

**ELK
DATA ANALYSIS UNIT PLAN
E-55
Northern San Luis Valley Floor**

**GAME MANAGEMENT UNITS
682 AND 791**

Prepared by
Chuck Wagner, Terrestrial Biologist
Colorado Division of Wildlife
0722 South Road 1 East
Monte Vista, Colorado 81144



Photo courtesy of Mark Smith

Approved by the Colorado Wildlife Commission 2006

DATA ANALYSIS UNIT PLAN FOR E-55
EXECUTIVE SUMMARY

Data Analysis Unit (DAU): E-55 (Northern San Luis Valley Floor)

Game Management Units (GMUs): 682 and 791

Current Population Estimate: Between zero and 700 depending on year and season.

Population Objective: There is no plan to maintain elk in this DAU. The objective is to minimize the population to the point where conflicts no longer exist and game damage is extremely unlikely; or eliminate elk altogether, if possible.

Sex Ratio Objective: There is no plan to maintain elk in this DAU, so consequently there is no sex ratio objective.

Changes from recent management: These units were previously part of DAUs E-26 and E-34, and elk have been managed within the normal season structure. More hunting options would become available to landowners, pending approval by the Wildlife Commission, so that elk can be reduced or eliminated from these agricultural areas. Hunting during traditional time frames may be eliminated to focus more hunting pressure early in conflict periods. Permission from landowners will still be needed for hunters to access animals that may be in conflict with agricultural interests, and this could be expedited through a voucher system. Dispersal licenses could be issued on three State Wildlife Areas under authority of the Area Wildlife Manager.

Significant issues raised during the public involvement sessions: Hunters have expressed concern about landowners denying access to the general public and profiting from trespass fees, at a time when the Colorado Division of Wildlife (CDOW) is saying that these animals have the potential to cause large damage claims and that the herd needs to be reduced. At the same time, landowners are reluctant to open their properties up to elk hunting to give access to strangers. Others question why CDOW would want to eliminate elk from an area since people enjoy seeing concentrations of bulls out on the floor of the valley, and some landowners appreciate the opportunity to hunt elk on their property.

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DATA ANALYSIS UNIT (DAU) E-55 PLAN
NORTHERN SAN LUIS VALLEY FLOOR ELK HERD
FOR
GAME MANAGEMENT UNITS
682 and 791

INTRODUCTION

The purpose of a Data Analysis Unit (DAU) plan is to give the Colorado Division of Wildlife (CDOW) direction in managing a species in a given geographical area. It identifies suitable habitat, gives the herd history and current status, and identifies issues and problems. Key features of a DAU plan are the herd size and herd composition objectives, which are developed after considering input from all interested entities. These plans will be updated as new information and data become available, at least once every ten years.

1. DAU PLANS AND WILDLIFE MANAGEMENT BY OBJECTIVES

Growing demands on finite wildlife resources dictates wise management of Colorado's resources. CDOW's Long Range Plan provides direction and broad objectives to achieve legislative and Wildlife Commission mandates. Within these confines, CDOW employs a management by objectives approach with individual big game populations.

Data Analysis Units provide the framework to manage individual herds of big game animals. DAUs are geographical areas that encompass relatively discrete big game herds. The DAU plan process is designed to balance public demands, habitat capabilities and herd capabilities into a management strategy for the individual herd. The public, sportsmen, federal land use agencies, landowners and agricultural interests are involved in the determination of the plan objectives through input given during public meetings, the opportunity to comment on draft plans, and during final review by the Colorado Wildlife Commission.

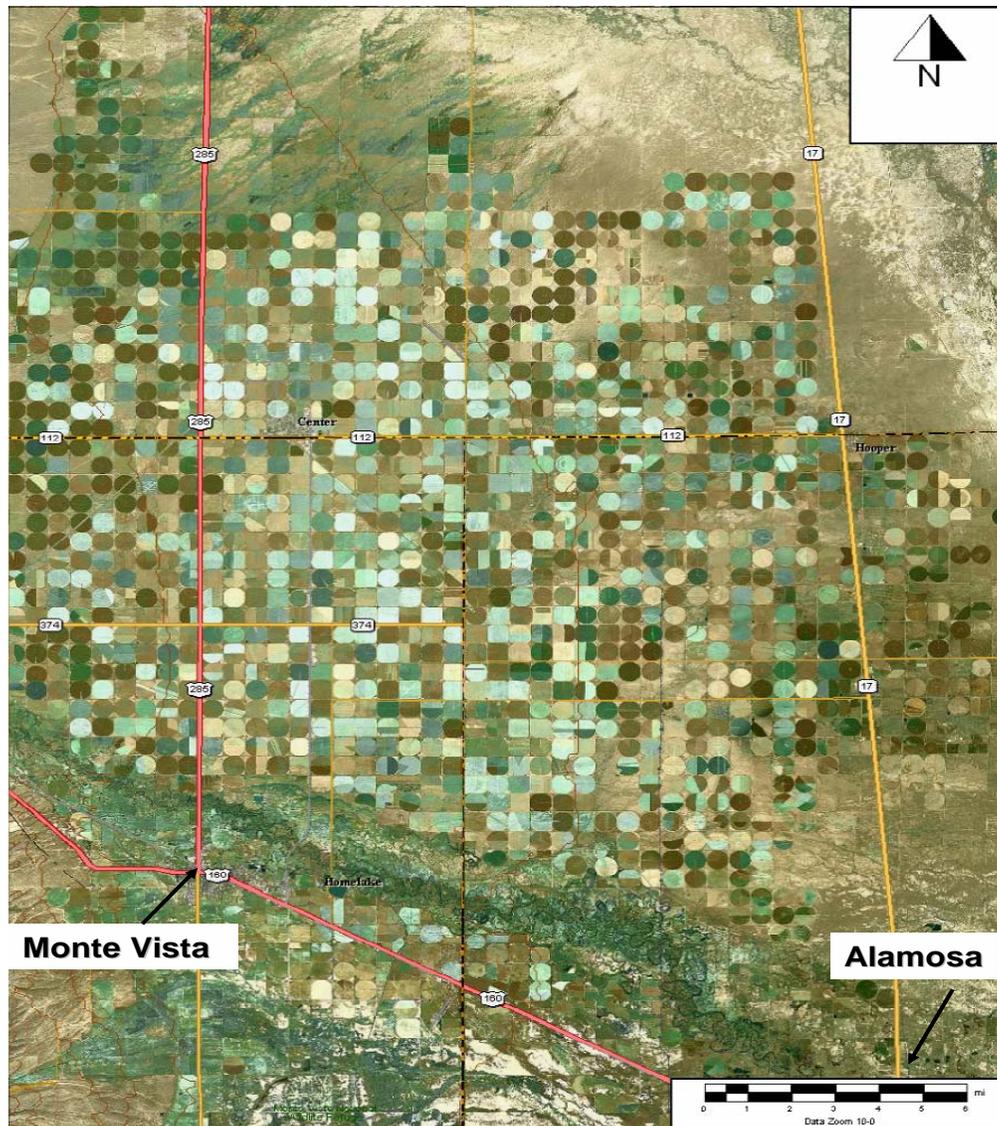
Individual DAUs are managed with the goal of meeting herd objectives. Season formats are established and permit numbers are set that will move the population toward the objective. In the case of this DAU, CDOW desires to reverse the trend of increasing numbers of elk utilizing this area—ideally, to accomplish a reduction to the point where few, if any, elk remain in the area, thereby reducing the potential for filing of large game damage claims by agricultural producers.

Herd data, traditionally gathered during mid-winter classification flights, will not be collected in this DAU. This is not a discrete herd, and most of the animals have migrated out of the DAU by wintertime. Numbers will be monitored opportunistically through reported sightings by landowners, CDOW employees, and members of the public. Harvest surveys will be conducted as they would for any other limited hunt unit. There

The San Luis Valley has one of the largest concentrations of irrigated farm circles in the world. DAU E-55 is located in the northern part of this area. It is bounded on the east by Colorado State Highway 17, on the south by U.S. Highway 160, and on the west and north by U.S. Highway 285 (Map 1). It includes what formerly was the eastern third of Game Management Units 68 and 79.

In the north half of the DAU (north of Saguache County Road G), the landscape is rangeland, irrigated hay meadows and crops, mainly alfalfa, under center pivot irrigation. The native vegetation is high desert shrub comprised mainly of greasewood, with some four-winged saltbush and rabbitbrush. The southern half of the unit (south of Saguache County Road G) is almost entirely under center pivot irrigation, with the exception of the riparian corridor along the Rio Grande just north of U.S. Highway 160 (figure 1).

Figure 1. Farm circles south of Saguache County Road G



A variety of crops are grown in this agricultural area, including potatoes, barley, alfalfa, lettuce, spinach, carrots, wheat and canola. Typically, potato crops are alternated with barley or alfalfa to control pests and avoid depletion of soil nutrients. Seed potatoes are raised to market to other farmers, and these constitute an extremely valuable crop which must be kept free of disease and infections. Elk crossing a commercial potato field and then entering a certified seed potato field creates a significant risk of a disease agent or pest being introduced. Should a field of seed potatoes become contaminated, this would result in the loss of disease-free certification, and the crop would have to be marketed as commercial potatoes at roughly half the original value. In this way the value of the crop could be substantially reduced with little or no loss in yield, giving rise to an extremely costly damage claim against CDOW. It is estimated that the dollar value of such a claim could run into six figures, or even in excess of a million dollars should multiple fields or an entire farm be decertified due to an especially virulent fungal infection. If elk become habituated to feeding on alfalfa along the perimeter of this intensively farmed area (immediately south of County Road G), they could be drawn further into the irrigated area as crop rotation occurs and alfalfa is no longer grown in fields along the edges. Although no large game damage claims have been filed in this DAU up to this point, the likelihood will only grow with increases in the number of elk using the area.

The area along the Rio Grande riparian corridor is used for hay meadows, cattle grazing and crop production. Seed potatoes are not typically grown this far south in E-55.

Besides the privately owned land that makes up the majority of this DAU, there are state lands, including three State Wildlife Areas: Russell Lakes, Rio Grande SWA and Higel SWA, in addition to lands administered by the Bureau of Land Management, and land owned by the The Nature Conservancy, located around Mishak Lakes. Other state lands besides the State Wildlife Areas include those administered by the State Land Board for agricultural and recreation purposes, and those utilized by the Agricultural Research Center.

3. HERD MANAGEMENT HISTORY AND INFORMATION

Elk have only recently taken up residence in this part of the San Luis Valley. In the early 1990s, a cow elk associating with cattle on the Corzine Ranch, south of Saguache, created local interest and even resulted in a visit from Denver news media.

The history of elk in this new DAU appears closely tied to the expanding herd around the Great Sand Dunes National Park and Preserve (GSDNP). This herd grew rapidly during the 1990's and currently is estimated at between 5,000 and 6,000 animals (four times the population objective). During this period of population expansion, the Baca Grande Ranch and the Great Sand Dunes Monument (now Park) provided refugia where elk were protected from harvest. With the expansion of the Park and the creation of the Baca National Wildlife Refuge (BNWR) administered by the U.S. Fish and Wildlife Service, elk harvest is not expected to improve, although there is the possibility for harassment

activities and culling to occur on Park Service lands, and the chance that some elk hunting activity can be integrated into the management plan for BNWR.

Cow elk first began showing up on Russell Lakes SWA to calve during the mid-1990's. In the first year of a telemetry study being conducted in the vicinity of GSDNP, several elk outfitted with radio-collars in GMU 82 during the winter of 2004/05 have crossed Highway 17 and moved onto Russell Lakes SWA the following spring; these animals were captured on the portion of the old Baca Grande Ranch recently acquired for the GSDNP expansion. Some collared elk from the Gunnison Basin have also been sighted on the floor of the San Luis Valley. Bachelor groups of elk from the Sand Dunes herd now typically cross Highway 17 in the springtime to summer in this area. Bulls start leaving the northern part of the DAU by the time of the First Rifle Season, and the cows depart soon afterwards.

Elk have inhabited the Rio Grande River corridor slightly longer, with the first cow elk spotted in 1990. The first bull was harvested along the river in the early 1990's. Currently there are approximately 75 elk, mainly cows, which show up around the end of April and move off the river bottom around the first of November. Also, a small group of bulls have been spending mid-November to mid-December southwest of Higel SWA. These animals may be coming from the Sand Dunes herd, or may split off from smaller herds on the Alamosa National Wildlife Refuge in GMU 83, or the Monte Vista National Wildlife Refuge in GMU 80.

Since 2003, a small number of kill permits have been issued for young bull elk in Saguache County prior to the regular hunting seasons. Most of these permits have been utilized by a sharp-shooter hired through the Mt. Blanca Committee of the Habitat Partnership Program. Meat from these animals is donated to local needy persons. Also beginning in 2003, dispersal licenses for antlerless elk have been issued for six ranches in GMU 682 and one ranch in GMU 791. Some opportunity for unlimited archery hunting for cows exists on Russell Lakes SWA and some of the private ranches allow family and friends to hunt bulls on their property during archery and muzzle-loading seasons. Elk start to leave the northern part of E-55 early in October, so rifle hunting opportunity is somewhat lacking in this area; more rifle hunting occurs on several ranches along the Rio Grande corridor. In addition to this direct removal of animals from the DAU, harassment has been employed to some extent to disperse animals away from crop areas at times when hunting isn't possible.

4. MANAGEMENT SITUATION

4.1 Current Population

Elk use this area seasonally, with peak numbers approaching 700 animals for the summer during some years, with a significant number of these being bulls. More elk typically use the northern end of the DAU, than the southern end.

4.2 Current Management Problems

Elk in this area are tolerated or desired by some landowners. However, many other landowners see the elk as a nuisance or a source of forage, crop and fence damage. It may be difficult to achieve consensus among landowners on the need to reduce or eliminate this group of elk. The situation along the Rio Grande may present the biggest challenge. Here, a significant number of landowners are not involved in agriculture and purchased their property in the river bottom for the esthetic value, which includes living close to wildlife. These landowners like having elk on their property, have no potential economic loss due to the elk, and they do not allow any hunting on their property.

Many landowners don't like dealing with the general hunting public and quickly tire of strangers asking permission to hunt on their land. Many hunters are not willing to invest much time establishing a relationship with a landowner, which might ultimately gain them access for hunting at little or no charge. Some hunters become frustrated when they hear about the potential crop damage from elk, but find little willingness among landowners to grant access for hunting.

The presence of large bulls encourages exploitation. Some landowners may wish to gain income from trespass fees, and poaching is always a temptation with highly visible animals. Spotlighting and any subsequent gunfire represents a potential hazard to livestock and structures.

4.3 Potential Management Problems

Charging hunters for private land access to hunt bull elk can be a major source of income for some landowners. This could provide some E-55 landowners with an incentive to harbor elk through the summer to maximize the amount they can charge for elk hunting on their property. Bulls with hardened antlers are desired by hunters. However, by the time the antlers harden in August/September, the potential for damage to crops has already occurred. To effectively discourage elk from using agricultural areas, it will be necessary to hunt bulls while their antlers are still developing.

The majority of E-55 is private land and many landowners are unlikely to allow hunters they do not know to hunt on their property. If hunters are frequently pestering landowners for permission to hunt, landowners may decide not to participate in reducing the elk population. If opportunities for private land harvest disappear, CDOW can do little to reduce or eliminate these problem animals.

Safety is a concern in E-55 because it is relatively flat with scattered dwellings. Landowners need to feel comfortable that rifle hunters in their vicinity are exercising due diligence for safety.

The three SWAs in the DAU are managed for small game values. Rifle hunting of big game may not always be compatible with small game hunting and wildlife viewing on the SWAs.

5. HABITAT CONDITION AND CAPABILITY

This DAU is not traditional elk habitat. Although elk have been able to exploit the irrigated meadows, croplands and river bottom, CDOW would like to discourage this use from continuing due to the inherent problems and liabilities. The potential for damage claims in E-55 could exhaust CDOW's entire game damage budget in any year. Also, handling landowner complaints about elk and dealing with poaching in E-55 can consume a significant amount of employee time.

6. ISSUES AND STRATEGIES

6.1 Public Perceptions

Some members of the public might oppose a CDOW management objective to reduce elk in E-55. The novelty of having elk in this area, along with the viewing opportunities due to the number of large bulls, is a small positive benefit that is greatly out-weighted by the major negative factors involved. Educational efforts may be needed to further explain the dilemma to the public. The limited number of licenses sold for hunting in this DAU would not even come close to covering the cost of one major game damage claim on seed potatoes. Monies expended from the game damage fund for crop damage in this area, or from Habitat Partnership budgets, divert funding from other areas where CDOW is attempting to maintain viable herds for public hunting, and may even draw funding away from other management programs.

Hunters who are unable to obtain permission, or are unwilling to go to the trouble of becoming acquainted with a landowner, may see this management strategy as unfairly biased toward the landowner. When elk hunting is to occur on State Wildlife Areas, or when hunt coordinators hired through the Habitat Partnership Program are utilized, hunters will be selected from a list developed through a random drawing of applicants.

6.2 Harvest Strategies

Strategies to effectively remove animals from this DAU will likely be an evolving process. Some suggested methods are detailed in Section 8 on implementation. CDOW is currently conducting research on the Sand Dunes Elk Herd (DAU E-11), and is cooperating with the U.S. Geological Survey-Biological Research Division and the National Park Service on monitoring movements of radio-collared cow elk. We anticipate that our knowledge of this herd and its movements will be greatly enhanced through this study, and that new strategies to effectively harvest the elk in this area will be developed.

6.3 Barrier Fencing

An eight-foot high barrier fence running along Saguache County Road G has been suggested as a possible solution to preventing damage. Such a fence would have to be at least 15 to 20 miles in length, extending south along State Highway 17 toward the county line, and be fitted with very expensive “elk guards” at county road intersections, along with gates to provide access for farming machinery on each quarter-section irrigated circle. If a workable “elk guard” could not be designed, then sections of farm ground bordered by county roads would each have to be individually fenced. Not only would the installation of such a fence be a major project of significant cost, but maintaining the integrity of the fence would be labor intensive. There also would be no protection from elk approaching from a different direction, and land farther south would be unprotected from animals crossing Highway 17. Elk caught behind the fence might ultimately create more damage. Vehicle collisions with animals could increase in frequency since animals tend to become confused when they encounter an unnatural barrier. A fence could also block the movement of animals other than elk.

There have also been suggestions to fence the western boundary of the GSDNP to keep elk from leaving the Park, along with suggestions to run a fence along the Closed Basin Canal to shortstop any western movement. Such a fence is opposed by the National Park Service, The Nature Conservancy (owner of the Medano-Zapata Ranch) and the U.S. Fish & Wildlife Service (BNWR) since it doesn't fit within their management objectives.

7. MANAGEMENT RECOMMENDATION

7.1 Population Objective

There is no plan to maintain elk in this DAU due to the limited opportunity for hunting on the ranches and farms located in this area, and any potential license revenue would not even come close to offsetting any large damage claim. CDOW will liberalize hunting opportunities to facilitate the reduction of this population to “zero”.

It is unlikely that elk can be entirely removed from this area; however, if they can be significantly reduced by discouraging immigration, this would be a very positive development. Numbers and the amount of elk use will be monitored opportunistically to determine to what extent any reduction is occurring.

7.2 Post Hunt Herd Composition

There is no plan to maintain elk in this DAU, so consequently there is no sex ratio objective. Because special seasons may be developed to specifically target antlered and antlerless animals, some monitoring of the structure of the herd may be needed in the DAU in order to determine the effectiveness of various strategies.

8. IMPLEMENTATION

CDOW will request approval from the Wildlife Commission to establish special seasons aimed at minimizing elk conflicts and reducing or eliminating elk use in this area. These will likely include a Private Land Only (PLO) antlerless elk season beginning August 15th and extending as late as February 28th if necessary. August 15th is considered to be the earliest date acceptable for hunting cow elk because of dependent young issues. An early PLO bull season is also recommended. This would allow bulls to be harvested soon after they move into the northern part of the DAU in the springtime (*e.g.*, beginning May 15th), and would continue until their antlers harden in late summer. The primary purpose of this season would be to create a disincentive for elk moving into E-55 from surrounding areas. Ideally, hunting of bulls would not be an option once the regular archery, muzzle-loading and rifle seasons open to minimize harboring of elk by some landowners who desire to retain more lucrative bulls with hardened antlers. Antlered licenses could be classified as List C licenses, so that hunters could purchase any number of these, in addition to List A and B licenses, and antler point restrictions would not apply.

It is proposed that PLO licenses be unlimited in number and require a voucher for purchase. Individual landowners would be issued numbered vouchers as needed by their local District Wildlife Manager or the Monte Vista Service Center; a landowner signature on the form would allow a hunter to purchase a license at any vendor. Hunters could also hunt other properties where they had secured permission. Requiring landowner permission prior to buying a license should alleviate the problem of a hunter purchasing a license and then not being able to obtain anyone's permission.

Licenses for antlerless elk hunting on the three State Wildlife Areas within the DAU currently can be authorized by the Area Wildlife Manager. A drawing will be conducted annually at the Monte Vista Service Center to establish a list of hunters for these dispersal licenses. This list of public hunters will also be used to select hunters for private properties where the landowner doesn't have a preference regarding who hunts.

Elk venturing into that portion of the DAU south of Saguache County Road G and north of the Rio Grande corridor will be quickly dispersed or killed, whenever possible. The Regional Wildlife Manager will authorize kill permits for those situations where damage to high-value crops is imminent and no hunters are immediately available to handle the problem.

As our collective knowledge on herd movements increases as a result of the elk telemetry study in the adjacent Sand Dunes DAU, additional techniques may be implemented to remove offending animals from the population to put an end to the migration of animals into DAU E-55. Radio-collared cows acting as "Judas" animals will betray the movement pattern and location of small family groups of animals that have the potential to create problems. Landowners and hunters can be informed of presence of these animals to encourage their removal, and kill permits can be used if necessary.

In all these scenarios, individual landowners will continue to control what happens on their property. CDOW will conduct educational efforts to insure landowners and the public understand the liabilities of having elk in this DAU. By focusing more public attention on the problem, more landowners may be more inclined to participate in plans to address the problem. Beyond education, the key to management in this DAU is to make it easier for landowners to remove unwanted elk via special seasons, which allow hunting when elk are present, and through a voucher program which puts licenses into the hands of hunters who have permission to access these properties.