

**Finding of No Significant Impact  
for the Proposed Study of Shedding and Venereal Transmission of  
*Brucella abortus* by Bison Bulls in the Greater Yellowstone Area,  
Environmental Assessment**

The U.S. Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Veterinary Services (VS) prepared an environmental assessment in February 2010 for the proposed Study of Shedding and Venereal Transmission of *Brucella abortus* by Bison Bulls in the Greater Yellowstone Area, 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) 1500-1508), the USDA regulations implementing NEPA (7 CFR part 1), and APHIS' NEPA Implementing Procedures (7 CFR part 372).

**Notification and Availability of the Environmental Assessment to the Public**

During public meetings in August and November 2009 of the Interagency Bison Management Plan (IBMP) partner agencies, an APHIS, VS representative spoke about APHIS, VS intentions to conduct the proposed study. At an IBMP public meeting in February 2010, an APHIS, VS representative reviewed the proposed study and announced that an environmental assessment for the study was nearing completion and would be available in the near future.

In accordance with NEPA regulations, APHIS announced publicly the availability of the environmental assessment through a Legal Notice in two local Montana newspapers—the *Billings Gazette* on February 21 and 22, 2010, and the *Bozeman Daily Chronicle* on February 22 and 23, 2010. The Legal Notice provided two Internet Web site addresses where the environmental assessment was available and also provided an APHIS, VS Area Office telephone number and address from which a paper copy of the environmental assessment could be obtained. Through publications of the Legal Notice, APHIS provided for a 30-day public comment period and requested comments by March 23, 2010. In response to a request to allow additional time for commenting, APHIS continued to accept and consider comments received through March 26, 2010; 159 comments were received. Comments received after that time have been accepted and noted as late comments for the record; no new issues have been raised in those comments.

A summary of and responses to the comments is attached to this Finding of No Significant Impact. Most of the comments received raised the same or similar points on the environmental assessment and have been summarized accordingly in the attachment.

**Environmental Assessment**

The environmental assessment, incorporated by reference in this document, is available through the Internet at [http://www.aphis.usda.gov/animal\\_health/animal\\_diseases/brucellosis/](http://www.aphis.usda.gov/animal_health/animal_diseases/brucellosis/) and at <http://www.ibmp.info> and in paper form from the following office:

U.S. Department of Agriculture  
Animal and Plant Health Inspection Service  
Veterinary Services Area Office  
208 North Montana Avenue, Suite 101  
Helena, MT 59601

The environmental assessment analyzed the alternatives of (1) No Action and (2) a Proposed Action—the study of shedding and venereal transmission of *Brucella abortus* by bison bulls in the Greater Yellowstone area. While it is known that bison bulls shed *Brucella* in their semen, the potential for transmission of brucellosis via the venereal route is not known. The proposed study will help assess the potential role of bison bulls in venereal transmission of brucellosis. The data from this study is needed to provide information essential to developing appropriate and effective disease management, disease mitigation, and disease elimination strategies. If venereal transmission by bison bulls contributes to the spread of brucellosis within the Yellowstone National Park (YNP) bison population and subsequently to cattle outside the YNP, further analysis, development, and implementation of mitigation strategies that include bison bulls may be warranted. Conversely, if venereal transmission by bison bulls does not contribute to the spread of brucellosis, then resources and activities focused on limiting bison bull activities may no longer be warranted or could be modified to maximize risk mitigation strategies. The proposed study is an opportunity to acquire needed information to better understand the potential of transmission of brucellosis by bison bulls and apply this knowledge in making more scientific and epidemiologically sound decisions regarding bison management activities and future adaptive management strategies.

Data and information gathered from the study activities described under the Proposed Action in the environmental assessment will be useful in efforts to reduce the potential risk of brucellosis transmission between bison and cattle and to implement appropriate disease mitigation strategies and adaptive management practices, such as habitat expansion for bison bulls. It is anticipated that the study will provide valuable information to learn more about the potential for shedding and venereal transmission of *B. abortus* from bison bulls in the Greater Yellowstone area and to improve the ability of Federal and State agencies to implement appropriate strategies to mitigate transmission of brucellosis within and outside the bison population.

Based on my review of the environmental assessment and comments received on the environmental assessment, I have determined that the Proposed Action (proposed study) is the preferred alternative. The activities to be conducted in the Proposed Action provide a means to achieve the study's objective without significantly impacting the quality of the human environment, as discussed below.

#### Bison Bulls

In Phase 1 of the study, a study group of experienced field wildlife biologists and veterinarians will temporarily immobilize lone bison bulls found in Zone 2 of Gallatin and Park Counties, Montana, on U.S. Forest Service (USFS) land during the spring season in 2010 and possibly the later winter and spring of 2011. The bison bulls will be immobilized so that blood and semen samples can be collected for the study purposes. The bison will be under the care of a study group comprised of experienced wildlife biologists and veterinarians who will monitor the vital signs of each bison immobilized and employ every precaution to prevent trauma, injuries, or death to the bison bulls. The bison bulls would be immobilized for a short period of about 20 minutes. Each bison will be watched during its recovery from immobilization as it returns to its natural activities. Details, including the location of Phase 2 of the study, would be finalized based on the successful completion of Phase 1 of the study. A representative sampling of 50 bison bulls is needed for each phase of the study.

#### Non-target Species

Any potential for disturbance to non-target species due to study activities would be of short duration only on days when lone bison bulls are available in Zone 2 on USFS lands. Study activities will not be directed at species other than bison bulls and will not significantly impact any species. With regard to protected

species, such as the bald eagle, VS will confer with the USFS to learn about the locations of eagle nests in Zone 2 of USFS land and will implement recommended protective measures in the U.S. Fish and Wildlife Service guidelines for eagles in order to avoid disturbance to nesting eagles. These efforts will be for the purpose of ensuring that the study activities will not have adverse effects on endangered and threatened species or protected species.

#### Threatened and Endangered Species

In complying with the Endangered Species Act of 1973 (16 U.S.C. 1531 *et seq.*), the environmental assessment considers the potential for environmental consequences of the proposed study on federally listed threatened and endangered (T&E) species. The environmental assessment specifically considered such consequences to the grizzly bear, Canada lynx and its critical habitat, and one plant species, Ute ladies' tresses. APHIS determined that the study will have no effect on these species or critical habitat associated with these species as explained further. The T&E plant species of concern does not occur in the ecoregion where the study will take place. Although grizzly bear and Canada lynx may occur in the study area, the natural behavior of these species and the activities of the study group will work in tandem for ensuring no effects to the species from the study. The study activities would be carried out on rangelands during a time of day when bears are typically sleeping. Bears travel in early morning and late evening and sleep during the day in dense, dark timber. Study activities will occur during the daytime hours and on open rangeland. Bears also are naturally shy and avoid humans. The study group consists of experienced wildlife biologists and veterinarians who are trained in bear avoidance and will apply their training while conducting study activities. APHIS also has communicated with the U.S. Forest Service (USFS) personnel knowledgeable about local bear issues where the study activities will occur. APHIS will continue communication with USFS about bear danger issues in the study area during the study period. Montana Fish, Wildlife and Parks, a partner in the study, will also provide input and expertise on grizzly bear activity during the study period. The critical habitat of the Canada lynx includes boreal forest landscapes; the study activities will not be taking place in landscapes frequented by Canada lynx.

#### Human Health and Safety

The environmental assessment considered impacts on the general public, workers, Native American hunters, and other land users. Experienced field wildlife biologists and veterinarians will carry out study activities in areas with no involvement of the general public. The study group has training and experience in darting technique, bison handling, wildlife (including bison) chemical immobilization and recovery, veterinary care, sample collection and evaluation, and tagging and marking animals. Protocols for safe bison handling and worker safety will be followed when conducting study activities to prevent adverse impacts to bison or to workers. The study group will ensure that study activities do not interfere with land use activities, including IBMP activities and hunting.

Immobilization of bison and the subsequent reversal requires use of controlled substance drugs. A 45-day withdrawal period after use of the drugs is required before meat can be consumed from animals that have been administered the drugs. As a mitigation measure for human health and safety, immobilized bison will be identified with an eartag that identifies the animal as having received a controlled substance and provides a phone number to call should the animal be harvested during a native hunt or the Montana bison hunting season. APHIS, VS will communicate with representatives of Native American groups who have treaty rights for hunting in the area prior to implementation of the study activities in order to brief them about the study, the drugs that would be used on bison bulls for temporary immobilization, drug withdrawal times, and the marking of immobilized bison bulls.

## Vegetation and the Physical Environment

The proposed study will not adversely impact the physical environment, including water quality. Activities necessary to physically access USFS land will not significantly impact vegetation and soil. APHIS, VS will adhere to U.S. Forest Service Travel Plans for access to and from Zone 2 for purposes of study activities using access methods that are allowed according to Travel Plans. The use of darts to temporarily immobilize bison bulls is not likely to result in impacts to the environment. The study team would make every effort to recover any lost darts, document the occurrence, and notify USFS with relevant information. Study activities will be carried out on ground surface away from water resources and would result in minimal, if any, impact to water.

## Recreational and Cultural Land Uses

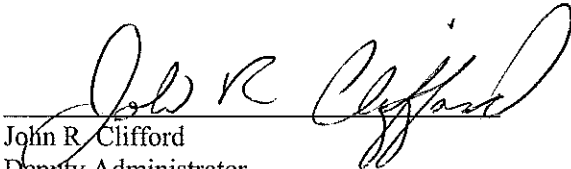
The study group will take into consideration any land use activities, including IBMP activities and hunting, when carrying out the study activities. Study activities would be carried out in secluded locations of Zone 2 of USFS lands in Gallatin and Park Counties, Montana, and will not result in closure of land access. The study group will be attentive to other activities in the study area when carrying out study activities to avoid the potential for impacts to land users and recreationists.

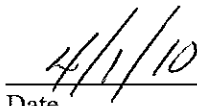
## Historic and Cultural Resources

The study activities will not affect historic sites. The environmental assessment considered the affects of temporary markers and eartag identification of study bison. These activities serve as mitigation measures and are not physically harmful to the bison. However, since bison are considered a cultural resource, this may be visually unappealing to the public. The temporary marking serves the purpose of ensuring that the bison is not re-targeted for the study. As mentioned previously, the eartag serves as a mitigation measure for human health and safety.

## Finding

The purpose of preparing an environmental assessment is for an agency to determine whether a significant environmental impact is likely to occur as a result of the proposed action. An environmental impact statement must be prepared if implementation of the proposed action may significantly affect the quality of the human environment. Based on the information provided in the environmental assessment, I have determined that the proposed study will not significantly impact the quality of the human environment and, therefore, that no environmental impact statement is needed for this matter.

  
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John R. Clifford  
Deputy Administrator  
Veterinary Services

  
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Date