

EDÉHZHÍE MANAGEMENT PLAN (DRAFT) September 5, 2024

Edéhzhíe Management Board

Table of Contents

Executive Summary	1
Acronyms	3
Dene Zhatié Words, Phrases and Place Names	4
Chapter 1: Introduction	7
Introduction	7
Why we are Protecting Edéhzhíe	9
Purpose of Edéhzhíe	
The Path to Protecting Edéhzhié	
Development of the Edéhzhíe Management Plan	
Chapter 2: Management Context	16
The Dene	-
Dene Ahthít'e	
Dene Worldview, Laws and Protocols	
Land Administration	21
The Edéhzhíe Establishment Agreement	23
Governance	23
Legal Status of the Edéhzhíe Management Plan	26
Relationship to the Dehcho Land Use Plan	
Relationship to the Dehcho Process	
Implementation of UNDRIP	
Chapter 3: Edéhzhíe's Values and Threats	
Broad Threats	
Climate Change	
Wildfire Human Disturbance (Linear Disturbance, Noise, Flights)	
Alien, Invasive and Neonative Species (Species that Don't Belong Here)	
Pollution / Contaminated Sites	
Aquatic Values	
Water	
Fish	
Aquatic Birds	
Terrestrial Values	16
Caribou, Boreal population (Boreal Caribou)	
Wood Bison	
Moose	
Land Birds	-
Furbearers	
Significant Cultural Areas	-

Cultural Values (Dene Ahthíťe)	61
Dehcho Dene	
Knowledge of Culture, Language, History and Way of Life	
Use and Occupancy	
Chapter 4: Management Direction	67
Vision for Edéhzhíe	67
Goals, Objectives, and Actions	67
Goal 1: Keep Edéhzhíe Healthy and Strong	
Objectives	
Actions	
Goal 2: Respect and Promote Dene Ahthít'e	
Objectives	
Actions Goal 3: Working in Harmony as Guardians of Edéhzhíe	
Objectives	
Actions	
Long-Term Actions	
5	
Chapter 5: Monitoring & Research	83
Introduction	83
Monitoring Plan	83
Key Monitoring Programs and Partners	
Dehcho K'éhodi Stewardship and Monitoring Program	
AAROM Monitoring	
ECCC Monitoring	
GNWT Monitoring Programs	
Chapter 6: Plan Implementation	87
Overview	87
Five-Year Workplan	87
Roles and Responsibilities	89
Permitting Process	95
Plan Renewal/Amendment	96
Appendix A: The EEA and UNDRIP	97
APPENDIX B: Prohibited, Permitted and Allowed Activities in Edéhzhíe	
APPENDIX C: Standard Permit Conditions	
A. Protection of Significant Cultural Values	
B. Minimum Flight Altitude and Horizontal Setbacks	
C. Fishing Spawning Areas	
D. Habitat Disturbance Threshold	
E. Use of Guardians	

F. Results Reporting	111
APPENDIX D: Draft Edéhzhíe Monitoring Plan	

List of Tables

12
37
42
45
47
49
53
56
61
64
68
87
90
.101
.104
.111

List of Figures

Figure 1. Edéhzhíe Governance Structure	25
Figure 2. Percent Population Change in Boreal Caribou Since Previous Year (left) and Percent of Initial	I
Population Size of Boreal Caribou (right)	50
Figure 3. Permit Application Process	95

List of Maps

Map 1. Location of Edéhzhíe Protected Area	8
Map 2. Dene Place Names within Edéhzhíe.	17
Map 3. Land Administration within and surrounding Edéhzhíe	22
Map 4. Fire History in Edéhzhíe	30
Map 5. Human Disturbance in and around Edéhzhíe	32
Map 6. Potential Sources of Contamination in Edéhzhíe Identified through Interviews	35
Map 7. Areas of (Potential) Environmental Concern in Edehzhie.	36
Map 8. Known and Suspected Surface to Groundwater Connections in Edéhzhíe	41
Map 9. Boreal Caribou Habitat Selection	52
Map 10. Sensitive Areas containing One or More Significant Cultural Areas	105
Map 11. Boreal Caribou Preferred Habitat in Spring (Levels 7-10 only)	106
Map 12. Boreal Caribou Preferred Habitat in Summer (Levels 7-10 only)	107
Map 13. Boreal Caribou Preferred Habitat in Early Fall (Levels 7-10 only)	108
Map 14. Boreal Caribou Preferred Habitat in Late Winter (Levels 7-10 only)	109
Map 15. Important Wildlife Areas: Raptors, Waterfowl, and Mineral Licks	110

Executive Summary

What is Edéhzhíe?

Edéhzhíe is a protected area in the Dehcho region of the Northwest Territories. It is designated as a Dehcho Protected Area through the *Dehcho Protected Area Law* enacted by the Dehcho First Nations (DFN), and a National Wildlife Area through the *Canada Wildlife Act* administered by the Canadian Wildlife Service (CWS)¹ within Environment and Climate Change Canada (ECCC). These designations protect the surface lands and resources. The Government of the Northwest Territories has provided an indefinite subsurface land withdrawal which protects the subsurface lands and resources.

Edéhzhíe covers 14,218 km² within the DFN's traditional territory in the southwestern part of the Northwest Territories. The Tłįchǫ Government's (TG) traditional area known as Mǫwhì Gogha Dè Niitłèè also overlaps with the Dehcho territory and the northeastern portion of Edéhzhíe.

For the Dene, Edéhzhíe is a refuge, a place to go when food is scarce, or when there is trouble. It provides them with fish, caribou, furs, and clean water. As a plateau, the only water flowing into Edéhzhíe comes from precipitation, so the water is very clean. The Dene worldview values Edéhzhíe as a whole, not just its separate parts, and the Dene are part of that whole. Edéhzhíe protects part of the living cultural landscape of the Dene. It is a spiritual place that is ecologically and physically unique. Its lands, waters and wildlife are integral to the Dene culture, language, and way of life. Edéhzhíe promotes Dene Ahthít'e, the relationship between the Dene and the land. Dene stories about Edéhzhíe and the Dene relationship with Edéhzhíe are presented throughout this plan and illustrate the value and importance of this land.

Edéhzhíe is also ecologically important. Its diverse habitat—from wetlands to forests—is home to a wide variety of northern plants and animals. The central focus of Edéhzhíe is the Horn Plateau, a 600-metre escarpment rising above the Mackenzie Valley. It is drained by the Horn and Willowlake rivers. Edéhzhíe provides important habitat for Caribou, Boreal population (hereafter referred to as Boreal Caribou) and Wood Bison: two threatened species listed under the federal Species at Risk Act^{2 3}. It contains the northern half of Mills Lake, a key migratory bird terrestrial habitat site hosting significant portions of the national population of migratory birds, including 12 per cent of Canada's eastern population of Tundra Swans and 14 per cent of the mid-continent population of Greater White-Fronted Geese.

What is a National Wildlife Area?

National Wildlife Areas (NWAs) are protected areas established under the *Canada Wildlife Act*_to protect nationally significant habitat for animals or plants. They are managed for the purposes of wildlife conservation, research, and interpretation. ECCC uses an ecosystem approach to manage and plan for NWAs. There are 57 NWAs across Canada, covering over 3.5 million hectares of habitat in marine and terrestrial environments.⁴

¹ CWS is a branch within ECCC that is responsible for the conservation of migratory birds, the recovery of species at risk, and the protection of nationally important habitat for wildlife. To ensure consistency and clarity, CWS will be referred to as ECCC throughout the remainder of this plan.

² Canada. (2002). Species at Risk Act, S.C. 2002, c. 29. Schedule 1 (Subsections 2(1), 42(2) and 68(2)).

³ Government of Northwest Territories. (2009). Species at Risk (NWT) Act, S.N.W.T. 2009, c. 16.

⁴ <u>https://www.canada.ca/en/environment-climate-change/services/national-wildlife-areas/locations.html#</u>

Establishment and Co-Management

DFN and ECCC completed and signed the Edéhzhíe Establishment Agreement (EEA or "the Agreement") on October 11, 2018. The EEA is a legally binding contract, that commits DFN and ECCC (the Parties) to protect and co-manage Edéhzhíe. The Agreement provides for the establishment of a consensus-based Edéhzhíe Management Board (EMB or "the Board"), through which the Parties jointly make decisions pertaining to Edéhzhíe. It also provides for the development and implementation of a management plan for Edéhzhíe. The establishment and co-management of Edéhzhíe is an important step towards reconciliation between Canada and the DFN.

What is the management plan?

The management plan provides the framework for decision-making for the EMB and the Parties on the management and operation of Edéhzhíe. The management plan must contribute to the purposes of the EEA, and includes priorities, actions to accomplish them, indicators to test whether the purposes of the EEA are being achieved, and a schedule by which the Parties agree to implement these actions. It specifies authorized and prohibited activities in the protected area and identifies other activities that may be conducted under the authority of the *Wildlife Area Regulations* (WAR) permit.

The management plan reaffirms that Treaty and Inherent Rights are allowed and encouraged in Edéhzhíe, as specified under the EEA. The Plan is accompanied by a Traditional Land Use and Harvesting Protocol, which identifies protocols to be followed in Edéhzhíe for harvesting, use and occupancy, in accordance with Dehcho Dene law.

The Parties will follow the management plan in making management and operational decisions, including those related to cultural and land-based programming; staffing; communications; access management; wildlife and environmental monitoring; maintaining and improving wildlife habitat; research; permitting; inspections; enforcement; and the development and maintenance of facilities and infrastructure.

This Edéhzhie Management Plan has been approved by DFN and ECCC on [DATE] in accordance with the EEA.

What uses are allowed in Edéhzhíe?

Activities that are likely to have a negative impact on the ecological or cultural values of Edéhzhíe are prohibited in Edéhzhíe, including but not limited to exploration and exploitation of subsurface resources for commercial purposes. Generally, no industrial or commercial uses are allowed in Edéhzhíe. Research, monitoring and education activities are allowed with a permit.

Access to Edéhzhíe by anyone other than Dehcho and Tłıcho Dene exercising their Aboriginal Treaty and Inherent Rights is restricted. Anyone else wishing to enter and conduct any activities in Edéhzhíe, including research, monitoring, educational or recreational activities, must first obtain a WAR permit.

To learn more

To learn more about Environment and Climate Change Canada's protected areas, please visit our website at https://www.canada.ca/en/environment-climate-change/services/national-wildlife-areas.html or contact the Canadian Wildlife Service.

Acronyms

AAROM	Aboriginal Aquatic Resource and Ocean Management	
AEC	Area of Environmental Concern	
APEC	Areas of Potential Environmental Concern	
ARU	Autonomous Recording Unit	
BEAHR	Building Environmental Aboriginal Human Resources (training program)	
CPUE	Catch Per Unit Effort	
CWS	Canadian Wildlife Service	
DFN	Dehcho First Nations	
DIDLUP	Draft Interim Dehcho Land Use Plan	
DOC	Dissolved Organic Carbon	
ECC	Environment and Climate Change (Government of the Northwest Territories)	
ECCC	Environment and Climate Change Canada	
EEA	Edéhzhíe Establishment Agreement	
EHC	Elder Harvester Committee	
EMB	Edéhzhíe Management Board	
EWG	Edéhzhíe Working Group	
FCSAP	Federal Contaminated Sites Action Plan	
GNWT	Government of the Northwest Territories	
MAP	Mentor-Apprentice Program (language mentorship program)	
NWA	National Wildlife Area	
SARA	Species at Risk Act	
TG	Tłįchǫ Government	
UNDRIP	United Nations Declaration on the Rights of Indigenous Peoples	
WAR	Wildlife Area Regulations	

Dene Zhatié Words, Phrases and Place Names

Dehcho - Mackenzie River

Deh Gáh Got'ie Kúę – Fort Providence

Dene - the Indigenous people of the area, and includes the Métis

Dene Ahthít'e means the ongoing relationship between Dene and the land as expressed through the Dene way of life, including language, customs, traditions, historical experiences, spiritual practices, and laws.⁵

Dehcho Dene Zhatié means the Indigenous language spoken among the Dehcho First Nations

Edéhzhíe – Horns in the ground, Horn Plateau, the name of the Dehcho Protected Area and National Wildlife Area

Éhłetłų Túé – Double Fish Trap Lake

Elira ja – flu epidemic

Gahdhíah - Rabbitskin River

K'ázhíáh Deh - Horn River

Łíidlų Kų́ę́ - Fort Simpson

Łue túé – fish lake

Łúhaa -whitefish

Metzizh / mbedzhi – Caribou, Boreal population

Mowhì Gogha Dè Niitlèè - Traditional area of the Tłįcho Dene

Nódi - Barren-ground Caribou

Pehdzeh Ki - Wrigley

Samba – trout

⁵ As cited in the "Agreement Regarding the Establishment of Edéhzhíe," October 11, 2018, https://dehcho.org/docs/EdéhzhíeEstablishment-Agreement.pdf.

EDÉHZHÍE MANAGEMENT PLAN (DRAFT)

Todzhih – another "species" of Caribou known to Dehcho Dene, which is somewhat larger and tastes different than mbedzih

Tthets'éhk'edélį - Jean Marie River

Tsácho Kį - Big Island Lake

Ts'ét'įą - grayling

Udaa - jackfish

Xahndaa Deh - Willowlake River

Yamozhia/Yamoria – The Lawmaker; a powerful man in Dene Stories, who traveled throughout Denendeh to destroy giant animals, and establish a relationship between people and animals based on mutual respect and understanding. He gave the people laws to enable them to live together in harmony.⁶

⁶ <u>https://www.nwtexhibits.ca/yamoria/</u>

Chapter 1: Introduction

Creation Story

A long, long time ago when the earth was brand new, the Horn Plateau, or the Horn Mountain as we know it, was actually an animal, it was a being, and that's where the animal lived. Whenever the animal moved around, where its footprints fell, they created places where it sparked. When it sparked it was just like dynamite, and then you could see the pebbles there.

They said that the big animals, probably in Yamozhia days, were eating a lot of people, so they had to try to stop it. The story goes that this young guy dreamt that it was his job to take care of it. So he talked to an older woman, who was telling him how to approach the big animal that was sleeping. He came around and approached the animal and he was able to kill the big slumbering animal that was there. It died there and that's what you see if you go up there. That's what you'll be walking on, that big creature that was there a long, long time ago. (Joachim Bonnetrouge)

Introduction

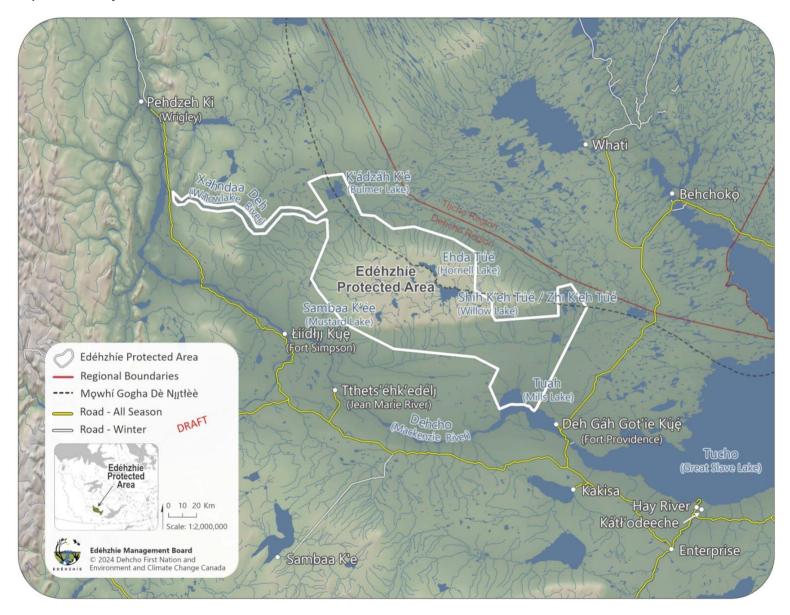
Edéhzhíe is a Dehcho Protected Area and a National Wildlife Area under the *Canadian Wildlife Act* and associated *Wildlife Area Regulations*. It protects 14,218 km² of land and water in the Dehcho region, in the southwestern part of the Northwest Territories. The central feature of Edéhzhíe is the Horn Plateau, rising 600m above the Mackenzie Valley. Edéhzhíe protects the headwaters of three important river drainages in the Dehcho region: Xahndaa Deh (Willowlake River), K'ázhíáh Deh (Horn River) and Gahdhíah (Rabbitskin River).

It is located north and east of the Dehcho, between the communities of Deh Gáh Got'ie Kúé (Fort Providence), Tthets'éhk'edélį (Jean Marie River), Łíídlįį Kúé (Fort Simpson), and Pehdzeh Ki (Wrigley). Edéhzhíe stretches from K'ázhíáh Deh (Horn River) in the east, encompasses the Horn Plateau and its many łue túé (fish lakes), and follows Xahndaa Deh (Willowlake River) to where it meets the Dehcho (Mackenzie River) in the west (see **Map 1**).

Edéhzhíe is an important area for subsistence and cultural use. It lies fully within the traditional territory of the Dehcho First Nations (DFN), and partially within the traditional area of the Tlįchǫ Government (TG) called Mǫwhì Gogha Dè Niitłèè. It is used primarily by the Dehcho communities of Deh Gáh Got'ie Kų́ę́ (Fort Providence), Tthets'éhk'edélį (Jean Marie River), Łíídlįį Kų́ę́ (Fort Simpson), and Pehdzeh Ki (Wrigley), and by the Tłįchǫ communities of Behchokǫ̀ and Whatì.

My grandfather and other relatives travelled the area a long time ago, they told us about having lived at Xahndaa (Willow River). The stories they shared with us from a long time ago, a time before contact with the non-native people. There were people from Fort Providence, Fort Simpson, and Jean Marie River, who lived at Edéhzhíe together in the wintertime, and travelled down the Willow River in the summer. (Gabriel Hardisty) One time my parents were there and in the springtime...Tłįchǫ showed up. They paddled from Whati, Lac LaMarte. Alphonse Netsi; they were hunting for beaver all the way from Lac LaMarte, so they paddled all the way to Bulmer, all the way to Mackenzie and came back there. (Eric Menicoche)

Map 1. Location of Edéhzhíe Protected Area



EDÉHZHÍE MANAGEMENT PLAN (DRAFT)

Why we are Protecting Edéhzhíe

Edéhzhíe is a refuge for the Dehcho and Tłįchǫ Dene. Historically, it was a place to go when food was scarce ...

Very few people have gone up there. If it wasn't for Edéhzhíe though, we would have been annihilated. Around the ice age, the Elders say our people retreated to Edéhzhíe for the fish lakes, caribou, berries. It must have been like an island in an ice field. Edéhzhíe was a place of refuge for our communities. We travelled with the moose and caribou. (Herb Norwegian)

So all the people In this area are all related and they shared the land, and when they got tired of moose meat they went to the Horn Plateau. They call it Edéhzhíe, which means "Horns in the Ground" from all the caribou horns, metzizh...Willow Lake was a gathering area...one Elder said it is the breadbasket of our nation. (Eric Menicoche)

Yes, grandfather from long ago had said that, they said it was like our mother, it keeps things like fish for us so it should be protected. The fish lakes are very important. People used go on it all the time, even during the winter... We traveled a lot in all these fish lakes. We traveled on the plateau a lot. There are a lot of elders that traveled out there; they still remember some of it. They probably knew what was coming in the future because they said it was very important to them, all the fish lakes and they wanted it protected. They wanted it protected; they wanted people to take care of the land when they went on it because they wanted it protected. (Jane Grosetete)

Or when sickness came...

When the flu epidemic came in the 1930's, a lot of our people didn't ask any questions, they knew it was called (In Dene) "Elira ja" ...so what they did was they took off into the bush. Some of them moved into Deep Lake, McGill Lake, and up at the Horn Plateau [...] And we want to do the same thing, if sickness ever comes again, we're going to have to move - to Big Island Lake or into the bush and get away from everybody. (Stanley Sanguez)

It's a place to go to heal oneself.

We continue to take care of it. It's almost like an alter ... it's a place of prayer for many of us, it's a place of forgiveness, it's a place where people would actually go if they're sick. (Herb Norwegian)

If it gets difficult for them in the community, the Land is there for them. A person could go there and go through the healing process and make themselves better in this way. (Jim Thom)

Edéhzhíe is special for its clean water, its many fish lakes, and its bountiful wildlife. No water flows into Edéhzhíe, only from it, so the water quality is excellent.

When COVID-19 hit Zhahti Kue (Fort Providence), an Elder who got sick requested water from Willow Lake. The guardians brought him back several jugs of water and he drank that and got better. (Trisha Landry)

The excellent water translates to the quality and abundance of fish in the fish lakes as well.

An airplane dropped us off on Willow Lake when we went hunting and harvesting for the Dene National Assembly when it was held in Jean Marie River. In the fall there used to be so much fish. There seems to be many fish in all the creeks that flow from the lake. At night when you are camping on the shore of the lake and close to one of the creeks you could see the fins shiny in the moon light and you could hear the noise of the fish in the creek. (Douglas Norwegian)

It was mainly Ehtáa Henry's people that were living at Tsácho Kí (Big Island Lake). It was sometime in March that Ehtáa traveled with his big snowshoes all the way to Dehcho. He came to the Dehcho somewhere upstream from Jean Marie River and he traveled along the river until he came to Imbéh Etenih, he traveled along Imbéh Etenih to Kelly Lake where the people of Jean Marie were living... He traveled on snowshoes. His mother told him that its usually in March that the people suffer from starvation so he had a big backpack full of dry fish [from Edéhzhíe]. When he arrived at the camp the people were suffering from starvation, there was absolutely no food, some people couldn't even get up. So Ehtáa saved the people from starvation. (Douglas Norwegian)

Families would often go into Edéhzhíe for weeks and months at a time, in all seasons, to harvest fish, waterfowl, moose and caribou, and furs.

They really were resourceful and independent in their own ways. Because in the fall times when they go back on the trail to go back to Willow Lake all they had was their kits, their dogs and grabbed an axe. They come back fully clothed, and in their finest, and that's the way to live, to be independent. And they worked for it. That's how it was in those days. (Jim Thom)

If you look at these seasonal activities...it really lays out their diet, what they are eating...In the spring time, they would get the fish, that...is [coming] down from upriver. And they would also get the beaver, right. And then the little bit of ducks. And then it tapers, that type of diet gets thinned out and then they would get a moose, caribou, and then they would get into the berry seasons. And then in August, again...the ducks, the geese...and then the moose, and in the fall time they harvest the fish, the ones that are making the run. (Gerry Antoine)

I remember when I was a young girl before I came here, the people moved to Shih Daah Túé (another name for Horn Plateau) There were Alfred Gargan's father and mother, Allen Farcy's grandparents, aunty Cecelia's mother and father, they had spent the winter in the area. They know the land very well. Up the K'ázhíáh Deh (Horn River) there's an area where the river was known as crooked area, it was far up the river. They knew of a trail that seems to be straighter and shorter, this was the trail they had used to move into Edéhzhíe and they used the same trail when they returned in the spring. There was lots of water on the land in the early spring. The leaves on the trees were well developed when the people gathered at K'ázhíáh. There were many people. In those days there's no way of knowing whether the people that were out on the land were in good health or whether they were doing fine but these people told their relatives when to expect them back and so their relatives went up the river to where the trail comes to the river and left canoes and paddles. So one day in the late afternoon when all the people were at camp they heard a gunshot from up the river. People were shouting at each other with the news that the people that were in Edéhzhíe had returned. They shot back to indicate that all is well. Pretty soon two boats came. They were carrying their belongings and there were furs too. In those days people also depended on their dogs to pack bundles of items for them. If they happened to have five sled dogs then they have five pack dogs in the summer, that's how the people traveled. I remember seeing these people when they returned. Alfred was just a young boy when he traveled with his parents. So there are many stories of people traveling around, wintering in certain areas and returning in the spring. (Mary Louise Sanguez)

Purpose of Edéhzhíe

The Edéhzhíe Establishment Agreement sets out the following purposes for Edéhzhíe:

- a) respect and protect the lands and waters, including:
 - conserve and protect the ecological integrity of Edéhzhíe as an intact watershed within the Dehcho region;
 - conserve wildlife and wildlife habitat; and
 - provide for research, monitoring and education about Edéhzhíe, including the conditions under which long-term ecological and cultural research, monitoring and education may be undertaken;
- b) respect and promote Dene Ahthít'e including:
 - provide for resource harvesting and other cultural uses and activities within Edéhzhíe;
 - support and maintain the ongoing relationship between Dehcho people and Edéhzhíe;
- c) contribute to reconciliation between the Parties, including:
 - recognize that the inherent rights of the Dehcho First Nations are a foundation of the relationship between the Parties;
 - ensure that Dene Ahthít'e, Dehcho Dene Zhatié, and Dehcho knowledge are meaningfully incorporated in decisions and management actions in respect of Edéhzhíe; and
 - work in a constructive and collaborative manner to achieve consensus, and, where necessary, to resolve issues and disputes between the Parties.

Edéhzhíe is home to many species at risk (see **Table 1** below). It is a key reason for its designation as a National Wildlife Area. It is important that Edéhzhíe be managed for the long-term protection and health of these species, as well as the many other species that call Edéhzhíe home.

Species	Canada (SARA) ⁷	NWT (SNWT) ⁸
Birds		
Harlequin Duck	threatened	
Bank Swallow	threatened	
Barn Swallow	threatened	
Buff-Breasted Sandpiper	special concern	
Canada Warbler	threatened	
Short-eared Owl	threatened	
Common Nighthawk	special concern	
Harris's Sparrow	special concern	
Horned Grebe	special concern	
Hudsonian Godwit	threatened*	
Lesser Yellowlegs	threatened*	
Olive-sided Flycatcher	special concern	
Red Knot	threatened**	
Red-necked Phalarope	special concern	
Rusty Blackbird	special concern	
Yellow Rail	special concern	
Mammals		
Caribou, Boreal population (boreal caribou)	threatened	threatened
Little Brown Myotis	endangered	special concern
Northern Myotis	endangered	special concern
Wolverine	special concern	
Wood Bison	threatened	threatened
Amphibians		
Northern Leopard Frog	special concern	threatened
Insects		
Transverse Lady Beetle	special concern	
* under consideration		
** status dependent on subspecies and breed	ling population	

Table 1. Species at Risk in Edéhzhíe based on the Ecological Assessment and current legal listings.

⁷ Canada. (2002). Species at Risk Act, S.C. 2002, c. 29. Schedule 1 (Subsections 2(1), 42(2) and 68(2)).

⁸ Government of Northwest Territories. (2009). Species at Risk (NWT) Act, S.N.W.T. 2009, c. 16.

The Path to Protecting Edéhzhié

The DFN and the TG sought to protect Edéhzhie for decades. The following describes the steps that were taken to establish Edéhzhie as a protected area:

- 1970s Importance of Edéhzhíe was understood by DFN, and the need for protection recognized. Canadian Wildlife Service (CWS)⁹ begins studies on Mills Lake as an important waterfowl staging area.
- 1999 Northwest Territories' Protected Areas Strategy signed. Łíídlų Kų́ę First Nation (Fort Simpson) and Deh Gáh Got'ie First Nation (Fort Providence) express interest in protecting the Horn Plateau and wetlands around Mills Lake.
- 2000 Federal government first offers the *Canada Wildlife Act* as a vehicle to protect Edéhzhíe.

Yes, grandfather from long ago had said that, they said it was like our mother, it keeps things like fish for us so it should be protected. The fish lakes are very important. People used go on it all the time, even during the winter... We traveled a lot in all these fish lakes. We traveled on the plateau a lot. There are a lot of elders that traveled out there; they still remember some of it. They probably knew what was coming in the future because they said it was very important to them, all the fish lakes and they wanted it protected. They wanted it protected; they went on it because they wanted it protected. (Jane Grosetete)

- 2001 Delegates representing the DFN communities using the Edéhzhie Candidate Protected Area pass a resolution formally supporting an application to ECCC to serve as the sponsoring agency under the *Canada Wildlife Act*.
- 2002 DFN and TG began formal efforts to legally protect Edéhzhíe through the Northwest Territories' Protected Areas Strategy.
- 2002 A five-year subsurface and surface land withdrawal was secured to provide interim protection of Edéhzhíe while the establishment process to protect it was under way. The land withdrawal was subsequently renewed several times throughout the path to protection.
- 2002 Canada, represented by ECCC reviewed the proposal and determined that Edéhzhíe met the criteria for protection as it contains ecologically significant populations of migratory birds, as well as several species at risk^{2 3}. ECCC became the sponsoring agency to advance Edéhzhíe for protection as a National Wildlife Area under the *Canada Wildlife Act*.
- 2007 An Edéhzhíe Working Group (EWG) was established with representation from DFN, TG, Indian and Northern Affairs Canada, ECCC, the Government of the Northwest Territories (GNWT) Department of Environment and Natural Resources (now Environment and Climate Change), Ducks Unlimited Canada, World Wildlife Fund-Canada, and the NWT Chamber of Mines to assess the ecological, cultural and economic values of Edéhzhíe and to determine the final boundaries.
- 2009 The EWG completes assessments and releases a final recommendation report to DFN and TG.
- 2014 Canada and the GNWT negotiated a Devolution Agreement to transfer most federal land management responsibilities to the GNWT. Protected areas establishment work was halted across the Northwest Territories for several years before and after 2014 to complete the Devolution

⁹ CWS is a branch within ECCC that is responsible for the conservation of migratory birds, the recovery of species at risk, and the protection of nationally important habitat for wildlife. To ensure consistency and clarity, CWS will be referred to as ECCC throughout the remainder of this plan.

Agreement and transition processes. While the subsurface of Edéhzhíe was transferred to the GNWT under the Devolution Agreement, Canada retained the surface lands to allow for establishment of Edéhzhíe as a federal protected area.

- 2017 Canada, represented by the Minister of ECCC, and the DFN Grand Chief visited Edéhzhíe together and began negotiations on an agreement to jointly establish Edéhzhíe as a protected area.
- 2018 DFN passed a Dehcho Protected Area Law and established Edéhzhíe as the first Dehcho Protected Area. DFN and ECCC completed and signed the Edéhzhíe Establishment Agreement ("the Agreement" or EEA) on October 11, 2018. The EEA is a legally-binding contract that commits both Parties to protect and co-manage Edéhzhíe.
- 2018-19 Edéhzhíe Management Board (EMB) was established and held its first meeting (January 2019).
- 2020 DFN's Edéhzhie staff hired. EMB holds its first community tour to explain the Establishment Agreement, the role of the Board and the Parties, and the process to establish the management plan.
- 2020 An agreement was made with GNWT to withdraw Edéhzhíe subsurface rights to protect the subsurface land.
- 2021-22 The EMB holds a second community tour to engage communities in the development of the management plan (vision, goals, values, threats, strategies)
- 2022 Management plan drafting begins, based on input from community tours and EMB meetings.
- 2022 (May 2) ECCC designated Edéhzhíe as a National Wildlife Area.

Edéhzhíe therefore has 3 "layers" of protection:

- 1. **Dehcho Protected Area under the** *Dehcho Protected Area Law* (July 2018): a declaration of the DFN's role as stewards/guardians of Edéhzhíe, responsible for its protection;
- 2. **GNWT Subsurface Land Withdrawal under the** *Territorial Lands Act* (June 2020): Restricts the GNWT from issuing new rights to subsurface resources such as oil and gas or minerals; and
- 3. ECCC National Wildlife Area under the *Canada Wildlife Act* (May 2022): Provides the legal tools to restrict and manage surface uses in accordance with the *Wildlife Area Regulations* and the Edéhzhíe Management Plan.

Development of the Edéhzhíe Management Plan

From the very beginning, DFN and ECCC stated that the Plan must be built on the Dene Worldview. To assist in this, DFN initiated the Edéhzhie Stories project, conducting interviews with Dehcho Elders and land users that used Edéhzhie to capture their stories and use of Edéhzhie. This complemented other stories previously gathered through the Edéhzhie Oral History Report completed in 2005. These stories are integrated throughout the Management Plan to set the tone and drive management context and decisions.

The Edéhzhíe Management Plan was developed through detailed input from the Edéhzhíe communities (both Dehcho and Tłıcho) and the Edéhzhíe Management Board (EMB). A planning team, consisting of ECCC and DFN staff, and the EMB's Chair and Planner conducted workshops in each community to get input on the key elements of the Plan – the Vision, Goals, Values, Threats and Management Actions. The planner worked with DFN and ECCC staff to integrate community input into a draft plan. The draft plan was distributed to key implementation partners for comment and presented to communities and key stakeholders for feedback. The Parties and EMB then revised the plan based on these comments.

The final plan was agreed to by DFN and ECCC on DATE.

Chapter 2: Management Context

The Dene

The Dehcho and Tł_icho Dene are part of Edéhzhíe. They have extensive harvesting areas, cultural sites, trails, and place names (see **Map 2**) throughout Edéhzhíe. Families would often go into Edéhzhíe for weeks and months at a time, in all seasons, to harvest fish, waterfowl, moose, caribou, and furs.

Dene Ahthít'e

Edéhzhíe supports Dene Ahthít'e - the relationship between the Dehcho Dene and the land. Edéhzhíe is part of the living cultural landscape of the Dene. It is a spiritual place that is ecologically and physically unique. Its lands, waters and wildlife are integral to the Dene culture, language, and way of life. The Dene often say, "If you look after the land, the land looks after you." For people to be healthy, their connection to the land must be healthy. When Dene are struggling, they turn to the land to heal, to reconnect with the land and themselves. Dene Ahthít'e is illustrated through the many Dene stories that are integrated throughout the Edéhzhíe Management Plan.

Dene Worldview, Laws and Protocols

The Dene view Edéhzhíe as a whole, a living being, and the Dene are part of that whole. All parts of Edéhzhíe are interconnected, and the relationships between those parts are just as important as the individual components. Protecting Edéhzhíe means protecting the whole of Edéhzhíe, including the Dene, not just key values. The Edéhzhíe Management Plan is based on this fundamental understanding. The thing the Elders said was: "neoindhe deonde": "This is our land." In the Western way, it has to do with assets, with property. However, the way I understood it from the Dene worldview was "this is part of us", and the word "Dene" means "we are of the river and the land". (Gerry Antoine)

"Edéhzhíe is a living thing for us. There are lots of caribou, fish, and wildlife in that area. All our ancestors used that area – it's important we continue to do so. We keep it so we can survive. We live off the land. We drink water from it and survive from it...We need to think of ourselves as part of Edéhzhíe. We are Edéhzhíe. It's only as the land started changing that we moved off of there. We are the people of Edéhzhíe - Edéhzhíe Got'ine. (Herb Norwegian)

The Dene Worldview means to be looking at Edéhzhíe from Edéhzhíe, looking out. We see the world changing - the weather, permafrost deteriorating. We are there to protect ourselves. We can't look from where we are into Edéhzhíe. We need to speak about seeing the landscape changing, the life as we know it changing. We need to think of ourselves as Guardians, all of us.

When we talk about Edéhzhíe, it's something that's very close to us. When you get close to it, you feel something alive. At night you feel the water talking to you, you feel the trees, the land and the stars and the moon and everything else that's up there. (Herb Norwegian)

Map 2. Dene Place Names within Edéhzhíe.



EDÉHZHÍE MANAGEMENT PLAN (DRAFT)

The Dene Worldview teaches respect for the land above all else. If you take from the land (harvesting), you must give back by offering tobacco and prayer. You must treat the land with care and gratitude.

When in the bush, utterance of negativity in the name of any animals was disrespectful as the animals would hear. He was told when experiencing problems such as with snowshoe strings, patience and time was the answer, as opposed to cursing about it loudly. (Leo Norwegian)

To put it in Dene Worldview, we protect the land by speaking about it, using it, giving back, feeding the fire. If the land is contaminated, you clean it up and put it back the same way. Low impact use only. Maybe one day we'll say no more vehicles in Edéhzhíe, dog teams only. Don't overharvest. (Tim Lennie)

To respect the land also means to respect its power and your vulnerability, to understand your place.

The Elders tell us that when we speak of the land, we don't just venture off into the bush. Everything is taken into consideration and placed in order. The land has been in existence since ancient times. You take into consideration some of these things before you go out on the land. In the ancient times, our Elders prayed a lot as they were out on the land. Our present Elders talked to us a lot about this. They said, if you were of a good mind and cared for the things around you as you exist on Earth, that is what gave you good luck. (Joachim Bonnetrouge)

Dene Laws

The Dene Laws speak about sharing, respect and helping each other:

- 1. Share what you have.
- 2. Help each other.
- 3. Love each other as much as possible.
- 4. Be respectful of Elders and everyone around you.
- 5. Sleep at night and work during the day.
- 6. Be polite and don't argue with anyone.
- 7. Young girls and boys should behave respectfully.
- 8. Pass on the teachings.
- 9. Be happy at all times.

In previous times, the Dene needed to rely on each other for survival, much more than they do today. These laws taught children to respect and help each other from a young age, so that the community could grow and thrive together. Respect for self and for others remain fundamental Dene principles, that are woven throughout this plan. Healthy people contribute to healthy land, and vice versa. The first two Dene laws, "share what you have" and "help each other", are key laws for Edéhzhíe. Edéhzhíe is where the Dene went for food when they were starving. These laws ensured survival when life was hard.

Sometimes when people were living along the Dehcho, around Ts'udaatǫh, Móla Ehda, Deh Gháh Deh, Tthek'éelı, they would travel up there when they ran out of a food source. The story I heard was that when they were traveling up there some people would be starving and they couldn't get up. People that were strong enough would pull the ones that were starving in a sled while they traveled up there. They would shoot what they can and feed them. When they get close to Łue Túé, they would get two or three people that are able to go run ahead of them. When they got there they would find the area where the ice wasn't thick and chop holes in the ice with an axe. They would even use a stick to crack a hole in the ice and set a fish net right away. That's how they would harvest fish. They would eat and once they get strong enough and get enough fish some would go back to the ones that are still traveling after them to feed them. That's how they would help feed each other. That's the type of story it has. (Jonas Antoine)

Dene Protocols

There are also Dene Protocols – rules that people follow to show respect to the land and each other. The following are important protocols that the Dene follow and expect to be followed in Edéhzhíe.

1. Seek Permission. It is important to always ask permission before entering someone else's area. This is for respect, but also to seek information from the people who know the area so you can be safe.

If you're gonna go into somebody's territory you ask for someone's permission and you say 'I'm gonna go over there this winter' and you say 'ok', so everybody knew what you were doing. So, they [my parents] went to see George Modeste, his Dene name was Eteletso. He brought my dad to Bulmer Lake, that's 90 miles east of here. And he went trapping with him for a couple years, on Bulmer and then showed my dad all the area. So my dad and mom built a cabin, moved out there, way back and in 1960, 65. I'm talking about Hondhaa, Bulmer Lake, that area. Because we were given permission by George Modeste to live there. (Eric Menicoche)

I built a cabin there and after we moved in the elders told me that it wasn't a good choice to build there. They told me that I built a cabin on it without consulting with anybody. They told me that if a person did that they wouldn't live a long life but I didn't believe them back then. I guess they were telling the truth because one person fell and died instantly. I didn't use the cabin, nobody used it and then one day it burned down. I don't know how it happened to this day, it's a mystery. I don't know how the fire started. Maybe there were matches in there and the mice were doing something with them. (Leo Norwegian)

2. Take Only What You Need. Use what you take. Don't overharvest in any one area. This protocol is important for the conservation of fish and wildlife species that everyone depends on. It is disrespectful to the animal and to others to waste meat that others could have used.

Trapping was sustainable because my father would trap an area for a couple seasons and then move to a different area for a couple more different seasons, just to let the martins and beavers that he trapped kinda revive again and build up a population again. (Kevin Menicoche)

My late father usually talked to us to say: "You have to leave animals for other people and take just what you need. Make sure the food that you take, you preserve it, so it doesn't spoil." (Richard (Jonas) Sanguez)

3. Show respect, make an offering. Dene stories speak to the importance of prayer and making offerings to the land and water as a way of giving thanks for what the land has provided or asking for help or guidance when times are hard. The Dene will feed a fire with tobacco or food or place these items in the water or on the land to show thanks and ask for a safe journey and good harvest. It is also important to be quiet and respectful in your thoughts.

Bulmer Lake is a sacred place because there is an animal that is sleeping in that lake, and it's a big, big otter. You know, right from Yamalaia, you know those stories, one of those large animals. So when you go on the lake you have to pay the lake. (Eric Menicoche)

Leo recalled, when in the bush, utterance of negativity in the name of any animals was disrespectful as the animals would hear. He was told when experiencing problems such as with snowshoe strings, patience and time was the answer, as opposed to cursing about it loudly. (Leo Norwegian)

My dad pulled some stuff together, said a prayer, and he put it in the mouth of the river of that lake and then that fog disappeared. (Deborah McPherson)

I was told by Stanley's late father, that there were some burial sites where there's a stand of spruce trees. He said, "it was protected by them, it was as if they drew a circle around it." That's how they protected the area. He said there's something big inside of it, and if there is a shortage of things, if a person was to light a fire, feed the fire, and ask for a gift, there will be a caribou that comes to the water and they would shoot the caribou. (Angus Ekanale)

The Edéhzhíe Harvesting and Traditional Use & Occupancy Protocol describes these and other Dene protocols and rules for harvesting and respectful conduct within Edéhzhíe in accordance with Dehcho Law. The EEA S. 3.1 states that individuals exercising their Aboriginal and Treaty Rights in a manner consistent with Dehcho law will not require permits or authorizations from Canada, and will not be required to pay fees to engage in Dene Ahthít'e within Edéhzhíe, including for resource harvesting or other cultural uses and activities.

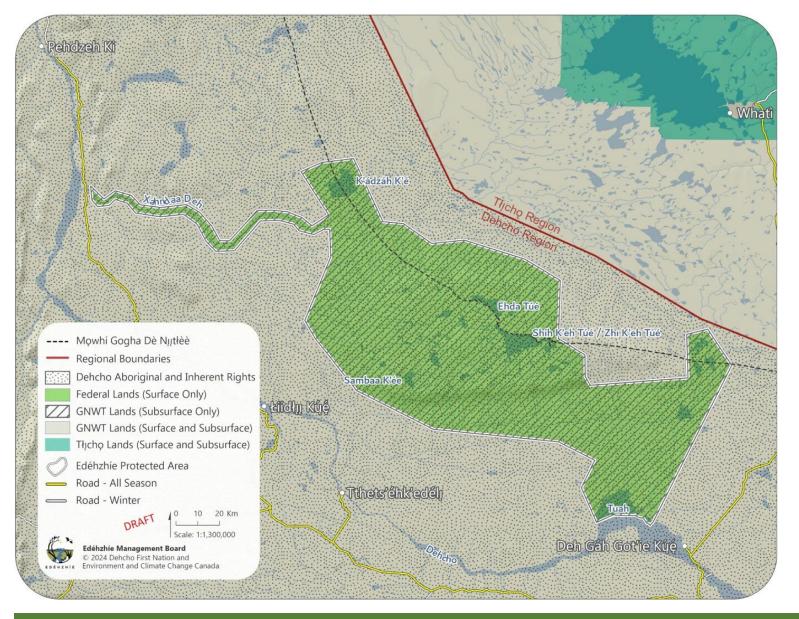
Land Administration

DFN is still negotiating a land claim agreement with the federal and territorial government through what is known as the Dehcho Process. DFN has unceded Aboriginal Treaty and Inherent Rights in Edéhzhíe. ECCC is the surface land administrator, while the GNWT administers subsurface rights. This is why full legal protection for Edéhzhíe requires a 3-pronged approach, with each party protecting Edéhzhíe within the extent of its jurisdiction:

- 1. DFN protects Edéhzhíe as a Dehcho Protected Area;
- 2. ECCC protects Edéhzhíe as a National Wildlife Area under the *Canada Wildlife Act* and *Wildlife Area Regulations*; and
- 3. GNWT withdraws the subsurface, meaning it cannot legally dispose of subsurface rights such as oil and gas or mining within the boundaries of Edéhzhíe.

While Edéhzhíe lies fully within the Dehcho region, the northern portion falls within Mowhi Gogha Dè Nııtièe – the traditional use area of the Tiucho. The Tiucho are able to exercise their traditional land use activities as set out in the Tiucho Agreement, which is a Land Claims and Self-Government Agreement between the Dogrib Treaty 11 Council, the GNWT, and the Government of Canada. See **Map 3** (next page).

Map 3. Land Administration within and surrounding Edéhzhíe.



EDÉHZHÍE MANAGEMENT PLAN (DRAFT)

The Edéhzhíe Establishment Agreement

Canada, through ECCC, negotiated and signed the Edéhzhíe Establishment Agreement (EEA) with DFN. It is a legally binding contract that sets out the broad intentions of the Parties (to fully protect Edéhzhíe), the purpose of Edéhzhíe, the governance structure (including the establishment of a management board), roles and responsibilities, shared decision making, management planning, financial commitments, and provisions for review and amendment of the agreement.

The EEA includes the following clauses to explain its relationship to existing policy and legislation:

- *S.* 11.2 The EEA is a legally binding contract [between DFN and ECCC] and is not intended to be a treaty or land claim agreement within the meaning of section 35 of the Constitution Act, 1982.
- S. 11.3 It is to be interpreted and applied in a manner consistent with the recognition and affirmation of Section 35 Rights, including any rights and benefits subsequently recognized or accorded to DFN by treaty, agreement or other constructive arrangements with the Crown or by judicial declaration.
- S. 11.12 This Agreement is governed by the laws of the Northwest Territories and Canada, as applicable.
- S. 11.17 If there is any inconsistency or conflict between this Agreement and a policy of Canada that is applicable in Edéhzhíe, this Agreement prevails to the extent of the inconsistency or conflict.

Edéhzhíe is therefore subject to laws of general application that are applicable to federal surface lands and territorial subsurface lands, and the uses and resources that may occur in Edéhzhíe, including the *Mackenzie Valley Resource Management Act*.¹⁰

Governance

DFN and ECCC ("the Parties") are together responsible for the management and operation of Edéhzhíe. The Parties shall exercise their respective jurisdictions and authorities and shall carry out their respective obligations under the EEA in the best interests of Edéhzhíe.¹¹

The Parties established the Edéhzhíe Management Board (EMB) to assist them in the management and operation of Edéhzhíe. The Board consists of:

- 5 members appointed by DFN (four Edéhzhíe community members and one regional member),
- one member appointed by ECCC, and
- one impartial chair, jointly appointed by both DFN and ECCC.

The Board makes decisions by consensus, and decisions must be consistent with the purposes as set out in Part 3 of the EEA (included in Chapter 1 of this management plan). The Parties retained a planner to assist in developing the management plan and to support the Edéhzhíe Management Board.

¹⁰ ECCC carried out a Preliminary Screening on the establishment of Edéhzhíe as a National Wildlife Area as required under the MVRMA, which concluded that there is no likelihood that the "proposed development" might have a significant adverse impact on the environment or might be a cause of significant public concern. Therefore, the activity was not referred to the Mackenzie Valley Environmental Impact Review Board for further review. The Preliminary Screening concluded on September 2, 2021.

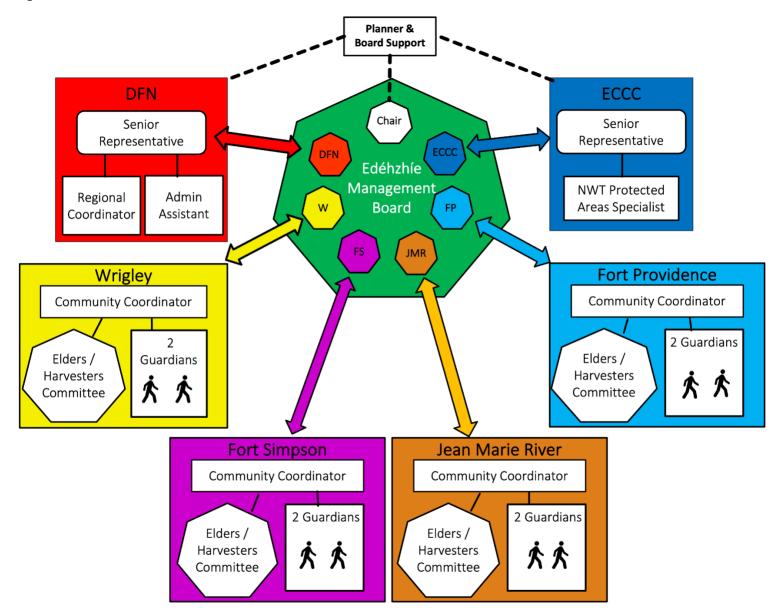
¹¹ EEA. S. 4.1

The Parties shall refer all proposals, activities or developments that affect the planning, management, operation, monitoring and evaluation of Edéhzhíe to the EMB, and the Board may advise the Parties on all aspects of Edéhzhíe. Senior representatives of each Party attend and participate in Board Meetings, to ensure the Parties can approve and implement the Board's decisions. Each Party has staff to assist them in the management and operations of Edéhzhíe. DFN has regional staff (a regional coordinator and administrative assistant), and each community has a community coordinator and two guardians. Elder/Harvester Committees were established in each community to guide community staff and board members in their activities and decision-making. The Edéhzhíe governance structure is illustrated in **Figure 1**.

The GNWT is also not a signatory to the EEA and has no direct role in the management of Edéhzhíe. However, DFN and ECCC work jointly with the GNWT on matters within the GNWT's jurisdiction, such as wildlife research that the Parties wish to extend into Edéhzhíe, and wildfire management (see Chapter 6: Implementation for more information on the GNWT's role within Edéhzhíe). The Parties have also extended a standing invitation to GNWT representatives to attend EMB meetings as an observer.

The Tłįchǫ were involved in the early efforts to establish Edéhzhíe (through the Edéhzhíe Working Group) and remain active land users in Edéhzhíe, particularly the communities of Behchokǫ̀ and Whatì. Behchokǫ̀ and Whatì were engaged in the development of this management plan, similar to Dehcho communities. The Parties welcome the Tłįchǫ to participate in all Edéhzhíe Management Board (EMB) meetings and planning processes, with direct engagement on decisions specifically involving the Mowhì Gogha Dè Nįįtłèè – the traditional use area of the Tłįchǫ. However, the governance structure of the EMB **is** comprised exclusively of Dehcho First Nation members, reflecting that the entirety of Edéhzhíe is within the Dehcho Region.

Figure 1. Edéhzhíe Governance Structure



EDÉHZHÍE MANAGEMENT PLAN (DRAFT)

Legal Status of the Edéhzhíe Management Plan

The Edéhzhíe Management Plan directs the decisions and management actions of the Parties and the Edéhzhíe Management Board with respect to Edéhzhíe. The plan has been co-developed and agreed upon by both parties. While it is not legally binding, each Party will exercise their respective jurisdictions and authorities in accordance with the Management Plan and the EEA, and in the best interests of Edéhzhíe. Should questions or difficulties arise about the implementation of this management plan, the Parties will refer those to the Edéhzhíe Management Board for a consensus decision under S. 6.2 of the EEA. The EEA also includes a process for issue resolution (S.8.4 a-e) to address disagreements between the Parties on matters concerning Edéhzhíe, where consensus cannot be reached.

Relationship to the Dehcho Land Use Plan

Edéhzhíe is included in the Draft Interim Dehcho Land Use Plan (DIDLUP) as a Protected Area Zone. While the DIDLUP is still under revision, it is anticipated it will not provide direction within Edéhzhíe to avoid potential conflicts with this plan and the direction of the EMB and the Parties.

Relationship to the Dehcho Process

DFN has not yet completed land claim negotiations with the federal and territorial governments. When that happens, the Parties shall amend the EEA where necessary to conform with the rights and benefits recognized or accorded to DFN by treaty, agreement or other constructive arrangements with the Crown or by judicial declaration.¹² The Management Plan may also need to be amended at that time (see Chapter 6 for plan amendments).

Implementation of UNDRIP

The United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) was adopted by the United Nations General Assembly on August 13, 2007. The GNWT committed to implementing UNDRIP in the 19th Legislative Assembly (2019-2023) in February 2020¹³. It was adopted by Canada and came into force on June 21, 2021.¹⁴ The EEA and the Edéhzhíe Management Plan contribute to reconciliation and the implementation of UNDRIP in many ways, as shown in **Appendix A**.

¹² EEA S. 12.9

¹³ Mandate of the Government of the Northwest Territories, 2019-2023. TD 12-19(2) Tabled on February 7, 2020. ¹⁴ <u>https://www.justice.gc.ca/eng/declaration/index.html</u>

Chapter 3: Edéhzhíe's Values and Threats

In the Dene Worldview, all aspects of Edéhzhíe are important, as they are all interconnected. It is important to protect the whole, not just the individual species or elements, and the relationships between them. The Dene are part of that whole.

This chapter describes the key values in Edéhzhíe, their most important attributes, a current assessment of health from both a community and scientific perspective (where known), and the key threats facing them. Some threats impact many values in different ways (e.g. climate change), while some are valuespecific (e.g., Anthrax in Wood Bison, wolf predation on Boreal Caribou) and require specific attention. The broad threats are described first, after which values and their specific threats are described. These have been grouped according to Aquatic, Terrestrial and Cultural Environments.

Broad Threats

Climate Change

Climate change is the most significant threat to Edéhzhíe as it impacts every value, will become increasingly severe with time, and cannot be reversed. Northern Canada is expected to warm at more than double the global rate¹⁵. In addition to warming temperatures, the impacts include changes in precipitation, thawing permafrost, altered freeze-thaw cycles, shorter snow and ice seasons, longer growing seasons, and altered flow regimes¹⁶. Climate change also increases the frequency and severity of extreme weather events like heatwaves, droughts, and floods, while increasing wildfire activity¹⁷.

Climate change threatens to transform both aquatic and terrestrial environments, altering habitat suitability for all wildlife species. Changes to the distribution and abundance of plant species will likely disrupt food sources and habitats, while shorter snow seasons and longer growing seasons can interfere with the lifecycles of species adapted to cold climates and introduce competition from species moving northward¹⁸. Warmer conditions create favorable environments for the spread of invasive species or disease-causing species¹⁹. Warmer water temperatures can affect the oxygen levels in water, while changing precipitation patterns impact water levels, nutrient load, and flow rates, thereby affecting the habitat quality and the life cycles of aquatic species¹⁶. These changes collectively result in significant imbalances, threatening the resilience and biodiversity of Edéhzhíe's ecosystems.

¹⁵ Bush, E. and Lemmen, D.S., editors (2019): Canada's Changing Climate Report; Government of Canada, Ottawa, ON. 444 p.

¹⁶ Puts, I. C., Ask, J., Deininger, A., Jonsson, A., Karlsson, J., & Bergström, A. K. (2023). Browning affects pelagic productivity in northern lakes by surface water warming and carbon fertilization. Global Change Biology, 29(2), 375-390.

¹⁷ Jolly, W. M., Cochrane, M. A., Freeborn, P. H., Holden, Z. A., Brown, T. J., Williamson, G. J., & Bowman, D. M. (2015). Climate-induced variations in global wildfire danger from 1979 to 2013. *Nature communications*, *6*(1), 7537.

¹⁸ Smith, A. L., Hewitt, N., Klenk, N., Bazely, D. R., Yan, N., Wood, S., ... & Lipsig-Mummé, C. (2012). Effects of climate change on the distribution of invasive alien species in Canada: a knowledge synthesis of range change projections in a warming world. Environmental Reviews, 20(1), 1-16.

¹⁹ Kutz, S. J., Hoberg, E. P., Nagy, J., Polley, L., & Elkin, B. (2004). "Emerging" parasitic infections in arctic ungulates. Integrative and Comparative Biology, 44(2), 109-118.

These changes affect cultural values as well. Elders and experienced land users who have long relied on their intimate knowledge of the land and the seasons are less certain now. Areas where ice was previously safe to travel on are no longer as certain. Some creeks and rivers long used as travel routes by boat are drying up, while other areas are experiencing high water levels. The land and water are no longer behaving in predictable ways. Thawing permafrost is increasing slumping along riverbanks. Wildfires may destroy important cultural sites. Communities report noticeable changes in waterfowl. Some years, they are not stopping at the places they used to stop at every year but flying over and stopping further up the Mackenzie Valley instead²⁰.

Wildfire

Fire is a natural part of a complex network of relationships among all living beings. It is an agent of change, capable of transforming the landscape. It both destroys life and renews it. To the Dene, fire is a living being. It is an important Dene protocol to feed the fire (offer tobacco or food) before beginning anything important, to show respect, give thanks, and to seek guidance and protection.

We had 5 houses, and all that all burned down. Yeah, in Willow Lake to Horn River, there's log houses and everything, everything just went. We have no more log houses. And waaaay to Axe Point too, there was lots of houses. All burned. (Mary Rose Landry)

Historically, Indigenous peoples used fire as a tool to manipulate their environment. Fire was used for heat, communications (signals), to assist in the application of spruce gum to repair birchbark canoes, to clear vegetation, control the spread of vegetation (e.g. willows), stimulate new growth, create firewood, burn deadwood, reduce wildfire risk around areas of occupation, extend the growing season, make or maintain trails, as an aid to hunting (e.g. by herding game), create wildlife habitat, increase berry production, reduce pests, or for religious or ceremonial purposes.²¹ It is only in recent times that fire has been viewed predominantly as a threat.

We're trying to reintroduce our trails again, but now, the only thing we can do now is listen to the stories of where the traditional trails [were], because we had a massive burn over there – those trails, you'll never see them again. (Stanley Sanguez)

²⁰ Based on community input during Edéhzhíe Community Tour, December 2021 – May 2022

²¹ Christianson, A.C., Sutherland, C.R., Moola, F. et al. Centering Indigenous Voices: The Role of Fire in the Boreal Forest of North America. Curr Forestry Rep (2022).

Climate change is expected to increase the number, frequency, and severity of fires in the future as temperatures rise, by lengthening fire seasons, increasing lightning storms, and creating conditions conducive for fire to spread²². As the peat beds that underly the boreal forest lose moisture, it may result in a doubling of the amount of area burned by the end of this century, compared with the amounts burned in recent decades²³. Increased wildfires pose substantial threats to both terrestrial and aquatic habitats. On land, fires devastate vegetation, alter soil, and jeopardize wildlife recovery. Severe fires²⁴ and repeated burns (within 80 years) are also shifting forests from black spruce-dominated to deciduous-dominated due to damage to the seed bank and organic soils needed for germination²⁵.

Aquatic ecosystems suffer from ash deposition and sediment runoff, degrading water quality and disrupting aquatic life cycles. These impacts heighten ecosystem vulnerability to future disturbances, profoundly altering the Edéhzhíe landscape, and posing challenges to wildlife habitats, cultural sites, and traditional land use practices.

Communities are concerned about the amount of land that has already burned in Edéhzhíe (~ 75% since 1965, see **Map 4**), though older areas are now regrowing. A major concern is the loss of wildlife habitat, especially for important and sensitive species such as Boreal Caribou. They are also concerned about the impacts of smoke on animals, and the deposition of ash in water. Fire also endangers important cultural sites and erases signs of traditional use and occupancy from the landscape.

EDÉHZHÍE MANAGEMENT PLAN (DRAFT)

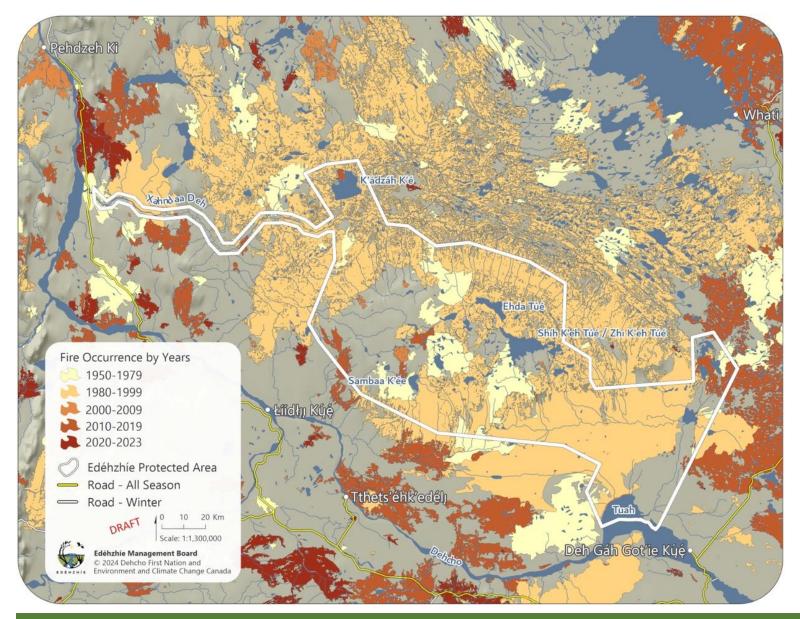
²² Bush, E. and Lemmen, D.S., editors (2019): Canada's Changing Climate Report; Government of Canada, Ottawa, ON. 444 p.

²³ <u>https://www.nrcan.gc.ca/our-natural-resources/forests/wildland-fires-insects-disturbances/climate-change-fire/13155</u>

²⁴ Johnstone, J.F., Hollingsworth, T.N., Chapin, F.S., III and Mack, M.C. (2010), Changes in fire regime break the legacy lock on successional trajectories in Alaskan boreal forest. Global Change Biology, 16: 1281-1295.

²⁵ Carissa D. Brown, Jill F. Johnstone. Once burned, twice shy: Repeat fires reduce seed availability and alter substrate constraints on *Picea mariana* regeneration. Forest Ecology and Management, Volume 266, 2012, Pages 34-41, ISSN 0378-1127.

Map 4. Fire History in Edéhzhíe.



EDÉHZHÍE MANAGEMENT PLAN (DRAFT)

Human Disturbance (Linear Disturbance, Noise, Flights)

Most disturbance in Edéhzhíe dates as far back as the 1960s and '70s, and continued up until the '90s. There was exploration for oil and gas in the 1960s and '70s. A total of 38 wells were drilled within the original study area for Edéhzhíe (larger than the final current day boundary), with most wells concentrated in the southeastern part of Edéhzhíe around Mills Lake. The results were poor and the last well was drilled in 1973.²⁶ All wells are now abandoned. There were considerable seismic surveys conducted during this same period – cutlines are still visible on the landscape today. Diamond exploration occurred in the 1980s and '90s. With the discovery of diamonds in Lac de Gras, the exploration focus shifted there.

Over the last, probably the last 50 years, we saw development creep up on Edéhzhíe, scarred up the land with cut lines. Some places you see where bulldozers have scraped the top moss off the glaciers, off these hills, and you see these major ruts. But we're hoping that it will heal itself; we hope that it'll return itself back to where it was a thousand years ago. (Herb Norwegian)

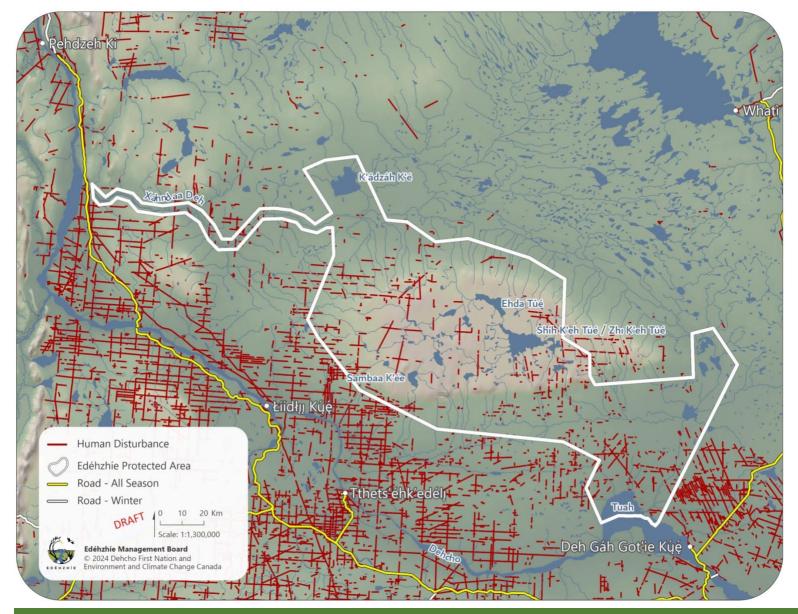
In June 2002, the Edéhzhie Candidate Protected Area (the larger study area) was put under a surface and subsurface land withdrawal, so no further exploration or development could occur while the area was being assessed and established. Areas considered to have some potential for oil and gas or mining were removed from the final boundaries of Edéhzhie.

Beyond the remnants of this historical exploration, the only other footprints on Edéhzhíe are historical trails, an old army road, and traditional use cabins. Most land users follow old cutlines and the old army road to access Edéhzhíe by snow machine (winter). It can also be accessed by boat up the Horn and Willowlake Rivers in summer. Aircraft are required to access most areas of Edéhzhíe. **Map 5** shows current areas of human disturbance in Edéhzhíe.

Because Edéhzhíe is so difficult to access, it is not expected to see considerable development or human activity in the future. As a National Wildlife Area, very few activities can occur in Edéhzhíe, and all activities other than subsistence use by the Dehcho and Tł₂chǫ Dene, require a permit and should have low footprint. Communities are concerned about keeping the number of aircraft flying to/from or over Edéhzhíe to a minimum and avoiding sensitive areas and seasons. While research and monitoring are a necessary part of management, communities want to ensure that management activities themselves are not a source of negative impacts on the health and well-being of Edéhzhíe.

²⁶ Gal, L.P. and Lariviere, J.M. 2004. Edéhzhíe Candidate Protected Area Non-Renewable Resource Assessment (Phase 1), Northwest Territories, Canada, NTS 085E-F-K-L and 095 H-I-J; C.S. Lord Northern Geoscience Centre, Yellowknife, Northwest Territories. NWT Open File 2004-01, 125 p.

Map 5. Human Disturbance in and around Edéhzhíe.



EDÉHZHÍE MANAGEMENT PLAN (DRAFT)

Alien, Invasive and Neonative Species (Species that Don't Belong Here)

Communities are noticing an increase in species in and around Edéhzhíe that they didn't used to see – magpies, pelicans, types of salmon. In the southern Dehcho, there have been deer, coyote and cougar sightings for decades. As the climate warms, southern species are ranging further north, following their ideal habitat conditions. Biologists call these "Neonative species" – animals that are shifting or expanding their range into new areas on their own. In contrast, "alien species" are those introduced into new areas by humans. "Invasive alien species" are alien species that threaten biodiversity, the economy or society. Most invasive alien species in the NWT are plants and insects²³. These new species negatively impact native species by a variety of means, such as direct predation/death (e.g. cougars, mountain pine beetle), competition (e.g. magpies), displacement (e.g. white sweet-clover taking over river shorelines) or by attracting more predators which then eat more of the native species as well (e.g. wolves attracted by deer will also kill more caribou)²⁷.

Disease (bacteria, viruses) and parasite species are also shifting their ranges northward, exposing native northern species to new health challenges²⁸. This shift can lead to increased mortality and reduced fitness in native species, which may lack immunity or resistance to these novel threats. Additionally, the spread of these pathogens can disrupt local ecosystems, alter species interactions, and threaten biodiversity in northern habitats.

The numbers, range, and spread of invasive, alien, and neonative species are not well known in the NWT. As of 2008, the GNWT knew of 106 alien plant species and 12 alien insect species ^{29.} The Northwest Territories Species Infobase lists 41 alien species (36 plants, 1 fish, 2 birds, and 2 insects) and 15 vagrant species (7 birds, 4 fish, 3 butterflies, 1 mammal) within the Taiga Plains ecoregion of the NWT³⁰, though it is likely that most fall outside of Edéhzhíe. There are no specific data for Edéhzhíe.

It is difficult to stop the spread of invasive and northward migrating species. Monitoring is key, and in some situations, removal is a possibility, though potentially expensive. Six invasive plant species were found in Thaidene Nene National Park Reserve in the summer of 2020 near a weather station at Fort Reliance. A consultant was to be hired to remove them in the summer of 2021³¹.

 ²⁷ Langor, D. W., Cameron, E. K., MacQuarrie, C. J., McBeath, A., McClay, A., Peter, B., ... & Pohl, G. R. (2014). Non-native species in Canada's boreal zone: diversity, impacts, and risk. *Environmental Reviews*, *22*(4), 372-420.
 ²⁸ Kutz, S. J., Hoberg, E. P., Nagy, J., Polley, L., & Elkin, B. (2004). "Emerging" parasitic infections in arctic ungulates.

Integrative and Comparative Biology, 44(2), 109-118.

 ²⁹ "Invaders in the Northwest Territories" (pamphlet) produced as part of a NWT Initiative funded by the Invasive Alien Species Partnership Program, Government of Canada, and the Government of the Northwest Territories.
 ³⁰ NWT Species Infobase: https://www.gov.nt.ca/species-search/

³¹ Natalie Pressman. June 18, 2021. Invasive species introduced to NWT protected area. NNSL Media.

Pollution / Contaminated Sites

Communities want to keep Edéhzhíe pristine. Unfortunately, past users have not always cleaned up after themselves to the standards expected today, especially in a protected area. Pollution and contaminants have the ability to impact water and habitat quality, and fish and wildlife directly.

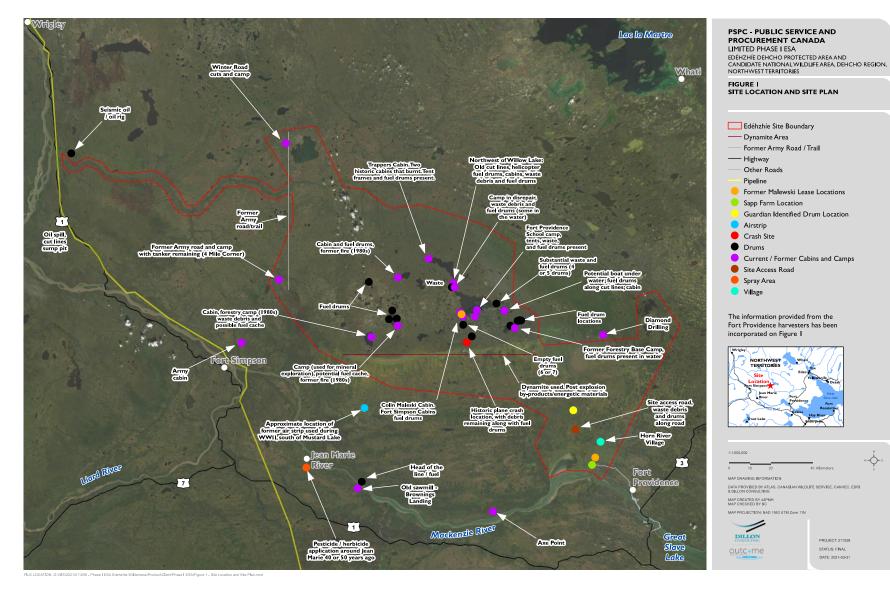
Communities report concerns with the following:

- Old fuel caches
- Abandoned cabins and infrastructure
- Abandoned historic oil and gas wells that are now degrading and seeping into the surrounding ground
- Oil slicks around Mills Lake

One thing the Elders looked at was...how we could do things for the future. And they know that there's been some impacts from things that were done upriver. They've seen since the 60's, like when I began going out on the land [with] the Elders from Thekedeli, they would be talking about some of the changes that they see with the river and also the land in the area around the river. And, one thing as an example, is that when they were making tea, they noticed that there was a certain kind of, like a scum, that was right on top of the water, along the side of the teapot. They saw, they noticed that there was something there, and right away they knew...something bad was being done that was impacting the water. And another thing is the spruce needles used to point down, and now they shrivel up and point up. And so, they see these subtle changes. (Gerry Antoine)

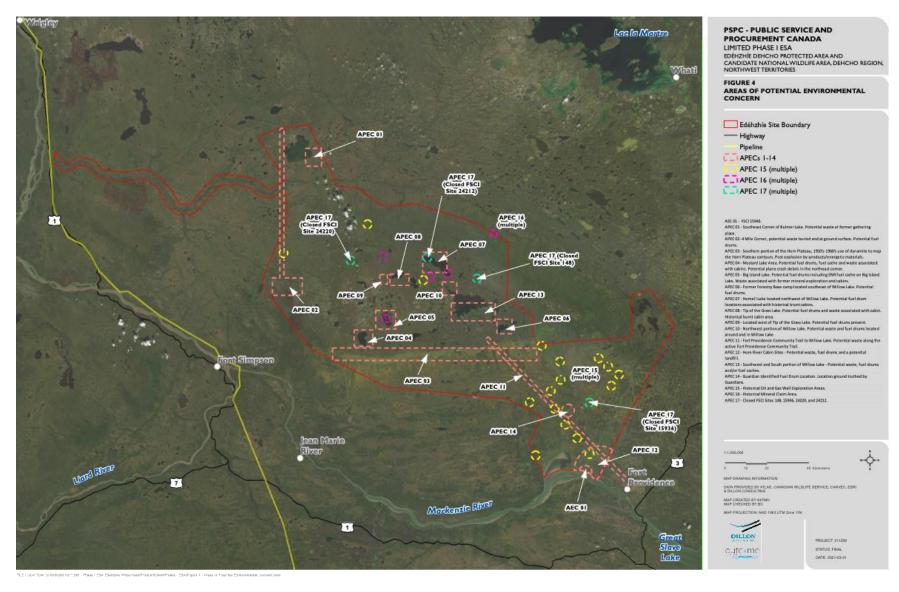
ECCC commissioned a Limited Phase 1 Environmental Site Assessment of Edéhzhíe in 2021³². The report identified 17 Areas of Potential Environmental Concern (APEC) in Edéhzhíe plus one known Area of Environmental Concern (AEC). **Map 6** shows areas of concern identified through interviews, and **Map 7** shows the resulting APECs and AEC. K'alo-Stantec, on behalf of Fisheries and Oceans Canada (DFO), completed an assessment of the DFO Mile 65.6 Range site in 2023. Small field programs will continue in 2024 with assistance from Edéhzhíe Guardians. Funding should be accessed through the Federal Contaminated Sites Action Plan (FCSAP) program in 2025-2026 and beyond to complete the clean-up of sites within Edéhzhíe over the length of this Plan.

³² Dillon Consulting. March 2021. Limited Phase 1 Environmental Site Assessment – Final, Edéhzhíe Dehcho Protected Area and Candidate National Wildlife Area, Dehcho Region, Northwest Territories. Prepared for Public Services and Procurement Canada. 447p.



Map 6. Potential Sources of Contamination in Edéhzhíe Identified through Interviews

Map 7. Areas of (Potential) Environmental Concern in Edehzhie.



Aquatic Values

Edéhzhíe contains vital aquatic habitats including the pristine source waters for three significant drainage systems in the Dehcho Region: the Willowlake, Horn, and Rabbitskin Rivers. The area's many fish lakes have long sustained the Dene and contributed to the region's rich biodiversity by supporting a variety of food webs and species for overall ecosystem health. Additionally, Edéhzhíe offers important habitats for waterfowl, with Mills Lake (designated as a "key migratory bird terrestrial habitat site" by ECCC) and other notable wetlands including Bulmer Lake, Mink Lake, the Fawn Lake complex, and the Willowlake River, all of which attract large numbers of nesting and staging birds. Key aquatic values and their current health status are listed in **Table 2**, as identified by the Parties and the EMB.

Values	Attributes	Community Assessment of Value Health ³³	Scientific Assessment
Water	Water levels	 Generally good to very good (stable) in lakes; Water is high along Horn River, low on Willowlake River 	No information available on water levels from lakes. National hydrometric data (no stations specifically for Edéhzhíe) show that Edéhzhíe is in a region of stable or slightly increasing water quantity for Canadian rivers ³⁴ .
	Water quality (surface & groundwater)	Good to Very Good – No water flows into Edéhzhíe, only out	Aboriginal Aquatic Resource and Oceans Management (AAROM) data show all indicators well below CCME guidelines for aquatic health (for applicable parameters) ³⁵ .
	Surface- Groundwater Connections	Communities noted underground connections between several lakes on Edéhzhíe.	A study of karst (from topographic maps and aerial photos) in the NWT identified a few underground rivers that require further investigation ³⁶ .
Fish	Population size	 Good Fish are always there when you need them 150-250 fish caught in a net per week 	Abundance of species has not been assessed. Indicators of relative abundance, such as catch per unit effort (CPUE) suggest that fish populations in Edéhzhíe have been historically healthy ³⁷ and remain healthy ³⁸ .

Table 2. Health of Aquatic Values in Edéhzhíe.

³³ Based on community input during Edéhzhíe Community Tour, December 2021 – May 2022.

³⁴ Environment and Climate Change Canada. 2022. Canadian Environmental Sustainability Indicators: Water Quantity in Canadian Rivers.

³⁵ Canadian Council of Ministers of the Environment. Canadian Water Quality Guidelines for the Protection of Aquatic Life.

³⁶ Derek Ford, for Environment and Natural Resources, Government of the Northwest Territories. 2009. Mapping Known and Potential Karst Areas in the Northwest Territories, Canada.

³⁷ Stewart, D.B., and G. Low. 2000. A Review of Information on Fish Stocks and Harvests in the Deh Cho Area, Northwest Territories. Department of Fisheries and Oceans. Canadian Data Report of Fisheries and Aquatic Sciences.

³⁸ Heidi Swanson, Wilfrid Laurier University, Dehcho AAROM, personal communication, June 2024

EDÉHZHÍE MANAGEMENT PLAN (DRAFT)

Values	Attributes	Community Assessment of Value Health ³³	Scientific Assessment	
	Meat Quality/ Fattiness	 Good – Very Good Gills are rosy red; Fish are round, chubby, firm Gives you a greasy chin 	Fatty acid data indicate that Lake Whitefish and Lake Trout have high levels of fatty acids ³⁹ . Fish sampled from Willow Lake in 1999 were found to be healthy based on standard condition (K) metrics ⁴⁰ .	
	Mercury/ contaminant levels	 Very Good Lows levels of mercury compared to valley, generally safe to eat 	Levels of mercury in Northern Pike are lower in Edéhzhíe lakes than in in the Norman Range or Hay River Lowlands. ⁴¹ Older data from Willow Lake also show lower levels of mercury than other lakes in the Dehcho ⁴² .	
Aquatic Birds /	Meat health / fattiness	Very Good	N/A	
Waterfowl	Abundance (how many you see/ harvest)	 Good to Very Good when present, Poor to Fair at times Concerned about change in migration path and which species are stopping. Fewer than in the past. Sometimes they fly over and don't stop. 	North American and Canadian trend analysis show waterfowl populations (and waterbirds generally) to be stable or increasing ^{43 44} . Mills Lake consistently supports large numbers (>1% of the Western Arctic populations) of Lesser Snow Geese, Greater White-fronted Geese and Tundra Swans ⁴⁵ . Species at Risk ² : Harlequin Duck, Horned Grebe, Hudsonian Godwit, Lesser Yellowlegs, Hudsonian Godwit, Red- necked Phalarope, Yellow Rail (see Table 1 for status).	
	Staging Areas (Habitat)	Good	Significant boreal wetlands in Edéhzhíe that are important staging areas include: Mills Lake, Bulmer Lake, Mink Lake, Fawn Lake complex, and the Willowlake River.	

 ³⁹ Heidi Swanson, Wilfrid Laurier University, Dehcho AAROM, personal communication, September 2022.
 ⁴⁰ Stewart, D.B., P.L. Taylor, W.E.F. Taptuna, W.L. Lockhart, C.J. Read, and G. Low. 2003. Biological Data from Experimental Fisheries at Lakes in the Deh Cho Region of the Northwest Territories, 1996-2000. Canadian Manuscript Report of Fisheries and Aquatic Sciences 1127.

⁴¹ Heidi Swanson and Mike Low. March 2022. AAROM presentation to EMB.

⁴² Stewart, D.B., P.L. Taylor, W.E.F. Taptuna, W.L. Lockhart, C.J. Read, and G. Low. 2003. Biological Data from Experimental Fisheries at Lakes in the Deh Cho Region of the Northwest Territories, 1996-2000. Canadian Manuscript Report of Fisheries and Aquatic Sciences 1127.

⁴³ North American Bird Conservation Initiative Canada. 2019. The State of Canada's Birds, 2019. Environment and Climate Change Canada, Ottawa, Canada. 12 pages.

⁴⁴ Kenneth V. Rosenberg et al., Decline of the North American avifauna. Science 366,120-124(2019).

 ⁴⁵ Latour, P. 2004. Aerial surveys of geese, swans, and shorebirds at Mills Lake, NWT during the spring and fall migration period. Canadian Wildlife Service Technical Report No. 407. Canadian Wildlife Service, Yellowknife, NT. 22 pp.

Water

Water is fundamental to the health of any ecosystem. Edéhzhíe is unique in that water only flows from Edéhzhíe, not into it, as it is a plateau. The only water coming in is from precipitation. This isolation largely insulates the water quality from external pollution and other impacts. When There are a lot of lakes on the plateau...the top is mostly muskeg. That's probably why there isn't anything flowing into it. The water flows down away from it so the water is very good there. (Jonas Antoine)

comparing lakes in Edéhzhíe to other lakes in the Dehcho across a variety of water quality factors, Edéhzhíe lakes are clearer and have lower concentrations of dissolved organic carbon (DOC, tea colour) along with lower mercury in both water and sediment⁴¹. Fish grow slower in tea-colored water due to reduced light penetration, which impacts algae growth, leading to lower prey abundance, impaired visual hunting, and can also be associated with lower oxygen levels and altered nutrient availability, further slowing their growth⁴⁶. Northern Pike, which is a fish that often has higher mercury levels because it feeds high in the food chain, grows faster in the clear (low DOC) lakes of Edéhzhíe, and therefore accumulates less mercury. Levels of mercury in Northern Pike are lower in Edéhzhíe lakes than in lakes in the Norman Range or Hay River Lowlands.⁴⁷

Water levels are equally important to sustain health. Trend analysis of data from 1970 to 2019 from Canada's hydrometric network indicates stable to minor increases in water quantity in the area around Edéhzhíe.⁴⁸ There is no water level data available specifically for lakes and rivers in Edéhzhíe. In 2023, guardians and land users reported decreasing water flow along the Willowlake River and increasing flooding (high levels) along the Horn River. Water levels are extremely low everywhere in 2024. Land users generally consider water levels in Edéhzhíe lakes to be very good (stable).

Another unique and not well understood feature of Edéhzhíe is the connection between surface and groundwater. Elder Fred Sabourin spoke often of underground connections between some of the lakes in Edéhzhíe – Mills Lake, Willow Lake, Hornell. These connections are thought to be important for fish movement and as a refuge during warm conditions.

Karst landforms, where soluble rocks dissolve allowing water to flow underground rather than on the surface, are significant for understanding regional hydrology and ecosystem dynamics. A high-level study reviewed 1:50,000 air photos and topographic maps to identify known and potential karst areas in the NWT³⁶. Although There is a lake with another lake underneath. When you talk about climate change, it's going to give us all kinds of problems. Our prophet says the caribou and Moose are going to disappear. Nick Black, his father lived to be over 100 years old. He said go over here, that's where the trout goes when it gets warm. See that mountain? There's a lake under there and the fish go there. We need to map those areas and protect them. Those areas are really important. (Joe Rabesca)

the plateau is primarily composed of insoluble shale and sandstone, the study noted two sinking streams and some small sinkholes in the region. The limitations of this desktop review, combined with local Indigenous Knowledge of sinkholes, underground rivers, and subsurface connections between

⁴⁶ Benoît, P.-O., Beisner, B. E., & Solomon, C. T. (2016). Growth rate and abundance of common fishes is negatively related to dissolved organic carbon concentration in lakes. Canadian Journal of Fisheries and Aquatic Sciences, 73(8), 1230–1236. https://doi.org/10.1139/cjfas-2015-0340.

 ⁴⁷ Heidi Swanson, Wilfrid Laurier University, Dehcho AAROM, personal communication, December 2022.
 ⁴⁸ Environment and Climate Change Canada (2022) Canadian Environmental Sustainability Indicators: Water quantity in Canadian rivers. Consulted on *August 5, 2022*.

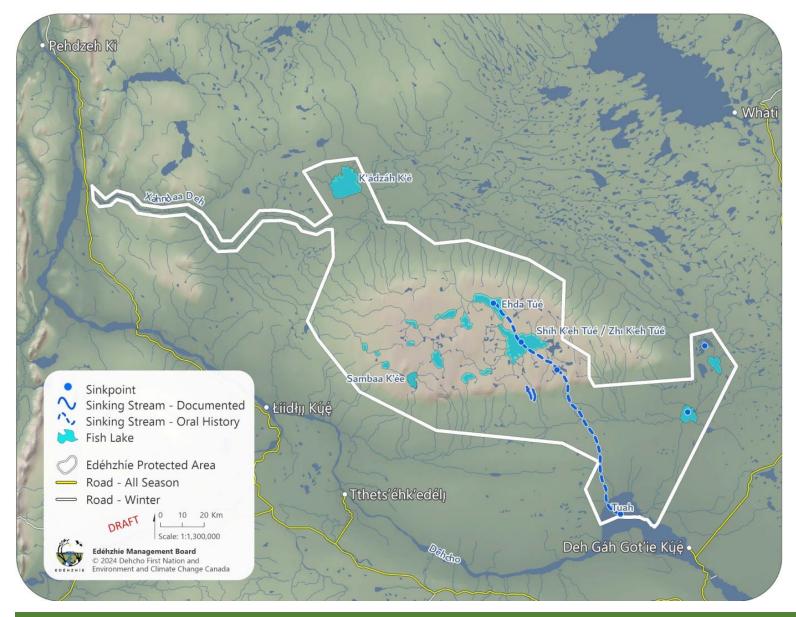
multiple lakes, highlight the need for further research, including ground exploration, to better understand the karst topography. **Map 8** shows the location of sinkholes and underground connections known to community members in Deh Gáh Got'ie Kúé (Fort Providence), as well as currently documented karst sites.

It is said that there is a hole in the Earth somewhere close to Mills Lake. It was above this hole that people lived in teepees made of logs. They set nets length wise into the hole, so the nets extended into the hole. That hole in the Earth must extend to the Plateau, because the water on the first lake on the Plateau, is like the water on the Mackenzie River, it is blue. (Fred Sabourin)

There is a lake that never freezes and the water spins. The lakes are connected underground. They tied a string to the end of the fish tail one year and the fish ended up at Willow Lake from the Mackenzie River. He said that there is underground water flow from the lakes, rivers, and ponds that flow from the Mackenzie River, Mills Lake, Jackfish Lake, Willow Lake, Bulmer Lake, to Horn River and back to the Mackenzie. That's whys it's really important not to disturb the underground for the fish. We need to protect what's above and below. (Fred Sabourin)

Threats: Climate change is the largest threat impacts on water quality and levels in northern Canada. Warming temperatures are altering precipitation patterns, permafrost melt, flow patterns, etc. which directly affect water purity and quantity.

Management Context: The pristine waters of Edéhzhíe will be managed exclusively through their protection. Since no water flows into Edéhzhíe, only out, the prevention of all surface and subsurface activities, and strictly limiting disturbances of any kind will ensure that they remain pristine. Potential disruptions from climate change and other impacts will be monitored by the Edéhzhíe Guardians in collaboration with Dehcho AAROM and other partners.



Map 8. Known and Suspected Surface to Groundwater Connections in Edéhzhíe.

EDÉHZHÍE MANAGEMENT PLAN (DRAFT)

Fish

Before the white man, this whole Edéhzhíe, a lot of people living along this Mackenzie River depended on it long ago. During fall, you couldn't get fish in this area (along Dehcho or Mackenzie River) so, there are two places that people depended on for fish... This curved lake here, that one is called Éhłetłų Túé in Slavey, it is called Double Fish Trap Lake in English. The reason why it is called that is because long ago...during the summer there are łúhaa [whitefish], saamba [trout], udaa [jackfish], ts'ét'įą [grayling] and all of them are in these two lakes. During the summer they would go up Deh Gháh Deh. This is very shallow; there are a lot of gravel bars on it. That's where they spawn, when it starts to cool down in the fall...this is a lue túé [fish lake] too, this one is a lue túé too, they would go to that lake. From here to here, long ago. (Leo Norwegian)

Twenty-four different fish species have been identified in the rivers and lakes of Edéhzhíe when they sampled in the 1980s and 1990s, mainly to assess stocks for potential commercial fishing or environmental assessments⁴⁹ (see **Table 3**). Willow Lake, the most prominent lake in the area contains important subsistence species such as lake trout, lake whitefish, burbot, northern pike, and longnose sucker, which were all assessed as healthy, both from an individual and stock perspective⁵⁰.

Common Name	Scientific Name
Lake trout	Salvelinus namaykush
Lake whitefish	Coregonus clupeaformis
Lake cisco	Coregonus artedii
Least cisco	Coregonus sardinella
Round whitefish	Prosopium cylindraceum
Mountain whitefish	Prosopium williamsoni
Inconnu	Stenodus leucichthys
Arctic grayling	Thymallus arcticus
Northern pike	Esox lucius
Walleye	Stizostedion vitreum
Burbot	Lota lota
Longnose sucker	Catostomus catostomus
White sucker	Catostomus commersoni
Lake chub	Couesius plumbeus
Flathead chub	Platygobio gracilis
Emerald shiner	Notropis atherinoides
Spottail shiner	Notropis hudsonius
Finescale dace	Chrosomus neogaeus
Northern redbelly dace	Chrosomus eos
Longnose dace	Rhynichthys cataractae
Slimy sculpin	Cottus cognatus
Trout perch	Percopsis omiscomaycus
Brook stickleback	Culea inconstans
Ninespine stickleback	Pungitius pungitius

Table 3. Species of Fish found in Edéhzhíe.

⁴⁹ Stewart, D.B., and G. Low. 2000. A Review of Information on Fish Stocks and Harvests in the Deh Cho Area, Northwest Territories. Department of Fisheries and Oceans. Canadian Manuscript Report of Fisheries and Aquatic Sciences 2549.

The way she described it was when they got to Tsarokii there was no wind but everything was so calm, peaceful, it was just like glass when they looked at the top of the lake. All of a sudden there was something cutting through that image like this [moves index finger across the air horizontally]. And all of a sudden, there were other ones that were cutting through the glass picture. And what it was that fish are beginning to make their run and it was their back fin that was piercing the glass image...People were just so excited because they timed it right. And so, it didn't take long to get things ready, to put in fish nets, and start harvesting the fish. (Gerry Antoine)

Fish health is directly linked to water health and because Edéhzhíe has such clean, cold water, the fish are also in good condition. Communities report the fish populations and quality as good to very good - fish are always there when they need them, and they are healthy (round, firm, fat) and low in mercury. Fish from Willow Lake were analyzed for mercury concentration and were mostly below the maximum mercury limit acceptable for commercial fisheries, unlike other lakes in the Dehcho Region where many samples exceeded this limit⁵⁰. More recent small-scale assessments by Dehcho AAROM support this finding⁵¹. Land users and AAROM monitors have noticed that fish from the Horn Plateau have a lot of parasites. These are not a human health problem as long as the fish are cooked, and are actually an indicator of a healthy ecosystem, but it is something that can be monitored⁵².

Threats: Climate change is the largest threat to fish species in Edéhzhíe by increasing water temperatures, which likely stresses cold-water species like trout and whitefish. It also affects water levels, oxygen levels, and disrupts aquatic food webs by affecting growth rates and plankton abundance. Additionally, warmer waters may enable the spread of invasive species, further endangering native fish populations and overall biodiversity.

Overharvesting is also a concern in the southern part of Edéhzhíe. For decades, every spring, many large Mennonite families come up from northern Alberta to fish around Deh Gáh Got'ie Kúé (Fort Providence), Tuah (Mills Lake) and K'ázhíáh Deh (Horn River). They fish up to the legal limit for all species for each member of their families, including young children. This results in a very large quantity of fish being taken out of this area every year. The community has long raised issues about this, citing concerns with over-fishing, as well as complaints about large gut piles and garbage being left behind.

Part of this area is now within Edéhzhíe, so this fishing is illegal without a NWA Permit. While the Deh Gáh Got'ie Kúé Guardians and ECCC have increased their presence and communications about these new restrictions, Deh Gáh Got'ie Kúé reports that some Mennonite families are going into the area at night when guardians are not on duty. There have also been reports of increasing conflict between the guardians, community members and Mennonite families that don't agree with or abide by the new restrictions.

Management Context: There are no current or historical commercial fisheries within Edéhzhíe. All fishing activities are exclusively carried out by the Dehcho and Tłıcho Dene communities. Due to the limited access to Edéhzhíe by land users, there is a concern that fish in the lakes may grow too old and

⁵⁰ Stewart, D.B., P.L. Taylor, W.E.F. Taptuna, W.L. Lockhart, C.J. Read, and G. Low. 2003. Biological Data from Experimental Fisheries at Lakes in the Deh Cho Region of the Northwest Territories, 1996-2000. Canadian Manuscript Report of Fisheries and Aquatic Sciences 1127.

⁵¹ Heidi Swanson and Mike Low. March 2022. AAROM presentation to EMB.

⁵² Heidi Swanson, Wilfrid Laurier University, Dehcho AAROM, personal communication, December 2022.

large, resulting in the accumulation of mercury. Consequently, strategically fishing the lakes will be deployed by the Dehcho Guardians as a method of managing and maintaining healthy fish populations.

Aquatic Birds

In Canada and across North America, the trend for wetland bird populations have shown a net increase of 13%, with waterfowl populations, specifically, increasing by 56%^{53 54}. Eighty-two aquatic bird species are either known to be or are potentially located in Edéhzhíe based on ranges⁵⁵ (**Table 4**). The most commonly sighted waterfowl species during the Edéhzhíe Environmental Assessment surveys were Scaup, Scoters, Canada Goose, Mallard, American Wigeon, and Goldeneye. Red-throated Loons, which typically breed further north, were found breeding on bog ponds near larger waterbodies. Male Barrow's Goldeneye were observed moulting on various rivers. Lesser Scaup typically breed on small ponds, while Surf Scoters are prevalent on larger waterbodies. There are seven aquatic bird Species at Risk² (see **Table 1**) that have either been identified in Edéhzhíe or overlap in expected range⁵⁵.

Mills Lake, Bulmer Lake, Mink Lake, Shaun Lake, Fawn Lake complex, and the Willowlake River are important aquatic habitats in Edéhzhíe. Mills Lake is particularly significant, supporting over 1% of the national populations of Lesser Snow Goose, Greater White-fronted Goose, and Tundra Swan, along with dozens of other wetland species⁴⁵. During migration, thousands of waterfowl congregate at Mills Lake, favoring its emergent sedge zones, the marshes and shallow aquatic vegetation beds for resting and feeding⁴⁵. In addition to being a "key migratory bird terrestrial habitat site"⁵⁶, it is also an "International Biological Program Site"⁵⁷ that has been important for duck banding since the 1960s, from which relocations by hunters have occurred in a large number of states across the US⁵⁸.

Threats: Climate change can alter traditional migration routes and timing, disrupting the birds' ability to find suitable breeding and feeding grounds. Human activities across the migratory range of species, such as habitat destruction and disturbance from infrastructure development, further hinder migration by fragmenting habitats and reducing available stopover sites. Any activity that alters water levels in the Mackenzie River will affect water levels in Mills Lake, potentially reducing its suitability to migrating waterfowl.⁵¹

Management Context: Protecting Edéhzhíe as a National Wildlife Area ensures that critical wetland habitats, which support both migratory species protected under the Migratory Birds Convention Act⁵⁹ and Species at Risk², are protected. Through permitting, the Parties and the EMB support ongoing

⁵³ North American Bird Conservation Initiative Canada. 2019. The State of Canada's Birds, 2019. Environment and Climate Change Canada, Ottawa, Canada. 12 pages.

⁵⁴ Kenneth V. Rosenberg et al., Decline of the North American avifauna. Science 366,120-124(2019).

⁵⁵ EBA Engineering Consultants Ltd. and Canadian Wildlife Service. 2006. Ecological Assessment of the Edéhzhíe Candidate Protected Area. Contributors: Ducks Unlimited Canada and Department of Environment and Natural Resources, Government of the Northwest Territories.

⁵⁶ Latour, P. B., Leger, J., Hines, J. E., Mallory, M. L., Mulders, D. L., Gilchrist, H. G., Smith, P. A., Dickson, D. L., & Gaston, A. J. 2008. Key migratory bird terrestrial habitat sites in the Northwest Territories and Nunavut 3rd ed. (Occasional Paper No. 114). Canadian Wildlife Service, Environment Canada.

⁵⁷ Beckel, D. 1975. IBP ecological sites in subarctic Canada. Panel 10 summary report, International Biological Programme. University of Lethbridge Production Service, Lethbridge. 163 pp.

⁵⁸ Cristina, N., Sobrino, C. L. F., & Todd, W. A. (2017). Distribution and derivation of dabbling duck harvests in the Pacific Flyway. *California Fish and Game*, *103*(3), 118-137.

⁵⁹ Migratory Birds Convention Act, 1994

monitoring and research to ensure that shifts in these ecosystems are detected early. The Parties and EMB will also minimize disturbance to sensitive areas through the review of permit applications, giving consideration to the timing and location of sensitive areas for aquatic birds.

Waterfowl and Wetland Birds		Shorebirds	Sea Birds
Greater White-fronted Goose	Ring-necked Duck	Black-bellied Plover	Pomarine Jaeger
Ross's Goose	Greater Scaup	American Golden-Plover	Parasitic Jaeger
Canada Goose	Lesser Scaup	Semipalmated Plover	Long-tailed Jaeger
Snow Goose	Surf Scoter	Killdeer	Bonaparte's Gull
Trumpeter Swan	White-winged Scoter	Greater Yellowlegs	Mew Gull
Tundra Swan	Long-tailed Duck	Lesser Yellowlegs	Ring-billed Gull
Gadwall	Bufflehead	Solitary Sandpiper	California Gull
American Wigeon	Common Goldeneye	Spotted Sandpiper	Herring Gull
Mallard	Barrow's Goldeneye	Whimbrel	Caspian Tern
Blue-winged Teal	Common Merganser	Hudsonian Godwit	Common Tern
Northern Shoveler	Red-breasted Merganser	Ruddy Turnstone	Arctic Tern
Northern Pintail	Ruddy Duck	Red Knot	Black Tern
Green-winged Teal	Pied-billed Grebe	Sanderling	
Canvasback	Horned Grebe	Semipalmated Sandpiper	
Redhead	Eared Grebe	Least Sandpiper	
Harlequin Duck	Red-necked Grebe	White-rumped Sandpiper	
Red-throated Loon	American Bittern	Baird's Sandpiper	
Pacific Loon	Great Blue Heron	Pectoral Sandpiper	
Common Loon	Snowy Egret	Dunlin	
Yellow-billed Loon	American Coot	Stilt Sandpiper	
Sora		Buff-breasted Sandpiper	
		Long-billed Dowitcher	
		Short-billed Dowitcher	
		Red-necked Phalarope	
		Wilson's Snipe	
		Upland Sandpiper	
		Red Phalarope	

Table 4. Species of Aquatic Birds with Ranges in Edéhzhíe⁵⁵.

Terrestrial Values

It (Edéhzhíe) was really plentiful for game, and for the moose, and for the caribou and of course there'd be wolves, so it's really good for fur bearing animals and you can live really well. The Dene that have passed are looking after that area, so that it's a breadbasket. (Elizabeth Hardisty)

There's an island that is called Médhąh Dahgódhe. It is said that this island is named that after a dance ring encircled it. Around Ehdaa Túé, that's where there is what looks like a wide trail that encircles an area that looks like someone had dug out a trail. That is what is called Médhąh Dahgódhe. [Grandmother] Etsuro used to say it is like a road had been built there. But it was created by people drum dancing. (Mary Rose Landry)

Edéhzhíe, encompassing diverse boreal forest ecosystems from early shrublands to mature coniferous forests, plays a vital role in supporting a rich array of terrestrial wildlife. The Horn Plateau, comprising mature spruce forests and regrowth areas from recent fires, has historically served as a crucial resource for Dene communities during periods of food scarcity in the Mackenzie Valley. Due to its elevation, the Horn Plateau resembles a sub-arctic forest transition zone, hosting flora and fauna typically found in higher latitudes⁵⁵. Surrounding lowlands feature a mix of conifer forests, old burns, and extensive wetlands, contributing to the area's biodiversity⁵⁵. Bog, black spruce, and fire regeneration plant communities in Edéhzhíe are found to have the highest average number of land-bird species, indicating the importance of these habitats for avian biodiversity⁵⁵.

Edéhzhíe contains a diverse mammalian community with at least 18 confirmed species and up to 36 species based on assessed ranges including a variety small mammals (vole sp., shrew sp., lemming sp., Deer Mouse, Snowshoe Hare, squirrel sp.); two species of bat (Little Brown Bat (Myotis), Northern Myotis) ungulates (Moose, Boreal Woodland Caribou population and Wood Bison) and furbearers (American Beaver, Common Porcupine, Muskrat, Coyote, Gray Wolf, Red Fox, River Otter, American Marten, Fisher, Ermine, Least Weasel, Mink, Lynx, Black Bear, and Wolverine)⁵⁵. Notably, Edéhzhíe provides critical habitat for many terrestrial at-risk species (see **Table 1**), including many land birds, Boreal Woodland Caribou, Wood Bison and Wolverine.

Table 5 provides an overview of the health of terrestrial values according to both community and scientific assessments.

Table 5. Health of Edéhzhíe's Terrestrial Values

Values	Attributes	Community Assessment ⁶⁰	Scientific Assessment	
Moose	Habitat	Good	Not assessed	
	Population Size	Very Good	Population size is unknown. Density estimates of 3.7 Moose/100km ² in areas bordering Edéhzhíe ⁶¹	
Boreal Woodland Caribou	Habitat (calving grounds, migration routes)	Good (Deh Gáh Got'ie Kų́ę́), Poor (Pehdzeh Ki) – Fire relocated many caribou but recovering (regrowth after fire).	 46.7% of Dehcho caribou range is disturbed 75% of Edéhzhíe is regrowth from past forest fires. Habitat takes a long time to recover. 	
	Population Size	Community perceptions varied: Poor (Pehdzeh Ki), Fair (Deh Gáh Got'ie Kúę, Tthets'éhk'edélı̯), Very Good (Łíídlរួ Kúę)	 Species at Risk Status: Threatened (GNWT, Federal)^{2 3}. Decline noted in Dehcho study 2004-2019, with recent increases. Generally considered stable. No data specific to Edéhzhíe. 	
	Animal Condition / Health	TBD	 Relatively disease and parasite free; Monitoring <i>Erysipelothrix rhusiopathiae</i> (bacterium) and winter ticks⁶² 	
Wood Bison - Mackenzie Population	Population Size	TBD	 Species at Risk Status: Threatened (GNWT, Federal^{2 3}) NWT General Status Rank: At Risk Current Population Size: 1,468, with 95% confidence interval of 914-2,359 (2019)⁶³ 	
	Disease Status	Not assessed	 Currently stable. Anthrax outbreaks in population in 1993, 2010, 2012; and 2023 (outside of Edéhzhíe) Free of Bovine Tuberculosis and Brucellosis 	
Furbearers	Abundance	Very Good – Furbearers move around and look after themselves	 Wolverine (SARA listed 'special concern')². Assessed indirectly through prey counts. Generally believed to be healthy. 	
Land birds (including Species at Risk)	Abundance	Poor – seeing fewer birds every year; migration path has changed	Abundance trends for land birds across Canada ⁶⁴ and North America ⁶⁵ are extremely poor, with reductions as high as 87% since the 1970s for grassland species in Canada and 80% for forest birds with wintering grounds outside of Canada. Species at Risk ² : Bank Swallow, Barn Swallow, Canada Warbler, Short-eared Owl, Peregrine Falcon, Common Nighthawk, Harris's Sparrow,	

⁶⁰ Based on community input during Edéhzhíe Community Tour, December 2021 – May 2022

⁶¹ Larter, N. (2018, July 9). Winter 2017/18 Dehcho Moose Surveys [Letter]. Wildlife Research and Monitoring, Dehcho Region, Environment and Climate Change, GNWT.

⁶² Lamontagne, È. Environment and Climate Change, GNWT. Personal Communication. May 2024

⁶³ Terry Armstrong, Bison Ecologist, ENR, GNWT, personal communication, August 22, 2022.

⁶⁴ North American Bird Conservation Initiative Canada. 2019. The State of Canada's Birds, 2019.

⁶⁵ Kenneth V. Rosenberg et al., Decline of the North American avifauna. Science 366,120-124(2019).

Values	Attributes	Community Assessment ⁶⁰	Scientific Assessment
			Olive-sided Flycatcher, Rusty Blackbird (see Table 1 for status).
Culturally Significant Areas	Documentation (location, place name, stories, use)	Very Good – DFN has mapped and recorded stories and information about significant cultural areas.	N/A
	Protection from disturbance	Very Good – No development is allowed in Edéhzhíe; this plan provides additional restrictions around these areas.	N/A

Caribou, Boreal population (Boreal Caribou)

Yes, there is a lot of caribou there [mbedzih¹, or woodland caribou], you don't see moose that often. It is on muskeg so it is good country for caribou. There is a lot of moose along the river but not out there. There is a lot of caribou out there. They live on it all winter and summer. Caribou probably migrate but there is always some on the mountain there. They live there all the time, they don't come in there from the other directions, they live there all the time. (Mary Louise Norwegian)

Places where trees didn't burn, there still some parts with live trees so there is still todzhih, woodland caribou, there is still a lot on it. Out there, the top of the plateau is known for that too, mbedzih. When people go out there in the winter, that's what they go out there for too. Places where there is ts'upegaa, ts'upegaa is clear muskeg with no trees on it...When there is an area like that when the ground starts to freeze, caribou likes to go in there so people would look in those areas for mbedzih. (Jonas Antoine)

At the same time (around 1948) too they were out there hunting and people from the other side from the barren land moved in to where nódi (barren-ground caribou) were. They were lucky, they went out there to harvest fish but there wasn't any. Instead nódi came in that area from the other side. It was good the next three years from then for nódi. It is like that, nódi move in that area from the other side too. It is like that but since years ago, about ten years ago there were forest fires two years in a row and it burned pretty good out there on top of the plateau. The reason why nódi go there was to feed because they had plenty of food there. It all burned so I don't know when they will come back into that area. (Jonas Antoine)

Caribou hold profound cultural and ecological significance for Dene, representing not just a critical food source but also a cornerstone of their spiritual and cultural identity. The relationship between the Dehcho Dene and caribou exemplifies a deep connection to the land, emphasizing stewardship and respect for natural resources.

Caribou, Boreal population (hearafter referred to as Boreal Caribou) are listed as 'threatened' under both federal² and territorial legislation³. Dehcho-specific IK and scientific assessments provide mixed results for Boreal Caribou population trends, ranging from stable or increasing (Fort Simpson), to slowly declining (Fort Providence), depending on the area and period examined. **Table 6** describes community observations from a traditional knowledge study conducted by DFN in 2011.⁶⁶ A long-term study of Boreal Caribou populations in the Dehcho region show an overall decline in the population from 2005-2019, though the population has been increasing in recent years (see **Figure 2**)⁶⁷. However, there are no Edéhzhíe-specific data available on caribou, as biologists have respected previous community wishes to not collar caribou within the area.

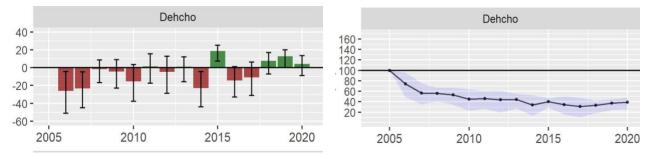
Area	Population Level	Population Trend	Group Size
Wrigley Area	Moderate to high throughout most of the area; strongest population is to the east of the Franklin Mountains	Stable in most areas, except in the corridor between the Mackenzie River and Franklin Mountains where there was some decline	Group sizes of 6-7 animals were common in fall and early winter; up to 30-40 animals not uncommon in late winter, especially east of the Franklin Mountains.
Fort Simpson area	Moderate; certain areas (Edéhzhíe; lowlands and foothills around Sibbeston Lake) had relatively strong populations	Stable	Group sizes of 5-7 animals were not uncommon; groups of up to 17-19 observed in mid to late winter
Fort Providence area	Edéhzhíe population remained the strongest in the area	Slowly declining, likely due to wildfires, expansion of wood bison and increased sensory disturbance; decline was most noticeable south and southeast of Edéhzhíe, north of Mackenzie River, and in and around the Mackenzie Wood Bison Sanctuary	Groups of 2-3 animals were common at the time of the study; larger groups were more common in the past but less common today.

Table 6. Observations of Boreal Caribou Population Level, Trend and Group Size.

EDÉHZHÍE MANAGEMENT PLAN (DRAFT)

⁶⁶ Extracted from Table 5 of: Species at Risk Committee. 2022. Species Status Report for Boreal Caribou (*Rangifer tarandus caribou*) in the Northwest Territories. Species at Risk Committee, Yellowknife, NT, which summarized results from: Dehcho First Nations 2011.Traditional Knowledge Assessment of Boreal Caribou (Mbedzih) in the Dehcho Region. Prepared for the Canadian Wildlife Service. Dehcho First Nations, Fort Simpson, NT. 49 pp.
⁶⁷ Species at Risk Committee. 2022. Species Status Report for Boreal Caribou (*Rangifer tarandus caribou*) in the Northwest Territories. Species at Risk Committee, Yellowknife, NT.

Figure 2. Percent Population Change in Boreal Caribou Since Previous Year (left) and Percent of Initial Population Size of Boreal Caribou (right)



Boreal caribou inhabit the boreal forest, moving to find suitable food and calving habitats while avoiding predators. They primarily feed on lichen, sedge, and grasses, with lichen availability being vital for their habitat⁶⁸ and depend on lichen-dominated black spruce forests, which cover 22% of Edéhzhíe⁶⁹. Biologists have determined that for Boreal Caribou populations to be self-sustaining, they need 65% of their range to be undisturbed habitat⁶⁸.

Boreal Woodland Caribou are highly sensitive to changes in their habitat, the most important of which are areas burned in the last 40 years, and human disturbance (clearing land)⁶⁷. Communities and available data suggest that approximately 75% of Edéhzhíe has burned, though some of these burns are now over 40 years old and have recovered sufficiently for caribou to return. **Map 9** shows caribou habitat selection. The higher the value, the higher the preference by caribou. Levels 7 and higher are considered preferred habitat.

Threats: A key threat to caribou abundance in Edéhzhíe is predation by wolves. According to Environment and Climate Change (ECC, GNWT) investigations into caribou deaths in the broader Dehcho region from 2004 to 2019, of the 80 collared caribou studied, 62% were lost to wolf predation⁷⁰, highlighting its significant impact on caribou populations, though specific data on wolf or caribou numbers within Edéhzhíe are lacking. Other threats include overharvesting, human disturbance, fire-induced habitat loss, and disease. Dehcho Boreal Caribou are relatively disease and parasite free, though biologists are monitoring caribou for *Erysipelothrix rhusiopathiae* (bacterium) and winter ticks, which could become a problem in the future⁷¹. Although fire disturbance initially benefits caribou by providing foraging opportunities in regenerating areas, full habitat recovery, particularly for ground lichens crucial to caribou diet, can take several decades, underscoring the importance of careful management and conservation efforts in the region⁷².

⁶⁸ Environment and Climate Change Canada. 2020. Amended Recovery Strategy for the Woodland Caribou (*Rangifer tarandus caribou*), Boreal Population, in Canada. Species at Risk Act Recovery Strategy Series. Environment and Climate Change Canada, Ottawa. xiii + 143pp

⁶⁹ EBA Engineering Consultants Ltd. and Canadian Wildlife Service. 2006. Ecological Assessment of the Edéhzhíe Candidate Protected Area. Contributors: Ducks Unlimited Canada and Department of Environment and Natural Resources, Government of the Northwest Territories

⁷⁰ Larter, N.C., Allaire, D.G., Fournier, B.J., and E. Lamontagne. 2019. Dehcho Boreal Caribou Study, Progress Report, April 2019. Environment and Natural Resources, Government of the Northwest Territories.

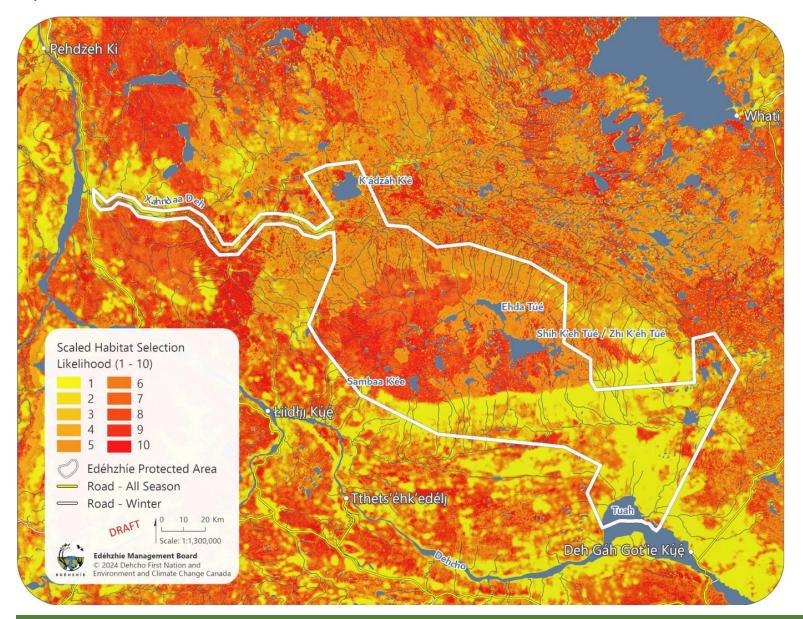
⁷¹ Lamontagne, È. Environment and Climate Change, GNWT. Personal Communication. May 2024.

⁷² Baltzer, J. 2022. Impacts of Fire on Woodland and Barren-Ground Caribou Habitat. NWT Environmental Research Bulletin, Vol. 7, Issue 35.

Management Context: As a "threatened" Species at Risk, ECCC has a requirement to identify and protect Boreal Caribou and their habitat. The GNWT is leading the development of regional Boreal Caribou range plans across the NWT. Protecting 65% of their range is the target set out by the federal Recovery Strategy⁷³. The SNWT Boreal Caribou Range Planning Working Group are currently developing the range plan for Boreal Caribou in the area covering Edéhzhíe and are making recommendations for habitat protection and management as per the requirements under the federal *Species at Risk Act*². As a Protected Area, Edéhzhíe will provide the highest level of protection in the Range Plan, therefore aligning with the plan's goals and objectives. The Parties also recognise that maintaining undisturbed habitat is crucial for the survival of Boreal Caribou and have prioritized keeping human disturbance (both ground and aerial) levels low, a key consideration when reviewing permit applications.

⁷³ Environment Canada. 2012. Recovery Strategy for the Woodland Caribou (*Rangifer tarandus caribou*), Boreal population, in Canada. *Species at Risk Act* Recovery Strategy Series. Environment Canada, Ottawa. xi + 138pp.

Map 9. Boreal Caribou Habitat Selection



EDÉHZHÍE MANAGEMENT PLAN (DRAFT)

Wood Bison

Wood Bison are recognized as 'threatened' at both federal and territorial levels. In 1963, 18 Wood Bison were released northeast of Fort Providence, to create what is now the Mackenzie population. The population expanded to a peak of 2,400 animals in 1989, then fluctuated between 1,800 and 2,000 animals for the next 10 years, after which it steadily declined⁷⁴. In 2012, 450 animals died from anthrax, which dropped the population down to 706 animals. The herd has been slowly rebounding since then. As of 2019, the herd is estimated at 1,468 animals, with a 95% confidence interval range of 914-2,359 animals⁷⁵. The population is trending up and may soon be downgraded (federally) to 'special concern'⁷⁶.

One concern raised by the EMB and the Parties is that bison are moving further up the Horn Plateau. There is concern that bison scare the caribou away, or attract more wolves into the area, increasing predation in addition to potentially transmitting disease. The Parties want to restrict bison encroachment onto the plateau.

The Mackenzie herd is managed by the GNWT with the assistance of the Mackenzie Bison Working Group, which is made up of members from the communities that harvest Mackenzie Bison, agencies with management authority for the population, and those whose land use areas include part of its range. The Working Group created the Mackenzie Bison Management Plan (MBMP) with the goal of managing the Mackenzie bison population to sustain its long-term viability while providing for social, economic and cultural connections to people. The MBMP includes a quota and tag system to manage bison harvests, with total harvest levels tied to population size and trend, as shown in **Table 7** below, (modified from the MBMP⁷⁷ as harvesting in Edéhzhíe is restricted to Indigenous harvesters).

Population Total Take as a Percentage of Sexes to be Harvested by Hunting Herd Size¹ Size Cohort Over 2,000 3-5% Either sex 1,500-2,000 2-3% Either sex 1.000-1.500 1-3% **Bulls only** Under 1,000 No harvesting² or 0-<1% Bulls only for cultural events²

Table 7. Harvest plan for the Mackenzie Bison population.

1. If in decline, use lower end of the range, and if increasing, use upper end of the range.

2. Harvest some male bison under a permit in Fort Providence for cultural events or if they have become a problem in the community.

Threats: In addition to Anthrax, Bovine Tuberculosis and Brucellosis are a major issue for Wood Bison in Wood Buffalo National Park and the Slave River Lowlands. However, the Mackenzie population is isolated from these populations and is considered to be free of these diseases. The GNWT established a Bison Control Area between them, to ensure the populations remain separated and protect the disease-

⁷⁴ Gates, C.C., N.C. Larter and P.E. Komers. 1991. Size and composition of the Mackenzie wood bison population in 1989. Environment and Natural Resources. File report 93. 29pp.

⁷⁵ Terry Armstrong, Bison Ecologist, ENR, GNWT, personal communication, August 22, 2022.

⁷⁶ Lindsay Armer, Canadian Wildlife Serve, Canada, personal communication, December 7, 2022.

⁷⁷ Mackenzie Bison Working Group. 2018. Mackenzie Bison Management Plan, File Report No. 151, Government of the Northwest Territories.

free status of the Mackenzie population. Anthrax outbreaks have periodically occurred in the Mackenzie Population, in 1993 (172 deaths) and again in 2012 (450 deaths). Biologists continually monitor the population for presence of these diseases. In 2023 an Anthrax outbreak occurred in the Slave River Lowlands Bison Population and within Wood Buffalo National Park, but the outbreak did not spread to the Mackenzie Bison Herd. Bison have also been impacted by drowning in the past; 177 bison drowned in Falaise Lake in 1989 out of an estimated population of 2,400⁷⁸.

Management Context: The key considerations for Wood Bison are managing harvest and disease. ECC and the Mackenzie Bison Working Group manage the herd and threats to it and will continue to do so in Edéhzhíe. ECCC, Deh Gah Gotie First Nation and Fort Providence Metis sit on the Working Group, so this provides an opportunity for the Parties and EMB to bring forward any Edéhzhíe-specific considerations, and a means to implement the direction of the Working Group within Edéhzhíe.

Moose

Aerial surveys conducted in March 2002 and 2003 identified key areas of Moose habitat within Edéhzhíe⁷⁹. They were observed predominantly along the southern escarpment of the Horn Plateau, the flats below this escarpment (specifically the Rabbitskin River area), and the gradually sloping northwestern portion of Edéhzhíe. These findings align with traditional knowledge from Dehcho communities, emphasizing Moose distribution during winter, whereas throughout the year, Moose are reported to be scattered across Edéhzhíe, with higher concentrations noted around Mink Lake and Fawn Lake along the Horn River and north of Mills Lake. Moose densities in the Dehcho (Mackenzie River Valley) were estimated at 3.7 Moose per 100 km² during the 2017-18 period⁸⁰ with indications from 2022 surveys suggesting either a slight decline or stabilization in demographic trends since 2008-2009⁸¹. Moose populations in the NWT are generally understudied and there is currently no modern population status available (abundance survey)⁸²; thus, monitoring Moose population in Edéhzhíe should be a high priority.

Threats: Moose populations are threatened by wolf predation; over-harvesting; loss of habitat due to climate change and wildfires; and winter ticks and diseases such as brainworm and brucellosis, which are exacerbated by climate change.

Management context: Edéhzhíe provides undisturbed, continuous habitat and a refuge from human activities and non-Indigenous hunting. This protection provides reassurance alongside the fact that Dehcho communities are not overly concerned with the health of Moose populations in the NWT⁸³; however, given their importance to food security for Dene people, it is necessary to monitor Moose populations and determine a baseline for the quality of Moose habitat in Edéhzhíe. Additionally, a large-

⁷⁸ Gates, C.C., N.C. Larter and P.E. Komers. 1991. Size and composition of the Mackenzie wood bison population in 1989. Environment and Natural Resources. File report 93. 29pp.

⁷⁹ EBA Engineering Consultants Ltd. and Canadian Wildlife Service. 2006. Ecological Assessment of the Edéhzhíe Candidate Protected Area. Contributors: Ducks Unlimited Canada and Department of Environment and Natural Resources, Government of the Northwest Territories

⁸⁰ Larter, N. (2018, July 9). Winter 2017/18 Dehcho Moose Surveys [Letter]. Wildlife Research and Monitoring, Dehcho Region, Environment and Climate Change, GNWT.

 ⁸¹ Lamontagne, È., & Gast, M. (2022). Report on the 2022 Small Scale Moose Survey in the Dehcho Region: November 1-6, 2022. Wildlife Research and Monitoring, Dehcho Region, Environment and Climate Change, GNWT.
 ⁸² Lamontagne, È. Environment and Climate Change, GNWT. Personal Communication. May 2024.

 ⁸³ Based on community input during Edéhzhíe Community Tour, December 2021 – May 2022

scale survey to get a proper population estimate of the Dehcho area and assess trends in population numbers, along with more regular Moose surveys would help in understanding these trends over time.

Land Birds

There is a total of 118 species of land birds that have ranges within Edéhzhíe⁸⁴ (see **Table 8** below). The most common forest bird species observed during surveys conducted in 2002 and 2003 included the White-crowned Sparrow, Swainson's Thrush, and American Tree Sparrow. Willow Ptarmigan were found nesting on the Horn Plateau in habitats resembling tundra regions, which is significantly south of their typical range. Eighteen raptor species have expected ranges in Edéhzhíe and many were confirmed including the Short-eared Owl (a species of 'special concern')^{2 84}.

Across North America, forest biomes have experienced large reductions in bird species⁸⁵, with an estimated cumulative reduction of 80% of Canada's forest birds that winter outside the country⁸⁶. For instance, the Canada Warbler is a songbird species that will be protected in Edéhzhíe⁸⁴; however it winters in an area of South America, where it is at risk because much of the native forest has been cleared⁸⁶. Grassland bird species are the most threatened in Canada, with overall 87% decline in abundance since the 1970s, largely due to agriculture activities and climate change⁸⁶.

Threats: Land birds face multiple threats including: habitat loss across migratory ranges from agriculture and urbanization; pesticides and pollutants affecting health; predation; disease; and invasive species competition. Climate change also poses significant threats by altering their habitats and food sources, as well as shifting weather patterns and disrupting their migration and nesting cycles. Dehcho community members have noticed fewer birds in recent years and speculate that migratory birds are increasingly arriving later than the spring flush of insects, leading to a decline in the food source needed to sustain their nestlings⁸⁷.

Management context: As a National Wildlife Area, Edéhzhíe will protect critical habitat for land birds, including migratory species protected by the Migratory Birds Convention Act⁸⁸, and species listed under Schedule 1 of the Species at Risk Act². Birds are excellent indicators of environmental health due to their use of diverse habitats and sensitivity to changes and can signal ecological shifts affecting entire ecosystems. The ability to monitor many species of over vast areas with the aid of technologies like remote sensing and Acoustic Receiving Units (ARUs) is crucial. Monitoring the biodiversity of bird species in Edéhzhíe to detect early ecosystem shifts is a high priority of this Management Plan and will be supported through partnership with the Edéhzhíe Guardians.

⁸⁴ EBA Engineering Consultants Ltd. and Canadian Wildlife Service. 2006. Ecological Assessment of the Edéhzhíe Candidate Protected Area. Contributors: Ducks Unlimited Canada and Department of Environment and Natural Resources, Government of the Northwest Territories.

⁸⁵ Kenneth V. Rosenberg et al., Decline of the North American avifauna. Science 366,120-124(2019).

⁸⁶ North American Bird Conservation Initiative Canada. 2019. The State of Canada's Birds, 2019. Environment and Climate Change Canada, Ottawa, Canada. 12 pages.

⁸⁷ Based on community input during Edéhzhíe Community Tour, December 2021 – May 2022.

⁸⁸ <u>Migratory Birds Convention Act, 1994</u>.

Table 8. Species of Land Birds with Ranges in Edéhzhíe

Forest E	Birds of Prey	Grassland Birds	
Common Nighthawk	Mountain Bluebird	Great Horned Owl	Sandhill Crane
Rufous Hummingbird	Gray-cheeked Thrush	Snowy Owl	Ruffed Grouse
Belted Kingfisher	Swainson's Thrush	Northern Hawk Owl	Spruce Grouse
Yellow-bellied Sapsucker	Hermit Thrush	Great Gray Owl	Rock Ptarmigan
Downy Woodpecker	American Robin	Short-eared Owl	Willow Ptarmigan
Hairy Woodpecker	Varied Thrush	Boreal Owl	Sharp-tailed Grouse
American Three-toed Woodpecker	European Starling	Northern Harrier	
Black-backed Woodpecker	American Pipit	Sharp-shinned Hawk	
Northern Flicker	Bohemian Waxwing	Northern Goshawk	
Pileated Woodpecker	Tennessee Warbler	Red-tailed Hawk	
Olive-sided Flycatcher	Orange-crowned Warbler	Rough-legged Hawk	
Western Wood-Pewee	Yellow Warbler	Golden Eagle	
Yellow-bellied Flycatcher	Magnolia Warbler	American Kestrel	
Alder Flycatcher	Cape May Warbler	Merlin	
Least Flycatcher	Yellow-rumped Warbler	Gyrfalcon	
Eastern Phoebe	Palm Warbler	Peregrine Falcon	
Say's Phoebe	Bay-breasted Warbler	Bald Eagle	
Western Kingbird	Blackpoll Warbler	Osprey	
Eastern Kingbird	Black-and-white Warbler		
Northern Shrike	American Redstart		
Blue-headed Vireo	Ovenbird		
Warbling Vireo	Northern Waterthrush		
Red-eyed Vireo	Common Yellowthroat		
Gray Jay	Wilson's Warbler		
Black-billed Magpie	Canada Warbler		
American Crow	Western Tanager		
Common Raven	American Tree Sparrow		
Horned Lark	Chipping Sparrow		
Tree Swallow	Clay-colored Sparrow		
Bank Swallow	Savannah Sparrow		
Cliff Swallow	Le Conte's Sparrow		
Barn Swallow	Nelson's Sharp-tailed Sparrow		
Black-capped Chickadee	Fox Sparrow		
Boreal Chickadee	Song Sparrow		
Pine Siskin	White-crowned Sparrow		
Dark-eyed Junco	Lincoln's Sparrow		
Lapland Longspur	Swamp Sparrow		
Smith's Longspur	White-throated Sparrow		
Snow Bunting	Harris's Sparrow		
Rose-breasted Grosbeak	Pine Grosbeak		
Red-winged Blackbird	Rusty Blackbird		
Yellow-headed Blackbird	Common Grackle		
Red-breasted Nuthatch	Brown-headed Cowbird		
Winter Wren	Red Crossbill		
Marsh Wren	White-winged Crossbill		
Purple Finch	Common Redpoll		
Ruby-crowned Kinglet	Hoary Redpoll		

Furbearers

The furbearers in this context refers to all carnivorous mammal species in the NWT (excluding bears). Their populations are believed to be healthy in Edéhzhíe, though they go through cycles and populations will vary widely from one extreme to the other. One exception is the Wolverine, which is a species of "special concern"² though its population is increasing in the NWT and the risk is thought to be due to loss of habitat in the southern parts of its range⁸⁹. The GNWT monitors the health of furbearers indirectly through surveys of small mammals (voles, mice, shrews, lemmings) and hares as they are prey for many furbearers and a good indicator of ecosystem health generally⁹⁰. Catch per unit effort data collected from trappers across the NWT also indicates that furbearer populations are stable, though no data is available directly from Edéhzhíe⁹¹.

Threats: Fire is a major determinant of furbearer health and abundance in Edéhzhíe. Another factor is climate change. Small mammals (prey for furbearers) are affected by vegetation quality, weather and droughts. Regrowth after fires can shift forest composition from conifer to proportionally more deciduous, which may affect prey base. The GNWT is also monitoring small mammals for pathogens coming from the south⁹¹, which could threaten furbearer species.

Management Context: Wolves are a key furbearer of concern. Wolf predation is a major cause of mortality in caribou and Moose populations. There are some indications of seeing more wolves, but data are limited partly due to the unfeasibility of den surveys in boreal forests and a lack of support for collaring⁹¹. Current research in the Dehcho targets information gaps about wolves in areas with higher amounts of human disturbance, and different prey communities to estimate the relative importance of wolf predation on Boreal Caribou, Moose, and Wood Bison in the southern NWT. This will be useful to expand our understanding of the relationships between wolves, caribou, and industrial developments⁹².

⁸⁹ COSEWIC. 2014. COSEWIC assessment and status report on the Wolverine *Gulo gulo* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xi + 76 pp.

⁹⁰ NWT Small Mammal and Hare Update 2022. (2022). [Poster]. Environment and Climate Change. GNWT

⁹¹ Lamontagne, È. Environment and Climate Change, GNWT. Personal Communication. May 2024.

⁹² Lamontagne, È. (2020, June 26). Dehcho wolf monitoring winter 2020: population survey [Letter]. Wildlife Research and Monitoring, Dehcho Region, Environment and Climate Change, GNWT.

The main furbearers are marten – some years there are a lot in different locations. Some years they migrate to different areas in Edéhzhíe – depends on food – squirrels, mice, berries – they determine where the marten go. There are mink, beavers, not so many lynx. Marten is there to keep things in balance.

Eighty percent (80%) of Edéhzhíe has burned at one time or another. Marten live in little knolls and many of those burned out. Numbers dwindled because their habitat burned. So fire has a lot to do with balance up there. Lots of willow, poplar, birch coming back – used to be spruce forest. Different type of animals are coming now because the habitat has changed. You see a lot of rabbit moving back in. Lynx are coming up on the plateau – never used to see that before. Fire changed the balance on how everything lived up there. Fire changed the water in fish lakes – ash and spruce needles ended up in the water. Fish would eat that and it killed them. In the next 20-30 years we'll see a totally different landscape.

Most green areas are northeast – Hay Lake, Island Lake and Burnt Lake. That's where the marten moved to. They'll be in the green areas. Mice are there, berries, so marten are there. This time of year when snow is deep, the good places for them to move around are below the snow, against the ground. Some years there have been nothing. But you move 20 km and they are there. Next year you go back there and there's nothing. They are constantly moving around.

You see the beavers there. Lowlands got populated so they moved on top of the Horn. The beaver here in the valley is sweet as they eat poplar or birch. The beaver on the Horn is different – tastes like pine or spruce. Haven't seen much muskrat up there. You see some push-ups in spring, but not many. Some mink/otter up there.

Lots of wolves. They live with the herds of caribou. They corral the caribou. Wolverine will follow the caribou and wolves too, to get the leftovers from the wolves. Coyotes are there too. If the wolves make a kill, everyone eats. That's how the balance works.

Fresh snow is like a barometer – it tells you what's out there. As you climb the foothills, if you see lots of tracks, you know it'll be a good year for furbearers.

Furbearers are always healthy as they move around. What hurts them is fire. If a fire goes thru in summer, all the marten, fox go into the burn area right after to eat the burned rodents. If they find something large, they bury it for winter. (Herb Norwegian)

Significant Cultural Areas

Dzibú Ts'u Shíh: There was one person long ago before móla...they started calling him Dzibú in Slavey recently but that's not what he was called long ago. It was something different. He used to be some kind of a boss for the people. Long ago he would go out there with the people every winter, one day he got very sick. He said that was the end of him, he said if there wasn't any source of food......he must have been a ndátee (dreamer) but he would send animals to people, people depended on him. He was a strong ndátęę. He said if anything was to happen to him...there is a little spruce ridge around here somewhere, the size of the area was about from here (band office) to the church, it is just like this. They call that Dzibú Ts'u Shíh. That's where he wanted to be buried. He passed away here, and they pulled him this way with a sled. They buried him where he wanted to be buried. Until today...the last time I was there, was the summer of 1966, there was a lot of trails going to the grave and that was all caribou trails. You can still see his grave today. It is somewhere around here, they call it Dzibú Ts'u Shíh. There is never a shortage of caribou on it, in the winter, summer. That's where a very important persons' burial site is. I went out there with my dad when I was young, when we were close to it he said Dzibú wanted any person that went near that place to do an offering of fat in the fire and my dad would do that long ago. When my father did that he would shoot caribou at least two days after. It is still like that today. That area, my grandfather, my dad, uncle Mustard, they all respected that area very much, they call it Dzibú Ts'u Shíh. It is not right by the shore, it is a distance from the shore. You can see it when you are going in that direction but it cannot be seen from the other side. You can see long ways from on top of it, that's why he wanted to be buried there. That's where a very important person's grave is, here. (Leo Norwegian)

Significant Cultural Areas refer to:

- Sites with cultural or spiritual significance to the Dehcho Dene, such as sacred sites, cultural sites, burial sites, historical sites (as illustrated in the story above);
- Areas of frequent use and/or occupancy such as camps, cabins, trails, important berry/medicine/plant harvesting areas, traplines, fish lakes, key harvesting areas; and
- Sites with Dene place names, that tell of the history or significance of the place, or how it was used by the Dene

One place is called Mustard Lake in English. The reason why it is called that was because my grandfather's older brother, Etali is what we call him in slavey but I don't know when they gave him the English name Mustard. He used to come inland from the river to the lake and live in that area and set fish hooks for sambaa, that was the reason why they started calling the lake Mustard Lake but it is called Sambaa K'ée in slavey. On the other side of the lake, when you look at it from the other side you will see a big point going out right in the middle of the lake, a long point that goes out, that one has a name too, it is called Sambaa Ehda, Trout Point. People used to set fish hook for trout there long ago. It was said people used to catch very big fish there long ago. The fish were so big that they couldn't pull it out with the line they are using. They had to use string at the end of a big pole to take them out. That's how big fish they took out. There is a story about how they took fish out long ago. Etali, my grandfather's old brother, his was called Mustard, it was said he used to catch them too long ago. (Jonas Antoine)

When considering these areas as physical values, what is most important is that their locations and significance are known and documented, and that the sites themselves are protected and respected.

Documentation

Considerable work has been done to document significant cultural areas within Edéhzhíe, and the stories related to them. The most important sources are:

- DFN's Traditional Land Use and Occupancy Study (1996-2002), and
- Edéhzhíe Oral History Project completed by Cross Current Associates (2005)

The GNWT, Department of Education, Culture and Employment also maintains a database of archaeological sites in the NWT, with some sites located in Edéhzhíe.

While there is always more that can be done, there is a good library of stories, locations and place names documented for Edéhzhíe. Most of this information is considered confidential and cannot be reproduced here. However, it was used to develop **Map 10** in Appendix C, which outlines sensitive areas containing Significant Cultural Values where restrictions or additional conditions may be placed on permit applications to protect the cultural values near proposed activities.

Protection

Edéhzhíe is a protected area, so most activities that could disturb Significant Cultural Areas are already prohibited. However, there are activities necessary to manage a protected area that could disturb sites, including research and monitoring, or the construction and maintenance of trails and cabins. Subsistence use is allowed and encouraged within Edéhzhíe. Some culturally significant areas have special protocols when in the area, such as in the story above about Dzibú Ts'u Shíh. Some areas should not be used for harvesting or research. Key sites are captured in **Map 10** and will be used to avoid impacts. The Traditional Land Use and Harvesting Protocol describes protocols for Dene land users to respect the land and significant sites. Other direction will be provided by Community Coordinators.

Threats: The physical threats to significant cultural sites are similar to those affecting wildlife habitat: climate change, human disturbance, fire, flooding, thawing permafrost, erosion, change in vegetation, and direct disturbance can all impact or erase signs of significant cultural sites on the landscape. They can also be lost if they become overgrown, and remnants or artefacts are no longer visible. Site documentation and regular monitoring is essential to maintain the integrity of known sites.

Cultural Values (Dene Ahthít'e)

Our Elders have always said this is our land...We need to protect it, we need to look after it. It's for our future generation, we need to let our kids know that this is our land, this is what we do as Dene people. We live off the land.... We need to look after our land. (Theresa Bonnetrouge)

People lived there all winter to trap. Back then, people didn't pack traps around, they only used dead fall traps made of logs. That is the only type of traps they used, not like the traps used today. My dad used to make sticks that are this long and other lengths about this long [gestures with hands]. My dad would split some of these sticks and tie pieces of fish between it. We used to ask, "Dad why are you doing this?" He used to smile at us and say, "That is my trap." I followed him and saw what he did with it and that's how I learned about it. (Angus Ekenale)

Table 9 lists the key cultural values and attributes for management of Edéhzhíe.

Values	Attributes	
Dehcho Dene	Has healthy relationship with the land and self; practicing Dene Ahthít'e	
Knowledge of Culture,	Level of cultural knowledge, stories, language, place names, and way of life	
Language, History and	relevant to Edéhzhíe	
Way of Life	Transmission of knowledge etc. to future generations	
Use and Occupancy Level of use and occupancy (# of users, new vs ongoing users, time		
in Edéhzhíe, seasons of use, nature of use)		
	Nature of use (harvesting, monitoring, On The Land (OTL) programming,	
	occupying/residency, research, guiding, building, etc.)	

Table 9. Cultural Values and Attributes.

Dehcho Dene

Because this is our homeland and only the Indigenous People can make that claim, you cannot ever say you are lost. (Sam Gargan)

The Dene are a part of Edéhzhíe. When identifying key values to protect in Edéhzhíe, we must start with the people. It is often said, "If you look after the land, the land looks after you." This speaks to the strong relationship between the Dene and Edéhzhíe. For people to be healthy, their connection to the land must be healthy, as that is the source of their identity. When the Dene are not healthy, they turn to the land to heal, to reconnect with the land and themselves.

If it gets difficult for them in the community, the Land is there for them. A person could go there and go through the healing process and make themselves better in this way. (Jim Thom)

Having these kinds of people [Elders] in my life in Edéhzhíe and knowing the knowledge... makes me who I am today. (Audry Landry)

The health of the Dehcho Dene is an individual assessment. Some people are very healthy, while others face difficulties. Even healthy people may have periods of trouble. There is always a need to strengthen the relationship between the Dene and the land and to help people lead healthy lives.

Knowledge of Culture, Language, History and Way of Life

There's a story. A community would split into smaller groups to survive the winter. Before they would split, they would sing a song to survive. I asked my mom and auntie about the song. They said "It's around." I asked for more details so I could learn it to pass it down. My mom said, "if you have a question, ask it and let it go. Then be patient and you will get the answer somehow." The first person that came by after that, said they were walking in the bush and a song came to them and they learned the song. Another person heard drumming in the middle of nowhere in the bush - a drum song. It scared him. Another one came and said he heard a song. He was paddling on the lake, so paddled slowly and found the location where the song was coming from, and it was a little rock that was singing. Even though our Elders have passed without giving us their knowledge, we can still retrieve what they have. This shows the importance of knowing the language. If you don't know the language, you miss the boat. Our ancestors had ways of knowing. Sometimes it's hard to explain. My dad used to say "hear it, don't question it, just be fine with it, and eventually you will experience it." (Margaret Ireland)

Knowledge of culture, language, history and the Dene way of life is what it means to be Dene. Without this knowledge, the connection to the land and culture is lost. Elders are the keepers of this knowledge, gained through their own lived experience and stories and place names passed down through generations. Those with specific knowledge of Edéhzhíe are fewer still – only a handful of Elders and harvesters in each community actively use Edéhzhíe and retain this knowledge. Younger people have varying degrees of knowledge of their culture, language and way of life, depending on how much time and opportunity they've had to be on the land and learn their culture from their families and Elders.

While this cultural knowledge currently exists, the focus is on ensuring this information is taught to the next generation of land users, so they retain their language, history, culture, skills, and way of life. The current level of knowledge and transmission to younger generations is threatened by the passing of Elders; the demands of the wage economy and modern life, loss of language, and many other factors.

It's very important because that's how our story is told, and how our trails that have been walked by our ancestors, and that's who we are. We are fighting so hard to protect it because it means a lot, not only to the older generation, also the younger generation. We want to pass onto the younger generation to understand our land, our language, of who we are, and to have this connectedness with families, of learning to adapt to the environment, respecting the land, and learning the stories of our Elders, our own traditional [knowledge] holders. (Vanessa Sanguez)

Use and Occupancy

I've been in the area since the last 40, 44 years, I have cabins, I run roughly about 200 kms of trapline. I run maybe, close to about 250 traps. And I utilize all the fish lakes that run all up the top of Edéhzhíe.... I'm in there every winter. Even last year I was in there in the winter for a good part of the year. That's what I'm about. (Herb Norwegian)

There are a lot of burial sites along the shore of this lake and around this one too. We lived somewhere around here long ago. We would walk this way and to this lake. Somewhere around here, it was said it doesn't freeze. We lived somewhere around here too, that was when I wasn't old enough to remember. My grandfather and them had a campfire somewhere at the end of the lake here, we went inland from there. The land is something like this, there were some spruce trees standing here and there. There were things like traps, dipper, cup, pail about this big, it was a red pail, they were all hung like this. The trees were cut this far off the ground and they were all hung like their graves. It was like that long ago. Grandfather said there are a lot of elder's graves around there too. He talked about them long ago. (Jane Grosetete)

There are very few land users in each community that currently use Edéhzhíe. Community representatives from the four communities nearest Edéhzhíe have estimated that the proportion of community harvest occurring with Edéhzhíe, is between 24 and 32%⁹³. Historically, many families would use Edéhzhíe year-round, or at certain times of the year. The level of use is dropping. It is a priority for the Dehcho Dene to increase their level and nature of use of Edéhzhíe. They want to see a regular Dene presence in Edéhzhíe, through individual land users, family use, community initiatives and OTL programming, Dehcho[´] guardian monitoring program, and other research and operational work.

⁹³ IMG-Golder Corporation. 2006. Renewable Resource Assessment of the Edéhzhíe Candidate Protected Area. Submitted to the Edéhzhíe Working Group.

Threats: Table 10 lists the threats to cultural values that Dehcho communities identified.

Table 10. Threats to Cultural Values

Threats	Values			
	Dehcho Dene	Transmission of Indigenous Knowledge	Use and Occupancy	
Intergenerational Trauma / Addictions	\checkmark	\checkmark	\checkmark	
No money to go on the Land	\checkmark	\checkmark	\checkmark	
Loss of cultural knowledge / skills	\checkmark	\checkmark	\checkmark	
Elders Passing		\checkmark	\checkmark	
Language Barrier	\checkmark	\checkmark		
Wage economy (no time)	\checkmark	\checkmark	\checkmark	
Difficult to access Edéhzhíe		\checkmark	\checkmark	

Elders Passing

Elders are the main knowledge holders in every community. They retain the stories passed down to them from prior generations, and add to that their own memories and decades of experience on the land. Every time an Elder passes away, that knowledge is lost. It is important to document as much of their use, knowledge and history as possible, so that some of it can be retained and passed on.

There's an urgency, also...the last 10-20 years, we've started to lose a lot of Elders. And every time an Elder goes, a part of our Deh Gah Gotie history goes with them. (Joachim Bonnetrouge)

Residential Schools / Loss of Cultural & Language / Intergenerational Trauma

The long-term impacts of residential schools have been well documented by the Truth and Reconciliation Commission. The residential school system removed Indigenous children from their families and from the land, severing them from their loved ones, their culture, language, and way of life, and inflicting physical, sexual and emotional abuse on them. The system damaged generations of people directly, and the harm will continue to be felt for many generations to come. While some have found their way back to their culture and spiritual health, others continue to struggle. Some may lead healthy lives, but the loss of cultural knowledge, of how to be on the land safely, has become a barrier because they just don't know how to do it. Community supports and OTL programming can offer a bridge for those looking to find their way back.

My grandma Mary Rose and Theodore were born and raised in Edéhzhíe. My grandma and my grandpa brought up 8 kids. My mom, Margaret Anne Landry was born in Edéhzhíe. She stayed there for 8 years until she had to go to residential school. So far, my auntie and my uncle Jonas were left and Brenda and Michael James were the last two kids in Edéhzhíe before residential school. (Audrey Landry)

Lack of Time / Money / Wage Economy

Most Dehcho Dene live modern lives in modern communities, filled with bills that must be paid, and jobs that must be worked to make ends meet. There is very little time, money or energy leftover to pack up gear and get out on the land. Some are able to find a way, many don't. It is one of the biggest barriers to people living their culture.

Difficulty of Accessing Edéhzhíe

The Dehcho guardians have been re-opening access routes into Edéhzhíe, but access is still limited, and is becoming even more so because of changes to water levels and freezethaw cycles from climate change. Most land users access Edéhzhíe in winter by following old cutlines and the old army road using snow machines. In summer, the area can be reached by boat via the Horn and Willowlake Rivers: however, recently the water on the Willowlake River has been too low even for jetboat access. To access most other areas of Edéhzhíe, aircraft are required.

My grandma had one of those old elans. They broke down, my grandpa and grandma and her two little small babies had to walk back in the cold. And they actually had help, and then there was two people, I remember two people, Paul Minoza and Louisa came to help them. And my grandpa said after they got back he walked all the way back to the Horn Plateau to check his traplines, to get lynx. To this day my grandpa froze his fingers - he had all three of them removed. (Audry Landry)

Then there was this huge pilgrimage, in the middle of winter, even this time of year [fall] people are starting to move and setting up camps and moving along, some of them would get across the Mackenzie river in their birchbark boats and their rafts. Once they get across then there was this packing exercise with the dog team; they would have dogs moving all their gear, they would move like small communities along all the major trails. To get to a place like Shiikitue, which is Willow Lake, it would roughly take 2-3 weeks, you're talking about mobilizing about 20 people along these major trails, and they weren't just traveling steady. They would move and set up camp, and stay in one area for maybe a week, setting rabbit snares, hunting Moose, hunting caribou, making dry meat, and they keep going, keep going finally until they get to Willow Lake. (Herb Norwegian)

These stories illustrate the length, difficulty, and risks in getting up to Edéhzhíe. It is a main reason why there are so few people who actively go into Edéhzhíe now. If people want to go out on the land for a few hours or a few days, there are easier places to go. While this keeps impacts from human disturbance to a minimum, it also makes it very hard to maintain the connection to this place, to monitor changes, and retain good knowledge of the area.

There was a story told by a young man. It had been about 3 months since he and his grandfather got to the Plateau, about November 11 or so, when his grandfather said, "I have 8 martin skins." He had asked me to walk to town, so I got up in the morning, I put two dry fish in a pack. He told me to go the way of Tl'ogo2a. So, I walked the Tl'ogo2a way. Back then Tulindee Ek'elu extended down from the Plateau. I came down the Plateau, past Lafferte creek on the other side of Tthetso'olia and slept among some uprooted trees.

In the morning, I left again and got to Dedliro. At dawn, I heard someone singing up ahead. I kept on walking on snowshoes, in snow this deep [gestures to signal very deep snow]. At dusk, there was a small man walking towards me. He met me and got behind me. He said, "Stranger, I haven't seen anyone. Where you come from?" I told him, "I was going into to town for my father but I think I am exhausted." He said, "Oh," and said, "My younger brother, remove your snowshoe on the left side." So, I removed my snowshoe and he did the same. I gave him my snowshoe and he gave me his. I put my foot in his snowshoe and it felt okay. So, when I started off, he said to me, "My younger brother, why are you looking far ahead, just look at the tip of your snowshoes." So, from there on I just looked at the tip of my snowshoes as I went forward.

Just within about an hour, I got to Mills Lake, from there I reached the place where people used to live. The family of Muskeg's father were still sleeping when I walked by. When I reached the Snye, I stood my snowshoe in the snow and went to the store. I bought a lot at the store. [I] gave them 8 martins and [they] packed things for[me]...until the pack was very heavy. There was also a bag of flour on top of the pack. When I was ready, I put on my snowshoes and left. I stopped and ate at Muskeg's father's place. They also gave me two fish; I tied those to the outside of my packsack and left. I arrived at the place I left from in the morning towards evening. I slept there, left again in the morning. I kept on going until I started going up the Plateau the same way I had come. It was still morning when I saw smoke from my grandfather's fire. I removed the packsack at the entrance way and went in.

He glanced at me and said, "Devil you are, I thought you went into town. Why did you turn around?" I had a drink of water, and reached outside, grabbed the bag and place it beside him.

He turns and looks at me and said, "You devil, you went into town?" I said, "Yes." I went to town from Willow Lake in two nights.

That's the story he [the young man] told.

When I was talking about the exchanging of snowshoes, the character I was talking about was a small person. It was apparently a wolverine in the form of a person. A wolverine moves like a mirage (Dahodizhih); it reaches a point and then moves forward again. That is how he walked to town and back in two nights. (Fred Sabourin)

Chapter 4: Management Direction

This chapter outlines the vision, goals, objectives, and actions needed to support the co-management of Edéhzhíe.

Vision for Edéhzhíe

Edéhzhíe is our refuge. It is where the ancestors of the Dene went to sustain themselves when food was scarce. The waters are pure and the animals abundant. It is our cultural sanctuary where we go for spiritual nourishment, to heal, reconnect, and reconcile with the land, our culture, and ourselves. We, the Dene are part of Edéhzhíe. We look after Edéhzhíe, and it looks after us.

Goals, Objectives, and Actions

The EMB has identified three broad goals for Edéhzhíe:

Goal 1: Keep Edéhzhíe Healthy and Strong Goal 2: Respect and Promote Dene Ahthít'e Goal 3: Working in harmony as guardians of Edéhzhíe

These goals have been developed to:

- Support Edéhzhíe's vision.
- Respect, monitor, understand and strengthen Edéhzhíe's values.
- Address (where possible), monitor or further understand the threats that could impact Edéhzhíe.
- Strengthen the relationship between the Dehcho Dene and the land.
- Strengthen the co-management frameworks and relationships to protect Edéhzhíe.

Each goal has associated objectives to assist with the monitoring, reporting and evaluation of the management plan. Actions have been identified for the first 5 years of this plan to move us towards our goals. Chapter 6 describes the workplan and responsible party to implement the Actions.

Table 11 summarizes the Goals, Objective and Actions.

Table 11. Edéhzhíe Goals, Objectives and Management Actions

Goal	Objective	Actions
Goal 1: Keep Edéhzhíe Healthy and Strong	 Monitor and manage key values and threat to promote the health of Edéhzhíe. 	
	 Encourage traditional use activities that strengthen the health of Edéhzhíe. 	 Guardians and harvesters are encouraged to harvest more beavers on the tributaries to the Willowlake River.
	3. Minimize disturbance to key values and site wherever possible.	1. DFN and ECCC will prohibit incompatible activities and communicate those prohibitions to the
	 Clean up contaminated sites and restore the land t its natural condition. 	1. Within 5-years, ECCC, in cooperation with DFN, will identify all sites and develop a costed remediation and monitoring plan for all contaminated sites in Edéhzhíe.

Goal	Oł	bjective	Act	ions
Goal 2: Respect and Promote Dene Ahthít'e	1.	Increase the level and accessibility of cultural knowledge of Edéhzhíe and transmission to youth.	1. 2. 3. 4.	DFN will develop and implement an OTL program that increases opportunities for on the land programming, especially for youth. DFN, with the support of ECCC, should continue to document and share information (as appropriate) on Edéhzhíe's cultural sites and values. DFN, with support from ECCC, will maximize the use of Dene Zhatié and Dene place names in planning, management, operations and communications, and register key place names with the NWT Cultural Places Program (and Geographical Names Board of Canada) DFN (language department) will explore opportunities and partnerships to develop digital tools to promote learning and transmission of cultural knowledge.
	2.	Maximize the amount of time that the Dene spend in Edéhzhíe, with a focus on building youth capacity and knowledge on the land.	1. 2. 3.	DFN and ECCC will maintain access trails and infrastructure (cabins) in Edéhzhíe. DFN and TG will develop communications encouraging its members to visit Edéhzhíe, and advertise OTL opportunities in Edéhzhíe. DFN will increase the amount of time Guardians spend in Edéhzhíe.
Goal 3: Working in harmony as guardians of Edéhzhíe	1.	Reconcile and strengthen our relationship, capacity, processes and systems.	1. 2. 3. 4. 5. 6. 7.	DFN, ECCC and the EMB will hold an annual OTL team building event in Edéhzhíe. DFN and ECCC will co-develop an annual workplan and calendar. DFN and ECCC will jointly develop a Co-Management Operations and Procedure Guide. DFN (and ECCC) will (jointly) develop an Asset Management Plan. DFN and ECCC will develop a Public Registry of Management Decisions. DFN and ECCC will complete a data sharing agreement. DFN and ECCC will complete a data sharing agreement. DFN and ECCC will provide more training and enforcement authority to the Edehzhie guardians to help manage the illegal fishing. The Parties will use this as a pilot initiative to achieve the (longer term) goal of increasing enforcement authorities of guardians generally (includes budget, training requirements, legislative amendments, etc).
		Promote the importance and uniqueness of Edéhzhíe, and our work to protect it. Inspire and maintain partnerships that	1.	DFN and ECCC will jointly develop and implement a Communications and Outreach Plan for Edéhzhíe within 1 year of the management plan being completed. DFN and ECCC will invite greater participation from the GNWT as a key plan implementation partner.
		partnerships that further our goals.		partner.

EDÉHZHÍE MANAGEMENT PLAN (DRAFT)

Goal	Objective	Actions
		 DFN and ECCC will hold a research symposium to share Edéhzhíe's research priorities and explore research partnerships. DFN and ECCC will participate in national and international guardians and conservation planning networks.
	 Secure the financial resources required for the long-term management and operation of Edéhzhíe. 	 DFN (and ECCC) will develop and implement a long-term funding strategy within one year of the Edéhzhíe Management Plan being completed.

Goal 1: Keep Edéhzhíe Healthy and Strong

People feel that Edéhzhíe is generally very healthy, so our primary goal is to maintain or improve that health. We don't have a good foundation of baseline information to document that though. This goal focuses on management activities that monitor and maintain or improve the health of Edéhzhíe.

Objectives

- 1. Monitor and manage key values and threats to promote the health of Edéhzhíe.
- 2. Encourage traditional use activities that strengthen the health of Edéhzhíe.
- 3. Minimize disturbance to key values and sites wherever possible.
- 4. Clean up contaminated sites and restore the land to its natural condition.

Actions

In the first 5 years, the Parties will focus on the following actions to work towards this goal and the associated objectives.

Objective 1.1: Monitor and manage key values and threats to promote the health of Edéhzhíe.

Action 1.1.1. DFN, in collaboration with ECCC, will develop and implement its Dehcho K'éhodi Monitoring Program.

This program, based on Indigenous Knowledge and implemented by Edéhzhíe Guardians, will identify what values and threats will be monitored, the timing and frequency of monitoring, monitoring locations, monitoring protocols (how and what data is collected), and how the information will be recorded and analyzed. It will be generally follow and expand on the Monitoring Plan in Appendix D.

Action 1.1.2. ECCC and DFN will jointly develop a research and monitoring agenda for Edéhzhíe, which identifies research and monitoring priorities, sets out guiding principles for research, and seeks partnerships and funding to implement the research agenda.

Through the development of this Edéhzhíe Management Plan, DFN and ECCC have identified a number of data gaps, where research and/or monitoring is needed as set out by the Monitoring Plan (**Appendix D**). ECCC and DFN can refine this list and set priorities.

Action 1.1.3. Within five years, ECCC and DFN will develop a "Health of Edéhzhíe" Report (includes reporting on both biophysical and cultural values & goals), using both Indigenous and scientific information.

The report should document current health of Edéhzhíe's values, and their threats, and trends (stable, increasing, decreasing). The report should be updated on a 10-year cycle along with the Edéhzhíe Management Plan to inform management decisions, unless the Parties determine otherwise.

Action 1.1.4. DFN and ECCC will advise on and implement species-specific management plans within Edéhzhíe (e.g. Boreal Caribou, Wood Bison, other Species At Risk plans).

There are a number of plans and initiatives in place or in progress to manage wildlife and their habitat across their range. It is important for the Parties to coordinate with these other initiatives, and implement those plans within Edéhzhíe, to ensure consistent management across the range of key species.

Objective 1.2: Encourage traditional use activities that strengthen the health of Edéhzhíe.

People are part of the land. Harvesting is a natural part of ecosystem renewal and an effective tool in wildlife management.

Action 1.2.1. Guardians and harvesters are encouraged to harvest more beavers on the tributaries to the Willowlake River.

Pehdzeh Ki noted that water levels have been dropping along the Willowlake River, in part due to an increasing number of beaver dams along the tributaries that feed into the Willowlake River. Increasing the beaver harvest in this area should help to increase water levels. Water levels and the presence of beavers will be monitored by the Guardians.

Action 1.2.2. Guardians and harvesters are encouraged to harvest fish in as many fish lakes in Edéhzhíe as possible and use larger nets.

Regular fishing promotes healthy turnover in the fish populations and allows for regular monitoring of their health. While the large lakes (Willow, Hornell, Bulmer, Mustard, Big Island) are fished regularly, there is less activity in the smaller lakes. Increased fishing activity on all lakes will provide a means of monitoring the health of fish populations, as well as increasing turnover in fish populations. As lakes are fished more regularly, the average age of fish will decline, as will the mercury concentrations, which are higher in older fish.

Objective 1.3: Minimize disturbance to key values and sites wherever possible.

Action 1.3.1. DFN and ECCC will prohibit incompatible activities and communicate those prohibitions to the public.

ECCC minimizes and controls human activities in national wildlife areas through the implementation of the *Wildlife Area Regulations*. The *Wildlife Area Regulations (WAR)* prohibit most activities within National Wildlife Areas without a permit, except where specific allowances are made for the NWA under Schedule I.1. The regulations also provide the authority for the Minister to prohibit entry into NWAs.

As Edéhzhíe is also a Dehcho Protected Area, all permit applications are referred to the EMB, which will consider the application, and may authorize an activity by recommending to the Minister of the Environment that a permit be issued. Authorizations may only be issued if the activity is scientific research related to wildlife or habitat conservation, benefits wildlife or habitat conservation, or is consistent with the purposes for which Edéhzhíe was established, as per the Edéhzhíe Establishment Agreement, and the approved Edéhzhíe Management Plan. The list of prohibited activities and exceptions are provided in Appendix B.

As Edéhzhíe is new, there is an immediate need to communicate Edéhzhíe's status as a protected area, and educate the public, potential users, and other partners with responsibilities that may overlap with Edéhzhíe (e.g. GNWT wildlife managers, Mackenzie Valley Land and Water Board) on the new prohibitions and processes that are now in place.

Action 1.3.2. DFN and ECCC will develop an appropriate enforcement response to the illegal fishing occurring around Deh Gáh Got'ie Kų́ę́ (Fort Providence), Tuah (Mills Lake) and K'ázhíáh Deh (Horn River).

DFN and ECCC will explore communications and enforcement options to deter illegal fishing from occurring within Edehzhie. Options could include direct communications with Mennonite organizations in northern Alberta, enhanced guardian and ECCC enforcement presence, discussions with DFO around revising sport-fishing limits, and enforcement.

Action 1.3.3. ECCC, with advice from the EMB, will apply conditions to permitted activities to minimize impacts to Edéhzhíe's values.

The EMB has developed standard conditions that apply to permits in Edéhzhíe, unless they agree to waive or alter these to address unique circumstances. Standard conditions are found in Appendix C.

Action 1.3.4. DFN and ECCC will prohibit the development of new access trails into Edéhzhíe and promote the use of existing trails.

Map X identifies existing access trails (by snowmobile, boat or quad) used by Dehcho and Tłįchǫ communities, which will be maintained. These will be the only points of entry into Edéhzhíe. DFN and ECCC will not authorize any new access trails into Edéhzhíe.

INSERT MAP OF ACCESS TRAILS IN FINAL PLAN (under development by DFN)

Action 1.3.5. DFN and ECCC will explore climate change mitigation and adaptation strategies.

While ECCC and DFN cannot prevent the effects of climate change in Edéhzhíe, by exploring and understanding specific vectors of impact, they can identify measures to lessen the impacts on specific values of concern and adapt management measures accordingly.

Action 1.3.6. DFN and ECCC will work with ECC to develop and implement a Wildland Fire Management Strategy that provides Edéhzhíe-specific direction for where and when to fight fires and when to let them burn.

ECCC contracts wildfire fighting services for Edéhzhíe from the GNWT. The EMB has chosen to continue to follow the GNWT's Forest Fire Management Policy⁹⁴, as an interim measure.⁹⁵ In determining whether or not to fight a fire, the GNWT considers:

values-at-risk;

 ⁹⁴ Government of the Northwest Territories. March 10, 2005. Forest Fire Management Policy. No. 53.04.
 ⁹⁵ Edéhzhíe Management Board. Approved Meeting Minutes - April 22, 2020.

- land and resource management objectives;
- availability of personnel and equipment;
- fire weather;
- fire risk in higher-valued areas; and
- where property or resources are threatened, the relative value of that being threatened.

The GNWT maintains a "Values-at-risk" database of values and their locations, and uses it to determine wildfire response, based on the following hierarchy of protection:

- Human Life;
- Property (communities and other infrastructure);
- Natural Resource values (e.g. primary wildlife harvesting areas, commercial timber areas, endangered species areas); and
- Cultural Resource values (e.g. historic/archaeological sites, culturally significant areas).

Future fire management in Edéhzhíe will need to update and accurately define Edéhzhíe values, and ensure they are included in the GNWT's Values-at-Risk database. Additional policy direction and resources may be needed to facilitate a heightened response within this area, as an Indigenous Protected Area and National Wildlife Area.

Considerations for the fire management strategy include (but are not limited to):

- Identifying specific locations where fires should be fought and adding those to the Values at Risk database (e.g. remaining unburned areas of Boreal Caribou habitat, important cultural sites identified in **Map 10**);
- Identifying amendments to the GNWT's decision support tool for use in Edéhzhíe to identify when and how fires will be fought;
- Considering legislative requirements for protecting critical habitat and implementing range plans for species at risk, such as Boreal Caribou;
- Incorporating preventative tools such as prescribed burns;
- Incorporating traditional knowledge about fire management; and
- Costs and capacity constraints for enhanced fire-fighting.

Action 1.3.7. DFN and ECCC will work with ECC (South Slave Region) to develop and implement a Wood Bison Management Strategy to keep bison off the plateau.

The Mackenzie Bison herd has been extending its range further and further out from the Mackenzie Bison Sanctuary. When bison move into an area, Boreal Caribou move away. It is therefore important to keep bison off the plateau, to avoid competition with the caribou residing there. ECC is conducting a habitat enrichment program for the Nahanni herd to attract bison to desired areas and keep them out of the communities. A similar approach could be considered for the Makenzie herd. Fort Providence could also allocate some of their tags to harvest Wood Bison found within Edéhzhíe, since they rarely use all of their tags.

Action 1.3.8. DFN and ECCC will co-develop risk-specific emergency response plans (e.g. Anthrax Emergency Response Plan).

There have been periodic outbreaks of anthrax among the Mackenzie Bison Herd, and other herds in the NWT, including one in 2023 (did not affect the Mackenzie Herd). ECCC is developing

an Anthrax Emergency Response Plan to guide activities in the event an outbreak spreads into Edéhzhíe. There may be other emergencies in the future that warrant response plans (e.g. insect infestations, fuel spill, etc.)

Objective 1.4: Clean up contaminated sites and restore the land to its natural condition.

Action 1.4.1. Within 5-years, ECCC, in cooperation with DFN, will identify all sites and develop a costed remediation and monitoring plan for all contaminated sites in Edéhzhíe.

The contamination remediation and monitoring plan should identify all contaminated sites and include a workplan to clean up and restore all of them with any long-term monitoring required to prevent ongoing impacts to the health of surrounding areas. ECCC will work with DFN to identify where Edéhzhíe guardians can participate in cleanup efforts (e.g. have guardians haul out old fuel drums and dismantle abandoned infrastructure), and ensure sufficient training for guardians to meaningfully and safely support cleanup.

Goal 2: Respect and Promote Dene Ahthít'e

Edéhzhíe promotes Dene Ahthít'e, the relationship between the Dehcho Dene and the land. This goal focuses on strengthening cultural knowledge and increasing access to Edéhzhíe for Dehcho and Tł₂chǫ Dene for traditional use, while respecting the fact that Edéhzhíe is a refuge. There is a strong emphasis on building youth capacity and knowledge.

Objectives

- 1. Increase the level and accessibility of cultural knowledge of Edéhzhíe and transmission to youth.
- 2. Maximize the amount of time that the Dene spend in Edéhzhíe, with a focus on building youth capacity and knowledge on the land.

It's very important because that's how our story is told, and how our trails that have been walked by our ancestors, and that's who we are. We are fighting so hard to protect it because it means a lot, not only to the older generation, also the younger generation. We want to pass onto the younger generation to understand our land, our language, of who we are, and to have this connectedness with families, of learning to adapt to the environment, respecting the land, and learning the stories of our Elders, our own traditional [knowledge] holders. (Vanessa Sanguez)

Actions

In the first 5 years, the Parties will focus on the following actions to work towards this goal and its associated objectives.

Objective 2.1: Increase the level and accessibility of cultural knowledge of Edéhzhíe and transmission to youth.

Action 2.1.1. DFN will develop and implement an OTL program that increases opportunities for on the land programming, especially for youth.

The best place to learn about Dene culture and language is by being on the land. This action aims to get youth into Edéhzhíe in different seasons to support knowledge building. It is also important for assisting those who cannot easily get to Edéhzhíe on their own to experience and learn about Edéhzhíe and develop OTL skills.

DFN should continue to run its own annual OTL programs and should explore partnerships with educational and community-based organizations to increase OTL programming in Edéhzhíe. Potential partnerships could include high schools, Aurora College, Dechinta, BEAHR (Building Environmental Aboriginal Human Resources), Mentor-Apprentice Program (MAP), language and culture programs, ecology/science camps, university researchers (e.g. Wilfred Laurier), guardians' programs, health and wellness, and healing programs.

DFN has identified an interest in developing a "Walk to Edéhzhíe" program - an annual guided hike for youth into Edéhzhíe. Historically, Dehcho Dene walked to and from Edéhzhíe, which took several days, depending on the route chosen. This could be modeled after the annual Canol Trail hike that is run for youth in the Sahtu Settlement Area.

Action 2.1.2. DFN, with the support of ECCC, should continue to document and share (as appropriate) information on Edéhzhíe's important cultural sites and values.

While considerable work has been done to document information on important cultural sites and values in Edéhzhíe, there is always more that can be done. Specifically, it is important for DFN to continue to document significant cultural sites and update the sensitivity map in **Appendix C, Condition A** periodically. The Elders and Harvesters Committees in each community provide a forum for the ongoing collection and documentation of Edéhzhíe Stories, cultural sites and values.

Action 2.1.3. DFN, with support from ECCC, will maximize the use of Dene Zhatié and Dene Place Names in planning, management, operations and communications, and register key place names with the NWT Cultural Places Program (and Geographical Names Board of Canada).

Western names for landscape features (lakes, rivers, mountains) often refer to a person or a historic moment (e.g. Mackenzie River). Dene Place Names on the other hand provide important information about the site (e.g. Éhłetłų Túé – Double Fish Trap Lake, a lake that people could always depend on to have fish when there were none in other lakes). Replacing a western name with a traditional Dene Place Name is about reclaiming history and the Dene relationship to the land. The GNWT operates a program to officially record cultural place names in their database, which is public, allowing others to also view and use the correct Dene Place Names for a given area.

Action 2.1.4. DFN (Language Department) will explore opportunities and partnerships to develop digital tools to promote learning and transmission of cultural knowledge.

Today's youth have been raised in a digital era. They are fluent in digital technologies and may respond better when learning is tailored to their interests. Using digital tools, such as social media, language apps, virtual reality, video games, interactive programs, and videos may increase youth uptake in language and cultural education programs.

Objective 2.2: Maximize the amount of time that the Dene spend in Edéhzhíe, with a focus on building youth capacity and knowledge on the land.

Action 2.2.1. DFN and ECCC will maintain access trails and infrastructure (cabins) in Edéhzhíe.

Providing good access to Edéhzhíe and shelter within the protected area is the first step in encouraging Dehcho and Tłįchǫ Dene to use the area, and to be safe.

Action 2.2.2. DFN and TG will develop communications encouraging its members to visit Edéhzhíe and advertise OTL opportunities in Edéhzhíe.

DFN's long efforts to protect Edéhzhie have given some Dene the impression that they are not allowed in. A communications program is needed to clarify that Dehcho Dene are encouraged to use Edéhzhie. The TG already runs OTL activities in Edéhzhie each year and advertises these opportunities to its members. The Harvesting and Traditional Use & Occupancy Protocol describes how the Dene should use Edéhzhie in a respectful manner.

Action 2.2.3. DFN will Increase the amount of time Guardians spend in Edéhzhíe.

As DFN implements its Dehcho K'éhodi program (Action 1.1.1), the Dehcho Guardians will also spend more of their time in Edéhzhíe, conducting monitoring and patrols, and accompanying researchers and other permit holders. As the "eyes and ears" of Edéhzhíe, it is important for guardians to have a regular presence there.

Goal 3: Working in Harmony as Guardians of Edéhzhíe

The Parties, together, are responsible for the management and operations of Edéhzhíe. They are its guardians, responsible for acting in the best interest of Edéhzhíe. The co-management of Edéhzhíe is in its infancy. This goal focuses on how the Parties can reconcile their processes and perspectives, strengthen their relationship, and work together to protect and manage Edéhzhíe. This will support the implementation of the Edéhzhíe Management Plan and the long-term operations and management of Edéhzhíe. An implementation plan is outlined in Chapter 6 and provides the framework for this goal.

Objectives

- 1. Reconcile and strengthen our relationship, capacity, processes and systems.
- 2. Promote the importance and uniqueness of Edéhzhíe, and our work to protect it.
- 3. Inspire and maintain partnerships that further our goals.
- 4. Secure the financial resources required for the long-term management and operation of Edéhzhíe.

Actions

Objective 3.1: Reconcile and strengthen our relationship, capacity, processes and systems.

Action 3.1.1. DFN, ECCC and the EMB will hold an annual OTL team building event in Edéhzhíe.

The best place to build relationships and reconcile perspectives is on the land, outside the formal constraints of meetings. Holding an annual OTL meeting in Edéhzhíe allows both parties and the Board to share a common experience, learn new things from each other, and ground their priorities and policies in what it means to be in Edéhzhíe. These OTL meetings will focus on reconciliation and relationship building, and learning about Edéhzhíe, rather than regular operations.

Action 3.1.2. DFN and ECCC will co-develop an annual workplan and calendar.

Currently, DFN and ECCC develop their annual workplans and budgets separately. Guided by the Edéhzhíe Management Plan, a coordinated annual workplan and shared calendar would facilitate better integration of activities and resources and help the Parties coordinate work based on changing capacities and circumstances (e.g., forest fires impacting field work).

Action 3.1.3. DFN and ECCC will jointly develop a Co-Management Operations and Procedure Guide.

DFN and ECCC have largely operated independently in their roles and responsibilities. Taking the time to integrate policies and procedures where their responsibilities overlap could contribute to long-term efficiencies and create a more collaborative environment for staff and partners. A joint operations and procedure guide could include operational policies (e.g. field policies and procedures), clarity on roles and responsibilities, contact information, forms and templates (e.g. Meeting of Party agendas, briefing notes for the EMB), operational considerations (e.g., times when the ferry is out or when guardians are off), and other information that the Parties deem helpful.

Action 3.1.4. DFN and ECCC will jointly develop an Asset Management Plan.

An asset management plan outlines the condition and assessment of assets (e.g., snowmobiles, signage, boats, cabins, etc.) that have been purchased and maintained through the Edéhzhíe budget. The asset management plan provides information to budget for the life cycle costs of assets and inform the work plan for managing the maintenance and replacement schedules for assets. It will inform the five-year capital budget and form the basis for a twenty-year, long range, capital budget.

Initially the asset management plan could be a listing of current asset inventory and life-cycle costs (see details below) and proposed or planned new asset information for the next five to 20 years to support long-term budgeting and management of the asset.

An asset management plan includes:

- 1. An asset inventory, which includes:
 - A list of each asset purchased and maintained through the Edéhzhíe budget.
 - A record number for each asset.
 - The location of each asset, including georeferencing data, especially for signage.
 - The cost of the asset.
 - Year built or bought.

- Expected life-cycle.
- Links to any associated manuals or files related to the asset.
- Maintenance schedules and cost.
- Current condition of the asset.
- Calculation of life-cycle costs the assets' entire life-cycle costs need to be calculated, not just the initial purchase price. During an average asset's life, there are many opportunities for added costs, like maintenance, capital, condition and performance modeling and even disposal costs.

Action 3.1.5. DFN and ECCC will develop a Public Registry of Management Decisions.

DFN and ECCC will develop a public registry of Edéhzhíe Management Board decisions within one year of the Edéhzhíe Management Plan being completed. This may be housed on the DFN Edéhzhíe website, or another place of the Parties' choosing.

Action 3.1.6: DFN and ECCC will complete a data sharing agreement.

DFN and ECCC will work together to codify current practices for data sharing that have evolved over the development of the Edéhzhíe Management Plan.

Action 3.1.7: DFN and ECCC will provide more training and enforcement authority to the Edehzhie Guardians to help manage the illegal fishing around Deh Gáh Got'ie Kúé (Fort Providence), Tuah (Mills Lake) and K'ázhíáh Deh (Horn River). The Parties will use this as a pilot initiative to achieve the long-term goal of increasing enforcement authorities of guardians generally (includes budget, training requirements, legislative amendments, etc).

The illegal fishing occurring in this area requires a dedicated enforcement response. ECCC doesn't have sufficient enforcement capacity to address this situation. The guardians have the capacity but not the training or authority to assist. This presents a specific opportunity to explore how enhanced training and authority could be provided to the Edéhzhíe guardians, from which to learn and build on later.

Objective 3.2: Promote the importance and uniqueness of Edéhzhíe, and our work to protect it.

Action 3.2.A. DFN and ECCC will jointly develop and implement a Communications and Outreach Plan for Edéhzhíe within 1 year of the Edéhzhíe Management Plan being completed.

A joint DFN/ECCC Communications and Outreach Plan will guide and support the Parties' communication and outreach activities for Edéhzhíe to raise awareness locally, regionally, territorially, nationally and internationally on the importance of Edéhzhíe, its unique features, and the prohibitions and processes in place to protect it.

Implementing a coordinated communications approach supports many of the other goals and objectives identified in the Edéhzhíe Management Plan, such as:

• Supporting Dene Ahthit'e and the transfer of knowledge;

- Ensuring the public understands the importance of Edéhzhíe;
- Encouraging Dene use of Edéhzhíe and the protocols to be followed;
- Ensuring the public, potential permit applicants and other regulators understand the new permit requirements and prohibitions in Edéhzhíe;
- Communicating research priorities and protocols;
- Supporting the response to environmental emergencies; and
- Supporting fundraising efforts.

Objective 3.3: Inspire and maintain partnerships that further our goals.

Action 3.3.A. DFN and ECCC will invite greater participation from the GNWT as a key plan implementation partner.

The GNWT will be a major implementation partner, assisting the Parties with wildfire management, and being the land administrator responsible for land, water, wildlife and other resources outside Edéhzhíe. Any research happening in Edéhzhíe will be most meaningful if it is integrated with research occurring across the broader landscape. Some operations, like wildfire management, rely heavily on the GNWT. Fostering a closer working relationship with the GNWT will facilitate plan implementation.

Currently, Edéhzhíe is split between the Dehcho and South Slave GNWT administrative regions. An initial priority is to request that the Dehcho office be the lead on Edéhzhíe on behalf of both regions, or to request that Edéhzhíe be moved fully within the Dehcho region if possible.

Action 3.3.B. DFN and ECCC will hold a research symposium to share Edéhzhíe research priorities and explore research partnerships.

DFN and ECCC will need research partners to implement this management plan and carry out its research and monitoring priorities. They have existing relationships with some partners; others will need to be developed. DFN will also benefit from developing partnerships with educational and cultural partners, to promote On-the-Land and cultural programming, in and out of Edéhzhíe. A research symposium presents an opportunity to bring potential collaborators together to share Edéhzhíe's needs and develop partnerships.

Action 3.3.C. DFN and ECCC will participate in territorial, national and international guardians and conservation planning networks.

Guardian programs are becoming increasingly popular across Canada and around the world. There is a growing network of partners and organizations contributing knowledge, toolkits and resources to support guardians to be successful. The Parties will benefit from participating in these networks, both to learn from others, and to share the work they are doing in Edéhzhíe.

Objective 3.4: Secure the financial resources required for the long-term management and operation of Edéhzhíe.

Action 3.4.A. DFN and ECCC will develop and implement a long-term funding strategy within one year of the Edéhzhíe Management Plan being completed.

Long-term funding is required to cover the costs of operations and management of Edéhzhíe, including staffing and travel, maintenance of infrastructure, Board operations, plan implementation, and research and monitoring. The first step will be to develop a core budget (annual base operational costs), and then a Plan Implementation Budget needed to implement actions in the Edéhzhíe Management Plan over the first five years, including monitoring and research activities.

DFN has established the Edéhzhíe Fund, to which ECCC has contributed \$10 Million. DFN has contracted Global Philanthropic Canada to develop and implement a fundraising strategy to raise funds for the Edéhzhíe Fund with the obligation to match the \$10 Million from ECCC. The annual interest generated by the Edéhzhíe Fund is intended to be used for annual operational costs for Edéhzhíe, but it is not expected to be enough to cover total annual costs. Additional revenue streams will be needed.

DFN and ECCC are currently participating in the design of a funding initiative called Project Finance for Permanence, that will provide 10 years of funding for the establishment and operation of protected areas in the NWT. Edéhzhíe is likely to receive some funds through that initiative, though the amount is not yet known. Regardless, Edéhzhíe is intended to last beyond 10 years.

Other funding mechanisms that could be considered include:

- Carbon trading programs (Edéhzhíe is covered in carbon-rich wetlands);
- Cultural tourism programs and visitor fees;
- Fee for service arrangements for Guardians to accompany permit holders;
- Developing a business that funds Edéhzhíe operations from its profits (e.g. aircraft company);
- Secure ongoing government funding through a Social Return on Investment approach; and
- Annual fundraising / applications for funding for specific activities under existing funding envelopes.

Long-Term Actions

The Parties and EMB have also identified some long-term actions that, while not possible to implement during the first 5-years of implementation, are important to retain and work towards. These actions will be further developed in subsequent Edéhzhíe Management Plan amendments.

- 1. Build an Edéhzhie Cultural and research Centre: The Parties envision building a centre at Willow Lake that could be used as a more permanent base for land users, researchers, meetings, educational programming and other place-based programming.
- 2. Guardian Training & Enforcement Capacity Building Strategy: The Parties envision a future where the guardians have enforcement capacity and authority to enforce restrictions in Edéhzhíe, which are currently handled by ECCC. The Parties understand that this involves both considerable training for guardians, as well as legislative amendments to grant the necessary authority to guardians.

- 3. Develop fire management expertise among guardians: Fires are becoming an increasing occurrence and concern due to climate change impacts. ECCC has entered into an MOU with the GNWT to contract fire-fighting services for Edéhzhíe. The GNWT does not have endless capacity though, and must prioritize human safety and infrastructure over other values. As a result, during busy fire seasons, fires in Edéhzhíe may not be a priority for fire-fighting. Having the guardians trained and authorized to fight fires in emergency situations can help to protect key sites in Edéhzhíe.
- 4. Refine Significant Cultural Areas Mapping and resulting Sensitive Areas Map: DFN will continue to build its digital inventory of Significant Cultural Areas for internal purposes, which will in turn contribute to a more robust Sensitive Areas Map in Appendix C, for future Edéhzhíe Management Plan amendments.

Chapter 5: Monitoring & Research

If the caribou are healthy, we know the land is healthy. If the fish are healthy, we know the water is good. (Herb Norwegian)

Introduction

Monitoring and research are key to the long-term health of Edéhzhíe. Edéhzhíe is generally perceived to be pristine and healthy and the main goal is to keep it that way. This means managing threats such as climate change, wildfires, invasive species, the cleanup of contaminated sites and infrastructure, and monitoring key values such as caribou and water to ensure they stay healthy.

There has been little research done in Edéhzhíe over the last 20 years. Governments and researchers have respected Dene requests to stay out while efforts to protect the area were underway. Traditional use in Edéhzhíe has also dropped off from historic levels. While traditional knowledge still exists among active and historic users in the area, it has only been documented periodically, with the last study done almost 20 years ago. This has created a data gap about the actual status of key values and threats now. For this reason, a major objective of the first five years is to develop a baseline of information, through both traditional knowledge and scientific research, that the Parties and EMB can use as a benchmark over the long term.

A major concern is ensuring that we don't "study Edéhzhíe to death". Flights create considerable disturbance to wildlife and land users, and go against the Dene protocol of being quiet and respectful in Edéhzhíe. More researchers, especially those not familiar with the area, create more opportunities for disturbing the very values and sites that the Dene have fought so long to protect. For this reason, all researchers must apply for permits to enter Edéhzhíe, which are reviewed by the EMB and carefully scrutinized. Culturally inappropriate methods such as collaring animals will not be approved unless there is a dire need. Some sites will remain off limits to permit holders. Researchers must always be accompanied by a guardian or knowledgeable land user to steer researchers away from sensitive areas, and ensure that valuable local and traditional Indigenous Knowledge is included alongside scientific data collection. Research that can be done by guardians, or that can serve to build guardian capacity to take over that work in the future, is preferred. Chapter 4 and Appendices B and C describe these and other prohibitions and permit conditions to safeguard Edéhzhíe.

Monitoring Plan

Appendix D lays out the Edéhzhíe Monitoring Plan for the first 5 years. It incorporates and builds on existing monitoring programs and guardian capacity and addresses key baseline information needed to lay the foundation for long-term monitoring in Edéhzhíe. It serves as a guide for guardians and researchers; the Parties and EMB will follow an adaptive management approach, and it will be reviewed and updated as part of the initial 5-year review of the Edéhzhíe Management Plan.

Key Monitoring Programs and Partners

Dehcho K'éhodi Stewardship and Monitoring Program

DFN is responsible for establishing and operating a Dehcho K'éhodi Stewardship and Monitoring Program to carry out ecological monitoring, cultural protection, mentorship, training and educational activities, and to contribute to monitoring and management activities that the Parties undertake together with respect to Edéhzhíe.⁹⁶ Currently, DFN employs 8 guardians (2 per Dehcho community), for 10 months of the year. Their current activities include:

- Running patrols in Edéhzhíe and recording observations (e.g. wildlife sightings, contaminated sites, fires, status of infrastructure; unusual conditions);
- Accompanying permit holders and participating in research programs;
- Assisting ECCC enforcement staff by being their eyes and ears on the land and reporting infractions ("Observe/Record/Report");
- Assisting in the operation of On the Land events, including setup and takedown; and
- Harvesting occasional resources in Edéhzhíe for community distribution (e.g. meat, medicine, water, firewood).

There has not been a defined monitoring program up to this point to guide guardian patrols and activities. Moving forward, guardians will be integral to implementing the monitoring program. Patrols will be guided by seasonal monitoring responsibilities as laid out in the monitoring plan. Guardians will also be tasked with implementing some new research and monitoring activities, such as "catch per effort" monitoring on the key fish lakes.

The data collected by guardians will be supplemented by information gathered by Community Coordinators in discussion with the Elder/Harvester Committee's in each Dehcho community. If each EHC holds an annual workshop to discuss observations and changes related to Edéhzhíe's values, this will provide a means of tracking change over time. Community Coordinators can also compile other information collected from safety plans filed by land users going into Edéhzhíe.

DFN staff would also be responsible for compiling annual program reporting needed to monitor progress against cultural goals and objectives. This includes monitoring indicators such as:

- # of participants involved in OTL programming
- Amount of Dene Zhatié used in OTL programming
- Place Name documentation / registration
- Time spent in Edéhzhíe by guardians
- Local community requests to enter Edéhzhíe / safety form tracking.

AAROM Monitoring

Dehcho AAROM (Aboriginal Aquatic Resource and Oceans Management) is funded by Fisheries and

I have been all over that lake. I grew up on that lake. I know that lake. (Peter Landry)

Oceans Canada and is administered by DFN. It facilitates community-based aquatic resource monitoring in the Dehcho region and brings together DFN communities, university researchers and government departments to fulfill monitoring objectives in the Dehcho region. Within Edéhzhíe, AAROM, in partnership with researchers, have been monitoring fish and water quality in Mustard Lake since 2015,

⁹⁶ EEA, S. 4.3

Big Island and Willow Lakes since 2016, Bulmer Lake since 2021, and Hornell Lake since 2022. Key parameters are mercury and methyl mercury in sediment and water, pH, nutrients, algae, dissolved oxygen, dissolved organic carbon, and secchi depth.

AAROM monitors fish stock health, and particularly mercury levels in fish (also diet, locations, age, size, condition), in various lakes across the Dehcho region. As part of the study, AAROM is assessing the size and depth of lakes, water chemistry, sediment chemistry, landcover, and characteristics of the catchments around the lakes to determine how all of these factors interact and impact mercury levels in fish. Within Edéhzhíe, fish sampling was done in Mustard Lake in 2015, Willow Lake in 2016, Big Island Lake in 2017, and Bulmer Lake in 2022, and Hornell Lake in 2024. AAROM engages Dehcho communities each year to determine which lakes are a priority in any given year. They've identified that additional lakes can be studied in future years upon request, but this may require additional funding.

AAROM is not focused on monitoring water levels at this time (though they are recording depth in the lakes they are sampling). However, they have been doing annual isotope monitoring since 2017, which can be used as an indicator of the relative importance of snowmelt, precipitation, and evaporation in determining water levels.

AAROM monitoring will continue to be a cornerstone of aquatic monitoring in Edéhzhíe in the future. As funds become available, there is an opportunity to add additional lakes. The EMB and guardians have identified Mills Lake, Jackfish Lake, and First, Second and Third Lakes as priorities, as well as the Horn and Willowlake Rivers.

ECCC Monitoring

The Canadian Wildlife Service is responsible for the conservation of migratory birds, the recovery of species at risk, and the protection of nationally important habitat for wildlife. Their research and monitoring activities in Edéhzhíe are therefore focused on the health of migratory birds and species at risk, monitoring the threats to those species, and ensuring the overall protection and health of Edéhzhíe.

ECCC is currently partnering with DFN to implement a biodiversity study, which involves the periodic deployment of trail cameras and ARUs (Autonomous Recording Units) to monitor species abundance and diversity in Edéhzhíe. ECCC has also sought permission to install a Motus Wildlife Tracking Station at Mills Lake to track migratory birds flying over the area.

Another major ECCC focus is identifying and remediating contaminated sites in Edéhzhie. They have completed a Limited Phase 1 Environmental Site Assessment and are working with Dehcho communities to finish documenting additional areas of potential environmental concern with the goal of addressing all identified contaminated sites within the timeframe of this management plan.

ECCC also currently compiles and summarizes annual reporting from permit holders each year. This allows the Parties to track the level, nature and locations of use by permit holders in Edéhzhíe.

The monitoring plan includes many other scientific monitoring priorities (e.g. aerial censuses, water monitoring on rivers, diet studies (browse, pellet and lichen studies). ECCC will play a key role in implementing this research, either on its own, or through research partnerships.

Finally, ECCC would also be responsible for compiling enforcement statistics annually, while maintaining confidentiality on individual cases as required. This annual reporting can help to inform future management activities.

GNWT Monitoring Programs

The GNWT is a key partner in research and monitoring, as it is the land manager on all public lands outside of Edéhzhíe. It has existing monitoring programs for many aspects of the environment right up to the boundaries of Edéhzhíe, and in some cases covering Edéhzhíe. The Parties can work with the GNWT to extend these existing programs into Edéhzhíe, to begin to build a baseline of information. Key monitoring programs that the GNWT runs, that the Parties and EMB may rely on for monitoring in Edéhzhíe include:

- Wildlife monitoring: Boreal Caribou, Wood Bison, Moose, bears, invasive species, bats, amphibians, pollinator insect species, small mammals, Snowshoe Hare, and furbearers;
- Landcover, vegetation, forests, invasive species;
- Fire and landscape disturbance monitoring (the GNWT will also lead fire-fighting services for ECCC within Edéhzhíe); and
- Permafrost.

Chapter 6: Plan Implementation

Overview

The Edéhzhíe Management Plan is a living document that will be revised periodically. This first management plan has been developed with a 5-year timeline to coincide with the first review period. This initial period is a time for building processes and baseline information, which will support long-term management and monitoring efforts. Once these foundations are established, the management plan can be revised to focus on longer term goals and priorities.

Five-Year Workplan

Table 12 identifies the general timelines and lead organization(s) for implementing the management actions identified in this plan over the first five years. This in intended to guide the more detailed and rigorous annual workplan and budgeting done by the Parties for each fiscal year. The Parties (DFN and ECCC) and EMB will follow an adaptive management approach in implementing the plan and will consider implementation successes and challenges in preparing for the five-year review.

Action #	Lead	Action	'25-26	'26-27	'27-28	'28-29	' 29-30	'30-31 +
1.1.1	DFN	Develop Dehcho K'éhodi	Develop		Implement		Review	
1.1.2	Parties	Develop Research & Monitoring Agenda	Deve	lop	lı	mpleme	nt	every 10 yrs
1.1.3	Parties	Develop Health of Edéhzhíe Report		l	Develop	1		Review every 10 yrs
1.1.4	Parties	Implement Species-Specific Management Plans			As t	hey aris	е	
1.2.1	Guardian/ Land users	Harvest beavers along Willowlake River tributaries		Ongo	oing, as o	opportu	nities aris	se
1.2.2	Guardian/ Land users	Harvest fish in all Edéhzhíe lakes.		Ongo	oing, as o	opportu	nities aris	se
1.3.1	Parties/ EMB	Prohibit incompatible activities and communicate prohibitions.	Ongo and enfo	•	-	•	•	plications ions
1.3.2	Parties	Develop enforcement response to illegal fishing	Deve	lop		Im	plement	:
1.3.3	ECCC/ EMB	Apply conditions to permits to minimize impacts	Ongo	oing, thro	ough rev	view of p	ermit ap	plications
1.3.4	Parties	Prohibit develop of new access trails into Edehzhie	-	•	-	•	•	plications gulations
1.3.5	Parties	Explore climate change mitigation and adaptation strategies			Explore,	/Develop)	Implement
1.3.6	Parties/ ECC	Develop Wildland Fire Management Strategy	Develop		Review	Annuall	y / Imple	ement
1.3.7	Parties/ ECC	Develop strategy to keep Wood Bison off the plateau	Develop			Imple	ment	

Table 12. Five-Year Workplan to Implement Management Actions.

Action #	Lead	Action	'25-26	'26-27	'27-28	'28-29	' 29-30	'30-31 +
1.3.8	Parties	Develop Risk-Specific Emergency Response Plans			As eme	rgencies	arise	
1.4.1	ECCC	Develop costed remediation and monitoring plan for contaminated sites			Develop			Implement
2.1.1	DFN	Develop and run Annual OTL Program	~	~	~	~	~	Ongoing
2.1.2	DFN	Continue to document and share (as appropriate) information on cultural sites and values			C	Ingoing		-
2.1.3	DFN	Register Dene Place Names with NWT Cultural Places Program			Compl	ete regis	stration	
2.1.4	DFN	Explore opportunities/ partnerships to develop digital tools for transmission of cultural knowledge		Ongo	oing, as o	opportur	nities aris	se
2.2.1	Guardians	Maintain access trails and infrastructure			As	needed		
2.2.2	DFN & TG	Develop communications to encourage Dene use of Edéhzhíe	Develop		Update	as neede	ed / Impl	ement
2.2.3	DFN	Increase amount of time guardians spend in Edehzhie	Ong	oing, as	funding	and pro	grammiı	ng allows
3.1.1	Parties/ EMB	Annual Team Building Event in Edéhzhíe	~	~	~	~	~	Ongoing
3.1.2	Parties	Co-develop annual workplan and calendar	~	~	~	✓	~	Ongoing
3.1.3	Parties	Develop co-management Operations and Procedure Guide	Deve	lop	Imp	lement /	' Update	as needed
3.1.4	Parties	Develop Asset Management Plan	Deve	lop	Imp	lement /	' Update	as needed
3.1.5	Parties	Develop a Public Registry of Management Decisions	Develop			Implei	ment	
3.1.6	Parties	Complete a Data Sharing Agreement	Develop			Implei	ment	
3.1.7	Parties	Provide training and enforcement authority to guardians to help manage illegal fishing.	Gradu	ial deve	lopment	t over 5 y	years	Implement
3.2.1	Parties	Develop Communications and Outreach Plan	Develop			Implei	ment	
3.3.1	Parties	Invite GNWT participation as Implementation Partner.			C	Ingoing		
3.3.2	Parties	Hold a research symposium	~					Every 5 years
3.3.3	Parties	Participate in national and international guardians & conservation planning networks.			C	Ingoing	L	
3.4.1	Parties	Develop long-term funding strategy for Edéhzhíe	Deve	lop	Imp	lement /	'Update	as needed

Roles and Responsibilities

The three main organizations involved in Edéhzhíe are DFN, ECCC (together, "the Parties"), and the EMB. DFN and ECCC (the Parties) are jointly responsible for the management and operation of Edéhzhíe⁹⁷. They will exercise their respective jurisdictions and authorities to carry out their obligations in the best interests of Edéhzhíe.⁹⁸

The EMB's role is to assist the Parties in the management and operation of Edéhzhíe.⁹⁹ It does so by providing a forum for the Parties to make consensus decisions. The Parties refer all proposals, activities or developments that affect the planning, management, operation, monitoring and evaluation of Edéhzhíe to the EMB¹⁰⁰, and the Board may advise the Parties on all aspects of the planning, management, operation, monitoring and evaluation of Edéhzhíe.¹⁰¹

The Parties rely on other partners for some operational activities, research and monitoring, and implementation of specific Actions, as identified in this management plan. The most significant partner is the GNWT. The GNWT has several implementation responsibilities that makes them a key partner. including:

- Maintaining the indefinite subsurface land withdrawal for Edéhzhíe that ensures that no new subsurface rights (oil and gas, minerals) will be granted in Edéhzhíe;
- Wildfire management; and
- Wildlife and environmental research ECC conducts a variety of wildlife research programs right up to the Edéhzhíe boundary, and monitors key environmental parameters such as permafrost, wildfire and human disturbance, which are essential for monitoring.

Other partners will be needed to implement the research and monitoring program. Some existing partnerships already exist, such as:

- AAROM program: A partnership between DFN and DFO to undertake fish and lake monitoring; and
- Wilfrid Laurier University: Works with DFN and its communities on a number of research projects, such as permafrost monitoring, and running the Scotty Creek Research Station.
- Trail Cameras: DFN and ECCC work with the GNWT, University of Alberta, University of British Columbia and Wilfrid Laurier University to analyze results from the network of trail cameras installed in Edéhzhíe

The roles and responsibilities of the Parties (both individual and joint), the EMB and other partners are summarized in **Table 13**.

⁹⁷ EEA, S. 4.2

⁹⁸ EEA, S. 4.1

⁹⁹ EEA, S. 5.1

¹⁰⁰ EEA. S. 6.2

¹⁰¹ EEA, S. 6.3

Table 13. Roles and Responsibilities of the Parties, EMB, and other Partners in Edéhzhíe.

	DFN	ECCC	EMB	Partners
Establishment	Designate and protect Edéhzhíe as a Dehcho Protected Area. Work with the GNWT to se Edéhzhíe.	Designate and protect Edéhzhíe as a National Wildlife Area (add Edéhzhíe to Schedule 1 of the <i>Wildlife Area</i> <i>Regulations</i>) cure permanent protection of	-	GNWT to provide an indeterminate subsurface land withdrawal.
Management Planning	• Develop and implement from EMB.	he EMB. o develop the management plan. nt a management plan, with assistance nent plan and Harvesting Protocol.	 Develop a process for the preparation and review of the management plan. Assist the Parties to develop the management plan. Develop a Harvesting Protocol. 	
	the preparation and reReview the plan in the	advice of Elder Harvester Committees (E view of the Management Plan. fifth year after plan approval, and then e to the plan whenever it's deemed advisa	every 10 years after.	
Workplans & Budgets / financial reporting	 Develop annual work plans and budget for Dehcho K'éhodi & capital infrastructure. Manage financial reporting and audits Review/amend and ap 	Develop its annual work plan and budget. prove annual work plans and budgets	Develop an annual workplan and budget for its operations.	
Staffing	 by DFN and EMB. Establish and run EHCs in each Dehcho community to advise the Parties and EMB. Hire and manage DFN Edéhzhíe staff, 			

	DFN	ECCC	EMB	Partners
Communications, Education and Outreach	 including regional positions, community coordinators, guardians, and Board members Each Party will designate for Edéhzhíe manageme The Parties will collabora Resource Strategy. Each Party will invite a re participate in the recruit The Parties will identify a employment and contra The Parties are committe participation in all positie the procurement of good Joint Communications Manage Edéhzhíe.ca website Produce and install temporary/additional signage as needed Develop Annual Reports for DFN and EMB Manage Edéhzhíe social media accounts Reporting to DFN Leadership meetings and Annual Assembly, 	e a Senior Representative responsible nt and operations. ate in the development of a Human epresentative of the other Party to ment process for Edéhzhíe positions. any future opportunities for cting. ed to maximizing Dehcho ons associated with Edéhzhíe, and in	EMB	Partners
	and to community leadership on request			
Management Actions/Decisions	The Parties will:Exercise their authority i	n the best interests of Edéhzhíe.	EMB may seek the expertise and advice of	Advise the EMB or Parties on specific

EDÉHZHÍE MANAGEMENT PLAN (DRAFT)

	DFN	ECCC	ЕМВ	Partners
	 Agreement. Implement Management management plan, eithe Refer all proposals, active Edéhzhíe to EMB. Consider EMB decisions Make decisions/take act decision if necessary to Agreement. Either Party may take any re an emergency, and shall pro EMB as soon as possible. 	ary to achieve the purposes of at Actions identified in this er jointly or separately, as specified. <i>v</i> ities or developments affecting and implement them collaboratively. tion by consensus prior to an EMB achieve the purposes of this asonable action it deems necessary in vide notice to the other Party and the	 Elder/ Harvester Committees, the Parties and other persons to advance the purposes of the EEA and carry out its roles and responsibilities. EMB may participate in regulatory proceedings affecting Edéhzhíe. EMB may advise the Parties on all aspects of planning, management, operation, monitoring and evaluation of Edéhzhíe. Assist the Parties with Issue Resolution. ct to confidentiality 	subjects when invited to do so. • Assist the Parties in implementing management actions and operational requirements where requested (e.g. GNWT provision of wildfire fighting services).
Research & Monitoring	Establish & operate a Dehcho K'éhodi Program. Staff to coordinate and integ activities between the Dehc monitoring as much as possi	Undertake programs for wildlife research and monitoring. grate management and operational ho K'éhodı and ECCC's research and ble	Assist the Parties in identifying research and monitoring priorities, protocols.	Partners will be invited to carry out specific research and monitoring programs in accordance with this management plan.
Permitting	Assist the permit application process / assist applicants to fill out applications and refer them to EMB.	 Manage the permit application process / assist applicants to fill out applications and refer them to EMB. Issue an authorization under the <i>Wildlife Area Regulations</i> for a resource access route through the Willowlake River Corridor that is requested by the GNWT and meets the conditions in EEA S. 3.3.(e). 	The EMB reviews and make consensus decisions on permit applications and attaches conditions as appropriate.	Partners will apply to ECCC for permits under the Wildlife Area Regulations.

	DFN	ECCC	EMB	Partners
		 Compile annual reporting from Permit holders and monitor compliance with permit conditions; share reports/findings with DFN and EMB. 		
Enforcement	Jointly develop an Enfo	rcement Protocol		Other partners like DFO
	Guardians to Observe, Record, Report incidents to ECCC Enforcement staff	 Enforcement officers follow-up on reports, and undertake enforcement action Carry out inspections of leases and permits, and enforce conditions. Enforce prohibitions under the <i>Wildlife Area Regulations</i>. 		or GNWT may have enforcement authority as well on matters within their jurisdiction (e.g. sport fishing).
Long-term Financial Resourcing	 Establish and manage the Edéhzhíe Fund. Raise funds to fill the Edéhzhíe Fund. Administer the net annual income generated by the Fund. 	 Contribute funding to DFN identified in Schedule 4 for Dehcho K'éhodı, EMB operations, capital infrastructure, etc as per approved annual budgets. Contribute up to \$10 Million in matching funds to the Edéhzhíe Fund. Pay the costs of its own participation in the EMB and for its own program-specific monitoring and research activities in Edehhzie. Allocate resources to meet its other management commitments under the EEA, including species monitoring and habitat management. 		Other Partners may form part of long-term financing of Edéhzhíe (e.g. PFP funds, other grants and foundations, carbon storage markets, etc.)

	DFN	ECCC	ЕМВ	Partners
EEA Review and Amendment	 of the EEA. Either contract an indepreview of the Agreement (May 2, 2022), then ever Amend the EEA as needed to conform with any right recognized and accorded 	anuary to review the implementation endent evaluation or complete a joint t within 8 years of Establishment Date ry 10 years. ed, and specifically, where necessary nts and benefits subsequently d to DFN by treaty, agreement or the Crown or by judicial declaration.		

Permitting Process

All activities in Edéhzhíe, other than traditional use activities carried out by Dehcho and Tłįchǫ Dene, require a National Wildlife Area permit.

Permit applications can be found at <u>https://www.canada.ca/en/environment-climate-</u> <u>change/services/national-wildlife-areas/permits-activities/protected-areas/instruction-sheet-</u> <u>application-permit-under-wildlife-area-regulations.html</u> or requested via email from <u>CWSPermitNorth@ec.gc.ca</u>. Contact <u>CWSPermitNorth@ec.gc.ca</u> or 1-800-668-6767 (in Canada only) if you have any questions, comments, or concerns about federal wildlife permits in Edéhzhíe or if you need assistance completing an application form.

Figure 3 outlines the permitting application process. Applicants should begin the permitting process early (4 months recommended) as it can take considerable time to assemble the necessary documents for submission, and for CWS to process an application. Applicants are expected to engage local communities as part of the process and should include letters of support with their application. Once an application is submitted, the Edéhzhíe Management Board must review it and provide a recommendation before CWS can issue a permit. The Board can recommend that the permit be issued, with or without conditions, or be rejected.

The deadlines to apply for a permit for Edéhzhíe NWA are March 1st and September 1st each year. Applications received outside these review periods may experience longer delays, as the EMB only meets quarterly.

Figure 3. Permit Application Process

1. OBTAIN OTHER PERMITS

 All other required permits for the type of activity should be obtained prior to applying for the NWA

2. APPLICATION

 The National Wildlife Area permit application should be completed as well as a plain language summary. Any necessary supporting documents that will aid in the review process should be prepared as well.

3. COMMUNITY CONSULTATION

• The applicant should reach out to the communities about their activity and ask for their support, and include responses with their permit application

4. SUBMISSION

 The permit application and all relevant supporting documents are submitted to CWS permit north email

Plan Renewal/Amendment

As per S. 7.6 of the EEA, the Parties and the EMB are to review the Edéhzhíe Management Plan in the fifth year following approval and may propose revisions at that time. Thereafter, the Parties and the EMB will conduct periodic reviews every 10 years. A Party or the EMB may also propose revisions to the management plan whenever it deems necessary. All revisions are to be approved by the Parties.

Appendix A: The EEA and UNDRIP

Relevant UNDRIP Articles	How the Edéhzhíe Establishment Agreement
Indigenous people have the right to:	and Management Plan Contribute to these rights
Indigenous people have the right to: Article 11 practice and revitalize their cultural traditions and customs, including the right to maintain, protect and develop the past, present and future manifestations of their cultures, such as archaeological and historical sites, artefacts, designs, ceremonies, technologies and visual and performing arts and literature. Article 12 manifest, practice, develop and teach their spiritual and religious traditions, customs and ceremonies; the right to maintain, protect, and have access in privacy to their religious and cultural sites; the right to the use and control of their ceremonial objects; and the right to the repatriation of their human remains. Article 13 revitalize, use, develop and transmit to future generations their histories, languages, oral traditions, philosophies, writing systems and literatures, and to designate and retain their own names for communities, places and persons. Article 15 the dignity and diversity of their cultures, traditions, histories and aspirations which shall be appropriately reflected in education and public infor- mation.	 and Management Plan Contribute to these rights One of the purposes of the EEA is to promote Dene Ahthit'e, the relationship between the Dehcho Dene and the land. All decisions and actions taken by the Parties and the management plan must contribute to achieving the purposes of the EEA. S. 3.3 of the EEA states that individuals exercising [Aboriginal and Treaty Rights] in a manner consistent with Dehcho law shall not require additional permits or authorizations from Canada, and shall not be required to pay fees to engage in Dene Ahthit'e within Edéhzhíe, including for resource harvesting and other cultural uses and activities. Edéhzhíe protects important cultural sites, including burial sites. The management plan provides additional restrictions of use around such sites. The Management Plan is built upon the Dene Worldview and includes many Edéhzhíe Stories. The Management Plan uses Dene Place Names and Dene Zhatié throughout. EMB meetings provide for simultaneous translation, and Dene Board members are free and encouraged to speak in their language at all times. Key communications materials are translated into Dene Zhatié. Dene aspirations drive the direction in the
	management plan.

Relevant UNDRIP ArticlesIndigenous people have the right to:Article 18to participate in decision-making in matterswhich would affect their rights, throughrepresentatives chosen by themselves inaccordance with their own procedures, as wellas to maintain and develop their own indigenousdecision-making institutions.Article 19States shall consult and cooperate in good faith withthe indigenous peoples concerned through their own	 How the Edéhzhíe Establishment Agreement and Management Plan Contribute to these rights DFN and ECCC together negotiated the EEA. DFN is an equal partner with ECCC in the management and operation of Edéhzhíe. They make decisions together via consensus through the EMB. DFN chooses its own board members and staff.
representative institutions in order to obtain their free, prior and informed consent before adopting and implementing legislative or administrative measures that may affect them. Article 20 to be secure in the enjoyment of their own means	 S. 3.3 of the EEA states that individuals exercising Aboriginal and Inherent Rights in a
of subsistence and development, and to engage freely in all their traditional and other economic activities.	manner consistent with Dehcho law shall not require additional permits or authorizations from Canada, and shall not be required to pay fees to engage in Dene Ahthít'e within Edéhzhíe, including for resource harvesting and other cultural uses and activities.
Article 24 their traditional medicines and to maintain their health practices, including the conservation of their vital medicinal plants, animals and minerals. Indigenous individuals also have the right to access, without any discrimination, to all social and health services.	 Edéhzhíe protects traditional medicines, wildlife and minerals found within its boundaries. The Management Plan and Harvesting and Traditional Use & Occupancy Protocol provide direction regarding the manner of harvesting or restrictions to harvesting of these values, to ensure their conservation.
Article 25 maintain and strengthen their distinctive spiritual relationship with their traditionally owned or otherwise occupied and used lands, territories, waters and coastal seas and other resources and to uphold their responsibilities to future generations in this regard.	 One of the purposes of the EEA is to promote Dene Ahthít'e, the relationship between the Dehcho Dene and the land. All decisions and actions taken by the Parties and the management plan must contribute to achieving the purposes of the EEA.

Relevant UNDRIP Articles Indigenous people have the right to:	How the Edéhzhíe Establishment Agreement and Management Plan Contribute to these rights
 Article 26 the lands, territories and resources which they have traditionally owned, occupied or otherwise used or acquired. own, use, develop and control the lands, territories and resources that they possess by reason of traditional ownership or other traditional occupation or use, as well as those which they have otherwise acquired. States shall give legal recognition and protection to these lands, territories and resources. Such recognition shall be conducted with due respect to the customs, traditions and land tenure systems of the indigenous peoples concerned. Article 29 the conservation and protection of the environment and the productive capacity of their lands or territories and resources. States shall establish and implement assistance programmes for indigenous peoples for such conservation and protection, without discrimination. 	 DFN has long sought to protect Edéhzhíe. DFN and ECCC together negotiated the legal framework to protect Edéhzhíe through the EEA, including the application of the <i>Dehcho Protected Areas Act</i> and the <i>Canada Wildlife Act</i> and <i>Wildlife Area Regulations</i>. DFN and ECCC make decisions about Edéhzhíe together via consensus through the EMB. The EEA is a legal contract, binding on both DFN and ECCC, to uphold their responsibilities and commitments to Edéhzhíe and to each other. DFN and ECCC together negotiated the legal framework for Edéhzhíe through the EEA, including the application of the <i>Dehcho Protected Areas Act</i> and the <i>Canada Wildlife Act</i> and <i>Wildlife Act</i> and <i>Wildlife Act</i> and <i>Wildlife Act</i> and <i>Korea Act</i> and <i>Korea Act Areas Areas Act Areas Act Areas Act Areas Act Areas</i>
Article 31 maintain, control, protect and develop their cultural heritage, traditional knowledge and traditional cultural expressions, as well as the manifestations of their sciences, technologies and cultures, including human and genetic resources, seeds, medicines, knowledge of the properties of fauna and flora, oral traditions, literatures, designs, sports and traditional games and visual and performing arts. They also have the right to maintain, control, protect and develop their intellectual property over such cultural heritage, traditional knowledge, and traditional cultural expressions.	 "Respect and promote Dene Ahthít'e" is one of the purposes of Edéhzhíe under the EEA. The EEA provides DFN with the funding and sole authority to establish and operate a Dehcho K'éhodi Stewardship and Guardian Program to carry out ecological monitoring, cultural protection, mentorship, training and educational activities. The Parties [have] developed a Data Sharing Agreement that provides for the protection of their traditional knowledge.
Article 32 determine and develop priorities and strategies for the development or use of their lands or territories and other resources. States shall consult and cooperate in good faith with the indigenous peoples concerned through	 DFN chose to protect Edéhzhíe, through the Dehcho Land Use Plan, then as a Dehcho Protected Area and a National Wildlife Area. DFN is an equal partner with ECCC in the management and operation of Edéhzhíe, though the EEA.

Relevant UNDRIP Articles Indigenous people have the right to: their own representative institutions in order to obtain their free and informed consent prior to the approval of any project affecting their lands or territories and other resources, particularly in connection with the development, utilization or exploitation of mineral, water or other resources.	 How the Edéhzhíe Establishment Agreement and Management Plan Contribute to these rights The Edéhzhíe Management Plan was developed based on direction provided by Dehcho communities, DFN and the Edéhzhíe Management Board. All decisions regarding Edéhzhíe are first referred to the EMB to decide by consensus, providing the means for DFN to provide its consent. If consensus cannot be reached, the EEA includes an issue resolution process.
Article 39 have access to financial and technical assistance from States and through international cooperation, for the enjoyment of the rights contained in this Declaration.	 DFN's costs to implement the EEA and fulfill its obligations with respect to Edéhzhíe have been funded by ECCC for the first 5 years. ECCC also contributed \$10 Million to the Edéhzhíe Fund, to contribute to the long-term costs of operating Edéhzhíe.
Article 40 access to and prompt decision through just and fair procedures for the resolution of conflicts and disputes with States or other parties, as well as to effective remedies for all infringements of their individual and collective rights. Such a decision shall give due consideration to the customs, traditions, rules and legal systems of the indigenous peoples concerned and international human rights.	 The EEA includes dispute and issue resolution processes for DFN and ECCC, in the event of a dispute. These have not been needed to date.

APPENDIX B: Prohibited, Permitted and Allowed Activities in Edéhzhíe

The Wildlife Area Regulations (WAR) prohibit most activities within National Wildlife Areas without a permit, except where specific allowances are made for the NWA under Schedule I.1. Sections 3(1) lists these prohibitions. The EMB have reviewed and amended the list and identified whether each activity:

- Is allowed without the need for a permit (Allowed),
- Requires a permit (By Permit), or
- Is strictly prohibited no permits will be issued for this activity in Edéhzhíe (Prohibited).

Table 14 identifies whether each activity listed is Prohibited, requires a Permit, or is Allowed for the Parties (as managers of Edéhzhíe), for Aboriginal and Treaty Rightsholders from the Dehcho and Tł₂chǫ Regions exercising their rights in accordance with S. 3.3. of the EEA, and for potential Permit Applicants. These amendments are expected to be included in future amendments to the WAR under Schedule I.1.

Table 14. Prohibited, Permitted and Allowed Activities by User Group.

Use/Activity	DFN & ECCC (Parties)	Dehcho/ Tłįchǫ Aboriginal & Treaty Rightsholders	Permit Applicants
Activities that are likely to have a significant adverse effect on the ecological and/or cultural values of Edéhzhíe shall be prohibited, including but not limited to exploration or exploitation of subsurface resources for commercial purposes (EEA S. 3.3(c))	Prohibited	Prohibited	Prohibited
Commercial activities (e.g. forestry, harvesting firewood or plants, tourism, etc.)	Prohibited	Prohibited	Prohibited
Carry a firearm for safety	Allowed	Allowed	By Permit
<u>WAR S.3(1):</u>			
a) introduce any living organism whose presence is likely to result in harm to any wildlife or the degradation of any wildlife residence or wildlife habitat;	Prohibited	Prohibited	Prohibited

Use/Activity	DFN & ECCC (Parties)	Dehcho/ Tłįchǫ Aboriginal & Treaty Rightsholders	Permit Applicants
b) hunt, fish or trap;c) have in their possession any equipment that could be used for hunting, fishing or trapping;	Allowed (for monitoring or management purposes)	Allowed	 Research: By Permit; Recreational: Prohibited; For non-Indigenous partners of Dehcho/ Tłįchǫ Dene*: By Permission
d) have in their possession, while fishing, any lead sinkers or lead jigs;	Prohibited	Prohibited	Prohibited
e) have in their possession any wildlife, carcass, nest, egg or a part of any of those things;	DFN – Allowed ECCC – By permit	Allowed	 Research: By Permit; Recreational: Prohibited; For non-Indigenous partners of Dehcho/ Tłjcho Dene*: By Permission
 f) carry on any agricultural activity, graze livestock or harvest any natural or cultivated crop; 	Prohibited	Prohibited	Prohibited
g) bring a domestic animal with hooves into the wildlife area;	Prohibited	Prohibited	Prohibited
h) allow any domestic animal to run at large or keep any domestic animal on a leash that is longer than three metres;	Prohibited (Dog teams are allowed, but must be leashed at all times)	Prohibited (Dog teams are allowed, but must be leashed at all times)	Prohibited
 i) carry on any recreational activities, including swimming, camping, hiking, wildlife viewing, snowshoeing, cross-country skiing and skating; 	Allowed	Allowed	 Local Non-Indigenous people: Community permission; Non-Local: By Permit
 j) participate in a group meal or group event involving 15 or more people; 	Allowed	Allowed	 Dehcho-Based OTL Program: Allowed All Else: By Permit
k) light or maintain a fire;	Allowed	Allowed	 For Emergency Purposes or Permitted Use: Allowed All Else: By Permit
 I) operate a conveyance — including a conveyance without a driver on board — other than an aircraft; (e.g. snowmobile, boat, quads, argos) 	Allowed (Quads and Argos allowed on trail only from September to December)	Allowed (including Quads and Argos)	By Permit (Quads and Argos are Prohibited for Permit Holders)
m) conduct a take-off or landing of an aircraft	Allowed	Allowed	 To take S. 35 rightsholder; support OTL event, Parties' operations, or deal with an emergency: Allowed; All Else: By Permit

Use/Activity	DFN & ECCC (Parties)	Dehcho/ Tłįchǫ Aboriginal & Treaty Rightsholders	Permit Applicants
 m) conduct a take-off or landing of a remotely piloted aircraft (drones); 	By Permit	Prohibited	By Permit
n) operate on land or in the water a remotely controlled self-propelled device or set in motion on land or in the water an autonomous self-propelled device;	Prohibited	Prohibited	Prohibited
 o) remove, damage or destroy any poster or sign or any fence, building or other structure; 	Allowed (e.g. to move signs, remove old cabins, contaminated sites)	Prohibited	By Permit
 p) sell, or offer for sale, any goods or services (i.e. commercial activities such as forestry, tourism, harvest and sale of firewood) 	Prohibited	 Traditional use & trade of goods & services: Allowed Commercial Activities: Prohibited 	Prohibited
q) carry on any industrial activity;	Prohibited	Prohibited	Prohibited
r) disturb or remove any soil, sand, gravel or other material;	Allowed (e.g. building a cabin or cultural centre)	Allowed (e.g. building a cabin, clearing a trail)	By Permit (e.g. scientific monitoring, remediation, or archaeological study)
s) dump or deposit any waste material, or any substance that would degrade or alter the quality of the environment;	By permit	Prohibited	By permit
 t) remove, damage or destroy any artifact or natural object; or u) carry out any other activity that is likely to disturb, damage, destroy or remove from the wildlife area any wildlife — whether alive or dead — wildlife residence or wildlife habitat. 	 For operations, monitoring & management: Allowed; All Else: By Permit 	Allowed (e.g. personal harvest of wildlife, plants, firewood, clearing trails)	By Permit (e.g. for emergency response or for scientific research)
WAR S.3(2): No person shall, except in accordance with a permit issued under section 4 or section 8.1, hunt or fish from outside the wildlife area for wildlife located in the wildlife area.	For management purposes: AllowedAll else: By Permit	Allowed	Prohibited
Federal SARA - prohibitions on federal lands	DFN – Allowed; ECCC - By Permit	Allowed	Prohibited
* The EMB understands and supports that some Deh		ne to harvest for them or on be	half of their children. In these situations, the

designated non-Dene must submit a permit application annually, with a letter of support from the Dehcho Dene member they are harvesting for.

APPENDIX C: Standard Permit Conditions

The following are standard conditions that DFN and ECCC will apply to permits in Edéhzhíe, unless they agree to waive or alter these to address unique circumstances. Note that DFN and ECCC will engage the Tłįchǫ Government on all applications for activities proposed to occur, in whole or in part, within Mǫwhí Gogha Dè Nįįtłèè. Representatives of the Tłįchǫ Government attend and participate in all EMB meetings and are provided with all application materials for activities proposed within this area. While they are not members of the EMB, DFN, ECCC and the EMB will give great weight to their response to applications within their traditional territory.

A. Protection of Significant Cultural Values

The "Sensitive Areas" shown in **Map 10** contain one or more significant cultural values documented to date. The Parties and EMB may restrict access to these areas or impose additional conditions on activities proposed within these areas, as needed to protect cultural values. These decisions will be made by the EMB and Parties through the permit review process. The Dene will show respect within these areas in accordance with the Harvesting and Traditional Use & Occupancy Protocol and other local protocols as may have been identified for them.

B. Minimum Flight Altitude and Horizontal Setbacks

Unless a permit has been issued which authorizes otherwise:

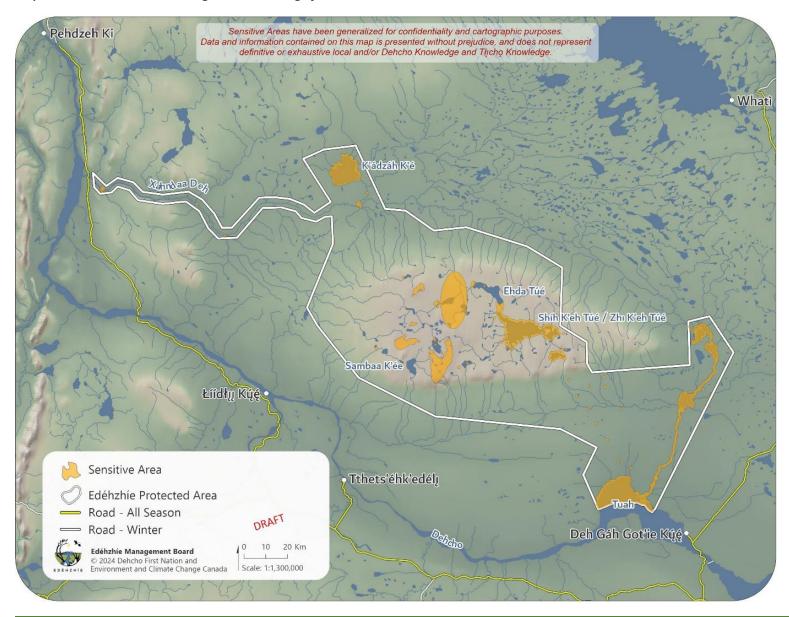
- Wherever reasonably possible, aircraft should maintain a minimum flight altitude of 1100 m (3500 ft) during point-to-point travel when flying in Edéhzhíe, except when taking off and landing;
- 2. Permit holders must maintain a 250m horizontal setback from all wildlife encountered in Edehzhie at all times of year; and
- Permit holders must take all reasonable steps to maintain the horizontal setback identified in Table 15 for wildlife habitat features during sensitive periods. The locations of known habitat features are shown in Maps 11 to 15.

Wildlife	Habitat Feature	Sensitive Period	Horizontal Setback
Boreal Woodland	Preferred Habitat (Maps	Calving/Post-Calving: May 1–June 30	250 m
Caribou	11-14)	Late Summer: Aug 1-Sept 12	
		Rut: Sept 20-Oct 4	
		Late Winter: Mar 16-Spr 1	
	Mineral Licks (Map 15)	Year-round	1000 m
Raptors	Nests (Map 15)	Mar 1 – Aug 1	1000 m
		Aug 2 – Feb 28	500 m
Waterfowl	Breeding/Nesting Areas	June 1 – Aug 1	250 m
	(Map 15)		
	Staging Areas /	May 10 – June 20	1500 m
	Concentrations (Map 15)	Aug 15 – Sept 30	
Black Bear	Dens*	Oct 15 – May 15	250 m
Wolverine	Dens*	Oct 15 – May 15	250 m
Wolf	Dens*	May 1 – Sept 15	250 m

Table 15. Setbacks and Sensitive Periods for Important Wildlife Habitat Features.

* Locations are not known. The setbacks apply to specified habitat features encountered during the course of permitted activities during sensitive periods.

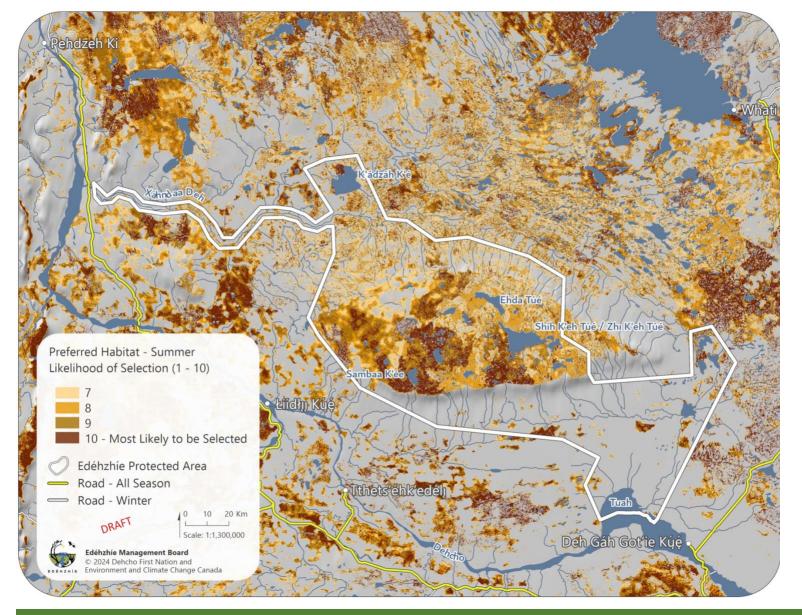
Map 10. Sensitive Areas containing One or More Significant Cultural Areas

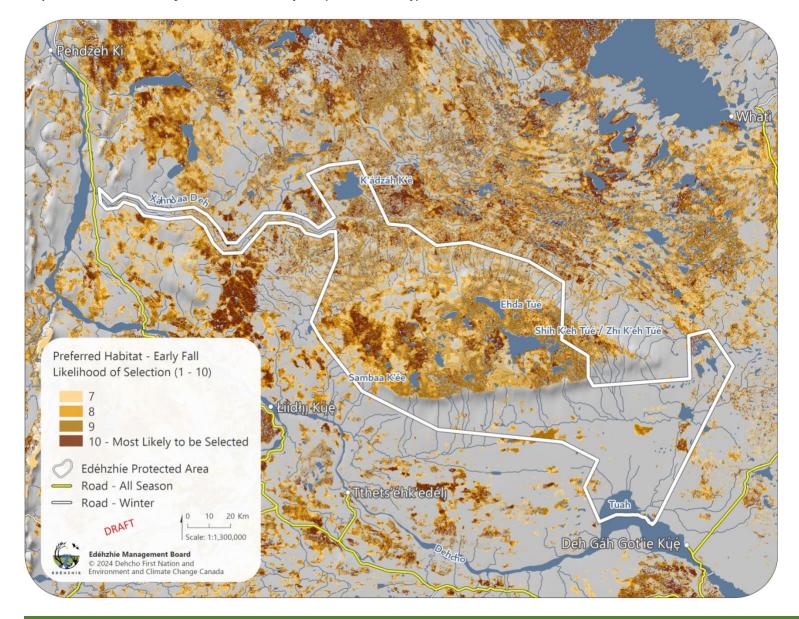


Map 11. Boreal Caribou Preferred Habitat in Spring (Levels 7-10 only)

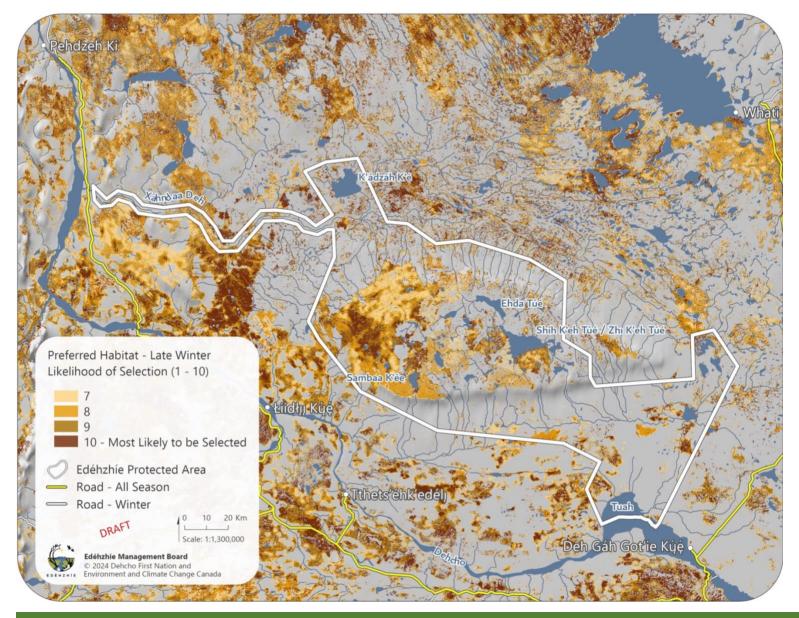


Map 12. Boreal Caribou Preferred Habitat in Summer (Levels 7-10 only)



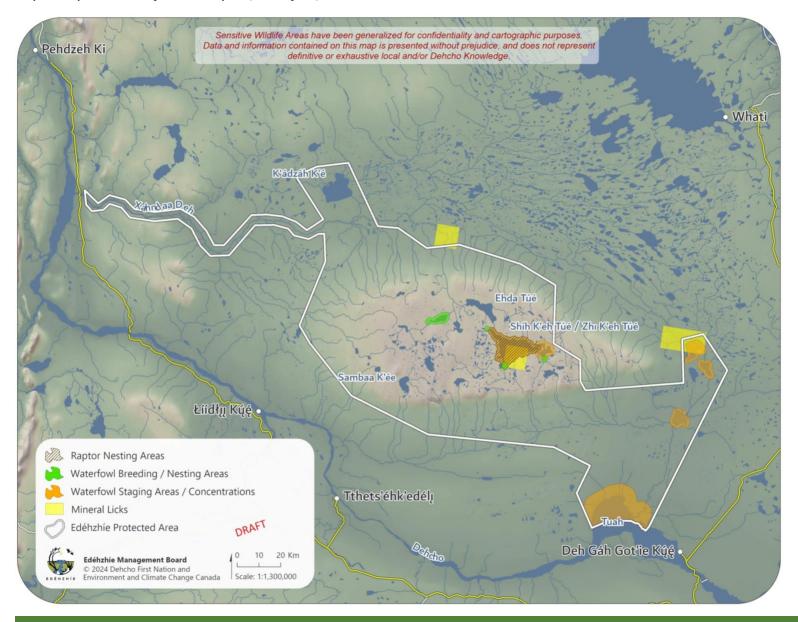


Map 13. Boreal Caribou Preferred Habitat in Early Fall (Levels 7-10 only)



Map 14. Boreal Caribou Preferred Habitat in Late Winter (Levels 7-10 only)

Map 15. Important Wildlife Areas: Raptors, Waterfowl, and Mineral Licks



C. Fishing Spawning Areas

Activities with the potential to impact fish are prohibited in spawning areas during the periods listed in **Table 16**¹⁰².

Species	Location	Spawning Period
Jackfish/Pike	Horn River, Mills Lake, Willow Lake, Mustard Lake, Big	May – early June
	Island Lake, Bulmer Lake – shallow, grassy areas	
Pickerel /	Horn River mainly, Mills Lake, in the streams flowing	Late May – Early June
Walleye	into Bulmer Lake – shallow gravel or sandy areas or in	
	submerged vegetation	
Whitefish	All lakes and rivers/tributaries in Edéhzhíe – in gravel	Late September – Early
	shoals and reefs	October
Lake Trout	Willow, Mustard and Big Island Lakes – shallow reefs	October
Coney / Inconnu	Mills Lake	Fall

Table 16. Spawning Locations and Periods by Fish Species

D. Habitat Disturbance Threshold

ECCC and DFN will not issue a permit for any activity that results in a cumulative increase in landscape disturbance from human activity in Edéhzhíe by greater than 1% from the date of plan approval.

For clarity, this does not include disturbance by fire, and does not limit the ability of Dehcho or Tłįchǫ Dene to build traditional cabins in Edéhzhíe, which do not require permits.

Currently, 8.4% of Edéhzhíe is impacted by human activity¹⁰³.

E. Use of Guardians

Permit holders are not allowed in Edéhzhíe without an Edéhzhíe Guardian or other knowledgeable land user as designated by DFN, unless an exception has been granted in the permit. It is recommended that permit holders utilizing the services of Edéhzhíe Guardians contribute \$500/day to the Edéhzhíe Trust Fund via DFN to support the long-term sustainability of the Edéhzhíe Protected Area.

F. Results Reporting

Permit holders are required to report back to the EMB on the results of their permitted activities. For multi-year permits, reports should be provided annually, and at the end of the permit.

Results reporting contributes to DFN's and ECCC's understanding of Edéhzhíe, and the Health of Edéhzhíe Report. It also allows the Parties to assess how well permit conditions are working, and compile information on the level of activity in Edéhzhíe.

 ¹⁰² Information in Table 15 provided by Mike Low, Dehcho AAROM Coordinator, November 30, 2023.
 ¹⁰³ Analysis by Heidi Brown, EMB GIS Support, May 28, 2023

Value/Threat	Attribute	Indicators	Monitoring Method	Locations	Who	Frequency	Season	Yr 1	2	3	4	5
Aquatic Enviro	onment				•	•	-					
Water	Quality	Hg and MeHg (Sediment & water), pH, nutrients, algae, Dissolved O2, Dissolved organic carbon, secchi depth		Now: Big Island, Willow, Mustard, Bulmer, Hornell; Other Priority Lakes: Mills , Jackfish, First, Second, Third Lake; Horn	AAROM	Annual	Summer	x	x	x	х	x
		Ash deposition from fires; others as above? PCBs, airborne toxins, microplastics	Water quality sensors; passive monitoring systems	River, Willowlake River	ECCC Science and Technology Branch;	Biannual, install sensors in yr 1	TBD	x	х	х	х	х
		Historic water quality	Sediment core sample		External	TBD						
		Benthic Invertebrates	CABIN network		Other/NGO/ AAROM	Annual	TBD	х	х	х	х	х
	Levels	For Rivers: Monthly mean discharge (m3/s); Monthly mean water level (m); Annual		Now: Big Island, Willow, Mustard Other Priority Lakes: Bulmer, Hornell; Mills, Jackfish, First, Second, Third Lake;	AAROM	Annual	Summer/winter	x	x	x	х	X
		isotope monitoring as an indicator of importance of snowmelt vs rainfall	Talk to Elders	Horn and Willowlake Rivers.	CCs/EHCs	Annual	TBD	х	х	х	х	х
		and evaporation vs precipitation. Levels relative to cabins on Horn River.	Water survey stations, passive monitoring systems		ECCC, Canada Water Survey	Bi-annual, Install survey stations/ passive monitoring systems yr 1	Summer, winter	x	x	x	x	x
	Underground		Detailed Karst study with Dr. Ford; dye test	Possible aqueduct from Mills Lake to	Dr Ford	One time study	Summer		х			
	Connections / Karst		(need funding partner)	Willow Lake								
Fish	Population Size	oulation Size Catch per unit effort;	Guardians fish the lakes / rivers annually and record results	Big Island, Willow, Mustard, Bulmer, Hornell, Jackfish Lake, 1st, 2nd, 3rd lakes, Horn & Willowlake Rivers	Guardians with advice from AAROM for correct protocols	A few lakes every year on rotation	Winter preferred; For Horn River, sucker run April-May, pickerel in May			1-2x		
			Creel Surveys		AAROM/Guardians/ Other		TBD					
	Meat Quality	Visual: Gills are rosy red, fish are chubby;	Guardians fish the lakes / rivers annually and record results	Big Island, Willow, Mustard, Bulmer, Hornell, Jackfish, 1sst, 2nd, 3rd lakes;	Guardians	Annual	Summer; winter for parasites					
		Parasite load	Talk to Elders/harvesters	Horn & Willowlake Rivers	CCs/EHCs	Annual						
		Fatty Acid levels	AAROM	Now: Big Island, Willow, Mustard,	AAROM	A few lakes every	Summer	х	х	х	х	х
		Mercury levels		Other priority lakes: Bulmer, Hornell Lakes		year on rotation						
Aquatic Birds		# of species detected, # of sightngs or		Mills Lake	ECCC; DUC;		TBD					\square
	of waterfowl, shorebirds, & gulls	recordings		Mills Lake	ECCC/USFW - Waterfowl	As needed	Spring/Summer					
			Snow geese and Canada geese have satellite trackers (install Motus tower);	Mills Lake	ECCC	Ongoing, annual processing of results, install tower in Yr 1		x	x	x	x	x
	SAR Abundance # of sightings		ARU data	Edehzhie-wide	DFN-ECCC	TBD	TBD					
		Presence or absence of birds at key staging /nesting areas; timing of arrival, condition of birds	Talk to Elders/harvesters	Edehzhie-wide	Guardians, CCs, Land users, EHC members	Annual	TBD	x	x	x	х	x
			Guardian Patrols	Edehzhie-wide	Guardians	Ongoing						
	Wetlands	Size?? Are they drying up?		Edehzhie-wide	Partner	Every 5 years, as needed	Summer	x				

Value/Threat	Attribute	Indicators	Monitoring Method	Locations	Who	Frequency	Season	Yr 1	2	3	4	5
Threats To Aqua	tic Environment			;								i
Contamination	Oil sheen around Mills Lake	Visual observation	guardian patrols	Mills Lake, other?	Guardians	Ongoing, Annual	As and when patrols occur	х	х	х	х	х
		water quality testing (hydrocarbon testing)	guardian patrols - water quality testing	Mills Lake, other?	Guardians	Ongoing, Annual	As and when patrols occur	x	х	x	x	x
	"Christmas trees" - abandoned oil infrastructure	APEC ID and location	Clean up as per Contaninated Sites workplan and guidelines	As determined from site assessment	ECCC - FSCAP	TBD	TBD	As pe	er contam	inated si	tes work	.plan
Climate Change	Ice	Ice depth	SmartBuoys (smartice.org)	TBD	External	TBD	TBD					
	species movement	New species sightings - type, #s,	Land user / EHC observations	Edehzhie-wide	EHCs	Ongoing, Annual	TBD	х	х	х	х	х
	/alien species; Permafrost changes	location, date, impacts, etc. Slumping, landslides, thermokarst	Guardian observations (photos, gps, patrol forms);	Edehzhie-wide	Guardians	Ongoing, Annual	As and when patrols occur	x	х	х	х	x
		landscape	Land user / EHC observations	Edehzhie-wide	EHCs	Ongoing, Annual	TBD	х	х	х	х	х
Alien Species	Beaver on the plateau	Presence, #s, Beaver fever	Guardian observations (photos, gps, patrol forms)	Edehzhie-wide	Guardians	Ongoing, Annual	TBD	х	х	х	х	x
	Presence of new alien species	presence of New alien species	ARUs		ECCC	TBD	TBD					
	Salmon, other fish not traditionally found here	Presence, #s	Guardian observations (photos, gps, patrol forms)		Guardians	Ongoing, Annual	TBD	x	х	х	х	x
Terrestrial Env	vironment			•	•							
Vegetation	Habitat / landcover	Vegation changes (impacting multiple species)	Satellite Data - landcover classification	Edehzhie Wide	DUC (landcover classification)	Every 10 years	Summer?	Exist	ng (Not n	eeded in	first 5 y	ears)
Moose	Pop Size	# Tracks, # animals, # of calves,	Guardian Patrols	Everywhere - Willow Lake, Horn River	Guardians	Ongoing	Nov-March	х	х	х	х	х
		clusters	Land use observations		CCs/EHCs	Ongoing		х	х	х	х	х
		# animals, # of calves	Track surveys	Willow River, Horn River, Lakes, trails, islands, muskeg areas	GNWT/ECCC	Every year	Nov-March	х	х	х	х	x
		# animals, # of calves	Aerial Surveys	Mackenzie River down Horn River	GNWT/ECCC	Every 10 years; more frequently to get a baseline	Nov-March	х				
		# animals, # of calves	Trail cameras	Existing locations	DFN/ECCC	Every 5 years	Spring/fall	х				
	Health / Condition	Cause of death	Necropsy	Wherever found (get GPS coordinates)	Guardians/ECC	Ongoing	Winter/spring	х	х	х	х	х
		Cows & bulls; bone, teeth, kidney, piece of heart, vial of blood	Sample kits (same kit at caribou)	Wherever harvested	Harvesters/ ECC (ECC prize)	Ongoing, annual results reporting	Hunting season, rutting, calving	х	х	x	х	х
		What are they eating, health; male/female, habitat, migration, genetics, stress	Scat/pellet sampling	Various	ECC, ECCC, Guardians	Annual?	Seasonal	х	х	х	x	x
		Location, #, fur condition	Guardian Patrols	Wherever observed	Guardians	Ongoing	Summer vs winter	х	х	х	х	x
		Overall condition	Land user / EHC observations	Wherever observed	-	Ongoing	Seasonal	х	х	х	х	х
Boreal Caribou	Pop Size	Tracks + Sightings, M-F ration, calf recruitment	Aerial Census	Everywhere	ECCC/GNWT/Guardia ns	Every 10 yrs	Springtime, migrating	х				
		# animals, tracks, antlers	Observations / Harvest; App-based survey	Everywhere	Guardians / Land Users	Ongoing	Harvest season	х	х	х	х	x
		Sightings	Trail Cameras - special deployment in areas of high value habitat	Existing locations	DFN/ECCC	Every 5 years	Spring/fall	х				
		Habitat use	Collaring	Everywhere	ECC	No collaring unless severe decline	Year-round					
	Habitat	Human disturbance, fire history, landcover changes	Monitor annual change in human disturbance and fire (from GNWT data)	Everywhere	ECC, DFN, ECCC	Annual		х	х	х	х	x

Value/Threat	Attribute	Indicators	Monitoring Method	Locations	Who	Frequency	Season	Yr 1	2	3	4	5
		Habitat abandonment, fires, regrowth after fire or disturbance	Guardian Observations	Everywhere	Guardians	Ongoing	Year-round	х	х	х	х	х
		Lichen availability, species	Lichen Surveys	TBD	ECCC / External	TBD	TBD					
	Health / Condition	Cause of death	Necropsy	Wherever found (get GPS coordinates)	Guardians/ECC	Ongoing	Winter/spring	x	х	х	х	x
		Cows & bulls; bone, teeth, kidney,	Sample Kits	Wherever harvested	Harvesters/ ENR (ECC		Hunting season,	x		x	x	x
		piece of heart, vial of blood			gift cards)		rutting, calving					
			scat/Pellet surveys	Edehzhie Wide	ECCC/GNWT/Guardia	As and when	Year-round					1
					ns							
	General Info	Animal observations (species, #s,	Put a log book in cabins where harvesters	Guardian cabins	Guardians / Land	Ongoing	Year-round	х	х	х	х	х
		health, habitat)	can write observations		users							
			Observation Forms	Everywhere	Guardians	Ongoing	Year-round	х	х	х	х	х
			Oral Reporting	Everywhere	Harvesters / EHCs	Ongoing	Year-round	х	х	х	х	х
Wood Bison	Pop Size	#s, M-F ration, calf recruitment	Aerial Surveys (Mackenzie Bison herd)	Mackenzie Bison Herd range	ECC-MBWG	Status dependant	TBD					
		Harvest levels	Tag System	Mackenzie Bison Herd range	ECC-MBWG	Ongoing	TBD	х	х	х	х	х
		#s, locations, health	Observations	Mackenzie Bison Herd range	Guardians	Ongoing	Year-round	х	х	х	х	х
Dis		Monitor for encroachment up the plateau	Trail Cameras	Mackenzie Bison Herd range	ECCC/DFN	As needed	Year-round	х				
	Habitat ab after fire o Lichen ava Cause of d Cows & bu piece of he What are tHealth / ConditionCause of d Cows & bu piece of he What are tGeneral InfoAnimal ob health, halnPop Size#s, M-F rat Harvest ley #s, locationDisease StatusDisease StatusAre sites d climate chPop Size#s, locationrvestPop SizePop Size# harvestee hours/yeaHuman UsePeople on whereHuman disturbancekm2 of new hours/yea	#s, locations	Collars	Mackenzie Bison Herd range	ECC-MBWG	Ongoing	Year-round	х	х	х	х	х
	Disease Status	Disease status	Sample kits (anthrax and brucellosis)	Mackenzie Bison Herd range	Guardians/ land users		Year-round	x			х	х
		Disease status	Necropsy studies	Mackenzie Bison Herd range	ECC	As required	When found	х	х	х	х	х
		Disease presence - baseline and during outbreak, emergency response	Soil and water monitoring (there's a test)	Mackenzie Bison Herd range	ECCC	Baseline, during outbreak	TBD					
Landbirds	Abundance &	Species, #s	Trail Cameras/ARUs (Biodiversity Study)	Existing monitoring locations	ECCC/DFN	Every 5 years?	Spring/fall	х				
	Diversity; esp. SAR,	Species, #s	Observations	Everywhere	Guardians	Ongoing	Year-round	x	х	х	х	х
Culturally Significant Areas	Location	Are locations known and marked	Signage/Location marker to ID significant cultural sites for monitoring and protection	Shorelines, documented sites	Guardians, Land Users	As needed	Year-round	х				
	Site Condition	Are sites damaged from human use or climate change, or at risk?	Guardian Surveys/Observations & Patrols monitoring sites to make sure they stay healthy	Regular traditional use and OTL areas, significant sites: Willow River, Horn River, Horn Plateau, access trails from Dehcho	Guardians, Land Users	Inspect a few sites every year on rotation	Year-round	x	x	x	х	x
			Trail Cameras	and Tlicho communities	ECCC/DFN	TBD	TBD	х				
Threats to Terres	strial Environment											
Wolves	Pop Size	#s, locations, # of caribou kills	Collaring (rejected by communities, controversial)	Everywhere	ECC?	only if caribou decline						
Caribou Harvest	Pop Size	# harvested in Edehzhie / Dehcho	Harvest surveys, guardians	Everywhere	CCs, Guardians	only if caribou decline	Fall?					
Human Disturbance		km ² of new ground disturbance; hours/year of flight time in Edehzhie;	Permitting	Everywhere	ECCC	Annual reporting	April	х	х	х	х	x
		People on camera, what they're doing, where	Trail cameras and ARUs	Access points into Edehzhie from Ft Prov - Mills Lake, Horn River, Farmers Road	ECCC/DFN	As needed	Spring/fall	x				
	Human disturbance	km2 of new ground disturbance;	Landscape disturbance data from GNWT	Everywhere	ECC	Every 5 yrs	?	x	x	x	х	x
	Boat traffic	Boat traffic over certain size	AIS - tracks marine traffic (passive monitoring)	Mills Lake	ECCC	Annual reporting	Summer	х	х	х	х	x
	Human Use		Eyes and Ears monitoring	Mills Lake	Guardians	Annual	Year round			1		
	Human Use		Possible gate counter	Ft Prov access route into Edehzhie, Farmers Road, Horn River(?)	Guardians	Annual						

Value/Threat	Attribute	Indicators	Monitoring Method	Locations	Who	Frequency	Season	Yr 1	2	3	4	5
Fire	Ground disturbance	km2 of burn/yr	Annual GNWT Fire mapping	Everywhere	ECC	Annual reporting	TBD	х	х	х	х	х
Spruce budworm	Presence	Presence, km2 forest infected?	ECC Forest Management Division Monitors this	Everywhere	ECC, FMD	As needed	TBD					
Climate Change	Impacts to terrestrial wildlife habitat	Landcover/habitat change; snow depth; permafrost thaw?	Guardian, Land use observations	Everywhere	Guardians, land users, EHCs	Ongoing, annual rep	orting	x	х	х	х	х
Cultural Enviro	onment											
Value	Attribute	Indicators	Monitoring Method	Locations	Who	Frequency	Season	Yr 1	2	3	4	5
Use & Occupancy	Traditional Use	New cabin building, trails	Landscape disturbance data	Edehzhie wide	DFN's partners	5 years	summer	х				
			Border patrol	Fly the border	Guardians		Spring-Fall	х	х	х	х	х
			observations from aerial wildlife counts	Edehzhie wide	Guardians	As they happen						
			tablet surveys	Patrol locations in Edehzhie	Guardians	Every patrol	Seasonally	х	х	х	х	х
		How often people fly into Edehzhie	Airlines to report annually as a requirement of their permits	Edehzhie wide	ECCC permitting	Annually	April reporting	х	х	х	х	x
		Seasonal trapping activities, spring and fall harvests	Self-reporting, safety plans, trail cameras, airline bookings (TG)	Edehzhie wide	CCs, RC	Annually	June reporting	х	х	х	х	x
			Guest books at cabins for observations	Guardian cabin sites	Guardians	Annually	June reporting	х	х	х	х	х
	Harvesting	Harvest reporting - # of animals	self reporting	Edehzhie wide	CCs, RC	Annually	June reporting	х	х	х	х	х
		harvested in Edehzhie every year	Harvest Study	Edehzhie wide	DFN	Baseline, then every 10-20 years	TBD					
	Guardian Activity	Incident reports	Track every time guardian sends report to ECCC Enforcement	Edehzhie wide	Guardians	Annually	June reporting	x	х	х	х	x
		Person-days guardians spend in Edehzhie	Timesheets and a spreadsheet, patrol forms	Edehzhie wide	CCs	Annually	June reporting	х	х	х	х	x
	Recreational use	Level of use	Trail cameras, town news, permits	Edehzhie wide	CCs	Annually	June reporting	х	х	х	х	х
Transmission of	Language competency	# of programs immersion based,	Reporting after OTLs	Camp locations	RC/CCs	Annual	June reporting	Х	х	х	х	х
knowledge, culture, language history	of programming	translator or fluent person present, amount of time spent instructing in Dene Zhatie, amount of materials in Dene Zhatie, # of language partners in programming										
	•	demonstrating, and level of self- initative (vs being told)	Pair guardians with an Elder; OTL camps; bringing in community experts; self assessment & instructor assessment at end of camp	Camp locations	RC/CCs	Annual	June reporting	х	x	х	x	x
	Long-term plan for cultural and research centre		Develop milestones for each 5-yr planning period to advance this project and measure progress against those	N/A	RC	Every 5 years, set milestones in Yr 1		x				
	Language competency of participants	# of fluent speakers; # of MAP participants and mentors; level of fluency in students	Census data, MAP participants of language proficiency for baseline,	N/A	RC, DFN language coordinator	Baseline Yr 1, every 5 years (Health of Edehzhie Report)		x				
	Place Names documentation	# of names documented	Trails of our Ancestors (TG), Place name mapping in Edehzhie from Crosscurrent report	Edehzhie wide	RC	Baseline Yr 1, every 5 years (Health of Edehzhie Report)		x				
Prohibited Uses												
		or in contravention of permits; # of times enforcement was requested by	Observe, Record and Report - Patrol forms, GPS, InReach, Photos (seasonal guardian access by boat, skidoo, quad; otherwise by flight)	Edehzhie wide	Guardians, CCs	As patrols occur; Annual reporting	Year-Round, June Reporting	x	х	х	х	x
Vi	olations	to enforcement.	ECCC Enforcement (confidentiality issues RE what can be shared)	Wherever it occurs	ECCC	Annual reporting	April	x	x	х	х	х

Value/Threat	Attribute	Indicators	Monitoring Method	Locations	Who	Frequency	Season	Yr 1	2	3	4	5
			Wildlife Cameras	Trail access points	DFN/ECCC	TBD	TBD	х				
			Interviews with regular land users on	Edehzhie wide	CCs	Annually	June reporting	х	х	х	х	х
			observations, conditions									
		New cabin building, trails, disturbance	Landscape Disturbacnce data/mapping	Edehzhie wide	Partner TBD	Every 5 years	Summer	х				
				Committement Lev	vel							
				1 - Being done currently, no additional re	sourced needed							
				2 - Needs training/program development	t to be implemented							
				3 - Some existing capacity, but requires in	ncreased effort or re	sources						
				4- New task, needs new resources, known organization								
				5 - New task with new resources and par	tnership needed							