

NATIONAL PARK SERVICE

REMOTE DELIVERY VACCINATION PROGRAM FOR BISON YELLOWSTONE NATIONAL PARK

BACKGROUND OF PROJECT

Bison are an integral part of Yellowstone National Park because they contribute to the biological, ecological, and aesthetic purposes of the park. This population is the last continuously free ranging population of wild bison in the United



States. A portion of the population periodically moves between the park and adjacent lands in Montana. The population is known to have been infected with the disease brucellosis since 1917. Brucellosis is a contagious disease caused by various species of *Brucella* bacteria that can infect wildlife, domestic animals, and humans. Brucellosis is transmitted primarily when animals ingest the bacterium shed by an aborted fetus or afterbirth material.

In 2000, the National Park Service, in collaboration with the State of Montana, the USDA Animal and Plant Health Inspection Service (APHIS), and Forest Service, developed a final Interagency Bison Management Plan (IBMP). The interagency partnership evaluated alternatives for the IBMP in an Environmental Impact Statement (EIS), with the extent of the study area focused primarily within the park and adjacent

areas of Montana (Figure 1). The purpose of the IBMP is to maintain a free-ranging population of bison and address the risk of brucellosis transmission to cattle to protect the economic interest and viability of the livestock industry in Montana. The IBMP identified nine objectives for managing bison and managing the risk of transmission of brucellosis to cattle. One of the objectives of the IBMP was to protect livestock from the risk of brucellosis infection. In the Record of Decision (ROD) for the IBMP the partner agencies made the decision to vaccinate bison at capture facilities when a vaccine is shown to be safe. In addition, the park would be responsible for developing an In-Park vaccination program when a safe and effective vaccine becomes available and when an effective remote delivery system is developed to further reduce the risk of transmission from bison to cattle.

While the consequences of vaccination as a management tool were evaluated in the final EIS for the IBMP, the environmental consequences of a park-wide remote vaccination program were not evaluated.

This fact sheet describes and asks the public to comment on the National Park Service proposal to vaccinate bison against brucellosis using a remote delivery system throughout Yellowstone National Park.



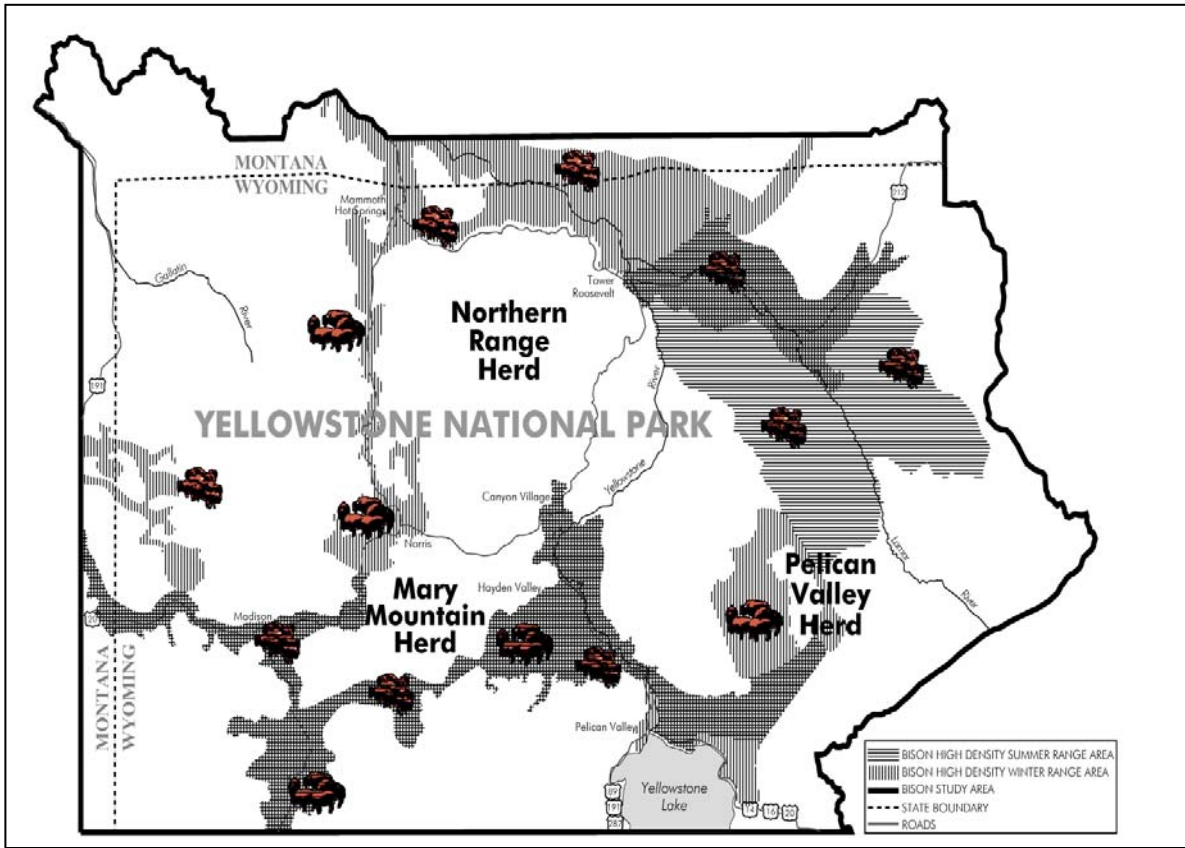


Figure 1 IBMP Study Area

REMOTE DELIVERY VACCINATION PROGRAM

Purpose and Need

The National Park Service is proposing to develop a plan to implement remote delivery of the brucellosis vaccine to free-ranging bison within the park. The purpose of and need for the remote delivery vaccination program is to lower the percentage of Yellowstone bison infected with brucellosis and to demonstrate systematic progress in

further reducing the risk of disease transmission to livestock.

Definition of Program

The remote delivery vaccination program will be designed as an “adaptive management” plan – a plan designed to be flexible and to be modified as needed when new information about technology and vaccines becomes available.

A remote delivery system consists of a method to deliver the vaccine to bison without capture or direct contact between humans and animals. One technique that is being considered initially is a pneumatic rifle that delivers a bioabsorbable bullet with a vaccine payload to the muscle tissue of a



vaccination eligible bison. The outer shell of the bullet would be dissolved and the vaccine would be released into muscle tissue for transport by the blood vessels of the circulatory system. This type of remote delivery system is currently expected to be effective at distances up to 30 meters (about 100 - feet). The effective distance of this type of delivery system may increase based on current research and development projects in progress.

Initially, bison eligible for vaccination are expected to include calves and yearlings. Vaccination of other ages will also be evaluated. Independent research has analyzed a live brucellosis vaccine known as RB51 and found that it is safe to use in bison and is safe if non-target species were exposed to the vaccine directly.

ENVIRONMENTAL ANALYSIS PROCESS

The National Park Service will analyze and disclose the environmental



consequences of implementing a remote delivery vaccination program within the

park in an EIS. This EIS will be tiered to the analyses and decisions in a previous EIS/ROD for the IBMP. The decision made by the Park Service at the end of this planning process will be whether to

implement a remote delivery vaccination program for bison.

Issues and Concerns

The National Park Service has identified the following preliminary issues associated with the remote vaccination program that will be addressed in the analysis:

- Wildlife/Wildlife Safety
 - ✓ Will the method of remote delivery be safe and effective for bison?
 - ✓ Will the vaccine be effective for bison and safe for bison and other species?
 - ✓ Will all age classes of bison be subject to remote vaccination?
 - ✓ Will the remote delivery methodology result in any physical disturbance to bison?

- Human Safety and Health
 - ✓ Will the Park Service staff who administer the program be safe from bison and from exposure to the live vaccine?
 - ✓ Will visitors be safe during vaccination activities?

- Visitor Experience
 - ✓ Will the sensitivities and aesthetic values of visitors be affected by field implementation of remote vaccination?

- Park Operations
 - ✓ Will park operations be affected by the timing and location of the vaccination program?



PUBLIC INVOLVEMENT

The Park Service is seeking input on the proposal to implement a remote delivery vaccination program within the park. Public comments will help identify issues, develop alternatives, and guide the analysis. The public is encouraged to provide comments at the public meetings or in writing via letters, comment forms, e-mails, or any other means.

A Notice of Intent to prepare the EIS for this program was published on 3 August 2004 in the *Federal Register* (FR DOC. 04-17586).

Public Meeting Schedule

The Park Service will conduct a series of public scoping meetings at the following locations, dates, and times:

Place: Bozeman, Montana
Location: MSU Strand Union Bldg.
7th and Grant Street
Date: Tues., Sept. 14, 2004
Time: 6:00 to 9:00 p.m.

Place: Gardiner, Montana
Location: Eagles Hall #669
222 Main Street
Date: Mon., Sept. 13, 2004
Time: 4:00 to 7:00 p.m.

Place: Idaho Falls, Idaho
Location: Red Lion on the Falls
475 River Parkway
Date: Weds., Sept. 15, 2004
Time: 4:00 to 7:00 p.m.

Place: Cody, Wyoming
Location: Big Horn Federal Bank
1701 Stampede Avenue
Date: Thurs., Sept. 16, 2004
Time: 4:00 to 7:00 p.m.

Public comments on the proposed remote delivery vaccination program will be accepted at each meeting. In addition, comments may be mailed or e-mailed to the addresses below. Comments will be included as part of the public record for the project.

Contact

For more information, or to submit written comments, please contact:

**Bison Ecology and Management Program
Yellowstone National Park
POB 168
Mammoth, WY 82190**

Phone: 307-344-2505

FAX: 307-344-2502

E-mail:

[YELL Remote Vaccinate@nps.gov](mailto:YELL_Remote_Vaccinate@nps.gov)

Or visit the project website at:
www.nps.gov/yell/remote-vaccination

