DRAFT Environmental Assessment

Disposition of Quarantine Facility Study Bison

October 2014

Montana Fish, Wildlife & Parks

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Abbreviations

ABS	American Bison Society
AHPA	Animal Health Protection Act
APHIS	Animal and Plant Health Inspection Service
APR	American Prairie Reserve
AUM	Animal Management Units
AZA	Association of Zoos and Aquariums
BLM	Bureau of Land Management
CEIC	Census and Economic Information Center
DEQ	Department of Environmental Quality (OK)
DOI	US Department of Interior
DoL	Montana Department of Livestock
EA	Environmental Assessment
EIS	Environmental Impact Statement
FONSI	Finding of No Significant Impact
IBMP	Interagency Bison Management Plan
ITBC	InterTribal Bison Council
MCA	Montana Code Annotated
MCF	Malignant Catarrhal Fever
MFWP	Montana Fish, Wildlife and Parks
MOU	Memorandum of Understanding
NASS	National Agricultural Statistics Service
NGO	Non-government Organizations
NPS	National Park Service
NRCS	Natural Resources Conservation Service
OPI	Montana Office of Public Instruction
QFS	Quarantine Feasibility Study
RFP	Request for Proposals
RU	Range Unit
SB	Senate Bill
TAG	Taxon Advisory Group
UDAF	Utah Dept. of Agriculture and Food
UDWR	Utah Division of Wildlife Resources
UMR	Uniform Rules and Methods
USDA	US Department of Agriculture
USDI	US Department of Interior
USFWS	US Fish and Wildlife Service
YNP	Yellowstone National Park

1.0 Background

North American plains bison, which in the 17th century numbered over 25 million and occurred over much of the continental United States, southern Canada and northern Mexico, were by the end of the 19th century limited to less than 30 animals in Yellowstone National Park and isolated individuals in zoos or private captivity (USDI 2008). As of the early 21st century, a variety of efforts have succeeded in bringing plains bison back to relative abundance, with over 500,000 animals now present in North America, mostly in private ownership. The current plains bison population in North America reflects its disparate roots. Most of the herds number fewer than 1,000, are contained by fences, and show evidence of cross-breeding with domestic cattle at some point in their ancestry. Conservation efforts to date have essentially developed two lines of the same species: the domestic bison, subjected to the selection and breeding schemes common in livestock management; and a wild bison, subject to natural breeding and selection to the degree that space and management constraints allow (USDI 2008).

Yellowstone National Park's (YNP) bison are only one of a limited genetically "pure" population within the United States (US) and as such, they are important to bison conservation efforts throughout the US. The prevalence of brucellosis in the herd's population restricts the use of individual animals in conservation efforts for other wild bison herds. A large-scale genetics study, conducted from 1999 - 2002 screening for prevalence and site of introgressed loci, allelic diversity, and frequency of private alleles, found no cattle gene introgression in bison at Yellowstone (USDI 2008).

In 2004, Montana Fish, Wildlife & Parks (MFWP), the National Park Service (NPS), and US Department of Agriculture Animal and Plant Health Inspection Service (APHIS) investigated the implementation and logistics of a bison quarantine facility to determine if seronegative bison calves can be serially tested and efficiently screened to determine the presence of brucellosis while maintaining them in a secure environment. The construction and execution of this research was in accordance with the Interagency Bison Management Plan (IBMP) and the 2000 Bison Management Environmental Impact Study (EIS).

In 2005, MFWP and APHIS established a bison quarantine facility to begin a multi-year research project, the Quarantine Feasibility Study (QFS). QFS sought to determine the latent expression of brucellosis in bison and test the sensitivity of quarantine procedures for detecting the bacteria in multi-generations of bison. The quarantine protocols and research data gathered at the bison quarantine facilities in Corwin Springs, Montana have established processes and monitoring methods that have yielded bison that are seronegative for brucellosis. In the 2005 QFS Environmental Assessment (EA), MFWP and APHIS (co-authors) stated that the primary goal for development of quarantine procedures was it would allow YNP bison free of brucellosis an opportunity to be used to establish new public and tribal bison herds or to augment existing public and tribal bison herds with YNP bison. Results of the QFS were published in the March 2014 edition of the *Journal of American Veterinary Medical Association*.

In 2010, the first cohorts of study bison were moved from the Corwin Springs facility to the Green Ranch to complete the 5-year monitoring phase of the study. As a term of the agreement

with the Green Ranch's owner Turner Enterprises Inc., 25% of the original study bison offspring would be returned to MFWP along with all the original bison at the end of the monitoring period. This monitoring period ends November 2014, at which point MFWP is expected to move 81 original bison and 65 of their offspring to another location.

2.0 Purpose of and Need for Action

2.1 PROPOSED ACTION AND NEED

MFWP propose to disperse up to 145 brucellosis-free QFS bison to entities that would use and maintain the bison to serve the long-term greater conservation needs of plains bison in North America.

2.2 OBJECTIVE OF PROPOSED ACTION

- Provide QFS bison for future conservation and restoration efforts for the species.
- Disperse Yellowstone bison within the United States to protect its genetic uniqueness and strengthen genetic diversity of other conservation herds.

2.3 REQUEST FOR PROPOSAL PROCESS

In March 2014, MFWP published a news release in statewide papers and sent the announcement to interagency partners announcing a Request for Proposal (RFP) was available to those organizations with interest and capability to house/hold brucellosis-free bison resulting from the QFS. The deadline for proposals was April 25, 2014. Ten proposals were received by MFWP from the American Prairie Reserve (MT), Cherokee Nation (OK), Fort Peck Tribes (MT), Minnesota Department of Natural Resources and Zoological Garden (MN), Platte River Whooping Crane Trust (NE), Tutuaca Mountain Center (NE), Quapaw Tribe (OK), Utah Division of Wildlife (UT), Wildlife Conservation Society Zoo Consortium (NY and OH), and Yampa Valley Bison (CO).

The proposals were evaluated by a panel of state, federal and tribal agency representatives on the applicant's responses to fifteen criteria including how the project serves the long-term greater conservation needs of plains bison and overall management of bison at their location. See Appendix A for a copy of the RFP.

Based upon the panel's evaluation and recommendation, five proposals were chosen to be analyzed in this environmental assessment. Those are: American Prairie Reserve, Cherokee Nation of Oklahoma, Fort Peck Tribes, Utah Division of Wildlife, and Wildlife Conservation Society Zoo Consortium.

The American Prairie Reserve (APR) proposal is considered to be a viable location for placement of some of the QFS bison. However, because MFWP has not completed the Statewide Bison Conservation Strategy EIS for the conservation and management of the species in Montana, the potential placement of QFS bison on APR's Sun Prairie property was deemed premature at this time. The placement of wild bison on APR's property may be considered a viable option in the future pending the conclusions reached in the Strategy. Any future consideration would require a separate, additional analysis and opportunity for public comment.

2.4 AUTHORITIES AND OVERLAPPING JURISDICTIONS

2.4.1 Authorities

Montana Fish, Wildlife and Parks: Montana statute section §87-1-201, Montana Code Annotated (MCA), authorizes the Montana Fish and Commission to set the policies for the protection, preservation, and propagation of the wildlife, fish, game, furbearers, waterfowl, nongame species, and endangered species of the state §87-1-201 MCA. Within the policies established by the Commission, MFWP is responsible for supervising the management and public use of all the wildlife, fish, game, furbearing animals, and game and nongame birds of the state.

Wild bison are designated a species in need of management (§87-1-216 MCA) because they have the potential to spread a contagious disease (e.g. brucellosis) to persons or livestock in Montana and for damage to persons or property. Because of this designation, MFWP is obligated to consult and coordinate with the Montana Department of Livestock on the management of the species.

In regards to the legal status of bison in the QFS, it was determined in 2014 lawsuit *Citizens for Balanced Use et al. v. Director Maurier, Montana Department of Fish, Wildlife & Parks et al.* a Montana's District Court ruled that Yellowstone bison completing the quarantine study are "wild bison" under Montana's statutory law.

MFWP proposes these actions under its responsibility as trustee for the wildlife of the state. Neither their legal status, nor their classification as wildlife, nor any other designation -- both before they are transferred or after -- affects this responsibility of MFWP or the determination that bison are wildlife by the courts of Montana and managed as such by MFWP.

MFWP has a long history of successfully transplanting wildlife within the state and supporting species-specific conservations efforts in other states (§87-5-701 MCA). The authority for the transplantation is derived from both wildlife management responsibilities and the transplantation duties under the statutes cited above. The transplantation has traditionally been to place transplanted species with Tribes, States, and others depending upon the status of the species, such as the research status of a quarantined bison and whether they have facilities to effectively manage the species. Since the early 20th century, MFWP has been proactive in restoring native wildlife species to ecosystems where they once existed or used transplanting as a way to manage population densities for the benefit of the species and the natural resources it relies on.

In 2007, fish and game agencies for Colorado, Idaho, Montana, Utah, and Wyoming signed the *Memorandum of Agreement on the Management of Multi-state Wildlife Resources in Boundary Habitats of Colorado, Idaho, Montana, Utah, and Wyoming*. This agreement addresses both legal and policy considerations involving wildlife species management, including the introduction, relocation, and management of interstate wildlife populations in the adjacent states. The agreement enables the involved states to cooperate effectively on issues of land management, wildlife disease surveillance and control, wildlife relocations, and the genetic impacts of such actions.

2.4.2 Other Jurisdictions

Each of the recipient locations may have separate rules and laws that apply to the importation, management and care of wild bison in their jurisdiction. It is the responsibility of each sovereign entity to follow the requirements of this proposal and the laws of their own jurisdiction to ensure they don't conflict in their application. The status or characterization of these wild bison in each state or jurisdiction does not change the characterization of these bison in Montana as wildlife as confirmed by the courts of Montana and the management responsibilities of MFWP for the care of these wildlife.

Fort Peck Reservation: The reservation was established by the Act of May 1, 1888 (OPI 2009). The Fort Peck Tribes adopted their first written constitution in 1927. The Tribes voted to reject a new constitution under the Indian Reorganization Act in 1934. The original constitution was amended in 1952, and completely rewritten and adopted in 1960 (Fort Peck Tribes 2014).

About 6,800 Assiniboine and Sioux live on the Fort Peck Reservation, with another approximately 3,900 tribal members living off the reservation. The Fort Peck Reservation is in northeastern Montana, 40 miles west of the North Dakota border and 50 miles south of the Canadian border, with the Missouri River defining its southern perimeter. It includes more than two million acres of land (Montana Office of Tourism 2014).

The Bureau of Indian Affairs issuance of farm/pasture leases and range permits is not a federal action significantly affecting the quality of the human environment as would require the preparation of an Environmental Impact Statement under the NEPA. Accordingly, a Finding of No Significant Impact (FONSI) has been issued for all of the bison range units within the Fort Peck Reservation.

The Fort Peck Reservation is a sovereign nation with its own government that enacts and enforces its own laws.

Cherokee Nation of Oklahoma: The Cherokee Nation of Oklahoma is the largest federally recognized Tribe in the United States. Headquartered in Tahlequah, Oklahoma, the Cherokee Nation has a tribal jurisdictional area spanning 14 counties in the northeastern comer of Oklahoma. These are Adair, Cherokee, Craig, Delaware, Mayes, McIntosh, Muskogee, Nowata, Ottawa, Rogers, Sequoyah, Tulsa, Wagoner, and Washington Counties. The Tribe administers over 7,000 square miles and 66,000 acres of trust and restricted property in this 14 county area.

Over 299,862 people are enrolled in the Cherokee Nation, with 189,228 living within the state of Oklahoma. The tribe has a democratically elected government, led by a Principal Chief, Deputy Chief, and Tribal Council.

If QFS bison were translocated to tribal lands, the Cherokee Nation of Oklahoma would devise a comprehensive set of laws, regulations, and plans to develop the bison initiatives within the Tribe. At present, the Cherokee Nation of Oklahoma's Principal Chief and Tribal Council are in full support of the Yellowstone bison acquisition and conservation measures.

Additionally, The Cherokee Nation of Oklahoma has worked with the State of Oklahoma to gain their consent of the Oklahoma State Veterinarian to place Yellowstone bison in Oklahoma. The Cherokee Nation of Oklahoma has also alerted the Department of the Interior and the Bureau of Indian Affairs about its bison plans to ensure full compliance with federal, state, and tribal laws for the bison translocation project.

The Cherokee Nation of Oklahoma is a sovereign nation with its own government that enacts and enforces its own laws.

For applicants within the states of Ohio, New York, and Utah:
It will be the responsibility of each organization receiving QFS bison to follow the rules and laws of their own state.

2.5 APPLICATION OF MONTANA SENATE BILL 212 (§87-1-216 MCA)

During the 2011 Montana Legislature, Senate Bill (SB) 212 was passed in order to clarify MFWP's authority to manage wild bison or buffalo and requiring the preparation of a management plan before wild bison or buffalo can be released or transplanted onto private or public land.

The application of this statute to the proposed action does not apply to tribal lands or to placement of QFS bison outside the state. Thus the preparation of a management plan would not occur if QFS bison were translocated to the Fort Peck Reservation or the out-of-state recipients.

2.6 RELEVANT PLANS

Bison Conservation Initiative, U.S. Department of Interior (2008)**:** The Department of Interior (DOI) put forth a framework that would establish steps for addressing health and genetic composition of DOI bison herds and would acknowledge the ecological and cultural role of bison on the American landscape. Through the initiatives partners, including federal, state, and tribal representatives, work to establish new herds with no cattle introgression and develop guidance for disease surveillance and herd health monitoring programs.

Bison Management for the State of Montana and Yellowstone National Park Final Environmental Impact Statement (USDI et al. 2000): This document is also known as the Interagency Bison Management Plan (IBMP). The IBMP is a cooperative, multi-agency effort that guides the management of bison and brucellosis in and around Yellowstone National Park. The plan was developed by the NPS, USDA-Forest Service, APHIS, Montana Department of Livestock and MFWP.

2.7 DECISIONS TO BE MADE

The decisions that need to be made are:

1) With the completion of the analysis of the alternatives, is Alternative B the correct choice?
2) How many QFS bison should be translocated to each location?

All organizations chosen to receive the QFS bison would be required to sign a Memorandum of Understanding (MOU) with MFWP that describes the bison would be managed for the longer-term objective of restoring and conserving the bison and their genetic purity. All successful

applicants would also be required to commit to providing a proportional number back to the State of Montana, if requested, for the 10-year period following translocation, for additional conservation efforts in Montana. See Appendix B for an example of the MOU that is subject to change when individual organizations are chosen and specific negotiations are completed.

2.8 SCOPE OF THE ENVIRONMENTAL ANALYSIS

The administrative rules associated with Montana's Environmental Policy Act state that environmental reviews may not include a review of actual or potential impacts beyond Montana's boundaries. However, environmental review conducted by MFWP may include a review of actual or potential impacts beyond Montana's borders for the management of wildlife and fish (§75-1-201(2) MCA). Although the proposed action is for the translocation of QFS bison, the action does not include any actual management steps for the species within Montana, thus the scope of the environmental analysis in section 4.0 is based on the information provided in the proposals and in the case of locations within Montana, additional relevant information has been included. For the purposes of the discussion of potential impacts, the maximum number of QFS bison per location as requested is considered.

3.0 Alternatives

3.1 ALTERNATIVE A : NO ACTION, BISON ARE EUTHANIZED

The No Action alternative is described as the 145 QFS bison would be transferred back to MFWP from the Green Ranch and would be euthanized. The bison meat would be donated to food banks and tribal organizations.

3.2 ALTERNATIVE B: PREFERRED ACTION, DISPOSITION OF QFS BISON UP TO FOUR LOCATIONS

MFWP proposes, for conservation purposes, to place wild bison with wiling partners for their care and preservation. As previously described in section 2.3, four organizations' proposals were selected from a pool of ten submissions to potentially receive the QFS bison. Those organizations were Cherokee Nation of Oklahoma, Fort Peck Tribes, Utah Division of Wildlife, and Wildlife Conservation Society Zoo Consortium. The following chart shows how many bison each organization may receive has requested, along with a preliminary recommendation fro possible allocation.

	Number of Bison Requested	Possible Allocation
Cherokee Nation	50	35
Fort Peck Tribes	135	71
Utah Div. of Wildlife	20-30	30
Zoo Consortium	30	10

Portions of each applicant's proposal, including location and bison management strategy, are described in the following paragraphs.

3.2.1 Cherokee Nation of Oklahoma

As with many locations on the plains of North American, wild bison flourished in Oklahoma until the mid-1800s. By 1900, there were but two small wild herds in all of North America,

numbering only about 550 animals, with one of these herds located in the grasslands and tall grass prairies of Oklahoma. In 1901, the Wichita Mountains Wildlife Refuge was established "for the protection of game animals and birds and shall be recognized as a breeding place thereof." In 1907, 15 choice specimens arrived to the Wildlife Refuge from the Bronx New York Zoological Park where no bison had grazed for over 30 years. With the protection offered by the Wildlife Refuge and the concern of a group of conservationists, Oklahoma and the refuge was able to protect a herd of wild bison and the grassland bison in North America survived and even flourished.

Cherokee Nation of Oklahoma is poised and ready to take on the conservation efforts of their predecessors at the Wildlife Refuge to preserve the Yellowstone Bison. It is the intention of the Cherokee Nation to cultivate a program that preserves not only the Yellowstone Bison and its genetics, but also Cherokee Nation lands, including native tall grass prairie located inside jurisdictional bounds of the Cherokee Nation of Oklahoma, which would be modeled after the Nature Conservancy's Tall Grass Prairie preserve in Osage County. This plan also includes the conservation of all prairie species including the Monarch Butterfly and other native pollinators whose numbers are in serious decline. All of the grassland species - both plants and animals - survived and flourished within a prairie ecosystem.

To accomplish this, the Cherokee Nation proposes to utilize its sovereign authority, laws, and regulations to create the first Tribal Conservation Area, by tribal law, in the United States. The purpose of this would be:

1. To preserve a stock of these Native American animals in a representative herd;
2. To display them for public enjoyment in a natural grassland setting; and
3. To conserve the buffalo and prairie ecosystem as an icon of Cherokee and Native American culture for future generations, to come.
4. To develop educational and economic development initiatives via the bison including eco and agri-tourism; and by educating beginning Cherokee farmers and ranchers and Cherokee youth in agricultural endeavors.

Working with the USDA Natural Resource Conversation Service (NRCS) and Farm Service Agency; InterTribal Bison Council (ITBC), the Department of the Interior, Bureau of Indian Affairs, farm advocates, Cherokee Natural Resources staff, Oklahoma State University, Langston University, the Native American Young Beginning and Small Enterprise Center, and other partners, the Cherokee Nation of Oklahoma would utilize the expertise and technical assistance from this group of agricultural experts to conserve two large conservation areas within the Cherokee Nation's jurisdictional area using acquired Yellowstone bison.

Description and Management of Existing Bison

The Cherokee Nation recently joined with the InterTribal Bison Council to accomplish its bison goals, but has yet to acquire any bison through ITBC’s program.

Management of QFS Bison

The Cherokee Tribe proposes to initiate a five-year buffalo conservation and prairie sustainability project within the Tribe's fourteen-county area of tribal jurisdiction in northeastern

and north central Oklahoma. The work is designed to begin with at least fifty (50) Yellowstone bison on two different tribal tracts of land.

The Cherokee Tribe would manage the bison through a hands-off approach, unless intervention is needed, to coincide with the long-term goal of conservation for the species and would manage the animals as much as possible as wildlife, as defined by Cherokee tribal law. The housing area for the bison herd would be left in its natural state. Animals would be on range, not provided supplemental feed except under extreme circumstances such as drought, fire, etc. The Cherokee Nation would store hay from its own fields prior to obtaining the bison and would provide supplemental feed to the bison only if it becomes necessary due to severe conditions.

Initially, the bison would be relocated to a temporary constructed paddock of 200 acres, with temporary fencing and housed there for an acclimation period of two-four weeks. After the acclimation period, the temporary fence would be dropped and the bison would then be allowed to range in an approximately 500-acre pasture(s). No additional bulls would be incorporated with the herd during initial monitoring periods. After the monitoring period, and under the advisement of bison geneticists and our coalition of bison experts, animals and translocation sites would be selected for optimum genetic diversity.

The entire bison pasture perimeter would be enclosed with a double fence. The two pastures would be separated from cattle (if any) by a 6' "field fence" (woven wire) and an interior electrical fence. All other perimeter fencing would consist of 6' tall seven (7)-wire barbwire fencing with electric fence on the interior. The 600 plus pasture is also cross-fenced to divide the parcel into grazing management units. Between the perimeter fencing and the cross fencing, two fences would generally separate the bison herd from any livestock on adjoining properties.

During the Tribe's own 5-year project period, fecal examinations would be conducted several times per year, and the animals would be treated for parasites as necessary. All animals would be worked and tested. Blood samples would be drawn yearly from over 50% of the adult bison for viral and bacterial disease testing to monitor exposure to environmental pathogens. Cherokee bison that die during the 5-year period may be necropsied, and the tissue samples may be delivered to the Oklahoma State University laboratories in Stillwater, OK for testing.

Occasionally, working with USDA APHIS, the Cherokee bison would be processed and tested according to the Oklahoma's Department of Environmental Quality, USDA APHIS protocols utilized in Oklahoma. If any disease or health issue is suspected, Cherokee bison may be quarantined in and delivered to smaller pastures outside of the main pasture for at least 45 days to observe their health status and to allow the animals to acclimate to new surroundings. Cherokee bison would have an electronic identification tag to each animal, as well as a dangle tag, to aid in monitoring, testing, and management. All vaccinated females would be given a bangs tag. At the end of the initial monitoring period, the bison would be released into one of the grazing units on the parcel. Vaccinations and use of dewormers would not be routinely practiced, but would be done only on an as needed basis and animals would be sent to the home staging and quarantine areas.

At the end of the 5-year bison and prairie sustainability project, the Cherokees may utilize hunting or culling of the herd as a population control method. Goals include trading and sharing information learned about the Yellowstone bison with other Tribes in the area, as per our 5-year agricultural education plan. The bison conservation management areas would provide a training ground for Cherokee beginning farmers and ranchers, and would serve as a teaching tool for these Cherokee citizens. The Tribe plans to establish satellite herds within the initial Yellowstone herd to maintain a high gene diversity by exchanging different sires from the different groups periodically. Population objectives would be roughly 1,300 head of Yellowstone bison heritage proven by DNA testing.

Overall project management would be under the direction of the Director of Tribal Natural Resources with assistance of additional staff that would be involved in inspecting, caring for and managing the buffalo herds.

The ongoing supervision of the herds would be rotated among eight (8) field workers assigned to area offices. Other workers would be assigned to their local conservation site area. A robust training and education program for staff would highlight checks for bison health and conservation; and an education program would be developed for staff as well as local Cherokee citizens to monitor and check bison in the field. Finally,

Cherokee bison would also have the benefit of having a working health quarantine facility, in addition to the other quarantine pastures within the tribe's 66,000 plus acres of tribal lands. The working quarantine facility would be utilized if any health issues arise. Veterinary staff and Natural Resources staff would conduct a regular schedule of vaccinations as well as routine maintenance of bison such as the elimination of lice and ticks, fly management etc. Staff in the field would document and report bison issues/challenges/work schedules to the Director for his information.

Further, they would be DNA tested for developing lineages for the future production of the bison herd to help identify monarch groups as well as aiding in preventing low gene diversity and a pure line of Yellowstone Bison.

To mimic predation the Tribe may allow harvest of the weaker bison to strengthen the herd. When the growth of the herd supersedes the acreage, some animals would be removed to another acreage selecting them as family groups to start another separate population. These different populations would be helpful in sourcing new sires for transfer to other groups to keep gene diversity high. This has been shown to be successful through DNA testing of commercial herds as well as the success of the Yellowstone herd starting from such a small number and by some it was too small to be deemed able to maintain the population however it proved to be quite successful. Another source of Yellowstone bison to keep high gene diversity would be trading bull calves with other tribes, which presently have Yellowstone bison and hopefully through quarantine release of future Yellowstone bison.

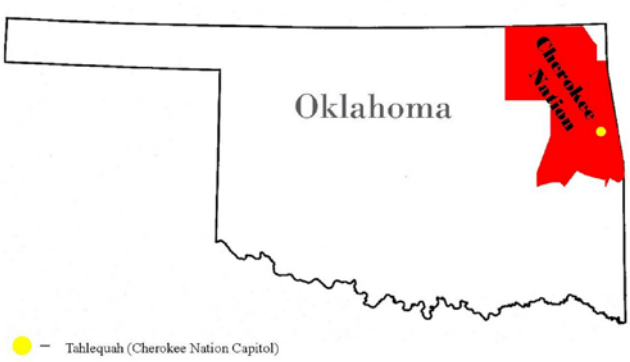
In the event a Cherokee bison escapes, and it cannot be safely retrieved by traditional methods, the animal would be immobilized by Cherokee Natural Resources staff veterinarian(s) and

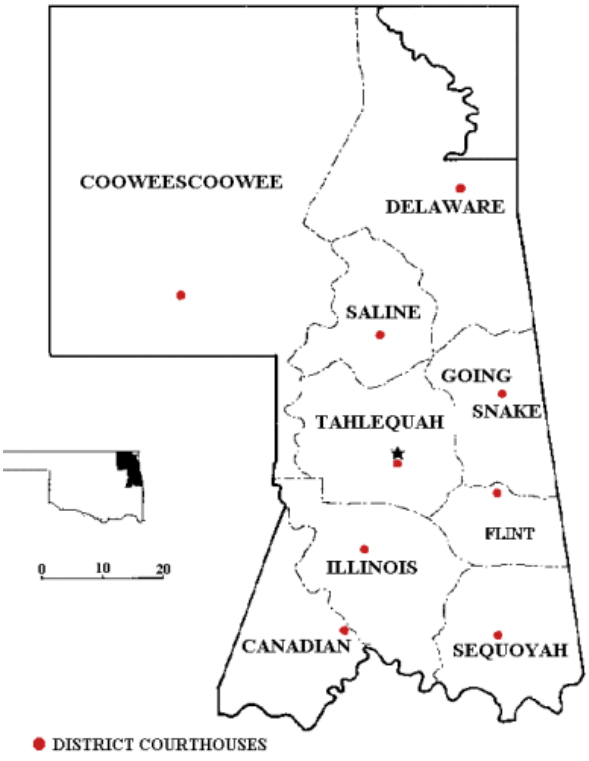
transported back to the facility. In the event that effort is unsuccessful, the animal may be euthanized in a humane manner, but this is not anticipated.

Location

The Cherokee Tribe proposes to initiate a five-year buffalo conservation and prairie sustainability project within the Tribe's fourteen-county area of tribal jurisdiction in northeastern and north central Oklahoma. Two designated conservation areas within Delaware County would be designated for the bison project.

Figure 1. Maps of the Cherokee Nation of Oklahoma
(Sources: thecherokeenationwestern.blogspot.com & okgenweb.org)





Cherokee Conservation Area 1 is 600 acres of former native tall grass prairie that has been in continuous agricultural production for generations. Adjacent to the 600 acres is another tract of 385 acres that is leased, but is eligible to be put into bison conservation rotation. The property at these locations consists primarily of unimproved grasslands that would be improved by replugging native grasses. The Cherokee Nation controls 96 acres of riverbed and underground waters within its jurisdictional areas. There are ample water resources on the property. The majority of the parcel is Native American Trust land. The parcel has a carrying capacity of about at least 30 animal units at 20 acres per animal unit month (AUM). This provides ample margin for the needs of the Cherokee bison in Groups 1 as well as their offspring, for the 5-year duration of the plan without any need for forage supplementation. In the event of severe prolonged drought that reduces the carrying capacity of the rangeland below the level required for the entire complement of bison, the parcel also has irrigated hay production that can be used as a safety net.

During the 5-year period, the Cherokee bison would run as one mixed-age herd and be rotated through the parcel's 3 pastures (ranging at about 200 acres in size each). This margin would be consistent established rest-rotation strategy of grass and habitat management, recommended by USDA NRCS and Oklahoma State University.

Conservation Area 2 is located in Northeastern Oklahoma. It contains almost 1,000 acres of former native grasslands, ample water acres and is primed to be improved into a prairie ecosystem with the introduction of Yellowstone bison.

Funding

The Cherokee Tribe accepts all costs associated with the movement of bison to their respective locations, fencing, management, and conservation.

3.2.2 Fort Peck Tribes

In 2000, the Fort Peck Tribes decided to bring back the buffalo to the Fort Peck Indian Reservation after a 135 year absence. By bringing the buffalo back to their homelands the tribes hoped to reconnect to their spiritual, traditional and cultural ways.

One hundred bison were purchased from the Fort Belknap Tribes in 2000 and they became the tribes' business/cultural herd. The business of raising the bison began with a lot of success through the first five (5) years because bison hunts became very popular. The cultural use these bison began with just a few being donated for traditional purposes. However by 2003, many other tribal programs started requesting donations for bison, such as the reservation’s elderly program, diabetic program, the homeless shelters, the Assiniboine's Medicine Lodge, the Sioux's Sun Dance, summer pow-wow groups, and educational programs. By 2010, the tribes were donating twenty-six bison a year to these groups for cultural purposes. As a result, fewer animals were available for hunts and the Bison Ranch's business venture began losing income and could not generate enough revenue to pay for the leasing of allotted lands for the bison to graze and the tribal council was obligated to assist in paying grazing leases for the bison program.

The range units designated for the tribe’s business and cultural herds are within the species historic range. Herd management has shown to be contributing to maintaining or recovering

native rangelands, other native animals and local endangered or rare species (Sprague's pipit, upland sandpiper, and Baird sparrow).

Description and Management of Existing Bison

The Fort Peck Tribes now have 137 head of bison that are managed as two distinct bison herds, one is managed for business purposes and the other is for cultural purposes. Each herd has their own fenced range units to reside upon.

The business herd, known locally as the Turtle Mound herd, is kept on Range Units (RU) 56, 57, and 58 which are 4 miles north where the cultural herd is located. These bison are used and harvested for cultural and ceremonial purposes and are available for non-member fee hunts. Different colored ear tags would be used to identify the business herd.

The cultural herd was established in 2012 when bison (64 animals) from the QFS was transferred to tribal lands for a 5-year monitoring period as part of the QFS protocols. These bison and their offspring will continue to be annually tested for brucellosis for three more years. Per the terms of QFS bison MOU between the Tribes and MFWP, at the end of the monitoring period the bison would be under the sole jurisdiction of the Tribes with the caveat that MFWP could request up to 25% of the offspring for other bison conservation efforts in the future. The cultural herd currently has access to RUs 62 and 63. In 2013, 33 bison from this herd were transferred to the Fort Belknap Reservation to assist in establishing a cultural herd for that community.

The Tribes' cultural bison herd is considered wildlife and is being managed as a conservation herd. The only time the bison would be handled is when they reach their carrying capacity and culling must occur. The goal with these bison is to maintain their wild characteristics, genetic diversity, and genetic integrity.

The long term goals for the cultural herd is to provide tribal members with the opportunity to re-establish their spiritual, traditional, and cultural connections to bison. The reservations population suffers from high rates of cardio vascular disease and other diet related diseases and there is therefore a desire to establish a healthier alternative to the current Native American diet. Many Native Americans are directly impacted by the genetic inability to effectively metabolize modem processed foods. The annual culling of the bison would occur when their carrying capacity of range units (approximately 300 bison) in the bison program has been reached. The meat would be distributed to the reservation's diabetic program, elderly program, school lunch program, cultural organizations, homeless shelter, and educational events.

To maintain the genetic integrity of the Yellowstone bison, the tribes' cultural and business herds are never to intermingle with each other. In future years, the business herd could possibly receive a few of the cultural herd's bulls and use them for breeding purposes in the business herd. This would help reduce any inbreeding in the business herd and contribute to its genetic diversity. The old business herd bulls could then be offered for hunts to the general public.

To help maintain the wild characteristics of the species, the tribes would need to ensure that when the bison reach their carrying capacity and begin culling the herd, they maintain an appropriate mix of age and sex classes. To maintain breeding competition and maximize

effective population size the buffalo ranch would need to have 40% male and 60% female sex ratio, in order to prevent any risk of genetic drift.

Range unit 62's boundary fence is designed to allow antelope to crawl under the bottom wire, and is 18" from the ground. The 2nd, 3rd, 4th, and 5th wires are barb wire and they are spaced 8" apart this will discourage the bison from sticking their heads between the wires to itch or rub on them. The top wire is a smooth wire and it is 12" from the 5th wire allowing deer and elk to jump over the fence and not get ensnared by the fifth and sixth wires. The total height of the wildlife friendly fence is 62 inches. On RU 63 an electric fence was built with a four (4) strand smooth wire (class III galvanized). The bottom wire was built 20 inches above the ground allowing antelope to' easily crawl underneath it, the second, third and fourth wires were spaced 10" apart making the fence 50" high. The fence is electrified by an energizer that puts very short pulses of (high volts but short intervals) electricity onto the fence line. The corners, gates and H braces were built using pressure treated wood posts that have an expected life of 20 to 25 years. Fencing of the last RU (67) has already begun and its design is identical to RU 62's. The bison's range units do not have any cross fencing, which allows the species to engage in natural foraging throughout the year. Water sources for these range units consist of solar-powered water wells, man-made stock dams, artesian wells, springs and creeks.

The bison's forage is not supplemented during the winter months. Supplemental feeding would occur only in cases of severe winters, drought or range fires where there is potential for bison to break out of their range units in search for food. The Fort Peck Tribes' Land Use Policy's grazing schedule authorizes year-round grazing of the tribal bison herds on the occupied range units. To permit long-term management planning for the bison, grazing privileges are granted for ten-year periods.

The Turtle Mount Buffalo Ranch has developed a 5-year business and management plan for both the business and cultural bison herds. The business and management plan addresses topics such as buffalo economics, herd management, herd health, disease testing, liability, herd management goals and objectives, ownership and management responsibilities. The 5-year business and management plan is updated periodically as new scientific information emerges and experience is gained in managing our business and cultural herds.

The Fort Peck Tribes have a "Foreign Animal Disease Emergency Preparedness Plan" to respond the outbreak of any foreign disease in any domestic and wildlife species on the Fort Peck Indian Reservation and an "Emergency Response Plan" to minimize the spread of any foreign disease on the reservation. In addition, the Fort Peck Tribes and the MFWP currently have a MOU regarding bison from the QFS that were translocated in 2012 to RU 62, which address bison escapes, disease issues, and responsibilities for any damage to persons or property caused by the QFS bison. The MOU also states that the tribes would keep liability insurance to cover any claims during the five-year monitoring period of the QFS.

The Fort Peck Tribes Business and Cultural Buffalo Herds are managed and overseen by the Tribal Fish and Game Department in coordination with the Department of Natural Resources. The Buffalo Ranch has a Buffalo Manager that oversees the day to day operations of the buffalo and reports any incidents to the Director. The Tribal Chairman has general supervision of all

Directors and Employees. The Tribal Executive Board is the Governing Body of the Fort Peck Tribes.

In the future when the tribes have established a sustainable population with a consistent surplus of bison from the cultural herd, the Tribes would like to assist other tribes or organizations that are interested in establishing genetically pure bison herds, or assist tribes by supplying them with new breeding bulls or future offspring. In the coming years several small conservation herds can be established and the organizations that manage those small conservation herds would need to exchange breeding bulls with others to prevent or minimize inbreeding in their herds.

Management of QFS Bison

The new QFS bison would be kept separate from the tribes' existing cultural herd, since those bison are still part of the QFS monitoring program for three more years. After the completion of the monitoring period, the cultural bison herds would be permitted to mingle.

Both cultural herds would be managed in the same fashion, a hands-off approach unless health checks or culling are necessary. The new QFS bison would be permitted to roam and graze one of the other RUs dedicated to the cultural bison and supplemental feed would only be provided in extreme circumstances.

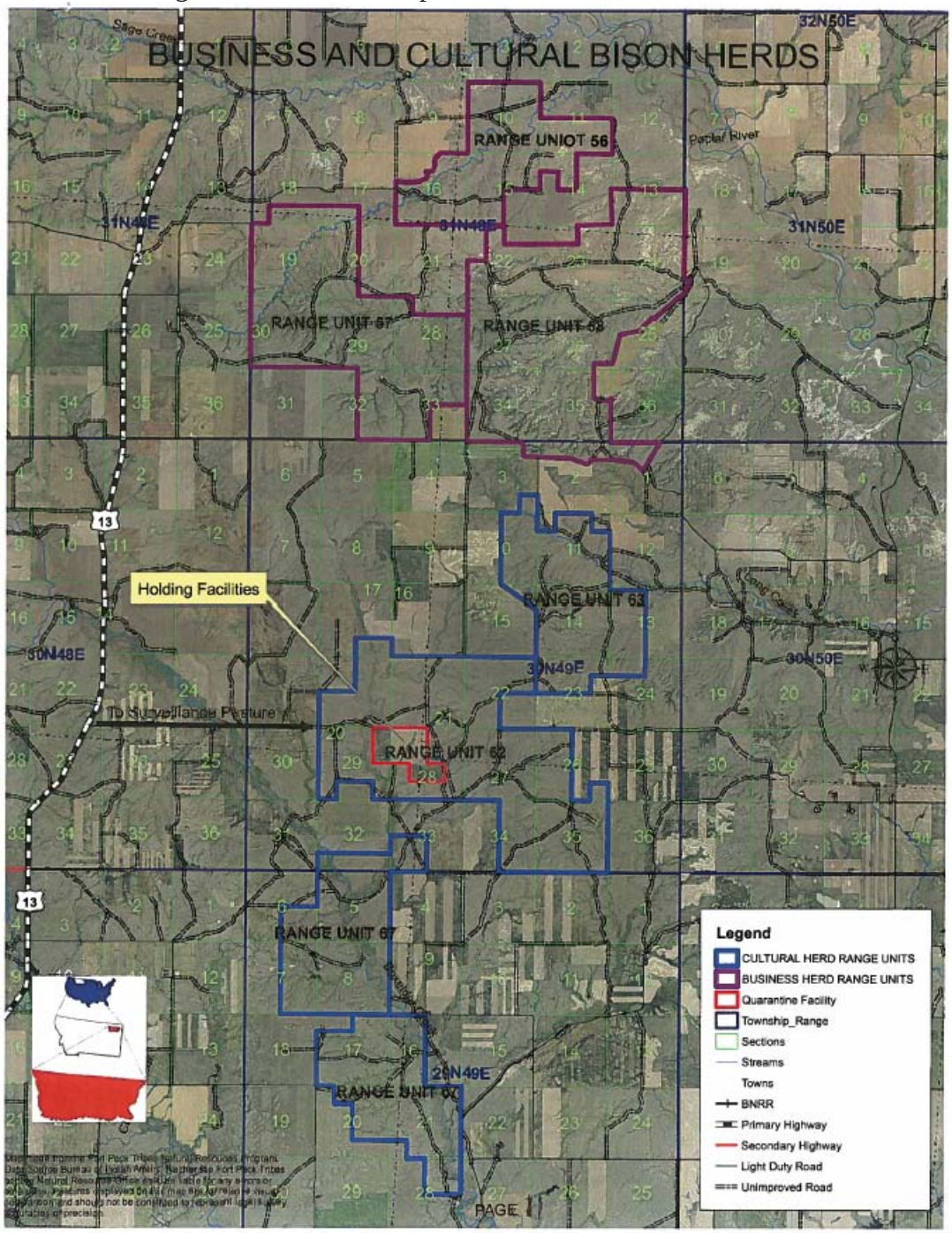
Location

The Fort Peck Indian Reservation is located in the northeastern portion of Montana and is home to the Assiniboine and Sioux Tribes. The Fort Peck Indian Reservation is 2.1 million acres in size and has three different types of land ownership, tribal land (tribes are owners), allotted lands (individual tribal members own these lands) and fee lands (lands with a fee patent). The landownership consists of 926,000 acres that is in trust status and 1,074,100 acres in fee lands. The Tribes are purchasing land on the reservation that are currently in fee status, and have prioritized specific types of land for purchase under the Department of Interior's land buy-back program, including those tracts in and around the tribes buffalo range units.

The Tribes cultural herd's range units are located within Range 30 North, Township 49 East and Range 29 North, Township 49 East. The business herd is located within Range 31 North, Township 49 East.

The total acreage for the three range units that have been designated for the cultural herd is approximately 10,778 acres and the total AUM's are estimated at 3,569. The carrying capacity with year-round grazing for all three range units is 300 head of bison.

Figure #2. Location Map for the Fort Peck's Bison Herds



3.2.3 Utah Division of Wildlife Resources

Utah currently has two bison herds that are disease free, completely free-roaming, and managed entirely through hunter harvest. Although both of these herds are doing well, they were started from relatively few individuals. Utah Division of Wildlife Resources (UDWR) view the opportunity for Montana's bison as an opportunity to supplement their herds with additional bison to improve genetic heterozygosity and help ensure the long-term viability of their bison populations.

Description and Management of Existing Bison

The UDWR currently manages two free-roaming bison herds; the Henry Mountains in southeastern Utah and the Book Cliffs in eastern Utah along the Colorado state line. These herds are held in public trust by the citizens of Utah and managed entirely through hunting. The Henry Mountains population was initially started in 1941 when 3 bulls and 15 cows from Yellowstone National Park were released into the area. In 1942, an additional 5 bulls were released to further bolster the herd. The Book Cliffs herd was started in August 2008 from 14 bison from the nearby Ute Tribe herd. In January 2009, 30 bison were introduced from the Henry Mountains, and in January 2010, an additional 40 bison from the Henry's were captured and released on the Book Cliffs.

The Henry Mountains herd is one of only four free roaming, genetically pure herds remaining on public lands in North America. It is recognized as a key population in maintaining the bison genome. The others include: Yellowstone National Park, Wind Cave National Park, and Elk Island in Alberta, Canada (Kunkel et al. 2005).

The Henry Mountains bison herd is managed for a population objective of 325 adults postseason (January). This population was recently raised from 275 adult bison postseason to allow for more genetic diversity. The herd is currently at its population objective and is managed through hunter harvest. In 2014, UDWR issued 77 hunting permits for bulls and cows. The Henry Mountains herd is monitored annually for brucellosis using hunter harvest blood samples. In addition to the hunter harvest samples, the transplanted bison in 2009 and 2010 were tested for brucellosis, tuberculosis, and trichinosis. All disease tests have been negative.

The Book Cliffs bison herd was initiated in August 2008 and has been steadily increasing. The current population estimate is 125 adults with a population objective of 450 adults postseason. The first hunt on this unit was in 2012 with five permits and 13 permits are being issued in 2014. These permits currently focus on bulls, but UDWR plans on issuing cow permits as the population approaches objective. Because of the low number of permits, disease cannot be monitored through hunter harvest samples alone. Instead, UDWR have been helicopter capturing 15 bison each year to draw blood and test for disease. This would continue until hunting permits are sufficient to provide a representative sample of the bison population. To date, conflicts from bison have been minimal. Any future conflicts that arise would be handled as per the unit management plan.

Current management practices include an annual helicopter survey, summer ground classification, sport harvest, and extensive habitat management. A population estimate is derived annually based on the number of animals counted during the survey, count conditions, ground classification, the number of animals harvested, and a 5% natural mortality rate.

There are three diseases of major concern to bison in Utah, brucellosis, tuberculosis and malignant catarrhal fever. Blood from hunter-harvested bison is tested annually for brucellosis. There have been no reactors since 1963 and the Henry Mountains bison herd is considered brucellosis free. 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.

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. 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.

As for the bison at Book Cliffs, 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.

UDWR is currently analyzing genetic samples from bison on the Henry Mountains to determine genetic purity and heterozygosity. If the results of this research show more bulls are needed to ensure genetic integrity, UDWR would once again import bulls from other genetically-pure, disease-free herds. In addition to receiving animals, both of Utah's bison herds could be used as source herds in the future.

With regard to improving the existing habitat in Henry Mountains, UDWR and BLM have partnered in a program to create suitable bison habitat on the Henry Mountains. Efforts include rangeland prescribed burns, mechanical treatments and reseedings. The Division has funded such projects covering over 6,700 acres.

Management of QFS Bison

Because of the relatively low number of bison used to establish the Henry Mountains herd and the subsequent use of that herd to initiate the Book Cliffs herd, the UDWR would like to supplement both of them with additional bison to help improve the genetic diversity and improve their long-term viability of the herds. Both bison herds would continue to be managed according to their unit management plans.

UDWR wants the transplanted animals to integrate with the existing animals as soon as possible and, as such, would release them as near to the existing animals as the road conditions and weather would permit. UDWR would mark all bison with ear tags and radio collars so their movements and survival and be monitored. These markings would also enable UDWR to restrict the harvest of these bison to ensure their genes can be integrated into the existing herds.

Both of the proposed release sites have management plans that have gone through Utah's public input process and have been approved by the Utah Wildlife Board. These unit plans describe the history and status of bison, discuss the issues and concerns, and determine the unit management goals, objectives, and strategies for the population, habitat, and recreational aspects. Each plan was formulated using a committee comprised of all interested stakeholders including BLM, state lands, county, agriculture, sportsmen, and tribal representatives.

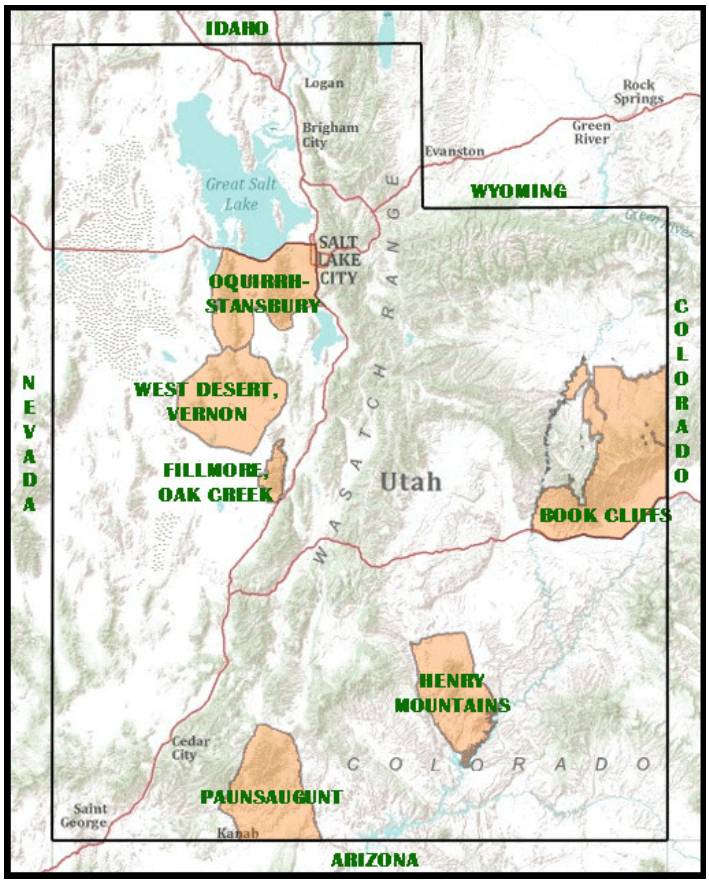
Location

Bison would be released on the Henry Mountains and the Book Cliffs units (Figure 3). The specific release site for each unit would depend on the timing of release and the weather conditions, but the most likely areas would be on Cave Flat for the Henry Mountains and Winter Ridge for the Book Cliffs. Both areas are within the historic range of bison and are comprised primarily of public land with minimal risk of conflict.

The Henry Mountains management unit is located in southeastern Utah and has over 300,000 acres of habitat currently being utilized by bison. The majority of the land is owned by the BLM (86%) and interspersed State lands (11%).

The Book Cliffs management unit is located in eastern Utah along the Colorado border. The Book Cliffs is primarily BLM land, with some State land, and limited private property. There are some Ute tribal lands on the western part of the unit.

Figure #3. Location Map for the Henry Mountains and Book Cliffs Areas
(Source: Double C Guides and Outfitting, http://doublecguides.com)



Funding

Funding for future bison management projects would come from Utah's conservation permit program and conservation groups. These groups have provided funding for numerous habitat projects and water developments on the Henry Mountains and Book Cliffs, funded the bison transplant to the Book Cliffs, and are funding the Henry Mountains research project. They have not hesitated to provide funding when needed and are very woulding to fund future projects.

3.2.4 Wildlife Society Zoo Consortium: (Zoo Consortium)

Association of Zoos and Aquariums (AZA) zoos, and in particular the Bronx Zoo, has had a long history with bison restoration. In the early 1900's, the Bronx Zoo bred bison with the specific intent of restoring zoo-born bison to the wild, and the successful conservation of this species is

due in no small part to the efforts of zoo breeding programs. With a commitment to bison restoration and the capacity to raise awareness about bison restoration, the Zoo bison consortium has a great interest in receiving genetically pure bison.

Description and Management of Existing Bison

The Bronx Zoo has two bison facilities – a 130,000 ft^2 exhibit that presently holds 12 bison (six bulls and six cows), and a 16,000 ft^2 off exhibit holding area that presently holds 17 bison that are being used in the embryo transfer study. The Queen's Zoo exhibit and holding area measures 76,800 ft^2 and holds four cow bison. The Wilds has 680 acres dedicated to their bison herd of over 100 animals.

The AZA has several over 600 species conservation programs and member zoos work cooperatively in these programs to maintain genetically viable and demographically stable, healthy self-sustaining populations. The American bison is managed by the Bison, Buffalo and Wild Cattle Taxon Advisory Group (TAG). TAGs examine the conservation needs of an entire taxon and develop recommendations for population management and conservation. TAGs also develop action plans that identify essential goals, scientific investigations, and conservation initiatives needed to best serve *ex situ* and *in situ* populations.

AZA zoos are expert in managing smaller populations for genetic diversity and demographic stability, our Zoo bison consortium is ideally equipped to maintain and propagate a group of bison from the Montana quarantine facility. The potential for coordination within a consortium has two main benefits: 1) more bison would have homes, setting up nucleus herds for more restoration along varying timelines in the future; 2) more people/ visitors would be exposed to the story of bison history, the YNP, the quarantine facility, and the importance of restoration in the wild.

The Zoo bison consortium would ensure that there is no contact between bison that are not genetically pure and the incoming QFS bison. Disease monitoring at our respective facilities would be easy to facilitate. The QFS bison would be in closed herds for at least five years and available for monitoring at regular intervals. Well-staffed with keepers, curators and veterinarians and compliant with all federal disease regulations, the Zoos can easily be able to comply with a brucellosis monitoring plan and coordinate such a plan with other zoos as outlined in the "Approved Bison Quarantine Facilities" section of the USDA Brucellosis Eradication Uniform Rules and Methods (UMR) 2003. Annual processing of the entire herd would allow for TB testing as required. Transporting QFS bison to parks would not be a concern.

The Zoos facilities have interpretation, education, and public affairs departments through which the Zoos help bring conservation stories to life -all of which can help amplify the bison restoration story and elicit broad public support. Millions of visitors visit the zoos and The Wilds each year. At the Bronx Zoo alone, an approximately two million people visit our park annually. The interpretation departments at each location design exhibits, signage, and pamphlets related to our animals. The education department brings thousands of school children, science teachers, and others to our parks each year for short courses, and designs curricula for e-learning and distance learning for science teachers. The public affairs department places news stories in local and national media outlets. This combination of effort allows us to reach and educate people

about bison and bison ecology, range, history, threats, cultural ties, the quarantine initiative, and restoration to the wild and would help elevate bison to the level of national wildlife icon that it once was.

The Bronx Zoo is already actively involved in project to develop a herd of genetically pure bison, with the ultimate goal of sending offspring from the herd to other AZA zoos and to establish free-ranging restoration herds. The zoo is working with Colorado State University's Dr. Jennifer Barfield to non-surgically collect embryos from the genetically pure bison held at the USDA APHIS Wildlife Research Center (Fort Collins, Colorado) and implant them in Bronx Zoo bison to establish a herd of pure bison at the Bronx Zoo. The first American bison calf ever produced by embryo transfer was born at the Bronx Zoo as part of this project.

This consortium can provide space, husbandry expertise, and visibility for the brucellosis-free bison, and could contribute to the effort to restore genetically-valuable YNP bison to the wild by: 1) building national support for bison restoration by educating millions of visitors about MFWP YNP bison; 2) expanding bison restoration in the wild by providing zoo-bred bison for multiple reintroduction efforts along varied timelines. If our application is approved, MFWP's bison would be maintained in high-quality zoo environments, where the Zoos can ensure that they would be kept in closed herds, help establish a herd of pure bison for the AZA community, contribute to the eventual restoration of bison to the wild, and help build a national constituency for bison restoration.

Management of QFS Bison

If the Zoos acquire a portion of the QFS bison, the Bronx and Queens Zoos would consolidate herds to free up space for the genetically pure bison. The Wilds has an additional 600 acres under fence in use for other species programs and is capable of managing a conservation herd of genetically pure bison entirely separate from its production herd.

To achieve restoration efforts, the Zoo Bison Consortium would work very closely with the American Bison Society (ABS) to identify appropriate sites where the bison could perform their natural ecological roles yet not come into contact with bison that are not genetically pure. The goal of the ABS is the ecological restoration of bison --ensuring that bison exist in large, free ranging herds within their historical range, interacting with native species and systems, and inspiring Americans of all cultures. To work toward this long term goal, the ABS coordinates a broad range of stakeholders-including NGOs, universities, tribes, government agencies, private ranchers, and the zoo community-to build the social and scientific bases for bison ecological restoration. One stakeholder group that has been involved in bison restoration from the very beginning is the zoo community.

Location

The Bronx Zoo and Queens Zoo are located north and east of the New York City area.

The Bronx Zoo 265-acre has two bison facilities – a 130,000 ft^2 exhibit that presently holds 12 bison (six bulls and six cows), and a 16,000 ft^2 off exhibit holding area that presently holds 17 bison that are being used in the embryo transfer study.

The 11-acre Queens Zoo is nestled in Flushing Meadows Park. The Queens Zoo bison exhibit and holding area measures 76,800 ft^2 and holds four cow bison.

The Wilds is located on nearly 10,000 acres of reclaimed surface mine land in southeastern Ohio. The Wilds has 680 acres dedicated to their bison herd of over 100 animals. The Wilds has an additional 600 acres under fence in use for other species programs and is capable of managing a conservation herd of genetically pure bison entirely separate from its production herd.

3.3 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM FURTHER ANALYSIS

3.3.1 Return Bison to Yellowstone National Park

The Yellowstone bison population is a thriving population with no survival or reproduction problems at this time, thus the NPS is not interested in the return of the QFS bison. The current management policy is to utilize quarantine as an alternative to shipping brucellosis seronegative bison to slaughter and to be considered for relocation to new or alternative locations to support conservation of the species elsewhere and to support development of culturally significant herds on tribal lands.

3.3.2 Translocation of QFS Bison onto a MFWP-owned Wildlife Management Area

This option was not considered viable since MFWP has not yet completed its Statewide Bison Conservation Strategy Environmental Impacts Statement that would outline the department's plans for bison conservation in the state. Additionally, none of the wildlife management areas (WMA) have the facilities to restrict bison movements onto adjacent lands where residences and/or livestock may be present.

3.3.3 Leave the Bison at the Green Ranch

A proposal for the disposition of these bison was not submitted by Turner Enterprises, thus this location is not considered a viable option.

4.0 Affected Resources and Predicted Environmental Consequences

4.1 DESCRIPTION OF RELEVANT BISON BEHAVIOR AND HABITAT IN MONTANA

(Excerpts from MFWP's 2011 *Background Information on Issues of Concern for Montana: Plains Bison Ecology, Management, and Conservation*)

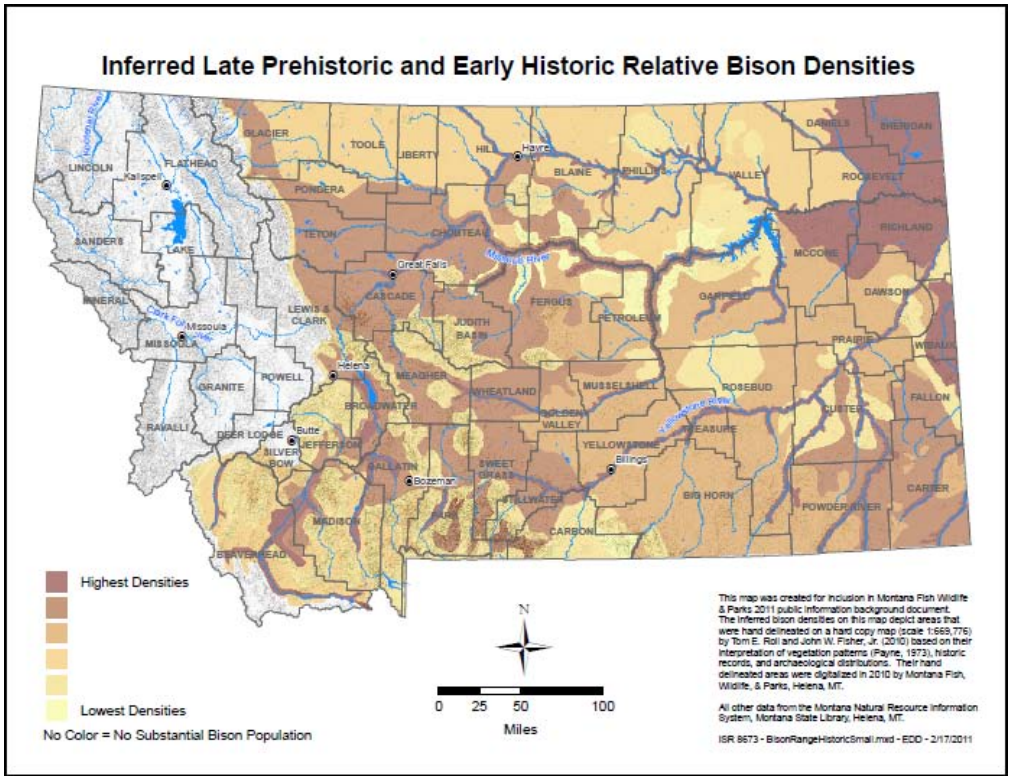
Historic Distribution:

The historical distribution of bison covered most of the North American continent (Hornaday 1889; Gates et al. 2010). Guthrie (1980) notes that while historical groups of bison were found throughout North America, the greatest concentration were found along a line from Alberta to Texas, just east of the Rocky Mountains and in the intermontane basins located just to the west. The largest concentration of bison occupied the Great Plains, which extends east to the Missouri River valley and westward to the front range of the Rocky Mountains. The Great Plains also extends from Canada to Mexico, and is the largest biome in North America (Isenberg 2000).

Isenberg (2000) notes that the Great Plains consist primarily of short-grass and mixed-grass rolling plains, but also include wooded river valleys and high, forested hills.

Figure #5 illustrates the inferred late prehistoric and early historic relative distribution and densities of bison within the state of Montana. This map was created based on vegetation patterns (Payne 1973), archeological records and reports of historic human activities by Roll and Fisher Jr. Though populations of bison were found throughout much of the state, regions delineated as highest and higher densities had the highest estimated year round populations.

Figure #4: Inferred Late Prehistoric and Early Historic Relative Bison Densities in Montana
Created by Roll and Fisher Jr. (2010)



Though bison were primarily located in the lower elevations of the plains, there are numerous reports of bison seasonally moving to high elevation within the Rocky Mountains, especially along the Front Range. Fryxell (1926) located skulls at approximately 9,500 feet, 10,500 feet, and 11,500 feet within the Snowy and Centennial ranges. Hornaday noted that bison had ranged to an elevation of 11,000 feet, based on a skull that was found in Two Ocean Pass within Yellowstone National Park (YNP) (Fryxell, 1926).

The observations of early travelers within the region, archeological records of a variety of bison-kill sites, and the oral history of Native Americas support the distribution and abundance of bison within Montana. As of 2010, the State Historic Preservation Office of the Montana Historical Society had 320 bison kill sites on record, though it is estimated that these sites are only a small representation of the overall sites that once existed in Montana (data provided by D. Murdo, State Historic Preservation Office, May 2010). The first are bison jumps in which early hunters

either on foot or on horseback drove bison herds over a cliff (McHugh 1972; Geist 1996). The second type of archeological kill sites found within Montana are bison pounds, in which bison were driven into a small area enclosed by either stones or logs and then slaughtered (Murdo, personal communication).

Habitat

Bison evolved through natural selection as a "dominate grazer" on complex landscapes (Fuhlendorf et al. 2010), and historically occupied a variety of habitats. Bison were found throughout the prairies, the arid plains and grasslands, meadows, river valleys, aspen parklands, coniferous forests, woodlands, and openings in the boreal forests (Long 2003; Burde and Feldhamer 2005; MFWP 2010; MNHP 2010). Bison utilize the woodlands in the summer for shade, and in the winter when the accumulation of snow prevents feeding in more open terrain (Meagher 1978; Burde and Feldhamer 2005). Berger and Cunningham (1994) observed that bulls were more common in breaks, woody draws, and ravines then females. The cow groups were more common on prairie habitat. Currently most managed bison preserves confine bison to small reserves of land that are often outside of the short-grass plains, which was one of their main historic habitats (Isenberg 2000).

The impacts of large grazers such as bison can be both positive and negative, the key is how the species is managed on the landscape. The grazing and wallowing behavior of bison result in the creation of environments, which contain plant communities that have a greater diversity than the surrounding region. This increase in plant diversity is utilized by other animals and increases the diversity of wildlife within the region (Foresman 2001; Picton 2005; Gates et al. 2010).

A study completed by Frank et al. (1998) found that the presence of large herbivores, bison and elk, within YNP increased the aboveground plant production by an average of 43%, thus dramatically promoting energy capture within the ecosystem. This study found that, "ungulates stimulate allocation to shoot growth while simultaneously enhancing light levels, soil moisture, and nutrient availability" (Frank et al. 1998). Frank et al. (1998) note that, "because animals are continually on the move, grazing at any site, although often intense, never lasts long. Furthermore, because ungulates tend to graze grasslands early in the growing season, when forage is the most rich in minerals, and then migrate off sites while conditions are still favorable for plant growth, defoliated plants are provided with both sufficient time and suitable conditions to regrow". Frank et al. (1998) conclude that, "in contrast to most terrestrial habitats, where climate is the preeminent factors determining primary production and ecosystem energy flow, ungulates play a major role in regulating these processes in grazing ecosystems". Thus, "ungulates in grazing ecosystems do not simply respond passively to ecosystem gradients of forage characteristics; they actually modify vegetation structure, with the result that herbivores increase their own foraging efficiency (Frank et al. 1998).

The grazing of bison and their presence in a region enhances the availability of nitrogen to plants by increasing the nitrogen cycling and by altering the form in which inorganic nitrogen exists. This increase in available nitrogen increases the productivity of the vegetation (Frank and Evan, 1997). Bison can stimulate increased biomass production in a grassland system by redistributing nitrogen and other nutrients through feces and urine deposition (Frank and Evan 1997).

Knapp et al. (1999) found that the grazing behavior of bison which, in conjunction with wallowing and other ecological events such as fire, increased the diversity of the grassland to provide suitable nesting habitat for a variety of obligate grassland nesting bird species (Gates et al. 2010). Grassland birds evolved alongside native grazers, such as bison, and are dependent on the heterogenic mosaic landscape patterns that emerge from the grazing patterns of bison (Knopf 1996). Some of the bird species that utilize bison altered habitat are upland sandpipers, grasshopper sparrows, mountain plover, McCowan's longspur, ferruginous hawks, and long-billed curlew (Knopf 1996; Gates et al. 2010).

Diet

The diet of the plains bison consists primarily of grasses, though bison would consume forbs and woody vegetation when their preferred vegetation is not readily available (Nowak and Paradiso 1983; Foresman 2001; Long 2003; Burde and Feldhamer 2005; Picton 2005). The study of the diet of bison, cattle, and sheep on short grass vegetation in northeastern Colorado by Peden et al. (1974) found that bison have a greater preference for warm-season grasses, which are grasses that grow during the summer and mature in the late summer or fall. The study found that bison consumed more warm-season grasses than cattle or sheep, with warm-season grasses making up approximately 80% of their diet except for during late winter and early spring.

Bison's nutritional needs change seasonally and are related to the length of the day. A mature bison gains and loses weight cyclically, with weight loss occurring in the fall and winter, and weight gain occurring in the spring and summer (Feist 1999). On average bison tend to lose 10-15% of their body weight during the winter (Feist 1999).

Bison are ruminants with a four chambered stomach system that allows them to effectively digest plant material. Bison have a mutually beneficial or symbiotic relationship with microorganisms including bacteria and protozoa, which allow an increased utilization of plant material, then would occur in the micro-organisms absence (Feist 1999; Picton 2005; Gates et al. 2010).

Bison are a diurnal and crepuscular species, meaning that they are mostly active during the day and during twilight (Nowak and Paradiso 1983; Long 2003; Reynolds et al. 2003). Bison typically forage between nine to 11 hours daily, but would increase their foraging if the quality of food is low (Picton, 2005). Bison alternate between active foraging and passively ruminating in order to allow time for the microorganisms to break down the plant material (Foresman 2001). The large size of the bison allows for a larger digestion vat, therefore allowing bison to utilize lower quality forage than other ungulates, such as elk, cattle, or deer.

Behaviors toward other wildlife

Bison evolved alongside other native ungulate species, such as elk, mule deer, and pronghorns. Knowles (2001) notes that, "bison tend to ignore other ungulate species except when closely approached during a feeding bout. Interspecies aggression may be exhibited at this time but chase distances are typically very short as long as the other species exhibits flight behavior".

Barmore Jr. (2003) examined the relationship between native ungulate species in the northern range of YNP during 1962-70. Through combining his observations and relevant literature, he determined the amount of separation and the factors responsible for separation of the different

species. Barmore Jr. (2003) found that the following ecological separations occurred between bison, mule deer, moose, bighorn sheep, and pronghorn antelope during 1962-70, and probably during primeval times, based on major differences in four niche dimensions; spatial distribution, habitat selection, food habits, and tolerance of snow. Barmore Jr. (2003) observed niche dimensions were factors responsible for the ecological separation of bison from mule deer.

General Behaviors

Bison engage in a wallowing behavior that is done to clean themselves and to rub off the loose old coats of hair. This behavior forms circular to oval-shaped bare soil depression (Coppedge et al., 1999). Meagher (1973) observed that bison tended to utilize the same wallows annually. Wallows are approximately eight to ten feet in diameter and tend to occur on flatter ground consisting of finer texture soils. Wallowing is associated with the relief of insect and parasite irritation, shedding, and potentially as a means of thermoregulation, as bison may lower their body temperature through contact with cooler soil (Nowak and Paradiso 1983; McMillan et al. 2000; Lott 2002; Reynolds et al. 2003; Picton 2005). Wallowing is also associated with reproduction. Bulls would urinate in a wallow and then both the bull and cows would roll in the urine. The pheromones in the urine induce the cows to come into estrus, helping to coordinate the estrus cycle of the females within the herd (Bowyer et al. 1997; Picton 2005).

Bison wallows increase the heterogeneity of the landscape. The soil within a wallow becomes exposed and compacted. This compacted shallow bowl collects rainwater, and creates a microenvironment in which seeds can sprout. The seedlings of sedges and rushes occur in wallows that are otherwise absent in the prairie (Coppedge et al. 1999; Knapp et al. 1999; Lott 2002).

Bison of all age and sex classes also engage in a behavior referred to as horning, which involves the rubbing of an object with its head, horns, neck, or shoulders (McHugh 1958; Coppedge and Shaw 1997). Horning is believed to be associated with relief from insect irritation, though it may also be a behavioral display or associated with coat shedding (McHugh 1958; Coppedge and Shaw 1997; Gates et al. 2010). Horning typically involves rubbing on a shrub or small tree, though bison may utilize manmade objects as well (Gates et al., 2010). Bison prefer to horn aromatic shrubs, sapling, and treated utility poles, which may contain insecticidal or insect deterring properties to gain relief from insects (Coppedge and Shaw 1997).

4.2 RELEVANT RESOURCES: VEGETATION & WATER

4.2.1 Alternative A: No Action

There would be no impacts to vegetation if the QFS bison were euthanized. Status quo would be maintained at all locations considered and existing uses would continue at APR, Fort Peck, Utah's bison areas, and the Zoos. The pastures owned by the Cherokee would remain vacant until they received bison through the ITBC. The range units designated for bison by the Fort Peck Tribes would continue to be used by their existing cultural herd and the Tribes would investigate other ways to obtain bison to expand their cultural bison herd.

4.2.2 Alternative B: Disposition of QFS Bison

1) Cherokee Nation of Oklahoma

- Affected Area: The two pastures (600 and 1,000 acres) are mixed forest (hard and soft wood trees) and plains grass pasture. Both pastures have been in continuous agricultural production for many years.

  Water sources within the pastures include creeks, ponds, rivers, and well water in handling facilities.

- Predicted Effects: Since the pastures have not been grazed, there would likely be a change in the existing plant density and diversity if 50 bison were translocated. It is the desire of the Tribe that over the long term the native prairie plant species can become reestablished with the presence of bison, which would be a positive benefit. To assist with this transformation, conservation methods may include the improvement of plains grasses with pasture sprigging of other prairie grasses like blue stem, big blue stem, buffalo grass and others.

2) Fort Peck Tribes

- Affected Area: Range Unit 62 (4,440 acres): Range Unit (RU) 62 is divided into 2 pastures. This unit includes glaciated upland prairie, breaks-type topography, and bench lands. The predominant plant species with Range Unit 62 are western wheatgrass, plains reedgrass, and green needlegrass. Also, present are bluebunch wheatgrass, little bluestem, sideoats grama, threadleaf sedge, plains muhly, needle & thread, clubmoss, and at lesser amounts snowberry and rose. There are no noxious weeds present within RU 62.

  A Range Inventory completed by the Natural Resource Conservation Service in April 2010 indicated RU 62 had a projected carrying capacity of 1,347 AUMs and up to 2,300 AUMs with adequate water development. At that time, the vegetation trend on 31% of the property is improving, whereas the trend on the remaining acres was not apparent.

  Since 2012, this RU has been used by QFS bison and they are monitored and tested annually in a 5-year monitoring period. These bison have three years remaining in the study.

  The Tribes established the carrying capacity of the RU at one bison for every 33 acres.

  There are small freshwater emergent wetlands at numerous locations with RU 62. The largest is 2.6 acres as identified by the USFWS's National Wetlands Inventory database. Additional sources of water include two natural springs and two solar powered water troughs.

  Range Unit 63 (2,322 acres): RU 63 is also divided into 2 pastures and has been grazing by cattle in the past. Predominant plant species are western wheatgrass, needle and thread, threadleaf sedge, clubmoss with blue grama in some areas. There are small areas of sulfur cinquefoil and Canada thistle along the Long Creek corridor. Woody species

are abundant on all the coulees. Different age classes are represented in green ash, box elder, hawthorn, chokecherry, snowberry, currant, snowberry and prairie rose. A 2002, range condition report noted total available forage for cattle in a normal precipitation year was a weighted average of 348 pounds per acre.

Within RU 63, water is provided by a dam on the southern boundary of the pasture, 2 spring developments on the southeast corner of the pasture, 2 adjoining tanks in the central portion, and natural and man-made pools within Long Creek.

Range Unit 67 (4,016 acres): Range Unit 67 is not divided into pasture but has been grazed by cattle in the past. Predominant plant species are western wheatgrass, needle and thread, blue grama, and clubmoss with muhly and threadleaf sedge in some areas. There are small areas of sulfur cinquefoil and Canada thistle along the Long Creek corridor. Woody species are abundant on all the coulees. Different age classes are represented in green ash, box elder, hawthorn, chokecherry, snowberry, currant, snowberry and prairie rose. A 2002, range condition report noted total available forage for cattle in a normal precipitation year was a weighted average of 280 pounds per acre.

There is a small creek crossing through the unit which has water 90% of the year. Similar to RU 62, the tribes have established a solar-powered well within the unit that would be heated by propane during the winter.

- Predicted Effects: The eastern glaciated plains, which include northeastern Montana, have evolved with grazing (bison, deer, antelope, jack rabbits, etc.) (NRCS 2005). The addition of 145 QFS bison to one or more of the range units may reduce the current level of forage available within the unit. Bison food habits studies have consistently shown that their diet is about 90% grasses, 5% forbs, and 5% shrubs (Fort Peck Tribes 2014). Grazing pressure to existing vegetation is not expected to negatively affect the native grasslands since the total number of bison within the cultural herd would be well below the carrying capacity of RUs and the target population of the cultural herd is 300 bison. Limiting the herd's size to ensure long term rangeland health is based on the recommendations from local NRCS staff for the management of the Tribe's commercial Turtle Mound bison herd at RU 57, which has similar vegetation and topography to cultural herd's RUs.

  Movements of bison within the range unit have the potential to establish trails across the landscape, as well as establishing wallows to take dust baths. Both elements could eliminate localized areas of vegetation while in use by the bison. However to date, neither of those elements have been established with RU 62 where the tribe's current cultural herd resides and the presence of bison has actually improved the grassland habit based on the ongoing research of the Wildlife Conservation Society Birds and Bison Project (Ellison 2013).

  Bison are expected to move within each RU to graze and seek out water resources reducing the potential for overgrazing areas near natural springs within each unit. Water

troughs within RU 62 were strategically located within a three mile radius of the other troughs and natural sources of water.

Supplemental feeding of native grass hay would be provided to the bison only during extenuating environmental/weather circumstances such as severe snow storms, flooding, fire or any other circumstance that could drastically reduce the range unit's carrying capacity in a short time period.

3) Utah Division of Wildlife Resources (UDWR)

- Affected Area: The terrain of the Henry Mountains consists of steep to moderate slopes on the mountain, mesas, and eroding canyons. Elevations range from 4,800 feet to 11,500 feet above sea level. Flat landscapes and gentle slopes are interspersed among the more rugged terrain. Lower elevations are somewhat barren in areas with low growing vegetation but quickly become dominated by pinyon-juniper woodlands and conifer at higher elevations. Open areas are found interspersed among these woodlands such as old burns and chainings/seedings. The major vegetative communities found in the area are salt desert shrub, pinyon-juniper, mountain brush, aspen-conifer, and sub-alpine. Currently, bison use is found throughout the area, in all elevations, topographies, vegetative communities, and seasons.

  Vegetation in the Books Cliffs area consists primarily of sagebrush plateaus and pinion juniper flats with grassy understories.

  On the Henry Mountains, bison have been very adaptable and utilized a wide variety of habitat types. The Henry Mountains herd has used grassland flats at just over 5,000 feet in elevation on Blue Bench, pinyon-juniper woodlands and chainings from 5,000 feet at Swap Mesa to over 8,000 feet at McMillian Springs. Bison also use sub-alpine meadows at over 11,000 feet on Mount Ellen and Pennell. At times, they prefer the shade of Douglas fir stands on the east side of Pennell during the summer, but they may also be found on the stark Indian ricegrass/globemallow flats on Stevens Mesa during the hottest days of the year.

- Predicted Effects: The addition of 30 bison to the state's existing herd of 340 at Henry Mountains and 125 at Book Cliffs is not expected to measurably impact the existing density or diversity of vegetation at the sites. UDWR already implements the following at Henry Mountains to improve habitat conditions and capacity: purchases of grazing allotments from woulding sellers, water developments, and vegetative treatments such as prescribed burns, mechanical treatments, and reseedings.

  The biggest conflict with this herd is with competition with cattle. To address this issue, a large-scale research study was implemented to improve our bison population estimates and quantify the impact of bison on cattle grazing allotments. UDWR has stated it has conducted extensive habitat treatments to increase the amount and quality of forage for both bison and cattle.

Van Vuren (1979) observed habits on Mount Ellen on the Henry Mountains and 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. 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.

4) Zoo Consortium

- Affected Area: The Bronx Zoo has two bison facilities – a 130,000 square foot exhibit enclosure of a grass pasture lines with shade trees and a 16,000 square foot exhibit holding area. Both areas The Queen's Zoo exhibit and holding area is part of the zoo's Great Plains exhibit and measures 76,800 square foot grass pasture. The third area available for the QFS bison is at The Wilds in southeastern Ohio which currently has 680 acres of pasture land dedicated to their bison herd.

- Predicted Effects: The addition of 30 bison to the consortiums' existing bison exhibits is not expected to have measure impacts on vegetation because the exhibits at the Bronx and Queens Zoo are controlled to match the needs of a limited number of bison. Minimal effects to vegetation is also anticipated at The Wilds' facility because that too is a controlled environment where the carrying capacity of the bison pasture would be closely monitored for changes.

4.3 RELEVANT RESOURCE: WILDLIFE

4.3.1 Alternative A: No Action

There would be no impacts to wildlife resources if the QFS bison were euthanized. However, the loss of a resource for genetically-pure bison may be considered a negative impact to the species and for the opportunity to improve the health of other bison herds.

4.3.2 Alternative B: Disposition of QFS Bison

1) Cherokee Nation

- Affected Resource: Wildlife species that may be found in northeast Oklahoma, including the Tribal property, are white-tailed deer, coyote, bobcat, raccoon, grey fox, other small mammals, Rio Grande and eastern turkey, bald eagle, and other bird species. (Oklahoma Dept. of Wildlife Conservation 2014)

- Predicted Effects: The translocation of 50 bison to the Cherokee Nation may have minor negative consequences to the native wildlife in the local area since the bison pastures would be double fenced (exterior barbed wire and interior electrical) that may restrict wildlife movements in and out of the pastures. Small mammals and deer may use adjacent properties with like habitats more frequently.

The addition of bison to tribal lands is expected to have a positive benefit to the landscape since the bison would become the foundation for the Tribe's plans to preserve and reestablish the native tall grass prairie located inside jurisdictional bounds of the Cherokee Nation of Oklahoma. This plan includes the conservation of all prairie species including the Monarch Butterfly and other native pollinators whose numbers are in serious decline.

2) Fort Peck Tribes

- Affected Resource: The plains grassland habitat of Range Units (RU) 62, 63, 67 provides habitat and forage for numerous species including white-tailed deer, mule deer, and a variety of small mammals, birds, amphibians, and reptiles. See Appendix C for a complete list of non-game species predicted within the RUs. A limited number of elk do pass through the area, primarily following the Poplar River corridor east of Range Unit 62. These elk are from the Wood Mountain region in southern Saskatchewan Canada.

  A search of Montana Natural Heritage Program's database reported the following species of concern within RU 62 and 67: Sprague's pipit, chestnut-collared larkspur, bobolink, and McCown's longspur. No endangered or threatened species have been reported in or near any of the RUs. The Sprague's pipit is a candidate species under the US Fish and Wildlife Service Endangered Species List.

  An ongoing World Wildlife Federation (WWF) research study that monitors the diversity and density of grassland birds is currently underway RU 62 and 63. The study seeks to document the relationships between grassland birds and habitats created by grazing by bison.

  Fencing
  The design of the boundary fencing for all three RUs allows for ungulates and small mammals to either go under or over the smooth-wire strands because the bottom wire is 18-20 inches from the ground and the top smooth wire is at 5 foot which can be jumped by deer and elk.

- Predicted Effects: The addition of 145 QFS bison to the existing cultural herd's RUs is not expected to negatively affect resident or transient game species, such as white-tailed deer, mule deer, or other wildlife. The total number of bison within the cultural herd would be held at a maximum of 150 individuals below the carrying capacity of the RUs and a rest rotation grazing system has already been established for the use of the units, thus over grazing of the vegetation would be minimized and forage would be available for wildlife.

  Some grassland birds, such as uplands sandpiper, grasshopper sparrow, mountain plover, McCown's longspur, ferruginous hawk, and long-billed curlew utilize bison-altered (e.g. grazing and wallows) habitat (Knopf 1996; Gates et al. 2010). Knapp et al (1999) found that grazing behavior of bison in conjunction with wallows and other ecological events

such as fire, increase the diversity of grassland to provide suitable nesting habitat for a variety of obligate grassland nesting bird species (Gates et al. 2010).

The ongoing WWF grassland bird and grazing study would be used to assist the Tribes monitor the impacts of bison grazing impacts to avian species and the condition of grassland habitat. The study is a 5-year study with 2 years remaining.

The Tribes have not found this fence design to be an impediment to the movement of wildlife. The fencing design has been shown to be effective in containing the bison to RUs 62 and 63 where they are present. There has been only one bison breakout of the cultural herd over the past 2 years and that was caused when a wildfire moved through RU 62 which destroyed a portion of the fence line. The fence line was rebuilt and no escapes have occurred.

3) Utah Division of Wildlife Resources

- Affected Resource: Beyond providing habitat for 325 wild bison, the Henry Mountains also provides habitat for mule deer and a small population of antelope. Mountain lions dwell in the Henry Mountains and are seen by travelers on rare occasions. Game birds found in the area include pheasant, snipe, chukar, quail, dove, band-tailed pigeons, blue grouse, and occasional waterfowl during the fall and spring. Small birds include Clark's nutcracker, ravens, kestrels, chickadees, stellar jays, pinyon jays, towhees, and desert horned lark. There are also cottontail and jackrabbits and, in the lower desert areas, numerous reptiles (including some rattlesnakes) and small rodents. (Utah Travel Industry 2014)

  Within the Book Cliffs area, wildlife species in the area include mule deer, Rocky Mountain elk, antelope, mountain lion, black bear, waterfowl, shorebirds, blue and sage grouse, golden eagle, numerous hawks and owls, as well as many species of small mammals, birds, amphibians and reptiles. On occasion, moose, bison and Rocky Mountain bighorn sheep may be observed as well. (BLM 2011)

- Predicted Effects: No impacts are expected to the existing wildlife if 30 QFS bison were translocated to the Henry Mountains and Book Cliffs areas. Wildlife forage allocations present under the BLM's Resource Management Plan (RMP) in addition to Utah School and Institutional Trust Lands grazing permits in UDWR ownership and UDWR 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.

  Currently, large mammalian predators in both areas 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.

  In the Henry Mountains, bison would share some dietary overlap with elk. As with livestock, bison population distribution would determine the overall competitive overlap

with 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 would be determined through individual species management plans for the herd unit. These are reviewed and approved through the public Regional Advisory Council and wildlife board process and involve public input and discussion. Vegetation, watershed and habitat monitoring would help form the basis for the future population objective recommendations of each species.

Currently, there are 3,649 AUMs, which have been allocated to bison by the BLM and SITLA, and 3,035 AUMs that have been purchased for bison and are awaiting allocation through the Richfield Resource Management Plan, currently under revision. Due to the agreement with the seller of the 505 AUMs that they be used as a conservation buffer, they are not considered in changing the population objective. Given this, the total number of available AUMs is 6,179, which is sufficient forage for more than the recommended increase in bison numbers.

Should future grazing and forage competition issues arise, the Division is committed to addressing them. Continued rangeland work would 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.

The addition of "genetically-pure" bison to Utah's existing wild herd would improve genetic heterozygosity of the groups and help ensure the long-term viability of these populations.

4) Zoo Consortium

- Affected Resource: The three designated bison exhibits with the zoos are limited only to one species, bison.

- Predicted Effects: No impacts are expected to any other wildlife species if QFS bison were translocated to the zoos.

  This consortium can provide space, husbandry expertise, and could contribute to the effort to restore genetically-valuable YNP bison to the wild by: 1) building national support for bison restoration by educating millions of visitors about YNP bison; 2) expanding bison restoration in the wild by providing zoo-bred bison for multiple reintroduction efforts along varied timelines. The zoo is already working with Colorado State University to non-surgically collect embryos from the genetically pure bison held at the USDA APHIS Wildlife Research Center (Fort Collins, Colorado) and implant them in Bronx Zoo bison to establish a herd of pure bison at the Bronx Zoo.

  To achieve restoration efforts, the Zoo Bison Consortium would work very closely with the American Bison Society (ABS) to identify appropriate sites where the bison could perform their natural ecological roles yet not come into contact with bison that are not genetically pure. The goal of the ABS is the ecological restoration of bison, ensuring that

bison exist in large, free ranging herds within their historical range, interacting with native species and systems, and inspiring Americans of all cultures. To work toward this long term goal, the ABS coordinates a broad range of stakeholders-including NGOs, universities, tribes, government agencies, private ranchers, and the zoo community-to build the social and scientific bases for bison ecological restoration.

4.4 RELEVANT RESOURCE: COMMUNITY

4.4.1 Alternative A: No Action

There would be minor impacts to community resources (e.g. public safety, local businesses, cultural interests, etc.) if the QFS bison were euthanized. Some of the public may consider it culturally disrespectful to euthanize healthy animals. However, some community benefit would occur as the bison meat would be donated to local food banks.

4.4.2 Alternative B: Disposition of QFS Bison

1) Cherokee Nation

- Affected Resource: The Cherokee Nation of Oklahoma has maintained a long cultural and traditional affiliation with agriculture in general the buffalo specifically. The tribe views the establishment of buffalo projects in the Cherokee Nation as an important opportunity for conservation, education, and as a cultural opportunity to begin to document the history of the tribe as it relates to buffalo and agriculture. The ancient Cherokee Buffalo Dance was lost in Oklahoma, but has continued on as a social dance in other Cherokee communities, one in North Carolina. In the past, the Buffalo Dance was important to the Cherokee and was used as a symbol for all game animals. The tribe plans to works with other program partners within the Tribe as the work of this and other bison projects are instituted. Other program partners within the tribe may include language, art, and cultural activities departments.

  Both pastures are accessible by gravel road in an isolated area of the county.

- Predicted Effects: The addition of bison to the tribal lands is expected to have a variety of positive benefits to the Tribe. Anticipated benefits include: public enjoyment in a natural grassland setting, conservation of the buffalo and prairie ecosystem as an icon of Cherokee and Native American culture for future generations, and assist in the development of educational and economic development initiatives via the bison including eco- and agri-tourism, and by educating beginning Cherokee farmers and ranchers and Cherokee youth in agricultural endeavors.

2) Fort Peck Tribes

- Affected Resource: The largest communities near the designated bison range units (RU) are Wolf Point and Poplar to the south, both of which are within the Fort Peck Indian Reservation. The 2010 U.S. Census reported the population of Wolf Point at 2,621 and Poplar at 810. Total population of Roosevelt County is approximately 10,200, of which 6,800 are Native Americans.

The Bakken oil development has impacted northeastern Montana and the tribal government is working to capitalize on related economic opportunities. Major employers on the reservation are the tribal government, federal government, Fort Peck Community College, local school districts, Fort Peck Tech Services, and West Electronics, Inc. (CEIC et al. 2013). Farming, ranching and natural resource extraction also are a part of the reservation's economy (Fort Peck Tribes 2011).

In 2007, there were 100 farms reported by U.S. Department of Agricultural Statistics within the reservation with 97 operated by tribal members (CEIC et al. 2013) and 728 farms were reported within Roosevelt County (USDA 2007). In 2010, the USDA reports there were 38,000 cattle and calves in Roosevelt County (NASS 2011). Currently, there are cattle operations on adjacent properties to RU 63 and 67.

As previously noted, the Tribes also maintain a commercial bison herd, known as the Turtle Mound Buffalo Ranch. This domestic bison operation provides bison to the Tribe for cultural purposes and offers commercial buffalo hunts for a fee from $650 to $5,000 depending upon the sex and age of the buffalo hunted. Currently, there are approximately 200 bison as part of the commercial tribal herd.

Adjacent properties to designated bison range units are a mix of livestock and crop operations.

The bison play an important role in Native American culture. The bison provided almost everything Native Americans needed. The Sioux and Assiniboine Tribes have a long history of economic and cultural ties to bison. Formerly, bison were the basis of the Tribes' economies and bison had spiritual significance to the Sioux and Assiniboine people. Historical notes recorded in the mid-1800s show that the Poplar River valley was used as a bison migration corridor with large herds moving south out of Canada in fall and returning in spring. These wintering herds were hunted by the Assiniboine, and extirpation of the Northern Herd in 1872 resulted in total collapse of the Assiniboine society (Fort Peck Assiniboine and Sioux Tribes 2014).

- Predicted Effects: No impacts are predicted to the nearby communities or local businesses. Neighboring agricultural businesses are not expected to be affected by the translocation of bison to RU 63 and 67 as the QFS bison would be confined to those range units, as is another group of QFS bison are currently confined to RU 62.

  The Tribes would continue to monitor bison movements within the RUs and the condition of boundary fences to watch for bison escapes onto neighboring lands. If a bison escapes and causes damages to another landowner's fencing or crops, the landowner would be compensated through the Tribes bison insurance policy. The Tribes would maintain a zero tolerance policy for escaping bison and the bison would be immediately moved back on to the unit with the use of trucks, ATVs, or on horseback by Tribal wardens.

Since the arrival of a QFS bison herd in 2012 to RU 62, many visitors have come to see the herd. So many tribal and non-tribal visitors have come, the tribes installed additional signage, plan to improve the access road to the viewing area, and may hire additional staff to manage school groups that visit. Presently, there are no improved roads to access RU 63 or 67 to provide bison viewing opportunities.

The placement of additional bison within the Fort Peck Reservation would continue to provide the following benefits to the community (ITBC et al. 2008):

1. Continue to restore viable bison herds on reservation lands for ecological & cultural purposes.
2. Conservation of a genetically important keynote species and preservation of tribal lands.
3. Development of a bison educational display that would educate Indian & non-Indian people alike.
4. Enhancement of the historical value of the Fort Peck Tribes.

A second bison herd within the Fort Peck Reservation with pure genetic roots to the historical herds that tribal ancestors followed on the Plains would be dedicated to cultural and spiritual needs of the Tribes. It is the hope that the expansion of the cultural herd would spur continuing interest in the social and economic connection the tribal members have had historically with the species.

Although, the study bison would be designated as a cultural herd and kept apart from the Tribes' commercial Turtle Mound bison herd the Tribes may consider using members of the cultural herd to strengthen the genetic diversity of the commercial herd in the future. In the future, the Tribes may establish a slaughterhouse on Reservation for the processing and distribution of bison from both herds to tribal members and create new jobs for area residents.

3) Utah Division of Wildlife Resources

- Affected Resource: The Henry Mountain and Book Cliff area are in southeast Utah east of the Capital Reef National Park. The small community of Hanksville of 214 soles is the closest urban center approximately 20 miles north of the bison areas. The area are very remote with access provide via the state highways and dirt or gravel roads in the interiors.

  Bison and cattle have co-existed within the Henry Mountains since 1941. Cattle are managed within fencing and bison are free to move across the landscape. The BLM, the UDWR, conservation organizations, and sportsman groups have worked together to ensure that grazing continues to be shared by bison and cattle within the Henry Mountains. The impact on regional agriculture has been limited. Bison have encroached upon irrigated agricultural fields during at least two periods of drought in the past 20 years. In both instances, the bison were herded from the fields and the landowner was compensated for damages (Utah Division of Wildlife Resources 2007b).

Though bison were historically present in the region, they were absent from the Book Cliffs until the Ute Indian Tribe reintroduced six bison onto the Uintah and Ouray Reservation in 1986 (Utah Division of Wildlife Resources 2007a). As within the Henry Mountains there is overlap between the range use of bison and cattle, as well as with other wild ungulates. The UDWR, with the help of the committee and sportsman, has completed cooperative range and habitat improvement projects on approximately 114,555 acres between 2002 and 2007, and plans to continue to implement range improvement projects (Utah Division of Wildlife Resources 2007a). The UDWR and sportsman have also purchased lands and made those grazing allotments available to wildlife, including bison (Adams et al. 2011). This has reduced the contact between bison and livestock. Private grazing allotments are still maintained on the Book Cliffs Wildlife Management Unit.

- Predicted Effects: No new impacts to the community resources are anticipated if 30 QFS bison from Montana were transferred to the existing bison herd at Henry Mountains and Book Cliffs. Both areas are very remote, so human contact is very limited. UDWR would continue to manage both herds under the guidance of their individual management plans which describe the need to work cooperatively with land managers, tribal representatives, and livestock owners to sustain the bison's presence on the landscape.

4) Zoo Consortium

- Affected Resource: The addition of 30 QFS bison to the zoos' existing herd is not expected to impact any community resources. No changes to the current designated bison exhibit areas are necessary to accommodate the new bison.

- Predicted Effects: The potential for coordination within a consortium has the benefits that more people/ visitors would be exposed to the story of bison history, the YNP, and the importance of restoration in the wild. The zoo's properties have millions of visitors each year. At the Bronx Zoo alone, an approximately two million people visit the park annually. The Zoo's interpretation department designs exhibits, signage, and pamphlets related to our animals. The education department brings thousands of school children, science teachers, and others to our parks each year for short courses, and designs curricula for e-learning and distance learning for science teachers, which allows us to reach and educate people about bison and bison ecology, range, history, threats, cultural ties, the quarantine initiative, and restoration to the wild.

4.5 RELEVANT RESOURCE: RECREATION

4.5.1 Alternative A: No Action

The euthanizing of the QFS bison returned to MFWP would not have any impacts on recreational opportunities since these bison have been part of a research project not available to be hunted.

4.5.2 Alternative B: Disposition of QFS Bison

1) Cherokee Nation

- Affected Resource: Currently the two designated bison conservation areas are open grassland pastures in rural northeast Oklahoma.

- Predicted Effects: Recreation opportunities may increase in the future if hunting is initiated as a tool to management the population size of the bison herd.

2) Fort Peck Tribes

- Affected Resource: Recreational uses are not permitted within the RUs since they are exclusively used as bison pastures. Viewing of the bison within RU 62 is permitted and that RU is accessible from Montana Highway 13 via County Road 2046. RUs 63 and 67 are only accessible via unimproved dirt road used for administrative access.

- Predicted Effects: No new recreation opportunities (e.g., hunting) are expected to develop with the placement of additional bison on the RUs until the herd size reaches 300 animals. At which point, the Tribes may cull excess bison from the cultural herd to the business herd for hunting opportunities. Individual bison from the cultural herd may be culled to be used for cultural purposes.

3) Utah Division of Wildlife Resources

- Affected Resource: The public hunting of the Henry Mountain bison has been an essential part of the management program. Approximately 150 highly sought after permits are awarded annually. As of 2007, the overall hunter success has been around 87% (Utah Division of Wildlife Resources 2007b). Other recreational opportunities permitted include hiking camping, rock climbing, photography, and sightseeing (Utah Tourism Industry 2014).

  The Book Cliffs Wildlife Management Unit (BCWMU) consists of approximately 2.1 million acres within Utah's Uintah and Grand counties, which are managed as BLM, Native American Trust Lands, and State of Utah Trust Lands. BCWMU is divided into three subunits. The Book Cliff bison herd is managed on the Bitter Creek and Little Creek subunits which consist of approximately 1.47 million acres, of which 5% of total is private, 35% of total is Ute Tribe Trust Land, and the remaining 60% is BLM, Utah Division of Wildlife Resources, and State Trust Lands (Utah Division of Wildlife Resources 2007a).

  Similar to Henry Mountains, hiking, hunting (ungulate), camping, photography, and sightseeing area permitted on the public lands portion of the BCWMU.

- Predicted Effects: Overall, existing recreational opportunities at both locations are not expected to be impacted if 30 QFS bison were translocated to Utah.
  In the future when the bison population reaches the appropriate level to allow the implementation of the hunting program, hunting opportunities at Book Cliffs may increase.

4) Zoo Consortium

- Affected Resource: The Bronx and Queens Zoos and The Wilds are open year-round to visitors to see the zoo's exhibits and partake in educational experiences. Our parks reach millions of visitors each year. At the Bronx Zoo alone, an approximately two million people visit our park annually. Their interpretation department designs exhibits, signage, and pamphlets related to our animals. The education department brings thousands of school children, science teachers, and others to our parks each year for short courses, and designs curricula for e-learning and distance learning for science teachers.

- Predicted Effects: There would be no changes to the recreational or educational experiences at the zoo consortiums properties if 30 additional QFS bison were added to their collection for display and research.

4.6 CUMULATIVE EFFECTS

For the No Action Alternative:
There would be no cumulative impacts to resources within the State of Montana if the QFS bison, presently residing at the Green Ranch, were euthanized and their meat donated to food banks or tribal organizations.

For the Disposition of the QFS Bison to Four Locations:

1) Fort Peck Tribes

Minimal cumulative impacts are expected to the existing resources at the tribal bison range units as the number of QFS bison translocated there would be managed over time to meet the carrying capacity of the range unit and if the population of bison exceeds the population management goal, actions would be triggered to harvest the bison or the transfer of excess bison to other tribes. The presence of bison on the designated bison range units would likely continue to positively impact the grassland habitat for bird species as the preliminary study results have shown be occurring with the presence of the Tribes' current cultural bison herd.

Additionally, a positive predicted cumulative impact may be the decrease in the amount of plant matter and fire fuels present within range units 67 and maintain low fuel fire load on units 62 and 63. A large rangeland wildfire (15,000 acres) impacted range unit 63 in 2012.

The increased herd size could have the potential for more escapes from their fence. However, given the management of the current herd and the capacity for more, the efficacy of the fence erected for containment and the management practices evidenced over the 2 years of the current QFS bison, more escapes are not likely to occur and in the even they do, the Tribe plans to respond in the same fashion they have done in the past which is to immediately corral them and place them back on tribal lands

Lastly, additional bison to the Tribes' cultural bison herd would increase the potential for the expanded use and reconnection of tribal members with a wildlife species that is a core component to their culture.

2) Out of State Locations

Identical to the No Action Alternative, there would be no cumulative impacts to existing resources within the State of Montana if QFS bison were translocated to locations in Ohio, Oklahoma, New York, and Utah. The translocated bison would contribute to the genetic diversity of the existing herds in Ohio, New York, and Utah, which could be a positive cumulative benefit over time. No negative cumulative impacts are expected at to the resources at the out of state locations.

5.0 Need for an Environmental Impact Statement

The Department has determined an environmental impact statement (EIS) is not required by the proposed action of translocating QFS bison to the Fort Peck Reservation, the Cherokee Nation in Oklahoma, the Henry Mountains and Book Cliff areas in Utah, and zoos in Ohio and New York. The translocation of animals between the State of Montana and other out of state locations is a considered routine action by MFWP within its statutory responsibilities.

Based upon the above assessment, MFWP concludes that none of the impacts associated with either alternative would have a significant impact to the physical and human environment within Montana. This environmental assessment is therefore the appropriate level of analysis for the proposed action and an environmental impact statement is not required. In determining the significance of each impact, the criteria defined in the State of Montana's Administrative 21.2.431 was used.

6.0 Public Participation

6.1 PUBLIC INVOLVEMENT

Public notification of the EA release and opportunities to comment would be by:

- A statewide press release;
- Direct mailing to interested parties; and
- Public notice on the MFWP's web page: *http://fwp.mt.gov*

Copies of this EA would be available for public review at MFWP regional headquarters in Bozeman and Glasgow, and at the department headquarters in Helena.

6.2 COMMENT PERIOD

The public comment period would extend for (30) thirty days beginning October 1st. Written comments would be accepted until 5:00 p.m., October 30, 2014 and can be mailed to the address below:

QFS Bison Disposition EA
Montana Fish, Wildlife & Parks
PO Box 200701
Helena, MT 59620-0701

or submit email comments at:
http://fwp.mt.gov/fishAndWildlife/publicComments/2014/dispositionOfQfsBisonDraftEA.html

6.3 OFFICES & PROGRAMS CONTRIBUTING TO THE DOCUMENT

Robert Magnan, Fort Peck Fish & Game Department, Wolf Point MT
Gerald Parsons DVM, Cherokee Yellowstone Bison Program, Stratford OK
Scott Thompson, MFWP Regional Wildlife Biologist, Malta MT
Rick Wallen, Yellowstone National Park Wildlife Biologist, YNP WY

7.0 EA Preparer

Rebecca Cooper, MFWP MEPA Coordinator

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Appendix A
Request for Proposal

REQUEST FOR PROPOSALS
Disposition of Quarantine Facility Bison

Deadline for submission: April 30, 2014

Montana Fish, Wildlife and Parks (MFWP) is seeking proposals from agencies and organizations with interest and capability to house/hold brucellosis-free bison resulting from the Bison Quarantine Feasibility Study (hereafter referred to QFS bison) conducted by MFWP and USDA Animal and Plant Health Inspection Service (APHIS), as described in the Bison Quarantine Feasibility Study Phase II/III (MFWP December 2005). Approximately 135 bison that have completed all phases of the quarantine study and are currently being held at the Green Ranch near Bozeman Montana will be available for translocation.

Proposals will be evaluated by May 31, 2014. Once any proposal (proposals) is/are selected, MFWP will begin the necessary analysis and planning processes, depending upon the location of the preferred applicant's site. If, after the analysis the decision is to proceed, the final recommendation will be submitted to MFWP's Fish and Wildlife Commission for approval. If approved, bison could be translocated as early as November 2014. Before the quarantine bison are transferred, the successful applicant will be required to sign an MOU agreeing to specific provisions contained in the proposal and agreed to by MFWP and the applicant (see example at: http://fwp.mt.gov/fishAndWildlife/management/bison/.

Background:
The primary goal of the Bison Quarantine Feasibility Study was to develop quarantine procedures that would allow bison originating from YNP to be accepted as free of brucellosis and suitable for the establishment of new conservation herds of American bison, or to augment existing public and tribal herds in North America. The quarantine protocol is described in the 2005 Environmental Assessment, http://fwpiis.mt.gov/content/getitem.aspx?id=11375

These brucellosis-free QFS bison have been part of the research herd since 2005 and 2006 (two capture groups). All animals have been tested for brucellosis twice a year, with most tested at least 10 times, some up to 15 times, and have tested negative each time. Both Montana Department of Livestock and APHIS consider this group of bison to be brucellosis free.

Conservation Goals:
In 2010, the International Union for the Conservation of Nature (IUCN) American Bison Specialist Group (ABSG) published *American Bison: Status Survey and Conservation Guidelines* that reported on the current status of American bison, in the wild and in conservation herds, and makes recommendations on how to ensure that the species is conserved for the future. According to ABSG, there are 44 conservation herds of plains bison containing an estimated 20,500 animals, as of 2008.

For conservation herds, the overall objective is to retain allelic diversity, which is the best indicator of the genetic resources available to the population. The Yellowstone National Park (YNP) bison herd provides a very good genetically diverse source of bison that have been free ranging for many decades (Halbert 2003). In addition, this is a population that has been

influenced heavily by natural selection forces. Brucellosis-free bison from YNP that have completed the quarantine feasibility study (QFS) serve as a reliable source of genetically pure bison to contribute to the continued conservation of this species.

It is desired that as many of these QFS bison as possible contribute to the long-term conservation of bison in North America. While long-term bison conservation efforts are the Department's priority for these animals, MFWP will ultimately consider all feasible options as necessary.

Instructions:

Applicants are requested to submit a full proposal describing how they meet the criteria outlined below by April 30, 2014 to Montana Fish, Wildlife and Parks, Wildlife Division, P.O. Box 200701, Helena, MT 59620.

Proposals should clearly articulate the applicant's vision for bison conservation, and how these QFS bison fit within that vision.

Required Information and Factors That Will Be Considered: The following factors must be adequately addressed in any final proposal. Proposals must include/address each of the following points as completely as possible to enable evaluation for further consideration:

- ⇒ Name of organization, address, phone number, and email of contact person. If the proposal is submitted on behalf of an agency, Tribe, or NGO, the proposal should be submitted by the leader of that organization. Please indicate if additional approval processes will be required.
- ⇒ Description of overall project, including how the project serves the long-term greater conservation needs of plains bison, *including maintaining genetic diversity* (see Page 23 of the 2005 EA). If bison already exist on the project area or another bison herd is owned by the applicant, include description of how those bison would be separated from or integrated with the QFS bison. All proposals should include longer-range vision for long-term management of the bison.
- ⇒ Provide site/location information where the bison will be maintained, including a map, description of the location, and habitats in the project area. Site must be within suitable habitat within the historic range of plains bison. Preference will be given to those areas within the State of Montana.
- ⇒ Provide a comprehensive management plan that includes: population objectives and clearly defined means to control herd size and distribution; habitat management objectives; containment measures; measures to prevent genetic introgression; disease monitoring plans; and conflict management strategies. Identify and describe potential conflict management strategies (e.g., bison escapes, conflict with neighboring landowners, predators (e.g., grizzly bear), issues with other wildlife, etc).
- ⇒ Provide information about the capacity (size of area, carrying capacity, etc.) of the site to house bison in the year the bison would be translocated, as well as future years, including offspring that might be born.
- ⇒ If applicable, describe how hunting could be used to aid in population management, including any access provisions.

- ⇒ If dispersal to additional sites in the future is a management tool, describe processes that would be used to evaluate and designate where those bison will go, and how many/what percentage of bison could be available for such efforts.
- ⇒ If eventual incorporation of additional bulls is desired to help with genetic integrity, describe how that would be done – where they would come from, assurances they are genetically pure, etc.
- ⇒ Identification of secured and potential funding sources – to maintain animals per proposed plan (e.g., fencing, management, water development, handling facilities).
- ⇒ Letters of support from all partners and a definition of the role of each partner in the conservation program, and any necessary MOUs as applicable.
- ⇒ Describe how the translocated bison will contribute to or impact the local ecosystem. Identify if there are potential impacts to other local wildlife species (prairie dogs, ferrets, swift fox, etc.) from bison or from infrastructure such as fencing, and how those impacts will be minimized or mitigated.
- ⇒ Describe any additional measures that would be considered to help achieve the conservation goal for these bison (i.e., making bulls or future offspring available to other conservation efforts).
- ⇒ Include agency authorities and how they would be addressed if the applicant is successful, and incorporation of the applicable activities of other land management agencies or entities in your proposal.
- ⇒ Plan must comply with all applicable local, state, federal, and tribal laws associated with translocation/import of these bison, as well as compliance with applicable environmental regulations of recipient jurisdictions.
- ⇒ Clarify any legal or policy constraints: MEPA/NEPA/Tribal constraints, any legislative or statutory constraints. Provide a clear description of environmental review process to be conducted, if required.
- ⇒ If the recipient site is outside of Montana, please provide documentation from the state where the receiving site is located providing assurances that importation will be allowed into/through that state.

additional information or clarification is needed, contact: Ken McDonald, Wildlife Division
lministrator, Montana Fish, Wildlife and Parks at 406-444-5645 or kmcdonald@mt.gov.

Appendix B
Sample Memorandum of Understanding

MEMORANDUM OF UNDERSTANDING
BETWEEN
MONTANA FISH, WILDLIFE & PARKS,
AND
_____.

This Memorandum of Understanding (MOU) is entered into between Montana Fish, Wildlife and Parks (MFWP), Turner Enterprises, Inc. (TEl), and _____ (bison recipient) on this _____ day of _____, 2014.

WHEREAS bison are a keynote species that have important biological, cultural, and recreational values; and,

WHEREAS the Quarantine Feasibility Study (QFS) was developed by cooperating agencies for the purpose of determining whether it is possible to develop quarantine procedures, using the best available science and adaptive research strategies, to certify that individual or groups of YNP bison are free from brucellosis, including latent infections of brucellosis; and,

WHEREAS MFWP has completed Phase III and IV of the QFS and desires to locate brucellosis-free bison onto public, private or tribal lands for the purpose of finalizing the QFS; and

WHEREAS MFWP takes seriously its public trust responsibility to ensure the long-term viability of pure genetic bison herds across the state and elsewhere;

WHEREAS, the QFS study, in its stated purpose to provide brucellosis-free bison from a genetically-pure source (YNP) to be available for that purpose, began the process in 2000 and MFWP desires to complete the entire planned QFS;

WHEREAS MFWP desires to conserve wild bison and maintain genetic purity through establishing or expanding herds, public and private, throughout their historical range;

WHEREAS these QFS bison have been repeatedly tested negative for brucellosis, and are considered by DOL to be brucellosis-free;

WHEREAS _____ submitted a proposal and exhibited the desire to maintain and manage QFS bison with the longer-term objective of restoring and conserving bison and their genetic purity;

THEREFORE, the parties enter into this Memorandum of Understanding to effect the transfer of ____(#) bison from the TEl Green Ranch to the _____(recipient location) pursuant to the provisions of this MOU and the _____ (date) proposal attached and incorporated into this MOU as Exhibit A.

Term.
The parties enter into this Agreement for _____ years commencing at the date of the last signature below and ending _____.

Bison Available for Conservation Purposes.
For the purposes of future bison conservation and genetic diversity, _____(bison recipient) agrees that for a term of ten years, twenty-five percent of the progeny of QFS bison, or an equivalent number of similarly disease-free and genetically-pure bison, will be made available to MFWP upon request. The number of bison to be made available is solely at the discretion of MFWP, but it may not exceed a number greater than twenty-five percent of the progeny at the time of the request. MFWP will work cooperatively with _____(bison recipient) to ensure reasonable notice, timing, logistics, age and gender ratio of bison, and other important elements of any such request.

_____(Recipient) Responsibilities.

1. _____ will transport the _____ QFS bison from the TEI Green Ranch directly to the _____ (location identified in the proposal), the boundaries of which are set forth in Figure 1 of Exhibit A. Risk of loss, with respect to the transport of the bison from the TEI Green Ranch to _____, shall remain with MFWP and shall not be the responsibility of _____ (recipient) unless due to negligent or reckless or intentional breaches of the applicable standard of care for bison that is customary to the industry.

2. _____ will ensure all necessary permits and authorizations are secured from the applicable jurisdictions through which the bison will be transported and where the bison will be located.

3. _____ shall care for and maintain the bison transferred to the _____ from the TEI Green Ranch, and any subsequent offspring, using proper animal husbandry and appropriate care accepted in the industry for its custodianship of the QFS bison, but shall not be liable for any loss of bison, except for loss resulting from reckless or intentional breaches of the applicable standard of care.

4. In the event that the recipient has received QFS bison in the past and is required to monitor the previous QFS bison under the study protocols, the receipt of the current QFS bison does not alter that responsibility. The recipient may either choose to test and monitor all QFS bison (previous and current) under the protocols required by the quarantine study; OR the recipient shall keep the QFS bison epidemiologically separate and distinct from other livestock and bison herds to prevent any potential disease transmission between QFS bison and other livestock.

5. All QFS bison and their offspring remain wildlife to be managed in a manner congruent with the _____ proposal and for the best care for the conservation of the QFS bison even if this includes management tools such as hunts and culling of QFS bison (and offspring). In no event may the entire QFS bison herd be extirpated by management actions of the recipient without informing MFWP and making reasonable alternative accommodation for their transfer to another recipient of MFWP's choosing.

6. _____ shall allow state and federal APHIS employees access to the QFS bison and offspring during the term of the MOU for purposes of monitoring compliance with conditions and criteria of this MOU, subject to the requirement that MFWP give reasonable, advance notice, as further defined below. In the event state or federal employees desire access to the QFS bison and offspring during the term of the MOU for purposes other than those set forth above, the state or federal employee shall request permission, in writing, summarizing the purpose(s) for the access, which permission shall not be unreasonably withheld.

MFWP Responsibilities.

1. MFWP will coordinate with DOL and APHIS to facilitate the transfer of ___ QFS bison to the _____ for care and maintenance over the term of the MOU.

2. MFWP acknowledges that the QFS bison transferred to _____, may have to be managed and cared for as private herds per the statutes, rules and regulations that apply to bison in the receiving jurisdiction. The status of these bison under the law does not alter their status as wildlife in Montana under the jurisdiction of MFWP.

3. MFWP will give 24-hour notice to the _____(recipient) liaison, identified below, either orally or in writing for access to the QFS bison and offspring.

Management Plan.
To the extent that Mont. Code Ann. §87-1-216(5)(a)-(f)[1] applies to the transfer of QFS bison to _____ (recipient), the management plan is incorporated by reference and becomes a part of this MOU; the violation of which becomes a violation of this MOU.

Indemnification.
_____ agrees to protect, defend, and save MFWP and their elected and appointed officials, agents, and employees, harmless from and against all claims, demands, causes of action of any kind or character, including the cost of defense thereof, against MFWP and their partners, elected and appointed officials, agents, and employees on account of bodily or personal injuries, death, or damage to property arising out of the negligent acts or omissions of _____(recipient), TEl and its shareholders, directors, officers, employees, representatives, agents, subcontractors, successors-in-interest and assigns.

MFWP agrees to protect, defend, and save _____ and its shareholders, directors, officers, employees, representatives, agents, subcontractors, successors-in-interest and assigns, harmless from and against all claims, demands, causes of action of any kind or character, including the cost of defense thereof, against _____ and its shareholders, directors, officers, employees, representatives, agents, subcontractors, successors-interest and assigns, on account of bodily or personal injuries, death, or damage to property arising out of the negligent acts or omissions of MFWP and their elected and appointed officials, agents, and employees.

Liaison and Service of Notices.
All project management and coordination on behalf of MFWP shall be through a single point of contact designated below. _____ designates a liaison that will provide the single point of contact for management and coordination of activities contemplated in this MOU. All work performed pursuant to this MOU shall be coordinated between each party's liaison.

MFWP:
Ken McDonald
Wildlife Division Administrator
P. O. Box 200701
Helena, MT 59620-0701
Phone:406-444-5645
E-mail: kmcdonald@mt.gov

[1] Mont. Code Ann. 87-1-216(a)-(f) is commonly known and referred to as SB 212. The transfer of bison to certain out-of-state and tribal recipients does not apply and a management plan is not required by law.

____(recipient):

(Name, address, and telephone number)

The MFWP and _____ liaisons may be changed by written notice to the other parties. Written notices, requests, or complaints will first be directed to the liaison.

The parties, through their authorized agents have executed this MOU on the dates set out below.

_____ Date: _____
Jeff Hagener, Director
Montana Fish, Wildlife and Parks
P.O. Box 200701
Helena, MT 59620

_____ Date: _____
(Recipient Signator, Position)

Appendix C
Fort Peck Species List

Birds	Merlin	**Amphibians**
Turkey Vulture	Mountain Plover	Tiger Salamander
Northern Harrier	Mourning Dove	Plains Spadefoot
Swainson's Hawk	Northern Flicker	Great Plains Toad
Red-tailed hawk	Common Grackle	Boreal Chorus Frog
Ferruginous Hawk		Northern Leopard Frog
American Kestrel	**Mammals**	
Prairie Falcon	Masked Shrew	**Reptiles**
Killdeer	Hayden's Shrew	Greater Short-horned Lizard
Long-billed Curlew	Merriam's Shrew	Eastern Racer
Short-eared Owl	Preble's Shrew	Western Hog-nosed Snake
Burrowing Owl	Big Brown Bat	Smooth Green Snake
Western Kingbird	Little Brown Myotis	Gophersnake
Eastern Kingbird	White-tailed Jack Rabbit	Plains Gartersnake
Loggerhead Shrike	Mountain Cottontail	Common Gartersnake
Black-billed Magpie	Porcupine	Western Rattlesnake
American Crow	Ord's Kangaroo Rat	
Common Raven	Northern Pocket Gopher	
Horned Lark	Olive-backed Pocket Mouse	
American Robin	Sagebrush Vole	
Sprague's Pipit	Prairie Vole	
Yellow Warbler	Meadow Vole	
Spotted Towhee	Muskrat	
Chipping Sparrow	Northern Grasshopper Mouse	
Clay-colored Sparrow	White-footed Mouse	
Brewer's Sparrow	Deer Mouse	
Vesper Sparrow	Western Harvest Mouse	
Lark Sparrow	House Mouse	
Lark Bunting	Richardson's Ground Squirrel	
Savannah Sparrow	Thirteen-lined Ground Squirrel	
Grasshopper Sparrow	Western Jumping Mouse	
Baird's Sparrow	Coyote	
Song Sparrow	Swift Fox	
McCown's Longspur	Red Fox	
Chestnut-collared Longspur	Striped Skunk	
Red-winged Blackbird	Long-tailed Weasel	
Western Meadowlark	Least Weasel	
Brewer's Blackbird	Mink	
Brown-headed Cowbird	Badger	
Golden Eagle	Raccoon	