Progress Report on the Recovery of Wood bison (*Bison bison athabascae*)

in the Northwest Territories (2020-2024)

SPECIES AT RISK (NWT) ACT

Progress Report and Review Series 2025

For copies of the progress report, recovery strategy, or for additional information on Northwest Territories (NWT) species at risk, please visit the NWT Species at Risk website (www.nwtspeciesatrisk.ca).

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Cover photo: Wood bison, Terry Armstrong/GNWT

What is the *Species at Risk (NWT) Act*?

The *Species at Risk (NWT) Act* (the Act) provides a process to identify, protect and recover species at risk in the NWT. The Act applies to any wild animal, plant or other species for which the Government of the Northwest Territories has management authority. It applies everywhere in the NWT, on both public and private lands, including private lands owned under a land claims agreement.

What is the Conference of Management Authorities?

The Conference of Management Authorities (CMA) was established under the Act and is made up of the wildlife co-management boards and governments in the Northwest Territories (NWT) that share responsibility for the management of species at risk in the NWT (referred to as 'Management Authorities'). The purpose of the CMA is to build consensus among Management Authorities on the conservation of species at risk and to provide direction, coordination and leadership with respect to the assessment, listing, conservation and recovery of species at risk while respecting the roles and responsibilities of Management Authorities under land claim and self-government agreements. The CMA develops consensus agreements on listing species at risk, conservation measures, management plans and recovery strategies. Only Management Authorities in or near the range of a species are involved in making decisions.

What is a Threatened species?

Under the Act, a Threatened species is a species that is likely to become Endangered in the Northwest Territories if nothing is done to reverse the factors leading to its extirpation or extinction.

What is a recovery strategy?

Under the Act, a recovery strategy is a document that recommends objectives for the conservation and recovery of a Threatened species. It also recommends approaches to achieve those objectives. It includes a description of threats and positive influences to the species and its habitat. Under the Act, a recovery strategy must be completed for a Threatened species within two years of the species being added to the NWT List of Species at Risk.

What is a progress report?

Under the Act, a progress report is required every five years, or sooner, to report on the actions undertaken to implement a management plan or recovery strategy and on the progress made toward meeting its objectives.

PREFACE

The *Recovery Strategy for Wood Bison (*Bison bison athabascae*) in the Northwest Territories* (CMA 2019; recovery strategy) describes the recovery goals and objectives for wood bison in the Northwest Territories (NWT) and recommends approaches to achieve those objectives. The strategy was developed collaboratively by co-management partners to meet the requirements for a Northwest Territories recovery strategy under the *Species at Risk (NWT) Act* and to guide the overall conservation and recovery of wood bison, primarily in areas of the NWT outside of federal Crown lands. The management of wood bison on federal Crown land (i.e. national parks, migratory bird sanctuaries and national wildlife areas) is primarily guided by the national *Recovery Strategy for the Wood Bison (*Bison bison athabascae*) in Canada* (ECCC 2018).

Indigenous and community knowledge and scientific knowledge were considered in the preparation of the recovery strategy. The NWT recovery strategy recognizes the shared responsibilities for management among Indigenous governments and Indigenous organizations in wood bison areas, as well as under land claim agreements and species at risk legislation. The recovery strategy respects co-management processes developed through the NWT bison management plans and legislated by the Tłı̨chǫ Land Claims and Self-Government Agreement.

The NWT recovery strategy is intentionally very high level, recognizing that most management action takes place at the population level. Management direction for the Mackenzie, Nahanni and Slave River Lowlands bison populations is provided in the management plans for these populations.

Under subsection 73(1) of the *Species at Risk (NWT) Act* and Section 7 of the recovery strategy (Next Steps), a progress report must be completed every five years on the actions undertaken to implement the recovery strategy and on the progress towards meeting its objectives.

This document is a report on progress towards the recovery of wood bison in the NWT from 2020 to 2024. It describes the actions taken by co-management partners to implement the *Recovery Strategy for Wood Bison (*Bison bison athabascae*) in the Northwest Territories* and meets the legislative requirement for a progress report under the *Species at Risk (NWT) Act*.

ACKNOWLEDGMENTS

This progress report was developed collaboratively by Conference of Management Authorities partners involved in the conservation and recovery of wood bison in the Northwest Territories: Wek'èezhìı Renewable Resources Board, Tłı̨chǫ Government and Government of the Northwest Territories (GNWT), along with the Government of Canada (Environment and Climate Change Canada and Parks Canada).

Working groups for the Nahanni, Mackenzie and Slave River Lowlands wood bison in the Northwest Territories (see *Section 2 – Management Partners for Wood Bison*) were also invited to share their information and submit comments on drafts of the report, including Indigenous governments and Indigenous organizations in Fort Liard, Fort Providence, Fort Resolution, Fort Simpson, Fort Smith, Hay River, Jean Marie River, Nahanni Butte, Sambaa K'e and Yellowknife.

Preparation of this progress report was funded by the GNWT Department of Environment and Climate Change (ECC). The management partners would like to thank the Species at Risk Secretariat for addressing the requirements of a progress report under the *Species at Risk (NWT) Act*. The principal preparers of this progress report were Joslyn Oosenbrug (Species at Risk Implementation Specialist) and Michele Grabke (Species at Risk Implementation Supervisor).

Background information in this document is summarized from the 2016 *Species Status Report for Wood Bison (*Bison bison athabascae*) in the Northwest Territories* (SARC 2016). To avoid repetitive citations, it can be assumed that the information was taken from this report unless another reference is given. Management partners are grateful to the Northwest Territories Species at Risk Committee for its work on this detailed assessment of the status of wood bison in the Northwest Territories.

ACRONYMS

BCA	Bison Control Area
CMA	Conference of Management Authorities
COSEWIC	Committee on the Status of Endangered Wildlife in Canada
ECC (or GNWT-ECC)	Department of Environment and Climate Change, Government of the Northwest Territories (formerly Environment and Natural Resources (ENR))
ECCC	Environment and Climate Change Canada
GNWT	Government of the Northwest Territories
GWBM	Greater Wood Buffalo metapopulation
INF(or GNWT-INF)	GNWT Department of Infrastructure
MBWG	Mackenzie Bison Working Group
NBWG	Nahanni Bison Working Group
NWT	Northwest Territories
PC	Parks Canada
SARC	Species at Risk Committee
SRL	Slave River Lowlands (bison subpopulation)
SRLBWG	Slave River Lowlands Bison Working Group
TAH	Total Allowable Harvest
TG	Tłı̨chǫ Government
WBNP	Wood Buffalo National Park
WMMP	Wildlife Management and Monitoring Plan
WRRB	Wek'èezhìı Renewable Resources Board

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HIGHLIGHTS

The Conference of Management Authorities recognizes the many governments, organizations and individuals doing important work to conserve and recover wood bison in the NWT.

Progress has been made towards meeting all objectives in the recovery strategy. Some of the **key actions** implemented between 2020-2024 include:

- **Collaboration on wood bison management** through completion of management plans for the Mackenzie, Nahanni and Slave River Lowlands populations, and continuing implementation of these plans, including regular meetings of the working groups.
- **Population surveys** for the Nahanni, Mackenzie and Slave River Lowlands populations were carried out by GNWT-ECC. From 2020-2024, surveys took place in 2020 (Slave River Lowlands), 2021 (Nahanni), 2023 (Mackenzie) and 2024 (Slave River Lowlands). Parks Canada also carried out population surveys of bison in Wood Buffalo National Park (NWT and Alberta) in 2024.
- **Harvest management** continues, with the goal of supporting sustainable harvest of wood bison populations based on population size/trend and guided by bison management plans. For example, the number of tags available in the Mackenzie bison range was increased during the reporting period to reflect the growing size of this population, as per the management plan established by the Mackenzie Bison Working Group.
- **Bison ranges continue to be monitored for anthrax** every summer for those populations where the disease is present. When an outbreak is detected (as in the Slave River Lowlands in 2023), GNWT implements its *Anthrax Emergency Response Plan* to minimize the release of anthrax spores into the soil, protect bison populations and protect public health and safety.
- Surveillance of the **Bison Control Area** (BCA) is ongoing. The BCA is a bison-free zone to prevent the spread of diseases between wood bison populations. Aerial surveys are conducted twice a year by GNWT-ECC and community observers. No bison were detected or reported in the BCA between 2020-2023. Three bison reported in the BCA in 2024 were destroyed.
- **Tłı̨chǫ Highway Wildlife Monitoring Program** was established by the Tłı̨chǫ Government in response to the new Tłı̨chǫ Highway, which opened in November 2021. Community monitors record wildlife information, including species and counts, along the Tłı̨chǫ Highway from Behchokǫ̀ to Whatì. The program monitors changes to harvest, habitat and distribution for various wildlife species, including wood bison.

- **Awareness campaigns** to reduce road collisions and human-bison conflicts are conducted annually. A pamphlet on bison safety (GNWT-ECC) and classroom learning materials (Ecology North) were developed and shared with communities during the reporting period.
- **Research to understand factors affecting bison health and population dynamics** is underway. For example, a Sentinel North project (launched in 2021) studies wood bison habitat use, movements and interactions with/use of Highways 3 (Yellowknife Highway) and 9 (Tłı̨chǫ Highway), and collars placed on Mackenzie and Nahanni bison (2021-2024) further investigate bison population dynamics and explore habitat use.
- **Edéhzhíe Dehcho Protected Area** was co-designated as a National Wildlife Area in 2022 under the *Canada Wildlife Act* to ensure the long-term protection of the area and the conservation of species at risk, including wood bison. The area is co-managed by the Edéhzhíe Management Board, which makes decisions about activities in Edéhzhíe, including recreation, research and hunting.

PROGRESS REPORT

1. INTRODUCTION

Wood bison have historically played an important role in the northern boreal forest ecosystem and in the lives of many Indigenous communities in the Northwest Territories (NWT). Today, some communities still maintain a strong connection to wood bison, while others no longer see bison as part of their heritage. This is most often the case in communities where bison have not been present for several generations.

A Threatened Species

Wood bison are listed as a Threatened species under the *Species at Risk (NWT) Act* and the federal *Species at Risk Act*. This means they are likely to become Endangered if nothing is done.

In the NWT, the relatively small population size (about 3,000 animals in three separate populations) and recent declines were factors in the 2016 assessment, as well as multiple threats including disease and vehicle collisions. Wood bison are scheduled for reassessment by the NWT Species at Risk Committee (SARC) in 2026.

Wood Bison Status

	NWT	Canada
Assessment	Threatened (2016)	Special Concern (2013)
Legal Status	Threatened	Threatened
Listed	2017	2003
Recovery strategy	2019	2018

At the national level, the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) reassessed wood bison in 2013 as Special Concern, following population increases across Canada. A federal decision on changing the listed status is pending.

Recovery Strategy

The *Recovery Strategy for Wood Bison (*Bison bison athabascae*) in the Northwest Territories* was developed to guide the overall conservation and recovery of wood bison in the NWT. It is intentionally very high level, recognizing that most management action takes place at the population level. Management direction for the Mackenzie, Nahanni and Slave River Lowlands bison populations is provided in the management plans for these populations.

Responsible harvest (where the harvest is managed and reported) is an important part of wood bison recovery. Harvesting provides benefits to people of the NWT and increases acceptance of bison. It is also used to manage risk of disease transmission between bison populations and to reduce bison-human conflicts, particularly in communities.

In April 2019, the Wek'èezhìı Renewable Resources Board, Tłı̨chǫ Government and Government of the Northwest Territories (GNWT) accepted the recovery strategy as the Conference of Management Authorities (CMA). They finalized an agreement to implement the recovery strategy and provided it to the territorial Minister of Environment and Natural Resources (now Environment and Climate Change) on April 29, 2020.

The implementation agreement outlines the actions the Wek'èezhìı Renewable Resources Board, Tłı̨chǫ Government and GNWT (as the CMA) intend to take to implement the recovery strategy. However, there are many co-management partners involved in wood bison recovery, with many actions being taken at the community or herd-specific level. The CMA recognizes that Indigenous governments and Indigenous organizations are partners in conservation and recovery and that collaborative and cooperative management is key to the successful recovery of wood bison in the NWT.

This progress report highlights the actions taken by management partners in the Northwest Territories, including the CMA, to implement the recovery strategy for wood bison from 2020 to 2024 and progress made towards meeting its objectives.

2. MANAGEMENT PARTNERS FOR WOOD BISON

Success in the conservation and recovery of wood bison depends on the commitment and cooperation of many different groups involved in implementing the recommendations set out in the recovery strategy. This includes renewable resources boards and governments with formal responsibility for wildlife management, as well as many other partners that work together to care for the land, water and wildlife of the NWT.

Conference of Management Authorities

The management authorities that share responsibility for the conservation and recovery of wood bison in the NWT through the Conference of Management Authorities (CMA) are:

- Wek'èezhìı Renewable Resources Board
- Tłı̨chǫ Government
- Government of the Northwest Territories

Acho Dene Koe First Nation, Akaitcho Territory Government, Dehcho First Nations, Kátł'odeeche First Nation, North Slave Métis Alliance, Northwest Territory Métis Nation and Salt River First Nation are also invited to participate in CMA meetings.

The Government of Canada is responsible for the conservation and recovery of wood bison on federal Crown lands (including national parks, migratory bird sanctuaries, and national wildlife areas). In the Edéhzhíe National Wildlife Area/Dehcho Protected Area, a management board made up of members of the Dehcho First Nations and Government of Canada makes decisions about activities in the area, including recreation, research and hunting.

Further information on the CMA management partners that developed this progress report is provided in Appendix A.

Bison Working Groups

Each of the NWT's bison populations face different conditions and challenges. Three working groups were established to develop population-specific management plans for Mackenzie, Nahanni and Slave River Lowlands bison (part of the Greater Wood Buffalo metapopulation), and they continue to meet regularly. These working groups play a crucial role in implementing management actions, as well as bringing their organizations' perspectives into decision-making about wood bison. Indigenous governments, Indigenous organizations and communities in the range of wood bison are also involved in carrying out conservation and recovery actions for wood bison.

Mackenzie Bison Working Group

Established in 2011, membership is as follows:

- Deh Gáh Got'îê First Nation
- Fort Providence Métis Council
- Fort Providence Resource Management Board
- Hamlet of Fort Providence
- North Slave Métis Alliance
- Northwest Territories Wildlife Federation
- Northwest Territory Métis Nation
- Yellowknives Dene First Nation
- Tłı̨chǫ Government
- Wek'èezhìı Renewable Resources Board
- Government of the Northwest Territories

Nahanni Bison Working Group

Established in 2014, membership is as follows:

- Acho Dene Koe First Nation
- Fort Simpson Métis (Métis Nation Local 52)
- Łíídlı̨ı̨ Kų́ę́ First Nation
- Nahanni Butte Dene Band
- Sambaa K'e First Nation
- Tthets'éhk'édélı̨ First Nation
- Government of the Northwest Territories

Slave River Lowlands Bison Working Group

Established in 2014, membership is as follows:

- Deninu Kų́ę́ First Nation
- Fort Smith Conservation Association
- Fort Resolution Métis Council
- Fort Smith Métis Council
- Hay River Métis Government Council
- K'atł'odeeche First Nation
- Northwest Territories Wildlife Federation
- Salt River First Nation
- Smith's Landing First Nation
- West Point First Nation
- Government of the Northwest Territories

3. SPECIES INFORMATION

Common name in English:	Wood bison
Other common name:	Buffalo
Names in other NWT languages: [1]	Ejuda (Dene Kədá) Dechen yághe ejere, Thachin ya n'jere (Dëne Sųłné Yatié) Dechı̨tah goegié, Dechîtah goejidé (Dene Zhatıé) ʔejëre (Denínu Kuę́ Yatié) Aak'ii, Dachan tat gwa'aak'i̱ (Dinjii Zhu' Ginjik) Sakāwmostos (nēhiyawēwin) Dechı̨ta gojıe, Enareh gojıe, Hozı̀ı gojıè, Ejıe, Ejıre (Tłı̨chǫ) Bison des bois (French)
Scientific name:	*Bison bison athabascae* (formerly *Bos bison athabascae*)

The largest land mammal in North America, the wood bison is easily recognized by its long, shaggy coat and distinctive shoulder hump. Large mature bulls can be 1.8 m at the shoulder and weigh over 1,000 kg.

Historically, wood bison ranged throughout the boreal forest of northern Alberta, northeastern British Columbia, and throughout the NWT, Yukon and central Alaska. They were driven to near extinction in the late 1800s and are slowly recovering in some areas through a combination of habitat protection, reintroduction programs and careful management.

Today, the NWT is home to three free-ranging wood bison populations: the Mackenzie population, the Nahanni population and the Greater Wood Buffalo metapopulation (Figure 1).

Mackenzie bison are found west of Great Slave Lake. **Nahanni** bison are found along the Liard River basin. The **Greater Wood Buffalo metapopulation** is made up of several intermixing subpopulations in and around Wood Buffalo National Park, including two subpopulations in the NWT— Slave River Lowlands (made up of the Hook Lake and Grand Detour/Little Buffalo subpopulations, on either side of the Slave River) and Nyarling River subpopulation in Wood Buffalo National Park.

[1] Citations and references for names in other NWT languages can be found in SARC *in prep*.

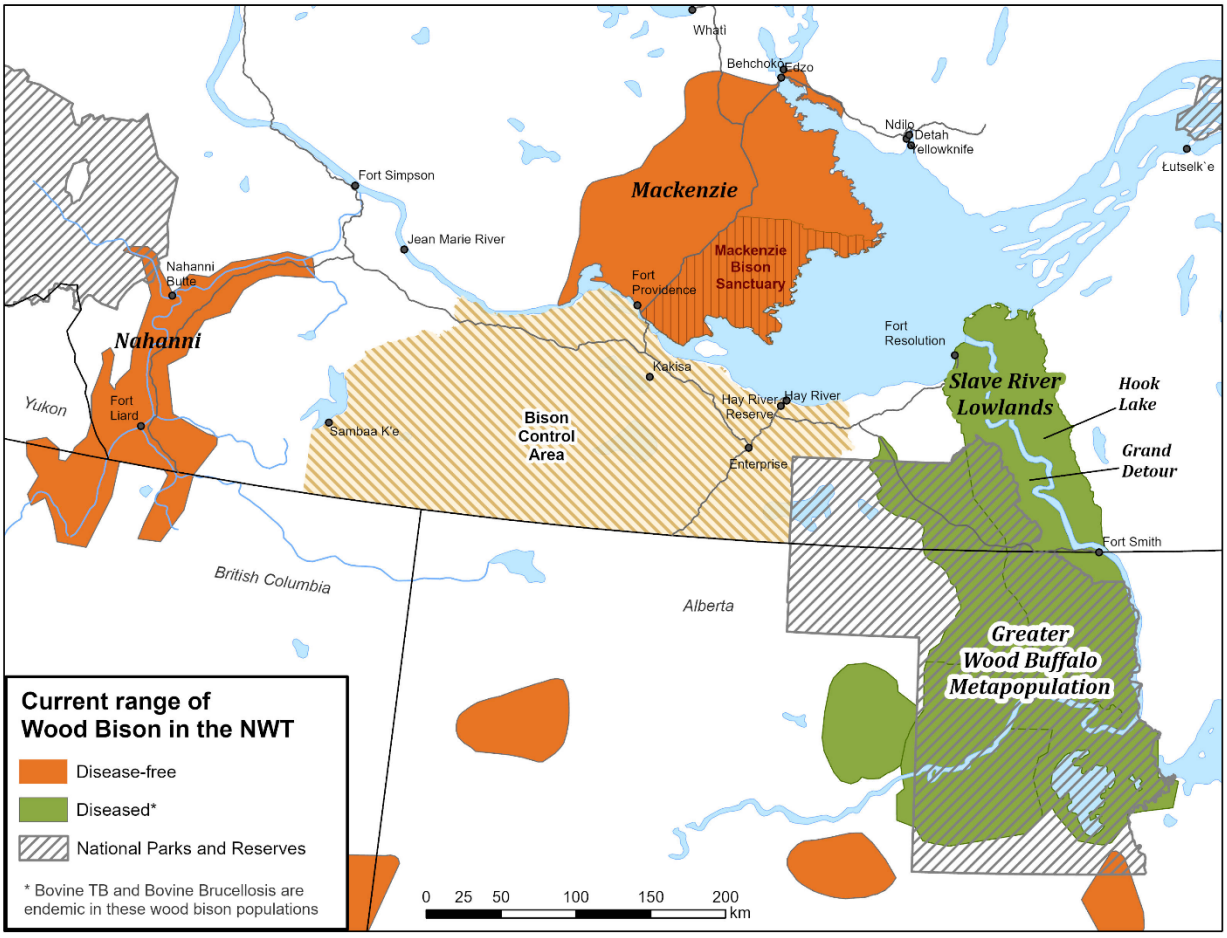

Figure 1. ***Current wood bison range in the NWT and adjacent jurisdictions. Map by N. Wilson, GNWT-ECC.***

Bison populations in the Northwest Territories

Both the Mackenzie and Nahanni bison populations were introduced to the NWT as part of efforts to re-establish wood bison on their historic range.

The **Mackenzie** bison population was re-established northeast of Fort Providence from 16 bison released in 1963. The population has expanded to the north and east, and bison now occur in the area on either side of Highway 3 between Fort Providence and Behchokǫ̀, and across Frank Channel towards Yellowknife.

The **Nahanni** bison population was re-established through four releases beginning in 1980 with one near Nahanni Butte. Nahanni bison are found in the Liard River Valley and along the lower reaches of the South Nahanni River in the NWT, the lower reaches of the Liard and Beaver Rivers in British Columbia, and into the Yukon.

The **Slave River Lowlands** bison subpopulation is part of the Greater Wood Buffalo metapopulation (Figure 2), which survived near-extinction in the 1800s. The Slave River Lowlands subpopulation is made up of bison in the Hook Lake area east of the

Slave River and the Grand Detour area west of the river. The Hook Lake subpopulation is outside of Wood Buffalo National Park, while Grand Detour bison move in and out of the park. In Wood Buffalo National Park, the Grand Detour subpopulation is known as Little Buffalo and is managed by Parks Canada.

The **Nyarling River** bison subpopulation is also part of the Greater Wood Buffalo metapopulation. The Nyarling River subpopulation (in NWT and Alberta) occurs within Wood Buffalo National Park and is managed by Parks Canada.

This progress report, like the NWT recovery strategy itself, focuses primarily on the three populations that occur in the NWT outside of federal Crown land: the Mackenzie, Nahanni and Slave River Lowlands populations. However, actions related to management of bison on federal Crown land (including national parks and national wildlife areas) are also discussed where relevant to NWT bison recovery overall.

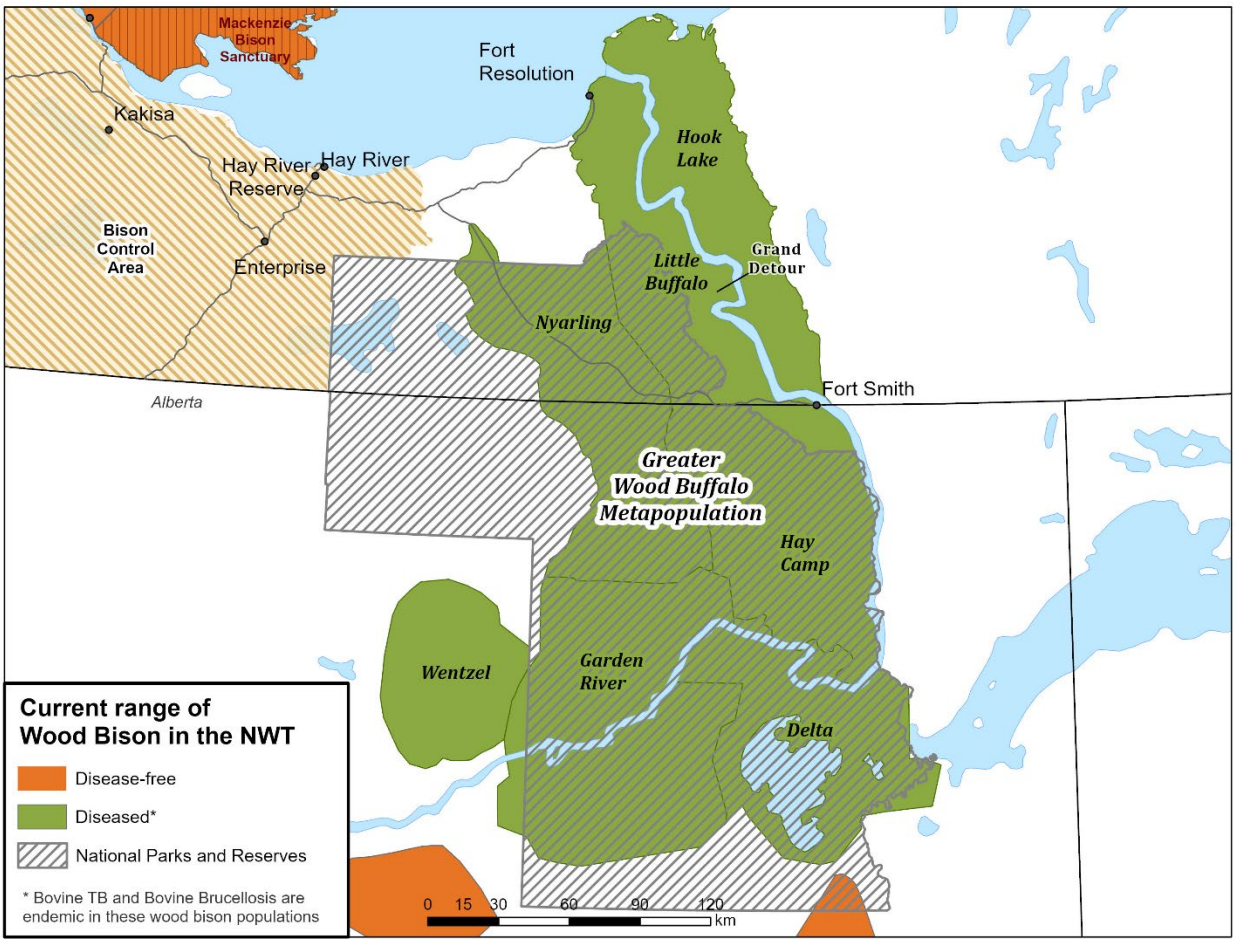

Figure 2. Greater Wood Buffalo Metapopulation wood bison range in the NWT and Alberta. Slave River Lowlands refers to the Hook Lake and Grand Detour wood bison range (outside of Wood Buffalo National Park). Map by N. Wilson, GNWT-ECC.

4. HOW ARE WOOD BISON DOING IN THE NORTHWEST TERRITORIES?

The Species at Risk Committee (SARC) assessed the biological status of wood bison in April 2016. The species was assessed as Threatened in the NWT due to low numbers and recent population declines. Their small population size makes wood bison especially vulnerable to threats, including disease, human-caused mortality (including vehicle collisions) and changes to habitat.

SARC is required by the *Species at Risk (NWT) Act* to reassess the status of a listed species every 10 years. Wood bison in the NWT are scheduled for reassessment in 2026.

At the national level, wood bison are also listed as Threatened. In 2013, the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) reassessed wood bison as a species of Special Concern in Canada. A federal decision on the possible down-listing is pending.

A full discussion of biological status of wood bison in the NWT, including threats and positive influences to the species and its habitat, can be found in the 2016 species status report (SARC 2016) **and the forthcoming 2026 species status report (SARC, in prep).**

Population abundance

GNWT-ECC continues to monitor the size and composition of bison populations in the NWT. Composition surveys track the ratio of cows in a population compared to calves and bulls to help detect changes in herd productivity. Parks Canada also carries out population and composition surveys of bison in Wood Buffalo National Park (NWT and Alberta).

The latest population estimates as of 2024 for NWT wood bison populations are provided in Tables 1 and 2. Longer-term population trends for the three NWT bison populations surveyed by GNWT-ECC (1971-2024) are depicted in Figure 2a-c. Trends for the NWT subpopulations occurring in Wood Buffalo National Park and surveyed by Parks Canada are shown in Figure 3a-b.

The **Mackenzie** bison population experienced a large decline from 2012 to 2013, due primarily to an anthrax outbreak in summer 2012, but appears to be recovering (Table 1, Figure 2a). Mackenzie bison continue to expand their range north and east along Highways 3 (Yellowknife highway) and 9 (Tłı̨chǫ Highway). Recent monitoring along the Tłı̨chǫ Highway (TG 2024) includes wood bison observations recorded within 50 km of Whatì.

The **Nahanni** bison population increased to 962 animals in 2017, but the 2021 survey estimated a decline to 544 animals (Table 1, Figure 2b).

Bison in the **Slave River Lowlands**, a subpopulation surveyed by GNWT-ECC, have shown a steady decline since 2009 (Table 1, Figure 2c), while the **Little Buffalo** subpopulation surveyed by Parks Canada (which includes all bison west of the Slave River and east of the Nyarling River subpopulation) has declined to approximately 101 bison after reaching a high of 1,049 in 2005 (Table 2, Figure 3a).

The **Nyarling River** subpopulation in Wood Buffalo National Park has been relatively stable over the last decade, and is estimated at 282 bison (Table 2, Figure 3b).

All bison in and around Wood Buffalo National Park (including Slave River Lowlands, Little Buffalo and Nyarling River herds) belong to the Greater Wood Buffalo metapopulation, which straddles the NWT-Alberta border. The metapopulation has decreased in size from 10 years ago (Rabley pers. comm. 2024).

Table 1. Latest population estimates for NWT wood bison surveyed by GNWT-ECC (Mackenzie, Nahanni and Slave River Lowlands) as of 2024, including 95% confidence intervals.

Population	Survey Year	Population Estimate	95% Confidence Interval	
			Lower	Upper
Mackenzie	2023	1,945	1,327	2,849
Nahanni	2021	544	371	717
Slave River Lowlands (Hook Lake and Grand Detour)	2024	256	153	431

Table 2. Latest population estimates for NWT wood bison surveyed by Parks Canada (Little Buffalo and Nyarling River subpopulations) and the overall Greater Wood Buffalo metapopulation (includes all subpopulations within Wood Buffalo National Park, in both NWT and Alberta) as of 2024, including 95% confidence intervals.

Population	Survey Year	Population Estimate	95% Confidence Interval	
			Lower	Upper
Greater Wood Buffalo metapopulation	2024	2430	1,850	3,010
Little Buffalo	2024	101	13	189
Nyarling River	2024	282	59	505

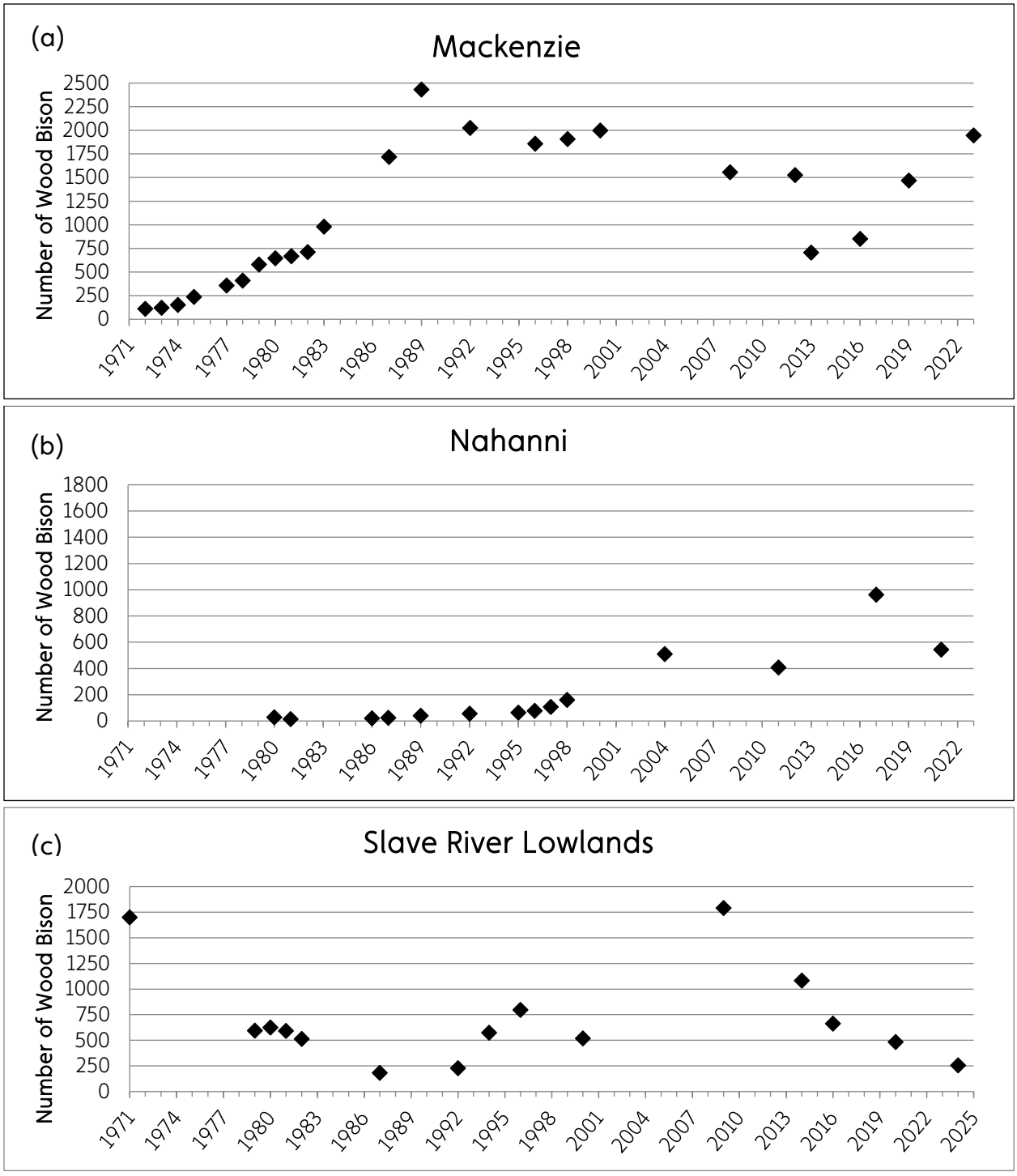

Figure 2a-c. Wood bison population abundance estimates for NWT wood bison populations 1971-2024, surveyed by GNWT-ECC: (a) Mackenzie, (b) Nahanni, (c) Slave River Lowlands (Hook Lake and Grand Detour subpopulations). Data for population abundance were obtained from several sources. Complete citations and references for 1971-2014 estimates can be found in SARC 2016. Estimates for 2016-2024 are from Armstrong and Boulanger 2016, Larter 2021, and ECC unpubl. data 2024a. Original references should be used for accessing confidence intervals for these estimates.

The difference in the 2014 and 2016 estimates for Slave River Lowlands are not considered statistically significant, due to the lack of precision around the 2014 estimate (the result of differences in data collection and analysis methodologies used between surveys). Fluctuations in numbers for the Slave River Lowlands subpopulation may be related to movement of animals between the NWT, WBNP and Alberta.

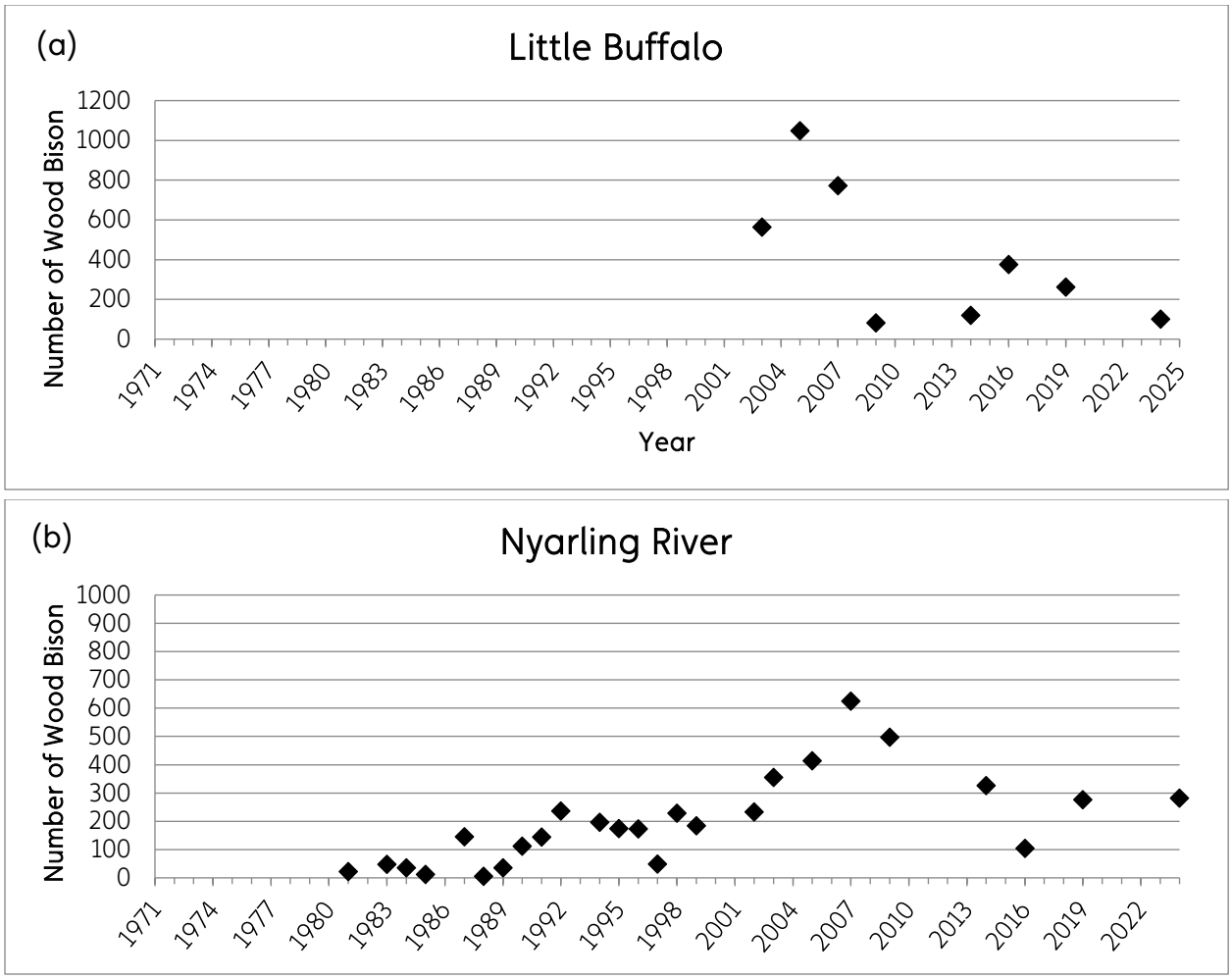

Figure 3a-b. Wood bison population abundance estimates for NWT wood bison subpopulations surveyed by Parks Canada: (a) Little Buffalo, (b) Nyarling River. Complete citations and references for Nyarling River 1971-2014 estimates can be found in SARC 2016. Nyarling River estimates from 2016-2024 and Little Buffalo estimates from 2003-2024 are from Parks Canada unpubl. data 2024. Due to variable historical survey methods, population estimates for Little Buffalo prior to 2003 may be unreliable. Original references should be used for accessing confidence intervals for these estimates.

Factors affecting bison

Disease

Three diseases currently challenge wood bison management in the NWT and throughout Canada. They are bovine tuberculosis (caused by *Mycobacterium bovis*), bovine brucellosis (caused by *Brucella abortis*), and anthrax (caused by *Bacillus anthracis*).

Bovine tuberculosis and brucellosis were introduced to wood bison and are now endemic (regularly-occurring) diseases in the Greater Wood Buffalo metapopulation, including the Slave River Lowlands and Nyarling River bison. Despite the presence of these diseases, communities in the range of the Slave River Lowlands have indicated they support the presence of wood bison (Will 2015), although presence of the diseases does raise some management and harvesting issues.

A Bison Control Area was created in 1987 as a bison-free zone to prevent the spread of bovine tuberculosis and brucellosis from the Greater Wood Buffalo metapopulation to the disease-free Mackenzie and Nahanni populations. Highway signage encourages reports by the public to identify bison use of this buffer zone. During 2020-2024, GNWT-ECC and community observers continued to conduct aerial searches of the Bison Control Area at least twice a year and any bison reported in this area are removed. In June-July 2024, three adult male bison were found in the Bison Control Area. The bison were destroyed and tested for disease. All three tested negative for bovine tuberculosis and bovine brucellosis (Jutha pers. comm. 2024; ECC unpubl. data 2024c).

Anthrax is a naturally occurring acute bacterial infection caused by exposure to anthrax spores from the environment, most likely through wallowing and feeding. GNWT-ECC conducts routine aerial anthrax surveillance of the Slave River Lowlands and Mackenzie wood bison ranges between June and August every year. GNWT-ECC manages anthrax outbreaks in the Slave River Lowlands and Mackenzie populations, and Parks Canada manages anthrax outbreaks in Wood Buffalo National Park.

During the 2020-2024 reporting period, outbreaks were reported in the Slave River Lowlands in 2023 (Armstrong pers. comm. 2024), and in Wood Buffalo National Park in 2022 and 2023 (Rabley pers. comm. 2024) (Table 3). Anthrax was not detected in the Mackenzie population during the reporting period and has not been detected in the range of Nahanni bison since the herd's establishment (Armstrong pers. comm. 2024). Further research on the epidemiology and transmission of anthrax in northern bison populations is needed (e.g. New et al. 2017).

When an outbreak is detected (as in the Slave River Lowlands in 2023), GNWT implements its *Anthrax Emergency Response Plan* (Elkin et al. 2020) to minimize the release of anthrax spores into the soil, protect bison populations and protect public health and safety. The plan includes guidance on disease monitoring, testing, reporting and carcass disposal.

Table 3. Anthrax outbreaks and mortalities detected in NWT wood bison populations by year.

	Wood Buffalo National Park[2]	Slave River Lowlands[3]	Mackenzie[3]	Nahanni
2020	No cases	No cases	No cases	No cases
2021	No cases	No cases[4]	No cases	No cases
2022	July – 50 mortalities[5]	No cases	No cases	No cases
2023	June-July – 11 mortalities	June-July – 30 mortalities	No cases	No cases
2024	No cases	No cases	No cases	No cases

Harvest

Harvest continues to be managed, with quotas in place for the Mackenzie (40 male bison) and Nahanni (7 male bison) populations.

Hunting of the Mackenzie population was closed from 2012-2021 following a major anthrax outbreak that killed nearly 40 per cent of the population. In 2020, the Mackenzie Bison Working Group recommended re-opening harvest to reflect the recovering population. In 2021, regulations under the NWT *Wildlife Act* were changed to support a total allowable harvest (TAH) of 40 bulls per year, distributed as follows: 20 tags distributed by Deh Gah Got'ie First Nation and Fort Providence Métis Council; four tags distributed by each of Tłı̨chǫ Government, NWT Métis Nation, North Slave Métis Alliance, Yellowknives Dene First Nation and through a limited entry draw. In 2024, the TAH of 40 bulls per year was further adjusted from a limited season to an open year-round season. The change was requested by hunters and management partners and is in accordance with the Mackenzie Bison Management Plan.

The harvest quota for the Nahanni population, which has been in place since 2018 (7 bulls), did not change during the reporting period.

Harvest is currently prohibited inside Wood Buffalo National Park (*Canada National Parks Act* 2018). Outside of the park, resident hunters are limited to one bison per hunting season. There is no quota for Indigenous bison harvesters in the Slave River Lowlands. Management plans for Mackenzie, Nahanni and Slave River Lowlands bison include guidance for setting harvest quotas based on population size and trend and encourage

[2] **Mortalities for Wood Buffalo National Park from Rabley pers. comm. 2024.**
[3] **Mortalities for Slave River Lowlands and Mackenzie populations from Armstrong pers. comm. 2024.**
[4] **One mortality discovered in 2021; tested negative for anthrax.**
[5] **Additional mortalities discovered in spring 2023 in the southwest portion of Wood Buffalo National Park. Due to intense fire in the area, cause of death could not be confirmed.**

harvest reporting. Reporting for resident hunters in the NWT is mandatory and shared with the working groups for each bison population.

Vehicle collisions

Road collisions continue to be an important cause of mortality for wood bison in the NWT, especially for Mackenzie bison. About 89% of bison collisions in the NWT (1989-2024) involve the Mackenzie population (ECC unpubl. data 2024b).

Most years in the reporting period (2020-2024) were below the long-term average of 12 bison collisions per year reported to GNWT-ECC (ECC unpubl. data 2024b) (Figure 3), with the exception of 2020, which saw 31 reported collisions in one year. Note that some collisions may involve multiple bison injuries or mortalities.

The GNWT's Department of Infrastructure (GNWT-INF) also maintains collision records for NWT highways, including in Wood Buffalo National Park. These include all collisions for which the RCMP completed a report and sent the report to GNWT-INF. Annual bison collision data compiled by GNWT-INF is available in Northwest Territories Traffic Collision Facts (e.g., INF 2024) (Figure 3). These statistics often do not match the statistics maintained by ECC due to differences in how collisions may be reported. Efforts are underway to improve coordination on how bison collisions are tracked in the NWT.

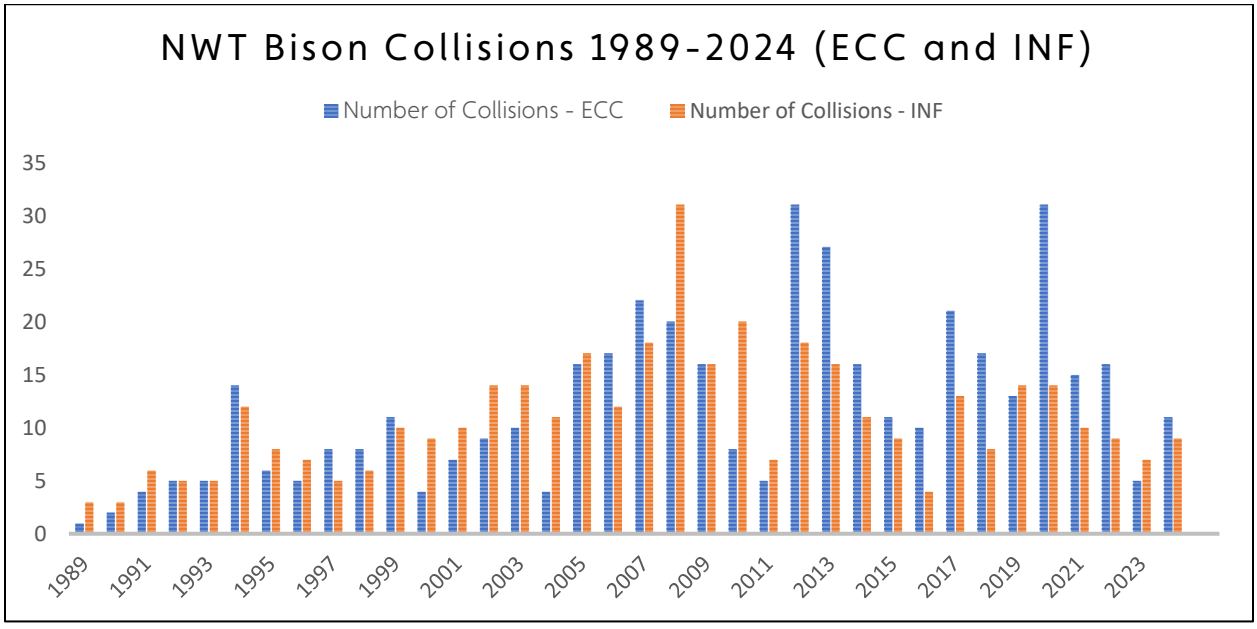

Figure 3. Vehicle-bison collisions reported to GNWT departments of ECC and INF for all NWT highways from 1989-2024. Data from ECC unpubl. data 2024b, INF 2024 and INF unpubl. data 2024.

5. CONSERVATION AND RECOVERY

The purpose of the recovery strategy is to provide an action-oriented planning tool that identifies how conservation and recovery of wood bison can be accomplished in the NWT. It helps Management Authorities decide what actions to take, how to prioritize their work, and how to allocate their resources in order to conserve and recover wood bison.

The Management Authorities for wood bison recognize that:

- Recovery and restoration of wood bison in the NWT cannot be achieved without the cooperation and support of Indigenous governments and Indigenous organizations and NWT communities.
- Indigenous communities will take the lead in identifying specific management objectives for bison on their traditional lands.

Conservation and Recovery Goals and Objectives

Conservation and Recovery Goals

1. Recover **free-ranging, genetically diverse and healthy** wood bison populations **broadly distributed** within the Northwest Territories, to levels that can **sustain ongoing harvest** for the benefit of all people in the Northwest Territories.
2. Contribute to the recovery of free-ranging, healthy wood bison populations **in Canada**.

The NWT recovery strategy recommended the following five objectives to meet the conservation and recovery goals for wood bison:

1. Work with communities and Indigenous governments and Indigenous organizations to complete and implement separate management plans for the Mackenzie, Nahanni, and Slave River Lowlands populations.
2. Promote opportunities to increase acceptance as well as social, cultural and economic benefits of wood bison.
3. Maintain healthy, genetically diverse, and productive wood bison populations.
4. Monitor and conserve important wood bison habitat.
5. Support recovery of healthy wood bison populations broadly distributed within the NWT.

Approaches to Achieve Objectives

Fifteen approaches are recommended in the recovery strategy to achieve these five objectives. Each is assigned a relative priority (critical, necessary or beneficial) and relative timeframe (short-term, long-term or ongoing). In addition, the recovery strategy provides guidance as to appropriate outcomes and/or measures of performance for each recommended approach.

> **Relative priority** can be *critical, necessary* or *beneficial*. Critical approaches are the highest priority for the conservation of wood bison and should be implemented sooner rather than later. Necessary approaches are important to implement for the conservation of wood bison but with less urgency than critical. Beneficial approaches help to achieve management goals but are less important to the conservation of the species compared to critical or necessary.
>
> **Relative timeframe** can be *short-term, long-term* or *ongoing*. Short-term approaches should be completed within five years and long-term approaches require more than five years to complete. Ongoing approaches are actions carried out repeatedly on a systematic basis.

6. PROGRESS OVERVIEW

Table 3. Progress on approaches for the conservation and recovery of wood bison in the Northwest Territories, 2020-2024.

Completed	In progress	Not started	Not pursuing

Conservation and Recovery Goals: **1. Recover free-ranging, genetically diverse and healthy wood bison populations broadly distributed within the Northwest Territories, to levels that can sustain ongoing harvest for the benefit of all people in the Northwest Territories.** **2. Contribute to the recovery of free-ranging, healthy wood bison populations in Canada.**				
Objective	**Management Approaches**	**Relative Priority/Time Frame**	**Performance Measure**	**Progress**

Objective #1:
Work with communities and Indigenous governments and Indigenous organizations to complete and implement separate management plans for the Mackenzie, Nahanni, and Slave River Lowlands populations.
	1.1: Develop management plans for each of the Nahanni and Slave River Lowlands populations.	Critical/
		Short-term
			• Management plans to address specific objectives and challenges for each population are developed.
			• Communities and Indigenous governments and Indigenous organizations provide direction on management actions on traditional lands.
			• The general public and stakeholders are aware of their role in conserving wood bison.
				• **Completed** – Management plans to address specific objectives and challenges for each population were completed and published prior to the Consensus Agreement on Implementation submitted on April 29, 2020:
				  ○ Mackenzie Bison Management Plan (MBWG 2018)
				  ○ Nahanni Bison Management Plan (NBWG 2019)
				  ○ Slave River Lowlands Bison Management Plan (SRLBWG 2019)
				• **Ongoing** – Communities and Indigenous governments and Indigenous organizations provide direction on management actions through the working groups set up for each NWT bison population (**see 1.2**).

	1.2: Implement management plans for the Mackenzie, Nahanni and Slave River Lowlands populations.	Critical/ Long-term or Ongoing	• Actions specified in the population-specific management plans are taken to help the recovery of wood bison and to address specific challenges to recovery.	• **Ongoing** – Management partners for the Mackenzie, Nahanni and Slave River Lowlands bison populations meet 1-2 times per year as part of working groups set up to implement the three population-specific management plans. Most recently, the Mackenzie Bison Working Group met in August 2024, the Slave River Lowlands (SRL) Bison Working Group met in November 2024, and the Nahanni

Objective	Management Approaches	Relative Priority/Time Frame	Performance Measure	Progress

				Bison Working Group met in December 2024. **See other approaches** for specific actions related to the management plans.
				• **Ongoing** – GNWT-ECC continues to monitor the size of NWT bison populations outside of Wood Buffalo National Park. Population surveys for bison in the Mackenzie, Nahanni and Slave River Lowlands (SRL) ranges were conducted in the following years during the reporting period (2020-2024). Estimates are as follows:
				  ○ **Mackenzie** – 1,945 (2023)
				  ○ **Nahanni** – 544 (2021)
				  ○ **Slave River Lowlands** – 256 (2024), 454 (2020)
				More details on survey areas and population estimates are found on pages 17-20.
				• **Ongoing** – GNWT-ECC conducts a composition survey for each population in the summer (usually every 1-2 years), to help detect changes in herd productivity. During the reporting period, surveys were conducted in the following years. Note that no surveys were conducted in 2023 due to circumstances including anthrax, wildfires and low water levels.
				  ○ **Mackenzie** – 2020, 2022, 2024
				  ○ **Nahanni** – 2020, 2021, 2022, 2024
				  ○ **Slave River Lowlands** – 2020, 2024 (no survey in 2022 due to flooding of bison habitat in this area)
				• **Ongoing** – Parks Canada continues to monitor the size and composition of bison populations in Wood Buffalo National Park (NWT and Alberta). Surveys were conducted once during the reporting period, in 2024. Population

Objective	Management Approaches	Relative Priority/Time Frame	Performance Measure	Progress
				estimates for Little Buffalo and Nyarling River subpopulations in the NWT and the Greater Wood Bison metapopulation are: ○ **Little Buffalo**[6] – 101 (2024) ○ **Nyarling River** – 282 (2024) ○ **Greater Wood Bison metapopulation** – 2,430 (2024)
Objective #2: Promote opportunities to increase acceptance as well as social, cultural and economic benefits of wood bison.	**2.1:** Manage wood bison harvest to be sustainable for the benefit of all people in the NWT.	Critical/ Ongoing	• Sustainable wood bison harvest management actions (i.e. quotas and tags) are implemented based on population size and trends. • Information on population size and trends is gathered through population surveys. • Reports on hunting effort, harvest and details of the animal taken is collected. • Communities and community members are engaged in the sustainable harvest and consumption of bison (including hunter education), thereby indicating an improvement in	**Harvest management** • **Ongoing** – Management plans for the three NWT wood bison populations include guidance for setting harvest quotas based on population size and trend and encourage harvest reporting. • Current harvest management is as follows: ○ **Mackenzie** – Hunting of the Mackenzie population was closed in response to declines after a major anthrax outbreak in 2012. In 2020, the Mackenzie Bison Working Group recommended re-opening harvest to reflect the growing size of this population, as per the Mackenzie Bison Management Plan. In 2021, regulations under the *Wildlife Act* were changed to support a total allowable harvest (TAH) of 40 bulls per year, distributed as follows: 20 tags distributed by Deh Gah Got'ie First Nation and Fort Providence Métis Council; four tags distributed by each of Tłı̨chǫ

[6] **As noted on pages 16-18, the Little Buffalo subpopulation surveyed by Parks Canada includes bison inside and outside of Wood Buffalo National Park. The Grand Detour bison surveyed by the GNWT (outside of the Park) are part of the same subpopulation.**

Objective	Management Approaches	Relative Priority/Time Frame	Performance Measure	Progress
			social and cultural acceptance of wood bison.	Government, NWT Métis Nation, North Slave Métis Alliance, Yellowknives Dene First Nation and through a limited entry draw. In 2024, the TAH of 40 bulls per year was further adjusted from a limited season to an open year-round season. The change was requested by hunters and management partners and is in accordance with the Mackenzie Bison Management Plan. Harvest of wood bison within the Edéhzhíe National Wildlife Area/Dehcho Protected Area follows guidance in the Mackenzie Bison Management Plan. ○ **Nahanni** – Seven bull-only tags are available for the Nahanni population (including GHL/resident hunters). Once the population has reached 750 animals, a bull-only harvest of between 1-2% could be implemented (as per management plan). ○ **Slave River Lowlands** – SRL population continues to be harvested by Indigenous harvesters (no quota) and by resident hunters with tags (one bison per hunting season, Sept-March). • **Ongoing** – GNWT continues to monitor population size and composition (**see 1.2**), in part as information needed to support sustainable harvest management. **<u>Harvest reporting</u>** • **Ongoing** – Harvest reporting is mandatory for resident hunters and for anyone harvesting Mackenzie bison. Consistent reporting of Indigenous harvest continues to be a challenge and more work is needed. • **2021-Ongoing** – In 2021, with the re-opening of the Mackenzie bison harvest, North Slave Métis Alliance

Objective	Management Approaches	Relative Priority/Time Frame	Performance Measure	Progress
				implemented a harvest reporting program whereby members who receive a bison tag must fill out guardianship observation forms to record details of the harvested animal and environmental conditions where the bison was harvested. • **2021-Ongoing** – In response to the opening of the Tłı̨chǫ Highway in November 2021, Tłı̨chǫ Government established a Tłı̨chǫ Highway Wildlife Monitoring Program, which includes voluntary harvest reporting in this area for caribou (barren-ground and boreal), moose and wood bison.
	2.2: Promote non-consumptive economic benefits, including tourism based on wood bison viewing.	Beneficial/ Short-term	• Local economies are diversified with economic activity attributable to non-consumptive use of bison. • Visitor volume and spending is increased in areas with the potential for non-consumptive economic benefits (i.e. wood bison viewing).	• Action was not identified for implementation in 2020-2024.
	2.3: Work with communities and other agencies to reduce bison-human conflicts.	Critical/ Ongoing	• Increased public awareness and knowledge with regard to dealing with bison in communities or on personal property. • Reporting and recording of vehicle-bison collisions is improved in frequency and consistency. • Actions are developed within herd-specific management plans	**Bison in communities** • **Ongoing** – GNWT-ECC continues to work with communities of Fort Liard, Fort Providence and Nahanni Butte to address the issue of bison in the communities. This includes herding animals out of the communities and facilitating harvest of problem bison. • **Ongoing** – GNWT-ECC provides the use of ECC facilities in Fort Liard to butcher bison meat for the community. • **2021** – GNWT-ECC purchased meat handling equipment for use in Nahanni Butte to help facilitate use of

Objective	Management Approaches	Relative Priority/Time Frame	Performance Measure	Progress
			to address and reduce bison-vehicle collisions and/or bison entries into communities. • Reduction in the number of vehicle-bison collisions. • Reduction in the number of bison-human conflicts in communities and the cost to address them.	community tags to reduce the occurrence of bison in the community. **Vehicle-bison collisions** • **Ongoing** – GNWT (ECC and INF) carry out an annual awareness campaign every September-November to remind drivers to slow down and watch for bison, especially at night. Highway signage is also displayed on Highway 3 where bison are frequently encountered. • **Ongoing** – GNWT-ECC and GNWT-INF record the number of vehicle-bison collisions based on reports from wildlife officers and the public (ECC) and RCMP (INF). GNWT-INF publishes an annual report on NWT Traffic Collision Facts, which includes statistics on vehicle-bison collisions. Efforts are underway to improve coordination on how bison collisions are tracked in the NWT. • **2020** – GNWT (ECC and INF) produced and distributed a brochure on Safety in Bison Country. It addresses safety for drivers, cyclists and people on foot. • **2019-2021** – Wildlife road surveys were conducted by environmental monitors during the construction of the Tłı̨chǫ All-Season Road/Tłı̨chǫ Highway. These surveys helped determine which areas were more likely to see human-wildlife interactions and informed the location of reduced speed zones. • **2020-2021** – Ecology North developed a wood bison education and awareness project, funded by the Species Conservation and Recovery Fund (SCARF). Deliverables include a teacher's guide and additional classroom learning materials (colouring sheet, stickers, etc.). Ecology North also conducted a social media campaign about

Objective	Management Approaches	Relative Priority/Time Frame	Performance Measure	Progress
				species at risk and wood bison was one of the featured species. • **2021-2022** – GNWT-ECC worked with GNWT-INF and contractors on a smartphone app to monitor and record wildlife collisions along NWT highways. Implementation was determined not to be feasible at this time.
Objective #3: Maintain healthy, genetically diverse, and productive wood bison populations.	**3.1:** Monitor health in all populations.	Beneficial/ Ongoing	• Information on wood bison health is available and shared. • Where possible, surveillance is conducted and populations are monitored for diseases.	• **Ongoing** – GNWT-ECC tests samples collected from harvested bison, collared bison and bison killed on NWT highways as part of the NWT's Wildlife Health Program. This includes testing samples or contributing to ongoing research to assess for key diseases and parasites, pregnancy status, trace minerals, nutritional status, genetics, microbiome, and assessing age, sex, and horn morphology. • **2023-2024** – GNWT-ECC collaborated with Agriculture and Agri-Food Canada (AAFC) to provide fecal samples from NWT bison. This research is looking at spatial and temporal variation of gut microbiome (and influence of diet) to inform fitness/health of Canadian bison. • **2022** – In February-April, GNWT-ECC investigated eight bison mortalities and 23 reports of bison being sick, skinny or found dead in the Nahanni population. Cause of death was determined to be starvation, likely due to the cumulative effects of deep snowpack that winter, low productivity that summer and poor nutrition. • **2023** – Researchers assessed current knowledge on contaminants in wood bison in the Peace-Athabasca region (Wilcox et al. 2023).

Objective	Management Approaches	Relative Priority/Time Frame	Performance Measure	Progress
				• **2024** – Researchers evaluated whether knowledge of zoonotic diseases is related to beliefs about the threat of those diseases in wood bison (Plotsky and Hall 2024). • **See 3.2** for more information on disease surveillance and monitoring.
	3.2: Continue to manage the risk of disease transmission.	Critical/ Ongoing	• Anthrax outbreaks are monitored and responses adhere to the ECC Anthrax Emergency Response Plan. • The Bison Control Area program is continued. • The tuberculosis and brucellosis-free status of the Mackenzie and Nahanni populations are maintained. • Action plans and planned responses are developed in the event that tuberculosis, brucellosis or other significant diseases are detected in the Mackenzie and Nahanni populations. • Public is informed on how to minimize health risks.	**Anthrax surveillance** • **Ongoing** – GNWT-ECC conducts routine aerial anthrax surveillance of the SRL and Mackenzie wood bison ranges between June and August every year (SRL: approx. five flights a year; Mackenzie: approx. four flights). Anthrax has not been detected in the range of the Nahanni bison population. • Surveillance outcomes during the reporting period (2020-2024) are detailed below by year. No anthrax cases were detected on the Mackenzie bison range during the reporting period. See **Table 3** (page 22) for a summary of anthrax outbreaks from 2020-2024. **2020** – No cases detected. **2021** – One carcass was found in the SRL and tested negative for anthrax. **2022** – An anthrax outbreak occurred in Wood Buffalo National Park in July 2022, with approximately 50 bison mortalities in Alberta. GNWT-ECC increased surveillance for the nearby SRL population outside of the park (in the NWT), but no anthrax cases were detected. In 2022, Edéhzhíe guardians participated on surveillance of the Mackenzie population to learn about surveillance methods and build their capacity for co-management; no anthrax cases were found.

Objective	Management Approaches	Relative Priority/Time Frame	Performance Measure	Progress
				2023 – An anthrax outbreak occurred on the SRL range in June/July 2023. GNWT implemented its *Anthrax Emergency Response Plan* (Elkin et al. 2020), which includes guidance on disease monitoring, testing, reporting and carcass disposal. A total of 30 mortalities were discovered in a 350 km^2 area. All carcasses were incinerated, as per the GNWT's Anthrax Emergency Response Plan (Elkin et al. 2020). The public was informed on how to minimize health risks and report sick bison using social media and a dedicated page on the GNWT website. In June-July 2023, an anthrax outbreak with 11 detected mortalities was also confirmed within the range of the Nyarling River subpopulation, in the northern part of Wood Buffalo National Park along Highway 5. **2024** – No cases detected. **Bison Control Area** • **Ongoing** – GNWT-ECC periodically surveys a Bison Control Area (BCA), jointly funded by Parks Canada. See **Factors affecting bison** (page 21). Any reports of bison in the BCA are investigated by ECC and any bison found in the area are removed and tested for disease. • **2024** – No bison were detected or reported in the BCA between 2020-2023. In June-July 2024, GNWT-ECC located and destroyed three adult male bison in the BCA (Jutha pers. comm. 2024; ECC unpubl. data 2024c). The bison were assessed by the GNWT-ECC Wildlife Veterinarian and Bison Ecologist, and samples were submitted to diagnostic labs to determine disease status. All three bison were confirmed tuberculosis and brucellosis-free (Jutha pers. comm. 2024).

Objective	Management Approaches	Relative Priority/Time Frame	Performance Measure	Progress
				• **2024** – GNWT-ECC initiated a new public awareness campaign about the BCA to encourage the public to report bison seen in the BCA.
	3.3: Collaborate with and engage partners, agencies and organizations to manage diseases and investigate new or emerging methods to manage diseases.	Beneficial/ Ongoing	• A collaborative approach is developed to manage the risk of disease transmission and eventual elimination of bovine tuberculosis and brucellosis. • Regulations and protocols are developed to address importing and moving domestic animals within the NWT. • Management Authorities consider disease management of wildlife in land use application processes.	• **Ongoing** – All domestic sheep owners in Wood Bison Areas (and anyone transporting domestic sheep through these areas) must have a permit that keeps sheep separated from wood bison. These regulations and protocols were added under the *Wildlife Act* in 2019 to manage the risk of disease transmission (i.e. malignant catarrhal fever) from sheep to bison. More information is available here. • **2022-Ongoing** – In 2022, partners in bison recovery (including Parks Canada and the University of Saskatchewan) launched the Bison Integrated Genomics (BIG) Project. This three-year project seeks to advance the integrated use of genomics to produce disease-free gametes and embryos from genetically isolated bison herds to restore genetic connectedness among existing populations. In January 2023, the BIG project team made a presentation to the SRL Bison Working Group and invited Indigenous governments and Indigenous organizations to Elk Island to learn more about the project. NWT partners are closely following this project as work continues outside of the NWT. • **2023** – ECCC staff from the Edéhzhíe National Wildlife Area/Dehcho Protected Area assisted with the SRL anthrax response for several days, which provided them with on-the-ground anthrax response training.
	3.4: Eliminate bovine tuberculosis and brucellosis from wood bison over the long term in the NWT.	Necessary/ Long-term	• Eventual elimination of bovine tuberculosis and brucellosis.	• **Implementation action is not underway.** Elimination of bovine tuberculosis and brucellosis from the NWT is not considered feasible at this time. **See 3.3** for more on efforts to manage the risk of disease transmission and eventual elimination of bovine tuberculosis and brucellosis.

Objective	Management Approaches	Relative Priority/Time Frame	Performance Measure	Progress
	3.5: Explore options to increase genetic diversity of Mackenzie and Nahanni wood bison and avoid loss of genetic diversity from bison in the Slave River Lowlands.	Necessary/ Long-term or Ongoing	• Potential options for increasing/maintaining genetic diversity of wood bison populations in the NWT are assessed and a path forward is identified. • Genetic diversity of Nahanni and Mackenzie bison is increased until there is no measurable difference in diversity between them and the Greater Wood Buffalo metapopulation.	• **2022** – Researchers published a study evaluating hybridization in historic and modern bison (Stroupe et al. 2022). • **See 3.3** for related research initiatives.
	3.6: Develop studies to learn what factors regulate population size of bison in the NWT.	Necessary/ Long-term or Ongoing	• Understanding of factors affecting ability of populations to recover from periodic losses. • Knowledge of factors that limit or regulate population size. • Publications documenting results.	• **2020-2021** – During the reporting period, researchers studied aspects of diet and nutrition in wood bison including nutritional stress (Funck et al. 2020), dietary patterns (Hecker et al. 2020) and seasonal foraging behavior (Hecker et al. 2021). • **2021-2022** – Wek'èezhìı Renewable Resources Board approved Wildlife Research Permit Applications in 2021 and 2022 to collar Mackenzie bison for monitoring and management purposes. • **2021-Ongoing** – GNWT-ECC is a partner on a Sentinel North project that involves placing collars on Mackenzie bison to better understand the impacts of competition and predation on boreal ungulates, including wood bison. • **2021-Ongoing** – GNWT-ECC deployed collars in 2021-2024 on the Mackenzie and Nahanni bison populations to further support monitoring of bison population dynamics and explore habitat use.

Objective	Management Approaches	Relative Priority/Time Frame	Performance Measure	Progress
				• **2024** – Researchers examined winter foraging behaviour of wood bison and trade-offs between forage abundance and availability and predation risk (Rawleigh et al. 2024). • **See 3.2** for more information on disease surveillance and monitoring. Surveillance for anthrax and monitoring for other diseases provides information on the status of the population's health and supports management and recovery decisions.
Objective #4: Monitor and conserve important wood bison habitat.	**4.1:** Monitor and assess the cumulative effects of changes to wood bison habitat.	Necessary/ Long-term or Ongoing	• Cumulative effects of habitat changes and availability are monitored and assessed. • Research initiatives that study the impact that natural and human-caused changes in the landscape have on wood bison are supported. • Research initiatives that study the impact bison populations have on the ecosystem and on other species, particularly boreal caribou and moose, and balance the needs of species are supported.	• **2020-2023** – During the reporting period, researchers examined various factors affecting habitat selection by wood bison. These include forage availability, biting flies and soil firmness (Belanger et al. 2020), nutrition (Hecker 2022), behavioral states of female bison (Hecker et al. 2023), and linear features such as pipelines and roads (DeMars et al. 2020). • **2020-2024** – During the reporting period, researchers determined how wood bison movement rates are influenced by snow depth and temperature (Sheppard et al. 2021) and linear features (e.g. pipelines, roads) (DeMars et al. 2020). Researchers also studied how growth of new vegetation influences migration (Hecker et al. 2024). • **2021 and 2022** – Tłı̨chǫ Government conducted vegetation surveys along the Tłı̨chǫ Highway to establish baseline habitat information for species that use the corridor, including wood bison. • **2021-2024** – GNWT-ECC commissioned two reports examining impacts of climate change on species at risk, including wood bison: an overview of species vulnerability (Singer and Lee 2021) and an assessment of projected

Objective	Management Approaches	Relative Priority/Time Frame	Performance Measure	Progress
				changes to conditions in the NWT and their potential impacts (Smith et al. 2024). • **2021-Ongoing** – Tłı̨chǫ Government established a Tłı̨chǫ Highway Wildlife Monitoring Program in 2021, which monitors changes to habitat along the Tłı̨chǫ Highway for various wildlife species, including wood bison. • **2021-Ongoing** – GNWT-ECC is a partner on a Sentinel North project launched in 2021 (see also 3.6) that involves placing collars on Mackenzie bison to better understand wood bison habitat use, movements and interactions with/use of Highway 3 and 9 (Tłı̨chǫ Highway). This research looks into how changes to the landscape affect wood bison and impacts of bison on the ecosystem and on other species (including boreal caribou and moose). • **2022-Ongoing** – Collars were also deployed in 2021-2024 on the Mackenzie and Nahanni bison populations to further support monitoring of bison population dynamics and explore habitat use. • **Ongoing** – Management partners continue to consider the impact of human-caused changes in combination with natural changes in the landscape, such as lake expansion in the Mackenzie bison range and its consequences for habitat use (Korosi et al. 2017).
	4.2: Manage bison habitat to prevent habitat loss and degradation and maintain adequate, productive habitat.	Necessary/ Long-term or Ongoing	• Abundant and productive habitat for wood bison is identified and maintained. • Habitat loss and degradation are assessed during review of new land use application processes	• **Ongoing** – GNWT-ECC, Tłı̨chǫ Government and Wek'èezhìı Renewable Resources Board participate in environmental screening and assessment processes on an ongoing basis, including consideration of wood bison habitat. • **Ongoing** – The Tłı̨chǫ Highway has a Wildlife Management and Monitoring Plan (WMMP) that monitors changes in habitat use by bison near the new highway and contains mitigations to minimize impacts to bison resulting from

Objective	Management Approaches	Relative Priority/Time Frame	Performance Measure	Progress
			(i.e. agriculture, oil and gas, road developments). • Minimize or mitigate loss or degradation of bison habitat caused by conversion of land to other uses.	those changes. GNWT-INF, in collaboration with North Star Infrastructure (the contractor operating the highway), is responsible for ensuring the commitments in the WMMP are met. The WMMP is approved by GNWT-ECC and the Wek'èezhìı Renewable Resources Board. • **2019-Ongoing** – GNWT-ECC and partners across the NWT are developing five regional range plans for boreal caribou. These regional plans will maintain at least 65% undisturbed habitat within the NWT range of boreal caribou, as required by the federal Boreal Caribou Recovery Strategy. While these range plans do not specifically target the maintenance of bison habitat, there may be benefits for bison where these areas overlap. • **2021-Ongoing** – GNWT-ECC is a partner on a Sentinel North project launched in 2021 (see also 3.6 and 4.1) that is studying wood bison habitat use, movements and interactions with/use of Highways 3 and 9 (Tłı̨chǫ Highway). This research will help identify adequate and productive habitat for wood bison. • **2022** – GNWT-ECC and partners identified hotspots of Liard River crossings used by Nahanni wood bison. These are places where mitigation measures may be needed if human-caused impacts increase, such as vessel traffic on the Liard River (Thomas et al. 2022).
Objective #5: Support recovery of healthy wood bison populations broadly distributed within the NWT.	**5.1:** Consult with communities, wildlife management boards and Indigenous governments and organizations to support and expand wood bison ranges in the NWT.	Necessary/ Long-term or Ongoing	• Support for wood bison range re-occupation/re-introduction, where appropriate and consistent with local priorities. • Population sizes and/or ranges are increased.	• **Ongoing** – Collaboration to support wood bison recovery is ongoing through the three bison working groups (see Management Partners for Wood Bison, above). • **Ongoing** – Tłı̨chǫ Government is working with Tłı̨chǫ communities in/near the Mackenzie bison range to address potential negative impacts of range expansion (e.g. conflict with community, damage, etc.).

Objective	Management Approaches	Relative Priority/Time Frame	Performance Measure	Progress
				• **See Section 4** on how wood bison are doing in the NWT for information on current population sizes and ranges.
	5.2: Collaborate on recovery and management of wild bison in Canada.	Critical/ Ongoing	• National population and distribution objectives for wood bison are met: The **short-term population and distribution objective** is to maintain the disease-free status (free of bovine tuberculosis and brucellosis), population size and range of all disease-free wood bison local populations within the original range of wood bison in Canada. The **long-term population and distribution objective** is to ensure the existence of at least five disease-free, genetically diverse, connected, self-sustaining, free-ranging local populations distributed throughout their original Canadian range, with a minimum size for each local population of 1,000 animals.	• **Ongoing** – NWT populations are helping to meet the national population and distribution objectives for wood bison in the national recovery strategy: Nahanni and Mackenzie populations remain free of bovine tuberculosis and brucellosis (*short-term objective*) and the Mackenzie population and Greater Wood Buffalo metapopulation (which includes the SRL subpopulation) are larger than 1,000 animals and meet all but one of the characteristics of populations in the *long-term objective*. The national recovery strategy also recognizes the importance of genetic diversity in wood bison recovery. In particular, it identifies the Greater Wood Buffalo metapopulation as retaining the greatest level of genetic diversity, and the value of these bison for socio-cultural connections to Indigenous groups as well as their ecological role. • **Ongoing** – GNWT-ECC continues to collaborate with Parks Canada, ECCC and the governments of Alberta, British Columbia and Yukon on bison issues. GNWT-ECC continues to participate on the National Bison Technical Committee and the IUCN Bison Specialist Group. • **2022** – The Edéhzhíe Management Board was established to make decisions and issue permits for activities within the Edéhzhíe National Wildlife Area/Dehcho Protected Area, including hunting and research. • **2022** – GNWT-ECC technical staff worked with officials from ECCC and the Edéhzhíe Management Board to discuss management of Mackenzie wood bison in the Edéhzhíe National Wildlife Area/Dehcho Protected Area and agreed to continue managing them across their range

Objective	Management Approaches	Relative Priority/Time Frame	Performance Measure	Progress
				based on guidance in the Mackenzie Bison Management Plan.

7. RECOVERY STRATEGY REVIEW

The CMA is required under the *Species at Risk (NWT) Act* to review a management plan or recovery strategy every five years. The first review of the *Recovery Strategy for Wood Bison in the Northwest Territories* took place on November 18, 2024.

The review determined that the *Recovery Strategy for the Wood Bison (*Bison bison athabascae*) in the Northwest Territories* continues to meet the needs of management authorities to achieve the conservation and recovery goal for the species. Many of the factors that led to wood bison being assessed and listed as Threatened in the NWT remain. Wood bison numbers remain relatively small, and their small population size makes wood bison especially vulnerable to threats including disease, human-caused mortality (including vehicle collisions) and habitat change. As a result, there is a continued need for the guidance provided in the recovery strategy.

The review looked at the goal and objectives of the recovery strategy and determined they are still appropriate for the conservation and recovery of wood bison in the NWT. Management partners for wood bison, including members of bison working groups, recommended possible adjustments to some approaches that could be considered if or when the strategy is revised. These ideas were recorded for future use.

Management authorities also noted the newly-formed Edéhzhíe Management Board has a role in the management of wood bison within the Edéhzhíe National Wildlife Area/Dehcho Protected Area. The Edéhzhíe Management Board is currently not part of the CMA but could be invited to join as a participant. As such, the Board would be included in discussions about management of species at risk that occur in Edéhzhíe, including boreal caribou, northern leopard frog and wood bison.

How will we know if the recovery strategy is working?

The NWT recovery strategy for wood bison uses the following **long-term indicators** to measure success:

- Population trends are increasing, or at least stable, within the natural range of variation.
- Population distributions are increasing, or at least stable, without evidence of range recession.
- Species status has improved or at least not become further at risk.
- Communities are engaged in current management processes and continue to support management objectives.

8. NEXT STEPS

Progress has been made over the last five years toward recovering free-ranging wood bison populations in the NWT. Efforts to maintain healthy, genetically diverse and productive wood bison populations are ongoing. Direction provided by the three bison working groups, together with regular monitoring by GNWT-ECC and Parks Canada, ensures that management decisions about wood bison are based on the best available information.

The *Recovery Strategy for Wood Bison in the Northwest Territories* will continue to guide conservation and recovery of the species. Management partners will continue to use this strategy to help assign priorities and allocate resources for wood bison conservation and recovery. The recovery strategy will be reviewed again in five years and progress on its implementation (2025-2029) will be reported in 2030.

9. REFERENCES

Armstrong, T., pers. comm. 2024. Email correspondence to J. Oosenbrug. Wildlife Biologist (Bison), Environment and Climate Change, Government of the Northwest Territories, Fort Smith, NT.

Armstrong, T. and J. Boulanger. 2016. Slave River Lowlands 2016 Wood Bison Population Estimate. Unpublished report. Environment and Natural Resources, Fort Smith, NT. 6pp.

Belanger, R.J., M.A. Edwards, L.N. Carbyn, and S.E. Nielsen. 2020. Evaluating trade-offs between forage, biting flies, and footing on habitat selection by wood bison (*Bison bison athabascae*). Canadian Journal of Zoology 98(4): 254-261. Available online: https://doi.org/10.1139/cjz-2019-0201.

Canada National Parks Act. 2018. Wood Buffalo National Park Game Regulations SOR/78-830. Available online: https://laws-lois.justice.gc.ca/PDF/SOR-78-830.pdf

Conference of Management Authorities (CMA). 2019. Recovery Strategy for Wood Bison (*Bison bison athabascae*) in the Northwest Territories. Conference of Management Authorities, Yellowknife, NT.

DeMars, C.A., S.E. Nielsen, and M.A. Edwards. 2020. Effects of linear features on resource selection and movement rates of wood bison (*Bison bison athabascae*). Canadian Journal of Zoology 98(1): 21-31. Available online: https://doi.org/10.1139/cjz-2019-0013.

Department of Environment and Climate Change (ECC), unpubl. data. 2024a. NWT wood bison population abundance estimated from aerial surveys. Unpublished data provided by T. Armstrong. June 2024. Government of the Northwest Territories, Fort Smith, NT.

Department of Environment and Climate Change (ECC), unpubl. data. 2024b. Vehicle-bison collisions. Unpublished data provided by T. Armstrong. July 2024. Government of the Northwest Territories, Fort Smith, NT.

Department of Environment and Climate Change (ECC), unpubl. data. 2024c. Summary report on the NWT Bison Control Area. Unpublished data provided by T. Armstrong. July 2024. Government of the Northwest Territories, Fort Smith, NT.

Department of Infrastructure (INF). 2024. Northwest Territories Traffic Collision Facts, 2023. Department of Infrastructure, Government of the Northwest Territories, Yellowknife, NT.

Department of Infrastructure (INF), unpubl. data. 2024. Vehicle-bison collisions. Unpublished data provided by R. Thom. June 2024 and February 2025. Government of the Northwest Territories, Yellowknife, NT.

Doney, E.D., A.J. Bath, and J.J. Vaske. 2018. Understanding conflict and consensus regarding wood bison management in Alaska, USA. Wildlife Research 45(3): 229-236. Available online: https://doi.org/10.1071/WR17056.

Elkin, B., T. Armstrong and T. Ellsworth. 2020. Anthrax Response Plan, Version 10 – Updated July 2020. Environment and Natural Resources File Report No. 155a. Government of the Northwest Territories, Yellowknife, NT. 97 pp.

Environment and Climate Change Canada (ECCC). 2018. Recovery Strategy for the Wood Bison (*Bison bison athabascae*) in Canada. Species at Risk Act Recovery Strategy Series. Environment and Climate Change Canada. Ottawa, ON. viii + 59 pp.

Funck, J., C. Kellam, C.T. Seaton, and M.J. Wooller. 2020. Stable isotopic signatures in modern wood bison (*Bison bison athabascae*) hairs as telltale biomarkers of nutritional stress. Canadian Journal of Zoology 98(8): 505-514. Available online: https://doi.org/10.1139/cjz-2019-0185.

Hecker, L. 2022. Influence of nutrition on the habitat selection of the Ronald Lake wood bison (*Bison bison athabascae*) herd. Ph.D. dissertation, University of Alberta, Edmonton, AB. 194 pp. Available online: https://era.library.ualberta.ca/items/ba78210c-93be-42e1-b1d9-8c77a167a635.

Hecker, L.J., S.C.P. Coogan, S.E. Nielsen, and M.A. Edwards. 2020. Latitudinal and seasonal plasticity in American bison *Bison bison* diets. Mammal Review 51: 193-206. Available online: https://onlinelibrary.wiley.com/doi/10.1111/mam.12229.

Hecker, L., M. Edwards, and S. Nielsen. 2021. Assessing the nutritional consequences of switching foraging behavior in wood bison. Ecology and Evolution 11:16165-16176. Available online: https://onlinelibrary.wiley.com/doi/pdfdirect/10.1002/ece3.8298.

Hecker, L.J., M.A. Edwards, and S.E. Nielsen. 2023. Behavioral habitat selection of wood bison (*Bison bison athabascae*) in boreal forests. Mammal Research 68:341-353. Available online: https://doi.org/10.1007/s13364-023-00677-3.

Hecker, L.J., S.E. Nielsen, and M.A. Edwards. 2024. Migration leads to nursery herd formation: evidence from a wild wood bison (*Bison bison athabascae*) population. Mammal Research 69: 1-15. Available online: https://doi.org/10.1007/s13364-024-00768-9.

Jutha, N., pers. comm. 2024. Email correspondence to J. Oosenbrug. December 2024. Wildlife Veterinarian, Environment and Climate Change, Government of the Northwest Territories, Yellowknife, NT.

Korosi, J., J. Thienpont, M. Pisaric, P. Demontigny, J. Perreault, J. Mcdonald, M. Simpson, T. Armstrong, S. Kokelj, J. Smol, and J. Blais. 2017. Broad-scale lake expansion and flooding inundates essential wood bison habitat. Nature Communications 8:14510. Available online: www.nature.com/articles/ncomms14510.

Larter, N.C. 2021. Surveys of the Nahanni Wood Bison Population 2002-2018. Department of Environment and Natural Resources Manuscript Report No. 294. Government of the Northwest Territories, Yellowknife, NT.

Mackenzie Bison Working Group (MBWG). 2018. Mackenzie Bison Management Plan. Department of Environment and Natural Resources, Government of the Northwest Territories, Yellowknife, NT.

Nahanni Bison Working Group (NBWG). 2019. Nahanni Bison Management Plan. Department of Environment and Natural Resources, Government of the Northwest Territories, Yellowknife, NT.

New, D., B. Elkin, T. Armstrong, and T. Epp. 2017. Anthrax in the Mackenzie wood bison (*Bison bison athabascae*) population: 2012 anthrax outbreak and historical exposure in non-outbreak years. Journal of Wildlife Diseases 53(4):769-780. Available online: https://doi.org/10.7589/2016-11-257.

Parks Canada, unpubl. data. 2024. Little Buffalo and Nyarling River subpopulation abundance, 2003-2024. Unpublished data provided by J. Beer. December 2024. Parks Canada, Fort Smith, NT.

Plotsky, K. and D.C. Hall. 2024. Alberta hunter knowledge and beliefs about the threat of zoonotic diseases in Canadian wood bison. Human Dimensions of Wildlife 1-19. Available online: https://doi.org/10.1080/10871209.2024.2374348.

Rabley, J., pers. comm. 2024. Email correspondence to J. Oosenbrug. September 2024. Ecologist Team Lead, Wood Buffalo National Park, Parks Canada, Fort Smith, NT.

Rawleigh, G., M. Edwards, D. Epperson, and S. Nielsen. 2024. Trade-Offs Between Forage Availability, Accessibility, and Predation Risk on Winter Foraging Strategies of Wood Bison (*Bison bison athabascae*). Ecology and Evolution 14(10):e70385. Available online: https://doi.org/10.1002/ece3.70385.

Sheppard, A.H.C., L.J. Hecker, M.A. Edwards, and S.E. Nielsen. 2021. Determining the influence of snow and temperature on the movement rates of wood bison (*Bison bison athabascae*). Canadian Journal of Zoology 99(6):489-496. Available online: https://doi.org/10.1139/cjz-2020-0280.

Singer, C. and C. Lee. 2021. NWT Climate Change Vulnerability Assessment Species at Risk. Department of Environment and Natural Resources Manuscript Report No. 294. Government of the Northwest Territories, Yellowknife, NT.

Slave River Lowlands Bison Working Group (SRLBWG). 2019. Slave River Lowlands Management Plan. Department of Environment and Natural Resources, Government of the Northwest Territories, Yellowknife, NT.

Smith, A., N. Wright, A. Johnson, D. Greenacre, and R. Lemmond. 2024. Threats to Biodiversity – Climate Change. Department of Environment and Natural Resources Manuscript Report No. 310. Government of the Northwest Territories, Yellowknife, NT.

Species at Risk Committee (SARC). 2016. Species Status Report for Wood Bison (*Bison bison athabascae*) in the Northwest Territories. Species at Risk Committee, Yellowknife, NT.

Species at Risk Committee (SARC). (in prep). Species Status Report for Wood Bison (*Bison bison athabascae*) in the Northwest Territories. [In preparation]

Stroupe, S., D. Forgacs, A. Harris, J.N. Derr, and B.W. Davis. 2022. Genomic evaluation of hybridization in historic and modern North American Bison (*Bison bison*). Scientific Reports 12:6397. Available online: https://doi.org/10.1038/s41598-022-09828-z.

Thomas, J.P., N.C. Larter, and T.S. Jung. 2022. Identifying Hotspots of Liard River Crossings by Nahanni Wood Bison. Department of Environment and Natural Resources Manuscript Report No. 300. Government of the Northwest Territories, Yellowknife, NT.

Tłı̨chǫ Government (TG). 2024. Tłı̨chǫ Highway *dechı̨ta gojıe / ejıe* (bison) monitoring report: December 2021-May 2024. Draft Tłı̨chǫ Government report. [July 25, 2024 draft]

Wilcox, A.A.E., M. Jurasek, C.D. Mallory, T.K. Shury, P.J. Thomas, C. Soos, and J.F. Provencher. 2023. An assessment of contaminants in bison (*Bison bison athabascae*) in the Peace-Athabasca region. Environmental Reviews 31(4):708-715. Available online: https://doi.org/10.1139/er-2022-0094.

Will, A. 2015. Resident attitudes and beliefs toward bison, disease and management in Wood Buffalo National Park. M.A. dissertation, Memorial University of Newfoundland, St. John's, NL. 150 pp. Available online: http://research.library.mun.ca/id/eprint/8382.

APPENDIX A – PROGRESS REPORT PARTNERS

The following management partners were primarily responsible for developing this progress report on wood bison. See *Section 2 – Management Partners for Wood Bison* (page 12) for more information on other organizations that contributed to its development.

Government of the Northwest Territories

The Government of the Northwest Territories (GNWT), represented by the Minister of Environment and Climate Change (ECC), has ultimate responsibility for the conservation and management of wildlife, wildlife habitat and forest resources in the NWT, subject to land claims and self-governance agreements. It is the Minister of ECC's ultimate responsibility to prepare and complete management plans and recovery strategies under the *Species at Risk (NWT) Act*. ECC engages with other GNWT departments on species at risk issues through the Inter-departmental Species at Risk Committee, inter-departmental committees of Directors and Deputy Ministers, and Executive Council.

Wek'èezhìı Renewable Resources Board

The Wek'èezhìı Renewable Resources Board is the wildlife co-management authority responsible for managing wildlife, wildlife habitat, forests, plants, and protected areas in Wek'èezhìı as set out in the Tłı̨chǫ Agreement (Tłı̨chǫ Agreement, sections 12-14 & 16). Responsibilities include making determinations or recommendations on management proposals for activities that may affect wildlife and wildlife habitat. The Wek'èezhìı Renewable Resources Board works collaboratively with the Tłı̨chǫ communities and Tłı̨chǫ, territorial, and federal governments in research, monitoring, and management of wildlife and habitat.

Tłı̨chǫ Government

The Tłı̨chǫ Government has powers to enact laws in relation to the use, management, administration, and protection of lands and renewable resources on Tłı̨chǫ lands. This includes laws relating to the management and exercise of harvesting rights for wildlife, plants, and trees (Tłı̨chǫ Agreement, section 7). The Tłı̨chǫ Government has prepared the Tłı̨chǫ Land Use Plan to assist in managing approximately 39,000 km^2 of Tłı̨chǫ lands. The Plan provides a guide for future development by outlining how Tłı̨chǫ land will be protected and how activities and development on Tłı̨chǫ lands should occur.

Government of Canada

The Government of Canada has ultimate responsibility for the management of migratory birds (as described in the *Migratory Birds Convention Act*, 1994), fish, marine mammals, and other aquatic species (as described in the *Fisheries Act*). It also has responsibilities for the implementation of the federal *Species at Risk Act*, including enforcement of the general prohibitions and critical habitat prohibitions where listed species occur on federal lands that belong to her Majesty, in Right of Canada, or under the direct authority of the Minister of the Environment (national wildlife areas and migratory bird sanctuaries) and the Minister responsible for the Parks Canada Agency (national parks, national park reserves and national historic sites). Although identified as a Management Authority in the *Species at Risk (NWT) Act*, the Government of Canada has chosen not to be a signatory to CMA consensus agreements.