
DELTA BISON MANAGEMENT PLAN

2000–2005



photo by Steve DuBois

Alaska Department of Fish and Game
Division of Wildlife Conservation



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MISSION STATEMENT

Maintain a healthy, free-ranging bison herd in the Delta Junction area that provides the greatest reasonable opportunity to hunt and view bison while also keeping conflicts between bison and private property owners to the minimum level possible using all management techniques available to the Alaska Department of Fish and Game.

INTRODUCTION

The Delta Bison Herd (DBH) is a valuable and special wildlife resource for residents and visitors of the state of Alaska. Introduced in 1928, this plains bison herd provides unique opportunities for viewing and hunting bison within the road-accessible portion of the state. The herd is also unique nationally, because it is one of the few wild, free-ranging, hunted bison herds in the United States.

Management of the DBH is complex because management decisions can directly affect many activities in the Delta Junction area, particularly agricultural land use and hunting. Balancing the statewide hunting interests with local agricultural land use is the key issue involved in this plan. An equitable balance of these interests must be maintained to provide for a free ranging bison herd in close proximity to agricultural activities, and to preserve public access to nonpublic lands for hunting and viewing bison as well as a variety of other species including waterfowl, grouse, coyote, fox, and moose. In addition, forage from private agricultural lands currently provides an important component of the DBH's diet.

This document presents the Alaska Department of Fish and Game's (Department) plans for managing the DBH from January 1, 2000 to January 1, 2005. This plan also serves as the game management plan for the Delta Junction Bison Range (DJBR) required under Alaska Statute 16.20.310 (Appendix A). Most of the information pertinent to management of the DJBR is located under the Bison Conflict Management Goal (page 17). Information on DJBR land use permitting and forestry activities is provided in Appendix B.



The mission statement, goals, objectives and tasks identified in this plan were developed through a collaborative process involving Department staff and a citizens' advisory panel, the Delta Bison Working Group (DBWG). Throughout the process members of the public have had opportunities to contribute ideas and have been encouraged to attend meetings.

The DBWG was formed in 1992 by the Department to bring citizens into the planning process. The DBWG assists the Department by helping to establish the appropriate balance between the competing interests of the bison herd and agricultural development. Specifically, the Department asked the DBWG to consider different ways of managing the DBH, to develop management options, and to make recommendations to the Department on how to manage the herd. The DBWG participated in development of the 1993–1998 Delta Bison Management Plan and continued to meet periodically to review the Department's progress towards accomplishing the goals and objectives in that plan.

At the beginning of the effort to develop the 2000–2005 plan, two seats were vacant in the DBWG. The Department solicited nominations for a Delta Junction business representative from the Delta Junction Chamber of Commerce and wrote to numerous fish and game advisory committees and private hunting organizations to seek nominations for a statewide hunting interest representative.

The current DBWG includes six individuals who represented the following interests for the 2000–2005 planning effort: 1) statewide hunting, 2) local agriculture, 3) Delta Junction hunting and agriculture, 4) the Delta Junction community, 5) Delta Junction business, and 6) Fort Greely. For further information refer to Appendix C—The Role and Membership of the Delta Bison Working Group.

The DBWG began monthly meetings in July 1998 to work on the 2000–2005 plan. In November 1998, a public meeting was held in Delta Junction to provide residents an opportunity to identify issues of concern involving management of the bison herd. The 1993–1998 plan served as the basis for drafting the revised plan. In July 1999 the draft plan was mailed to members of the Delta and Fairbanks Fish and Game Advisory Committees, to the chairpersons of other advisory committees where interest in the Delta bison hunt is high and to all persons who expressed interest during the planning process. The draft plan was also available on



the Division of Wildlife Conservation web site. In October 1999 the Delta Junction Fish and Game Advisory Committee hosted a public meeting on draft plan in Delta Junction. Staff also presented the draft plan to the Fairbanks Fish and Game Advisory Committee. Few public comments were received, however, one Delta farmer and the Salcha–Big Delta Soil and Water Conservation District suggested that the herd size objective be lowered. Reducing the herd size was not strongly advocated earlier in the planning process and revising one of the most central objectives to the plan might have required revisiting the entire plan. The herd size objective was not changed in the final plan; however, this issue will likely be brought forward in future planning efforts. Although no regulatory proposals were needed to implement the new plan, in March 2000 the Alaska Board of Game voted unanimously to endorse the plan. The DBWG will continue to meet annually, or as needed, to oversee implementation of the plan and the effectiveness of the management program.

The following section of this plan provides the reader with a detailed background on the DBH, developments in area land use patterns, and information on bison movements and hunting. Following the background information there is a section that identifies the primary constraints facing the Department in managing the DBH. Together, these sections provide the reader with the information necessary to understand the basis for the goals, objectives and tasks that comprise the overall management program for the DBH. Appendix A includes legal information that pertains to management of the DBH, Appendix B describes land use permitting requirements for the DJBR and Appendix C provides further detail on the DBWG. Appendix D describes the DBWG's consideration of awarding a Delta bison hunting permit to agricultural landholders and the possibility of providing hunters additional chances of drawing a permit based on the number of years an individual has applied. Appendix D includes a recommendation of the DBWG regarding possible revisions to the Delta bison hunting permit system.



BACKGROUND

HISTORY OF THE DELTA BISON HERD AND THE LAND IT OCCUPIES

Bison colonized North America after migrating from Asia to Alaska over the Bering land bridge several hundred thousand years ago. They were one of the most abundant large mammals in Alaska for most of the last 100,000 years. Large-horned forms such as steppe bison (*Bison priscus*) once roamed Alaska in the company of now extinct mammoths, mastodons, horses, lions, sabre-toothed tigers and dire wolves, as well as moose, caribou, Dall sheep and muskox. Large-horned bison evolved into modern small-horned bison (*Bison bison*) between 5,000 and 10,000 years ago. Wood bison (*Bison bison athabascae*) were the last type of bison to occur in Alaska. They were extirpated during the last few hundred years, most likely because of hunting and changes in the distribution of habitat; however, they are still present in Canada. Wood Bison once inhabited a large region in Alaska including the Delta River near where the community of Delta Junction is now located.

In 1928, 23 plains bison (*Bison bison bison*) were transplanted from the National Bison Range in Montana to Delta Junction, Alaska. They were released on the Delta River near the mouth of Jarvis Creek because the area supported abundant native forage. Herd size steadily increased until 1950 when a hunting season was established to stabilize herd size.

Allen Army Airfield was established in 1942 near Delta Junction. The base evolved in purposes over the years and was designated as Fort Greely in 1955. Currently, the Fort Greely cantonment area is slated for closure under the Base Realignment and Closure program. However, the military land in the area, including that used by the DBH, will remain military land and continue to be used for a variety of military training and cold weather testing programs.

Development of agriculture in the vicinity of Delta Junction began in the 1950s within the area traditionally used by the DBH. Simultaneously, native bison forage began decreasing in the Delta Junction area as wildfires were suppressed and forests became more abundant. As farms were developed, bison began to include hay and cereal crops in their fall and winter diets. Crop depredation increased following development of the Delta Agricultural Project (DAP) in 1979 (Figure 1 Primary Land



Ownership Patterns and Bison Migration Routes, page 26). Most crop damage occurs when bison move onto farms prior to fall harvest.

In 1979 the Alaska Legislature established the approximately 90,000 acre DJBR on the south side of the Alaska Highway, across from the DAP (Figure 1). The purposes of the range identified in the legislation are to:

- Perpetuate free-ranging bison on the land described in the act by management of habitat to provide adequate winter range for bison, and;
- Alter seasonal movements of bison herds on the land in order to diminish the damage caused by the herds to agriculturally developed land.

The law establishing the DJBR had a 3-year sunset clause. In 1980 the Alaska Legislature extended the sunset clause from the original 3 years to 10 years.

In 1984 the Alaska Legislature appropriated \$1.54 million in Capital Improvement Project (CIP) funds for DJBR development and they also increased the application fee for a Delta bison hunt permit from \$5 to \$10. Funds derived from the application fee increase were intended for management of the DJBR. CIP funds paid for development of 2,700 acres of bison forage on the DJBR, the purchase of equipment for forage management, and to hire personnel to accomplish these tasks. Permit application fees have been used for annual forage management. In 1988 the Alaska Legislature eliminated the 10-year sunset clause for the DJBR.

The Delta Land Management Planning Study and the Delta-Salcha Area Plan, completed by the Alaska Department of Natural Resources (DNR) in 1982, both considered the development of the DAP, wildlife habitat and the public interest in maintaining a free-ranging bison herd in the Delta Junction area. These plans resulted in the recommendation that the area south of the Alaska Highway, including the DJBR, should be managed as wildlife habitat and that land north of the Alaska Highway be managed for agriculture.

The Delta-Salcha Area Plan has now been incorporated into DNR's Tanana Basin Area Plan (TBAP) as Subregion 7, Delta-Salcha. Lands within the DAP are now identified in the TBAP as "private." As such, the acronym



DAP used in this plan should not be interpreted to mean the area is currently a public project or is publicly owned. The DJBR is identified in TBAP as Management Unit 7K. The primary surface use of the unit is wildlife habitat and the secondary use is forestry. The plan states that “Reference to the Delta Bison Management Plan should be made on all management decisions concerning this unit” and that “Small timber sales may occur where consistent with the primary management intent, and will require the approval of the Department of Fish and Game.” With regard to recreation and access, the plan indicates “The existing trail network shall remain available for recreational access. Establishing new access trails for recreational use or to reach other state land and resources must be compatible with maintaining the overall habitat value of this unit, and will be coordinated with the Department of Fish and Game.” See Appendix B for further detail on land use permitting procedures within the DJBR.

Since 1978 the state of Alaska has sold nearly 100,000 acres in over 200 farm tracts in the Delta Junction area. Additional farms located in the Delta-Clearwater area began as early as the mid-1950s. Most of the farmland in the Delta Junction area has been cleared and is in production, is in the federal Conservation Reserve Program (CRP) or is available for production. In 1997 (the latest year for which statistics are available) approximately 19,000 acres were planted in the Tanana Valley, principally in the Delta Junction area. Approximately 25,000 acres were in CRP. Major cropping activities include the production of barley, oats, hay, and potatoes. Livestock enterprises include dairy, beef, swine, and game farms (Ed Arobio, Alaska Division of Agriculture, personal communication, 1999).

MOVEMENT PATTERNS OF THE DELTA BISON HERD

The DBH has ranged over an area that extends from the hills north of the Tanana River south to the mountains of the Alaska Range. At times, Delta bison have ranged as far east as Healy Lake and as far west as the Little Delta River, and as far south as Rainbow Mountain in Game Management Unit 13.

The DBH normally travels toward the floodplain of the Delta River from mid February to March. The majority of cows calve from late April to early June on the floodplain (Figure 1). The herd spends the remainder of the



summer along the Delta River floodplain and adjacent uplands between Black Rapids Glacier and the mouth of the Delta River.

In July, August, or September, the bison herd migrates from the Delta River to the DJBR. Typically they move onto private agricultural lands north of the Alaska Highway in August, September, or October. The herd then winters on both private agricultural lands and the DJBR. Two areas burned by wildfire are also used by bison at times.

DELTA BISON HERD FEEDING PATTERNS AND CHANGES IN FORAGE AVAILABILITY

Bison are primarily grazers, foraging mostly on grasses and sedges. However, they include other plants in their diet as well, including willows. Prior to development of agriculture in the Delta Junction area, the DBH subsisted on native arctic grasses that had low forage quality in the fall. Arctic grasses are adapted to transfer nutrient reserves into the root system in midsummer to fall as they prepare for dormancy and the onset of winter. During this period of senescence, forage quality of the grass is greatly reduced.

With the introduction of agricultural crops to their range, the DBH was able to choose between higher quality domestic crops versus lower quality native grasses for their fall and winter forage. Due to agricultural development in the range of the DBH, conflicts developed between bison and agriculture.

As agricultural grain crops mature in the fall prior to harvest, forage quality decreases as the plant transfers nutrients from the leaves and stems into the seed grain. Although grain crops lose forage quality in the fall, similar to native arctic plants, they remain higher quality than native grasses.

Large scale DJBR forage development began in the mid-1980s based on the working hypothesis that DJBR forage would be managed for higher quality than forage available in the DAP during the fall harvest or than native grasses. Therefore, bison would utilize the highest quality forage available and thus remain on the DJBR until lower forage quality crops were harvested in the DAP.

The DJBR working hypothesis appeared valid in the mid to late 1980s. The greatest determining factor for success was the ability to produce an



adequate amount of high quality forage on the DJBR to meet the forage requirements of the DBH. High quality forage was also combined with mineral blocks, water, and low disturbance levels to entice the DBH to remain on the DJBR.

During the mid to late 1980s, most crops in the DAP were grains, and grass hay crops were small. The trend in recent years however, is for increasing acreage on private agricultural lands to be in grass production, primarily as oat and brome hay.

Hay farming practices in the Delta Junction area produce fall regrowth with high forage quality but that is not of adequate quantity to be harvested commercially and is left in the field. The regrowth is as high quality as grass produced on the DJBR. Consequently, instead of having high quality forage available primarily on the DJBR during the fall, there are increasingly large quantities available on private farmlands. Because of the close proximity of the private farmlands to the DJBR, and because bison are wandering animals, it has been much easier in recent years for bison to move from the DJBR to private farmlands without sacrificing forage quality.

HERD SIZE AND HUNTING MANAGEMENT

In June 1998 the Department estimated there were 471 bison in the DBH before the hunting season. Herd composition in September 1998 was 48 bulls:100 cows and 53 calves:100 cows. The Department's 1993–1998 Delta Bison Management Plan has a precalving herd size objective of 360 bison (430–440 bison pre hunting). Previous to that, the herd size objective was 325 animals, precalving.

The DBH hunting permits are one of the most sought after hunting permits in the state, with over 15,000 people applying in recent years for approximately 100–130 permits (Appendix D—DBWG's recommendation on establishing a permit preference system). Revenues from bison hunting permit applications are the only source of funding for bison forage management on the DJBR.

The Department uses hunting as the main tool for managing the size and composition of the DBH. Predation is not a major mortality factor. An unknown number of bison die each year from other causes such as drowning, wounding loss, and other accidents.



The Board of Game authorized the Department to issue up to 200 bison hunting permits per year. The number of permits issued has ranged from 100–130 during the 1993–1998 plan. The current hunting season is from July 20 to March 31; however, the Department will not issue permits until October 1, except to use hunting as a tool to reduce bison crop depredation.

Most hunting occurs on private agricultural land and state land in the DJBR; however, a small amount occurs on federal land. The ability of hunters to have access to the DBH on private land is dependent on the willingness of private landowners to allow access (see Appendix A for information on landowner authority to regulate hunting access). Hunting on private land has become more difficult for hunters in recent years because: 1) some landowners are now charging access fees; 2) other landowners have stopped allowing hunters on their property; and 3) the number of individual landowners is increasing because farm tracts are being subdivided into smaller but more numerous parcels which makes determining ownership and obtaining access more difficult.

Those landowners that charge access fees feel the cost is justified because there is a cost to landowners of providing access to hunters. For example, dealing with hunters takes time, there may be some damage to fields and fences, and bison carcass remains left in the field can damage farm equipment.

Landowners that have stopped allowing hunting on their property generally cite the following 2 reasons: 1) landowners have problems with motorized vehicles as discussed below and 2) landowners have a sense that the Department and hunters are not concerned about the difficulty farmers have with bison.

Motorized vehicles are not restricted for hunting bison. Unfortunately, some hunters use 4-wheelers and snowmachines in an illegal manner to pursue and herd bison while hunting. Commonly this action results in bison being chased through fences. As more private farm acreage becomes fenced, there is an increasing incidence of hunters chasing bison through fences. This activity has resulted in one landowner attempting to unite all property owners to prohibit the use of motorized vehicles for hunting bison on all private agricultural lands.

STATEMENT OF MANAGEMENT CONSTRAINTS

The Delta Bison Herd (DBH) is a public resource that uses both public and private land during the year. A number of issues constrain the Department's options for management of the bison herd and the DJBR. Some of these constraints reduce the Department's ability to influence the movements of the DBH. These issues are discussed below.

FREE-RANGING HERD

The DBH has always been a free-ranging herd. The Alaska Legislature reaffirmed this management approach when the DJBR was established by specifically stating that one of the purposes of the range is to "perpetuate free-ranging bison." The Department is able to influence the timing and direction of DBH movements to some extent by indirect actions, including habitat management on the DJBR. However, management practices that would confine the herd, such as fencing, are not possible.

DELTA JUNCTION BISON RANGE MANAGEMENT CONSTRAINTS

Although DJBR management practices have reduced bison depredation, conflicts have not been eliminated. The success of the DJBR to date has been influenced to some extent by limitations placed on the Department by various factors including the following:

- 1 *Pesticides.* Department policy currently prohibits the use of herbicides to reduce the invasion of undesirable plant species in domestic grasses managed for bison forage on the DJBR. Policy also prohibits the use of some insecticides to control grasshopper outbreaks, which weaken and reduce range productivity, condition, and composition. This policy was developed due to public opposition to the Department's use of the herbicide Roundup to control native grasses. The result of this policy was that the Department's ability to manage high quality forage on the DJBR was reduced. The Department has compensated by managing undesirable native grasses by mechanical methods that are less effective and more expensive.
- 2 *Fences.* The Department has not used fences to control bison grazing pressure on domestic forage species, especially during the establishment year. Bison grazing pressure on DJBR forage is most intense in the late summer and autumn when grasses are preparing

for winter. This results in weaker plants that are more susceptible to winterkill. Legislative intent to maintain a free-ranging herd, and the cost of constructing bison-proof fencing for rotational grazing, precludes the use of fences to control grazing pressure on desirable grasses. Thus DJBR managers are not able to practice rotational grazing or reduce grazing pressure on selected areas of forage as needed.

- 3 *Soils.* Soil conditions are poor on the DJBR and make producing high quality forage expensive and difficult. DJBR soils are acidic, shallow, silty, rocky, and have low organic matter contents that results in very low capacity to hold moisture. Because of the poor soil condition, DJBR forage production is dependent on adequate precipitation and large quantities of expensive fertilizer. Quantity and timing of precipitation is critical for incorporating fertilizer into the soil and for providing moisture for plants. Droughty conditions, common in recent years, significantly reduce bison forage quality and quantity on the DJBR.
- 4 *DJBR Funding.* Funding the DJBR operation including maintaining farm equipment, purchasing agricultural supplies such as fertilizer, and paying staff salary, is limited to funds available from Delta bison permit hunt application fees. Therefore, any factor that potentially reduces the number of bison hunter applications also reduces DJBR management funds, and thus the Department's ability to manage the DJBR.
- 5 *DJBR Staffing.* Work time for DJBR management personnel is limited by state labor contracts and funding. The Department is not able to provide labor comparable to similar agricultural operations in the Delta Junction area. For example, Department staff is limited to a 37.5-hour workweek while private agricultural workers do not have this restriction.

INFLUENCES OF THE DELTA AGRICULTURAL PROJECT

Crops grown on private agricultural areas have a significant influence on bison movement to and within those lands. The Department is unable to control bison movements in response to crops grown on private land. A trend for increasing production of high quality grass hay on private

agricultural lands is making it increasingly difficult for the Department to attract the DBH to the DJBR and hold them there for long periods.

FEDERAL MILITARY LAND USE LIMITATIONS

Military testing and training activities may influence DBH movements, particularly on the Fort Greely portion of the DBH's critical calving and summer range along the Delta River. The Department coordinates with the Fort Greely Range Control regarding areas used by bison but generally few, if any, areas are closed to firing (Fort Greely Draft Integrated Natural Resources Management Plan for 1998–2002, pages 20–22). Military training facilities may also be constructed in or adjacent to bison habitat areas. Thus military testing and training activities may influence DBH movements but the Department has very limited ability to influence military land use and training practices.

HUNTING

Hunting is the Department's primary tool to manage DBH size and composition. However, the Department has no authority to regulate hunter access on private or federal land. Access fees and restrictions for hunting on private land have been increasing in recent years and hunters are having more difficulty finding a place to hunt bison.

DISEASE MANAGEMENT

The Department has no regulatory authority to monitor livestock diseases in domestic herds, to regulate importation of livestock into the state, to take regulatory action for livestock diseases that could have a detrimental effect on the DBH, or to regulate confinement of most domestic livestock. Therefore, the Department has little control over domestic livestock health and the consequences of contact between free-ranging bison and livestock.

GOALS, OBJECTIVES, AND TASKS FOR MANAGING THE DBH

The following are goals, objectives, and tasks (management actions) for management of the DBH from January 1, 2000 to December 31, 2005. Each section begins with a goal statement, then provides information pertinent to that goal. Finally, the management objectives and tasks needed to work towards accomplishment of the goal are outlined.

HERD HEALTH MANAGEMENT GOAL

- Ensure that the Delta Bison Herd remains healthy and free of any diseases that might threaten the herd or other wildlife species.

Herd Health Pertinent Information

- 1 The DBH is free-ranging and relatively free of disease. During its movements, the herd comes into close contact with domestic livestock in the Delta Junction area.
- 2 Several diseases are known to occur in domestic livestock in the Delta Junction area, including infectious bovine rhinotracheitis, bovine viral diarrhea, bovine respiratory syncytial virus, infectious bovine kerato conjunctivitis, parainfluenza III (PI3) and *Mycobacterium paratuberculosis*. The only infectious disease for which we have reliable evidence of exposure in the DBH at this time is PI3. This evidence is based on the results of blood tests. PI3 was first detected in Delta bison in 1977, but the serologic evidence of exposure to the virus was found in 100% of the animals sampled by 1984. The Department believes domestic livestock was the source of PI3 infection in bison, but this not known for certain. PI3 is not currently a major health concern for the DBH.

Herd Health Management Objectives

Objective 1 — Monitor the DBH to determine if any diseases are present which might threaten the health of the herd or other wildlife species.

Task 1: Collect bison blood to test for evidence of disease through serologic surveys conducted on an annual basis or as need and funding allow.

Task 2: Communicate with local, state and federal veterinarians whenever there are concerns about the transmission of diseases to bison.

Objective 2 — Prevent the transmission of diseases between livestock and the DBH.

Task 1: If serious livestock diseases are discovered in area livestock, consider measures to prevent contact

between livestock and wild bison.

Objective 3 — If diseases are transmitted from livestock to the DBH, prevent the spread of diseases from bison to other wildlife species or to other livestock.

Task 1: Diseases with relatively mild symptoms and that do not present a significant risk to bison, livestock or other wildlife species will be monitored by the serologic survey.

Task 2: Diseases that produce moderately severe symptoms in bison and/or diseases of unknown pathology for other wildlife will be monitored with a serologic survey. In addition, the Department may limit contact between bison, livestock and other wildlife species by managing the DBH for fewer bison.

Task 3: Diseases that produce extremely severe symptoms that may be devastating for bison, livestock and/or other wildlife species may require reducing the risk for transmission from bison to livestock or other wildlife by one or more of the following actions:

- a Place a portion or all of the DBH in captivity and test them for the disease. Slaughter infected animals. Use disease-free captive bison to reestablish the herd.
- b Slaughter the existing DBH. The herd will be reestablished with disease-free bison.

Herd Health Management Actions

The Department will monitor the health of the DBH by conducting an annual serologic survey. We will collect bison blood and test it for evidence of disease. We will communicate with local, state and federal veterinarians whenever we have concerns about the transmission of diseases to bison.

HERD SIZE AND COMPOSITION GOAL

- Manage the Delta Bison Herd to accomplish a reasonable balance between providing the greatest opportunity to hunt and view bison while keeping negative impacts to private property at a minimum.

Herd Size and Composition Pertinent Information

For decades there have been strong conflicting opinions about what the appropriate size of the DBH should be. These opinions remain today.

- 1 Some people think the herd size should not be managed below the limit set by natural environmental factors in order to reduce conflicts. The DBH is not currently limited by winter forage because it has access to large quantities of forage produced on private farms and the DJBR. Also, since the herd is free-ranging it can seek new range. However, the herd will be most productive if it is managed slightly below its maximum biological limit.
- 2 Several studies of forage availability on the traditional summer range indicate that current herd size may be exceeding the availability of summer forage, and may be affecting bison use of this area. The DBH is altering the areas of their use on the summer range, and the timing of migration from the summer range.
- 3 The option for a larger herd size has been discussed. One potential negative impact could result in all agricultural lands being fenced as a result of increased depredation. If the DBH were to lose access to the DAP, it is possible that conflicts with bison would be transferred from the DAP to farm fields in other areas of Delta Junction, and to nonagricultural areas.
- 4 There is a lot of interest in hunting the DBH and permits to hunt the DBH are among the most sought after drawing permits in the state. Currently more than 15,000 applications are received each year to hunt Delta bison.
- 5 Most Delta bison hunters and permit applicants are satisfied with the quality and difficulty of the hunt. Any actions that decrease hunter satisfaction (i.e., less access to farm fields for hunting) may not be in the best interest of hunters.

- 6 For a population to remain viable (a healthy, reproducing and self-sustaining population), it should not go below a certain size, or minimum viable population size (MVP). Small populations are more likely to go extinct or approach extinction than large populations. Small populations are more vulnerable to disease, extremes in weather, predation or loss of genetic diversity than large populations. Although this concept is often applied to a species, it can be applied to isolated populations of a species as well. The DBH can be viewed as an isolated population in the sense of the MVP concept. Although we do not know what the MVP is for the DBH, the range in size of the herd over the past several decades suggests that the current and past sizes of the herd did not go below the MVP.

Herd Size and Composition Objectives

Objective 1 — Manage the Delta Bison Herd to maintain a herd size of approximately 360 bison at the pre-calving count.

Task 1: Monitor herd size and composition by conducting a herd census and a composition count annually.

Task 2: Issue hunting permits for bull bison, cow bison, or either sex bison to achieve desired sex and age composition.

Objective 2 — Manage the Delta Bison Herd to maintain a sex ratio of no less than 50 bulls (>1 year old):100 cows.

Task 1: Monitor herd size and composition by conducting a herd census and a composition count annually.

Task 2: Issue hunting permits for bull bison, cow bison, or either sex bison to achieve desired sex and age composition.

Herd Size and Composition Management Actions

The Delta bison permit hunt will be managed to provide the greatest reasonable hunting opportunity. This objective will provide the greatest number of bison for hunting and viewing but will not maximize the number of large mature bulls in the herd. A census and a herd

composition count will be conducted annually to monitor herd size and composition.

The Department will try to compensate for increased difficulty hunting on private land by providing more winter bison forage on the DJBR. This should result in the DBH spending more time on the DJBR and give hunters a greater opportunity to pursue bison there.

To prevent conflicts between hunters and farmers during the harvest period, hunters will not begin hunting until October 1. However, hunting may be used as a tool to reduce bison/agricultural conflicts prior to October 1 by issuing permits to hunt specific areas on a case-by-case basis beginning July 20, if affected landowners reach consensus that this is a desirable action. Hunters will be provided long hunting seasons from October 1 to March 31 to provide maximum hunting opportunity (see Bison Conflict Management Goal for further detail).

BISON CONFLICT MANAGEMENT GOAL

- Minimize conflicts between bison and the public, including but not limited to agriculture interests, in the Delta Junction area.

Bison Conflict Management Pertinent Information

- 1 Bison caused conflicts with residents of Delta Junction before the development of agriculture. Since agriculture began in the Delta Junction area in the 1950s conflicts with bison have occurred primarily on farms.
- 2 Bison conflict goals in the 1993–1998 Delta Bison Management Plan have not been met with past levels of funding and staffing, or manipulation of herd size. Specifically, the Department has been unable to keep the DBH west of the Richardson Highway or out of the DAP by the dates specified in the Goals and Objectives of the 1993–1998 plan. This is due in part to changing agricultural practices in the DAP as discussed earlier.
- 3 There is legislative intent for the Department to reduce bison/agricultural conflicts. Actions taken by the Alaska Legislature to reduce conflicts include establishing the DJBR, appropriating funds for DJBR development and by raising Delta bison permit

application fees with the intent that the money be spent on DJBR management.

- 4 Bison will find and use forage with the highest nutritional quality, including agricultural crops. If bison have access to high quality agricultural crops, it will be difficult or impossible to completely eliminate bison/agricultural conflicts. Unless farmers fence their crops some level of bison/agricultural conflicts will likely occur.
- 5 The DBWG farmer's representative believes most farmers can tolerate a reduced level of bison damage, but believe the current amount of annual damage is unacceptable. If the current level of annual damage continues or increases, farmers would like some type of compensation for damages.
- 6 Fencing farms has been proposed as a long-term solution to bison/agricultural conflicts. Several factors pertaining to fencing that should be considered are:
 - a A significant portion of fall and winter forage used by the DBH is produced on private farm lands. Fencing farms to exclude bison would eliminate a significant source of fall and winter forage. The size of the DBH is not currently limited by winter forage. We do not know how the DBH would react if they were prevented from accessing this agriculturally produced forage.
 - b Some people think farmers should fence their fields to keep bison out. Some farmers do not think they should be required to pay for fencing their property from bison.
 - c There are certain disadvantages to the public if farmers fence or restrict access to their farms. Fencing will reduce access to most users. Farms provide significant opportunity for hunting (bison, moose, geese, ducks, sandhill cranes, and grouse), trapping, predator calling, and wildlife viewing. If bison/agricultural conflicts increase and farmers are forced to fence their land to protect their crops, some farmers may restrict public access to their farms for hunting of all species and wildlife viewing.

- d Fencing farms with bison-proof fences is expensive, and there is no government program to provide farmers with financial assistance to help with the capital outlay of fencing. Estimates for fencing range from \$5,000 to \$14,000 per mile.
 - e When bison move onto a farm before crops are harvested, farmers must either chase the bison off their property or ask the Department for assistance. The farmers may not kill bison in defense of life and property unless they have taken all practical measures to protect their property by fencing. If farmers fence their fields, they may be entitled to destroy bison that get inside their fences. It has not been determined in the courts if "all practical measures" mandates a bison-proof fence.
 - f If winter forage is not available to bison due to fences in the DAP, the bison may move into other agricultural areas in Delta Junction along the Clearwater and Tanana Loop roads. These areas do not experience bison conflicts at this time.
 - g If all agricultural areas in Delta Junction are eventually fenced, the availability of nonagricultural winter forage may become a limiting factor for the DBH unless the herd seeks and finds winter forage in other areas. The behavior and movements of the herd under such conditions are unknown.
 - h Farmers may be willing to accept a certain level of bison damage rather than fencing their fields.
- 7 Farmers would like to be compensated by the state for damage caused by bison. The Attorney General and Alaska Court System have determined that the State is not liable for damage caused by wildlife, including bison (Appendix A). However, the legislature could establish a program to compensate farmers for damage, as has been done in other states.
- 8 Farmers who purchased farms in the Delta I portion of the Delta Agricultural Project were not officially informed of potential bison problems. Sale contracts for agricultural parcels in the Delta II portion of the Delta Agricultural Project state that the DBH uses the area for a portion of their range and that the State is not responsible

for damage caused by bison to farms. At the time of Delta II sales, the DBH management goal was 250–300 bison pre-calving.

- 9 There is evidence to indicate that bison forage on the traditional Delta bison summer range is deteriorating and bison may be changing their use of the summer range.
 - a Bison are currently altering their summer range to include areas of greater military activity on Fort Greely Military Reservation.
 - b Bison are migrating from the Delta River to the DJBR earlier in the summer, which makes it more difficult to keep the bison out of farm crops.
- 10 It is the Department's desire to keep bison completely out of private farmlands until October 1 annually, or until all crops are harvested each fall.
- 11 It is possible that ATV use on the DJBR in August-September contributes to the DBH moving towards private farmlands earlier in the year. Closing the DJBR to motorized recreation would require working with DNR in a rule-making process that would require public hearings (See Appendix B).

Bison Conflict Management Objectives

Objective 1 — Administer the Delta bison hunt to minimize landowner/hunter conflicts in order to help maintain bison and hunter access to private agricultural land to the greatest extent possible.

Task 1: Issue permits that require hunting to begin after October 1 to help prevent conflicts between hunters and farmers during the harvest period.

Task 2: When needed as a tool to reduce bison/agricultural conflicts, issue permits as early as July 20 to hunt specific areas on a case-by-case basis, when the affected agricultural community reaches consensus to implement an early hunt.

Task 3: Provide long hunting seasons from October 1 to March 31 to provide hunters with maximum hunting opportunity. This should also help to avoid concentrating hunter interference with private landowner's activities into a shorter period of time, and to provide a safer hunt for local residents and hunters.

Task 4: Assist landowners in minimizing problems with motorized vehicles on private lands through emphasizing this concern during the hunter orientation. Disseminate individual landowner's policy regarding motorized vehicle use to hunters at the orientation.

Objective 2 — Enhance bison summer range west of the Richardson Highway to increase its attractiveness to the DBH to attempt to delay the herd's migration towards the DJBR and private agricultural lands.

Task 1: The Department will place salt blocks west of the Richardson Highway to encourage bison to remain west of the Richardson Highway as late in the summer/fall as possible.

Task 2: Depending on funding, the Department may consider the following possibilities for habitat management west of the Richardson Highway:

- a Cooperate with the US Army to improve existing military bison food plots and natural forage on Fort Greely.
- b Use prescribed fires to improve summer range habitat.
- c Fertilize native forage along the Delta River.

Objective 3 — Manage the DJBR to encourage the DBH to remain south of the Alaska Highway, and out of private agricultural land as late in the fall

as possible, and to attract more bison to the DJBR in the winter and provide greater accessibility to the herd for bison hunters.

Task 1: Promote growth of annual and perennial grasses for bison fall and winter forage through use of a combination of seeding, fertilizing, mowing, burning, and weed control.

Task 2: Use prescribed fires to remove plant debris and recycle nutrients.

Task 3: Control undesirable plants with a combination of replanting problem areas, mowing, and burning. There are no immediate plans to use herbicides.

Task 4: Provide mineral blocks and water for bison on the DJBR.

Task 5: Experiment with voluntary restrictions on motorized recreational use in the DJBR when motorized use is suspected to drive the bison herd towards private agricultural lands prior to October 1. Voluntary motorized use closures should be the least restrictive possible needed to limit adverse effects to bison migrations and will not be suggested for application to the main access trails crossing the DJBR (such as 1397, 1402, or 1408 Roads). See Appendices A and B for information on recreational use and land use permitting on the DJBR.

Objective 4 — The Department will provide assistance to the public experiencing bison conflicts.

Task 1: Where bison/agriculture conflicts occur inside a fenced farm, assist the farmers by attempting to move bison out of fenced areas until crops are harvested or until October 1, whichever is earlier.

Task 2: Where bison/agriculture conflicts occur in unfenced areas, assist the farmers by directing hunters to problem areas during the bison hunting season if

requested by landowners.

Task 3: Assist other members of the public who experience bison problems on a case-by-case basis.

Bison Conflict Management Actions

The Department will reduce bison/agriculture conflicts primarily by managing DJBR forage and administering the bison hunt to reduce conflicts.

Because hunter access to private land has been declining, the Department will manage forage on the DJBR to attract more bison to the DJBR in the winter and provide greater accessibility to the herd on public land for bison hunters. However, the ability to attract larger numbers of bison to public lands during winter will depend on funds being available to accomplish this task.

The Department will use Delta bison permit application fees to manage the DJBR. The perennial grasses, nugget bluegrass and arctared fescue, and the annual grasses oats and barley, will be managed on the DJBR with a combination of seeding, fertilizing, mowing, burning, and weed control. Bluegrass and oats or barley will be managed primarily as a high quality fall forage. Fescue will be managed primarily as a lower quality winter forage.

Approximately \$25,000–\$30,000 will be spent to fertilize 400–600 acres of forage annually, and approximately 200–400 acres will be planted with annual grass. Fertilizer application rates, forage quality, and forage quantity will be monitored and adjusted to achieve the most economical application rate. The acreage fertilized will depend on the availability of funds and bison forage requirements.

Prescribed fires will be used to remove plant debris and recycle nutrients. Undesirable plants will be controlled with a combination of replanting problem areas, mowing, and burning. There are no immediate plans to use herbicides. Mineral blocks and water will also be provided for bison.

Native grasses are actively competing with bison forage on the DJBR. At current funding levels, domestic forage is slowly deteriorating and may be replaced by invading native vegetation. The Department will continue

working with mechanical instead of chemical methods to eliminate undesirable vegetation that competes with bison forage.

The Department will manage the bison hunt to minimize conflicts between bison hunters and farmers while crops await harvesting. Permits will not be issued until after the harvest is completed, except in special circumstances when hunting is used to move bison off unharvested crops. The Department may issue permits as early as July 20 to use hunting as a tool to reduce bison/agricultural conflicts if affected landowners reach consensus that this is a desirable action. However, it is the Department's intent to prohibit regular hunting until October 1.

BISON VIEWING MANAGEMENT GOAL

- Provide opportunities for non-consumptive enjoyment of the Delta Bison Herd, such as bison viewing, interpretation, and education.

Bison Viewing Pertinent Information

- 1 The Department is cooperating with the Alaska Department of Transportation and Public Facilities to construct a new bison viewing interpretive sign in the vicinity of the Black Rapids Glacier on the Richardson Highway.
- 2 During most of the summer tourist season the bison herd is normally located along the Delta River and on Fort Greely in the Meadows Road area. Permits are required for public access to much of this area and there may be restrictions to prevent danger to the public from military training activities.
- 3 The Fort Greely draft Integrated Natural Resources Management Plan 1998–2002 provides for construction of bison viewing platforms by the military after use of bison food plots is determined. This must be done in coordination with Range Control to minimize conflicts with military training and is not expected to occur until 2001.
- 4 The DBWG has not supported using the limited funds from bison hunting permit application fees for bison viewing enhancement.

Bison Viewing Management Objectives

Objective 1 — Investigate methods and funding sources other than bison permit fees to improve bison viewing opportunities for the public.

Task 1: Work with the Alaska Department of Transportation and Public Facilities and other agencies to improve bison viewing facilities as opportunities arise within agency’s routine planning programs.

Task 2: Work with the US Army to provide public bison viewing platforms or designated viewing areas on bison summer range on Fort Greely.

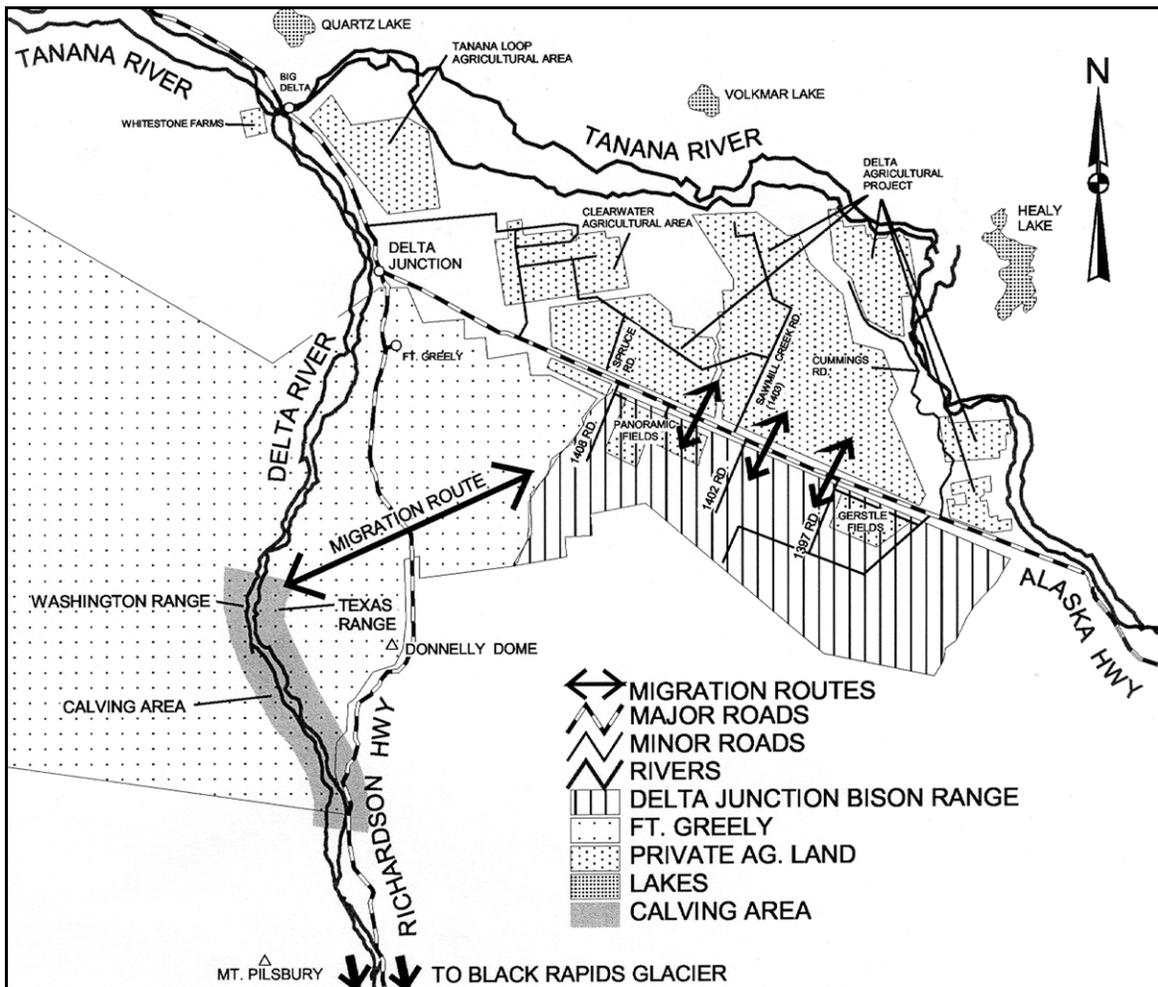


Figure 1 Primary landownership patterns and bison migration routes

APPENDIX A Excerpts of Legal Document Relating to Management of the Delta Bison Herd

I Constitution of the State of Alaska

Article VIII of the Constitution of the State of Alaska provides the overarching policy for management of natural resources in the state. Section 3, often referred to as the “Common Use Clause” is particularly pertinent to discussions of the DBWG during the development of this plan. This clause likely precludes the possibility of designating one or more Delta bison hunting permits to a specific group, such as the Delta agricultural landowners who experience impacts from the bison herd and bison hunting.

Article VIII, Natural Resources states:

Section 1. It is the policy of the state to encourage the settlement of its land and the development of its resources by making them available for maximum use consistent with the public interest.

Section 2. The legislature shall provide for the utilization, development, and conservation of all natural resources belonging to the state, including land and waters, for the maximum benefit of its people.

Section 3. Wherever occurring in the natural state, fish, wildlife, and waters are reserved to the people for common use.

Section 4. Fish, forests, wildlife, grasslands, and all other replenishable resources belonging to the state shall be utilized, developed, and maintained on the sustained yield principle, subject to preferences among beneficial uses.

Section 5. The legislature may provide for facilities, improvements, and services to assure greater utilization, development, reclamation, and settlement of lands, and to assure fuller utilization and development of the fisheries, wildlife, and waters.

II Title 16 of the Alaska Statutes

Several sections of Title 16, Fish and Game, apply to management of Delta bison and the DJBR. There are general provisions, such as the authority

of the commissioner and there are specific measures that apply to the DJBR and the auctioning and/or raffling of bison hunting permits.

Sec. 16.05.020. Functions of commissioner. The commissioner [of the Alaska Department of Fish and Game] shall

(2) manage, protect, maintain, improve, and extend the fish, game and aquatic plant resources of the state in the interest of the economy and general well-being of the state.

In 1979 House Bill 31 established the DJBR. The purposes of the act identified in Section 1 of the legislation are:

"to perpetuate free-ranging bison on the land described in this Act by management of habitat to provide an adequate winter range for bison," and

"to alter seasonal movements of bison herds on the land in order to diminish the damage caused by the herds to agriculturally developed land."

This legislation was codified into Sections 16.20.300–320 of the Alaska Statutes. Section 16.20.300 identifies the lands included in the DJBR. The text of the other portions of the statute follows.

Sec. 16.20.310. Game management plan for bison. (a) The commissioner shall develop and may amend a game management plan for bison in the area described in AS 16.20.300. After holding public hearings in accordance with 44.62.310 and 44.62.312, the commissioner shall implement the game management plan.

(b) The game management plan must include, but is not limited to

- (1) planting grains for bison and planting other wildlife forage;
- (2) altering existing plant cover to create additional range and year-round habitat for bison and other animal species in the area;
- (3) tilling to produce forage.

(c) The commissioner shall develop and amend the game management plan to coordinate, as closely as possible, the game management plan with the activities of the Agricultural Development Authority, Department of Natural Resources, relating to the Big Delta agricultural development project.

Sec. 16.20.315. Bison range timber sales. The Department of Natural Resources, division of forestry, shall provide for the sale of timber in the Delta Junction bison range area in a manner that does not delay implementation of the game management plan required under AS 16.20.310.

Sec. 16.20.320. Activities on bison range area. Nothing in AS 16.20.300–16.20.320 shall be construed as prohibiting activities on land described in AS 16.20.300 that are otherwise permitted in accordance with the laws and regulations of this state, including, but not limited to, hunting, trapping, engaging in recreational activities, using the land for access to adjacent areas, and a 300-foot Alaska Railroad right-of-way.

AS 16.05.343 provides for auctions or raffles of big game harvest permits. These provisions are relevant to the DBWG’s consideration of providing a bison harvest permit to Delta agricultural interests who are impacted by bison depredation (Appendix C). The key provision of both paragraphs (a) and (c) is that “The donation may be made only to a nonprofit corporation established to promote fish and game law enforcement...” Thus, donation of a bison harvest permit to an agricultural organization would require legislative action to make an organization other than a nonprofit established to promote fish and game law enforcement eligible for a permit donation. Even if legislation were proposed, it may violate the Equal Access Clause of the Constitution (see above).

Sec. 16.05.343. Auctions or raffles for big game harvest permits.

a) The department may donate one bison harvest permit each year for a bison from the Delta Bison Herd for a competitive auction or raffle. The donation may be made only to a nonprofit corporation established to promote fish and game law enforcement, subject to the terms of a memorandum of understanding developed by the department.

b) (Not applicable to Delta Bison)

c) The department, subject to regulations adopted by the commissioner, may issue, through a competitive auction or raffle, up to two harvest permits each year for each of the following big game species: Dall sheep, bison, musk ox, brown or grizzly bear, moose, caribou, and wolf. Notwithstanding AS 36.30, the department may authorize a qualified organization to conduct the auction or raffle on behalf of the department. If the department does authorize a qualified organization to conduct an auction or raffle for a big game species, the department shall make available to a qualified organization based in the state at least one harvest permit for that species. If the auction or raffle is conducted by a qualified organization, the organization may retain an amount from the gross proceeds of the auction or raffle equal to the administrative cost of the auction or raffle plus an amount not to exceed 10 percent of the net proceeds. The proceeds from the auction or raffle of a big game harvest permit may not be used to make a contribution to any candidate for political office or to any organization supporting or opposing ballot propositions or to pay expenses associated with lobbying the legislature or administration. All proceeds from the auction or raffle of the big game harvest permit, less the amount that is retained by a qualified organization under this subsection, shall be deposited in the fish and game fund under AS 16.05.100. A person who is issued a big game harvest permit under this subsection shall receive upon the person's request a complimentary hunting license and a big game tag for the big game species for which the big game harvest permit is issued. A hunting license issued under this subsection must bear the inscription "Governor's license" or a similar designation. A person who receives a big game harvest permit, hunting license, or big game tag under this subsection may exercise the privileges conveyed by the permit, license, or tag only in accordance with applicable law. In this subsection "qualified organization" means a nonprofit corporation established to promote fish and game law enforcement or an organization that is established to promote management of hunted game species and use of game populations for hunting and that complies with applicable laws governing activities under this subsection.

III Legislative History, Attorney General's Opinions and Legal Decisions

During preparation of the Delta Bison Management Plan for 1993–1998 Department staff collected legal background information on several points relevant to management of the Delta Bison Herd and DJBR. A summary of some key points from this research follows.

A MANAGEMENT OF THE DELTA BISON HERD AND DELTA JUNCTION BISON RANGE

In 1980 the Alaska Legislature passed House Bill 568 which extended the life of the DJBR from 3 years to 10 years (in 1988 the legislature repealed the termination date for the DJBR). Although the bill consisted of only a few lines of text, the Chairman of both the House Special Agricultural Committee and the House Resources Committee sent the Speaker of the House, Terry Gardiner, a letter of intent stating:

“It is the intent of the Legislature that the Delta Junction bison herd be managed for maximum reproduction and productivity. The present base population is not to be reduced and the past average number of animals harvested by hunting permit shall be continued. Any animals which seasonally exceed the base population after historic hunting allocation shall be disposed for maximum return to the state.”

B State Liability for Bison Depredation of Crops

In 1980 a Delta Farmer, Howard Smith, was sued by the Alaska Farmer’s Cooperative for nonpayment for seed and fertilizer he purchased from the cooperative. In his defense, the farmer filed a cross-complaint against the state alleging the state was liable for any sums owed because the state failed to protect his crop from bison depredations. The state filed a motion for summary judgement against Smith and the motion was granted in the state’s favor in a June 1982 court decision. The state’s case was based on “the common law rule that states are not liable to individuals for damages to real or personal property inflicted by wild animals protected by game laws which are administered by governmental agencies.”

In a memo to Representative Pappy Moss dated February 27, 1981 the Alaska State Legislature House of Representatives Research Agency described the state’s potential liability for wildlife depredation of crop land. This memo was written in response to questions relating to proposed legislation dealing with compensation by the state to producers of certain

agricultural products for income loss attributable to bison depredation. The memo refers to two Assistant Attorney General Opinions and was inconclusive with regard to the State's liability. Eighteen months later the courts issued the Howard Smith decision that determined that the state is not liable for bison depredation of crops.

C Access Fees for Hunting on Agricultural Lands

An Assistant Attorney General's memo to the Commissioner of the Department of Fish and Game, dated May 7, 1992, addresses the topic of access fees for hunting on agricultural lands. The memo specifically examines holders of state agricultural rights in the Delta Junction area. The memo concludes:

“The owner of the agricultural interests to land acquired from the state may limit access to those lands for hunting and other purposes. The owner may allow public access, and charge a fee therefore, if the hunting use of the land is not inconsistent with or contrary to the agricultural use of the land.”

APPENDIX B Delta Junction Bison Range Management and Land Use Permitting

The statutory designation of the Delta Junction Bison Range (DJBR) in AS 16.20.300-320 provides for a game management plan for bison and other wildlife species, timber sales on the range and continued public use of the lands (Appendix A). The law requires that the game management plan for the DJBR be coordinated with the Department of Natural Resources (DNR). This appendix stems from review and coordination with the DNR and is intended to help clarify how agency and public land use permitting on the DJBR is to be handled.

I. Public Recreational Use and Other Activities

Activities permitted in accordance with the laws and regulations of the state, including, but not limited to, hunting, trapping and recreational activities on the DJBR are specifically authorized in AS 16.20.320. Generally, casual public use of DJBR lands is authorized without a permit, similar to other state owned and managed lands. This plan does not include any proposals to adopt regulations to restrict public use of the DJBR. If in the future the Department of Fish and Game (ADF&G) sought to close the DJBR to certain public uses in order to better manage for bison or wildlife habitat, the Department would be required to work with the DNR to restrict land uses through a public rulemaking process according to state land use regulations.

Organized events or other public uses that might result in impacts to the land may require a state Land Use Permit (LUP). The DNR, Division of Mining, Land and Water (DMLW), should be consulted on the need for a LUP. The Delta Junction Area Biologist will forward all DJBR public use requests to the DMLW for determination of permitting requirements. If a proposed activity requires an LUP or other authorization, the DMLW shall consult with the Division of Wildlife Conservation (DWC) and will only issue a permit after receiving the DWC's concurrence that the activity will not result in significant adverse effects to bison and other wildlife habitat purposes for which the DJBR was established.

II. Department of Fish and Game Wildlife and Wildlife Habitat Management Activities

Management activities for wildlife and wildlife habitat undertaken by the ADF&G are covered within the statutory purposes of the DJBR and generally do not require a LUP from the DMLW. This includes typical activities such as tilling to produce forage, altering existing plant cover to create habitat for bison and other animal species and planting grains for bison and planting other wildlife forage.

Prescribed burning on the DJBR will be done in consultation with the DNR. The prescribed burn approval is sufficient authorization from DNR for a prescribed burn on the DJBR; however, if the burn is to extend outside of the DJBR lands, a Land Use Permit is also required.

Timber in the DJBR is included in the DNR, Division of Forestry (DOF) timber base. Because of vegetative cover type and seasonal hydrology, some lands within the DJBR may be considered wetlands by the US Army Corps of Engineers (COE). Normal silvicultural practices intended to regenerate forest cover types after timber harvesting, including surface preparations that scarify soil, are exempt from COE Section 404 permits (33 CFR 323.4 (a)). However, if DWC wildlife management activities are intended to *convert* [italics added] areas of forest cover into grasslands, a COE 404 wetland permit may be required. Before undertaking actions to convert forest lands to grasslands or other nonforest land uses, the DWC should consult the COE and, if necessary, request a wetlands determination for the specific lands involved. If required by the COE, wetland permits must be obtained prior to initiating the project. If such a forest land use conversion project is envisioned by the DWC, the DOF should be notified so that the lands can be removed from the timber base. The term “conversion” does not include a temporary change in forest cover type such as removing black spruce to allow growth of aspen or other species (See AS 41.17.110 and 11 AAC 95.200, that governs conversion of forest land to other uses). In addition, if DJBR lands are cleared for non-timber purposes the DWC, in consultation with DOF, will determine if the timber has significant salvage value (See AS 41.17.083). If the timber has significant salvage value, the timber will be salvaged as part of the clearing process, unless there are overriding reasons why the salvage would be detrimental to the purposes of enhancing bison or other wildlife habitat.

III. Timber Sales and Other Forestry Practices

Timber sales, access roads, and other forestry practices proposed for the DJBR by the DOF are designated as secondary uses by DNR's Tanana Basin Area Plan, and will be coordinated with the ADF&G Habitat and Restoration Division and the Delta Area Biologist. Any proposed forestry practices must be consistent with or not interfere with the primary purpose of the bison range, which is enhancement of bison and other wildlife habitat. Concurrence of the DWC must be obtained prior to initiation of forestry activities on the DJBR.

IV. Fire Management

The ADF&G is the land manager for decisions on fire suppression during wildland fire events, particularly as related to wildlife populations and/or habitat. The Delta Area Biologist or his/her designee will cooperate with the DOF in preparation of the Wildland Fire Situation Analysis as provided for in the Alaska Interagency Wildland Fire Management Plan. The fire Incident Commander retains ultimate authority for decisions involving a threat to public safety and for overall fire manageability. Fire rehabilitation on the DJBR will be accomplished through the normal fire rehabilitation process and funding mechanisms in the DOF, with rehabilitation decisions being made cooperatively with the Delta Area Biologist to maximize benefit to bison and other wildlife habitat.



APPENDIX C The Role and Membership of the Delta Bison Working Group

The Delta Bison Working Group (DBWG) was established to advise the Alaska Department of Fish and Game (Department) on Delta Bison Herd management and to promote communication among the public, bison interests and the Department. The six-member working group serves in an advisory capacity to the Department but their recommendations carry significant weight in determining management direction. The DBWG is charged with assisting the Department with establishing the management direction for the bison herd through preparation and renewal of the Delta Bison Management Plan. Moreover, the real product of the working group's efforts will be biologically and legally sound bison management policies which help to minimize conflict and enhance both consumptive and non-consumptive enjoyment of bison by the public. During the term of adopted plans, the working group will meet as necessary to monitor implementation of the plan and address any new issues that may arise.

The following individuals serve on the DBWG and represent the primary different interests relative to Delta Junction bison management:

- 1 Statewide hunting – Darrell Darland, Delta Junction. Darrell was nominated by the Delta Fish and Game Advisory Committee. Darrell is a long-term resident of Delta Junction, and an active hunter that has hunted bison several times. He is also a member of the Delta Fish and Game Advisory Committee and participated in the 1993–1998 Delta bison planning process.
- 2 Local agriculture – Mike Schultz, Delta Junction. Mike was originally nominated by the Alaska Farmers and Stockgrowers Association to represent agriculture on the DBWG during the 1993–1998 Delta bison planning effort. Mike is a farmer in Delta Junction, and has hunted Delta bison.
- 3 Delta Junction hunting and agriculture – Don Quarberg, Delta Junction. Don was originally asked by the Department to serve as an ad hoc member on the DBWG during the 1993–1998 Delta bison planning effort. Don is a retired extension agent with the University

of Alaska Cooperative Extension Service in Delta Junction. Don has expertise in forage crop management in Interior Alaska, he is a member of the Delta Junction Fish and Game Advisory Committee, and he is a hunter.

- 4 Delta Junction community – Glen Wright, Delta Junction. Glen was nominated by the previous mayor of Delta Junction to represent the Delta Junction community on the DBWG during the 1993–1998 Delta bison planning effort. At the time, Glen was the mayor pro tem; however, he remains active in Delta Junction affairs and maintains a local business.
- 5 Delta Junction business – Dan Splain, Delta Junction. Dan was nominated by the Delta Junction Chamber of Commerce to serve on the DBWG. Dan is a long time resident of Delta Junction and operates a lodging facility that caters to hunters and especially bison hunters. Dan is an active hunter.
- 6 Fort Greely – Ken Spiers, Fairbanks. Ken was nominated by Colonel Kenneth Jarman, Garrison Commander, Fort Greely, to represent Fort Greely on the DBWG during the 1993–1998 Delta bison planning effort. Ken served as the wildlife biologist for Fort Greely Military Reservation from 1981–1991, and worked closely with the Department to manage bison habitat on Fort Greely. Ken is currently serving as the Fort Greely Base Realignment and Closure environmental coordinator, while stationed at Fort Wainwright.



APPENDIX D Delta Bison Hunting Permit Considerations and Recommendation

The DBWG has carefully considered two matters involving the Delta bison permit drawings. The first matter is exploring the concept of providing additional chances at drawing a permit, based on the number of years a hunter has applied. This has generally not been possible in the Department's current hunt permit processing system. However, the Division of Wildlife Conservation has a Permit Task Force in place that is examining ways of revising the permit drawing system and changes may be possible within the duration of this plan. Therefore, the DBWG makes the following recommendation:

“The DBWG recommends that the Department continue evaluating a means of providing additional chances at drawing a Delta bison hunting permit, based on the number of consecutive years a hunter has applied. If such a system is found, and would not result in significantly reducing the number of bison hunter permit applications (which are the primary source of revenue for maintenance of the DJBR), the system should be implemented for the Delta bison hunting permit drawing.”

The second matter involves a desire by the DBWG to award one or more bison permits to Delta farmers who are impacted by the bison herd. The DBWG discussed this concept as a means of providing a gesture of support to the Delta agricultural community and to try to help maintain hunter access to agricultural lands. Even though on the surface the concept seems simple enough, designation of one or more permits to one special group of Alaskan residents may violate the Equal Access Clause of the State Constitution and there are many questions as to how such a program could be fairly administered. For example, how would eligibility for the permit award or benefits from the permit be determined? This type of permit designation does not fall within the existing authority of the Department for Auctions or Raffles of Big Game Harvest Permits provided under AS 16.05.343 and would require legislative action (Appendix A).