Montana Fish, Wildlife & Parks
Region 3 Headquarters Office
1400 South 19th Avenue
Bozeman, MT 59718

United States Department of Agriculture
Animal and Plant Health Inspection Service
Western Region USDA APHIS Veterinary Services
2150 Centre Avenue, Bldg B
Fort Collins, CO 80526-8117

June 20, 2006

To: Governor's Office, Mike Volesky, State Capitol, Room 204, P.O. Box 200801, Helena, MT 59620-0801
Environmental Quality Council, State Capitol, Room 106, P.O. Box 201704, Helena, MT 59620-1704
Dept. of Environmental Quality, Metcalf Building, P.O. Box 200901, Helena, MT 59620-0901
Dept. of Natural Resources & Conservation, P.O. Box 201601, Helena, MT 59620-1601
Montana Fish, Wildlife & Parks:

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| Director's Office | FWP Commissioners | Legal Unit | Lands Section |
| Design & Construction | Wildlife Division | Parks Division | Fisheries Division |

MT Historical Society, State Historic Preservation Office, P.O. Box 201202, Helena, MT 59620-1202
MT State Parks Association, P.O. Box 699, Billings, MT 59103
MT State Library, 1515 E. Sixth Ave., P.O. Box 201800, Helena, MT 59620
James Jensen, Montana Environmental Information Center, P.O. Box 1184, Helena, MT 59624
Janet Ellis, Montana Audubon Council, P.O. Box 595, Helena, MT 59624
George Ochenski, P.O. Box 689, Helena, MT 59624
Jerry DiMarco, P.O. Box 1571, Bozeman, MT 59771
Montana Wildlife Federation, P.O. Box 1175, Helena, MT 59624
Wayne Hurst, P.O. Box 728, Libby, MT 59923
Additional EA Recipients

Ladies and Gentlemen:

The enclosed Decision Notice was prepared to review the impacts associated with the proposed Feasibility Study of Bison Quarantine, Phases II and III. In this Decision Notice, Montana Fish, Wildlife & Parks and USDA APHIS have adopted the preferred alternative, to proceed with Phases II and III, on the Slip and Slide Ranch and the Brogan Bison Research Facility.

This Decision Notice is also available for review at FWP's Region 3 Headquarters in Bozeman, at the State Library, and the Environmental Quality Council. It also may be obtained from FWP at the address provided above, or viewed on FWP's Internet website: http://www.fwp.mt.gov/publicnotices.

Thank you for your interest in the management of Montana's wildlife.

Patrick J. Flowers, Region 3 Supervisor
Montana Fish, Wildlife & Parks

for Jose Diez, Western Regional Director
USDA APHIS, Veterinary Services

Attachment

Montana Fish, Wildlife & Parks

USDA APHIS

United States Department of Agriculture
Animal and Plant Health Inspection Service

# DECISION NOTICE

## And

## FINDING OF NO SIGNIFICANT IMPACT

## Bison Quarantine Feasibility Study Phase II/III

Montana Fish, Wildlife and Parks (MFWP) and USDA Animal and Plant Health Inspection Service, Veterinary Services (APHIS VS) jointly prepared an Environmental Assessment (EA) to review the impacts associated with the second and third phases of a proposed feasibility study of bison quarantine. This decision notice summarizes the proposal and the final decision. A description of the issues raised by the public review of the draft EA and responses are attached as Appendix A.

Proposal

The Interagency Bison Management Plan (IBMP) was approved in December 2000. Part of the rationale for selecting the IBMP was concern over the risk posed by latent brucellosis infection (seronegative bison seroconverting) and therefore increasing the risk of transmission to cattle. These concerns were addressed by the development of a program where bison would be subject to testing or human handling as they left the park This plan, however, was not developed as a brucellosis eradication plan, instead it is a plan for the management of bison, intended to prevent the transmission of brucellosis from bison to cattle and to address brucellosis within the bison herd. Management actions contemplated by the IBMP includes tolerating, hazing, capturing and testing, vaccinating, removing bison to quarantine, removing bison for research and lethal removal of bison. The Final Environmental Impact Statement (FEIS) for the Interagency Bison Management Plan for the State of Montana and Yellowstone National Park, August 2000 analyzed the possibility of removing bison for research purposes or quarantine as a management tool. However, the Federal Agencies felt that the decision on whether to construct and operate a quarantine facility for bison was premature at the time of the writing of the FEIS and the decision is still premature at this time. Before the Agencies can determine if a quarantine facility is a necessary or desirable component of the bison management program, the Agencies must determine if latent infection occurs in bison and whether, if approved, USDA/APHIS quarantine protocols would efficiently screen for latent brucellosis infection.

Previously, MFWP, in cooperation with APHIS VS, completed an EA to evaluate the first phase of a bison quarantine feasibility study. Under APHIS NEPA implementing procedures, Phase I was considered a categorically excluded action because it is a

research project that is limited in scope and intensity that is being conducted at an existing research facility. Therefore, APHIS did not conduct further environmental analysis on Phase I. Based on APHIS's categorical exclusion, the MFWP analysis and the comments received, the agencies decided to initiate Phase I to study the feasibility of implementing quarantine procedures for bison from YNP in order to identify the potential for latent expression of brucellosis and test the sensitivity of quarantine procedures for detecting such infection. In other words we were trying to determine if latent brucellosis infection occurs.

Phase I stressed the culturing of tissues from bison to determine if they harbor the *Brucella abortus* bacteria after several negative serological tests. The feasibility study was designed to terminate if, at the end of Phase I, the number of culture positive animals was large enough to indicate that more than 5% of the remaining sample animals might harbor *Brucella abortus*. As described in the previous EA, two replications of a three-phase project would be required to successfully complete the bison quarantine feasibility study. Therefore, the agencies propose to proceed to Phases II and III of the study upon successful completion of the first replication of Phase I of the bison quarantine feasibility study, rather than wait through the second replication of Phase I.

Phase I takes place in an existing bison research facility. Bison that were sent to this facility for purposes of this study would otherwise have been shipped to slaughter. The information from Phase I of the study thus far indicates that the serological tests are adequate to distinguish those bison that likely will seroconvert. If that is confirmed with the completion of the culture tests, Phase I of the study will have been successful. The first replication of Phase I of the quarantine feasibility study will have been completed soon after the decision to approve Phase II/III of the study. Prior to actually implementing Phase II/III, the agencies will confirm that Phase I was successful. This confirmation is essential to be consistent with the research design and to ensure a high probability that those bison, which continue to Phase II, will successfully complete the quarantine feasibility study.

As a result of these circumstances, MFWP and APHIS VS prepared a Draft EA that assessed the impacts of five alternatives for the feasibility study. The EA was offered for public review on December 12, 2005. The five alternatives considered in the Draft EA were:

**1. No Action:** MFWP and APHIS VS would complete the previously approved Phase I of the Bison Quarantine Study by continuing to retain up to 100 sero-negative bison calves that were captured during normal operations pursuant to the IBMP. These calves would be divided into a test and a control group and held for one year in a test at Brogan Bison Facility at Corwin Springs. During the course of the year, all calves will be periodically serially tested to screen for brucellosis. Periodically, animals from the control group will be euthanized for the purpose of collecting tissue samples for culture tests in an attempt to isolate *Brucella abortus*. At the end of the year, the animals that remain in the test group also will be euthanized. The following year, the agencies would retain a second cohort of up to 100 sero-negative bison calves and replicate the Phase I

study. At the completion of the second replication, the agencies would terminate the study and Phases II and III would not be initiated.

**2. Complete the feasibility study at two project facilities – Brogan Bison Facility and Slip 'n Slide (Preferred Alternative):** All action alternatives will follow the same overall research design. The general goal of the feasibility study is to progressively determine if quarantine procedures can result in a reasonable probability that most, if not all, of the bison processed through each phase of quarantine research will remain sero-negative for brucellosis and assist in the determination of the operation parameters for a bison quarantine facility.

The quarantine feasibility study procedures would include processing two groups of bison calves through the quarantine facilities in 4 to 6 years. Initial capture and testing operations (Phase I) would select up to 100 sero-negative calves out of Duck Creek, Horse Butte and/or Stephens Creek capture facilities during winter operations of the IBMP. During Phase I, these calves would be divided into a test and a control group and held for one year in a test at Brogan Bison Facility at Corwin Springs. During the course of the year, all calves will be periodically serially tested to screen for brucellosis. Periodically, animals from the control group will be euthanized for the purpose of collecting tissue samples for culture tests in an attempt to isolate *Brucella abortus.* If serology and culture results at the completion of each replication of Phase I indicate a reasonable probability for success during subsequent quarantine phases, then the feasibility study would continue. Bison that remain in the test group will be held on pasture until they reach sexual maturity, at which time they will be bred (Phase II). Pregnant cows would be isolated into smaller groups of 5 to 8 bison through calving (Phase III). After two months, sero-negative cows with sero-negative calves would be returned to pasture and bred again. At this time, the sero-negative cows with their calves would be eligible for soft release to suitable sites, selected according to a process described in the EA.

Under the Preferred Alternative, at the completion of replication of Phase I, bison would be transported from the Brogan Bison Facility to pastures on the Slip n' Slide Ranch. At that time, the Brogan Bison Facility would be available for a second cohort of bison calves. The second replication of the study would begin while the first cohort of bison is in Phase II. At the completion of Phase II, the first cohort of bison would be transported back to the Brogan Bison Facility and the second cohort would be transported to the Slip 'n Slide Ranch.

**3. Complete the feasibility study at two project facilities – Brogan Bison Facility and Dome Mountain WMA**

This alternative is similar to Alternative 2, except that Phase II would be completed on the Dome Mountain WMA.

**4. Complete the feasibility study at three project facilities – Brogan Bison Facility, Slip 'n Slide and a third site, to be specified at a future date.**

This alternative is similar to Alternative 2, except that the agencies would site the calving facilities at a third, as yet undetermined, location. A subsequent EA would be required. That analysis would be specific to impacts associated with the development of the third site.

**5. Complete all phases of the feasibility study at the Brogan Bison Facility**

Under this alternative, bison would be held at the Brogan Bison Facility throughout the study. The study would be completed during two successive replications rather than two concurrent replications.

Public Process and Comment

The EA was offered for public review on December 12, 2005. Initially, the agencies scheduled a public meeting in Bozeman on December 19 and requested that comments be submitted by January 13, 2006. During the comment period, the agencies received requests for additional public meetings and extensions to the public comment period. On January 11, the agencies announced a 30-day extension to the public comment period and a public meeting in Butte on January 30, 2006. On February 10, 2006, the agencies announced a 14-day extension to the public comment period and a third public meeting, scheduled in Gardiner on February 16, 2006. The public comment period closed on February 27, 2006. A total of 68 people attended the three meetings.

MFWP received 210 comments, via postal mail and email, in response to the draft Environmental Assessment. Some respondents mailed a duplicate copy of a comment that they also had submitted electronically. Duplicate comments from the same individual are not included in the total. At least two people submitted more than one comment and these were tallied as separate comments. The total includes electronic submissions of the same comment letter, received from 45 different individuals.

Comments came from 158 non-residents and 48 residents. In addition, comments arrived from 4 countries other than the United States. The majority of the comments were submitted electronically. In addition to comment from individuals, the following agencies and organizations submitted comments either at the hearings, in writing or both:

Yellowstone National Park
Intertribal Bison Cooperative
Anaconda Sportsmen
American Buffalo Foundation
Animal Welfare Institute
Greater Yellowstone Coalition
American Prairie Foundation
Prickly Pear Sportsman's Association
Kettle Range Conservation Group, Republic, Washington
National Wildlife Federation
Montana Wildlife Federation
Gallatin Wildlife Association (2)
Russell Country Sportsmen Assoc.
The Buffalo Field Campaign
Bear Creek Council
HOBNOB
World Wildlife Fund
The National Parks Conservation Association

Public Lands/Water Access Association,
Skyline Sportsmen and Coalition for State
Public Lands

Some people expressed support for the project. Proponents generally expressed support for the broader concept of a North American bison conservation strategy and optimism that a successful outcome of the feasibility study might eventually lead to the use of Yellowstone bison to enhance the conservation strategy. These comments also expressed some level of acknowledgement that brucellosis is a hindrance to the relocation of Yellowstone bison. These comments also expressed an understanding that bison used to either establish or augment conservation herds should be free of brucellosis and that a reliable quarantine protocol is essential for that purpose.

Several people expressed general support for the concept of a North American bison conservation strategy, but were reluctant to support the quarantine feasibility study. These people expressed reservations about various aspects of the quarantine feasibility study, especially the fact that the agencies have not yet identified and evaluated specific relocation sites. Some of these people also expressed the opinion that the highest priority ought to be restoration of bison to habitats in the GYA, where bison can exist without conflicts with domestic livestock. Several people suggested that it was inappropriate to locate a bison quarantine facility on the Dome Mountain WMA because the area is too important for elk. However, a few people expressed preference for locating the Phase II facility there because the bison would be able to graze over larger pastures.

A few comments expressed opposition to the project but also noted that, if there were assurances that the first conservation herd would be located in Montana and that herd were managed to provide public hunting, they could then support the project.

The majority of the comments in opposition to the project also included criticism of the current Interagency Bison Management Plan (IBMP). Comments expressed opposition to killing, captivity or domestication of bison; concern for animal welfare; concern for the waste of taxpayer money; and, a concern that MEPA and NEPA processes had not been followed. Several people expressed outrage specifically about the capture and removal of large numbers of bison during the current operating season. Many of these comments also were critical of the scientific basis for the IBMP. However, that criticism was not supported with new or alternative scientific information regarding the epidemiology of brucellosis.

Some of the comments expressed complete opposition to the project. Presumably because the no action (status quo) alternative is to complete Phase I of the study, they were opposed to all alternatives.

Few comments were specifically directed at the relevant issues and decisions identified in the Environmental Assessment. Instead, comments often focused on issues that were clearly outside the scope of the EA. In particular, they provided comments relative to the IBMP, which was accepted in a Record of Decision in 2000. They also often indicated

that they were opposed to initiating a quarantine procedure, even though the decision to be made at the conclusion of this process is simply whether to complete a research study that would provide useful information to decision makers if they consider modification of the IBMP to include quarantine.

Comments indicated a widespread misunderstanding of the purpose for the EA and little understanding of existing provisions of the IBMP, the Environmental Impact Statement completed in 2000 or how the bison quarantine feasibility study relates to the IBMP. The EA did explain the statutory authority surrounding the proposed action and referenced the IBMP numerous times. Finally, as occurred during the public review of the EA for Phase I of the study, comments indicate that few people understood that the proposed action was specific to a temporary research project and not a proposal to initiate quarantine and a broader bison restoration program. The agencies had tried to make that distinction clear in the EA.

The agencies compiled a comprehensive list of all substantive comments. Even though many of the comments are outside the scope of the EA, to the extent that the comments have some relevance to the bison quarantine feasibility study, the agencies prepared responses. Our purpose in providing informational responses to comments that are within the broader scope of the IBMP is to help direct concerned citizens to sources and references that will improve understanding of the Interagency Bison Management Plan and its relationship to research projects such as the Quarantine Feasibility Study.

The comments and agency responses are presented in Appendix A. Consultations that contributed to the development of the proposal and EA are detailed in Appendix B.

Finding of No Significant Impact

The U.S. Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Environmental Services (ES) and Montana Fish Wildlife and Parks jointly prepared an environmental assessment (EA) entitled "Bison Quarantine Feasibility Study B Phase II/III." The EA was prepared to comply with the National Environmental Policy Act of 1969 (NEPA), as amended (42 United States Code 4321 et seq.), the Council on Environmental Quality regulations for implementing the procedural provisions of NEPA (40 Code of Federal Regulations (CFR) 1500B1508), the USDA regulations implementing NEPA (7 CFR part 1), and APHIS' NEPA Implementing Procedures (7 CFR part 372), and the Montana Environmental Policy Act. The EA, which is incorporated by reference into this FONSI and Decision Document, is available through the Internet at http://www.aphis.usda.gov/vs/nahps/brucellosis/; http://fwp.state.mt.us/publicnotices/; and from the following offices:

U.S. Department of Agriculture
Animal and Plant Health Inspection Service
Veterinary Services, NAHPS
4700 River Road, Unit 43
Riverdale, MD 20737B1231

And

Montana Fish Wildlife and Parks
1400 S. 19th Avenue
Bozeman, MT 59718

The jointly prepared EA analyzed five alternatives: (1) Terminate the feasibility study upon completion of Phase I (No Action), (2) Complete the feasibility study at two project facilities, the Brogan Bison Facility and Slip 'n Slide (Proposed Action), (3) Complete the feasibility study at two project facilities, the Brogan Bison Facility and Dome Mountain WMA, (4) Complete the feasibility study at three project facilities, the Brogan Bison Facility, Slip 'n Slide and an un-specified third site, and (5) Complete the feasibility study at the Brogan Bison facility. All of these alternatives are consistent with the Interagency Bison Management Plan (IBMP), the Record of Decision issued for the IBMP in December 2000, and the principle of adaptive management adopted by the IBMP. The IBMP anticipated that quarantine could serve a useful purpose in the management of bison in the Greater Yellowstone Area (GYA). The proposed feasibility study is designed to provide information that will be useful in determining a bison quarantine protocol that will result in brucellosis free bison that will not pose a disease threat to susceptible animals. If the proposed study successfully demonstrates that a quarantine protocol can result in disease free bison, then the agencies, after proper deliberations, could consider inclusion of bison quarantine in the IBMP. This research study has the potential to provide information that will be directly relevant to GYA bison management decisions.

Information presented in the EA indicates that selection of any of the five alternatives will not have a significant impact on the environment, directly, indirectly or cumulatively. All of the animals to be used in the research project are animals that would, under the IBMP, normally be sent to slaughter regardless of their serological status with regard to brucellosis. As such, the loss of these animals from the wild population in Yellowstone was considered at the time the IBMP was adopted and was determined to be acceptable. The use of these animals in one or all three phases of the proposed Bison Quarantine Feasibility Study will not result in a significant impact to the environment. Rather than sending the animals to slaughter, the proposed project would use those animals to help answer some of the questions that have made brucellosis such a difficult disease to eradicate. Should the study successfully produce a process for identifying brucellosis free bison, then these brucellosis free study animals will be invaluable towards determining if quarantine is a viable option for inclusion in the IBMP.

None of the alternatives is likely to have an adverse effect on bald eagles, gray wolves, Canada lynx or grizzly bears, the federally listed endangered or threatened species that are in the general area of the proposed quarantine feasibility study. Bald eagles are known to winter in the Gardner area where they feed on fish and gut piles left by successful hunters. They also occasionally can be found at Daily Lake and near the Yellowstone River in the vicinity of Dome Mountain. In the Gardner area, the proposed

sites for Phases II/III activities will not experience any significant change in their ranching-type activities except that Slip n' Slide will shift from cattle to bison. Therefore, no effect is expected on bald eagles in the Gardner area. At Dome Mountain, there is unlikely to be any noticeable impact to bald eagles, if any are in the area. Any impact to gray wolves and grizzly bears is likely to be insignificant as all fencing that may be built will be to the best practical predator-proof standards, if bison mortality occurs husbandry practices require any carcasses to be removed as soon as possible and the facilities will generally be managed so as not to attract nuisance scavengers. It is highly unlikely that lynx will be affected, as they are located in higher elevations than any sites considered for the proposed study.

Other wildlife, especially deer, elk and big horn sheep are also unlikely to be negatively impacted by any of the alternatives except for elk at the Dome Mountain site. This site is located on the Dome Mountain Wildlife Management Area, which is specifically managed as elk winter range. While the construction and maintenance of the 400 acre enclosure required for the Bison Quarantine Feasibility Study probably would not have significant impacts to the elk, especially since it would only be used for a few years until the study was completed, it would require some changes in the management of the area and could have implications to adjacent landowners if elk were to cross onto their land in greater numbers than they already do. These landowners have traditionally been very tolerant of wintering elk, but they may not be appreciative of additional elk on their property.

Selection of Alternative 4 would require additional environmental analysis of the currently unidentified site for Phase III of the study.

Based on the information presented in the EIS for the IBMP, this EA and the above information, we have identified the preferred alternative to be Alternative 2: complete the feasibility study at two project facilities, the Brogan Bison Facility and Slip 'n Slide. While none of the alternatives considered will result in significant negative direct, indirect or cumulative impacts to the environment, Alternative 2 is the preferred alternative because of its proximity to the Brogan Bison Facility, thus reducing the need for transportation of bison between facilities as animals move from one Phase of the study to another. Alternative 3 has the potential for some minor disruption of wintering elk and its associated impact on neighboring property owners. Alternative 4 will require additional environmental analysis once a site for Phase III is identified. Alternative 5, while certainly possible, provides less than optimal space to carry out the research and would require more supplemental feeding of bison than would the other alternatives.

In consideration of the foregoing findings of the EA, we have determined that selection of any of the alternatives analyzed will not significantly impact human health or the environment.

Final Decision

Based on the analysis in the EA and the comments received it is MFWP's and APHIS VS' decision to authorize Phase II/III of the bison quarantine feasibility study to proceed, as described under the preferred alternative, with two clarifications: (1) MFWP and APHIS VS will make it their highest relocation priority to place bison that successfully complete the quarantine feasibility study in Montana; and (2) Tribal representatives on the Interagency Bison Restoration Committee will be approved by Tribal Councils or other elected officers of their respective Tribes.

Based on the analysis in the EA and the applicable laws, regulations and policies, MFWP and APHIS VS have determined that this action will not have a significant effect on the natural or human environment. Moreover, based on this analysis and the prior FEIS and Phase I EA, the cumulative effects of all phases of the bison quarantine feasibility study will be insignificant. Therefore, the EA is the appropriate level of review and an environmental impact statement will not be prepared. It is MFWP's and APHIS VS' decision to implement the preferred alternative.

A decision regarding site specificity for relocation of bison that complete the feasibility study is premature at this time. Such a decision also is beyond the sole authority of the agencies because relocation requires participation of other management partners who are prepared to manage conservation herds. While there are preliminary expressions of interest from several potential partners, at this point in time (before Phases II and III have even begun), it is impossible to determine if and how many bison may successfully complete the quarantine feasibility study. Until there is a better indication of the likely success of the study and the numbers of bison that may be available for placement in conservation projects as a result of the bison quarantine feasibility study, it is impossible to analyze or even determine exactly where the animals may be placed. As we progress through the study and the answers to these questions become firmer, we will identify the willing partners who may receive bison and potential sites. Before a final decision on which projects are selected to receive bison, however, the potential partners will have to meet all the criteria identified in the EA, including completion of an environmental assessment indicating that the receipt of bison are not likely to result in unacceptable environmental impacts at the proposed release site, the release site is sufficiently large to allow the bison to be essentially free roaming, funding is sufficient to allow for the project and for any management activities that may be associated with the soft-release of bison from the study (such as periodic testing for brucellosis), and the bison will remain wild and non-commercial. The agencies note that MFWP has identified the restoration of ecologically relevant wildlife species, including bison, to prairie habitats in Montana as an objective in its comprehensive wildlife plan. Thus, the agencies would prefer to relocate some of the bison that complete the project to suitable public lands in Montana. Toward that goal, MFWP and APHIS VS will make it their highest relocation priority to place bison that successfully complete the quarantine feasibility study in Montana.

By notification of this decision the Draft EA, including the additional information provided in the response to public comment is hereby made the Final EA. The Final EA

may be viewed at or obtained from Montana Fish, Wildlife and Parks at 1400 S 19th Avenue, Bozeman, MT 59718. An electronic copy of the final EA also may be obtained from either MFWP's website at: http://fwp.state.mt.us/publicnotices/ or APHIS VS' website at: http://www.aphis.usda.gov/vs/nahps/brucellosis/ .

The document also is available at the following offices:

U.S. Department of Agriculture
Animal and Plant Health Inspection Service
Veterinary Services, NAHPS
4700 River Road, Unit 43
Riverdale, MD 20737B1231

And

Montana Fish Wildlife and Parks
1400 S. 19th Avenue
Bozeman, MT 59718

Patrick Flowers
Regional Supervisor
Montana Fish, Wildlife and Parks

Date 6/20/06

for Jose R. Diez
Director – Western Region
APHIS Veterinary Services

Date 6/20/06

**Appendix A. Substantive Comments to the Bison Quarantine Feasibility Study and EA, including MFWP responses to comments.**

**Management Purpose**

Comment: The EA did not explain the purpose and rationale for the project.
Response: Unlike many diseases, brucellosis characteristically remains undetected, even when using the most sophisticated diagnostic testing procedures, in bison or cattle only to suddenly become active at a later time, usually late in a pregnancy or at the time of birth. This latent characteristic of brucellosis makes it a very difficult disease to manage because even though an animal may test negative for the disease, it may still be infected. Thus, by itself diagnostic testing of animals is insufficient to demonstrate that the disease is not present. As stated in the EA, the primary goal of the bison quarantine feasibility study is to develop quarantine procedures, using the best available science and adaptive research strategies, that would allow Yellowstone bison to be accepted as free of brucellosis and suitable for the establishment of new public and Native American bison herds or to augment existing public and tribal herds in North America. The EA explained why it is not possible to relocate Yellowstone bison that have not first successfully completed a quarantine procedure that demonstrates that animals are free from the disease. The EA described the protocol that would be used to evaluate the feasibility of the bison quarantine. The EA also noted that additional management options could be considered under the Interagency Bison Management Plan (IBMP), after appropriate analysis had been completed, if a bison quarantine protocol for brucellosis were available.

Comment: The Yellowstone bison herd is the most significant bison herd in North America. We need to do something to conserve the genetics and be able to use Yellowstone bison as founding animals for other herds.
Response: The agencies agree. This is by far the largest herd in the United States whose gene pool is not known to be contaminated with bovine genetic material. It is also the largest free-ranging population that is minimally managed and shaped by the forces of natural selection. In addition, YNP bison possess several unique alleles that need to be conserved. As such, it is a logical source for pure bison genetic material to create new and augment existing wild bison herds.

Comment: Iterative research to build a better understanding of wildlife and diseases revising bison management, based on the resulting information, is progress toward a more science driven decision-making process for bison management.
Response: The agencies agree.

Comment: Quarantine should be part of the suite of tools, along with public hunting, for managing bison. In the right places and under the right circumstances, bison should be managed as wildlife. Quarantine is the only way to get bison out of YNP alive and, thus, is critical to developing more options for bison management. Bison that clear quarantine must remain public wildlife.

Comment: The agencies agree. Further, the agencies envision that the selection of a release site for any bison that successfully complete the quarantine feasibility study will be preceded by a site-specific environmental analysis to ensure that potential environmental impacts, including cumulative impacts, have been considered prior to any future release. This site-specific environmental analysis will be completed by the recipient agency/tribe.

Comment: Population levels alone do not justify this research or quarantine.
Response: The IBMP has specified certain population targets that, when reached, trigger management actions. Populations within Yellowstone National Park are at a level (above 3000 animals) where all animals leaving the Park can be captured and sent to slaughter without testing for brucellosis. The IBMP includes several methods to manage bison numbers and distribution. Quarantine would be an additional tool that likewise would provide an option for allowing the use of bison as source animals for bison restoration projects. The research is intended to validate the proposed quarantine protocol. If a quarantine protocol can be validated, the GYIBC will have the option to consider quarantine as a management tool for bison. Should such a decision ultimately be made, it would provide managers with an option other than slaughter for some of the bison that leave the Park and are captured when population levels exceed 3000. The research also will provide additional information regarding serology.

Comment: Quarantine has been proposed for Yellowstone buffalo in the context of a need to control population growth and to promote restoration of buffalo to other areas. However, population pressures are due to artificial constructs. The target population of 3,000 bison for Yellowstone National Park is not based on the ecological carrying capacity of the park.
Response: The agencies have proposed to evaluate the feasibility of a quarantine protocol. The rationale for the target population of 3,000 bison was explained in the FEIS for the IBMP. Revising the size of the target population is outside the scope of the EA.

Comment: All of the alternatives, including the no-action alternative, are illegal. The only legal alternative would be to release all of the bison that currently are in quarantine back into YNP.
Response: The agencies disagree. The agencies note that, had they not initiated Phase I of the study, the bison currently in quarantine already would have been slaughtered. The agencies also note that YNP has endorsed the study and it is unlikely that YNP would authorize the return of the bison to the park.

Comment: Quarantine would be one step toward a better way to manage bison.
Response: The agencies agree. Under current management procedures as approved by the IBMP, when bison population levels exceed 3000, any bison that leave the Park and are captured may be sent to slaughter without testing for brucellosis. As a practical matter, quarantine, should the feasibility study verify a successful protocol, would provide another option for consideration as a realistic option other than slaughter when bison populations exceed 3000.

Comment: I appreciate that the agencies are considering an option that is less draconian than machine-gunning them all.
Response: Comment noted. The agencies wish to conduct the quarantine feasibility study to determine if it is a realistic alternative to slaughter.

Comment: This is an opportunity for bison advocates to work with ranchers rather than working against them.
Response: Comment noted.

Comment: Something should be done for bison and this project is an opportunity to get something done and to learn something about bison and about brucellosis in bison.
Response: Comment noted.

**Montana Environmental Policy Act/National Environmental Policy Act**

Comment: The proposal is premature. As noted in the EA, a decision to proceed to Phase II is contingent upon a successful outcome during Phase I.
Response: The decision to proceed to Phase II is contingent upon a successful outcome at the completion of Phase I. The successful completion of Phase I is defined as the serology and culture results supporting a 95% certainty of detecting brucellosis infection prevalence of 5% or greater. The agencies initiated the EA for Phase II/III before completion of Phase I because, if Phase I is successful, facilities will immediately be required to accommodate the remaining bison. This approach was prudent because the alternative would have been to slaughter all bison at the completion of Phase I, terminate the project, pending completion of the Phase II/III EA and then start the study over again at Phase I. The agencies were not interested in sacrificing a cohort of bison that had successfully completed Phase I. If Phase I was successful, the agencies also were not interested in delaying implementation of Phase II/III for at least two years.

Comment: The current proposal is not a discrete research project and, therefore, long-term impacts must be addressed.
Response: The quarantine feasibility study is a discrete research project that is designed to be accomplished in three phases and completed at the end of two replications. To the extent that it is successful, at the end of the project there will be bison that will be considered to be free of brucellosis and potentially available for distribution. These bison are likely to be highly regarded and sought after due to the pure genetic nature of Yellowstone bison. Since the study is of limited duration, at its conclusion there will be a limited number of animals available for release. Proposals will be solicited and an interagency/tribal bison restoration panel will select the public sites to be considered for release of study the animals. The bison quarantine feasibility study has longer-term implications to the extent that, if the study is successful, the agencies likely will consider whether it is appropriate to revise the IBMP to incorporate quarantine. However, even if the study is successful, the agencies have made no commitments regarding future decisions, except to support such decisions with additional environmental review. Phase I is a discrete project. The result will provide information about the effectiveness of

several serological tests to detect recent exposure to brucellosis in young, sexually immature bison. The study will also provide results of the culturing of various organs to detect the *Brucella* bacteria, thus shedding light on the nature of latency. Regardless of the result, the project could be terminated at that point and the information would be useful. Phase II/III also is a discrete project. The result will provide information about the potential for latent infection and seroconversion among sexually mature bison, which, on the basis of prior serological tests, were presumed to be free of *B. abortus*. Regardless of the result, the project will yield additional useful information regarding the serology of brucellosis and, potentially, will validate a protocol for identifying individual bison calves that have not been exposed to brucellosis and are free of latent brucellosis infection.

Comment: Phased decisions might make sense to the agencies, but do not make sense to the public. It would be more appropriate to evaluate an overall quarantine program rather than segmenting into several NEPA/MEPA documents.
Response: This project is a research study to determine the feasibility of bison quarantine. Until the results of the study have been evaluated, it is premature to consider implementation of a quarantine program because a successful protocol is unknown at this time. If a successful quarantine protocol were known, there would be no need of this proposed study. The agencies determined that it was appropriate to prepare separate MEPA/NEPA analysis because the Phase I decision was discrete from the Phase II/III decision. Both of those decisions also are discrete from any future decision to revise the IBMP to include quarantine.

Comment: The agencies have illegally segmented the quarantine project from a broader level of review of new evidence and circumstances that influence bison management and have done so to avoid the requirement for a broader environmental review. The standard defined by THE FUND FOR ANIMALS, et al., Plaintiffs, v. JAMIE RAPPAPORT CLARK, Director, U.S. Fish and Wildlife Service, et al., Defendants. Civil Case No.:98cv2355 (RMU), Document No.: 4,5; UNITED STATES DISTRICT COURT FOR THE DISTRICT OF COLUMBIA regarding segmentation applies to this project. The quarantine feasibility study should be analyzed as a whole rather than in segmented phases.
Response: The Bison Quarantine Feasibility Study is divided into three phases. The exact design of Phases II and III is dependant upon the results and successful conclusion of the previous phase. In other words, if the results from Phase I or II indicate a flaw in the study design, that flaw would be corrected in the next phase of the study. If there were total failure or a very high rate of failure in Phase I or II, the study would not progress to the next phase. In this respect, Phase I can be thought of as being independent of the other phases, while commencement of Phases II and III is totally dependent upon the successful completion of the previous phase. Because there is no guarantee that Phases II and III of the proposed study would be carried out as envisioned in the proposal (or carried out at all), it makes sense, from a NEPA standpoint, to address the proposed research in phases.

The EA explained that the project is iterative and the agencies have proposed an orderly sequence, based on logical decision points. Phase I is currently underway at the APHIS-leased Brogan Bison Facility. The other two phases, should they be carried out as envisioned by the proposal, would be conducted on State and/or private land. (The preferred alternative calls for Phase II to be carried out on the Slip 'n Slide Ranch, which will be under lease by MFWP, and Phase III to be carried out at the federal Brogan Bison Facility.)

The agencies made the decision to initiate Phase I of the bison quarantine feasibility study and that decision was supported with an EA by MFWP. Under APHIS VS NEPA implementing regulations, Phase I of the Bison Quarantine Feasibility Study was considered to be a categorically excluded action for several reasons: (1) It is a research activity that is limited in scope and intensity to a total of up to 100 animals per year for 2 years. As provided for under the IBMP, whenever the estimated YNP bison population exceeds a threshold level of 3,000 (at the beginning of the 2005/2006 winter, the population was estimated to be almost 2000 animals above the threshold) each bison that leaves YNP and is captured is eligible for shipment to slaughter without testing for exposure to brucellosis, or for use in research. The use of up to 100 such animals per year for 2 years in the proposed quarantine feasibility study is easily defined as "limited in scope and intensity." This is particularly true when it is quite likely that most, and possibly all, of the animals that enter the quarantine feasibility study otherwise would be sent to slaughter. (2) Further, the research is to be carried out in "facilities or other areas designed to eliminate the potential for harmful environmental effects…." The research is designed so that any animals that are seropositive for brucellosis or that sero-convert from negative to positive for brucellosis during the study period are removed from the population and sent to slaughter or are used for other research purposes. This reduces the potential for brucellosis-related impacts to the wild bison population. (3) In addition, the Brogan Bison Facility is currently leased by APHIS and used to conduct bison research. The property has been used extensively for animal husbandry for years and is well suited for the keeping and pasturing of grazing animals. Using the Brogan Bison Facility for all or any part of the proposed study would not result in any change in the land use patterns of the property. Ranching and husbandry practices such as fencing, irrigation, and supplemental feeding would continue on the property much as they have for years. Since no change in current land use would occur and quarantine facilities and husbandry practices would meet or exceed livestock industry standards in Phase I, no adverse environmental effects are expected from the quarantine feasibility study.

A decision to continue Phase II/III of the study cannot be made until the results of Phase I are known and, even if Phase I is not successful and the project terminates, the study will have yielded valuable information. The agencies initiated the EA for Phase II/III before completion of Phase I because, if Phase I is successful, facilities will immediately be required to accommodate the remaining bison. A proposal to revise the IBMP to incorporate quarantine cannot be formulated until the feasibility study is complete. However, successful completion of the study makes no commitment to implement a quarantine program. If the feasibility study produces a successful result, the agencies

responsible for bison management will complete additional review before making any decision whether to proceed with operational quarantine.

Comment: This project should have an EIS, not an EA. The agencies have not explained why the project does not require and EIS.
Response: The EA explained that an EA is a concise public document that serves to provide sufficient evidence and analysis for determining whether to prepare an EIS. After completing the EA, the agencies have been able to reach a Finding of No Significant Impact, as stated in this document, thus an environmental impact statement is not necessary and there are no plans to prepare one.

Comment: Bison management is controversial and especially so under current circumstances in which more than 900 bison have been killed. The current quarantine proposal will establish a precedent for future actions. The decision to proceed with this stage of quarantine represents in principle the decision to relocate Yellowstone bison to other locations outside the GYA. Therefore, a full EIS is the appropriate level of analysis for a bison quarantine project.
Response: The agencies have concluded, based on the analysis in the EA, which includes analysis of cumulative effects from Phase I, that Phase II/III of the bison quarantine feasibility study will not significantly impact the human environment and, therefore, an EIS is not required. The effects of bison management, pursuant to the IBMP, including the potential removal of substantial numbers of bison in years in which the Yellowstone bison population exceeds 3,000 animals, were evaluated in the FEIS. To the extent that there is a precedent for quarantine, it already has been established by the IBMP. Even within that framework, the agencies have not yet proposed to implement a quarantine program. Completion of the Bison Quarantine Feasibility Study will provide information necessary prior to making a determination whether or not to implement quarantine. Assuming that some bison successfully complete the feasibility study, the agencies will seek to identify suitable locations for those animals. An appropriate environmental review will be prepared to evaluate the relocation site(s), presumably with the recipient agency serving as the lead for the review. Any additional relocation of bison will depend on a decision by the cooperating agencies to revise the IBMP to include quarantine. That decision also will be supported with an appropriate environmental review.

Comment: The EA for Phase I of the bison quarantine feasibility study was prepared without public scoping.
Response: Neither the MEPA regulations nor the APHIS NEPA implementing procedures require formal public scoping for the preparation of an EA. This issue was explained in more detail in the Decision Notice and Response to Public Comment for the Phase I EA. Although no formal scoping process was conducted, the agencies completed a rigorous scientific review, including consultations with experts from other agencies. Prior to the development of the Phase I EA, the agencies discussed the concept with several local and national interests groups and solicited input on issues related to the quarantine feasibility study. The public review process was outlined in the Phase I EA and Decision Notice.

Comment: Which agency had authority for the EA for Phase I of the bison quarantine feasibility study?
Response: MFWP prepared the previous EA pursuant to MEPA. MFWP consulted with APHIS VS in preparation of that review. APHIS did not jointly prepare the EA with FWP because, according to the APHIS NEPA implementing procedures, Phase I is a research project that qualifies as an action that is categorically excluded from NEPA.

Comment: The IBMP did not analyze quarantine. The EA references the EIS but did not include page references and the conclusions in the EA are not consistent with the analysis that is in the EIS.
Response: The IBMP did not include a provision to establish a quarantine facility because quarantine was not a feasible management option at the time the agencies approved the IBMP. However, the EIS for the IBMP presumed that quarantine would be incorporated when it was determined that it was feasible (cf. p 193 ff, FEIS). Thus, as noted in the Montana ROD, the IBMP includes provisions to evaluate whether a quarantine facility would be an appropriate component of the plan. The proposed study is designed to determine if it is feasible for the proposed quarantine protocol to result in bison that can reasonably be determined to be free of brucellosis.

Comment: The EA did not evaluate the long-term impacts of a large-scale quarantine program.
Response: The agencies have only proposed to conduct a bison quarantine feasibility study to determine if the proposed quarantine protocol is feasible. If the study proves the protocol to be feasible, the agencies must determine if they will seek to amend the IBMP to include quarantine. If it is determined that quarantine is feasible, the agencies will conduct an additional environmental review prior to incorporating quarantine into the IBMP.

Comment: This is the wrong level of analysis for this type of project. The preceding analysis, used to develop the concept, were not public processes and not consistent with FACA. Do a comprehensive bison conservation strategy and EIS first and then evaluate quarantine from there.
Response: The IUCN bison specialist group is preparing a comprehensive conservation strategy and Montana is participating in this effort. A comprehensive North American bison conservation strategy will require the participation of many federal and state agencies, Tribal governments and, potentially, non-governmental organizations. As such, it is well beyond the authorities of MFWP and APHIS VS. If adopted, the strategy will be implemented in discrete components. Each of those components will be subject to an appropriate level of environmental review that is specific to the proposed relocation site. The decision to complete the bison quarantine feasibility study is discrete from a decision to develop a bison conservation strategy; discrete from a decision to revise the IBMP to use Yellowstone bison within a broader conservation strategy; and, discrete from a decision to relocate bison

Comment: The EA does not include a truly no action alternative. The agencies would continue to capture and slaughter bison under the no action alternative in the EA.

Response: The actions that would occur under the "no action" alternative were already approved through the decision to complete Phase I of the quarantine feasibility study and thus serve as a "baseline" upon which any new actions, such as Phases II and III, are built.

Comment: The EA does not address cumulative effects, especially cumulative effects on bison related to all bison management actions.
Response: Cumulative effects of research projects, including the potential for researching the feasibility of quarantine, as a component of all bison management actions was addressed in the FEIS for the IBMP. The FEIS considered the impacts of the IBMP, which allows for the slaughter without testing of all bison captured if the YNP bison population exceeds 3000. All bison that enter into Phase I of the feasibility study are bison that have been captured while the population exceeds 3000 and thus would normally be sent directly to slaughter. The effects (both direct and cumulative) of the loss of these bison have already been considered in the FEIS. There is no information to indicate that those effects have changed since they were reported in the FEIS. No additional cumulative effects are anticipated.

Comment: The IBMP would have to be amended to accommodate quarantine. The agencies are willing to amend the IBMP for quarantine but are not open to other amendments to the IBMP that would be responsive to recommendations from sportsmen.
Response: The agencies are willing to amend the IBMP to include operational quarantine or other management changes that may be warranted under the adaptive management framework that is embedded within the IBMP.

Comment: The IBMP is an adaptive management plan. The quarantine project should be terminated pending preparation of a supplemental EIS to amend the IBMP to address new information and other changes in circumstances associated with bison management, including genetic information, presence of cattle on the Royal Teton Ranch, the hunt, new blood tests, hazing methods, bison vaccination and quarantine.
Response: Adaptive management is an important component of the IBMP. It permits the plan to react to changing situations and incorporate the use of new information as it becomes available by considering the situations and new information quickly and incorporating it into the IBMP as it is needed, rather than having to perform major overhauls and re-analyses of the entire plan each time there is a change. Each of the circumstances cited in the comment have been addressed in an efficient and effective fashion. The presence of cattle on the Royal Teton Ranch and hazing are within the scope of the FEIS for the IBMP. Bison hunting was evaluated in an EA. Vaccination of bison calves in the Western Boundary Area was evaluated in an EA and NPS has issued a Notice of Intent to prepare an EIS for vaccination within the park. Phase I of the bison quarantine feasibility was evaluated in an EA and Phase II/III is evaluated in the current EA. This study incorporates the new blood tests for brucellosis. Before the IBMP can be revised to incorporate an operational quarantine procedure, additional environmental review will be completed. The heightened interest in quarantine to facilitate the use of Yellowstone bison to augment conservation herds is in response to the new genetic information.

Comment: The establishment of interagency committees and the development of other mechanisms to plan for the disposition of bison that survive the project demonstrate that the agencies have predetermined that the project will be successful even though the project has not been completed. The agencies should not be discussing long-range plans for disposing of bison because Phase II and Phase III of the project are premature.
Response: If the bison quarantine feasibility study is successful, the agencies will have two cohorts of bison and their calves that will have been determined to be brucellosis free. If that is the result, the agencies prefer to relocate the bison and, therefore, must plan for that eventuality by working with potential cooperators to identify suitable habitats for the release of the bison. Alternatively, at the completion of the study, the agencies could continue to hold the bison in quarantine, pending development of relocation sites; the agencies could slaughter bison that otherwise would be suitable for relocation; or, the agencies could use the bison for other research.

Comment: If the agencies eventually determine that quarantine is feasible and an acceptable bison management tool, the process and criteria for the disposition of bison that survive quarantine should be subject to future environmental review.
Response: The agencies agree. The agencies anticipate that, if the study is successful, decisions to relocate the two experimental cohorts will be supported with an appropriate level of environmental review. Any decision to add quarantine to the IBMP and subsequent decisions regarding the relocation of additional cohorts of quarantined bison also will be supported with an appropriate level of environmental review.

Comment: The EA presented a project budget only for Alternative Two. This is further indication that the agencies predetermined the outcome of the analysis.
Response: The EA did present a detailed budget for Alternative Two. Further, the EA explained that facility costs would be similar for Alternative Three would be similar but that $60,000 in lease payments would not be required. Costs for Alternative Four would be greater and this alternative would require additional environmental review. Costs for Alternative Five would be greater than for Alternative Two because the project would extend over a longer time period. The Costs for Alternative One were disclosed in the previous EA.

Comment: The EA suggested that several issues identified by the public had already been addressed in the FEIS for the IBMP. The EA should have either included the referenced information or made a more specific reference to it.
Response: The specific comments referenced by this commenter refer to some of the most contentious issues related to the decision to approve the IBMP, specifically tolerance for bison beyond the boundaries of YNP, habitat acquisition for bison, whether the IBMP is consistent with commonly accepted wildlife management practices and whether the IBMP should focus on managing cattle rather than managing bison. These issues, while not within the scope of the Bison Quarantine Feasibility Study EA, have all been addressed in the FEIS. NEPA allows and encourages tiering from and referencing to related documents so that potentially voluminous extraneous information does not cloud the analysis of the problem at hand. Since these issues were not within the scope of

the study, the EA should not have included lengthy discussions of the issues and reference to the FEIS was appropriate.

Comment: There was no public process for the conversion of the old Brogan horse pasture at Corwin Springs to a brucellosis research facility. What type of environmental review process was prepared for that decision? What are the provisions of the lease?
Response: The Brogan property is privately owned and has been used for animal husbandry and general ranching activities for many years. It has been surrounded by high fence for more than 50 years. Its use as a brucellosis and bison research facility is ideal because it is located within the GYA, conveniently located on a primary road and requires minimal physical modification in order to conduct the type of research that was envisioned.

The bison quarantine feasibility study would upgrade the fence but would not change the fence boundary. The use of this property has been varied since the removal of elk. Horses on an annual lease basis grazed some portions of the property in more recent years. The facility was used for persistence of brucellosis research and for an immuno-contraceptive study of bison because of its unique capabilities and its location within the GYA. The previous research projects on this property were conducted by APHIS under a categorical exclusion. MFWP completed an environmental review, pursuant to MEPA, for Phase I of the bison quarantine feasibility study. That review provided opportunity for public review and comment on the decision to use the Brogan property for that purpose. The lease is between AHPIS VS and the Brogan estate. The lease incorporates about 90% of the property for a 5-year term, with provisions for renewal. Costs for the lease were disclosed in the EA.

Comment: The Draft EA claimed that the FEIS for the IBMP fully evaluated the environmental impacts of establishing a quarantine process for bison. It did not.
Response: The FEIS did not evaluate a quarantine process for bison because a quarantine process was not feasible at the time the IBMP was approved. The EA referenced the fact that the IBMP includes provisions for agencies to determine the design, location and operation parameters for a bison quarantine facility and the eventual addition of a quarantine procedure to the IBMP. The FEIS evaluated the environmental impacts of the IBMP, including these provisions. The Montana ROD for the IBMP specifically noted that additional environmental review would be required to determine the design, location and operation parameters for a bison quarantine facility. The agencies have not yet proposed a quarantine process for bison. As stated in the EA, the primary goal of the bison quarantine feasibility study is to develop quarantine procedures, using the best available science and adaptive research strategies. It is not possible to design a quarantine process until this study is successfully completed. If the study is successful, the cooperating agencies will complete additional environmental review prior to making a decision to approve an operational quarantine program.

Comment: The Interagency Bison Restoration Committee, as proposed, is problematic. ITBC does not represent all tribal interests. The Committee should be expanded to included non-member tribes. The suggested inclusion of certain groups, suggests a bias

against other groups that also have legitimate concerns about bison. The Committee, to be legal, just be chartered under the Federal Advisory Committee Act and, if it is chartered, it must provide equal access to all non-governmental organizations.
Response: Tribal representatives on the Interagency Bison Restoration Committee will be approved by tribal councils or other elected officers of their tribe and will not necessarily be members of ITBC, although most (but not all) of the 84 bison based tribes are members of the ITBC. The proposed interagency/tribal panel would be a group that is looked to for information to help in the prioritization and selection of public sites to be considered for restoration based on the conservation value of the project, socioeconomic considerations, biological/ecological criteria, funding and local support. It would be composed of representatives from tribal, state, federal and international public entities. The panel, composed solely of tribal/governmental representatives, is not required to be chartered under the Federal Advisory Committee Act (FACA). As project areas emerge and interest develops in a focus area, additional information from experts in the agricultural and conservation communities are likely to be sought. All this information will be available to inform the agencies as they make decisions for release of bison. Such a structure, where all decisions are made by public officials and not by private individuals, is fully compatible with the regulations under FACA.

Comment: Rather than working on quarantine, MFWP should focus its efforts on reopening the clearly ineffective IBMP and developing a more effective bison management plan with more authority given to MFWP and YNP.
Response: A decision to re-open the IBMP is outside the scope of this EA. However, a decision to implement Phase II/III of the bison quarantine feasibility study does not preclude consideration of other possible changes to the IBMP.

**Impacts to Bison**

Comment: This project takes away the potential for having wild buffalo in Montana. If the project gets going in earnest, hundreds of bison will enter the quarantine pipeline, reducing the population pressures from migrating bison and eliminate any potential for providing bison with habitat adjacent to YNP.
Response: This project is a research project to determine if quarantine is feasible. It does not institute an operational quarantine program. Objectives for the Yellowstone bison population levels and distribution are defined by the FEIS for the IBMP. Quarantine would provide an additional tool to manage within those objectives. But, the availability of the tool would have no influence on those objectives.

Comment: Bison are ecologically extinct in Montana and there are no indications from the EA that quarantine would do anything to change that.
Response: Bison are an ecologically functional component of YNP. If the bison quarantine feasibility study is successful, quarantine would offer a method to facilitate restoration of bison to other ecological systems in Montana and elsewhere in North America. At the conclusion of the study, Montana sites will be considered for release of animals that have successfully completed quarantine and can be considered free of brucellosis.

Comment: We are headed to a population crash in YNP. The population may not sustain the removal of 200 bison to quarantine.
Response: The bison quarantine feasibility study will affect the disposition of some bison that are removed from the Yellowstone bison population. It will have no effect on the total numbers of bison that are removed from the population. The quarantine feasibility study will require two cohorts of 100 bison calves each. These calves will be obtained from those that would have gone slaughter under other circumstances. No additional bison will be removed as a consequence of the study.

Comment: As outlined in the study, an estimated 2,600 "surplus" bison will be captured and slaughtered in order to achieve 200 wild bison calves that test negative for brucellosis.
Response: The commenter did not fully explain the derivation of this estimate and the agencies do not agree with it. Numbers of bison captured and slaughtered are a consequence of bison management, as defined by the IBMP. Likewise, numbers of bison calves that are captured and potentially available for the feasibility study are a consequence of routine management. The agencies do not propose any additional trapping, specifically for the purpose of providing animals for the study.

Comment: The ecological effects of removing large numbers of bison calves from the population have not been evaluated.
Response: A total of 200 bison calves will be included in the bison quarantine feasibility study. Bison calves that would be available for the study will result from routine bison management, as defined by the IBMP. Had they not been selected for the study, these calves would have gone to slaughter. The ecological effects of that management on Yellowstone bison were evaluated and disclosed in the FEIS.

Comment: Capture and quarantine is a severe domestication process. The animals will be fed, will learn to become dependent on artificial feeding and will lose their wildness. This is a mad scientist approach. It dirties the animals – doesn't clean them up. A bullet to the head is preferable to domestication.
Response: The agencies respect that some people have a different perspective regarding acceptable methods of wildlife management. The process of capturing wildlife and holding the animals for extended periods prior to release in new locations has been successfully used in efforts to restore other wildlife species. The source herds for Yellowstone bison included ranched animals. During the early history of YNP, bison were ranched within the park. Yet, Yellowstone bison are considered to be wild. The process for releasing bison within conservation herds includes a period of soft release, during which the bison will transition from artificial to natural food sources.

Comment: The EA did not evaluate the effect of separating young animals and raising them as a single age class apart from the rest of the herd. What is the precedent for this kind of wildlife management and how will it affect the wild character of the animals? The agencies contend that historical bison management in YNP included intense husbandry and management of some bison behind fences and conclude that there is no

evidence that this period of intense management resulted in domestication of Yellowstone bison. This statement is not relevant to the proposal because the bison were never segregated by age class.
Response: With the exception of YNP, all bison herds in North America were started from calves captured in the wild and managed in captivity. When bison were managed as a conservation herd within YNP, calves were routinely separated form adults to prevent injury from adult males. There also are other wildlife management examples, most notably with antelope, in which animals were captured as young and then held for a period prior to release in new habitats.

Comment: Bison that test negative for brucellosis could be released. Therefore, quarantine resulted in the removal of bison that would not otherwise have been removed under the provisions of the IBMP. This effect was not evaluated in either the FEIS or the EA.
Response: The Yellowstone bison population has significantly exceeded 3,000 animals for several years. At that level, the IBMP imposes no constraints on the removal of bison that migrate from the Park and that effect was evaluated in the FEIS. The reality is that any animals captured when the population is above 3000 will go to slaughter unless they are used in a research project such as the quarantine feasibility study.

Comment: Quarantine constitutes the removal of an entire age cohort from the affected population. This effect was not evaluated in either the FEIS or the EA.
Response: At current population levels, the annual increment exceeds 700 bison calves per year. Removal of 100 calves did not remove an entire age cohort nor did it compromise a level of recruitment that would be necessary to sustain a population of 3,000 bison.

Comment: The project will result in the separation of bison calves from their mothers.
Response: Comment noted. Under current conditions, the mothers that are captured are sent to slaughter and up to 100 seronegative calves will be used in the quarantine feasibility study, rather than sent to slaughter with their mothers. The consequences of removing bison from the population were analyzed in the FEIS for the IBMP.

Comment: Quarantine of the extent proposed by APHIS for Yellowstone bison is not consistent with standard wildlife management practices. Quarantine periods of short duration have been used with other species with some success and with significant impacts to the quarantined animals once released. The type of quarantine proposed is specifically a technique for domestic livestock. Bison that survive quarantine will be much like domestic animals and therefore will not benefit species conservation.
Response: The agencies disagree that the quarantine process will compromise the value of bison for species conservation. There are many examples in wildlife management throughout the globe where animals were reared or kept in captivity for periods before release into new habitats. Moreover, if the study is successful and the agencies relocate the bison that complete the protocol, there will be opportunity to evaluate the wild character of those bison and their progeny in the new location.

Comment: Removal of young bison to quarantine, even if they are capable of living independently, disrupts complex social arrangements in the herd.
Response: Bison are removed in a manner that conforms to the IBMP. Animals consigned to the feasibility study otherwise could be shipped to slaughter. The effects of such removal were analyzed in the FEIS for the IBMP.

Comment: The proposal is not science, but animal abuse.
Response: The proposal went through extensive internal and external reviews by scientists. In addition, the proposal was presented in concept to the U.S. Animal Health Association and Greater Yellowstone Interagency Brucellosis Committee for scientific scrutiny. The National Park Service Research Subcommittee also reviewed the proposal in order to issue a research permit for the project activities in YNP. All reviews have offered suggestions for improving the study design but looked upon the proposal favorably.

Comment: The EA is unclear on the source of bison that will be used for breeding. What bulls will be used and how will they be gathered.
Response: The source of animals will be bulls that were captured under the IBMP and were designated as part of the quarantine feasibility study. The agencies will consult with experts in bison genetics to determine which bulls to use for breeding so as to maximize genetic diversity.

Comment: The provision for slaughtering of half of the test animals, even though they have tested negative for brucellosis, is unacceptable.
Response: There is no currently approved method to determine, with certainty, that an individual bison does not harbor *B. abortus*. With current technology, the culture test, which requires slaughtering the test animal, is more definitive than the individual blood tests. Validation of the effectiveness of the combination of blood tests to identify individual, brucellosis-free bison requires comparisons of the results of those blood tests with the results of culture tests. The slaughter and subsequent culturing of tissues is an important part of Phase I of the study and was considered in the previous MFWP EA.

Comment: The EA failed to analyze the biological, ecological, cultural and aesthetic values of bison in southwest Montana.
Response: These issues were evaluated in the FEIS for the IBMP.

Comment: Capture, handling and holding bison in quarantine is cruel treatment.
Response: MFWP and APHIS VS have stated their commitment to the humane treatment of animals. The Bison Quarantine Feasibility Study has for the past year operated under the oversight of Animal Care and Use Committee and an Attending Veterinarian, in compliance with the Animal Welfare Act. The agencies submitted the proposal to the committee members for their review. Standards of care will follow the best available information. Qualified state and federal veterinarians will be in attendance during operations and will assure that animal care is appropriate. Experts in bison handling and nutrition are consulted on a routine basis to assist in design and management of the facilities.

Comment: Be concrete – make a commitment to release bison in family groups.
Response: If, as anticipated, bison are relocated at the conclusion of the study, the agencies anticipate that bison will be released in cohorts rather than as individuals. If a cohort includes females, it will also include the calves born to those bison during quarantine. Also, adult females in the cohort likely will be pregnant and the calves would be born after relocation. Thus, to the extent that family groups exist among bison within the quarantine facility, bison will be relocated as family units.

**Genetics**

Comment: The EA downplays other potential sources of plains bison and did not compare Yellowstone bison with other sources.
Response: Comparison of the genetics of Yellowstone bison with genetics of bison from other sources is included in documents referenced in the EA. This information was developed in consultation with experts in bison genetics.

Comment: If there are 8,300 genetically pure bison, only half of those are Yellowstone bison. There are more than 4,000 others that are on federal land and brucellosis free and could be available for restoration projects. Rather than using Yellowstone bison, other herds should provide source animals for the conservation herds.
Response: Several issues affect the suitability of bison for restoration including the presence of domestic cattle genes, genetic diversity of the herds, the selection forces of sources herds and the population viability of existing herds. It also is important to blend animals from multiple sources to reassemble the bison genome, as best as possible. Except for the Yellowstone and the Jackson bison herds, the remaining genetically diverse herds are very small and cannot routinely provide large numbers of bison for relocation. Establishment of conservation herds will require sufficient numbers of bison to ensure adequate genetic diversity and, thus, avoid the founder effect from introducing a small number of animals. The Yellowstone and Jackson herds also are the only herds that are influenced more by the forces of natural selection than by routine culling. Thus, except for brucellosis, Yellowstone bison are an important source stock of bison for conservation projects.

Comment: Yellowstone bison are critical to the survival of bison, as a species, and could make an important genetic contribution to augment the small numbers of other pure bison that currently exist. If the study eventually leads to the transfer of bison to other locations and help to ensure the survival of the species, it will have been a success.
Response: The agencies agree.

Comment: The Yellowstone bison herd is unique. They are the only bison with a continuous history of being wild and unfenced. They are genetically unique, exhibiting the highest level of genetic diversity of all bison in the world. Actions that remove a very specific segment of the Yellowstone herd will have drastic impacts on the genetic diversity of targeted subpopulations.

Response: The history of the management of Yellowstone bison was described in the FEIS for the IBMP. The history includes relocations of ranched bison into YNP and active management of confined bison within the park. The agencies acknowledge the genetic diversity of Yellowstone bison. The effects on herd genetics were evaluated in the FEIS for the IBMP. The effects resulting from the quarantine feasibility are well within the scope of those effects. Moreover, quarantine, if the feasibility study is successful, has the potential for using Yellowstone bison to establish new conservation herds or augment existing conservation herds and, thereby, help to maintain genetic diversity among all North American bison.

**Brucellosis**

Comment: Please provide additional information regarding latent infection as it relates to the purpose for the project and the uncertain parameters that make it difficult, under the UM&R, to certify bison from infected herds as free of brucellosis.
Response: In cattle, calves from infected dams or calves exposed to infection at an early age occasionally remain seronegative until sexual maturity (bulls) or the first parturition (heifers), at which time they become bacteremic and may abort an infected fetus. This phenomenon, sometimes called "the heifer syndrome," is a latent infection of *B. abortus* and is not detectable until the first calving. While detailed studies of this syndrome in bison have not previously been conducted, there are a few anecdotal case reports in the record. This is the reasoning for the quarantine protocol in the UM&R requiring bison to achieve sexual maturity and go through a parturition before completing quarantine. The obvious danger is that of establishing free-ranging bison herds outside the GYA that are in fact carrying latent *B. abortus* infection

Comment: There is a significant, quantitative difference between having been exposed to brucellosis (seropositive) and being capable of actually transmitting brucellosis, which requires a positive tissue culture.
Response: Seropositive bison have antibodies for the organism because they have experienced a previous brucellosis infection. Those bison may or may not be capable of shedding the organism at the time of the blood test. Typically, animals that have been infected with brucellosis harbor *B. abortus* organisms for life and likely will experience active infection again. Phase I of the study will hopefully identify the tissues where the latent brucellosis bacteria remains hidden. However, unless the infection is active, it likely would be difficult to culture the organism from the animal's tissues.

Comment: Yellowstone bison pose no threat to livestock in any state of the country.
Response: The Federal FEIS included a description of brucellosis and an explanation of the risk that the disease poses to Montana's livestock industry. The FEIS also explained the risk of brucellosis transmission from bison to livestock and the potential economic consequences in the event that transmission should occur. Research since implementation of the IBMP tends to confirm the explanation of risk that was presented in the FEIS. Many highly qualified scientists were involved in the research and management discussions considered while developing the IBMP.

Comment: The EA suggests that the Yellowstone herd is chronically infected with brucellosis and supports that statement with serological data that suggests 40 to 60% of the bison test positive for the disease. The data are incorrect and only suggest that the herd is chronically exposed. Moreover, a comparison of tissue culture data with serology suggests that a much lower percentage of bison are actually infected. The agencies are intentionally misleading the public.
Response: The agencies disagree. A chronically infected herd is one in which the organism is present and being maintained within the population through repeated transmission from one animal to another. The standard serological tests determine the presence of antibodies to the disease organism and animals develop antibodies when they experience active infection. Bison that are positive on standard serological tests may or may not be experiencing an active infection at the time of the serological test and, therefore, may or may not be capable of transmitting the organism to other bison at that time. For many decades approximately 40% to 60% of sampled animals from this Yellowstone bison population test positive for antibodies and periodic tissue samples from killed animals are culture positive indicating that the herd remains chronically infected with brucellosis and new individuals are routinely being exposed over time.

Comment: There has never been a confirmed case of brucellosis transmission from bison to cattle. The instance referenced, Flagg (1983) was not under natural conditions. The agencies must remove that reference and concede the point.
Response: The referenced transmission incident (Flagg, 1983) occurred on a large ranch where the bison had some limited contact with cattle during the winter of 1982-1983. Because the cattle had been tested and certified free in the fall of 1982, prior to contact, and the bison tested during the outbreak were 86% seropositive, the only logical conclusion is that the bison transmitted brucellosis to the cattle. The Yellowstone bison herd is chronically infected and abortions have been documented. It is reasonable to assume that contact between these bison and susceptible cattle during the winter/spring period would create a scenario in which transmission from bison to cattle could occur. The IBMP is strategy for risk management that is intended to prevent the occurrence of a similar scenario within the Montana portion of the GYA.

Comment: Brucellosis is a disease that came from cattle.
Response: The strain of brucellosis (*Brucella abortus*) that occurs in Yellowstone bison is a livestock disease that originated in Europe and came into this country when cattle were first imported into this country. The original source of infection for Yellowstone bison is unknown. The two most likely sources were either the bison that were transplanted into the Park in the early 1900's and/or dairy cattle that were maintained at the bison ranch in the Lamar Valley.

Comment: There has not been a conclusive study on the risk of brucellosis transmission from bison to domestic livestock.
Response: The Federal FEIS explained the risk of brucellosis transmission from bison to livestock and the potential economic consequences in the event that transmission should occur. The purpose of the IBMP is to maintain temporal and spatial separation between

bison and domestic livestock. There has not been a documented instance of brucellosis transmission from bison to domestic livestock (other than the incident reported by Flagg (1983), as detailed above) because, at least in part, the agencies have been successful in maintaining temporal and spatial separation between bison and cattle. There have been cases of transmission between elk and cattle in Wyoming suggesting that the opportunity for transmission from bison is very real.

Comment: Quarantine will have little impact on the incidence of brucellosis.
Response: The agencies agree. However, the agencies are not considering quarantine for that purpose. Rather, the purpose of potentially revising the IBMP to include quarantine is to identify animals that are brucellosis-free and, therefore, suitable for relocation to bison conservation herds. Returning the study animals to the Park would only serve to expose them to brucellosis again.

Comment: There is no need to research whether brucellosis can be eradicated from a bison herd held in quarantine. This was accomplished with the herd at Wind Cave. This project seems to be a way to phase into the development of facilities necessary to conduct a large-scale quarantine project to eradicate brucellosis from this herd and to do so without appropriate environmental review.
Response: The process used at Wind Cave was a test and slaughter program to eliminate brucellosis in a recently infected herd. The test and slaughter process has been used in this case and others but was much more limited in design and did not quantify the results at a fine scale. In addition, no study has examined in detail the risk of latent expression of brucellosis in bison. Although there have been case reports of latent infection in bison there has not been a specific study to quantify that risk. The agencies have not proposed to eradicate brucellosis in Yellowstone bison. The purpose of the feasibility study was clearly stated in the EA. It is to determine whether it is possible, using the approved study protocol, to certify groups of Yellowstone bison that are free from brucellosis. If so, additional management options could be considered under the IBMP for bison that leave YNP. Even if successful, the quarantine protocol is appropriate only for certifying individual and small groups of bison as brucellosis free. The protocol is not appropriate for an eradication program.

In the ROD, the agencies committed to support every important change to the IBMP with an appropriate level of additional environmental review. Montana has honored that commitment with EA's to support the decision to implement a bison hunting season, implement calfhood vaccination in the Western Boundary Area, to begin Phase I of the bison quarantine feasibility study and the pending decision to authorize Phase II/III of the same study. APHIS VS has honored that commitment by preparing an EA for vaccination of bison in the Greater Yellowstone Area, by working with MFWP in the joint preparation of this EA, and by assisting and cooperating with our GYIBC partners to the extent possible as they conduct environmental reviews. YNP has honored that commitment with its Notice of Intent to prepare an EIS for a pending decision to implement bison vaccination within the park. The EA for the bison quarantine feasibility study reiterated that commitment by noting that any change to the IBMP that might result

from successful completion of the study will be supported with additional environmental review. The agencies will also honor that commitment.

Comment: If people support quarantine, they are agreeing to kill half of the Yellowstone bison herd because about half of the herd tests positive for brucellosis.
Response: The proposed action is a research study, not a change in operational activities. The agencies propose to capture up to 200 bison calves for the purpose of completing the bison quarantine feasibility study. Even if, based on the results of the study, the IBMP were revised to include bison quarantine, it is unlikely that the number of bison removals would increase over the number of management removals that otherwise would occur without quarantine. Quarantine is simply a method, other than to purely slaughter, to manage excess bison that exit the Park.

Comment: Brucellosis is a serious disease and a barrier to bison conservation. We should strive to solve the problem, not pretend that it does not exist. Management should focus on conserving bison, not on preserving brucellosis.
Response: The agencies agree. We are hopeful that, if the feasibility study is successful and quarantine is accepted in the IBMP, it will result in a source of brucellosis free bison that can be used in bison conservation projects.

Comment: As proposed, the project seems to perpetuate the notion that brucellosis will always be a barrier that limits species mobility.
Response: Yellowstone bison comprise a chronically infected herd. That circumstance is unlikely to change soon because, with current technology, implementation of a successful eradication strategy probably is not feasible. It is not necessary to eradicate brucellosis to prevent transmission of brucellosis from bison to cattle. It is, however, necessary to manage the risk of disease transmission and that requires limits to the numbers and distribution of bison.

Comment: If buffalo are allowed to disperse, the disease will work its way out of the system.
Response: Yellowstone bison were discovered to be infected with *B. abortus* in 1917. Until 1967, the herd was managed in the range of 400 to 1500 bison and some of the culling selectively removed seropositive bison. Throughout that period, brucellosis remained at a stable prevalence even though the population was relatively small and dispersed throughout YNP at various times. Bison have intense social behaviors that favor close grouping by nature. Dispersing animals across the landscape does not necessarily lead to greater individual dispersion. Additionally, research has shown that the post-partum behavior of bison is conducive to transmission and maintenance of infection. Aborted tissues and early calving within a group structure lead to other herd members sniffing and/or licking the potentially infected fetus or calf and placenta. Therefore, it is highly unlikely that the prevalence of this disease would diminish greatly with greater dispersion of bison.

Comment: What were the costs of the economic losses incurred in Wyoming due to its loss of brucellosis class-free status and who paid the bill?

Response: The following excerpt is from a report prepared by the State of Wyoming shortly after the recent occurrence of brucellosis in that state:

*Brucellosis is a major concern to the cattle industry due to the severe economic losses cattle producers' experience. Losses occur from abortion "storms" with reductions in calf crops, limitations in marketing, and costs of testing cattle to reassure trading partners that the product is clean.*

*Amy Bittner in "An Overview and the Economic Impacts Associated with Mandatory Brucellosis Testing in Wyoming Cattle", June 10, 2004, Wyoming Department of Administration and Information, Economic Analysis Division, summarizes economic impacts of brucellosis testing requirements on the Wyoming producer. The review indicated that Wyoming currently has 6200 cattle operations and that the State's livestock industry is worth approximately $778 million.*

*The State Legislature appropriated $1.6 million to offset the costs of testing and funding to assist the Wyoming State Veterinary Laboratory to provide testing services. It was estimated that the cost of brucellosis to producers would range from $495,000/year to $3,700,000/year. Thus, over a seven-year horizon, Wyoming producers could spend from $3,465,000 to $26,000,000 in testing for brucellosis. Lost marketing opportunities are not included in those estimates.*

Comment: Could the GYA be managed regionally as a Class A area? This would offer an alternative to quarantine, while allowing the agencies to manage bison the same way they manage elk.
Response: If Montana, Idaho and Wyoming were all Class A states and the GYA were the only focus of infection, it would be reasonable to designate the GYA as a region and upgrade the remaining area of the three states to Class-Free. However, designating a region within an otherwise Class-Free state would constitute a reduction in status and, therefore, the affected states likely would not concur with the change. The quarantine feasibility study, itself, is a research project to evaluate the effectiveness of a protocol for detecting bison that have been recently exposed or harbor a latent *B. abortus* infection. Montana's brucellosis classification is not relevant to the need for the study. As long as brucellosis remains in bison in the GYA, their movement will need to be restricted to ensure that transmission to susceptible domestic animals does not occur.

Comment: Quarantining a small number of bison does nothing to address brucellosis transmission from elk and bison to susceptible cattle.
Response: That is not the purpose of the bison quarantine feasibility study. The purpose of the bison quarantine feasibility study is to determine if it is possible to identify, with a degree of certainty, bison that do not harbor latent infections of brucellosis and thus can be considered free of the disease.

Comment: Are there other diseases besides brucellosis that the agencies are considering for quarantine and eradication?

Response: No. Brucellosis is the only regulated disease that is a barrier to the use of Yellowstone bison as a source for conservation herds.

Comment: Sportsmen are concerned about the potential for elk to be caught up in the brucellosis management program.
Response: The agencies have not proposed to quarantine elk and, regardless of the outcome of the bison quarantine feasibility study, we do not propose or plan to manage brucellosis in elk through quarantine. That is not the purpose of the bison quarantine feasibility study. The purpose of the bison quarantine feasibility study is to determine if it is possible to identify, with a degree of certainty, bison that do not harbor latent infections of brucellosis and thus can be considered free of the disease.

Comment: APHIS VS should be focusing more efforts on developing effective vaccines for domestic cattle.
Response: APHIS, VS in collaboration with the USDA, Agriculture Research Service and others is well focused on development of improved brucellosis vaccines for cattle and wildlife. These include engineered live vaccines, adjuvant vaccines, and DNA vaccines. Additionally, USDA is investigating alternative methods of vaccination for wildlife including oral delivery. These studies are ongoing and are in no way compromised by the effort at restoration of brucellosis-free, wild bison.

Comment: There is no scientific justification for the project.
Response: The proposal went through extensive internal and external reviews by scientists. In addition, the proposal was presented in concept to the U.S. Animal Health Association and Greater Yellowstone Brucellosis Committee for scientific scrutiny and to gather feedback. The National Park Service Research Subcommittee also reviewed the proposal in order to issue a research permit for the project activities in YNP. All reviews have offered suggestions for improving the study design but looked upon the proposal favorably.

**Quarantine Protocol and Operation**

Comment: The results of the quarantine feasibility study should be subject to independent scientific peer review to ensure its credibility. A science panel, including representation from NPS, USFWS and USFS, should oversee the research.
Response: Peer review is integral to the study design and the agencies have and intend to consult with knowledgeable scientists throughout the project.

Comment: If the study is successful, the agencies should petition APHIS VS to modify the bison quarantine protocol based on the information derived from the study.
Response: Any proposed modifications to the current protocol must be based on research results. Appropriate modifications to the current protocol, if any, should be evident from the results of the feasibility study. APHIS VS is a cooperator in the feasibility study and, if such modifications are warranted, APHIS VS will consider making modifications based on the best scientific information.

Comment: The standard for success or failure in the quarantine feasibility study is confusing.
Response: The standard for success, as presented in the EA, is a statistical expression of the hypothesis that will be tested during the bison quarantine feasibility study. In simpler terms, the study will have been successful if the protocol accurately distinguishes bison that do not have brucellosis from those bison with latent infections.

Comment: Will the agencies determine that the project is a failure if they are not able to culture *B. abortus* from the slaughtered test animals?
Response: No. The purpose of the culture tests is to provide a control against which the agencies will validate the accuracy of the serological tests. Failure to culture *B. abortus* more likely would be interpreted as success. Isolation of *B. abortus* from bison that had tested negative on the battery of serological tests would be an indication of the presence of latent infection.

Comment: If the agencies want to maximize the chance of finding *B. abortus*, if present, they must conduct a full necropsy and employ rigorous culture methods.
Response: The agencies agree and intend to do so. The principle investigators were involved in establishing the standard protocols, approved by GYIBC, for culture of bison to determine the presence of *B. abortus*. This protocol will be expanded to use PCR as an additional diagnostic tool.

Comment: The agencies have to provide more explanation about the epidemiology and pathogenesis of *B. abortus* in bison to provide indication of how female bison can ever be determined to be free of the organism.
Response: For the purpose of the quarantine feasibility study, the agencies will determine that individual female bison are free of *B. abortus* on the basis of 1) Negative serology during preliminary tests that identify potential candidates for the study; 2) Negative serology during multiple blood tests during Phase I; 3) Negative serology following calving in quarantine; and, 4) Negative serology following the second calving, during the soft release phase of the project. This standard is rigorous and, depending on the results of the feasibility study, a lesser standard might be sufficient.

Comment: The agencies should postpone the quarantine feasibility study until the results of the two vaccination projects are known. The vaccination projects could provide a mechanism for achieving similar goals.
Response: This study is not designed to control the spread of brucellosis or modify its prevalence in the free-ranging bison inside Yellowstone National Park. The purpose for the bison quarantine feasibility study is to determine whether the quarantine protocol is adequate to distinguish YNP bison calves that are not infected with brucellosis and thus may be transplanted to new locations without subsequently transmitting brucellosis to other animals. Regardless of the outcome of the other projects, vaccination, without quarantine, would not be sufficient to qualify bison for relocation to other areas.

Comment: There should be a goal to move the quarantine facility out of the GYA. State that in the decision.

Response: This purpose of this EA is to review the impacts associated with the second and third phases of a proposed bison quarantine feasibility study. Any consideration of an operational (as opposed to experimental) quarantine facility outside the GYA is premature. The bison quarantine feasibility study must be accomplished within the existing legal and policy frameworks which require that quarantine be done within or adjacent to Yellowstone or Grand Teton National Parks. Until there is strong evidence disclosing the relative risk of transporting exposed bison to areas outside the GYA, it is unlikely the agencies will change the current rules. Evidence from this study could be used to evaluate the possibility of changing regulations and policies.

Comment: The agencies are proposing an experiment. They should be more open that this is an experiment to see if they can grow a herd of brucellosis-free bison before they find out if they have a place to put the bison if the experiment is successful.
Response: The basic purpose is to determine whether it is feasible to identify brucellosis-free bison, following the protocol described for the study. If the study is successful, additional environmental review will be completed before any decision to revise the IBMP to include quarantine. However, a successful feasibility study could yield as many as 100 brucellosis-free bison that have completed the study plus calves that were born to the cows in the study. If possible, the agencies would like to relocate those bison to conservation herds. Doing so would have the added benefit of validating a process for distribution.

Comment: The quarantine feasibility study will encourage the agencies to expand trapping operations just to meet a quota of animals for the study.
Response: Bison consigned to quarantine will be animals captured during normal operations pursuant to the IBMP. No additional trapping is proposed.

Comment: Bison require at least 3 acres per animal and, if not artificially fed, require at least 6 acres per animal. The minimum pasture size for this project should be 300 acres and the bison should be rotated between at least two pastures. Therefore, at least 600 acres is need for the quarantine facility. During the initial phase of this project, the agencies advised the public that the quarantine area would be 400 to 600 acres, or larger, in size. However, the actual size of the pastures is now 60 acres or smaller. The pastures proposed for Alternative 2 are too small. The agencies must explain the change.
Response: The agencies would prefer to use large pastures, especially for Phase II. However, available landscapes are limited by the nature of the landscape, the requirement to operate within the GYA and availability of land for the project. The original proposal assumed that a portion of the Dome Mountain WMA and, potentially, larger areas of private land would be available for the project. Several people expressed opposition to the use of Dome Mountain WMA. The Slip 'n Slide ranch is a smaller property, but favorably situated for this project because of its proximity to the Brogan facility and it is located south of Yankee Jim Canyon. Though the pastures are smaller, the preferred alternative provides sufficient space to satisfy the requirements of the Animal Welfare Act. Because the pastures are irrigated grasslands, the bison also will be able to forage in a natural manner for most of the year.

Comment: Montana does not permit wildlife feedgrounds, but the proposal would create two new feedgrounds in prime wildlife habitat.
Response: Montana does not permit feeding of wildlife. However, this provision does not prevent the feeding of animals held in research facilities. The facility will not become a feedground because other wildlife will not have access to the facility and the project is not long term.

Comment: The agencies should consider locating quarantine facilities on Tribal lands where it might be possible to hold bison in larger pastures and reduce the handling requirements.
Response: Location of quarantine facilities on Tribal lands is not appropriate for the feasibility study, but could be considered as an option if the study is successful and quarantine is subsequently incorporated into bison management.

Comment: The location of the quarantine facilities is visible to the public and thus provides increased opportunities for natural resource interpretation and public education.
Response: The agencies will coordinate with the other cooperating agencies to develop cooperative interpretation projects in the vicinity of the facilities.

Comment: Quarantine involves invasive treatment in the handling of bison throughout the project and might result in inhumane treatment of the animals. MFWP should work with local citizens to develop a process for public participation in monitoring the project.
Response: The study plan outlines the manner in which the agencies addressed the issue of humane treatment. The plan includes the development of an Animal Care and Use Committee and will comply with the Animal Welfare Act in the monitoring animal care. The agencies have involved several veterinarians and bison experts to monitor animal handling and to assure input from various perspectives. Public participation in the Animal Care and Use Committee would not be appropriate because participation is limited to people with appropriate expertise in animal care. The agencies expect to provide periodic reports to all interested organizations and additional information upon request.

Comment: How does the seroconversion of bison calves during Phase I affect the results of the study.
Response: Animals seroconvert as a consequence of recent exposure or latent infection that develops as a consequence of stress. The quarantine feasibility study is designed to detect and remove all of the animals recently exposed but not yet demonstrating antibodies and to further identify any latent infections expressed later in the procedure. The ability to accurately identify recently exposed bison coming from Yellowstone and assembled into test groups during Phase I would be one indicator of success. Calf and yearling animals in Phase I and II that seroconvert in a test group do not necessarily compromise other bison because they would not be capable of transmitting the disease until they reached sexual maturity and become pregnant.

Comment: The agencies must provide a detailed analysis of weed management activities.

Response: A detailed analysis of weed management is outside the scope of the EA. The agencies do not anticipate substantial increases in weed infestations as a consequence of the bison quarantine feasibility study. Weed management that does occur on these lands will be within the framework of MFWP's existing weed management plan. Prior to the decision to approve that plan, MFWP prepared an EA. The property owners will also be conducting weed management as desired under traditional approaches used prior to the feasibility study. APHIS VS and MFWP will work closely with the landowners to assure that weed control is properly addressed during the study.

Comment: The potential benefits of this project for the bison herd outweigh the disadvantages of treating some wild bison like livestock for a short period of time.
Response: The agencies agree.

**Bison Re-Introductions and the National Bison Conservation Strategy**

Comment: There is no unified conservation plan for bison in North America. The future of bison conservation depends on restoration of disease-free bison to habitats suitable for their long-term occupancy.
Response: While the purpose of the bison quarantine feasibility study is consistent with a bison conservation plan, developing that plan is beyond the scope of this project. MFWP has developed a comprehensive wildlife plan that identifies bison as a tier 1 species for conservation. The comprehensive wildlife plan also identifies key wildlife habitats with which bison are associated that are priorities for conservation. The agencies are participating in the IUCN effort to develop a comprehensive and unified North American Bison Conservation strategy. The strategy provides broad technical guidance, continental coordination, and scientific counsel to the conservation efforts by agencies and conservation groups. It is within the authorities of MFWP to develop conservation plans within the state of Montana but not within a national or international context.

Comment: Without reintroduction, this is only a science project. MFWP should develop reintroduction plans, including relationships with potential tribes, and a plan to make reintroductions happen.
Response: As proposed, the bison quarantine feasibility study is a research project, with a primary purpose to validate the proposed quarantine protocol by testing a series of hypothesis. If the protocol is successful, the agencies intend to relocate the bison that have, in the course of the project, been determined to be brucellosis free. Thus, the project also provides an opportunity to research the process required to develop partners and identify suitable sites for bison conservation projects. If the feasibility study is successful and quarantine is incorporated into the IBMP, then reintroduction plans will be able to make use of the experience gained in relocating bison that have passed through the feasibility study.

Comment: The EA does not propose specific projects for reintroduction of brucellosis-free bison onto other lands. There has been no analysis of the impacts associated with the relocation of bison to other habitats. The EA also does not articulate how bison will be managed after relocation. The plan is not suitable until the release sites are identified and

we can understand the commitment to conservation, including the commitment to release bison on public land in Montana. Release sites should be part of the record of decision.
Response: The agencies do not have land management authority for potential release sites but will depend upon cooperators, therefore the agencies have not yet developed specific proposals for the reintroduction of bison that successfully complete the quarantine feasibility study. The agencies are discussing this project with potential cooperators. Additional site-specific environmental reviews, including evaluation of a site-specific management plan, will be prepared prior to relocating bison.

Comment: Yellowstone bison have great potential for sharing genetic diversity with other wild bison populations.
Response: The agencies agree.

Comment: It is helpful that the EA provides criteria for the distribution of brucellosis free bison. The agencies should secure suitable sites so they are available as soon as bison are available for release.
Response: The agencies agree and are working with potential cooperators to identify suitable release sites.

Comment: There is concern that the ownership of bison would be transferred from the public sector to the private sector. Yellowstone bison should remain in the public trust. If the research is successful, bison should only be transferred to other government entities, including Tribal governments, who have the appropriate authority to manage wildlife resources.
Response: As noted in the EA, the agencies agree that bison should remain in public ownership.

Comment: Montana has a history of successful wildlife restoration, including assistance to other states. This tradition should be extended to bison. Yellowstone elk have been a seed source for elk populations that now thrive elsewhere in Montana and North America. YNP also has provided a source of pronghorn antelope. Montana has relocated mountain goats and bighorn sheep to other states. This model is appropriate for bison.
Response: The agencies agree. If brucellosis-free bison result from the feasibility study, the agencies' intent is to relocate them to tribal lands or other lands where they would be available to the public, preferably at a location in Montana.

Comment: MFWP should focus more attention on developing proposals for specific release sites.
Response: The EA disclosed the timeframe for various components of the bison quarantine feasibility study (Figure 1, p. 20). The decision to proceed to Phase II/III includes a commitment by the agencies to work with other entities to develop suitable sites to relocate any bison that may successfully complete the study. The agencies prefer to relocate bison from the feasibility study to suitable public lands in Montana however if sites are not available other locations will be considered. The EA also described the process that the agencies will employ to develop the relocation sites.

Comment: Reintroduction of bison to public lands is a laudable goal. But, there is no reason to realistically expect that any of these bison will ever be released as public wildlife on public land in Montana.
Response: We expect that most of the bison entering this protocol will be deemed suitable for release. Currently of the 101 individuals qualifying through the initial serologic test 96 remain sero-negative. There would be little purpose in conducting the study if relocation were not an eventual objective and realistic outcome. Moreover, MFWP has identified the restoration of ecologically relevant wildlife species, including bison, to prairie habitats in Montana as an objective in its comprehensive wildlife plan. The agencies do not have authority to specify the final release sites but would prefer to relocate some of the bison that complete the project to suitable public lands in Montana. There are several suitable properties within Montana where bison could potentially become locally adapted and managed as wildlife. There currently are proposed opportunities emerging for bison restoration in Montana. Other opportunities exist to reintroduce or augment bison populations in other states and countries as well. The agencies have begun conversations with other agencies and organizations to consider these possibilities if a decision is made to complete the feasibility study.

Comment: The IUCN guidelines should be taken seriously. Important factors include maintaining genetic diversity, allowing wild behavior to develop, controlling movements and reducing impacts to neighboring landowners.
Response: The IUCN guidelines were considered in the development of the proposal and several of the guideline elements are identified in the EA. The agencies will continue to dialogue with the bison specialists and anticipate benefits from the proposed conservation strategy that this group is developing.

Comment: The quarantine project would take place in Montana, but the benefits from the project would not occur in Montana. The project should limit its scope to Montana, at least initially. The project should state a clear commitment to establish a public herd on public land in Montana and under FWP or USFWS jurisdiction, including public hunting, as a priority. The bison restoration herds should be located somewhere in Montana where there are opportunities for public hunting.
Response: The agencies anticipate several opportunities for bison restoration projects in Montana and, if the quarantine feasibility study is successful, will prefer relocating at bison to a site in Montana. At the same time, the agencies understand that Yellowstone bison are a national resource. There would be benefits, at least indirectly, to Montana from successful bison conservation projects in other states or countries. These would include public support for bison and grassland conservation and appreciation for sport hunting as both an acceptable recreational activity and resource management tool. Montana also supports and participates in a broader national and international effort for conservation of wildlife and wildlife habitat. Montana historically has provided source animals for conservation projects for other species. MFWP regularly participates in national and international management programs for other species.

Comment: The criteria for release of bison are good, but few bison will survive the process.

Response: Approximately half of the bison calves will not survive the study because they will be euthanized, as part of the research design, to culture tissues. If the study is successful, most of the animals that remain at the end of Phase I and calves born during Phase III, will survive and be available for relocation. It also is important to note that tissue culture is one component that is specific to the feasibility study. If the study is successful and the agencies decide to include quarantine in the IBMP, the protocol likely will not include tissue culture. Therefore, the only bison that fail to survive the quarantine process would be those that seroconvert during quarantine. At the present time 96 of 101 animals (95%) have survived the assembly phase and are to be sorted into final test groups by late June. No animals have been significantly injured or killed while in containment or during handling sessions.

Comment: What is the rush, especially if there are no current requests for Yellowstone bison?
Response: When the agencies approved the IBMP they also made a commitment to evaluate the feasibility of bison quarantine. The agencies currently have the opportunity to complete this research project and, thereby, fulfill a commitment made with the prior decision.

Comment: The prairie already has high wildlife diversity. Bison will impact native wildlife on the prairie. The agencies must prepare an EA prior to releasing bison on the prairie. Other native prairie species, e.g. elk, mule deer, white-tailed deer, antelope and sage grouse, are just as important as bison.
Response: Decisions to relocate bison to prairie habitats will be supported with appropriate and site-specific environmental reviews.

Comment: The WWF and American Prairie Foundation project in South Phillips County is a problem. The BLM decision for the change in livestock classification is in litigation. The project is nothing but an attempt to take over public wildlife on both the private land and the adjacent public lands, and the area is 90% public land. WWF, TNC and Ted Turner are all trying to create a large refuge. Some of the bison for the project also will come from Turner's herds. The wildlife should be kept in public ownership. There also is the potential for ranched bison being put onto public lands as livestock and then becoming "wildlife".
Response: The proposal to reintroduce bison into South Philllips County is outside the scope of this project. The BLM has already produced an Environmental Assessment to address the conversion of these allotments and MFWP has provided comment on that EA. The agencies agree that wildlife should remain in public ownership. The State of Montana has articulated comments to this project and clearly identified that these bison are domestic livestock imported into Montana under livestock rules. MFWP does not have specific authority over these domestic bison in Montana. APHIS VS has limited authority over these animals contingent upon disease status of the herd. The agencies anticipate developing a working relationship with the American Prairie Foundation much as we would with any other private landowner. In consummating and maintaining that relationship MFWP and APHIS VS will interact according to each agencies mission and respective goals.

**Bison Management in the GYA**

Comment: The Brogan facility serves as an important wildlife migration corridor. The Brogan property should be managed specifically as a migration corridor to allow bison to move from the Park to Dome Mountain WMA and to the adjacent tract of the Cedar Creek-OTO Ranch.
Response: The proposed quarantine facility is located on private land that previously was fenced and operated as a game farm. Existing improvements will be adapted for the purpose of the feasibility study. Any impacts on elk migration or other impacts to wildlife and access to critical habitats have been in effect since the establishment of the game farm and fence boundaries will not be altered during the quarantine feasibility study. The Dome Mountain WMA and the Cedar Creek-OTO Ranch are outside the bison distribution defined by the IBMP.

Comment: Rather than using the Slip 'n Slide Ranch for quarantine, MFWP should make it a priority for habitat acquisition and manage the property as a migration corridor and to provide additional winter range for bison.
Response: The Slip 'n Slide Ranch is not within the distribution of Yellowstone bison, as defined by the IBMP. Revisions to that distribution are outside the scope of a decision to approve the bison quarantine feasibility study. MFWP continues to work on potential habitat acquisition and easement projects in the GYA.

Comment: Bison should be allowed to migrate to critical winter habitats on public lands in the Cedar Creek-OTO-Dome Mountain and Cutler Meadows area. This area is conflict-free and the agencies should revise the IBMP designation of Zone 3 to make these habitats available to bison.
Response: The Cedar Creek-OTO-Dome Mountain and Cutler Meadows area are not within the distribution of Yellowstone bison, as defined by the IBMP. Revisions to that distribution are outside the scope of a decision to approve the bison quarantine feasibility study.

Comment: We should be proud of the conservation success in bringing back America's last wild herd of just 25 Yellowstone bison from the brink of extinction. But the job is not complete. Bison are referred to as "free-roaming", but they aren't and, until they are, it is not appropriate to consider using Yellowstone bison to populate other areas.
Response: MFWP intend to continue restoration work in Montana for all wildlife including bison. We believe that, if quarantine is successful, the time is appropriate for bison restoration both within the GYA and in other suitable habitats. The term, "free roaming", as it relates to the IBMP was defined by the FEIS for the IBMP.

Comment: Efforts to use Yellowstone bison for restoration projects elsewhere in North America should not occur at the expense of efforts to expand the range of the Yellowstone herd or at the expense of efforts to develop more effective vaccines and

diagnostics that would help to reduce brucellosis infection rates in Yellowstone bison. Montana's first priority should be tolerance for bison outside of YNP.
Response: The bison quarantine feasibility study is a research project to determine if a quarantine protocol will be successful for consistently producing brucellosis free bison. As such, it is not occurring at the expense of efforts to develop more effective vaccines and results of the study may enhance diagnostics. Increased tolerance for bison outside of YNP is outside the scope of a decision to approve the bison quarantine feasibility study.

Comment: Resources are limited. MFWP should be focused on acquiring more habitat for bison in the GYA. This is the immediate concern for maintaining a healthy Yellowstone bison herd because the herd is free-ranging only in the narrowest definition.
Response: The agencies have no authority to use the funds appropriated for the bison quarantine feasibility study to acquire habitat. The agencies continue to dialogue with the other agencies and landowners in the GYA regarding livestock and bison management. Neither a decision to complete the bison quarantine feasibility study nor a potential future decision to implement an operational quarantine protocol would preclude the potential for making other changes to the IBMP.

Comment: Rather than seeking to restore conservation herds elsewhere, the primary focus should be on acquiring habitat and restoring bison within the GYA.
Response: MFWP continues to work on potential habitat acquisition and easement projects in the GYA to benefit all wildlife.

Comment: Restoring bison to other federal lands is a laudable goal. However, it should not happen in lieu of an opportunity to have truly free roaming bison on public land in the Yellowstone area. There are opportunities to expand a conflict-free bison herd within the GYA and to control the population with public hunting. FWP should put more effort into identifying public lands for release of bison and managing cattle around the bison. This project puts the emphasis on the wrong issues and diverts funding from better projects, i.e. land acquisition.
Response: Neither the quarantine feasibility study nor a bison restoration program, if the study is successful, affect the potential for revising the IBMP and the defined distribution of Yellowstone bison. The obstacles to that objective are the reality that Yellowstone bison are a brucellosis-affected herd. There also are limitations on the ability to control the numbers and distribution of bison once the animals migrate from YNP.

Comment: There really isn't that large of a land base adjacent to YNP to accommodate bison, especially not without addressing other issues. We can't just put bison on the land with those bison have high titers.
Response: The agencies agree.

Comment: We need more opportunities for hunters to take bison. We need more licenses to control bison numbers at Gardiner and West Yellowstone.
Response: Comment noted.

Comment: The bison population objective for the GYA is zero. We need population objectives for bison on public lands adjacent to the park.
Response: Population objectives for bison on public lands adjacent to the park have been defined by the IBMP.

Comment: It is time to open up the IBMP and identify the public lands that could be used for bison in zone 2 and zone 3.
Response: Comment noted.

Comment: Bison never travel that far out of YNP.
Response: The agencies actively manage bison that leave YNP to limit distribution to Zone 2, as defined by the IBMP. Historic records show that bison have moved out to Livingston and in more recent times well outside of Yankee Jim Canyon, west into Idaho, and below Quake Lake. Without management, bison would continue to move down the Madison and Yellowstone Rivers. Some might not return to YNP.

**Livestock Management**

Comment: Most of the cattle herds in the GYA are just "hobby herds". We could deal with the problem by removing cattle from areas adjacent to the park.
Response: Management of cattle herds in the GYA are not under the authority of MFWP. APHIS VS has limited authority over cattle contingent upon disease status of the herd. Cattle in the GYA are privately owned and not under general management authority of the agencies. The agencies are already working with cattle producers to manage risk on lands within the GYA.

Comment: FWP should be working more with local landowners to encourage them to be more tolerant of bison.
Response: Management of private lands and/or cattle herds in the GYA is not under the authority of MFWP. MFWP is already working with cattle producers to manage risk on lands within the GYA and to encourage tolerance of elk and bison within these private lands as is possible within our statutory authority. Over the years, many contacts have been made with landowners to develop cooperative programs and discuss potential easements. These activities will continue into the near future. Habitat conservation efforts have been a long standing program within MFWP and information about these programs have been posted on the FWP website. These programs have been effective but are also very costly due to high land values in the GYA. MFWP has limited resources available to consummate agreements with landowners to increase tolerance for elk and bison but will continue to work on these issues in the GYA.

Comment: Make Montana brucellosis proof. If fewer than 400 cattle were removed to alternative pastures, with fair compensation to the affected ranchers, there would be no bison-brucellosis issue around YNP.
Response: Amendments to the IBMP are outside the scope of the proposed project. Removing cattle from areas adjacent to YNP would provide more space for bison. However, it would only relocate the bison-brucellosis issue, it would not resolve it.

Active bison management would still be required in the areas where bison and cattle interface.

Comment: Only 2,000 cattle are grazed on public land in the GYA. The National Forest should close the allotments or revise the permit dates to provide winter range for bison.
Response: National Forest land use allocations are outside the scope of the pending decision.

Comment: The ROD for the IBMP committed to assuring 100% vaccination of cattle in the conflict zone. To date, the agencies have not published data regarding the level of compliance with this commitment.
Response: Within the means available, the agencies are satisfied that 100% of the cattle within Zone 2 are official calfhood vaccinates.

Comment: The EA failed to evaluate cattle management, including vaccination, class of animals and seasons of use as an alternative to quarantine.
Response: The bison quarantine feasibility study is a research project to determine if a quarantine protocol is feasible as a management tool. Until that question is answered, the use of quarantine as a brucellosis management tool cannot be considered. Changes in cattle management in the area immediately adjacent to YNP would not accomplish the purpose of the bison quarantine feasibility study.

Comment: Brogan's is just across the river from the Royal Teton Ranch and there are cattle on the ranch. If bison pose a risk to cattle, how can that be acceptable?
Response: The transmission of brucellosis generally involves an animal coming in physical contact with an infected animal or the aborted fetus/ discharges of an infected animal. We expect any abortion events to be extremely rare in occurrence in these test negative animals. The Brogan facility relies on double fencing among other security measures to maintain biosecurity and to ensure that the bison or potentially infected tissues do not come in contact with other animals. Furthermore, intensive monitoring of bison during late pregnancy using vaginal transmitters (to detect abortion or birth) and around the clock observation will identify nearly all abortion events very rapidly. Upon any abortion event these tissues will be collected for culture work before scavengers arrive and all infected sites will be decontaminated.

**Endangered Species**

Comment: The Draft EA failed to disclose any information about the presence of state or federally protected species on the Slip 'n Slide property.
Response: Section 5.10 of the EA describes the presence of threatened and endangered species within the study area. Section 6.3 of the EA analyzes the impacts of the proposed action on threatened and endangered species and concludes that at the Slip n' Slide Ranch, "Wildlife habitat will not be altered or disrupted by the study and no impact is expected to threatened and endangered species."

**Other Wildlife**

Comment: The Brogan facility is not wildlife proof. There are bighorn sheep in the upper pastures at this facility. What will be the effect of hazing or trapping these sheep to remove them from the facility? What will be the effect on bighorns if they are fenced out at Brogan's?
Response: We acknowledge that bighorn sheep have been found within the upper pastures of the Brogan Facility. This winter the agencies removed most of the bighorns from within the facility and 2 remain to be captured and removed. The bighorns removed from the facility were relocated to suitable adjacent habitats. We will make every conceivable effort to safely remove any remaining bighorns prior to use of that pasture and also relocate them to adjacent suitable sheep habitat in the Gardiner Basin. If any sheep should accidentally occupy this pasture when bison are present during the study we believe that the disease risk to these bighorn sheep from quarantine bison is extremely remote, as they will certainly be exposed to higher risk from free-ranging bison and elk living outside the facility.

There is ample sheep habitat outside the facility to support the existing bighorn sheep population. Bighorn sheep populations in this area are not habitat limited but regulated by disease and predation effects. MFWP will continue to monitor bighorn sheep in the areas adjacent to the facility.

This summer the agencies constructed a new 12 strand high tensile fence around and below the cliff that has been problematic. That inner fence was intentionally not electrified this summer to allow sheep to exit the pasture of their own accord. In addition, the outer fence was intentionally left undeveloped on the North side of the upper pasture to allow these bighorns to exit at their will until the site was needed. This was done to limit the need for capture and removal if at all possible. In the coming months new outer fences will be constructed that are wildlife proof and the 12-strand high tensile electric inner fence along the north boundary of the pastures will be powered. We do not anticipate using that pasture for bison until late summer, 2006.

Comment: Why are we concerned about diseased wildlife that might affect cattle, but are not concerned about livestock diseases that might affect wildlife, e.g. domestic sheep diseases that affect bighorns? It is not consistent.
Response: Historically most USDA disease programs are initiated at the request of the public health community, the animal health community, or the production agriculture industry. Often the need for specific disease intervention was identified and funding requested through Congress by a combination of these communities. In the absence of funding for a specific disease affecting wildlife, it can be difficult, though not impossible, to give it the attention it warrants. Presently MTFWP, APHIS, MSU and CSU are collaborating on a domestic sheep/bighorn sheep disease transmission project in Montana.

Comment: The EA should address impacts to other species. The facility at Brogan's will affect mule deer and bighorn sheep. Fencing at Brogan's and at the Slip 'n Slide will make habitat unavailable for other deer, elk and sheep.
Response: The EA for Phase I and for Phase II/III did discuss the potential impacts to elk, mule deer and bighorn sheep for all proposed alternatives. The exterior fence at the Brogan Facility has been in place for over 50 years and was intended to exclude elk, bighorn sheep and mule deer from this landscape. During the past few years, as this facility operated as a research facility, a few bighorns were allowed to remain in the facility because they posed no harm to the research. These animals freely moved in and out of the facility along a cliff area along the North Boundary. The loss of this habitat to bighorn sheep will not be significant to the bighorn population in the Gardiner Basin since it has not been available to them on a permanent basis for 50 years. There is ample sheep habitat outside the facility to support the existing bighorn sheep population. Bighorn sheep populations in this area are not habitat limited but regulated by disease and predation effects. MFWP will continue to monitor bighorn sheep in the areas adjacent to the facility.

Comment: I am concerned about the future for elk. There is the mother of all test and slaughter facilities for elk in Wyoming. We want assurances that elk will never be placed in quarantine in Montana.
Response: The agencies do not have any management plan to place Montana elk in a quarantine program and do not propose to do so.

Comment: Fencing the Slip 'n Slide meadows may increase deer movement across the highway. However, there already is a high level of deer movement in that area.
Response: The agencies do not believe this project will increase deer movement across the highway. The deer habitat available west of the highway on the Slip n' Slide Ranch is very limited and occurs along a narrow strip beside the Yellowstone River. The highest quality deer habitat is east of the highway and will remain largely intact (including several large hay fields not being utilized by quarantine) and available during the study. The potential for deer-vehicle collisions would likely remain the same during the study and would not have significant population consequences.

Comment: Slip n' Slide is closer to the Park and the proposed pastures are not critical habitat for elk.
Response: The agencies agree. Slip n' Slide is also near the Brogan facility which provides operational and logistical advantages. The agencies prefer the Slip 'n Slide location for the Phase II facility for all those reasons.

Comment: The proposed facilities would be located on some of the most productive irrigated agricultural lands in the Gardiner Basin. These types of lands have produced some of the highest quality wildlife forage in the area. Alternative locations should be considered in detail.
Response: The Phase I facility is located at a site where a game farm has been in operation during the past 50 years. The hay fields on the Slip n' Slide Ranch currently are used for hay production. Although these lands are used by wildlife, primarily mule

deer, they are not essential to the survival of wildlife in the area because they already have been developed for agricultural production. This effect on mule deer was noted in the EA.

Comment: The analysis should include consideration of MFWP's 1997 report regarding wildlife habitat and use on and near the Royal Teton Ranch.
Response: The author of that report was a member of the review team and is a MFWP employee. The 1997 report was related to habitat on the Royal Teton Ranch and did not address habitat east of the Yellowstone River. A recent evaluation of potential habitat east of the river was conducted by MFWP. That review was also considered in evaluating the impacts of the alternatives. The IBMP does not allow bison to use habitat outside zone 2, east of the Yellowstone River and north of Eagle Creek, at this time. All MFWP Region 3 agency staff were consulted and involved in the discussions related to habitat and wildlife impacts during the development of this EA. Wildlife experts outside of MFWP reviewed the EA as well.

**Dome Mountain WMA**

Comment: It is not appropriate to use Dome Mountain for this purpose. Recently, 500 elk were observed on the Dome Mountain pasture that would be fenced for bison. Don't use Dome Mountain WMA for this project. The purpose of the WMA is to provide elk winter range.
Response: Use of the Dome Mountain WMA for this project would be consistent with management of the property as a wildlife management area. However, the agencies prefer to locate the Phase II facility at the Slip 'n Slide Ranch, as defined by the preferred alternative, and where the impact to elk would be negligible.

Comment: The meadows at Dome Mountain WMA are suitable for heavy livestock use and, therefore, also would be suitable for bison quarantine. The project purpose, i.e. the eventual restoration of bison, also is consistent with the WMA's purpose, but, if constructed, the facilities should not be permanent. Also, Dome Mountain WMA is on the extreme edge of the containment zone.
Response: The agencies agree and for those reasons, among others, the agencies identified the Dome Mountain WMA as a potentially suitable location for the Phase II facility. A decision regarding permanent location of quarantine facilities is premature.

Comment: Dome Mountain WMA is not a good site for this project. There is the potential to displace elk onto private lands. Thus, there would also be a greater potential for elk to intermingle with cattle during the critical gestation period and greater risk of brucellosis transmission.
Response: The agencies acknowledge those concerns and for those reasons, among others, prefer to locate the Phase II facility at the Slip 'n Slide Ranch.

Comment: The cost for the lease at Slip 'n Slide is cheap compared to the costs of renovating the pastures at Dome Mountain WMA if that site were only used for the study and then reverted to use for the WMA.

Response: Comment noted.

Comment: The project is not acceptable. However, if it is approved, Dome Mountain WMA is preferable to Slip 'n Slide for the location of the Phase II facility because the pastures would be larger.
Response: Comment noted.

**Project Cost**

Comment: The current budget for bison management is $4.6 million. A portion of that budget is dedication for land acquisition, but the funds have not been spent.
Response: The project budget, as disclosed in the EA is $2,170,000, not $4.6 million. The budget for the preferred Alternative does not include funds for land acquisition as no land purchase is planned.

Comment: The federal government already has allocated approximately $4.3 million for the project. With that amount of money, it is inconceivable that the agencies would not fully implement the project, regardless of the success or failure of the individual project phases.
Response: The agencies already have made the decision to complete at least one replication of Phase I. If the project fails during Phase I, there would be no bison remaining in the experimental cohort and the project could not proceed to Phase II. This is a research project with a proposed budget of $2,170,000. If it is successful, its results will be most likely be used to inform a decision on whether or not to modify the IBMP to include quarantine.

Comment: The agencies must demonstrate that the integrity of the environmental review process is intact by documenting the source of all funds for this project and providing evidence of contingency plans or requirements to return the funds to the originating agency or the U.S. Treasury if the project is terminated early.
Response: The project budget, by phase, is disclosed in the EA If the project is terminated early, the remaining funds will not be expended for this project. The sources of funding include a special Congressional appropriation, APHIS VS base budget for research, federal funds allocated to support efforts related to GYIBC and MFWP funding for research.

Comment: A scoping comment had requested a cost-benefit analysis to weigh the cost of current bison management and the quarantine venture against the benefits of simply refocusing more attention on the management of cattle that graze land adjacent to YNP. The agency response implies that the IBMP intended the quarantine EA to evaluate this issue. Without that analysis, the EA is deficient.
Response: The FEIS for the IBMP included a cost-benefit analysis for current bison management. The EA for Phase II/III disclosed the costs for the feasibility study and explained the purpose for the project. If the agencies propose to revise the IBMP to include quarantine, the agencies will support the proposal with additional environmental

review, including an appropriate cost-benefit analysis. A comparison of the cost-benefit of the quarantine feasibility study with the cost-benefit analysis of changes in livestock management is not relevant to a decision to approve PhaseII/III of the bison quarantine feasibility study because changing livestock management would not achieve the purpose of the project. This is a research project intended to provide information that will help inform a decision on the use of bison quarantine in brucellosis management.

Comment: The cost per bison that clears quarantine will be $13,100.
Response: While the cost per bison that clear quarantine during the feasibility study is important it is not relevant because the purpose of the study is to evaluate the quarantine protocol at the proposed cost. Cost per animal must be weighed against the conservation benefits of individuals as well. A cost-benefit analysis will be conducted at the end of the feasibility study to explore this issue further. The cost per bison completing the feasibility study may not be indicative of the per bison expense of a quarantine program is incorporated into the IBMP as an operational tool. If quarantine becomes operational, more efficiency is likely. Some of the costly activities required for research, e.g. slaughtering and culturing bison, would not be necessary or included in an operational quarantine program.

Comment: Based on the funding trail, this is an APHIS project. We are concerned that the quarantine project could be converted to a test/slaughter facility for both bison and elk.
Response: This is a joint project to be conducted by APHIS and MFWP. The agencies do not intend to convert the bison quarantine feasibility study facilities into a test and slaughter facility for either bison or elk.

Comment: The Phase I decision included a commitment to conduct a cost/benefit analysis and analyze the results of Phase I before proceeding with Phase II. Please provide the cost/benefit analysis.
Response: The agencies committed to complete a cost/benefit analysis prior to revising the IBMP to include quarantine. That analysis would be included in the environmental review prepared in support of that decision.

Comment: The EA did not disclose the costs associated with capturing bison.
Response: The costs for operating the capture facilities are associated with implementation of the IBMP. Those costs would be incurred regardless of whether the agencies proceed with the bison quarantine feasibility study. The costs displayed in the EA are the additional costs and are specific to the study.

Comment: The EA did not disclose the lease cost for the Brogan facility.
Response: The lease costs are disclosed in the EA, Appendix F, p. 63.

Comment: Please provide more information for the development costs. Which activities are included in the $400,000 amount?
Response: Development costs include fencing, water development and handling facilities.

Comment: If the project fails, who will own the operational assets?
Response: If the project fails, the operational assets would remain the property of APHIS VS or MFWP depending upon who made the various purchases.

**Management Authority**

Comment: The EA references the UM&R under APHIS VS authority. The agencies should clarify that the UM&R is specific to management of domestic livestock. Bison management procedures are similar to those described in the UM&R, but bison management, including any decision to incorporate quarantine procedures, would be done pursuant to the IBMP and the collective authorities of the signatory agencies. Please clarify.
Response: Bison management is accomplished pursuant to the IBMP. The EA referenced Appendix B of the federal FEIS for the IBMP. Appendix B presented the quarantine protocol for Yellowstone bison, as prescribed by the UM&R.

Comment: It is a conflict of interest to have state agencies or cattlemen manage the wild buffalo.
Response: Authorities for bison management have been defined by state and federal statutes and are referenced in the various environmental documents. Successful implementation of the IBMP is dependent upon a commitment by all agencies to cooperate in the IBMP and is not a matter of how the authorities are divided among the agencies. APHIS VS and MFWP are cooperators on the bison quarantine feasibility study. APHIS VS provides important technical expertise that is relevant to the project. APHIS VS also is the agency with the designated authority to approve the quarantine protocol, to determine that bison are brucellosis-free and to facilitate the health certifications required to relocate Yellowstone bison.

Comment: Which agency really is in charge of this project? The public meetings gave the false impression that this is an MFWP project, but it is really an APHIS VS project. If APHIS VS is the lead agency, its determination that Phase I was categorically excluded from NEPA review was illegal. If MFWP is the lead agency, it must register as a research facility and APHIS must establish an Institutional Animal Care and Use Committee, pursuant to the provisions of the Animal Welfare Act, to oversee the project and research protocols.
Response: The bison quarantine feasibility study is proposed as a cooperative project, conducted pursuant to the respective agency authorities, as described in the EA. MFWP and APHIS VS have a history of cooperation in the research and management of diseases in wildlife. Based on that history, the agencies have entered into a cooperative effort to learn more about brucellosis and to establish a protocol for the potential live release of Yellowstone bison for use in conservation and restoration projects. The agencies have established an Institutional Animal Care and Use Committee to work with the agencies during the conduct of the bison quarantine feasibility study.

Comment: MEPA and NEPA allow agencies to cooperate on projects, but both statutes require the agencies to designate the lead agency.
Response: The MEPA rules include a definition of lead agency (12.2.429(13) A.R.M.) and the requirements for joint environmental impact statements and EA's (12.2.443 A.R.M.). The rules require designation of a lead state agency if one or more other state agencies have jurisdiction and if one agency is clearly the lead. If the lead agency cannot be resolved, the agency shall request a determination for the governor. The rules authorize state agencies to participate in projects that require preparation of an EIS or an EA under both NEPA and MEPA. In such cases, the rule does not require distinguishing either the state or the federal agency as the lead agency. The CEQ regulations for implementing the provisions of NEPA encourage Federal and State agencies to cooperate with each other on projects where they share authorities so as not to be duplicative in their procedures. Under these circumstances, the regulations allow for the selection of a lead agency or for a Federal and State agency to act as joint lead agencies in the preparation of environmental documents. In the case of the bison quarantine feasibility study, the agencies have decided to act as joint lead agencies.

Comment: The connection between Tribes of the northern plains and bison, as well as their respective treaty rights, should be fully honored relative the quarantine. Tribes, who have a vested interest in the restoration of buffalo to tribal lands, have not been included in the planning and development of buffalo relocation proposals. The agencies should be working with all of the Tribes, not just the tribes that are members of ITBC.
Response: The agencies, within the context of a government-to-government relationship, are prepared to consult with any Tribe that expresses and interest in this project.

Comment: Explain the difference between management under the authority of the State of Montana and management under the authority of a Tribal government.
Response: The State of Montana has statutory authority to manage wildlife within the boundaries of Montana whether on private or publicly owned lands. Each Tribal government has sovereignty and has full management authority for wildlife within their respective reservation boundaries and pursuant to their respective treaties with the federal government. The State of Montana has no management authority on lands owned by the individual tribes. However, The State of Montana and various Tribal Governments routinely enter into agreements to encourage cooperative natural resource management on various landscapes.

Comment: The member Tribes of the Intertribal Bison Cooperative (ITBC) have long supported the transfer of Yellowstone bison to Tribal lands to support their current restoration efforts and to provide an alternative to slaughter. ITBC supports the project because it is a very important step in that direction. ITBC also is concerned about the handling requirements and length of time required for bison to complete quarantine.
Response: The agencies appreciate ITBC's support for the project and acknowledge their concerns about the handling requirements and lengthy quarantine protocol.

Comment: Yellowstone National Park endorses the concept of this study and agrees that a sound brucellosis quarantine protocol is important to allow Yellowstone bison to contribute to enhanced bison conservation efforts across North America.
Response: The agencies are encouraged by and appreciate that YNP endorses the bison quarantine feasibility study and recognizes the potential that quarantine may play in bison restoration efforts.

Comment: Tribal reservation lands present the best possible scenario for buffalo relocation programs because as sovereign nations, the tribes have a greater ability to manage land use to be consistent with the principles of quarantine without the need for the domesticating influence of small heavily regulated pastures and artificial feed.
Response: Comment noted.