Upper Rio Grande Elk Herd
Data Analysis Unit E-34
Game Management Units 76 and 79
July 2010

Colorado Division of Wildlife
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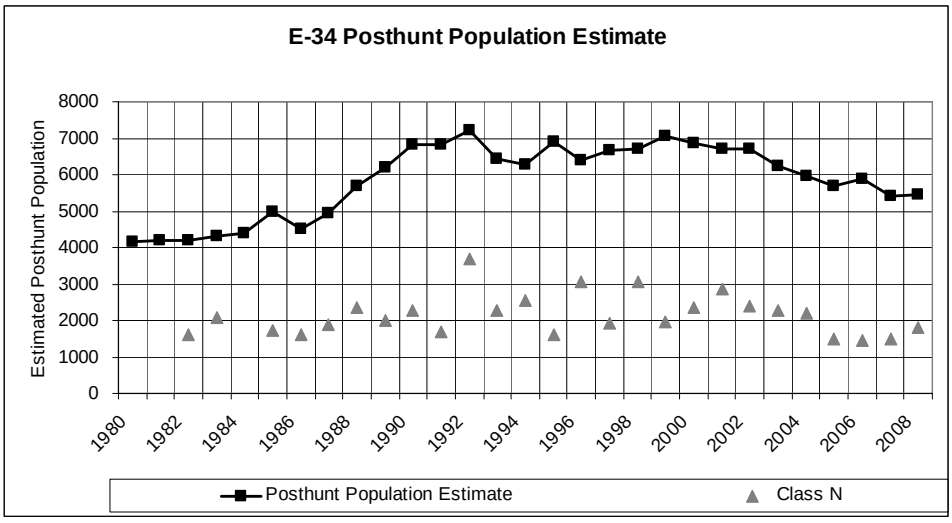
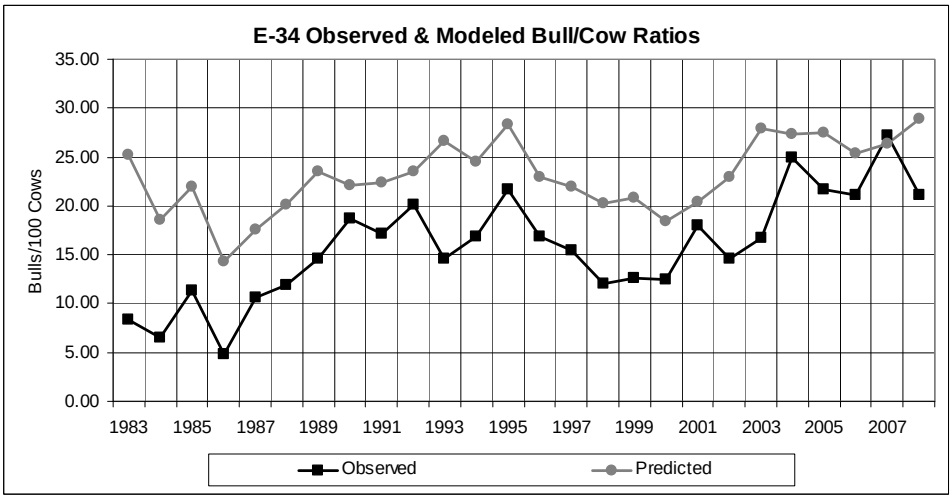
Game Management Units 76 and 79

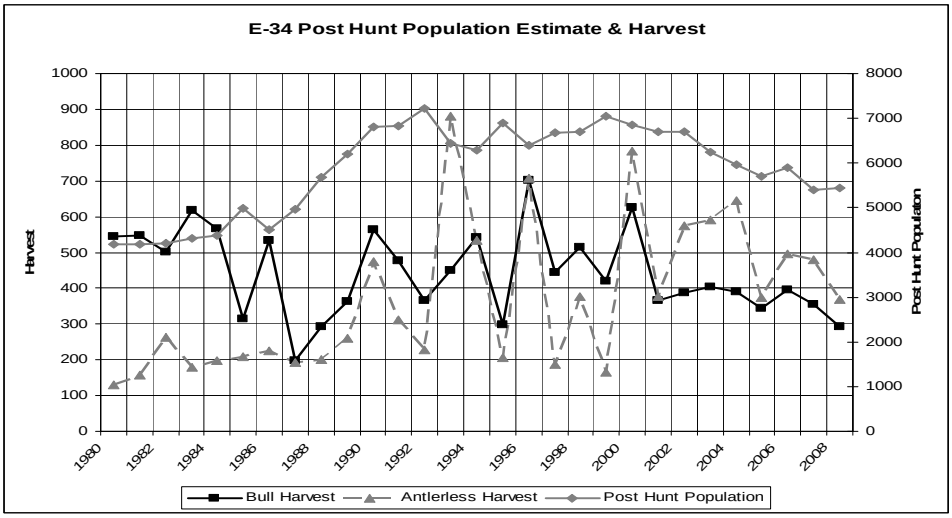
Executive Summary
May 2010

Population:	2008 Estimate	5400
	2010 Objective	**4,000 to 5,500**
Sex Ratio:	2008 Observed	21 bulls:100 cows
	2010 Objective	**20 to 25 bulls:100 cows**

Land Ownership: 17% Private, 80% USFS, 2% BLM, less than 1% State







Data Analysis Unit (DAU) E-34, the Upper Rio Grande Elk Management Area, consist of Game Management Units (GMUs) 76 and 79. It is located in the west central portion of the San Luis Valley in Colorado. GMU 76 has been managed as a limited bull hunting unit since 1984. In 2002 GMU 79 bull license during the rifle seasons became limited. In addition both units have had a high number of antlerless licenses since the 1990s.

The E-34 population increased in the 1980s and early 1990s. A peak in the population estimated at 8,600 elk occurred in 1992. Cow harvest became more aggressive at that point and the population has slowly been decreasing to its current level of 5,400. The previous DAU plan for E-34 was adopted in 1996 based on early population models that underestimated the population. Because of this the population objective of 3,700 is most likely below what the public and wildlife managers had desired.

Observed post hunt sex ratios have never exceeded 2007 observed ratio of 27:100, even with limited bull licenses. When GMU 79 became partially limited in 2002 the sex ratio increased from the teens to low 20 bulls per 100 cows.

Harvest is most influenced by weather and the number of limited licenses available. Bull harvest for the past 10 years has averaged 398 animals per year. The high bull harvest was 626 in 2000 and the low was 292 in 2008. Antlerless harvest during the same time period has ranged from a 166 in 1999 to 784 in 2000, averaging 485.

The main limiting factor for this herd is the amount of winter range available. Overpopulation of deer and/or elk on the winter range can damage the habitat and can also force animals onto agricultural fields. This in turn could lead to game damage issues. Housing development on private lands continues to decrease winter range availability, restricting this population further.

Management Alternatives
Three alternatives for E-34 were considered for posthunt population size and sex ratio objectives.

Population Objective Alternatives:

1) 3000 to 4500 (decrease in current population)
2) 4000 to 5500 (current population)
3) 5500 to 7000 (increase in current population)

Sex Ratio Objective Alternatives:

1) 20 to 25 bulls per 100 cows
2) 25 to 30 bulls per 100 cows
3) 30 to 35 bulls per 100 cows

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1. DAU Plans and Wildlife Management by Objectives

The growing human demand for a finite resource dictates wise management of Colorado's wildlife. The Colorado Division of Wildlife (DOW) employs a management by objectives approach to big game populations (Figure 1). The DOW's Long Range Plan provides direction and broad objectives for the DOW to meet a system of policies, objectives and management plans such as the Data Analysis Unit Plan. It also directs the actions the Division takes to meet the legislative and Wildlife Commission mandates.

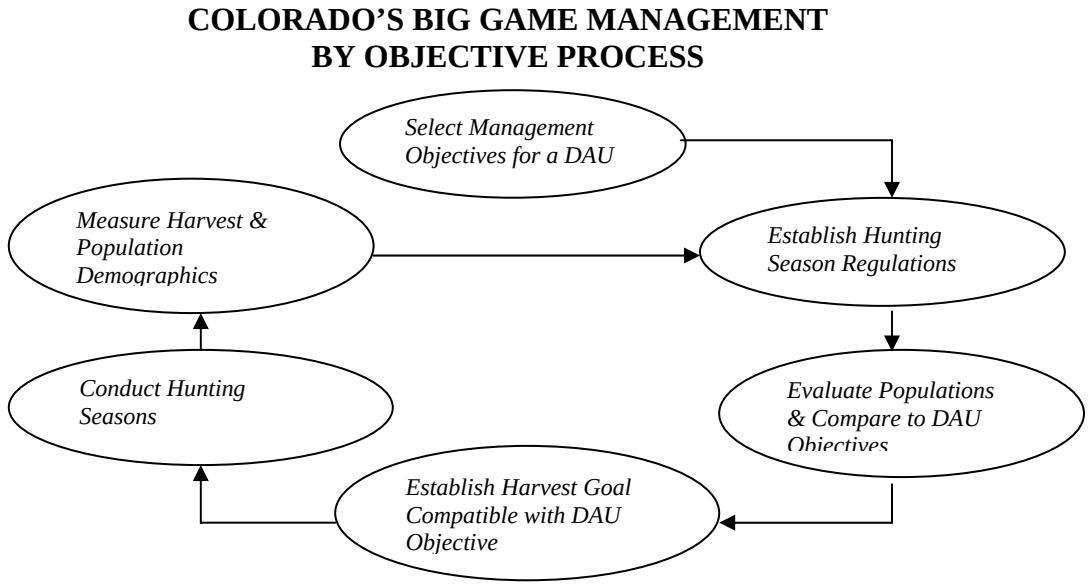

Figure 1. Management by objectives process used by the CDOW to manage big game populations on a DAU basis.

Data analysis units (DAUs) are used to manage herds of big game animals. The DAUs are generally geographically discrete big game populations. The Data Analysis Unit Plans are designed to support and accomplish the objectives of the Long Range Plan and meet the public's desires for big game. The DAU Plan establishes the short and long term herd objectives. The objective approach is the guiding direction to a long term cycle of information collection, information analysis, and decision making.

The DAU planning process is designed to incorporate public demands, habitat capabilities, and herd capabilities into a management scheme for the big game herds. The public, sportsmen, federal land management agencies, landowners, agricultural interests and others are involved in the determination of the plan objectives through goals, public meetings, comments on draft plans, and the Colorado Wildlife Commission.

Individual DAUs are managed with the goal of meeting the herd objectives. This is done by gathering data and then inputting it into population models to get a population estimate. The parameters used in the model include harvest data which is tabulated from hunter surveys, sex and age composition of the herd which is acquired by aerial inventories, and mortality factors such as wounding loss and winter severity which are generally acquired from field observations. Once these variables are entered into the population models a population estimate is obtained. The resultant computer population projection is compared to the herd objective, and a harvest calculated to align the population with the herd objective.

2. Description of the Data Analysis Unit

2.1 Location

The Data Analysis Unit (DAU) for the Upper Rio Grande elk herd is located in southcentral Colorado, on the west side of the San Luis Valley. It is 1,478 square miles in size and encompasses portions of San Juan, Hinsdale, Mineral, Saguache, and Rio Grande Counties. The DAU contains Game Management Units (GMU) 76 and 79. The DAU is bounded on the west by the Continental Divide, on the south by U.S. Highway 160, on the east by Colorado Highway 285 and on the north by the Continental Divide and the Rio Grande/Saguache Creek divide (Figure 2).

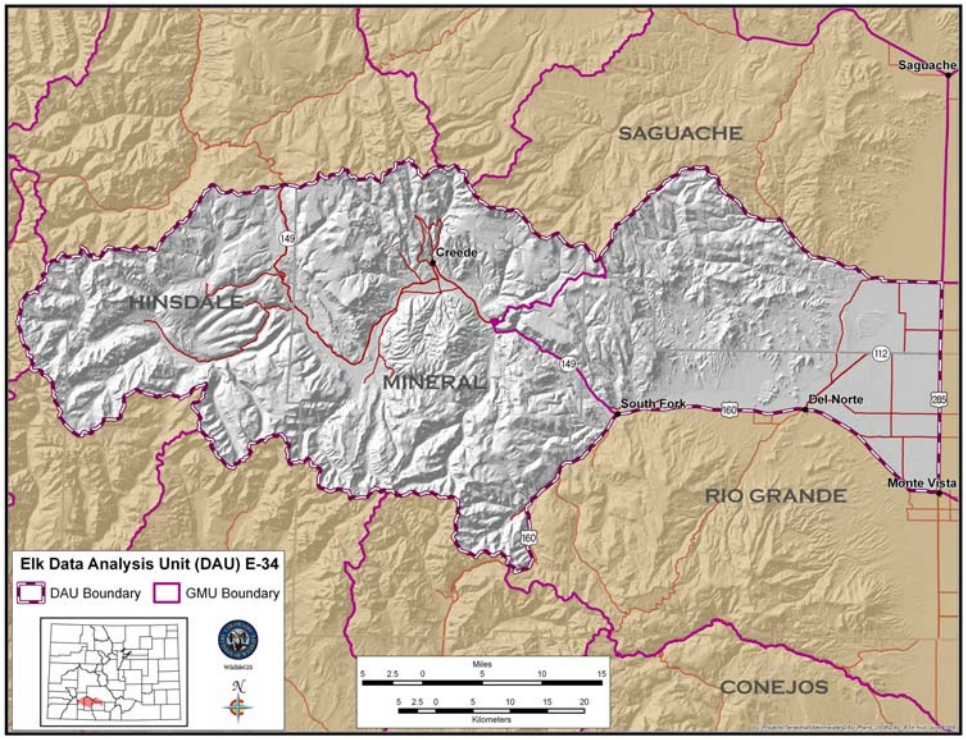

Figure 2. DAU E-34 boundary

Landownership composition in the DAU is 17% private, 80% US Forest Service (including portions of the Weminuche Wilderness and La Garita Wilderness), 2% Bureau of Land Management, and less than 1% State (Figure 3).

The main geographic features are the San Juan Mountains which rise to nearly 14,000 feet to west along the Continental Divide, the LaGarita Mountains to the northeast and to the east the Rio Grande which is at 7,800 feet elevation by Del Norte.

The climate is highland or mountain with cool summers and cold winters with heavy snows. The higher elevations of the San Juan Mountains receive 50 inches of precipitation yearly, while the foothills get 12 to 16 inches and the valley floor gets only 7 to 8 inches a year and is considered a high desert.

The lower elevations between 7,500 and 8,200 feet are grassland/shrub and agricultural lands but as elevation and precipitation increase the vegetation changes to pinion-juniper, ponderosa pine, then Douglas fir and white fir combined with sizable stands of aspen. Between 9,500 and 12,500 feet stands of Engleman spruce and subalpine fir are predominant. Extensive areas of alpine occur above 12,500 feet.

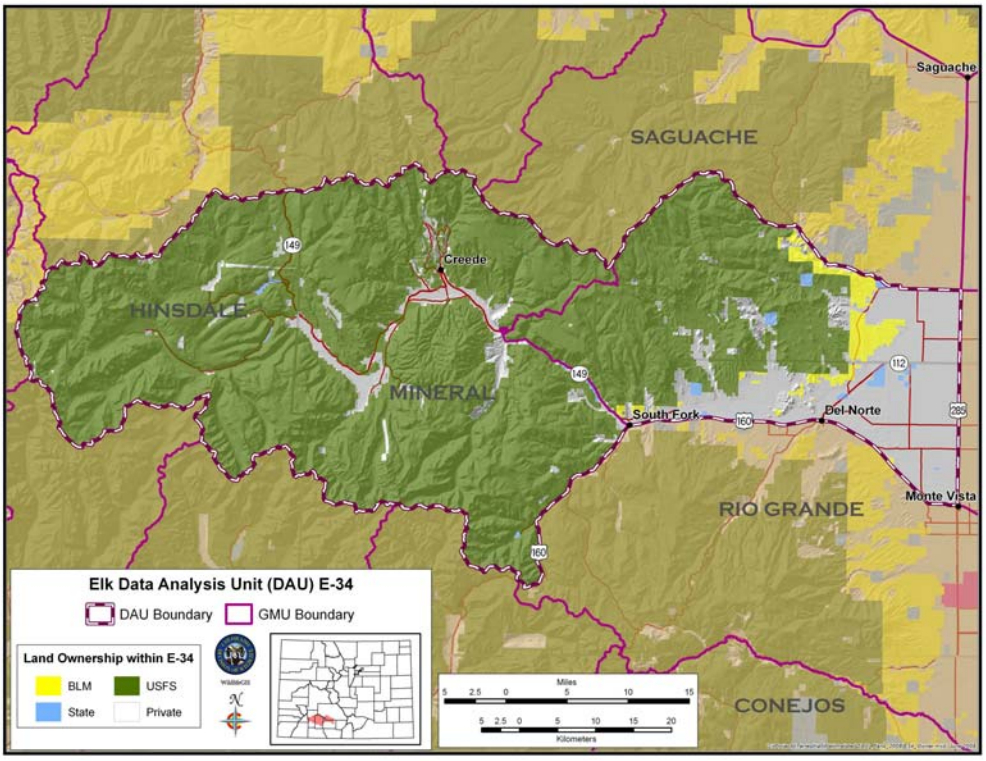

Figure 3. Landownership within E-34

2.2 Elk Range and Movement

Elk generally occupy the DAU from the grassland/shrub winter range adjacent to the foothills to the alpine in the summer. The overall range of the elk in the DAU is about 1,331 square miles or 90% of the DAU.

Elk movement to the winter range is usually initiated by increasing snow cover and decreasing forage availability, along with hunting pressure. This movement generally begins in November and continues until January. The important wintering areas in the DAU are the area around Creede and the lower elevations of GMU 79. The movement to winter range is to lower elevations and generally in an easterly and southerly direction. The exception to this is the herd of elk which summers at the headwaters of the Rio Grande and move in a southerly direction over the Continental Divide to winter in the Durango and Pagosa Springs area. Also, elk along the Continental Divide will winter north in the Lake City and Gunnison Basin region.

3. Herd History and Management

The DAU is divided into two GMUs, 76 and 79. GMU 76 has been managed as a limited license area since 1984 in order to provide a quality hunting experience. All elk licenses in GMU 76 are obtained through the drawing process. Prior to 2002, unlimited bull licenses were valid in GMU 79 for all seasons. Since 2002 GMU 79 has been managed with limited bull licenses in all rifle seasons to decrease harvest on wintering bull elk coming from GMU 76. Unlimited statewide archery licenses are valid in GMU 79 as are the limited statewide muzzleloader licenses.

3.1 Post-hunt Population Size

Post-hunt population size is determined using the best information available at the time in conjunction with a spreadsheet model as described in section one of this plan. Changes are made as new

and better information becomes available. Computer modeling is not an exact science and may not produce a final number that is exactly correct. Population models do represent trends well and these trends are a tool used by biologists to make management decisions concerning big game herds.

In 2008 the projected population was 5,400 which is about 43% over the population objective of 3,700 (Figure 4). The population has possibly been over the objective since prior to 1980. The population has been decreasing since 2000 when aggressive cow harvest began.

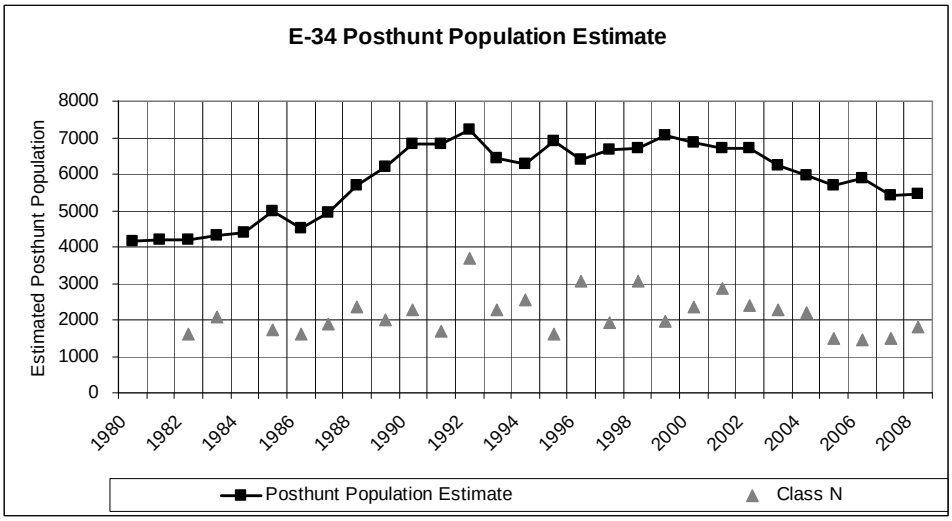

Figure 4. E-34 posthunt population estimate from 1980 to 2008

3.2 Post-hunt herd composition

Post-hunt herd composition is acquired by aerial surveys usually done in December or January following the big game hunting seasons. The surveys are not done to count the total number of animals, but to obtain sex and age ratios. It is generally accepted that bull:cow ratios are higher than the observed values and that observed calf:cow ratios are fairly accurate. Aerial surveys are subject to variability due to weather, snow cover, sample size and observers.

The average calf/cow ratio observed from 1980 to 2008 was 38 calves/100 cows (Figure 5). The high was 54/100 in 1990 and a low of 22/100 in 2003.

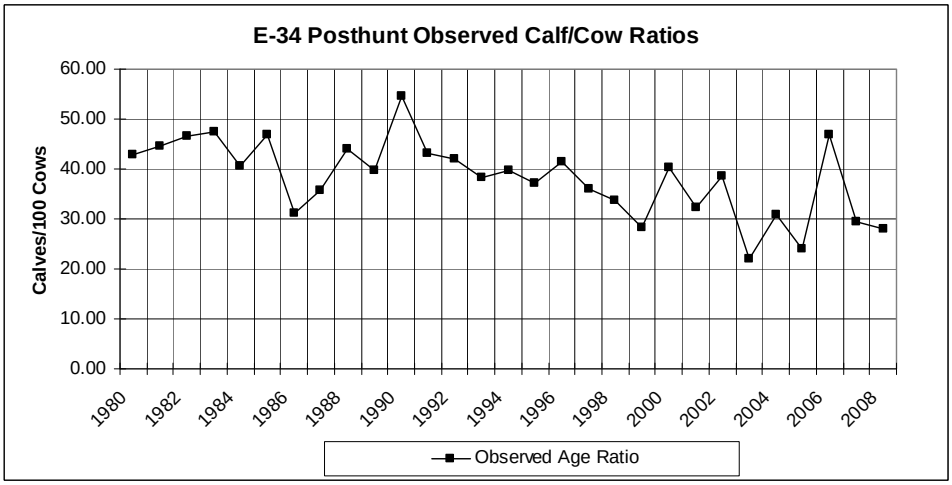

Figure 5. E-34 observed posthunt sex ratios from 1980 to 2008

The bull ratio in DAU E-34 has been affected by several changes in bull license management. In 1984 GMU 76 was designated a limited license unit with four point restriction on bulls. In 1986 a four point restriction for all season was adopted in GMU 79. In 2002 GMU 79 bull licenses became limited for the rifle seasons. There was an average of 14.8 bulls/100 cows from 1980 to 2008 (Figure 6). A high of 27 bulls/100 cows was reached in 2007 and a low of 3 bulls/100 cows in 1980 prior to limiting bull licenses.

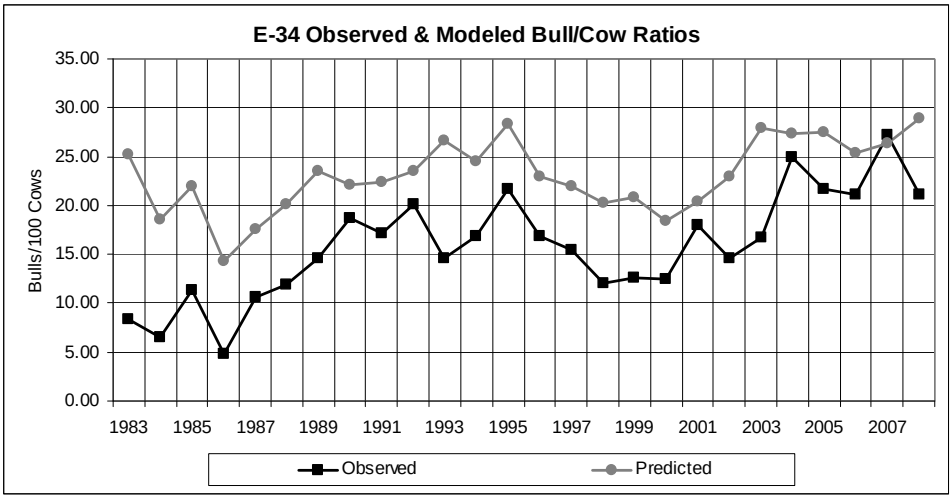

Figure 6. E-34 estimated and observed posthunt sex ratios from 1980 to 2008

3.3 Harvest

Harvest is effected by the number of permits issued, season structure, weather and population size. When a population is over objective surplus animals plus recruitment must be taken to decrease the population. Therefore an increased number of antlerless licenses are available, which in return increases harvest. When the herd objective is reached only annual recruitment can be taken.

From 1969 to 2008 harvest has ranged from a low of 391 elk in 1987 to a high of 1409 in 1996. The average has been 793. Bull harvest for the same time period has averaged 463 with a low of 198 in 1987 and a high of 703 in 1996 (Figure 7). Cow harvest has averaged 329 with a low of 56 in 1974 and a high of 881 in 1993.

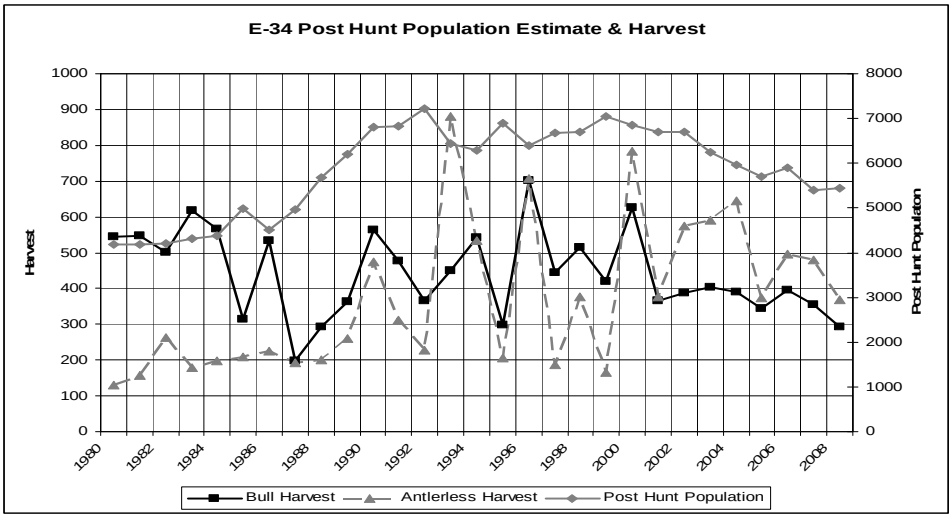

Figure 7. E-34 bull harvest, antlerless harvest and post hunt population estimate from 1980 to 2008

Hunter success rates from 1969 to 2008 have averaged 23% with 11% as the low in 1973 and a high of 39% in 1990. For the past five years success rates have averaged 23 % which is high for the San Luis Valley elk DAUs.

3.4 Hunting Pressure

The number of hunters per year for all seasons between 1969 and 2008 has ranged from a low of 2,215 in 1989 to a high of 5,159 in 1983 (Figure 8). The average for these years is 3,637. The range of hunters is minimal compared to other DAUs because of the limited bull licenses. For the past five years hunter numbers have remained stable and have averaged 3,634.

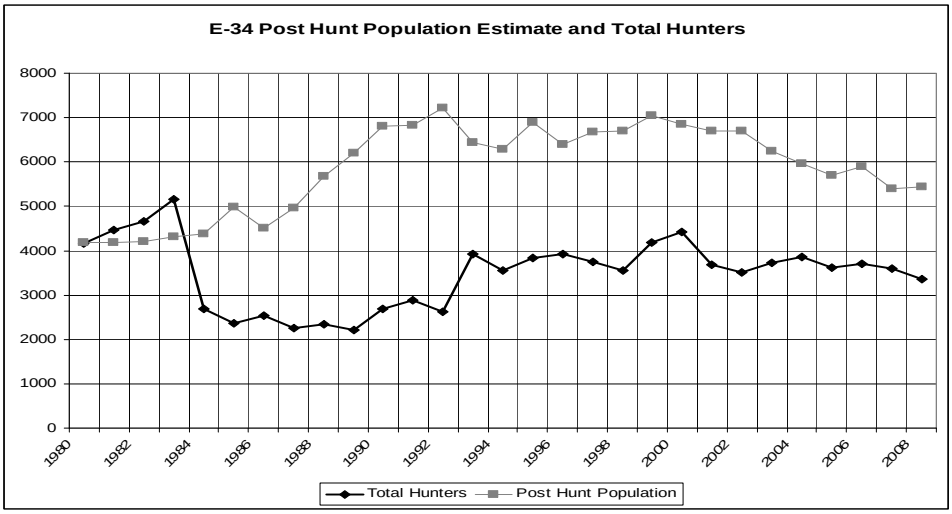

Figure 8. E-34 posthunt population and total hunters from 1980 to 2008

4. Current Herd Management Status

4.1 Summary of Current Conditions

The 2008 post hunt population for the Upper Rio Grande DAU was estimated to be about 5,400. This is above the current long range objective of 3,700. The model calculates that since 1992 with an estimated 7,220 elk, the population has decreased to the current size primarily from increased hunting efforts on females and low cow/calf ratios. Elk inventory and modeling procedures have become more refined in recent years, and the current models probably do a better job of reflecting actual herd status than the older versions. It must be remembered that herd modeling is an ever evolving science and with new information can change rapidly.

The long term post-hunt sex ratio objective is 35 bulls per 100 cows. The observed bull:cow ratios have been below objective since the objective was set in 1996. The most likely reason for this is the movement of elk out of the DAU during the hunting seasons into adjacent, unlimited bull hunting DAUs. Thus bulls from DAU E-34 are being harvested elsewhere.

4.2 Current Management Issues

This population has been above the management objective of 3,700 since it was adopted in 1996. There has been a slow and steady decrease in the population during the past five years. Any proposals to increase cow harvest have been met with opposition by some community members.

As with any DAU, boundaries are drawn that are not respected by the animals intended to be managed within those boundaries. A segment of the population that use the higher elevations on the upper Rio Grande during the summer winter in adjacent areas such as Durango, Pagosa Springs, and Lake City

which are in different DAUs. These animals typically start moving out of the DAU in October so they are vulnerable to harvest in these adjacent DAUs where bull licenses are unlimited, excluding the Lake City area which has limited bull licenses. This has an effect on the management of the total population and sex ratios.

There is a concern that too many elk may be summering in the upper Rio Grande drainage above Rio Grande Reservoir in GMU 76 and are causing resource damage. Many of these elk are not usually available for harvest in GMU 76 or are difficult to access and more work than most cow hunters want to execute.

Game damage is an issue in GMU 79 where elk winter adjacent to or on agricultural fields which are mostly alfalfa or grass hay. Elk have moved into the Rio Grande river bottom between South Fork and Del Norte and have taken up year round residence on private land.

Another issue is the perceived conflict between livestock and elk on Forest Service grazing allotments. This may be a more of distribution problem limited to one area than an overall population issue.

Winter Range degradation and loss is another concern. Even though private lands make up a small portion of the overall range in GMU 76, these private lands are mostly winter range. Continued development of these areas into "cabins" or summer homes has caused a significant loss of winter habitat. The South Fork area has seen a large conversion of private ranches to housing developments and a golf course. The development continues to creep east along the Rio Grande.

Summer recreation continues to increase in this area. People primarily from Texas, New Mexico, Kansas, and Oklahoma as well as from the communities within the San Luis Valley make their way to higher elevations within this DAU to escape the summer heat and enjoy the mountain environment. Activities include camping, hiking, horseback riding, mountain biking, fishing, and use of off highway vehicles (OHVs). US Forest Service and BLM lands receive the majority of these recreationalists. These same lands are also where most of the summer range within the DAU is located. The impacts by these various forms of recreation are unknown but are believed to disturb elk to some degree. This could possibly affect distribution of elk and more importantly reproduction in calving areas.

Off highway vehicles continue to be a growing concern in the summer and during hunting seasons. Although OHVs are designed to travel in all but the most rugged terrain, Forest Service laws prohibit the use of OHVs off maintained roads and marked trails. Unfortunately these laws are often ignored and users go where they please, damaging the resources and creating new roads. Impacts on the elk herds during the summer are not known but it is expected that OHV traffic off roads put undue stress on animals. This is especially important to calving or lactating cows and new born calves. During the hunting season, illegal OHV use often displaces elk, making them more difficult for hunters to find which in return decreases harvest and hunter satisfaction. Unfortunately only one person using an OHV illegally can have major negative impacts to the resource and other recreationalist's enjoyment.

Disease – Currently all areas in the San Luis Valley, including E-32, are free of chronic wasting disease. In August 2001 at the Anta Grande Elk Farm west of Del Norte on Hwy 160 (adjacent to the DAU), a domestic cow elk was found dead and later determined to be infected with CWD. After testing the remaining animals in the herd (approximately 200 elk) one other elk tested positive for CWD. Eventually the entire domestic elk population on the farm was depopulated. The fall of 2001 after CWD was detected, the DOW built a second ten foot high fence around the perimeter of the elk holding pens to create a barrier between the domestic herd and wild animals. Efforts to monitor the chance of spread of CWD into wild populations were made through culling and extensive testing of deer and elk in the immediate and adjacent areas. To date, CWD has not been found in wild populations in E-34 or adjacent DAUs.

A significant management issue that could impact this population is the development of oil and gas. Currently there is not any large scale oil and gas exploration in the area. However, the possibility is

real in the imminent future. Oil and gas leases and developments could have significant negative impacts through loss of habitat, fragmentation of habitat, disturbance to elk, especially on winter range, and illegal harvest.

Similar to oil to gas development are solar farms. The San Luis Valley has been identified as an area having a high potential to harvest solar power. Solar farm companies are exploring these possibilities on private and public land. The area of focus on public land includes several parcels of BLM property in Conejos, Saguache, and Alamosa Counties. Most all of these areas provide winter range for big game. There are several major impacts on wildlife, similar to those seen with oil and gas development, which includes loss of habitat, habitat fragmentation, and disturbance, especially on winter range.

Creede was developed as a mining community in the 1890s. Since 1985 silver prices have been too low to make mining feasible and mining in the region had been suspended. Recently silver prices have increased enough (3 to 4 times that of 1985 prices) that Hecla Mining from Idaho is planning an exploration project in the area west and northwest of Creede. This project would be on private mining claims as well as US Forest Service property encompassing a 25 square mile area. The exploration will be done through the use of existing mining shafts and new test holes. The test holes will use drilling pads that are expected to run three to five acres in size. Mining will most likely be all underground. The short term and long term impacts of the exploration and the potential mining on the elk herd is not known. The area of activity includes mostly summer range, but also takes in winter range.

A portion of GMU 76 falls within the boundary of the Brunot Treaty. The Brunot Treaty is a remnant from the 1874 Brunot Agreement between the United States government and the Southern Ute and Ute Mountain Ute tribes. The area that is involved in the Brunot Treaty was removed from the tribes' reservation lands in 1874 after the discovery of gold in the San Juan Mountains to allow mining and settlement in the region by US Citizens. Although no longer reservation land, the agreement included a provision that allowed the tribes to "hunt that area as long as the grass grew." The Ute Mountain Tribe is currently exercising these rights and the Southern Ute Tribe began to exercise their rights in 2009. Any hunting and harvest of elk by Tribal members falls outside of DOW management and management plans.

The DOW fed elk in GMU 76 during the winter in 2008. The Colorado Wildlife Commission authorized feeding after public demand. This decision was based on social demands and not biological. 39 feed sites were established and 600 elk fed hay. Winter mortality was estimated at less than 2% in the GMU. This could be an indication that the population, or at least the potion of it wintering in GMU 76, is higher than can be supported during the winter since winter conditions in ’08 were not exceptional.

Spruce pine beetle is becoming a forest management issue. Several high elevation spruce stands are currently infected by the beetle of which the larva occupies mature trees. The infection can become great enough to kill the tree. Currently the US Forest Service has limited means to manage this. As a result the landscape at higher elevations is at its beginning stages of changing from the current dominate conifer habitat. The impacts on the elk herd as a result of this change are unknown.

5. Habitat Resources

The most important limiting factor for elk in the Upper Rio Grande DAU is winter range (Figure 9). Winter range is defined as that part of the overall range where 90% of the elk are located during the average first heavy snowfall to spring green-up. Winter concentration areas are that part of the winter range where densities are at least 200% greater than the surrounding winter range density in the average five winters out of ten. Severe winter range would be that part of the range where 90% of the individuals are located when the annual snow pack is at its maximum and/or temperatures are at a minimum in the two worst winters out of ten.

5.1 Public Lands

There are a total of 476 square miles of winter range in the DAU of which 75% or 357 square miles are publicly administered. Severe winter range totals 236 square miles of which 60% is on public

lands. Winter range conflicts on public lands are primarily snowmobile and OHV harassment. Illegal harvest can also be an issue.

5.2 Private Lands

119 square miles, 25%, of winter range is private land. Severe winter range consists of 94 square mile of private land or about 40% of total severe winter range. There has been considerable development pressure on private lands on winter range.

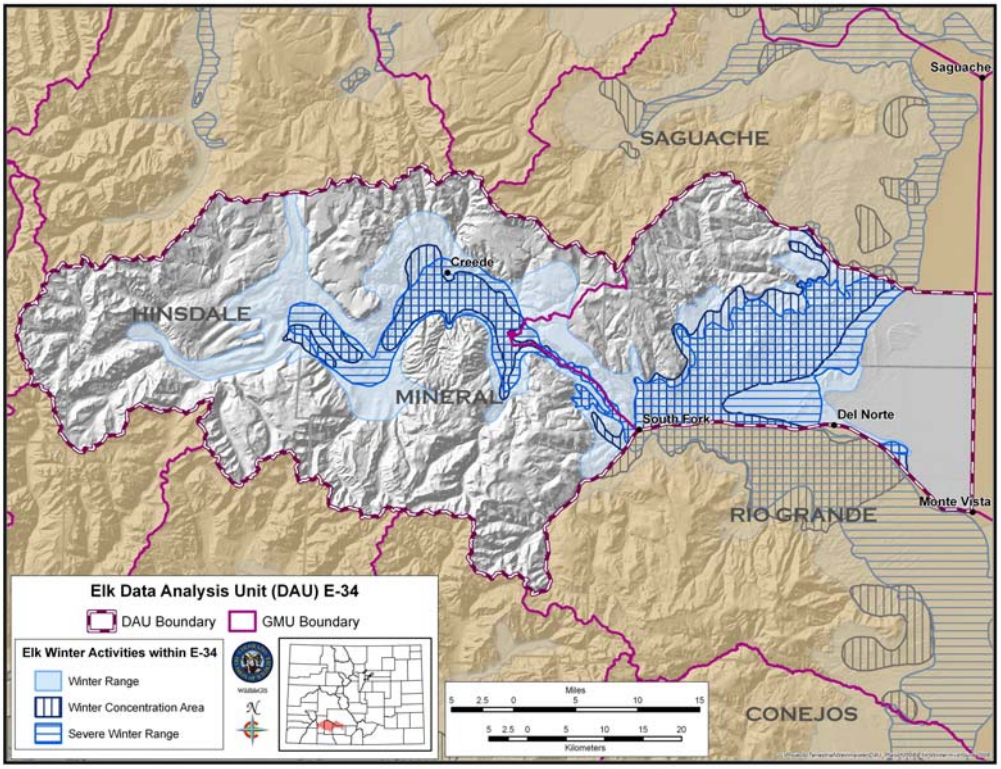

Figure 9. E-34 winter range, severe winter range, and winter concentration areas

6. Development of Alternatives

The primary purpose of this DAU Plan is to determine long term post-hunt population and herd composition objectives. Herd composition is determined by calve/cow and bull/cow ratios. Calf/cow ratios are determined by environmental factors, most of which wildlife managers have no control. On the other hand bull/cow ratios can be directly controlled by management actions.

Each alternative also includes a brief discussion of management variables that would probably occur for that population level. Generally, the lower the population objective the lower the investment needs to be in habitat improvements. As the objective population increases, the larger the investment needs to be. Habitat management practices vary in labor intensity, cost, and life expectancy of the project. Individual practices that should be considered include prescribed fires, fertilization, seeding, water developments, fencing, timber management, travel management, range management, salting and others.

Game damage problems, although closely tied to the severity of the winter, would probably decrease under the lower population alternatives and would increase with increasing population levels.

Higher population levels, on the other hand, will also support a higher harvest by hunters, increase hunter opportunity, and increase the fiscal benefits to the economy. A population objective that involves

reducing the number of hunting licenses by 10% will also reduce the economic benefits to the state and local counties involved by approximately 10%.

6.1 Population Objective 1996 Objective – 3700

ALTERNATIVE 1: 3,000 to 4,500 (decrease in current population)
This alternative suggests managing for the lowest population and encompasses the 1996 objective. This objective would demand aggressive cow harvest for the next several seasons (approximately 3 years). Long term benefits reaching this objective would include minimal game damage to agricultural fields and minimum impact to the habitat. However, once achieved it would also offer the least amount of hunting recreation with reduced number of elk.

ALTERNATIVE 2: 4,000 to 5,500 (current population)
Adopting this objective would manage the herd at its current level. This would decrease antlerless licenses to a level that would allow harvest to equal recruitment rates. Little change of impacts to habitat, agriculture and hunting (excluding the decreased availability of cow tags) would be seen.

ALTERNATIVE 3: 5,500 to 7,000 (increase in current population)
This alternative would allow for a slight increase in the population. Management at this level would have more impact to agricultural interests and to the habitat. It would optimize hunting opportunity for bulls. All antlerless hunting would be reduced until the population increased to objective.

6.2 Herd Composition (Bull:cow ratio) 1996 Objective - 35 bulls:100 cows

ALTERNATIVE 1: 20 to 25 bulls per 100 cows
This alternative offers the lowest sex ratio, therefore the lowest number of mature bulls in the population. The benefit of maintaining a low sex ratio is increased hunting opportunity. Bull licenses would remain at current levels. This alternative would still allow the unit to be managed as a limited licenses unit and maintain a higher sex ratio than unlimited units.

ALTERNATIVE 2: 25 to 30 bulls per 100 cows
This option is slightly above the current sex ratio. License numbers would have to be decreased around 5 to 10% in an attempt to reach this ratio.

ALTERNATIVE 3: 30 to 35 bulls per 100 cows
Observe sex ratios have never reached this point. It may be possible to achieve this ratio with a 15% reduction in bull licenses. With a decrease in licenses, a higher number of preference points (and years applying) would be required to obtain a bull license. Benefits would be fewer hunters and more mature bulls. Limiting licenses beyond this point to increase sex ratios would require greater restrictions with less benefit gained.

7. Alternative Selection

The preferred alternatives were selected after gathering input from public meetings, the San Luis Valley HPP committee, local federal land use agencies, local County Commissioners, written comments, and Division of Wildlife personnel. Also herd capabilities and other factors mentioned previously were considered.

Public meetings were held at the community center in Creede on October 2, 2008 and at the firehouse in South Fork on September 27, 2009. 15 people attended the Creede meeting and 12 attended at South Fork. By far the majority of participants favored keeping the current population (alternative 2) with very little interest in increasing the population or decreasing it. Attendees also were in agreement with alternative 2, managing for 25-30 bulls per 100 cows with only one person wanting a lesser sex ratio and three people wanting a higher sex ratio.

On November 6, 2009 Terrestrial Biologist Weinmeister met with the San Luis Valley HPP Committee and asked for their comments on the plan. They supported alternative one (decrease population) for the population objective and alternative 2 (25-30 bulls:100 cows) for the sex ratio objective. There are currently game damage issues caused by this population that the committee is dealing with and they wanted to minimize this by decreasing the population further.

AWM Rick Basagoitia solicited comments concerning the E34 plan from County Commissioners in Mineral, Hinsdale, and Rio Grande Counties. The Rio Grande Commissioners were satisfied with the current sex ratio and population size. Mineral and Hinsdale County Commissioners provided general comments but did not offer a preference on the population or sex ratio alternatives.

Comments, which include the following, were received from the San Luis Valley Public Lands Center (SLV PLC) representing the Rio Grande National Forest and the Bureau of Land Management in the San Luis Valley. Based on existing habitat conditions and improvement limitations, the SLV PLC recommend that Alternative 2 (current population) be implemented as the population objective for DAU E-34. The SLV PLC believes that this would provide a good balance between available habitat and elk numbers for recreational opportunity. The SLV PLC also recommended that limited entry continue, as this helps to control and better manage potential resource damage from the hunting population that utilize public lands. Based on input received on this draft plan, we recommend that Alternative 2 (25 to 30 bulls per 100 cows) be pursued as a sex ratio objective to provide a higher quality recreational experience to the public. The SLV PLC wrote about concerns of negative impacts to the vegetation when the elk population was at its peak in size.

A copy of the draft DAU plan was posted on the Colorado Division of Wildlife website from October 29, 2009 to December 7, 2009 soliciting comments from the public. No responses were received from this effort.

The Rio Grande Chapter of the Colorado Outfitters Association submitted a competed public questionnaire found in Appendix A. They supported having a population objective that maintains the current population (alternative 2) and a sex ratio objective of 25-30 bulls per 100 cows (alternative 2). Comments were also added that they would like to see late cow hunts reduced.

7.1 Preferred Alternatives

Based on the preceding information about the DAU and comments received from the variety of individuals and entities, the Colorado Division of Wildlife staff recommendation for herd objectives are:

Population: 4,000 to 5,500 – This objective was recommended based on overall comments received concerning the population. The majority of support was for keeping the population at its current size which this does. The San Luis Valley Habitat Partnership Program Committee wanted to decrease this population to a lower level because of game damage issues in GMU 79. This objective can address the committee member's concern in part by allowing room to decrease the current population, especially in areas where game damage is a problem.

Sex Ratio: 20 to 25 bulls per 100 cows – There was difficulty in determining a sex ratio objective for this DAU because of the designation of this DAU as a "quality" unit and the poor observed sex ratios from past years. This sex ratio is the lowest of the three alternatives. However the post season observed sex ratios fall within this range. The intent of adopting this sex ratio is to maintain the management of the bull portion of the population that has occurred in the late 1990's and early 2000's. This management has been well received from hunters and is working to provide a quality hunt although not indicated in the observed sex ratios. This objective is not intended to be used to increase bull harvest within the DAU.

Appendix A: Public Questionnaire

DAU E-34 and D-36 plans Public Survey

GMU's 76 and 79 - Elk

GMU's 76, 79, and 791 - Deer

1) What are your interests in deer and elk management in this area? Check all that apply

____ agricultural

____ hunting

____ viewing opportunities/non-consumptive

____ commercial (guide/outfitter)

___ other (specify)_____

2) **Agriculture Producers** – Have you had problems with deer and/or elk in the past five years?

Describe problem_____

What species were involved _____

Number of animals _____

Was DOW contacted? Yes / No

Actions taken by DOW_____

Is this a continued or growing problem? No Yes

3) **Non-consumptive Users/ watchable wildlife** – In what ways do you enjoy deer and elk?

_____

_____

What is the general quality of your experiences? Poor Good Excellent

Please explain your rating:_____

4) **Hunters**

What is your satisfaction with **deer** hunting in GMU 76, 79, 791? Poor Good Excellent

What is your satisfaction with **elk** hunting in GMU 76 and 79? Poor Good Excellent

What is most important to you? Mark your **top two** choices.

____ hunting every year

____ hunting quality with fewer hunters

____ high harvest success rates

____ potential to harvest mature animals

____ seeing more animals

____ other _____

5) **ALL** (refer to presentation)

Deer Management Alternatives	Population	Sex Ratio
	Current population	20 to 25
	25% increase	25 to 30
		30 to 35

Elk Management Alternatives	Population	Sex Ratio
	15% decrease	20 to 25
	Current population	25 to 30
	15% increase	30 to 35

Additional Comments:_____

_____

_____

_____

Return to:

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