

Range-Limited American Plains Bison Management

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TABLE OF CONTENTS

Topics	Sections
<u>OVERVIEW</u>	<div>8.1 What is the purpose of this chapter?</div> <div>8.2 What is the scope of this chapter?</div> <div>8.3 What is the overall policy and its objectives?</div> <div>8.4 What are the authorities for this chapter?</div> <div>8.5 What terms do you need to know to understand this chapter?</div> <div>8.6 What are the management responsibilities for this policy?</div> <div>8.7 How does the Service coordinate with Tribes on bison restoration within the National Wildlife Refuge System?</div> <div>8.8 How does this policy affect the management of other range-limited ungulates?</div>
<u>RESPONSIBILITIES</u>	<div>8.9 Who is responsible for range-limited American plains bison management?</div>

Topics

Sections

[ANIMAL WELFARE](#)

8.10 What steps does the Service take to ensure the humane and ethical treatment of bison?

[MORE INFORMATION](#)

8.11 Where can employees find more information about the Service's range-limited American plains bison management policy and procedures?

OVERVIEW

8.1 What is the purpose of this chapter? This chapter describes the U.S. Fish and Wildlife Service (Service) policy for range-limited American plains bison (*Bison bison* *bison*) conservation and management. The chapter:

- A. Provides the goals for range-limited American plains bison management,
- B. Identifies management authorities,
- C. Clarifies the responsibilities of Service employees, and
- D. Addresses requirements for the humane and ethical treatment of bison.

8.2 What is the scope of this chapter? This policy applies to all Service employees contributing to range-limited bison conservation and management on National Wildlife Refuge System (NWRS) lands, including those with administrative, managerial, and technical responsibilities.

8.3 What is the overall policy and its objectives? This policy and the accompanying handbook, [Best Management Practices Handbook for the Conservation of Range-Limited American Plains Bison](#), identify standardized management practices for NWRS range-limited bison herds that are consistent with the value of bison as iconic native North American wildlife. The Service must use science-based practices to maintain healthy, genetically diverse, viable bison populations with minimal cattle gene introgression, while allowing the forces of natural

selection to operate to the extent possible. These practices support the Department of the Interior's (Department) Bison Working Group goals to conserve and restore bison to their ecological and cultural roles at appropriate landscape scales through the following objectives:

- A.** Allow natural selection to operate across the largest population and geographic scales possible to support evolutionary processes and adaptation;
- B.** Manage habitat and herd distribution for a healthy bison population while meeting refuge-establishing purposes and objectives for biological integrity, diversity, and environmental health;
- C.** Maximize conservation of genetic diversity to the extent possible through use of scientifically supported strategies associated with population management activities;
- D.** Minimize cattle gene introgression using scientifically supported strategies to ensure that existing low levels of cattle introgression are not exacerbated through management activities;
- E.** Increase the NWRS bison metapopulation to a minimum of 2,000 animals (overwintering population size) to decrease loss of diversity through genetic drift; and
- F.** Work with a variety of conservation partners to mitigate diversity loss within individual herds through small, periodic translocations that introduce new genetic material to each herd.

8.4 What are the authorities for this chapter?

- A.** American Indian Religious Freedom Act ([Public Law 95-341](#)).
- B.** Animal Welfare Act of 1966, as amended ([7 U.S.C. 2131-2159](#)).
- C.** Indian Self-Determination and Education Assistance Act, as amended (Public Law 93-638).
- D.** National Wildlife Refuge System Administration Act, as amended (16 U.S.C. 668dd and 668ee).
- E.** Range and Feral Animal Management ([50 CFR 30](#)).
- F.** Wildlife Species Management (50 CFR 31).

8.5 What terms do you need to know to understand this chapter?

A. Accredited laboratory. A laboratory that the American Association of Veterinary Laboratory Diagnosticians has officially recognized or authorized. The accreditation assures customers that the laboratory meets quality control standards established for diagnostic testing in the United States.

B. Accredited veterinarian. A doctor specializing in animal medicine who the U.S. Department of Agriculture's Animal and Plant Health Inspection Service has officially recognized or authorized to perform specific veterinary functions as described in 9 CFR 160.1, and who is licensed or otherwise authorized by the State or Tribal Animal Health Official to perform those functions.

C. Certificate of Veterinary Inspection (CVI). An official document prescribed by statute or regulation(s) that an accredited veterinarian or Federal, State, or Tribal Animal Health Official uses. The CVI, also referred to as an Interstate Certificate of Inspection (ICVI), documents the veterinary visual inspection of an animal, including the physical appearance, the physical condition, and the behavior of animals (singly or in groups) that enables an accredited veterinarian to determine whether any abnormality in physical condition or bodily function is evident.

D. Introgression. The incorporation of genes from one population to another through hybridization that results in fertile offspring that further hybridize and backcross, breeding back with the original population. The genes from one population to another may be of different populations, subspecies, or as referenced in this policy, between cattle and bison. Historic gene introgression between cattle and bison has been well documented.

E. Range-limited. Refers to bison whose movement is restricted by a fence or other intentional physical barrier placed to block movement outside of a defined area. In contrast to exclusion fencing that may be used to limit movement into a specific area (such as across a highway or into an urban area), range-limited bison are not able to roam freely outside the jurisdiction defined by the fence.

F. State or Tribal Animal Health Official. The person who is responsible for the livestock and poultry disease control and eradication programs of a State or Tribe. The State or Tribal Animal Health Official is most often the State or Tribal Veterinarian within the State Department of Agriculture or comparable Tribal organization who generally implements the State or Tribal animal health regulations, including interstate transport regulations for animals being moved into a State or Tribal Nation.

8.6 What are the management responsibilities for this policy?

A. Natural selection and domestication. Although natural selection, driven by environmental factors such as predation, forage availability, and disease, is limited on most refuges supporting range-limited bison, the Service has implemented several changes to historic management in the past decade to minimize human influence and artificial selection on bison conservation and evolutionary processes. These changes support increased opportunity for natural selection in refuge herds, including allowing natural mate competition, variation in reproduction, and other natural processes to occur without human interference. Animals should not be removed from the herd based on any traits, behavior, condition, or other character. Under the direction of the NWRS Bison Conservation Coordinator, Service employees should select young bison using best available science as identified through the NWRS bison conservation and management program.

B. Population management. Bison remain a species of conservation concern due to multiple threats to conservation and restoration, but NWRS bison numbers frequently outgrow the available habitat, such that population management is required. Consistent with Federal regulations ([50 CFR 30.1 and 30.2](#) and 50 CFR 31, Subparts A and B), a portion of NWRS bison offspring exceeding ecological carrying capacity of the refuge are removed most years. Live bison capture and removal assists in the restoration of conservation herds on Tribal lands, supports conservation efforts of other partners such as States and nonprofit bison conservation organizations, and ensures that the ecological needs of other species are met on NWRS units that are of a limited size (Departmental Initiative 2020). Under the direction of the NWRS Bison Conservation Coordinator, Service employees select young bison that are above ecological carrying capacity. The Bison Donation Program Facilitator offers them for donation through an equitable, transparent donation process that prioritizes restoration of bison as wildlife on Tribal lands.

C. Health management. We determine wildlife health by the resilience of a species to native pathogens and parasites. Some level of disease and parasites is part of natural selection in a normally functioning ecosystem, but the risks from emerging infectious diseases require strong health surveillance protocols for NWRS bison. Service employees must conduct disease surveillance throughout the year under the guidance of the NWRS Bison Herd Health Program Lead.

D. Metapopulation management. Maintaining the NWRS bison genetic foundation across several diverse geographic locations reduces the risk of total loss of genetic resources at any one location from a natural event or other disaster. To prevent further loss of species integrity due to cattle gene introgression, the NWRS adopts a “don’t make it worse” strategy to ensure that cattle gene introgression in NWRS bison is not exacerbated by metapopulation movements or other management activities.

E. Considerations for establishing new herds. Creating new, large herds is recognized as key to the functional conservation of bison and the ecosystems upon which they depend. The NWRS has an opportunity to help secure the success of future conservation and restoration efforts by adopting best management practices that contribute to the following goals in the Departmental Initiative 2020 or the most current Departmental guidance or plan by:

- (1) Supporting wild, healthy bison as native North American wildlife;
- (2) Conserving bison genetic diversity by restoring gene flow through metapopulation management;
- (3) Recognizing that shared stewardship is essential to achieve bison conservation and restoration goals;
- (4) Restoring the ecological role of bison on appropriate large landscapes; and
- (5) Restoring the cultural connection between bison and Tribes, while promoting the unique status of bison as an American icon for all people.

8.7 How does the Service coordinate with Tribes on bison restoration within the NWRS? NWRS must collaborate and coordinate with affected Tribes through their respective appropriate representatives, on activities that may directly or indirectly affect their reserved and other rights, interests, practices, lands, and traditional use areas. Communications must be proactive, begin early in the process, and occur throughout the project and at various levels of our organization.

8.8 How does this policy affect the management of other range-limited ungulates? A few small remnant herds of elk (*Cervus elaphus*) and one historically significant herd of Texas longhorn cattle are the only other ungulates whose ranges are limited within the NWRS. These herds are subject to site-specific management restrictions as identified by those refuges' Comprehensive Conservation Plans.

RESPONSIBILITIES

8.9 Who is responsible for range-limited American plains bison management? See Table 8-1.

Table 8-1: Roles and Responsibilities for Range-Limited American Plains Bison Management

These employees...

Are responsible for...

A. The Director

- (1) Approving or declining to approve Servicewide policy; and
- (2) Approving, or declining to approve, proposals to establish new NWRS conservation herds.

B. Chief – NWRS

- (1) Reviewing and recommending proposals to establish new NWRS conservation herds, as appropriate; and
- (2) Designating a co-chair to serve on the Department's Bison Working Group.

C. Co-Chair of the Department's Bison Working Group

- (1) Serving as a voting member on the Bison Working Group leadership team; and
- (2) Promoting NWRS bison conservation, health, and donation needs and priorities for the Chief - NWRS and the Department's Bison Working Group leadership team to consider.

D. Assistant Regional Directors - NWRS

- (1) Ensuring that NWRS supervisors and Project Leaders coordinate with the NWRS Bison Conservation Coordinator and the Bison Herd Health Program Lead to align range-limited bison management activities with applicable State and Federal laws, regulations, and policies;
- (2) Reviewing and recommending proposals to establish new NWRS conservation herds, as appropriate; and
- (3) Reviewing and approving or declining to approve bison donation applications after the NWRS bison donation review team has recommended them.

These employees...

Are responsible for...

E. NWRS Bison Conservation Coordinator

- (1)** Leading the NWRS bison conservation program;
- (2)** Overseeing bison data collection, management, and analysis to support genetic management and conservation;
- (3)** Coordinating with the Bison Herd Health Program Lead and the Bison Donation Program Facilitator to donate to conservation partners young, healthy bison that are above refuge ecological carrying capacity;
- (4)** Promoting bison welfare, which includes facilitating the development and delivery of low-stress handling training for NWRS bison management personnel;
- (5)** Maintaining NWRS bison genetic sample archives;
- (6)** Reviewing and distributing outside research proposals that use NWRS bison genetic samples and data to Project Leaders for consideration and approval;
- (7)** Ensuring cross-bureau coordination to restore gene flow across the Department's bison herds; and
- (8)** Participating as a member of the Department's Bison Working Group.

These employees...

Are responsible for...

F. NWRS Bison Herd Health Program Lead

- (1) Providing training and guidance to refuge personnel on herd health surveillance, humane euthanasia, necropsy, and sample collection;
- (2) Overseeing bison health sample collection, management, and analysis;
- (3) Coordinating with the Bison Donation Program Facilitator, the Bison Conservation Coordinator, and State or Tribal Animal Health Officials to confirm bison health testing requirements for interstate transport;
- (4) Ensuring that results from sample analysis conducted by accredited laboratories are returned in a timely manner after sample collection, generally within 48 hours, to meet interstate transport requirements;
- (5) Ensuring that import permits and CVIs, including accurate test results as required, are provided by an accredited veterinarian in a timely manner prior to animal transport, generally within 24 hours of results received from laboratories;
- (6) Evaluating low-stress handling program outcomes as implemented by NWRS bison management personnel;
- (7) Maintaining NWRS bison health sample archives for analysis by veterinary diagnostic laboratories and academic research partners;
- (8) Reviewing and distributing outside research proposals to the NWRS Bison Conservation Coordinator and Project Leaders for consideration and approval, and ensuring that the animal use activities meet currently accepted professional standards of animal welfare as applicable to wildlife; and

These employees...

Are responsible for...

(9) Participating as a member of the Department's Bison Working Group in a role that supports bison health, as needed.

G. NWRS Bison Donation Program Facilitator

(1) Working with the NWRS Bison Conservation Coordinator to ensure that NWRS bison donation policies and protocols support NWRS and Departmental bison conservation goals, including an emphasis on restoring bison to Tribal lands;

(2) Serving as the Service-wide point of contact for donation applications ([FWS Form 3-2555](#)), administration, and facilitation to ensure that applications are received annually by no later than August 1;

(3) Working with past bison donation applicants to facilitate future applications;

(4) Organizing and facilitating annual Service donation team reviews of applications by no later than August 15;

(5) Administering the application approval process by Assistant Regional Directors – NWRS through Regional Zone Supervisors;

(6) Coordinating with the Bison Herd Health Program Lead and the Project Leaders to ensure that a completed CVI is provided to a recipient's designated driver prior to transport;

(7) Maintaining donation process documentation and communication; and

(8) Managing donation data to support timely response to data calls and other inquiries.

These employees...

Are responsible for...

H. Project Leaders with range-limited bison on their refuges

- (1)** Working with the NWRS Bison Conservation Coordinator to ensure that refuge planning includes NWRS bison conservation and health as part of established refuge purposes, goals, and objectives;
- (2)** Ensuring appropriate evaluation of habitat to support development of an ecological carrying capacity that includes the needs of all wildlife species on the refuge and that provides a herd size objective within that carrying capacity to the NWRS Bison Conservation Coordinator by August 1 of each year;
- (3)** Implementing bison management policy and processes on the refuge under the guidance and direction of the NWRS Bison Conservation Coordinator and the Bison Herd Health Program Lead;
- (4)** Participating as members of the Service-wide bison donation application review team;
- (5)** Ensuring that only the minimum required number of NWRS personnel are allowed to participate in bison capture and handling operations;
- (6)** Ensuring that NWRS personnel involved in bison capture and handling have completed low-stress handling training and demonstrate proficiency;
- (7)** Providing final signatures confirming when the bison donation process has been completed;
- (8)** Ensuring that NWRS personnel visually inspect recipient transport vehicles to make sure appropriate biosecurity requirements are met prior to allowing vehicles onto the refuge to pick up donated bison;

These employees...

Are responsible for...

(9) Reviewing and approving research proposals provided by the Bison Herd Health Program Lead or the NWRS Bison Conservation Coordinator that use NWRS bison health or genetics samples, ensuring that animal use activities meet currently accepted professional standards of animal welfare as applicable to wildlife; and

(10) Ensuring that the refuge Visitor Services program works closely with the NWRS Bison Conservation Coordinator, Bison Herd Health Program Lead, and Bison Donation Program Facilitator to accurately share information about NWRS conservation of bison as healthy, native North American wildlife.

ANIMAL WELFARE

8.10 What steps does the Service take to ensure the humane and ethical treatment of bison?

A. While animal welfare concerns do not generally apply to recreational use of free-roaming wildlife, NWRS bison numbers frequently outgrow the available habitat on limited ranges so that it is necessary to regulate the population. Live bison capture and removal helps the Service to assist in the restoration of conservation herds on Tribal lands, supports conservation efforts of other partners such as States and nonprofit bison conservation organizations, and ensures that the ecological needs of other species are met on NWRS units, which are limited in size.

B. NWRS bison capture and handling activities adhere to low-stress handling principles and guidelines, including limiting those activities to the minimum required to evaluate bison herd health status and meet interstate regulatory transport requirements.

(1) Project Leaders are responsible for ensuring that only the minimum number of required personnel are allowed to participate in bison capture and handling, and that personnel have completed low-stress handling training and demonstrate proficiency. Project Leaders may

allow visitors, media, and others to have limited, supervised access to observe capture and handling activities in a manner that does not add stress to bison.

(2) Project Leaders must not confine bison selected for donation for prolonged periods of time after capture and prior to transport, and they must provide adequate care while bison are confined.

C. Project Leaders and other Service personnel must not load bison for donation into the recipient's transport vehicle unless the vehicle meets minimum standards for animal welfare.

(1) Transport equipment must be clean, sturdy, well ventilated, and sufficiently enclosed to prevent bison from seeing outside the trailer during transport. A dark environment with minimal outside visual stimuli reduces stress.

(2) Bison should be transported in segregated groups of similar size, age, sex, and behavior to minimize injury.

(3) Bison exhibiting aggressive or dominant behavior should be transported separately from other bison.

D. Project Leaders and other Service personnel must meet the requirements above and ensure that animals receive appropriate treatment with the highest standards for care. The NWRS Bison Conservation Coordinator and the Service's Wildlife Health office provide training in low-stress bison handling techniques required for bison capture and handling operations, as well as humane euthanasia.

MORE INFORMATION

8.11 Where can employees find more information about the Service's range-limited American plains bison management policy and procedures?

A. The accompanying handbook, *[Best Management Practices Handbook for the Conservation of Range-Limited American Plains Bison](#)*, identifies standardized, science-based management practices for NWRS range-limited bison herds that are consistent with the value of bison as iconic native North American wildlife.

B. You may also contact the Service's NWRS Bison Conservation Coordinator within the *[Service's Wildlife Health office](#)* for additional details about these procedures.