

BISON HERD UNIT MANAGEMENT PLAN
Book Cliffs, Bitter Creek And Little Creek
Herd Unit #10A AND #10C
 Wildlife Board Approval November 29, 2007

BOUNDARY DESCRIPTION

Uintah and Grand counties - Boundary begins at the Utah-Colorado state line and the White River, south along this state line to the summit and north-south drainage divide of the Book Cliffs; west along this summit and drainage divide to the Uintah-Ouray Indian Reservation boundary; north along this boundary to the Uintah-Grand County line; west along this county line to the Green River; north along this river to the White River; east along this river to the Utah-Colorado state line.

NORTH BOOK CLIFFS LAND OWNERSHIP

RANGE AREA AND APPROXIMATE OWNERSHIP

Ownership	Bitter Creek Subunit		Little Creek Subunit		Combined North Subunits	
	Area (acres)	%	Area (acres)	%	Area (acres)	%
BLM	644,446	45.6	2,389	4.1	646,835	44
SITLA	165,599	11.7	48,912	84.4	214,911	15
DWR	15,138	1.1	6,551	11.3	21,689	1
PRIVATE	70,091	5.0	0	0	70,091	5
UTE TRIBE TRUST LAND	517,506	36.6	82	0.2	517,588	35
TOTAL	1,412,740	100	57,934	100	1,471,114	100

BOOK CLIFFS BISON HISTORY AND STATUS

Bison were historically present in the general East Tavaputs Plateau and Uintah Basin. The Escalante expedition reported killing a bison near the present site of Jensen, Utah in September 1776. Bison are also commonly depicted in Native American rock art and pictographs found throughout the area. Additionally, at least one bison skull was unearthed in the upper Willow Creek drainage within the Little Creek big game management subunit. Greg Cunningham of the Cunningham Land and Livestock Company found the skull and displayed it at his She Canyon Cabin until 1990 when the UDWR purchased the ranch.

Bison were extirpated from the Book Cliffs until the Ute Indian Tribe reintroduced a herd on the Hill Creek Extension of the Uintah and Ouray Reservation. The initial reintroduction of 6 head in 1986 was followed by other Ute Tribal releases to establish a viable herd. The 2006-2007 winter Ute bison population is estimated at approximately 580 head. Appendix A Table 1 summarizes information provided by the Ute Tribe relative to their bison release efforts and transplant stock sources. Appendix A Table 2 provides a comparison of various population densities among established bison herds. While bison from the Ute Indian herd have localized their yearlong residence principally within the Hill Creek Extension, small groups have begun frequenting ranges outside of the trust boundary. Bison have been regularly observed in the West Willow and Willow Creek drainages, Steer Ridge, Rock Springs Mesa, Winter Ridge, Sunday School Canyon, Wild Horse Bench, Seep Ridge, Indian Ridge, Wood Canyon and as far east as Long Draw and Big Park. The number of bison commonly observed in these areas include single animals but can number as many as 35.

Local rancher and landowner, Burt DeLambert, also owns a small private bison herd on his ranch. This herd originated with 12 animals in 1999 and grew to approximately 30 head by the 2004 winter. Although Mr. DeLambert's animals were largely confined to his private land, occasional mixing with Ute Tribe bison occurred. Mr. DeLambert is divesting himself of his bison herd through private hunt agreements. This will be completed by the 2008 spring season.

Since their reintroduction by the Ute Indian Tribe two decades ago, bison have repopulated the Hill Creek Extension of the Uintah and Ouray Indian Reservation. They have recently begun to naturally extend across historic ranges in the Book Cliffs. The Division viewed this expansion as a rare opportunity to provide a free ranging, publicly owned and managed bison herd. A North Book Cliffs bison planning committee was formed to consider this potential and develop a management plan. Committee membership was invited from across various stake holders and interests. A membership list is included in the plan Appendix C as well as summaries of the two committee meetings that were held. The group reviewed bison herd growth, range expansion, animal health and public recreation opportunity. They then helped identify existing or potential issues and endeavored to find acceptable resolutions.

ISSUE IDENTIFICATION AND RESOLUTION INTENT

Disease

There are three diseases of major concern to bison in Utah, brucellosis, tuberculosis and malignant catarrhal fever.

The Henry Mountain bison herd was introduced in 1941 and remained free of brucellosis until 1963. An infected domestic livestock herd was the suspected vector for introducing the disease to bison. A concentrated effort on the part of the then Utah State Fish and Game Department, agricultural agencies, sportsmen and veterinarians

eradicated the disease. No positive reactors for the disease have been isolated from the herd since that time. The Ute Indian Tribe attempts a near total round up of their bison each year. Testing efforts reveal that their herd is disease free as well.

Although brucellosis infected bison herds of Yellowstone National Park and Grand Teton National Park have received national attention, efforts to eradicate the disease are continuing (USDI 2005). Intensive efforts have been successful in eliminating brucellosis from wild and free ranging herds such as Wind Cave National Park (USDI 2005). Wind Cave National Park bison have been brucellosis free since 1986 following a focused and cooperative eradication program.

Preventive measures to insure disease free bison are used for herd supplementation will include cooperative blood or other testing with the Utah State Department of Agriculture and Food and the Utah State Veterinarian. Additionally, blood, tissue or other biological samples will be taken cooperatively and as opportunity presents until annual hunting occurs. When annual hunts become a normal part of herd management, sampling of hunter-harvested animals will be conducted. Continued prudent livestock management coupled with consistent testing and monitoring of the bison herd should preclude brucellosis or other disease problems in the future. If a problem does develop, an intensive and cooperative disease eradication program will be initiated. Similar testing and monitoring of other significant disease organisms will also be conducted as deemed prudent and warranted.

Tuberculosis, when found in conjunction with brucellosis, can affect the survival and reproductive capabilities of cow bison. No reactors were found among 12 yearlings tested before being transplanted to Arizona from the Henry Mountains in 2001. Bison are also susceptible to a related disease, paratuberculosis, or Johne's disease. Johne's is a viral infection that can have devastating effects on bison.

Malignant catarrhal fever (MCF) is the most serious viral disease affecting ranched bison. It is also known to affect other bovine species, domestic sheep and deer. Related to the herpes virus, it is transmitted through lacrimal, nasal, oral and vaginal secretions, but has occurred in other situations and direct contact is not necessary. Bison have contracted MCF from sheep grazed over 2 miles away (Haigh *et. al.* 2002). Wind-borne infections have been reported and deer contracted the disease after traveling in a truck that carried sheep with MCF.

Malignant catarrhal fever is invariably fatal. In the most extreme cases, the animal dies showing no clinical symptoms. Treatment of chronic cases is considered hopeless. There is no vaccine. Prevention requires that sheep or wildebeest do not have contact with susceptible species (Haigh *et. al.* 2002).

It is generally recommended that domestic sheep herds not be grazed within two miles of bison to protect the population from MCF and Johne's disease.

Habitat and Forage Competition

Wildlife forage allocations present under the BLM's Resource Management Plan (RMP) in addition to SITLA grazing permits in DWR ownership and DWR administered Wildlife Management Area fee title lands provide a sufficient forage base for big game. The cooperatively achieved goals of the Book Cliffs Conservation Initiative partners have presented a means to offer a public bison resource opportunity in conjunction with other big game resources.

There is considerable overlap in the diet of bison and domestic cattle. Nelson (1965) found that grasses and sedges comprised the majority of the bison diet from rumen samples. However, shrubs and forbs were also found, with snowberry being the most common shrub detected in the diet. Van Vuren (1979) reported that both bison and cattle on the Henry Mountains were primarily grazers, but that bison diet consisted of 5% browse, compared to no use by cattle. Cattle, on the other hand, were more likely to use forbs than bison. This is consistent with observations from Wood Bison in British Columbia. Harper *et. al.* (2000) reported that bison are very efficient at digesting low protein, high fiber diets. Willow leaves comprised a significant portion of the diet during the winter. While dietary overlap with cattle is significant, bison may be more likely to use shrubby vegetation during winter periods.

Bison behavior may also provide a small degree of spatial separation in ranges used in conjunction with cattle. Nelson (1965) found bison behavior helps limit their direct impact on domestic livestock. First, Nelson found that bison seldom remained in an area longer than 3 consecutive days during the summer growing season. While they did exhibit preferred areas during various seasons, bison were "almost constantly on the move and do not remain in an area until the plants are completely utilized" as domestic cattle are known to do. Bison on traditional winter ranges were noted to be more sedentary. Second, he reported that free ranging bison did not remain at water sources for extended periods and appeared to have lower water needs than domestic cattle. He noted that bison would water then move off – "...and little time was spent at watering holes." Finally, Nelson also noted that while bison spent most of their time foraging in less steep areas, they did utilize rougher and more broken country than cattle.

Van Vuren (1979) observed similar habits on the Henry Mountains. When comparing habitat use by bison and cattle, he found that over 56 percent of all summer observations of feeding bison were over 10,000 feet, compared to 10 percent of feeding cattle. Both cattle and bison used relatively level areas to graze, but cattle did more so than bison. For example, 65% of bison observations exceeded 21 degrees slope, compared to only 32% of cattle observations. Bison also fed a greater horizontal distance from water than cattle, and cattle grazed in greater numbers in the proximity of water than did bison.

In spite of these beneficial behavioral differences in free roaming bison, their population distribution will largely determine the degree of direct forage competition with livestock.

Hunting can be a fairly effective tool to limit the size of bison groups that may develop conflicting habits. However, Nelson suggested providing salt and periodically harassing bison to encourage movement to areas less competitive with cattle. He also reported that Henry Mountain bison were sensitive to disturbance.

Bison will also share some dietary overlap with elk. As with livestock, bison population distribution will determine the overall competitive overlap with elk. The same management considerations previously discussed for bison and livestock would also apply to elk. Dietary overlap of bison and mule deer is less but could conceivably occur on shared winter ranges; especially if heavy and severe winters rendered grass forage unavailable to bison. The balance between various wild ungulate populations will be determined through individual species management plans for the herd unit. These are reviewed and approved through the public RAC and wildlife board process and involve public input and discussion. Vegetation, watershed and habitat monitoring will help form the basis for the future population objective recommendations of each species.

Should future grazing and forage competition issues arise, the Division is committed to addressing them. Continued rangeland work will help address any issues that arise. Cooperative range and habitat improvement projects of which the Division has been a major participant have completed 26,555 in the five years of 2002 through 2007. These projects do not include another 88,000 acres of wild land fire that was reseeded following the 2002 fire season. Appendix B provides a table of rangeland projects completed and proposed from 2002 through 2007.

While Current Utah State law may possibly be interpreted to prevent DWR from actually acquiring future grazing permits for wildlife use, DWR will participate within the framework and intent of applicable laws to pursue resolution of any chronic conflicts through all available means including legal acquisition projects by third parties.

The revised BLM Resource Management Plan will address the status of both wild horses and uncommitted AUMs that were purchased in good faith during the cooperative Book Cliffs Conservation Initiative. The Division has provided comment through the State to the alternative management options presented in the plan and will support wild horse management activities deemed warranted by private landowners and public land entities.

Agricultural Depredations

Fortunately, from the standpoint of bison management, the North Book Cliffs have few opportunities for extensive agricultural crop damage. Aside from rangelands, private agricultural fields that are irrigated and harvested are currently limited to the lower Willow Creek Drainage and the upper Sweetwater drainage. Harvested crops are currently grass hay, which are either cut, baled and hauled off or left standing as livestock pasture forage. Elk depredations occur to these areas and any complaints are addressed through stack yard fencing, payments for damages or mitigation type hunting

opportunities. Landowners also have opportunity for compensation by selling buck deer and bull elk hunting permits within the Book Cliffs Landowners Association program. Bison that currently occasion the Willow Creek drainage have utilized agricultural fields to some extent. However, their visits have generally not been of such impact or long duration to elicit heavy complaints. If agricultural depredations develop, they will continue to be addressed under the Utah State Code, DWR policy and established guidelines. The Division also owns agricultural fields in Bitter Creek, Willow Creek and Meadow Creek that were procured under the Book Cliffs Conservation Initiative. While agricultural sharecrop agreements are utilized on some areas, these lands are dedicated for wildlife use.

Bison Emigration

Bison within the Hill Creek Extension of the Ute Indian Reservation have been in place for nearly two decades and now number 580 head (Ute Tribe 2006). While bison are now extending the boundary of their occupied range to adjacent habitat, little wholesale or significant migration outside the Book Cliffs has occurred. Even the herd range extension and pioneering activities within the Book Cliffs have been slow, piecemeal and limited. A few head of bison have crossed the Green River south west of the Reservation boundary and north of Green River, Utah. However, reports of bison leaving the area in any other direction have been few and none are known to have left and created problems. However, should bison move outside the boundary of the general Book Cliffs Big Game Management Unit they may be considered within the DWR nuisance wildlife policy and handled similar to wandering moose, bears or other wildlife.

Limiting Factors

Van Vuren (1983) investigated bison mortality factors on the Henry Mountains. He found that natural survival was very high, with calves averaging 94% survival, adult bulls 95%, and adult cows 96%. He found 33 carcasses during 1977 and 1978, but specific causes of natural mortality were not determined. However, it was speculated that predation of young, accidents, and old age were the primary causes. Wounding loss by hunters and poaching were identified as non-natural causes.

Drought has influenced population growth on the Henry Mountains. Two of the driest years in recent memory, 2001 and 2003, had the lowest calf production recorded on the Henry Mountains. In 2001, there were 18 calves produced per 100 cows and 17 in 2003, compared to the long-term average of 37 calves per 100 cows. Reduced forage quality and yield may result in absorption of the fetus, low calf birth weight, and poor milk production, ultimately leading to lower calf survival.

Currently, large mammalian predators in the Book Cliffs include black bears, cougars, coyotes and bobcats. While bison kills from at least the first three of these species have been documented in the literature, none are considered to be a significant threat to

bison herds. However, wolf immigration into Utah from neighboring states to the north has been documented. Additionally, wolf advocates have identified the Uinta Mountains and the Book Cliffs as favored sites for wolf reintroductions. Because of this imminent development, the Division assembled a wolf working group to formulate the future management status of this species from a statewide perspective. The Utah Wolf Management Plan was drafted and will guide any future management potential for this species. Wolves are a natural predator to bison. Should they become part of the future biological picture in the Book Cliffs, they would be an influence on the bison life cycle equation.

Recreation and Aesthetics

Outdoor recreational activities have increased dramatically over the past two decades. Types of human related recreation in bison habitat include: back country travel; mountain biking; ATV use; horseback riding; antler gathering, camping; backpacking; hiking; trail races, hunting of big game, cougar and bear; and others. Another popular activity has been outdoor educational schools that take large groups of youth into the back country to learn survival and leadership skills.

Part of the mission of the Division of Wildlife Resources is to manage protected wildlife for its intrinsic, scientific, educational and recreational values. Wildlife management, including bison, certainly benefits from and adds to many recreational activities. Broad based public support is realized when individuals or groups have the opportunity to observe or photograph bison in a wild setting. Funding for management is derived from the sale of hunting permits. Each year, the Division issues conservation permits to conservation groups who sell the permits to the highest bidder. These funds are used to enhance habitat or fund special projects, such as transplants or research. Bison population size is controlled through hunting and is an integral part of protecting fragile range resources.

Preserving and maintaining the primitive western aura and mystique of the Book Cliffs was one of the integral goals driving the Book Cliffs Conservation Initiative at its inception in 1990 (UDWR et al., 1990). Inclusive in the concept of the Initiative was to "... assure public access and recreational opportunities for future generations. Establish the Book Cliffs, within the Vernal District of the BLM, as a multiple use showcase area. The intent is to demonstrate a management commitment to the area's unique ecological values." The Initiative proposal also emphasized increased wildlife density and diversity of which bison were specifically included. The Initiative was developed as a publicly involved cooperative venture from the outset with as many goals and objectives as could be envisioned, briefly written and defined. Public acceptance and support is profound as evidenced by initial success in achieving habitat acquisition goals and in the continued economic growth, habitat improvement, and enhanced resource management emphasis.

A healthy bison population in balance with other multiple-use natural resources will add

to all aspects of outdoor recreation in the Book Cliffs.

Potential Mineral Extraction and Development Conflicts

The Book Cliffs harbor a wealth of mineral resources with related development, extraction and service industries. While bison will not be completely immune to potential impacts from these activities, the Division of Wildlife Resources has made the determination that it will neither request nor support bison-driven stipulations on mineral extraction activities. The Division will continue to participate in oil, gas or other field mineral extraction planning efforts with administering land and resource management agencies.

Rangeland Management Developments

Developments that have been created for proper rangeland uses such as domestic livestock grazing management are present throughout the Book Cliffs. The Division will cooperate in monitoring these developments and determining the causes of any observed problems. The Division will participate or take the lead in finding funding and seeing that repairs are made when bison are found to be the principle cause of the problem. The DWR is also committed to cooperate in repair projects where bison may not be the principle cause but a contributor to development damage.

UNIT MANAGEMENT GOALS AND OBJECTIVES

A. Population Management Goal: Develop a publicly owned and publicly managed bison herd within the Book Cliffs big game management unit. Manage for a population of healthy animals capable of providing a broad range of recreational opportunities, including hunting and viewing. Balance the bison population with human needs, such as authorized livestock grazing permits, private land development rights and local economies. Maintain the population at a level that is within the long-term habitat capability.

Objective 1: Work toward achieving a post-season population size of 450 adult and yearling bison well distributed across the Bitter Creek and Little Creek subunits of the Book Cliffs Wildlife Management Unit.

Strategies:

1. Supplement the current bison expansion by releasing a total of 45 new animals beginning in 2008. Maps provided in Appendix A show an overview of the North Book Cliffs management area and proposed release sites. Source animals will be obtained from the Henry Mountains and/or the Ute Indian Tribe. Dependent upon

weather and access, the initial releases will be made as one time events in the following numbers and locales:

- a. Upper Willow Creek and Steer Gulch (Little Creek subunit) – 15 animals in 2008,
 - b. Bogart Canyon (Little Creek subunit) -15 animals in 2008,
 - c. Meadow Creek and Willow Creek confluence – 15 animals in 2008.
2. Conduct helicopter surveys to monitor herd distribution and growth.
 3. Conduct annual ground classification counts to determine annual calf production.
 4. Utilize population modeling with an annual mortality rate of 5% or estimates derived from research to estimate post-season herd size. In years when the herd is obviously under counted, use the previous years' model to estimate post-season population.
 5. Initiate a public hunting season as soon as the population demonstrates the ability to sustain annual harvest. Utilize public hunting as the principle population management tool.
 6. When hunting is established, collect blood samples from hunter harvested bison to monitor for brucellosis and take necessary actions to maintain brucellosis-free status in compliance with Department of Agriculture guidelines.
 7. Conduct law enforcement efforts to minimize illegal take of bison.
 8. Address agricultural depredation problems consistent with law and DWR policy.
 9. Improve genetic variability by supplementing bison population with a few bulls every ten years from other genetically-pure, disease-free herds.

Objective 2: Maintain a ratio of 50 bulls per 100 cows to ensure older age class bulls remain in the population.

Strategies:

1. Conduct annual ground classification counts during the rut to determine bull: cow ratio.
2. Use a combination of hunter's choice and cow only permits, and removal of animals for transplant to maintain desired bull:cow ratio.
3. Educate hunters on aging bison and have them report on the Mandatory Reporting Survey the age of bison harvested based on tooth replacement and wear.
4. Implement a tooth cementum annuli aging program for hunter harvested animals.
5. Require cow only permit holders to attend an orientation course each year to teach them how to properly identify the sex of the animal.

6. Monitor disease indicators such as low birth rates in the herd and address as needed.

B. Habitat Management Goal: Provide quality habitat to establish and maintain a healthy bison population in the Book Cliffs.

Objective 1: Maintain or improve sufficient bison habitat to allow herds to reach population objectives.

Strategies:

1. Identify critical bison use areas and work with land managers and private landowners to improve or maintain habitat quality in these areas.
2. Conduct annual surveys with permittees and agency personnel to assess forage conditions, developments and habitat projects.
3. Continue cooperative habitat improvement efforts.
4. Vegetation monitoring will be established on habitat projects prior to implementation, and read two years after implementation to evaluate success or failure of the project.
5. Support cooperative agreements between grazers and other management interests to help minimize utilization impacts by all ungulates and to better manage range resources.
6. Help facilitate the use of sportsmen and other volunteers to maintain range and resource improvements and developments on allotments used by bison. The Division may assist by providing materials or manpower when available.

Objective 2: Increase habitat security to encourage bison use in select areas.

Strategies:

1. Cooperate with and support efforts by land owners and agencies to manage off highway vehicle use and road proliferation in order to minimize impacts to wildlife and habitat.
2. Support land management agency travel plans.

Objective 3: Achieve bison population distribution that effectively utilizes available habitat and minimizes conflict.

Strategies:

1. Provide adequate forage on summer and transitional ranges to discourage bison use on winter ranges during summer months. Consider other

alternatives such as gap fences, herding, and fencing of water sources on winter ranges.

2. Address all depredation problems in a timely and efficient manner.
3. Develop water sources in areas that will improve herd distribution.
4. Discourage bison from areas with potential conflicts by improving range conditions in areas where conflicts do not exist.
5. Initiate research projects to help better understand bison use patterns.
6. In cooperation with the BLM and SITLA, work with livestock operators to consider realignment of grazing allotments to improve distribution of both cattle and bison.
7. In drought years when livestock permittees are required to stock at less than full numbers (not to include suspended AUMs), recommendations will be made to the Wildlife Board to stabilize or commensurately temporarily reduce bison numbers.

LITERATURE CITED

- Antelope Island State Park 2007. Utah Division of State Parks and Recreation website (www.stateparks.utah.gov/parks/antelope-island/about.html.)
- Haigh, J.C., C. Mackintosh and F. Griffin. 2002. Viral, parasitic and prion diseases of farmed deer and bison. *Rev. Sci. Tech. Off. Int. Epiz.* 2002, 21 (2) 219-248.
- Harper, W.L., J.P Elliot, I. Hatter, and H. Schwantje. 2000. Management plan for Wood Bison in British Columbia. Ministry of Env. Lands and Parks. *Wildl. Bull. No. B-102.* 43 pp.
- Nelson, Kendall L. 1965. Status and habits of the American Buffalo (Bison bison) in the Henry Mountain area of Utah. Publication Number 65-2, Utah State Division of Wildlife Resources.
- UDWR, BLM, TNC, RMEF. 1990. Book Cliffs Conservation Initiative information booklet.
- USDI 2005. United States Department of Interior. Yellowstone National Park website (www.nps.gov/yell/naturescience/brucellosis.htm); National Fish and Wildlife Service website (www.fws.gov/bisonandelkplan/); Wind Cave National Park website (www.nps.gov/wica/parkmgmt/bison-management-05.htm); Theodore Roosevelt National Park website (www.nps.gov/archive/thro/tr_buffs.htm); Badlands National Park website (www.nps.gov/badl); National Bison Range website (www.fws.gov/bisonrange/about%20us.htm.)
- Utah State Dept. Ag. 2005. Personal communication.

Ute Indian Tribe Fish and Wildlife Dept. 2006. Uintah and Ouray Reservation, Ft. Duchesne, UT. personal communications.

Van Vuren, D.H. 1979. Status, ecology and behavior of bison in the Henry Mountains, Utah. Report Submitted to the Bureau of Land Management, Salt Lake City, Utah. 37 pp

Van Vuren, D. 1983. Group dynamics and summer home range of bison in southern Utah. J. Mamm. 64:329-332

APPENDIX A

Table 1. Bison reintroduction history for the Hill Creek Extension of the Uintah and Ouray Reservation. Information provided by the Ute Indian Tribe.

TRANSPLANT SOURCE	YEAR	MALES	FEMALES	UNKNOWN	TOTAL
National Bison Range, Moiese, MT	1986	1	5		6
Henry Mountains, Utah	1993	5	21	2	28
Crow Indian Tribe, Montana	1997	0	35		35
Paul Lyman, Richfield, Utah	1997	1	0		1
Shoshone/Bannock Tribe, Ft. Hall, ID	1997	50	37		87
Antelope Island, Utah	1998			24	24
Antelope Island, Utah	2000			29	29
Total		57	98	55	210

Table 2. Comparative bison population densities of various free ranging herds throughout Utah and other areas.

BISON HERD	STATE	LAND AREA (square miles)	BISON POPULATION	DENSITY (bison/sq. mile)
Book Cliffs (proposed)	Utah	1,380	450	0.33
Hill Creek (Ute Indian Tribe)	Utah	809	580	0.72
Henry Mountains (Public Herd)	Utah	453	340	0.75
Antelope Island (State Park)	Utah	44	500	11.4
Yellowstone National Park	Wyoming	2734	2000 - 3500	.73 - 1.3
Grand Teton National Park	Wyoming	193	500	2.6
Theodore Roosevelt National Park	N Dakota	109	300 - 700	2.7 - 6.4
Wind Cave National Park	S Dakota	44	300 - 350	6.8 - 8.0
Badlands National Park	S Dakota	100	850	8.5
Nat'l Bison Range (Fed. F&WLS)	Montana	29	350 -500	12.1 - 17.2

1. Acreage includes BLM, SITLA and DWR lands only.
2. The Henry Mountain herd is currently managed for a postseason population of 275 adults and a postseason 0.50 bull : cow ratio. Assuming a 0.35 average calving rate, this would equate to a preseason total population of 93 adult bulls, 185 adult cows and 60 calves for 338 total animals.
3. The Grand Teton National Park bison herd is artificially winter fed with the Jackson elk herd.

Figure 1. The North Book Cliffs herd units and proposed bison release sites.

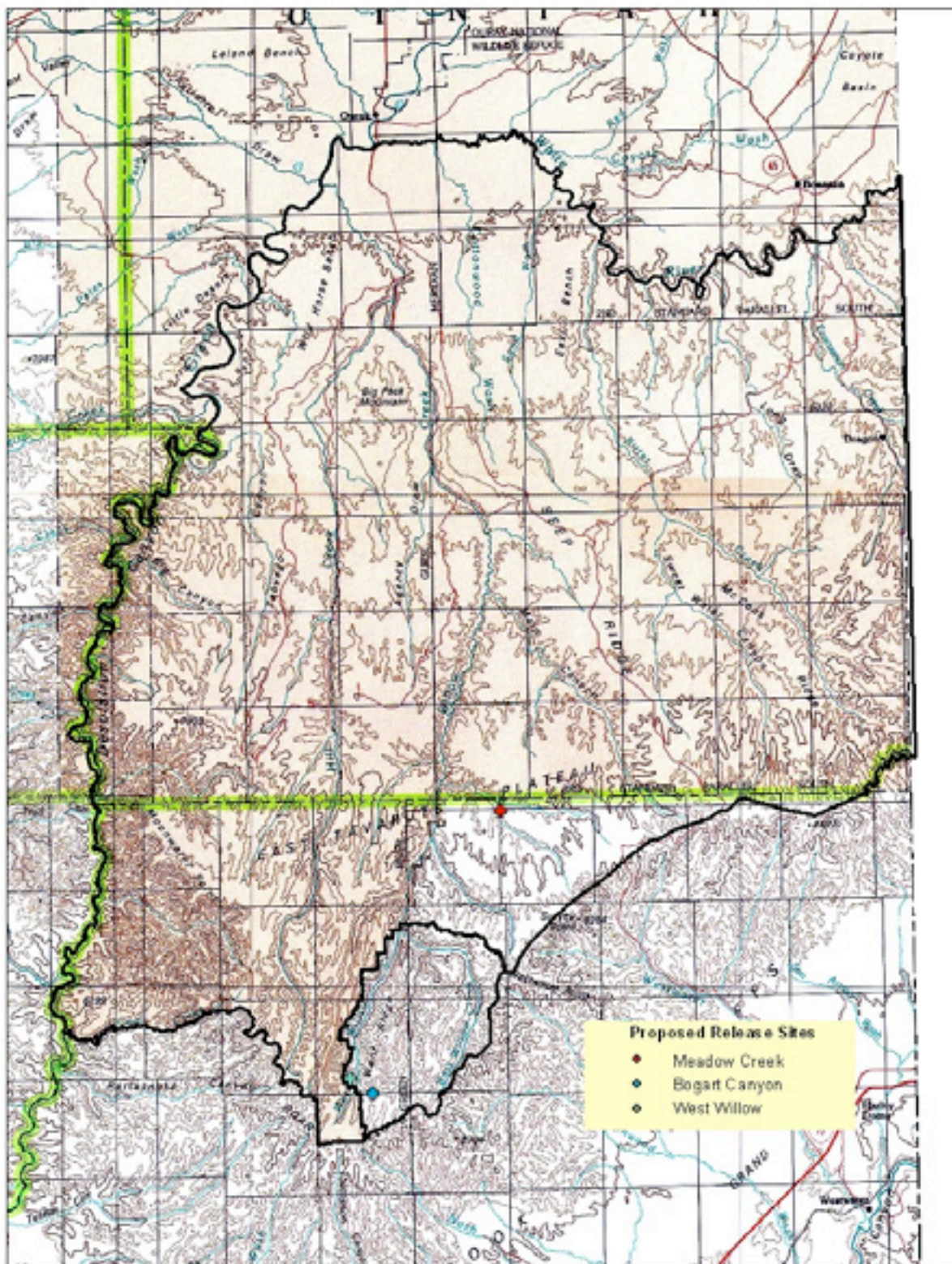
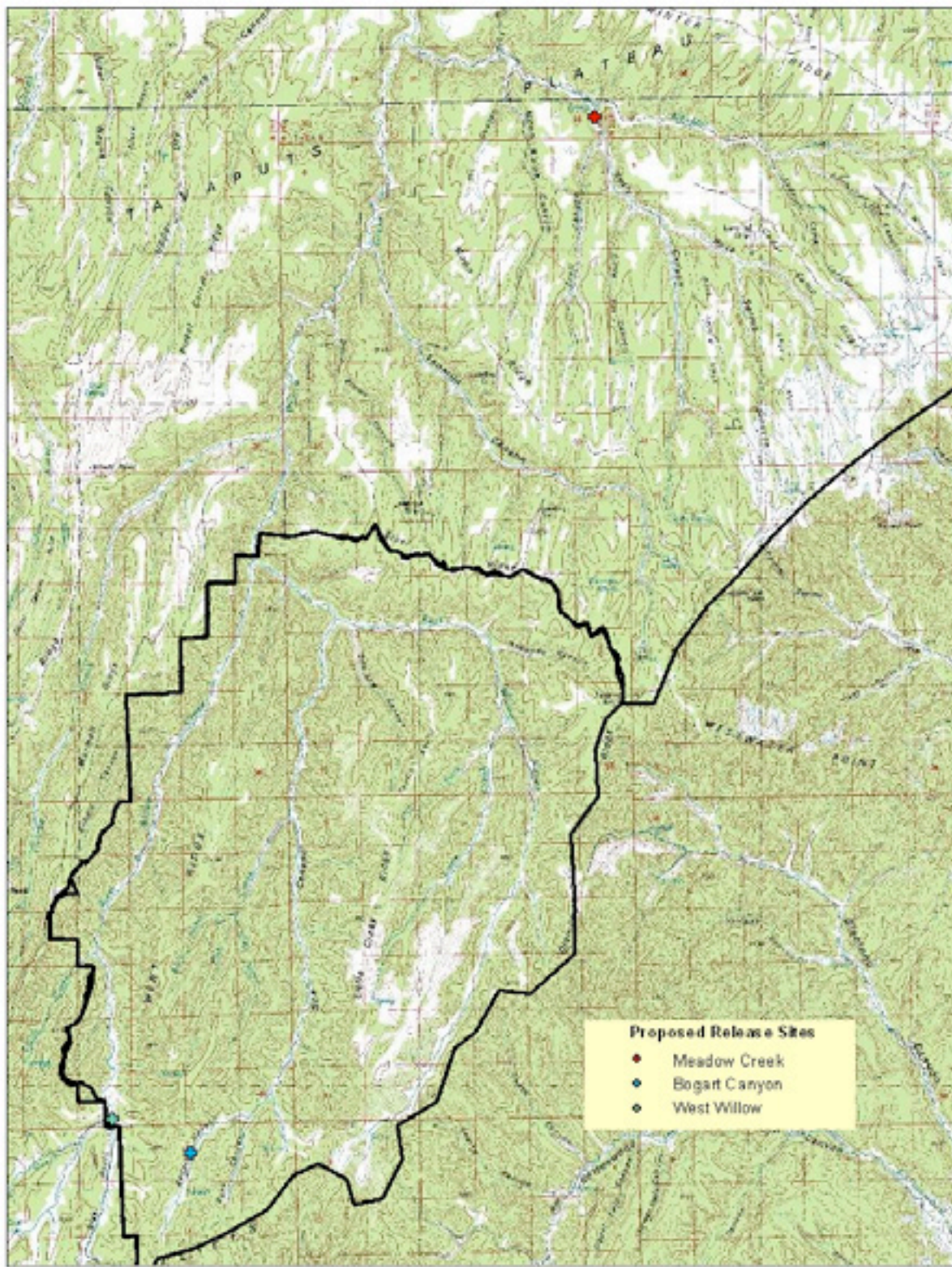


Figure 2. Proposed bison release sites in the western portion of the North Book Cliffs.



APPENDIX B -

NORTH BOOK CLIFFS HABITAT PROJECTS COMPLETED 2002 – 2007

Completed Projects – 2002 through 2007 (ACRES)		Proposed Projects – 2007 and beyond (ACRES)	
McCook/Monument fire	6,000	Indian Springs Ridge bullhog#1	300
Diamond Fire reseeded	88,000	Winter Ridge bullhog	400
McCook Ridge bobcat saw	230	Augusi Ridge bullhog	300
McCook Ridge lop/scatter	100	Atchee Ridge lop/scatter	1,000
Roadless riparian plantings		Seep Canyon RX fire	5,000
Monument Ridge lop/scatter	1,000	Seep Cyn RX fire	5,000
Horse Pt. lop/scatter	900	Monument Rdge lop/scat	500
Big Park lop/scatter	1,000	Tom Patterson RX burn	4,000
Wolf Pt. lop/scatter	1,000	Moon Rdg p/j chaining	3,000
McCook Chaining bull hog	600	Cherry Mesa maint	2,000
V Canyon lop/scatter	1,000	Cedar Camp lop/scatter	2,000
Seep Ridge lop/scatter	800	Willow Flats lop/scatter	1,000
Bitter Crk greasewood treat	450	Up Wint. Rdg. Lop/scat	1,000
N Wolf Pt lop/scatter	2,000		
N Big Park lop/scatter	1,000		
Big Park phase 2, 3, 4 lop/scatter	3,000		
McCook Ridge #2 lop/scatter	620		
Indian Springs bullhog	320		
Winter Ridge/Little Asphalt L/S	1,000		
Wolf Pt phase #2 lop/scatter	1,350		
Horse Pasture lop/scatter	650		
Blue Knoll Lop/scatter #1, 2, & 3	3,000		
McCook Ridge Phase 2 Bull Hog	285		
McCook Ridge #3 lop/scatter	250		
Project total acreage	114,555		25,500

APPENDIX C – Book Cliffs Bison Planning Committee Membership and Meeting Summaries (2).

MEMO

DATE: May 16, 2006

TO: Book Cliffs Bison Planning Committee

FROM: Dave Olsen

SUBJECT: Book Cliffs bison plan committee meeting summary

The North Book Cliffs bison planning committee held their initial meeting at 1:30 p.m. today, May 16, 2006 in Vernal. The following were in attendance:

Tim Faircloth	BLM, Vernal	Scott Chamberlain	SITLA
Karen Corts	Ute Fish and Wildlife	Jamie Cuch	Ute Fish and Wildlife
Ken Labrum	public and sportsmen	Eric Olsen	Mustang Fuels
Daryl Trotter	BLM, Moab	Scott Hardman	sportsmen and public
Burt DeLambert	Rancher		
Mike McKee	Uintah County Commission		

Absent were Grand County and Alameda Ranches.

Dave Olsen of DWR presented a summary of the Book Cliffs bison planning effort including the need for a plan and the desire of DWR. A discussion followed in which all participants were given opportunity to provide input and identify concerns or issues.

The following concerns were voiced and need to be addressed:

1. Bison related oil, gas and mineral stipulations were brought up by SITLA and Uintah County. Both entities noted that they are generally supportive of the bison project if they can be assured that future stipulations to mineral development will not result. Tim Faircloth of Vernal BLM and Dave Olsen tried to address the issue with the following. First, new stipulations cannot be imposed on past development leases. Second, there is nothing in the new BLM RMP draft addressing any future stipulations for bison. Thus, anything that may develop down the road would have to be addressed through a new public RMP process which could include a plan amendment. In any event, the new plan would be an open public process that would be driven outside of DWR influence beyond making recommendations. Dave Olsen explained that he did not foresee a need

for stipulations for bison. The Ute Tribe however, does have a two-month “minimal disturbance” stipulation on bison calving areas in the Hill Creek extension. Dave Olsen said he would pursue this further with DWR.

2. Moab BLM voiced concern over the 500 elk on the South Book Cliffs that they say there is no forage allocation for. Their concern is that if bison moved off of the North Book Cliffs and began to reside on the south, DWR would not attend to them and their removal. They gave the elk as an example of this. Dave Olsen explained that the existing elk herd management plan was a publicly approved process and called for 1,000 head off of the south side of the Book Cliffs. Dave told them that the plan was being rewritten this coming year and that they should be involved with the DWR Southeastern Region (SER) on this issue. As for the bison moving south, Dave advised that the SER was not pursuing a resident bison herd on the south. Dave explained that if bison moved off and began residing there, they could be viewed similar to nuisance moose, bears, etc. Dave also said that he would pursue this further with DWR.
3. A Vernal BLM range conservationist voiced concerns in a written note that bison could aggressively push cattle off of feed or water areas. He was also concerned that bison could create damage to rangeland developments such as fences and developed springs. Rancher Burt DeLambert voiced his opinion that he did not think this would be a significant problem. Dave said that the behavior conflicts have not been demonstrated elsewhere to his knowledge. However, Dave told them that if problems developed, the DWR would work cooperatively to alleviate them.
4. Finally, Uintah County voiced a concern regarding HB 264 and suspended AUMs. Dave said he was not fully conversant with this bill and the impact to the Book Cliffs. Uintah County asked that he look into it and provide a response. Dave agreed to follow-up on the issue.

In a nutshell, Mustang Fuels, the Ute Tribe, Mr. DeLambert and the sportsmen/public citizen representatives were favorable toward the project. If the above concerns can be satisfactorily answered for SITLA, Uintah County and the BLM, the group agreed that the draft plan could proceed.

It was agreed that when the answers were developed to the above issues, the committee would receive a written response. The committee agreed that following the written response, they could be telephonically canvassed to determine the next step of the process. Alameda Ranches and the Grand County Council were not represented at the meeting. They will each continue to be contacted and appraised as to the planning progress and future actions.

BISON PLANNING COMMITTEE MEETING SUMMARY - amended
MEETING DATE: May 18, 2007, North Conference Room, 10 – 11:15 a.m.

Background: During the first Book Cliffs Bison Planning Committee meeting held in 2006, the following issues were identified by SITLA, Uintah County and the BLM that needed resolution or follow-up action:

1. Bison driven stipulation potential for mineral extraction industry
2. Jurisdiction of bison crossing from Ute Trust Lands
3. Development impacts
4. H.B. 264 and future grazing
5. Wild Horse management

At the close of the first meeting, the committee gave intended support for the Bison Plan dependent upon satisfactory issue resolution. These issues were researched and negotiated between SITLA and UDWR through January 2007. The second committee meeting (this meeting) was convened to report on the progress made. Uintah County Commissioner, Mike McKee, notified DWR that they had a scheduling conflict arise and could not attend. A special briefing meeting was held with the entire Uintah County Commission on Tuesday, May 15. At the Commission briefing meeting, DWR informed them of the negotiated resolutions and the intent/agenda of the scheduled committee meeting.

Meeting Summary: DWR presented a slide show treating each of the identified issues listed above.

1. Mineral Stipulations. DWR has made the decision that it will neither request nor support bison-driven stipulation on mineral extraction. However, DWR requests and expects to receive the courtesy of commenting and providing bison and other wildlife related recommendations relative to oil/gas field or other mineral extraction activities.
2. Bison Jurisdiction. Consultation with the Attorneys General office supported DWR management jurisdiction of bison and other wildlife leaving Trust Lands held by the Uintah and Ouray Ute Indian Tribe. This view is also held and supported by the Ute Indian Tribe.
3. DWR has agreed to cooperate in identifying the causes for damages to developments. As with other wildlife related issues, these will be conducted through field visits with all cooperators. Problems that may occur will be reviewed in the field and a development budget and plan developed. In the event that bison are found to be the principle cause for the problem, the DWR will take the lead in finding funding and seeing that repairs are made. DWR is also committed to cooperate in repair projects where bison may not be the principle cause but a contributor to development damage.

4. H.B. 264. Consultation with the Attorney General relative to H.B. 264 and grazing permits that were purchased with fee title lands during the Book Cliffs Conservation Initiative showed that the bill is not retroactive. Grazing permits that were acquired prior to H.B. 264 passage are therefore not of issue. However, the grazing permits that were purchased cooperatively in good faith by the BCCI partners are subject to the BLM RMP planning decision that is still currently pending. Therefore, no definitive action on this issue is possible at this time.
5. Future grazing and forage issues. SITLA voiced concern at the initial planning meeting that the future of DWR held grazing permits was questionable in the Book Cliffs. This was at issue because the effective terms for DWR held SITLA grazing leases were expiring. A negotiation meeting was held at the Governor's office level. Among the decisions made at this meeting was the renewal of the DWR held Bogart and McClelland grazing allotment permits for 15 years. As in the past, DWR intends to renew and remain the lessee for both of these two permits beyond the 15-year period. The negotiated agreement largely negated this SITLA concern. However, relative to this issue, the DWR maintains and asserts the continued cooperative effort to identify and resolve any range utilization conflicts that may arise. Additionally, SITLA desires that DWR acquire grazing leases if verified and validated bison-dominated range use creates a situation where a livestock SITLA grazing lease holder can no longer effectively utilize his permit nor wish to retain it. While current Utah State law may possibly be interpreted to prevent DWR from actually acquiring future grazing permits for wildlife use, DWR will participate within the framework and intent of applicable laws to pursue resolution through all available means including legal acquisition projects by third parties. All range issues or concerns regarding resource use will be annually reviewed and determined through cooperative stake-holder field visits.
6. Wild Horses. The wild horse issue will be resolved through the BLM RMP decision to which DWR and the State of Utah have provided comment to. However, DWR continues to commit to supporting any wild horse management efforts deemed warranted by private landowners and public land entities.

Following the presentation on identified issues, the DWR also made recommendations to consider altering the draft plan. The following were recommended:

1. reduce the draft plan release sites from 4 to 3 and alter release numbers as follows:
 - a. Drop the Bitter Creek release area
 - b. Steer Gulch & West Willow 15 animals
 - c. Bogart Canyon 15 animals
 - d. Upper Willow Creek & Meadow Creek 15 animals
2. update the draft plan to show current potential release dates of 2007

At the close of the meeting, each participant was given the opportunity to respond or otherwise comment. Following these discussions, the committee agreed to elevate the plan to the RAC and Wildlife Board public process for further action.

ATTENDANCE:

<u>Name</u>	<u>Representing</u>
Diane Coltharp	Uintah County Public Lands
Ken Labrum	SFW, sportsmen and public
Bart Zwetzig	BLM, Vernal Field Office
Kevin Lloyd	BLM, Vernal Field Office
Scott Chamberlain	SITLA, Richfield Office
Burt DeLambert	Landowner, Rancher, Agriculture
Kevin Christopherson	DWR NER Region Supervisor
Dave Olsen	DWR NER Wildlife Section

Requested to be excused:

Scott Hardman	Sportsman, business owner, public
Eric Olsen	Mustang Fuels, minerals, landowner
Mike McKee	Uintah County Commissioner, public

Invited but not attending:

Tom Jenkins	Alameda Ranch, landowner, rancher
Karen Corts	Ute Indian Tribe Fish and Wildlife
Grand County Council	
Daryl Trotter	BLM, Moab Field Office

Committee Members

Scott Chamberlain, SITLA
Diane Colthorp, Uintah County Public Lands Committee
Karen Corts, Ute Indian Tribe Fish and Wildlife Department
Jamie Cuch, Ute Indian Tribe Fish and Wildlife Department
Burt DeLambert, Main Canyon Ranch owner
Tim Faircloth, Vernal BLM
Scott Hardman, sportsman, public and local businessman
Tom Jenkins, Alameda Ranch
Ken Labrum, sportsman and public
Kevin Lloyd, Vernal BLM
Mike McKee, Uintah County Commissioner
Eric Olsen, Mustang Fuels Corporation
Pam Riddle, Moab BLM
Daryl Trotter, Moab BLM
Nancy Jane Woodside, monitoring for Grand County Council
Bart Zwetzig, Vernal BLM
Boyde Blackwell, DWR
Kevin Christopherson, DWR Vernal
Dave Olsen, DWR Vernal