Statewide Bison Management Plan Environmental Impact Statement Public Scoping

May 2012

Background Information

Montana Fish, Wildlife & Parks is currently in the process of evaluating the opportunities for establishing a huntable population of free-ranging bison some where in Montana. This evaluation is part of the development of a statewide bison management plan.

Montana Fish, Wildlife & Parks has not identified any restoration locations. The evaluation will examine possible locations throughout the state.

In the fall of 2011, Montana Fish, Wildlife & Parks released a public information background document as a necessary first step to assist with a formal evaluation process. The purpose of this document was not to make management recommendations or decisions, but rather to create the foundation for an informed public dialogue pertaining to the possible future of bison as wildlife within the state.

The document examines the history of bison within Montana, current status and distribution of the species, legal status of the species, bison life history and ecology, bison genetics and disease, and management issues such as fencing, ecological interactions, public safety, and grazing. The background document also presents an assessment of free-ranging bison programs in other regions and the conservation actions of other agencies.

In order to prepare a statewide bison management plan, Montana Fish, Wildlife & Parks is moving forward with the development of a programmatic environmental impact statement (EIS) to address the potential for bison restoration in Montana. The EIS will examine an array of possible alternatives from a no action alternative to a number of different bison restoration alternatives and the potential impacts of those alternatives.

Open House and Public Scoping Meetings

Montana Fish, Wildlife & Parks will be initiating a formal scoping process to identify potential issues, impacts of any action, public concerns, and conservation opportunities.

Open houses will begin at 6 pm and formal scoping will occur from 7-9pm.

May 14, 2012
Holiday Inn Downtown in **Missoula**
200 S. Pattee St

May 15, 2012
Red Lion Hotel in **Kalispell**
20 N. Main St.

May 16, 2012
Cottonwood Inn in **Glasgow**
45 1st Ave

May 17, 2012
Montana Wild Outdoor Education Center in **Helena**
2668 Broadwater Ave

May 21, 2012
Holiday Inn Grand Montana Convention Center in **Billings**
5500 Midland Rd.

May 22, 2012
BLM Miles City Field Office in **Miles City**
111 Garryowen Rd

May 23, 2012
Townhouse Inn in **Great Falls**
1411 10th Ave S.

May 24, 2012
Holiday Inn in **Bozeman**
5 Baxter Lane

Montana Fish, Wildlife & Parks

What is an EIS?

An EIS is a detailed study that analyzes the environmental effects of a proposed action and its alternatives. The study compares the impacts of the proposed action against those of 'no action'.

The Montana Environmental Policy Act (MEPA) requires the development of an EIS "if an agency is contemplating a series of agency-initiated actions, programs, or policies that in part or total may significantly impact the human environment"
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Projected Timeline

Spring 2012- Formal Public Scoping Process

Summer 2012- Initial Identification of Potential Restoration Locations to be Further Reviewed

Fall 2012- Citizen Working Group Meetings

Winter 2013- Development of Draft Programmatic Environmental Impact Statement

Spring 2013- Public Hearings Conducted Statewide on Draft Programmatic Environmental Impact Statement

Summer and Fall 2013- Preparation of Final Programmatic Environmental Impact Statement

Winter 2014- Release of Final Programmatic Environmental Impact Statement

Potential Issues of Concern

Public scoping is utilized to identify potential impacts, impacts of any actions, public concerns, and conservation opportunities. Some issues already identified are examined below. These issues will be addressed within the EIS.

Disease Monitoring and Management

What is the Disease Status of Other Wildlife in Potential Restoration Areas?

- Elk in some southwest Montana populations have tested positive for brucellosis exposure.

How Would FWP Monitor Free-Ranging Bison for Reportable Diseases of Concern?

- The disease status of other free-ranging bison programs are successfully monitored through hunter test kits.

What Would the Contingency Plan Be If Wild Bison Test Positive For a Reportable Disease of Concern?

- FWP will work with other state agencies to determine what a contingency plan should include.
- Other areas with free-ranging bison have contingency plans that could be used as models.

How Would the Disease Status and Monitoring of Livestock Herd Health in Potential Restoration Areas be Conducted?

- FWP will work with Montana Department of Livestock to determine the best methods for monitoring disease.

Impacts to Fencings

Since There are Few Free-ranging Bison Herds There is Incomplete Information on How Bison Will Impact Fencing.

Can Free-Ranging Programs Exist in Areas Where There is Livestock and Fencing?

- Bison and cattle have coexisted since 1941 in the Henry Mountains of Utah. The cattle are managed within a traditional fencing system and the bison are able to move across the landscape.

Do Bison Have the Ability to Cross Fencing Without Damage?

- Bison are able to move across a landscape that contains fencing and the potential for damage is comparable to elk, deer, or moose.
- Bison have the ability to jump upward of 6 feet high.

Economic Impacts

How Would Different Possible Restoration Alternatives Impact the Regional Economy?

What negative economic impacts are possible in the local community and in Montana?

- Competition for forage between wild bison and domestic livestock, competition for habitat with other wildlife, loss of tax revenue, others?

What positive economic impacts could occur in the local community and in Montana?

- Revenue from hunting, tourism, others?

Disease Status

If Any Bison are Used for Restoration Their Health Status Would Be Certified by the State Veterinarian

- Only bison that are certified as free of reportable diseases of concern would be considered for a potential reintroduction program.
- The state veterinarian of Montana would certify that bison used for potential reintroduction are free of reportable diseases of concern and attention would be paid to the disease history of the source herd.

Reportable Diseases of Concern

- As with any species bison have the potential to carry a number of pathogens or parasites.
- The following are diseases that may infect bison and are 'reportable' within the state of Montana, meaning that they must be reported to the Department of Livestock: Anthrax, Bluetongue, Bovine Anaplasmosis, Bovine Brucellosis, Bovine Spongiform Encephalopathy, Bovine Tuberculosis; Bovine Viral Diarrhea; Johne's Disease; Malignant Catarrhal Fever (sheep associated).

Legal Status

Bison have Multiple Legal Classifications in Montana (Domestic Livestock or Game Animal).

- The State of Montana's legal classification of bison changes based on whether they are found on commercial farms, in private conservation herds, or in the wild.
- Wild bison classification also depends upon the perceived risk of damage to public or private property, or transfer of disease.

How Would the Varying Legal Status in Surrounding States and Provinces Impact the Ability of Montana to Potentially Restore Bison?

- The states and provinces that border Montana have varying legal status for bison. If the decision is made to restore bison, Montana would need to work with surrounding states and provinces.

There are Multiple Agencies That Have Authority for Bison Management.

- The management authority and legal statutes within Montana continues to be controversial.
- Wild bison that are classified as 'species in need of management' due to risk of damage to public or private property are under the authority of FWP.
- Wild bison originating from Yellowstone National Park are designated as a species requiring disease control and are under the management of Montana Fish, Wildlife, and Parks and the Montana Department of Livestock.

Potential Issues of Concern Continued

Interaction and Competition with Domestic Livestock

Can Bison and Cattle Coexist?

- Based on the experiences of free-ranging programs within other regions, bison and cattle can coexist on the landscape.
- Since the 1940s, free-ranging bison and cattle have coexisted within the same regions of the Henry Mountains, Utah.
- Regional ranchers in Saskatchewan report that they occasionally see bison in the presence of cattle, but have not had incidents of bison harassing the cattle, and note that the two species seem pretty tolerant of each other.

Will Free-Ranging Bison Attempt to Breed Domestic Cattle?

- Bison do not breed with cattle in a natural environment. Bison and domestic cattle do not naturally hybridize.
- There have been no reports from free-ranging programs in other regions of wild bison attempting to breed cattle.

What Interactions Could Occur Between Bison and Cattle?

- There is little evidence of bison preventing cattle from utilizing vegetation and water sources.
- Observed interactions between the two species have shown that they will sometimes graze within close proximity.

What is the Current Condition of the Range in Potential Relocations Areas?

- Prior to a potential restoration, FWP would have to evaluate the actual ecological potential of a site and its ability to support a bison herd. The following factors would need to be examined: the existing conditions of the range, the seasonal range, and its utilization by all species.

Will there be Competition for Forage between Bison and Cattle?

- Bison and cattle do consume some of the same forage, however there is lack of information as to how bison will use different landscapes in Montana.
- A study that compared the foraging behavior of bison and cattle in Utah, observed that bison and cattle differ in the elevation and degree of slope in which they graze, with bison more often grazing at higher elevations and steeper slopes.
- Scarnecchia (1986) and Hobbs and Carpenter (1986) both caution against generalizing AUMs among species, and note that the differences in diet selection and forage behavior must be examined for each species.

Genetics

Could a Potential Program Obtain Bison From Source Herds That Are Considered Free of Cattle Gene Introgression Based On Current Testing Technology?

- The majority of bison have some level of cattle gene introgression due to historic attempts to hybridize bison and domestic cattle.
- There are limited source herds that are considered free of cattle gene introgression including Yellowstone National Park and Elk Island National Park in Alberta.
- While free-ranging bison do not readily breed with domestic cattle, breeding can occur between the two species in captive and artificial settings.

How Large Do Herds Need to be for Genetic Preservation?

- Geneticists (Dratch and Gogan, 2010) recommend that in order for a population to be considered of sufficient size for genetic purposes there should be over 1,000.

Could Genetic Diversity be Managed Through Active Management of Smaller Herds?

- If a potential restoration area is not suitable for populations of over 1,000 bison, it would be important to develop a metapopulation structure that allows for movement of individual bison between herds, thus allowing for a flow of genetic variation (Dratch and Gogan, 2010).

Ecological Impacts

How Will Bison Wallows Impact the Landscape?

- Private bison producers report that although there are some concentrated wallows, there are not a large number of wallows across the landscape and significant negative impacts from wallowing have not been observed.
- Soil depressions visible on the landscape have often been attributed to relic bison wallows, however examination has shown that many are small patches of landscape and soil heterogeneity resulting from variation in underlying geological materials.
- The lifespan of bison wallows has not yet been established, nor has the role that different soil types play in the persistence of wallows.

What is the Potential for Overgrazing from Large Congregations of Bison?

- 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 with an average of 10 to 20 bison.
- Bison density averages from one to four per square mile depending on the range conditions.

What Impact Could Bison Have on Riparian Areas?

- Whereas cattle often behave as central place grazers, with foraging centered on water sources, studies have observed that bison do not center foraging activities around permanent water sources.

Potential Issues of Concern Continued

Public Safety Concerns

How Could Bison Impact Safety (collisions/goring)?

- Current information suggests that as with other species of large herbivores (e.g., moose and elk), bison pose small, but manageable, risks of personal injury.
- Free-ranging programs in Utah, Saskatchewan, and Arizona have not had any reported incidents involving human injury as a result of contact with bison.

How Do Bison Respond to Human Presence?

- As a result of hunting, the Henry Mountains bison have become very 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, but "if you can get as close as 50 yards, you are lucky".
- Bison that are habituated to humans and do not experience hunting pressure often are easier to approach.

Perspectives and Actions of Other Organizations and Government Agencies

What are the Varying Perspectives on Free-Ranging Bison of Different Organizations in Montana?

- 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, 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.

What Actions are Different Organizations in Montana Taking to Preserve or Restore Bison?

- Bison conservation programs are being developed and implemented by nongovernmental organizations, Native American tribes, and others within Montana .
- Some 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.

What Actions are Other Government Agencies Taking in Montana to Preserve or Restore Bison?

- National management agencies, such as the U.S Department of Interior, are facing pressure to examine the status of bison and explore options for conservation.

Interaction and Competition with Other Wildlife

What is Known about the Interactions Between Bison and Other Wildlife?

- Bison evolved alongside other native ungulate species and do co-exist with a number of native ungulates in parks, such as Yellowstone National Park.
- Bison tend to ignore other ungulate species except when closely approached during feeding.
- Due to the limited number of free-ranging herds, interactions between free-ranging bison and other native ungulates have not been extensively studied.

How Much Competition for Forage and Habitat Occurs Between Bison and Other Wildlife?

- Bison differ from mule deer, moose, antelope, and bighorn sheep in their habitat selection and food habits.
- Bison differ from bighorn sheep, mule deer, and antelope in their tolerance of snow.

How Much Competition for Forage and Habitat Occurs Between Bison and Elk?

- There is a considerable amount of overlap in the distribution and food habits of bison and elk on Yellowstone National Park's northern range; however, there are apparent differences in their habitat selection.
- Bison can cope with deeper snow than elk and thus feed on preferred mesic grasslands and sedge-grass meadows after the areas become unavailable to elk.

Would the Restoration of Bison Result in a Loss or Reduction of Hunting Opportunities for Other Species?

- Bison and other species co-exist in many locations. The potential that bison could impact other species will be examined during the development of the programmatic environmental impact statement

Tribal Treaty Rights

Many of the Tribes who were Native to Montana and Surrounding Regions Entered into Treaties that Preserved Their Right to Continue to Hunt Bison Outside of Their Respective Reservations.

- Tribal hunters from the Confederated Salish and Kootenai, the Shoshoni-Bannock, the Nez Perce, and the Umatilla tribes are able to hunt bison in regions of Montana based on the off-reservation hunting rights within their respective treaties.

What are the Off-Reservation Hunting Rights of Other Tribes? It is Not as Clear Due to Treaty Disputes, but That Does Not Mean That They May Not Have Off-Reservation Hunting Rights.

- 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 (MCA 87-2-731).

Potential Issues of Concern Continued

Hunting

If Free-Ranging Bison are Restored Would Hunting be used as a Management Tool?

- The experiences of other programs have shown that hunting can be an effective management tool to control the number of bison and their distribution.

Free-ranging bison that are managed through hunting programs in other regions have posed minimal risk to human safety.

How Would Bison Respond to Hunting Pressure?

- In the Yukon hunting pressure is changing the behavior of free-ranging bison by causing them to move away from places where they were commonly seen. Regional biologists feel the bison are clearly avoiding people by going to places that are difficult to reach.
- Regions that maintain free-ranging populations of hunted bison report that bison become very wary of humans, resulting in an experience similar to that with other hunted big game species.

Domestic Bison

Where are the Locations of Private Domestic Bison Herds?

- Information on Location of Private Domestic Herds is Incomplete

What are the Potential Impacts that Wild Bison Could Have on Domestic Bison?

- There are domestic bison in proximity to some free-ranging programs such as the one in Saskatchewan. Regional managers and stakeholders have reported that the impacts are minimal, but FWP will continue to try to identify potential impacts.

Is There the Potential That Domestic Bison Could Spread Diseases of Concern to Wild Bison or Impact the Genetic Makeup of Wild Bison?

- If the potential does exist then any management decisions would have to take into account the proximity and disease status of domestic bison

Range of Possible Alternatives

What are the Possible Alternatives that could be Developed in the Programmatic Environmental Impact Statement?

No Action

- The decision could be made not to restore any population of bison.

Restoration of a Small Free-Ranging Bison Population to be Used as a Learning Opportunity

- The decision could be made to restore a small population of bison in order to learn how bison utilize the landscape. This knowledge could be used for the development of future programs

Restoration of a Free-Ranging Bison Population that Meets the Minimum Herd Size Recommended by Geneticists.

- The decision could be made to restore a population of approximately 400 bison, which is similar to other free-ranging programs. This size herd would require active management to maintain genetic integrity.

Restoration of a Free-Ranging Bison Population that Meets the Preferred Herd Size Recommended by Geneticists

- The decision could be made to restore a larger population of approximately 1,000 bison in order to preserve genetic integrity and prevent inbreeding.

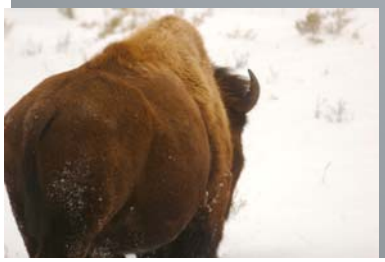
Other Alternatives?

Do You Want to Learn More?

Questions or Concerns:

For further information contact the project coordinator:

- Arnold Dood, Bison Restoration Specialist, 1400 S. 19th Ave, Bozeman MT, 59718, (406) 994-6433



Interested in Learning More about the Bison Background Document?:

- The document is available online at fwp.mt.gov. Under 'For Fish & Wildlife Information' choose " Bison Background."
- The document may also be obtained on CD or other formats by calling Margaret Morelli at 406-994-6780 or via email at MMorelli@mt.gov.

Montana Fish, Wildlife & Parks