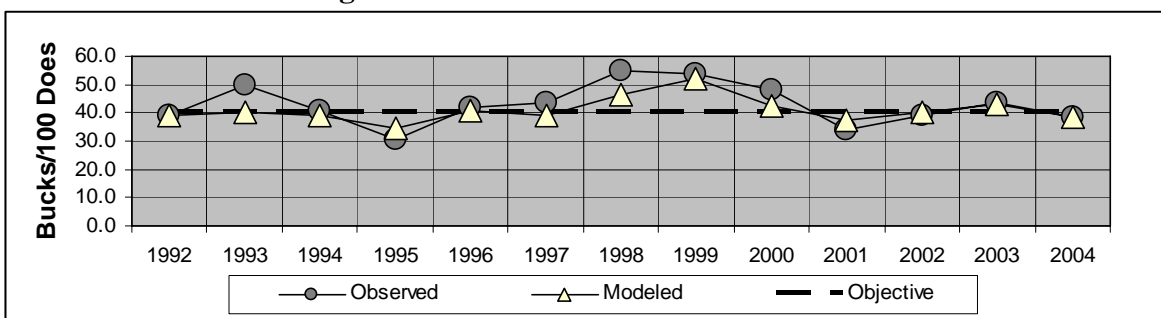


Figure III. D-55 Post-Season Sex Ratios



Background

The Arikaree Data Analysis Unit (DAU) was created in 2002. At that time, the Division established interim population and sex ratio objectives of 1,600 deer and 40 bucks/100 does, respectively, until a formal management plan could be developed through the DAU planning process.

Much of the focus in D-55, the Arikaree deer herd, has been to provide quality recreational 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 41 bucks/100 does ranging from 30 bucks/100 does observed in 1995 to 55 bucks/100 does observed in 1998. Estimated deer numbers for the Arikaree deer herd have declined over the last decade from a high of approximately 1,880 in 1993 to a low of 1,320 in 2002. The 5-year population estimate average for the DAU is 1,450 deer. Observed fawn/doe ratios have varied from a low of 26 fawns/100 does in 1996 to a high of 69 fawns/100 does in 1998 and has averaged 46 fawns/100 does over the past decade.

Significant Issues

The Arikaree 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 to increase the long-term population objective. Chronic Wasting Disease (CWD) was discovered during the 2005 regular plains rifle season. Testing hunter harvested deer will continue to determine the extent of the disease within the DAU.

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 which began in 2003. Hunting for white-tailed deer was allowed in GMU 101 in this DAU and GMU's 93 and 98 in DAU D-54 to the north. 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-55 are to manage for a post-season population of 1,900–2,100 with an observed post-season herd composition 35–40 bucks/100 does. Public comments strongly supported increasing the deer population and continue to manage the Arikaree deer herd for quality buck hunting opportunities. Discussions with landowners, hunters, and DOW field personnel indicate that habitat conditions in D-55 can support increased deer numbers. Under this alternative, hunters can expect an increase in hunting opportunities once the objective is reached. The 2004 post-season observed sex ratio was 38 bucks/100 does. Therefore, no management actions are 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 25% to 1,100–1,300 deer, 2) maintain the population at the current level of 1,500–1,700 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 12, 2006.

ARIKAREE DEER MANAGEMENT PLAN DAU D-55 (GMU's 101 & 102)

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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. Secondly, 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.

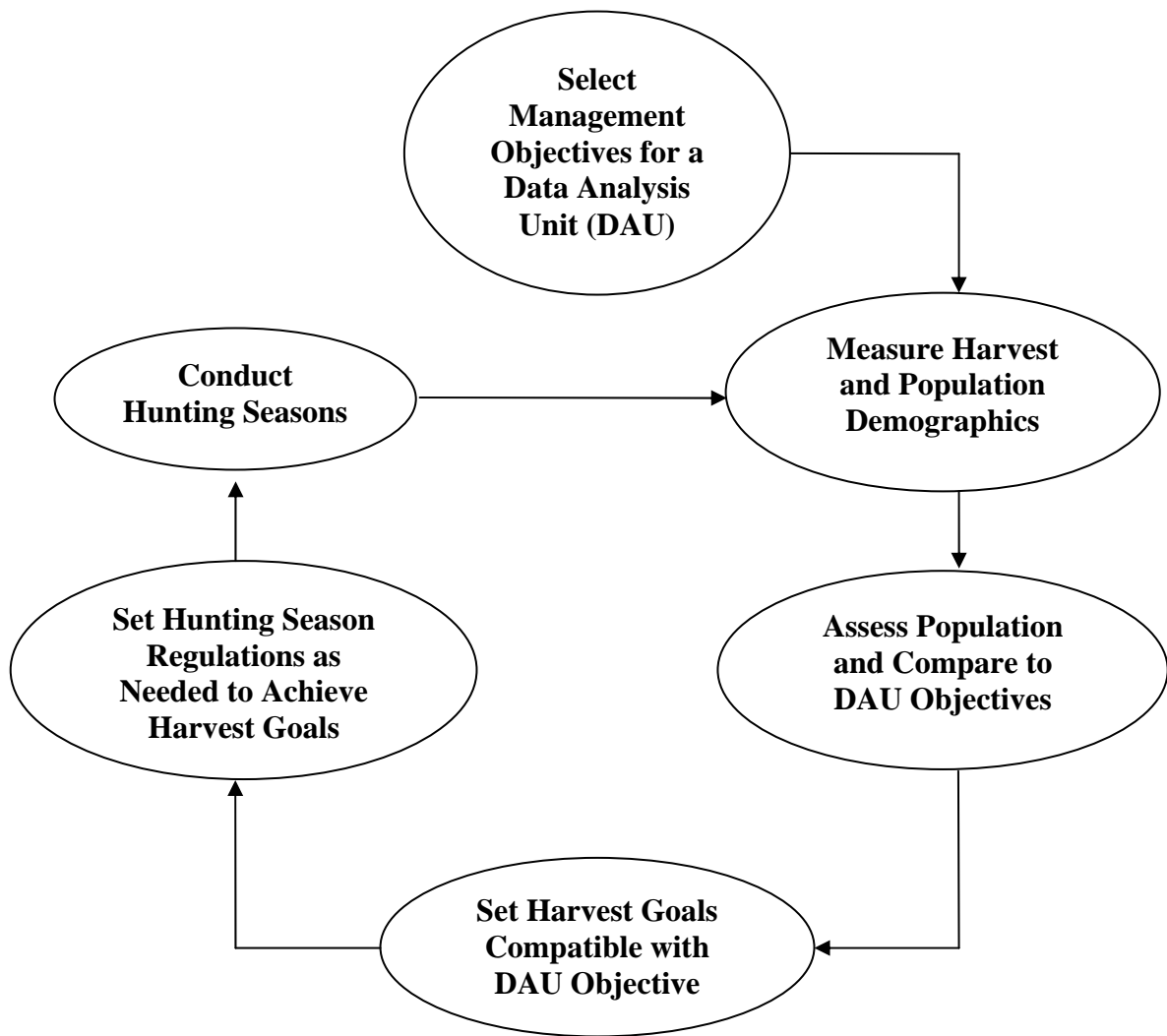


Figure 1. Colorado's Big Game Management by Objective Process.

ARIKAREE DEER DAU DESCRIPTION

Location

The Arikaree deer DAU is located in Washington and Yuma Counties in northeast Colorado (Figure 2). It is bounded by US 34 on the north; the Nebraska and Kansas borders on the east; Colorado Highway 36 on the south; and Colorado Highway 61 on the west. This DAU contains Game Management Units 101 & 102 and encompasses approximately 1,424 square miles.

Habitat Composition

There are several habitat types within the DAU, including dry cropland, irrigated cropland, short-grass prairie, sandsage/mid-grass prairie, cottonwood-riparian bottoms, dry canyons, and Conservation Reserve Program (CRP) lands. Over 50% of the DAU is comprised of sandsage/mid-grass prairie sandhills. The sandsage/mid-grass prairie is part of the sandhill complex which runs through the DAU. The sandsage/mid-grass prairie has remained stable with little being broken out for farming or development. The short-grass prairie has been reduced to a small fraction of its historic range. The largest blocks of short-grass prairie are adjacent to river corridors. Habitat quality has increased across large portions of the DAU due to CRP lands, managed grazing systems within the sandsage rangelands, and changing cropping practices that emphasize dryland corn and domestic sunflowers as an alternative to a wheat-fallow system. There are 4 primary riparian systems within the DAU; the North Fork of the Republican River, Dry Willow Creek, Black Wolf Creek, and the Arikaree River.

Climate

The climate in the DAU is characterized by hot, dry summers and recently, relatively mild winters. Annual precipitation ranges from 13-16 inches, which occurs primarily 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 Arikaree DAU are typical of eastern Colorado with the majority of the area being in private ownership. Public lands comprise less than 3% of the DAU and are owned by the CDOW. Land use within the DAU is almost completely based on agricultural production. Grazing by livestock is the primary influence on short-grass and sandsage/mid-grass prairie condition. Center pivot irrigation occurs throughout the DAU. Corn, wheat, and alfalfa are the primary crops under pivot irrigation.

Deer Distribution

Both mule deer and white-tailed deer live throughout 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. White-tailed deer can also be found in any habitat type, although concentrations are highest along the Arikaree River and its' tributaries and the North Fork of the Republican River.

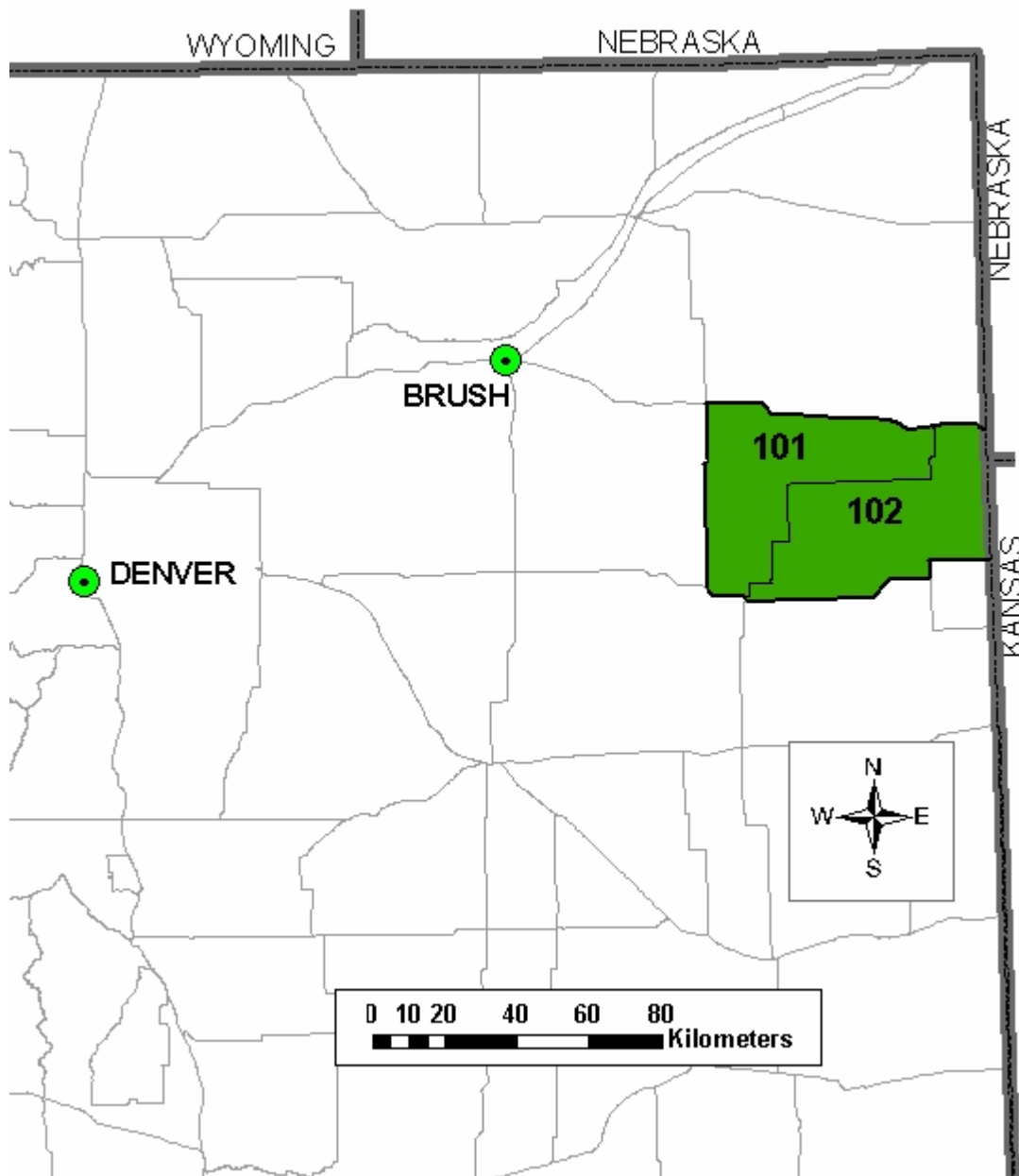


Figure 2. Geographic location of the Arikaree deer DAU and its associated Game Management Units in northeast Colorado.

HERD MANAGEMENT HISTORY

Previously, this deer DAU, D-54, 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. Population estimates for each DAU were developed based on field staff's judgment along with computer models using harvest estimates and observed age and sex ratios. In 2002, D-54 was reduced in size by designating GMU's 101 and 102 as a separate DAU to improve data collection and computer modeling for both DAU's.

Post-Season Population Size

Estimated deer numbers for the Arikaree deer DAU have declined over the last decade from a high of approximately 1,880 in 1993 to a low of 1,320 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 1,450 and 1,525 deer, respectively.

Estimating population numbers of wild animals over large geographic areas is a difficult and approximate science. Numerous attempts have been made to accurately count known numbers of wild animals in large fenced areas. All of these efforts have failed to consistently count 100% of the animals. High-tech methods using infrared sensing have also met with limited success. The CDOW recognizes this as a serious challenge in our management efforts. The CDOW attempts to minimize this by using the latest technology and inventory methodology available. Most deer population estimates 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 animals in this DAU.

White-tailed Deer

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.

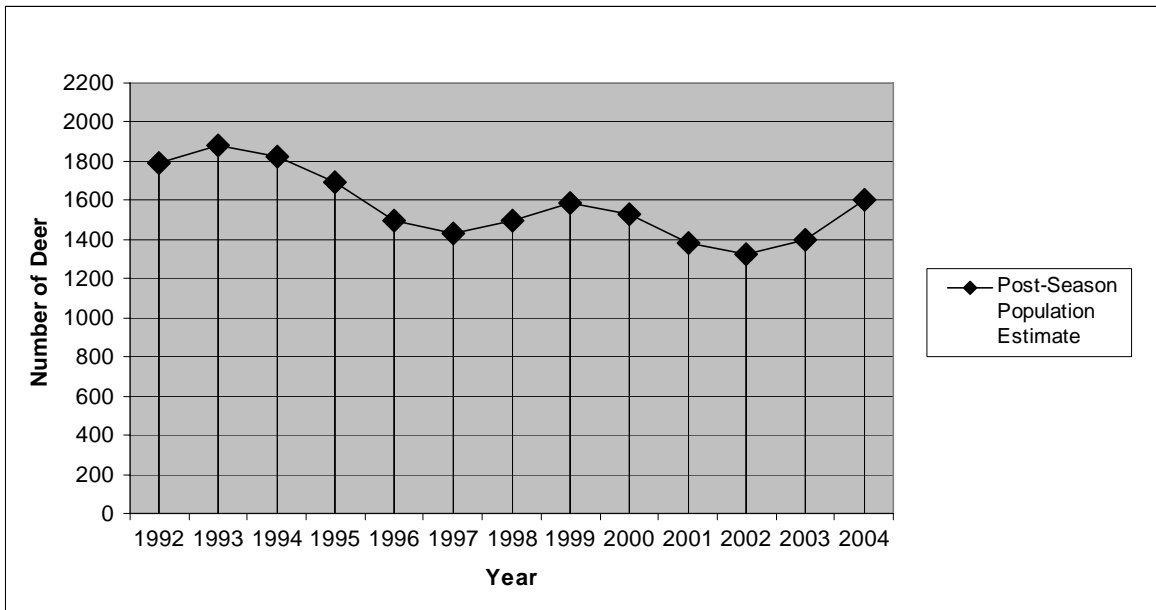


Figure 3. Post-season deer population estimates for the Arikaree DAU, 1992–2004.

The disproportionate hunting pressure on mule deer and changes in habitat has resulted in deer species composition shifting in favor of white-tailed deer. Commonly, white-tailed deer are being observed miles from traditional whitetail habitat, and Division staff and local communities have expressed concerns about the impacts that white-tailed deer may have on mule deer in the DAU. Concerns range from impacts of competition to hybridization. In 2004, the proportion of mule deer to white-tailed deer classified during aerial surveys was 77% mule deer and 23% white-tailed deer in GMU 101 and 35% mule deer and 65% white-tailed deer in GMU 102.

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 white-tailed deer was allowed in GMU 101 in this DAU and GMU's 93 and 98 in DAU D-54 to the north. 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 white-tailed deer only 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 is no longer needed. The whitetail only deer licenses should be issued during the late-plains deer season to further increase harvest on white-tailed deer. Moving these licenses to the late-plains season will 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 with ground and aerial surveys. Aerial surveys are the preferred method, because more animals can be classified in a large area in

a shorter amount of time reducing bias often associated with ground counts, however higher costs do not allow their use every year. In some years, surveys are conducted by district wildlife managers and biologists on the ground during a specified time frame. Observed sex and age ratios, along with harvest estimates are used in computer simulation models to estimate population, determine license allocation, predict population changes, and assess impacts of reported harvest.

Much of the focus in this DAU has been to provide quality recreational 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 41 bucks/100 does ranging from 30 bucks/100 does observed in 1995 to 55 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.

In 2002 and 2004, the Division conducted aerial surveys along the Arikaree River and nearby tributaries, as well as, the North Fork of the Republican River. In 2002, weather conditions were unfavorable, with no snow cover, and only 215 deer were classified resulting in a buck/doe/fawn ratio of 39/100/30 (Figure 4). In 2004, adequate snow cover improved counting conditions and 564 deer were classified with a buck/doe/fawn ratio of 38/100/66.

Observed fawn/doe ratios have varied from a low of 26 fawns/100 does in 1996 to a high of 69 fawns/100 does in 1998 and has averaged 46 fawns/100 does over the past decade (Figure 4). In 2002 and 2003, fawn/doe ratios were lower than normal, indicating the widespread drought had adversely impacted fawn recruitment in the DAU.

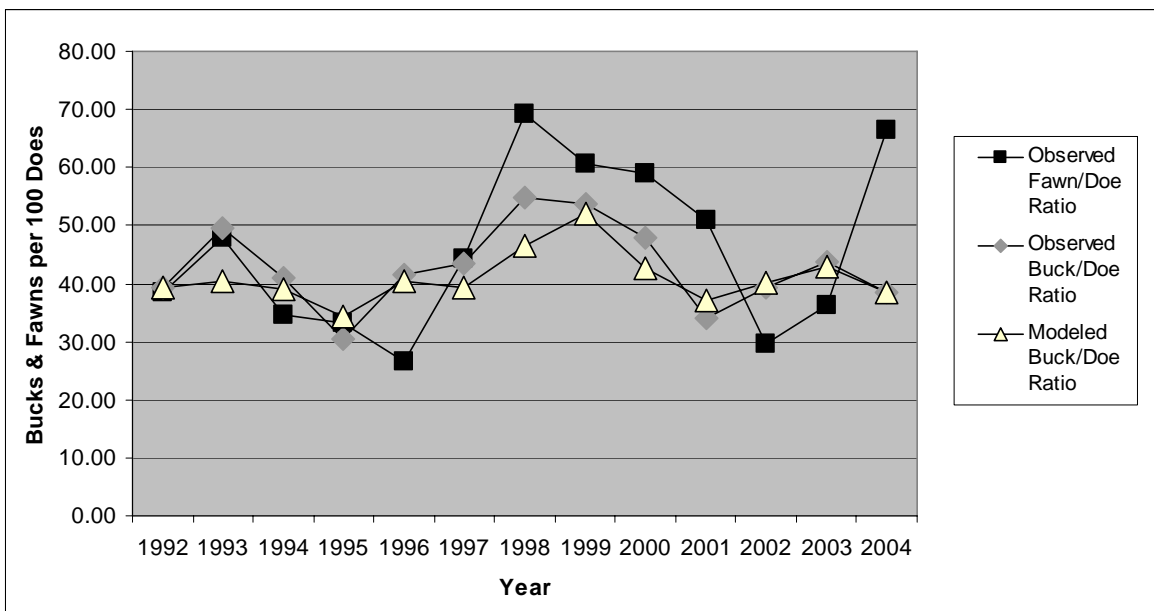


Figure 4. Observed post-season fawn/doe ratios and observed and modeled buck/doe ratio estimates for the Arikaree DAU, 1992–2004.

Harvest

Over the last 10 years, deer harvest has ranged from a high of 240 animals in 1997 to a low of 102 in 2003 (Figure 5). The decrease in deer harvest in 2002 and 2003 is a reflection of the population that was estimated when this DAU was created. Average harvest for the past 10 years is 195 animals. Antlered harvest ranged from a low of 53 bucks in 2003 to a high of 134 in 2000. Average buck harvest for the past 10 years is 101 animals. Doe harvest has ranged from a high of 120 does in 1998 to a low of 49 in 2003. Average doe harvest for the past 10 years is 95 animals. The two rifle seasons account for the majority of the deer harvest in the DAU, with archery and muzzleloader seasons contributing significant opportunity (25%), but less harvest (15%) to the DAU. 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 D-55, hunters harvested 15 white-tailed deer in GMU 101 in 2003. In 2004, hunters harvested 33 white-tailed deer with 21 coming from GMU 101. Overall, the whitetail season has provided additional hunter recreation without the risk of over harvesting mule deer.

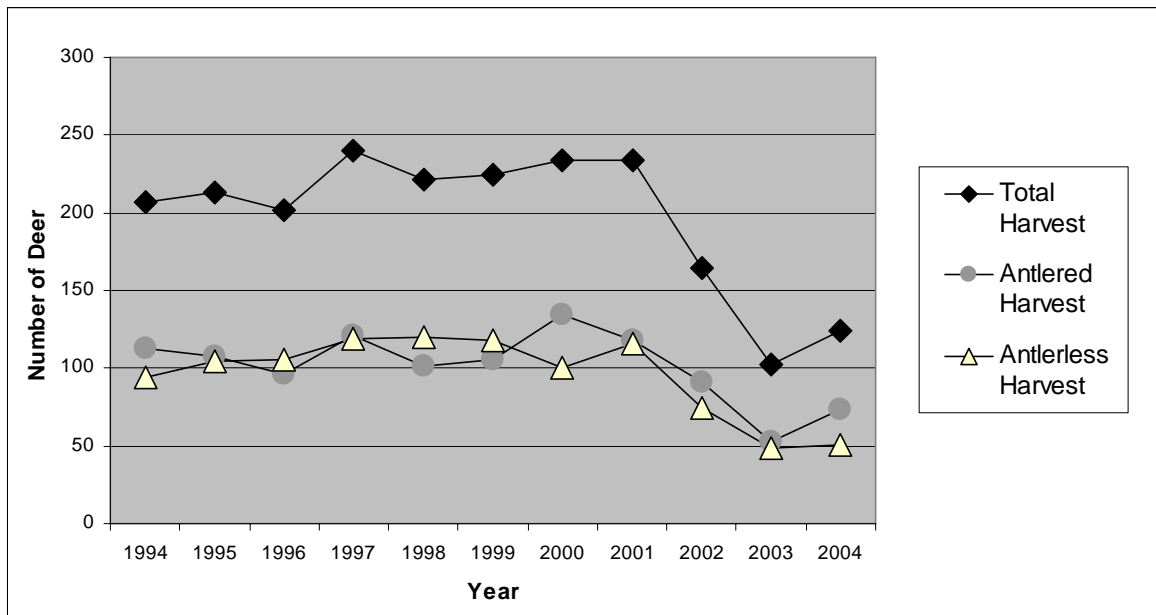


Figure 5. Total harvest and number of antlered and antlerless deer harvested in the Arikaree DAU, 1994–2004.

Hunters

The Arikaree DAU has been managed 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. As a result, the demand for antlered licenses exceeds the supply. In 2004, late season rifle buck licenses required 4 preference points to draw, while regular season rifle buck licenses required 3 points (Figure 6). Doe licenses for either season are frequently drawn with zero points. Archery and muzzleloader licenses are less difficult to draw than buck rifle licenses, taking 0 and 1 point, respectively. Landowner preference licenses for bucks are over-subscribed in both units, but landowner applicants for doe tags are usually under-subscribed.

The number of hunters has varied from 212 in 2003 to 425 in 2000 depending on the number of limited licenses available (Figure 7). The number of buck licenses since 1994 has varied from a high of 185 buck licenses in 2005 to a low of 95 buck licenses in 1995 (Figure 7). The number of doe licenses ranged from a high of 250 licenses in 2000 and 2001 to a low of 110 licenses in 2003–2005 (Figure 7). In 2002, doe licenses were reduced to align with the new population estimates when the DAU was created and because of drought conditions that persisted in the DAU.

Success rates across all methods of take generally approach the 55% mark, but success varies with weather conditions and progression of crop harvest. Success rates for rifle hunting have ranged from a high of 83% in 1994 to a low of 55% in 2002 (Figure 8). The 5 and 10-year average harvest success rates for antlered deer are 60% and 69%, respectively. The 5 and 10-year average harvest success rates for antlerless deer are 42% and 54%, respectively.

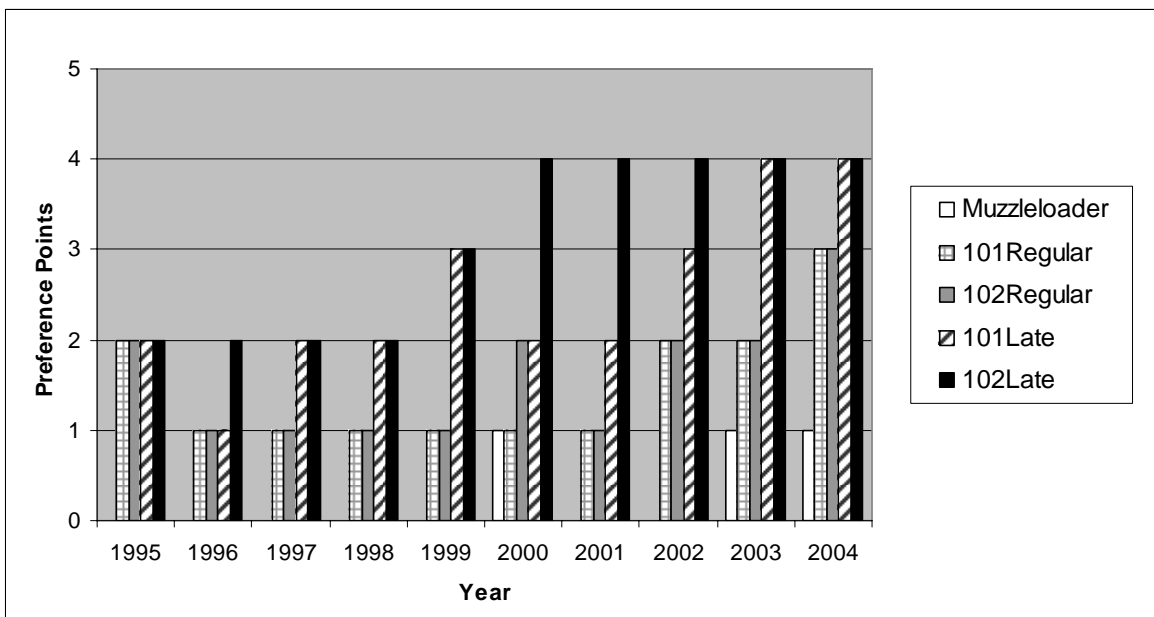


Figure 6. Number of preference points needed to draw a buck license for muzzleloading and rifle seasons in the Arikaree DAU, 1995–2004.

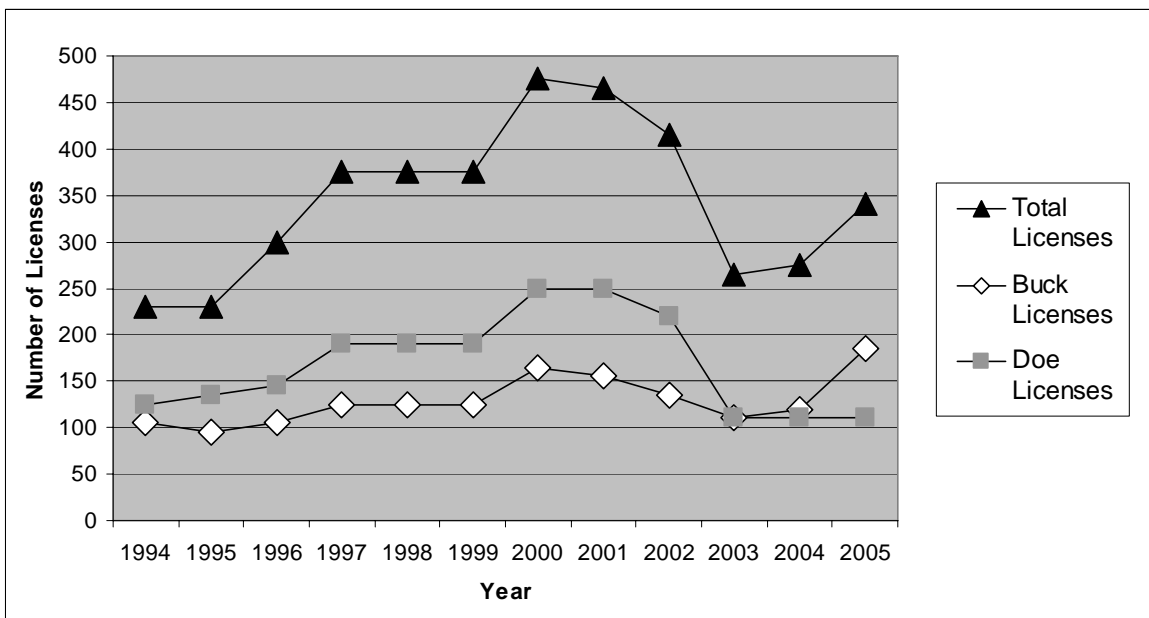


Figure 7. Total number of licenses and number of buck and doe licenses allocated for the Arikaree DAU, 1994–2005.

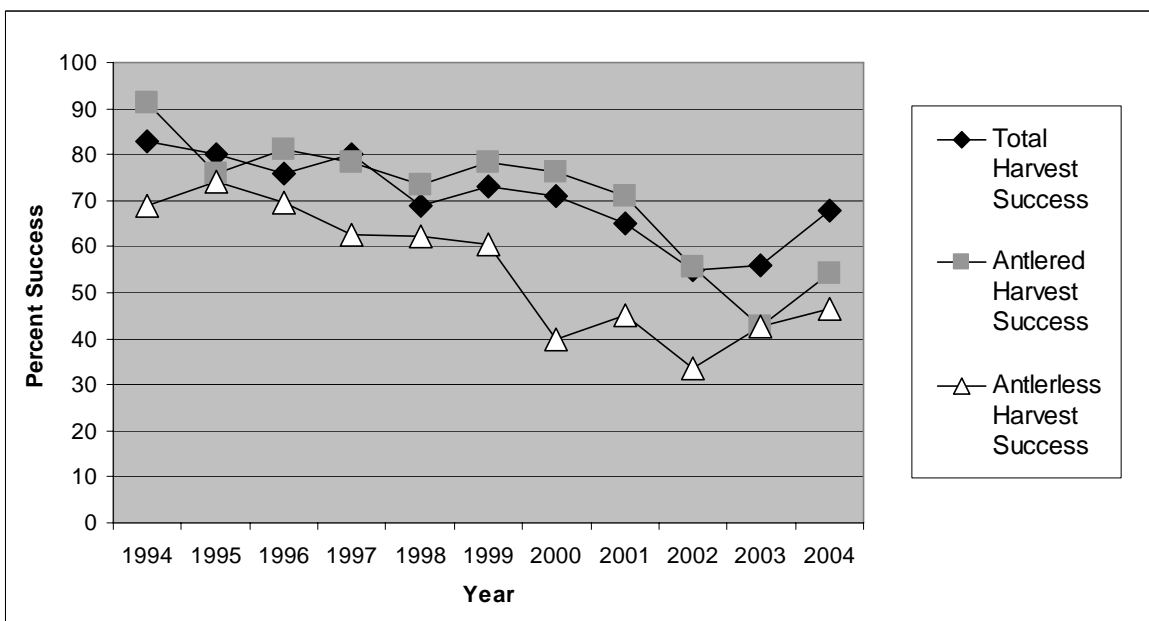


Figure 8. Total, antlered, and antlerless deer harvest success (%) in the Arikaree DAU, 1994–2004.

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 102, while GMU 101 continued to offer over-the-counter archery and muzzleloader licenses until 1999. Since 1999, all deer hunting licenses for the Arikaree 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 2004 post-season estimate was slightly over 1,600 deer. In 2002, when this DAU was established an interim population objective of 1,600 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 38 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 areas where they have recently expanded their range and this encroachment has become a concern for both the Division 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 wheat-fallow system. Numerous Federal Farm Bill programs will undoubtedly create additional deer habitat, by creating winter and security cover in the form of CRP grasslands and tree establishment projects including field windbreaks and riparian buffers. 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 and adjust license allocations accordingly.

Interspecific competition between mule deer and white-tailed deer is a growing concern in the Arikaree 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. In last years post-season aerial surveys, 57% of the deer observed were white-tailed deer and

43% were mule deer. Concerns expressed by the public and CDOW 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 white-tailed deer population in the Arikaree deer DAU. This season has provided increased harvest on white-tailed deer without risk of over harvesting mule deer.

Chronic Wasting Disease

In 2005, CWD was detected in D-55. A mule deer harvested during the 2005 regular plains rifle season tested positive for CWD. This is the first known case of CWD in this DAU. From 2002–2004, 95 deer have been tested from the DAU, and no evidence of CWD was discovered until now. The Arikaree deer DAU lies within 28 miles of the South Platte River, which may have been the source of CWD. Testing hunter harvested deer will continue to determine the extent of the disease in the DAU. In addition, submissions of deer suspected of having the disease and road-killed deer will continue because they 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 structure 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 increase the deer population above current population numbers. The largest issue in D-55 is continuing to monitor the threat of CWD in the DAU. Secondly, D-55 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: 1,100–1,300.

Reduce the long-term post-season population objective by 25% (1,100–1,300) from the current level. 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 would likely be long-term negative fiscal impact to individuals and businesses relying on recreational 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: 1,500–1,700.

Maintain the post-season population at the current level of 1,500–1,700. 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. 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: 1,900–2,100.

Increase the long-term post-season deer population by 25% to 1,900–2,100 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. Public comments support increasing the population level above the current estimate and hunter success should be maintained at or above current levels. Likewise, habitat conditions are favorable for supporting more deer and damage complaints have been virtually nonexistent in this DAU, thus far. However, with increased deer numbers, the potential for damage would also 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 with hunting recreation.

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 hunting opportunities will substantially decrease. Likewise, hunter satisfaction would also decrease under this alternative. 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-55 are to manage for a post-season population of 1,900–2,100 (**Alternative 3**) with an observed post-season herd composition objective of 35–40 bucks/100 does (**Alternative 1**).

The majority of public comments support increasing the deer population in the Arikaree DAU. Discussions with landowners, hunters, and DOW field personnel indicate that habitat conditions in D-55 can support increased deer numbers. Game damage complaints have not been an issue thus far, and are not expected to significantly increase under this alternative. Under this alternative, hunters can expect an increase in hunting opportunities once the objective is reached. This objective could be achieved by post-season 2006 using the current license allocations. Thus, hunting opportunities would continue at the current level and could be increasing within 2 years. With an increase in the overall deer population, under this alternative, further encroachment of white-tailed deer into traditional mule deer habitat is a distinct possibility. Strategies to circumvent further whitetail expansion are currently being pursued in both GMU's 101 and 102 to increase hunter participation and white-tailed deer harvest in the DAU.

Public comments strongly supported managing the Arikaree deer herd for quality buck hunting opportunities. The 2004 post-season observed sex ratio was 38 bucks/100 does. Therefore, no management actions are necessary to maintain this objective. Quality buck hunting opportunities will continue at the current rate and are expected to increase when coupled with the preferred population alternative. The Arikaree deer herd is valued as a quality deer hunting destination and hunters, local communities, and businesses have encouraged the Division to continue to manage D-55 for quality hunting opportunities.

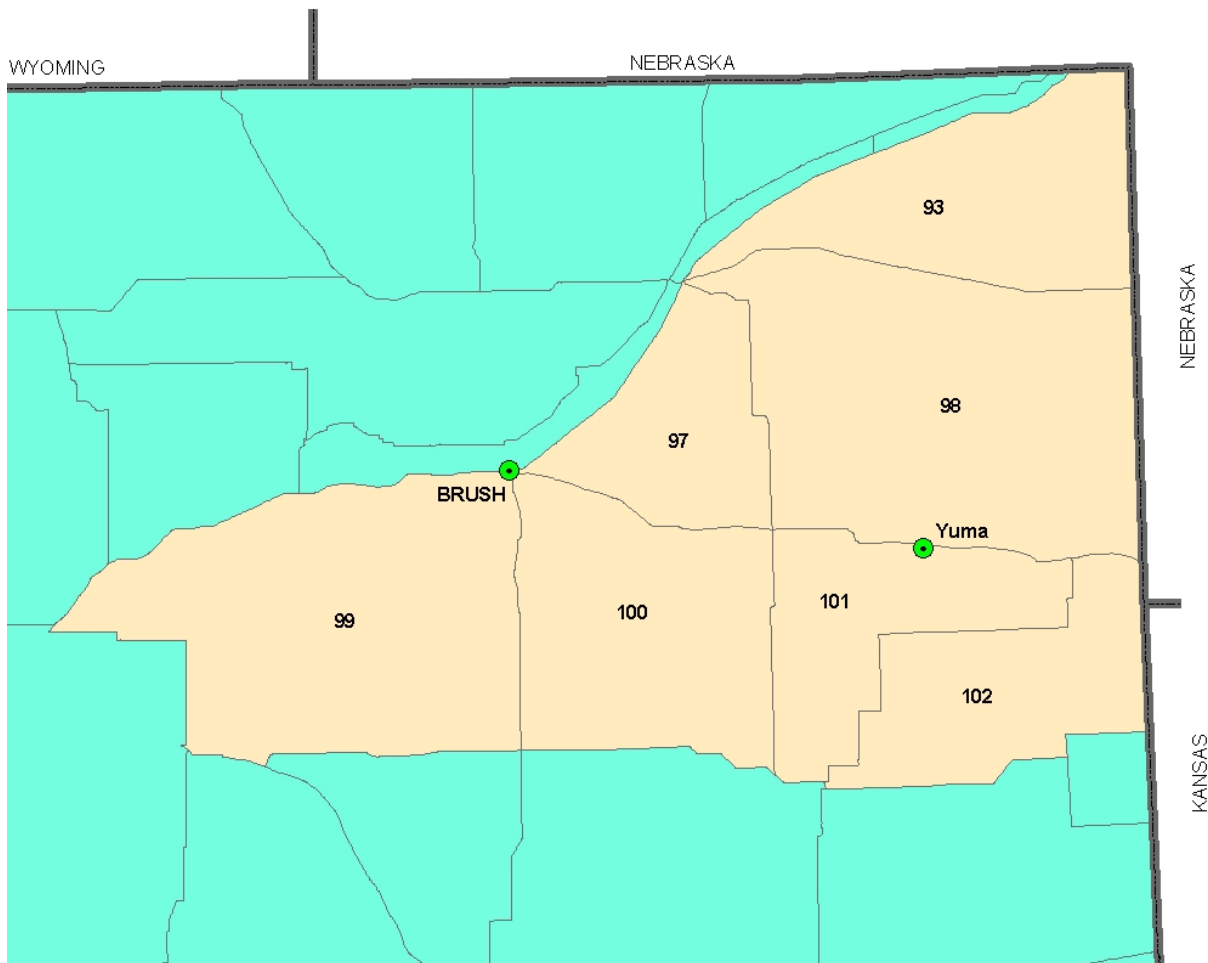
APPENDIX A
PUBLIC MEETING ANNOUNCEMENT

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 ARIKAREE DAU

- Keep the buck/doe ratio at the current level or higher. PUBLIC-(All)
- Increase the deer population to 2,000–2,500. PUBLIC-(One person)
- Increase the deer population to 2,000 animals. PUBLIC-(Majority)
- Quality deer hunting is important to maintain. PUBLIC-(Majority)
- Surveillance for CWD should be continued or increased. PUBLIC-(All)
- Could get deer damage complaints with higher population. HPP Committee
- Higher population may provide more hunting opportunities. PUBLIC
- Whitetail only deer season should be expanded to Game Management Unit 102.
PUBLIC
- Deer numbers are fine where they are at now. PUBLIC (One person)