



# **Montana Fish, Wildlife & Parks**

## **Executive Summary of Montana Fish, Wildlife & Park's**

### ***Background Information on Issues of Concern for Montana: Plains Bison Ecology, Management, and Conservation***



2012

In 2010, Montana Fish, Wildlife & Parks (FWP) began a process to evaluate the opportunity for establishing a wild plains bison population somewhere within the state. As part of the evaluation process, a public background document, *Background Information on Issues of Concern for Montana: Plains Bison Ecology, Management, and Conservation*, has been created to compile the current body of knowledge pertaining to bison with an emphasis on issues most pertinent in Montana. The purpose of the document is not to make management recommendations or decisions, but rather to create the foundation for an informed public dialogue about the future of bison in the state of Montana. The following is a brief summary of that document. However, it is recommended that the original document be reviewed in order to gain a more complete understanding of the species and its management.

The Montana Comprehensive Fish and Wildlife Conservation Strategy (CFWCS), released in 2005, identifies bison as a Tier I species, or one in greatest conservation need. As of 2010, the Montana Natural Heritage Program and FWP have listed bison as a species of concern. Bison are a native Montana animal that is considered to be at risk due to historic extirpation, limited populations, threats to habitat, and/or restricted distribution. These listings are part of the impetus to examine the potential for bison within Montana. Should FWP move forward with a formal evaluation of the potential for a bison restoration program, the evaluation would have to progress through the Montana Environmental Policy Act (MEPA) process, which includes extensive public comment and involvement opportunities.

## **Overview of the History of Plains Bison**

Plains bison are the subspecies that historically occupied present-day Montana.

- Historic distribution of bison covered most of the North American continent.
- Largest concentration of bison occupied the Great Plains, which extends east to the Missouri River valley and west to the Front Range of the Rocky Mountains.
- Bison were primarily located in the lower elevations of the plains, but there are numerous reports of bison seasonally moving to high elevations within the Rocky Mountains.
- Bison were historically found throughout most of Montana. The observations of early travelers within the region, archeological records of a variety of bison kill sites, and the oral history of Native Americans support the estimates of historic distribution and abundance of bison.
- Native American oral history and the observation of remains indicates that there were small populations of bison west of the continental divide, however analysis of the historic ecological makeup of the habitat of the western portion of Montana does not support the existence of large bison herds like those found to the east of the Rocky Mountains.
- In the 1880s, the bison population became at risk from a number of compounding factors including overhunting by both Europeans and Native Americans for hides, robes, tongues, and meat; regional drought; livestock diseases; and competition for range resources and water from domestic livestock and wild horses
- It was estimated that in 1889, all that remained of the once immense herds in North America were 1,091 plains and wood bison. The plains bison were located in two small free-ranging herds in Yellowstone National Park and Texas or under private ownership.

- Six men have been credited with establishing the private herds, mainly with captured orphan bison calves captured within Montana, from which the majority of present-day bison have since descended. Montana was home to the famed Pablo-Allard herd that was used to restock and supplement many of the public conservation herds in existence today, including those at Yellowstone National Park and the National Bison Range.

## **Current Status, Distribution and Abundance**

The status, distribution, and abundance of bison differs within the United States, Canada, and Mexico.

- North American bison have been listed as “Near Threatened” in the International Union for Conservation of Nature’s Red List of Threatened Species.
- Genetics experts recommend that conservation herds be maintained close to 1,000 animals in order to maintain a viable population. Currently there are only five plains bison conservation herds that have over 1,000 individuals and 74 percent of plains bison conservation herds have populations of less than 400 individuals, with 32 percent having fewer than 50.
- Within Montana there is one public captive herd of approximately 400 bison, which resides within the National Bison Range and is co-managed by the U.S. Fish and Wildlife Service (USFWS) and the Confederated Salish and Kootenai Tribes.
- The free-ranging bison that inhabit Yellowstone National Park exhibit limited seasonal movement beyond park boundaries into certain regions of Montana. Within the state of Montana, any bison that originate from the Yellowstone National Park herds are designated as a “species in need of disease control” and managed under the Interagency Bison Management Plan (IBMP). Under the regulations set forth in the IBMP, bison originating within Yellowstone National Park are not currently permitted to maintain a year-round population or presence within Montana and are actively moved back into the park by government officials, with the exception of those found in the Absaroka-Beartooth Wilderness.

## **Tribal and Privately Owned Bison in Montana**

Bison are and have been an essential and highly valued element of the rituals and traditions of many Native American cultures. Historically these tribes depended on bison for numerous materials and as a main food source. Increased concern over the high rate of diabetes on reservations has led to a movement toward returning to a more traditional bison-based diet and the management of bison herds on many reservations.

- Tribal herds are maintained on six of the seven Native American reservations in Montana. The herds range in size and in degree of management. In 2010 there were approximately 2,348 tribal herd bison, including the 400 bison on the National Bison Range, which is co-managed by the Confederated Salish and Kootenai Tribes of the Flathead Reservation and the USFWS.
- Bison can be kept as livestock throughout the United States and today domestic bison in private herds account for over 93 percent of the bison in North America.

- Private herds, in which bison are managed as livestock, account for the majority of bison in Montana. The 2007 U.S. Department of Agriculture’s agriculture census determined that the state of Montana had 133 bison farms with 14,565 bison.
- The management of bison as livestock has led to the domestication of private herds. During domestication the traits that were favored in the wild and increased the bison’s survival are slowly bred out of the herd, especially if the natural traits increased the difficulty of handling and decreased the production value.

## **Life History and Ecology**

The natural capacity of a bison herd is heavily dependent on sex and age structure and on habitat and forage availability.

- Though bison will congregate into larger aggregates during the summer months, throughout the remainder of the year cows, calves, and immature males tend to form smaller “cow” groups averaging between 10 to 20 individuals. Adult bulls tend to remain solitary during most of the year.
- The type of habitat that a herd occupies can also have an effect on its size. Group sizes tend to be smaller in mountainous or mixed terrain than in open prairie.
- The average home range of a bison herd extends from 18 to 62 square miles depending on the season and the quality of forage. Bison move frequently within their home ranges, and tend to travel around 1.8 miles daily.
- Migration is closely associated with locations of permanent water and forage quantity and quality due to seasonal changes and precipitation patterns. The migration patterns of bison are not consistent from year to year.
- Bison of all ages and sex classes engage in a behavior called wallowing that can increase the heterogeneity of the landscape by creating patches of diverse vegetation.
- Historically, bison were found throughout the prairies, arid plains and grasslands, meadows, river valleys, aspen parklands, coniferous forests, woodlands, and openings in boreal forests.
- The large size of the bison allows for a larger digestion vat, thereby allowing bison to utilize lower-quality forage than other ungulates, such as elk, deer, and cattle.
- Bison and cattle differ in the elevation and degree of slope in which they graze, with bison more often grazing on steeper slopes.
- Bison are more likely than cattle to expend energy to obtain richer rewards at concentrated feeding sites that require long-distance movements. Cattle behave as central place grazers, with foraging centered on water sources.
- The diet of the plains bison consists primarily of grasses, though bison will consume forbs and woody vegetation when their preferred vegetation is not readily available.
- Bison’s nutritional needs change seasonally and are related to the length of the day, with a metabolic rate decrease in the fall and winter.
- Bison can effectively feed on natural food sources during the winter season in conditions that may limit the forage ability of other wild ungulates and may require the diet of domestic livestock to be supplemented.
- In determining the ability of a specific habitat to support a bison herd the following factors must be examined: the existing conditions of the range, the seasonal range and its

utilization by all species, and how a site's potential would differ based on whether it was supporting a confined herd versus a free-ranging herd.

- It is most common for a female to conceive at two years of age and thus produce a first calf at three years old, though this can vary between locations, within individual herds, and based on the individual female's physical condition and disease status.
- Male sexual maturity also differs between locations, with bulls that are between seven and eight years old having the highest breeding success.
- The breeding season of bison, which is referred to as the rut, tends to occur between July and September, with the majority of breeding occurring in July and August.
- The rate of population growth is influenced by sex ratio, age structure, quality and quantity of forage and habitat, and the immigration and emigration rate combined with the reproductive and mortality rates.
- Growth rate tends to be highest in captive herds where there is an absence of predation, supplemental feeding occurs, most or all of the surplus bison are culled annually, and there is a skewed sex ratio with a much higher number of females to males than in the wild. Within free-ranging populations, growth tends to occur at a slower rate.
- Bison are a keystone species within plains and prairie habitats, meaning they play an important role by influencing the plant and animal communities around them.
- Bison play an ecological role as an important food source for many predators and scavengers.
- Bison evolved alongside other native ungulate species, such as elk, mule deer, and pronghorn. Due to the limited number of free-ranging herds, interactions between free-ranging bison and other native ungulates has not been extensively studied, however bison do co-exist with these species in multiple locations.

## Genetics

The plains bison that are presently in existence in North America descended from fewer than 300 to 500 bison which potentially could have a large effect on the genetic variation of present-day herds, both public and private. However, recent studies have shown that reduction of the overall genetic diversity of bison may not have occurred to as great an extent as originally believed.

- The bison population did go through a severe bottleneck, but the population did not remain at low numbers for an extended period of time, and therefore modern populations appear to have retained a substantial amount of genetic diversity.
- The extensive movement and breeding between the historic populations created a large amount of gene flow within the original herds. It is also speculated that much of the preexisting genetic diversity may have been retained within the current herds since the bison that made up the foundation herds were collected throughout the bison's range and the herds were artificially mixed over time.
- An important factor in the conservation of genetic diversity within a bison population is the size of the herd and the sex ratio. It is recommended that in order for a population to be considered of sufficient size for genetic purposes the herd should have at least 400 animals and the size of the of the population should remain stable over time. Geneticists

recommend that any herd under 1,000 animals be actively managed to preserve genetic integrity

- Within small populations there is the potential for inbreeding, which is the breeding of related individuals. Inbreeding may reduce fertility, juvenile survival, and lifespan. The reduction of genetic diversity that results from inbreeding increases the susceptibility of a population to extinction.
- Human management of bison in both the public and private sector has led to the manipulation of bison genetics through hybridization and domestication.
- Bison and cattle do not naturally hybridize. Hybridization of bison and domestic cattle was originally attempted by early ranchers as a means to create offspring that exhibited the ruggedness and winter foraging ability of the bison and the meat production of the domestic cow. The majority of domestic bison producers no longer attempt hybridization.
- DNA technological advances are displaying a greater prevalence of cattle gene introgression than previously documented. As of April 2011, the only public herd that is currently considered free of cattle introgression is the Yellowstone National Park herd.
- Testing is also being completed within many private herds. As of April 2011 Turner Enterprise's Castle Rock herd in New Mexico is considered free of cattle gene introgression.
- As the only bison in existence today that are likely to be free of cattle genes, the bison in the YNP herd and the Castle Rock herd comprise only a fraction of the overall plains bison population.

## **Reportable Diseases**

As with any species, wild or domestic, bison may carry a number of pathogens or parasites.

- The following diseases are ones that may infect bison, are transmissible to livestock, and are "reportable" within the state of Montana. These diseases are anthrax, bluetongue, bovine anaplasmosis, bovine brucellosis, bovine spongiform encephalopathy, bovine tuberculosis, bovine viral diarrhea, Johne's disease, and malignant catarrhal fever (sheep associated).
- In Montana, brucellosis is the main disease of concern that effects the management of bison.
- Elk (*Cervus elaphus*) are also susceptible to brucellosis, and appear to contribute to the interspecies transmission in the Greater Yellowstone Area.
- Brucellosis may be identified through the detection of antibodies in the blood; however, the presence of antibodies does not imply current living infection and can lead to an overestimation of the true level of infection.
- As the prevalence and distribution of brucellosis within the United States has been greatly reduced due to effective eradication and testing programs, the U.S. Department of Agriculture's Division of Animal and Plant Health Inspection Service (APHIS) has proposed a new strategy that will allow a more effective and efficient application of limited resources toward minimizing disease risk.
- In 2011, new regulations were developed that manage brucellosis on a herd-by-herd basis and a state no longer loses brucellosis-free status upon detection of infection in one herd.

There has been a shift from herd depopulation to the development of risk-based affected-herd management plans. The new regulations established a Designated Surveillance Area in certain counties in Montana.

- Montana and APHIS have begun operating under the new regulations and the state has not lost its brucellosis-free status despite the discovery of infected domestic herds.

## **Management**

As with all game species a number of factors effect the management of bison on the landscape.

### **Bison/Livestock Interactions**

Based on observations of bison and cattle in other regions, bison and cattle can coexist on the landscape and interaction appears to be minimal.

- Free-ranging bison and cattle have coexisted within the same regions of the Henry Mountains in Utah since the 1940s. The cattle are managed within a traditional fencing system and the bison are able to move across the landscape.
- Observations of interactions between the two species have shown that they will sometimes graze within close proximity of one another.
- Ranchers have reported occasional observations of the free-ranging Sturgeon River Plains Bison herd in the presence of cattle, but they have not had incidents of bison harassing the cattle, and note that the two species appear to be pretty tolerant of each other.
- There have been no observed occurrences of male bison attempting to breed with cattle within the Sturgeon River Plains Bison herd.

## **Grazing**

Since there is overlap between the forage consumed by bison and cattle, it is important to examine grazing within the state.

- Montana has a long-standing tradition of allowing private citizens to graze domestic livestock on public lands. This practice is important for the economic viability of individual ranchers and communities within the state. Though recognized as a privilege and not an inherent right, the continuation of the practice of private grazing on public lands is essential to ensure the survival of domestic livestock ranching in Montana.
- Private grazing occurs within Montana on a variety of public lands that are managed by independent agencies. The largest land management agencies that allow public grazing are the U.S. Forest Service, Bureau of Land Management, and Department of Natural Resources and Conservation.

## **Fencing**

Most of the information pertaining to the effectiveness of fencing related to bison comes from those who are attempting to contain domestic bison and deter their natural instinct to move to better habitat.

- When evaluating a fence's ability to contain captive bison, it is important to consider the following factors: whether or not a fence is constructed and maintained properly; the ability of the herd to access the proper quality and quantity of food and water; density and age and sex structure of the herd; snowpack and drift. These factors and others can have an impact on the ability of a fence to contain bison.
- Another important factor in evaluating the effectiveness of fencing is determining the impact it may have on all other wildlife species in the area.
- Properly constructed and maintained electrified high-tensile fencing appears to be highly effective in containing captive bison herds. One of the main concerns with high-tensile wire is that it tends to stretch, and therefore does not readily break when an animal becomes entangled.
- Some experience shows that properly maintained three-wire, four-wire, and five-wire high-tensile electric fences are all effective for containing domestic bison.
- Familiarity with electric fencing deters domestic bison from contact.
- Barbed wire fencing has also been used to contain domestic bison herds.
- Woven wire fencing that is 48 inches high with two or three barbed wire strands at the top has also proven successful in containing captive bison. However, woven wire creates a complete barrier to other wildlife species that are not able to jump or slip through.
- If bison need to be managed in a quarantine program, a significantly taller and stronger fence is required.
- Due to the limited number of free-ranging bison herds, there is a general lack of specific information on the impact that free-ranging bison have on fences. Additional observations of the few existing free-ranging herds and their impact on fencing are needed to develop creative management solutions.

## **Hunting**

FWP utilizes hunting as a wildlife management tool and as a means to generate public interest in the conservation of a species.

- The Montana bison hunt has been used to cull bison that exit the park, and increase the interest of the sportsman community in the species and its management. The number of bison that exit the park varies from year to year, and therefore hunter success has varied, from 46 bison taken in 2005–06, 57 in 2006–07, 167 in 2007–08, and only one bison in 2008–09.
- During the 2010 season, state hunters harvested 26 bison and 185 more were harvested by tribal treaty hunters.
- Hunting is used as a bison management tool in Alaska, Alberta, Arizona, British Columbia, South Dakota, Utah, and Wyoming.



- Regions that maintain free-ranging populations of hunted bison report that bison become very wary of humans, resulting in a hunting experience similar to that with other big game species.

### **Native American Off-Reservation Hunting Rights**

Many of the tribes who were native to Montana and surrounding regions entered into treaties with the U.S. government that preserved their right to continue to hunt bison outside of their respective reservations. Due to subsequent treaties and treaty disputes, many of these rights are still being assessed.

- Hunters from the Confederated Salish and Kootenai, the Shoshone-Bannock, the Nez Perce, and the Umatilla tribes are able to hunt bison in regions of Montana surrounding Yellowstone National Park based on the off-reservation hunting rights within their respective treaties.
- In addition to the four tribes listed above, a legislative statute preserves the limited rights to hunt bison of the Assiniboine and Sioux, Blackfeet, Chippewa Cree, Crow, Gros Ventre and Assiniboine, Northern Cheyenne, and Little Shell Band of Chippewa.
- It is important to note that if a Native American tribe is not included in this list, it does not necessarily mean that they do not have off-reservation hunting rights, only that their rights are unclear.

### **Public Safety**

Bison, similar to other large herbivores, including moose and elk, pose small, but manageable risks of personal injury.

- Free-ranging bison programs in Utah and Saskatchewan have not had any reported incidents involving human injury as a result of contact with bison.
- As a result of hunting, the Henry Mountain bison have become wary of humans, with most tending to flee at the sound of a stopping vehicle or the smell of approaching hikers.
- Landowners in Saskatchewan have reported that bison tend to move off when humans enter an area, noting that it is possible to approach them more closely on horseback.
- Bison that are habituated to humans often exhibit a mild-mannered domestic cow-like behavior. This is particularly true in national parks like Yellowstone.

### **Bison/Vehicle Collisions**

Most experienced drivers in Montana are aware of the potential for wildlife collisions due to the large variety of wildlife and occasionally domestic livestock that may be present on roadways. Most experienced drivers in Montana recognize the need to be aware of their surroundings as they drive, and the state tries to mark regions of increased potential for wildlife collisions with warning signs.

- Data on the potential for bison/vehicle collisions and frequency of bison encountered on roadways is limited due to the lack of free-ranging herds in the United States.
- Many mitigating techniques, such as wildlife underpasses, fencing, and signs are already being implemented through the cooperative work of agencies, nongovernmental

organizations, and citizens to reduce conflicts with all wildlife on roadways around the state.

- If free-ranging bison were to return to the state, it will be important to develop creative solutions for reducing the potential of bison/vehicle collisions.
- The region of Montana where free-roaming bison are found and where there have been reports of bison/vehicle collisions is the area surrounding US 191, which runs north from West Yellowstone to just past the junction of US 287. This stretch of road transects highly used bison habitats and cuts directly through the bison migratory path creating a high level of bison cross-traffic. Based on Montana Department of Transportation's data on crashes involving bison, the average number of bison collisions on US 191 between 1999 and 2009 was approximately 1.7 per year. The majority of these crashes occurred in the evening or early morning hours.
- With more than three million annual visitors to Yellowstone National Park, most arriving during the concentrated summer vacation season and using limited roadways, there is a large potential for collisions with wildlife. The average number of bison killed annually from 2000 to 2009 was 16. Personnel within the park feel that excessive vehicle speed is what increases the risk of collisions with bison, as does the time of day. The YNP Division of Law Enforcement notes that there have been no reported human fatalities from accidents involving bison within the park, based on accident reports from 2008, 2009, and 2010.

## **Lessons from Other Programs**

In an effort to gain better insights into bison management programs in different states and Canadian provinces, FWP staff met with regional agencies, private landowners, and bison working groups.

- The public background document examines the successes and challenges of five free-ranging programs: Henry Mountain Wildlife Management Area, Utah; Book Cliffs Wildlife Management Unit, Utah; House Rock Wildlife Management Area, Arizona; Grand Teton National Park and National Elk Refuge, Wyoming; Sturgeon River Plains Bison Herd, Saskatchewan; and one captive program: Raymond Ranch Wildlife Area, Arizona.
- Though implementation and management differs among programs, and each is faced with conflicts and concerns unique to its specific circumstances, there are some general overarching lessons that can be gleaned from their collective experiences. Some of these lessons include: bison and cattle can and do co-exist on the landscape; bison respond to hunting pressure in a manner similar to other big game species; management of confined herds can be costly and problematic; and successful programs have relied on people working together in a collaborative process.
- There are numerous bison management programs, including public conservation herds, Native American herds, and private conservation herds that could provide bison for a restoration program.
- Management considerations that must be evaluated for source herds include the disease status of the herd, the origin of the herd's founding animals, the level of cattle introgression that is present, and the management regime the herds are habituated to.

## **Legal Classification of Bison in Montana**

The State of Montana's legal classification of bison changes based on whether they are found on commercial farms, in private conservation herds, or whether they are found in the wild. In addition, bison classification depends upon the perceived risk of damage to public or private property or the transfer of disease. As situations change, so change legal classifications as well as the Montana state agency with management authority.

- The two main classifications given to bison within Montana are “domestic livestock” or “game animal”.
- Bison that are free roaming and held in the public trust are classified as a game species.
- In 1995 concern over the potential for the spread of disease from wild bison to domestic cattle led to the enactment of a statute that further classified wild bison as a species in need of management under the authority of FWP, and as a species in need of disease management under the authority of the MDOL. The statute designates “publicly owned wild buffalo or bison originating from Yellowstone National Park as a species requiring disease control” and “designated other wild buffalo or bison as a species in need of management.”
- Currently all wild bison within Montana originate from Yellowstone National Park; therefore management authority for wild bison is shared between FWP and the MDOL. The act was amended in 2011 to require that FWP develop a management plan “before wild buffalo or bison may be released or transplanted onto private or public land” (MCA 87-1-216).
- Domestic livestock may include bison that have been reduced to captivity and are privately owned under the authority of the MDOL under the laws of Title 81.

## **Legal and Conservation Status of Bison in Surrounding Regions**

The legal classification and conservation status of bison varies greatly in the states and providences that neighbor Montana.

- Some regions view them as both a domestic species and as wildlife, where as others consider them solely a domestic animal.
- Disease management plays a role in how bison are legally viewed within the surrounding regions.
- In Idaho bison are listed as an S1 species in the wildlife commission status report, which is a species that is critically imperiled due to extreme rarity. However, Idaho does not currently have any long-term conservation goals within the state nor any proposals for restoration.
- There are two federally managed herds within North Dakota, but the state does not have any proposals for further restoration.
- South Dakota has two federally managed and two state managed herds. While the state does have long-term conservation goals for the bison that are currently managed within the two state parks, there are no plans for additional restoration.
- Wyoming has two herds that are managed solely by the state, and one herd that is managed by both the state and the federal government, but the state does not have proposals for restoration.

- In Alberta there are four plains bison herds that are managed by different agencies. The province considers wild plains bison to be extirpated and does not recognize them under the Alberta Wildlife Act, or have any long-term conservation or restoration plans for plains bison.
- British Columbia has one plains bison conservation herd, but does not have any long-term conservation goals or proposals for restoration.
- There are two bison herds in Saskatchewan, a captive herd and a free-roaming herd. The province has long-term conservation goals for plains bison.

### **Current Litigation Pertaining to Bison in Montana as of April 2011**

There were multiple pending lawsuits involving bison in Montana as of April 2011.

- There is a 2008 lawsuit that claims that the Montana Department of Livestock has a legal obligation to remove bison from Zone 2, which includes Horse Butte and surrounding lands adjacent to the western boundary of Yellowstone National Park, by the 15<sup>th</sup> of May of each year. However, in 2010 the court ruled that neither the IBMP nor Montana law created a mandatory obligation for the action. The remaining claims in the litigation relating to compliance with MEPA are still pending.
- A 2009 lawsuit charged that the United States Fish and Wildlife Service is violating the National Forest Management Act by not allowing bison year round habitat in the Gallatin National Forest. In 2011 the court ruled that the defendants had not violated any legal statutes. The plaintiffs have since filed an appeal.
- In 2010 a complaint was filed following the decision of FWP to transfer temporary management of bison that are part of the Quarantine Feasibility Study to the Green Ranch, which is a private ranch owned and managed by Turner Enterprises Inc. The complaint was also over the transfer of 75 percent of the offspring that are born during the bison's tenure on Green Ranch to Turner Enterprises Inc. As of December 2011 the lawsuit was still pending.
- In 2009, a petition was submitted to the Department of the Interior requesting the consideration of listing wild plains bison as a threatened species under the Endangered Species Act of 1973. A lawsuit is still pending from the United States Fish and Wildlife Services 2011 finding that a status review to evaluate listing bison as threatened is not warranted.
- In March of 2011, adaptive management adjustments were made to the IBMP that would increase the region where bison would be tolerated outside of the northern boundaries of Yellowstone National Park. Following the release of these adaptive management adjustments, the Park County Stockgrowers Association and the Park County Commission both filed separate suits seeking to reverse the new management adjustments.

### **Perspectives and Initiatives Pertaining to Bison within Montana by Nongovernmental Organizations**

Bison and their management draw varied and often opposing perspectives from the organizations that represent diverse stakeholder groups.

- A number of regional organizations are opposed to or have passed resolutions opposing free-ranging bison and/or the movement of bison within Montana based on the perspective that free-ranging bison could be a threat to the agricultural industry due to concerns over disease, competition for forage, and threats to infrastructure, and public safety.
- A number of national, international, and regional nongovernment sportsmen and conservation organizations have made the preservation of bison and restoration of wild bison a priority on a variety of landscapes in the west including Montana.
- Some of these organization's initiatives include increasing the scientific knowledge used to manage bison; reducing the occurrence of reportable disease; identifying suitable areas to reintroduce bison; increasing the available habitat for bison; and the restoration of bison as native grazers.
- There are initiatives to allow year round presence of bison outside Yellowstone National Park.
- A number of organizations note that it is important to recognize the contributions that the private sector makes to the conservation of bison including commercial production and maintenance of genetic diversity.

### **Conservation Actions of Government Agencies**

As of 2010 there were no specific federal efforts proposed to protect or reintroduce bison beyond the boundaries of existing populations in national parks, monuments, or wildlife refuges within the United States.

- In 2008 the U.S Department of Interior published a new framework for management of the federal herds that established steps to address the health and genetic composition of its herds.
- The framework acknowledges the ecological and cultural role of bison on the American landscape.

## **Preliminary Perspectives**

The evaluation of any potential bison program is an ongoing process, as new information and science pertaining to bison and their management continues to emerge. Because our understanding of how bison will use different landscapes in Montana is limited, any program that could be developed would need to be adaptable as our knowledge base increases.

In summary:

- Wildlife programs that are cooperative and involve citizens early in the development process are the most successful.
- Bison conservation programs are being developed and implemented by nongovernmental organizations, Native American tribes, and others within Montana and the surrounding region.
- National management agencies, such as the USDI, are facing pressure to examine the status of bison and explore options for conservation.
- Free-ranging bison that are managed through hunting programs in other regions have posed minimal risk to human safety.
- Historically Montana had significant populations of bison and still has habitat that could support this species.
- Based on the experiences of free-ranging programs within other regions, bison and cattle can coexist on the landscape.
- Bison do not breed with cattle in a natural environment, and there is little evidence of bison preventing cattle from utilizing vegetation and water sources.
- There is the potential to obtain bison from source herds that are known to be free of reportable disease.
- The experiences of other programs have shown that hunting can be an effective management tool to control the number of bison and their distribution.
- Bison can be a source of conflict on private agricultural lands where landowner tolerance may be lower.
- The management of the YNP bison and the bison in the quarantine program continues to be controversial.

The management authority and legal statutes within Montana continue to be controversial.