

# SHIH (GRIZZLY BEAR) MANAGEMENT PLAN

## Gwich'in Settlement Area 2022-2032

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**Approved by:**

Ehdiitat Gwich'in Renewable Resource Council

Nihtat Gwich'in Renewable Resource Council

Gwichya Gwich'in Renewable Resource Council

Tetlit Gwich'in Renewable Resource Council

Gwich'in Renewable Resources Board

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Thank you to GNWT Environment and Natural Resources, Arctic Red River Outfitters, the Aklavik Hunters and Trappers Committee and the residents of the Gwich'in Settlement Area for providing input, thoughts, and comments.

We thank the federal government, through its Aboriginal Fund for Species at Risk (AFSAR) program, and GNWT Environment and Natural Resources for supplying funds to hold the consultations and update the Shih Management Plan.

## PRODUCTION NOTE

This management plan was prepared by the Gwich'in Renewable Resources Board. Laurence Carter, Management Plan Coordinator - Grizzly Bear, and Édouard Bélanger, Wildlife Biologist, produced this document based on the Grizzly Bear Management Plan for the Gwich'in Settlement Area, Northwest Territories, 2000-2005, the Management Agreement for Grizzly Bears in the Gwich'in Settlement Area, and public consultations. For additional copies of this management plan, please see contact information below.

Quotations included in this document are from two projects: the Gwich'in Environmental Knowledge Project (GEKP), conducted by the Gwich'in Renewable Resources Board between 1995 and 1998, and the Gwich'in Knowledge of Grizzly Bears project, conducted by the Gwich'in Social and Cultural Institute and the Gwich'in Renewable Resources Board in 2014.

## CONTACT INFORMATION

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## SUGGESTED CITATION

Gwich'in Renewable Resources Board. 2022. Shih (Grizzly Bear) Management Plan for the Gwich'in Settlement Area. Inuvik, NT.

# LANGUAGE

In the Teet'it Gwich'in dialect, grizzly bears are referred to as shih, while in Gwichya Gwich'in they are called sheh. To be concise, we have used the Teet'it Gwich'in dialect throughout this plan. For more information on language, please refer to *Gwichyah ts'at Teet'it Gwich'in Ginjik Gwi'dinehtl'ee' - Gwich'in Language Dictionary, Fourth Edition* (Gwich'in Social & Cultural Institute/Gwich'in Language Centre 2003) and *Nành' Kak Geenjit Gwich'in Ginjik - Gwich'in Words About the Land* (Gwich'in Elders 1997).

# INTRODUCTION

## The Plan and Agreement

The best way to manage shih is to make a plan so that everyone can agree on what needs to be done and who is doing it. The Gwich'in Renewable Resources Board (GRRB) and the Renewable Resource Councils (RRCs) worked together to produce this plan for the Gwich'in Settlement Area (GSA). It is a framework for the management of shih and the protection of Gwich'in harvesting rights. This plan was first put into place in 2000 and was updated in 2022 after consultations with the communities. The 2022 update includes a revised tag system, which is now integrated within the plan. This plan is intended to be reviewed as needed, but ideally within 10 years.

The harvest system in Appendix C is a voluntary agreement between the GRRB and the RRCs which outlines how tags for shih harvest should be allocated.

The GRRB held consultations in the fall and winter of 2020, a workshop in 2021 to develop this Plan and tag system, and further consultations in late 2021 and early 2022 to finalize the plan. The results of these consultations can be found in the report titled, *What Was Said: A summary of consultations on shih (grizzly bear) management in the Gwich'in Settlement Area*.

## Shih and People in the Gwich'in Settlement Area

***“Just be very careful what you say about grizzly bears and have lots of respect for them when you handle them. Even when you're eating, always say 'thank you'.” - Mabel English, 1996, GEKP Interviews***

The people of the Gwich'in Settlement Area have long shared their land with shih and have immense knowledge of their ecology. Several documents, reports, and oral stories describe this relationship. A list of relevant information on shih and the people of the GSA can be found in the literature section of this document.

Although shih generally avoid humans, the possibility of conflict is always present. Shih can become problem bears when they become accustomed to human sources of food present in camps, landfills, and industrial sites. Managing bears is also about managing humans and what humans leave on the landscape.

Shih are vulnerable to population decline caused by over-harvest and loss of habitat. They exist at low densities, breed infrequently, produce few young each year, and can exhibit high cub mortality. The number of bears killed can easily be greater than the number of bears born. In addition, shih need large areas of undisturbed land (2,000 km<sup>2</sup> or more) to maintain sustainable populations.

At the time of the 2000 grizzly bear management plan, there was an estimated population of 420 shih of over two years of age in the GSA. Low shih harvest coupled with increased sightings on the land, near communities, and at landfills makes us believe there are more shih in the GSA today.

## Who Manages Shih

The following groups are involved in shih management in the GSA:

- Gwich'in Renewable Resources Board
- Ehditait, Gwichya, Nihtat, and Tetlit Renewable Resource Councils
- Government of the Northwest Territories, Department of Environment and Natural Resources
- Gwich'in Land and Water Board
- Gwich'in Land Use Planning Board
- Gwich'in Tribal Council
- Mackenzie Valley Environmental Impact Review Board
- Conference of Management Authorities (under the *Species at Risk [NWT] Act*)

Under the Gwich'in Comprehensive Land Claim Agreement (GCLCA), the GRRB is the main instrument of wildlife management in the Gwich'in Settlement Area. It consults with its co-management partners listed above and the public to seek direction and to ensure renewable resources in the GSA are managed in a sustainable manner. Under the GCLCA, grizzly bears are not considered an exclusive species.

Grizzly bears were listed as a species of Special Concern under the federal *Species at Risk Act* in 2018. In the NWT, the Species at Risk Committee (SARC) assessed grizzly bears as Special Concern in 2017. However, after consultation, the NWT Conference of Management Authorities (CMA) chose not to add Grizzly Bears to the NWT List of Species at Risk, as they found no clear threats that could lead to population declines.

## What Guides Management

Effective co-management of shih requires participation, cooperation, communication, and consensus among all stakeholders.

The principles for co-management of grizzly bears in the GSA include:

- recognizing and promoting the cultural, economic, and ecological importance of shih to the Gwich'in and the public
- using traditional, community, and scientific knowledge of shih to make informed management decisions
- involving communities in the research and management of shih in the GSA
- ensuring a healthy and viable shih population
- fairly allocating harvest tags among user communities, and modifying the harvest as needed

# THE PLAN



# KNOWLEDGE

## GOAL

Increase our knowledge of shih by promoting research and the exchange and use of traditional and scientific knowledge

## CONTEXT

Traditional knowledge of shih has been documented on several occasions across the GSA since the 1970s. The most recent study is from 2014 and involved searching existing TK and conducting 13 interviews (Benson 2014). Scientific shih studies have only been conducted in a small portion of the GSA and none have been done in recent years. Population studies were done in the Richardson Mountains in 1992-93. The population density for the North and South Richardson Mountains habitat zones was estimated at 19 bears per 1000 km<sup>2</sup> based on this study. Shih population estimates for habitat zones in the GSA east of the Richardson Mountains were calculated by extrapolating population densities from study areas in the adjacent Inuvialuit Settlement Region which had similar habitat types. This study was done almost 30 years ago, after a period of high bear harvest. We do not know how the population has changed, but increased bear sightings (mentioned in community and management meetings and in unpublished data from ABEKS (2020)) and low harvest strongly suggest an increasing shih population.

*“People believe the presence of a shih in the country means there is lots of game, like rabbits, caribou, and moose. If a shih does not bother people, it means that it is not hungry and there is plenty of food on the land. On the other hand, if a shih tries to attack people, it must be hungry or something is wrong with it.” - Gwich'in Words About the Land, 1997*

We heard widespread support for a shih population survey. The RRCs and the public want more information on shih numbers in the GSA. Aerial surveys, camera traps, and hair snares were all suggested as ways of estimating the population. One person suggested developing a ratio of mountain bears to forest bears to allow for easier estimates in the future. They felt it would be easier to get an accurate aerial survey of bears in the mountains because there are few trees.

There was support for knowing more about problem bears, including their habitat preferences. More than once, we heard that shih could be collared to learn more about them (i.e., habitat use and whether problems are being caused by the same bear or different bears).

We understand a generalized pattern of shih habitat use in the GSA. Shih eat a variety of foods during their active seasons. In the spring and into summer, they eat trih roots (*Hedysarum*, sweetvetch), overwintered berries in the first snow-free areas, scavenge on winter-killed vadzaih and dinjik (caribou and moose), and feed on grasses, sedges, horsetail, and herbaceous plants as they green up. During calving season, shih will kill vadzaih, dinjik, divii (Dall's sheep), and aak'ii (muskox) young. Through summer and into fall, they eat mainly berries, tthaa (ground squirrels) and trih roots. They also eat

various fish such as sriijaa (grayling) and dhik'ii (Dolly Varden char). Shih have large home ranges that are variable in size throughout the Western Arctic. Females with young may occupy annual ranges of 50 to several hundred km<sup>2</sup>, while the home ranges of adult males have been recorded at over 1000 km<sup>2</sup>.

Scientific information on the habitat (Mackenzie and MacHutchon 1996), diet and habitat use (MacHutchon 1996), den sites (Harding 1976, Nagy et al. 1983a, Nagy et al. 1983b), movement and home range (Nagy et al. 1983a, Nagy et al. 1983b, Nagy and Haroldson 1989) characteristics of shih are available for surrounding areas but have not been collected within the GSA. However, this information is available for the GSA from Traditional Knowledge sources (Benson 2014, Gwich'in Elders 1997).

## RECOMMENDED ACTIONS

- Evaluate a variety of methods for conducting a shih population estimate (e.g., aerial, fecal, hair samples, camera traps)
- Conduct a shih population study
- Collect and use traditional knowledge when planning research
- Model the shih population for different harvest levels

# CO-MANAGEMENT

## GOAL

Promote a cooperative spirit among the GRRB, RRCs, communities, government agencies, other land claim organizations, and neighboring settlement areas with respect to shih management

## CONTEXT

The GRRB is responsible for managing wildlife in the GSA, as mandated by the GCLCA. It consults with the RRCs on wildlife issues and coordinates research and management with RRCs and others. This shih management plan was developed and updated with participation from community members and the RRCs. ENR provided a regional supporting role during the consultation process. Shih are wide-ranging animals and are not confined by jurisdictional boundaries. The shih population is shared with people from neighboring land claims with which the GRRB collaborates.

## RECOMMENDED ACTIONS

- Provide information about shih ecology, research, and management to land claim organizations and government agencies
- Communicate with partner organizations when shih issues arise
- Work in a collaborative way when cross boundary issues arise
- Approach neighbor jurisdictions to collaborate on research

# CULTURE AND EDUCATION

## GOAL

Encourage knowledge sharing between hunters, people on the land, and youth

*“Nan ts'at nin hah geenjit jidii gah'iidandaii nikhwitri'inin guuts'an haatsaa gwiiyeendoo guuveenjit gwiteezaa”*

*“Passing on our knowledge about the land and animals to our children is the best gift that we can give them.”*

*- Mary Kendi, 1997, GEKP*

## CONTEXT

Education was highlighted as an important aspect of shih management during consultations. We heard that some young people wish to hunt but don't necessarily have the know-how to go out, get a bear, and process it. Many people mentioned the importance of knowing how to prepare a skin for tanners. Education on bear safety, for hunters and the public, was also deemed important. It is important to educate the public about the shih management plan and the harvest system and make sure everybody understands it.

## RECOMMENDED ACTIONS

- Develop a shih harvesting and skinning workshop
- Encourage educators and education planners to include traditional and scientific information on shih ecology in the schools
- Prepare plain language information on shih research and traditional knowledge for the public
- Provide updates on research and management of shih through the local media
- Ensure that management decisions and study results are provided to communities in a timely and meaningful way

# SHIH-HUMAN INTERACTION

## GOAL

Reduce the potential for human-shih conflict

## CONTEXT

Many people spend time on the land hunting, trapping, fishing, berry picking, and enjoying outdoor activities, so encounters between people and shih are not uncommon. Food odors at camps often attract bears, but many camps are only used part-time. If people are not present to deter bears from entering camps, they will sometimes cause damage. As a result, these bears are often killed as problem bears. Shih have become more common at landfills, especially in Inuvik and Aklavik. These bears can also pose a safety challenge for town residents.

*“When shih come close, people should make noises with pots and pans and a stick to let the shih know that people are nearby and to scare it away. The shih knows the people are protecting their family and leave. If people make a big fire, shih stay away as fire is the only thing that scares them.*

*People in camps should not burn any fat because it attracts shih. When shih search for food they are dangerous, especially when they are hungry. Shih think that they “own” a hunter’s kill when they find it, and will fight to keep it” - Gwich’in Words About the Land, 1997*

## RECOMMENDED ACTIONS

- Encourage electric fencing of landfills and proper waste management
- Provide educational materials explaining how to avoid attracting bears, including information for cabin owners
- Offer bear safety and awareness courses
- Plan human activities and developments to minimize impacts on the shih population

# HARVEST

## GOAL

Ensure shih harvest is sustainable

## CONTEXT

Following a large shih harvest in the Richardson Mountains in 1992, the RRCs, GRRB, and ENR supported a voluntary ban on shih hunting until a shih management plan was completed. This voluntary ban ended in 1997. Ever since, shih have been harvested through a voluntary tag system, as detailed in the Shih Harvest System (formerly the *Grizzly Bear Agreement*) for the Gwich'in Settlement Area. The new Shih Harvest System can be found in Appendix C.

From 2020 to 2022, as the GRRB held consultations to update the 2000 Grizzly Bear Management Plan, it also sought input and advice on ways to improve the harvest system. The RRCs agreed that they wanted a system that allowed Gwich'in Participants the flexibility to hunt anywhere in the GSA, did not count problem bear kills against the number of bears that could be harvested, and which kept the RRCs informed of what was going on near their communities.

On March 4<sup>th</sup>, 2021, an online workshop brought together the RRCs, the GRRB, and ENR to discuss modifications to the tag system. Proposals from this workshop included:

- Allowing tags to be used in any zone while informing the local RRC of an upcoming harvest
- Dealing with defence against life and property kills separately from traditional harvest
- Re-drawing the shih harvest zones

The Shih Harvest System is an appendix to this Management Plan and may be modified and reviewed as a separate entity.

In the GSA, resident hunters can only hunt shih in wildlife management area G/OT/O1 and a small portion of S/OT/O1 (in the Mackenzie Mountains) and are allowed one tag per lifetime in the NWT. This tag can be used in any outfitting zone in the Mackenzie Mountains. Presently, non-residents and foreigners (non-resident aliens) cannot hunt shih in the GSA under the *Wildlife Act*.

***“Shih are very dangerous so hunters must be properly prepared. A good shih hunter is brave, knows what he is doing, and is light enough on his feet to jump away from the shih like a lynx. His clothing is light and strong: leather jacket, pants and shoes are best. Hunters must be careful, and have their guns well cared for and ready at all times.” - Gwich'in Words About the Land, 1997***

It is important that all human-caused shih mortalities are reported. Any person killing a shih is encouraged to return the following information to ENR: date, location of kill, the skull or premolar tooth, and evidence of sex. For defence of life and property kills (DLPs) this is required under the *Wildlife Act*. If the sex is not determined, the bear is recorded as female. A tissue sample will be used to sex all shih of indeterminate sex. The hide, skull, and claws of all defence-killed bears will initially be taken by ENR. After an investigation is completed by an ENR, they will be given to the GRRB, which can transfer them to the affected RRC.

## RECOMMENDED ACTIONS

- Re-draw the shih harvesting zones so they better correspond to community use and traditional harvesting areas
- Encourage ongoing communications between the RRCs regarding tag allocations



## Gwich'in Renewable Resources Board

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### Approval for the Shih (Grizzly Bear) Management Plan – Gwich'in Settlement Area 2022-2032

**MANAGEMENT PLAN:** Shih (Grizzly Bear) Management Plan – Gwich'in Settlement Area 2022-2032

**ORGANIZATIONS INVOLVED:** Nihtat Renewable Resource Council  
 Tetlit Renewable Resource Council  
 Gwichya Gwich'in Renewable Resource Council  
 Ehdiiat Renewable Resource Council  
 Gwich'in Renewable Resources Board

**Motion to approve the Shih (Grizzly Bear) Management Plan – Gwich'in Settlement Area 2022-2032**

Organization	President/Chair name	President/Chair signature	Date
Nihtat Renewable Resource Council	Barry Greenwood		21/3/22
Tetlit Renewable Resource Council	Leslie P. Blake		May 16 <sup>th</sup> 2022
Gwichya Gwich'in Renewable Resource Council	John Norbert		June 27, 2022
Ehdiiat Renewable Resource Council	Randy Edwards Vice President		March 16/22
Gwich'in Renewable Resources Board	William R. Koc		June 25/22

*As presented in:*  
 Aklavik  
 Inuvik  
 Tsiigehtchic  
 Fort McPherson

*Date:*  
 March 16, 2022  
 March 21, 2022  
 February 22, 2022  
 April 21, 2022

## APPENDIX A

## SHIH ACTION PLAN

<b>Goal 1. Increase our knowledge of shih by promoting research and the exchange and use of traditional and scientific knowledge</b>		
<b>Action</b>	<b>Priority</b>	<b>Suggested Contributors</b>
Evaluate a variety of methods for conducting a shih population estimate (e.g., aerial, fecal, hair samples, camera traps)	1	GRRB, ENR, RRCs
Conduct a shih population study	2	GRRB, ENR, RRCs
Collect and use traditional knowledge when planning research	As needed	-
Model the shih population for different harvest levels	3	GRRB, ENR

<b>Goal 2. Promote a cooperative spirit among the GRRB, RRCs, communities, government agencies, other land claim organizations, and neighboring settlement areas with respect to shih management</b>		
<b>Action</b>	<b>Priority</b>	<b>Suggested Contributors</b>
Provide information about shih ecology, research, and management to the land claim organizations and government agencies	1	GRRB, ENR, RRCs
Communicate with partner organizations when shih issues arise	As needed	GRRB, ENR, RRCs
Work in a collaborative way when cross boundary issues arise	As needed	-
Approach neighbor jurisdictions to collaborate on research	As needed	-

### Goal 3. Encourage knowledge sharing between hunters, people on the land, and youth

Action	Priority	Suggested Contributors
Develop a shih harvesting and skinning workshop	1	GRRB, ENR, RRCs
Encourage educators and education planners to include traditional and scientific information on shih ecology in the schools	2	GRRB, ENR, RRCs
Prepare plain language information on shih research and traditional knowledge for the public	As needed	-
Provide updates on research and management of shih through the local media	As needed	-
Ensure that management decisions and study results are provided to communities in a timely and meaningful way	As needed	-

### Goal 4. Reduce the potential for human-shih conflict

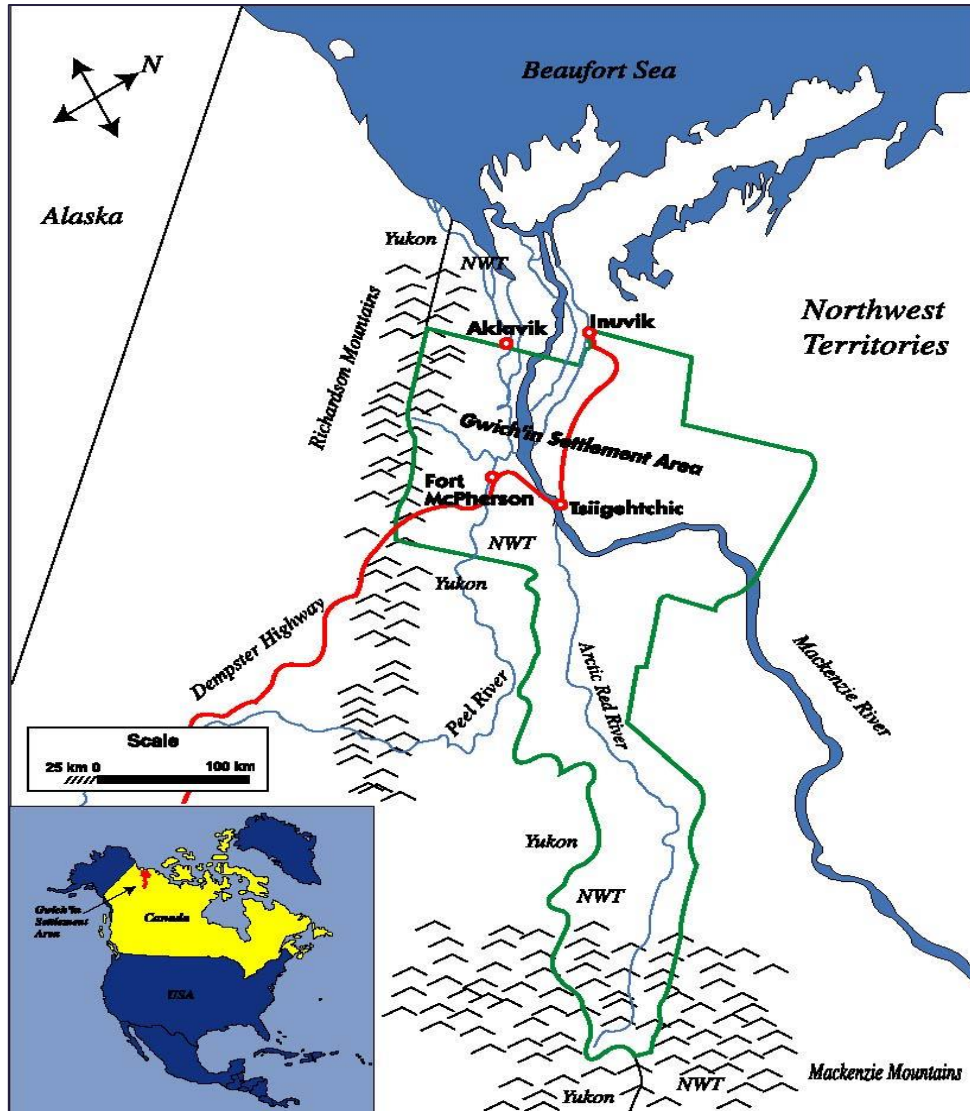
Action	Priority	Suggested Contributors
Encourage electric fencing of landfills and proper waste management	1	GRRB, ENR
Provide educational materials explaining how to avoid attracting bears, including information for cabin owners	2	GRRB, ENR, RRCs
Offer bear safety and awareness courses	2	GRRB, ENR, RRCs
Plan human activities and developments to minimize impacts on the shih population	As needed	-

### Goal 5. Ensure shih harvest is sustainable

Action	Priority	Suggested Contributors
Re-draw the shih harvesting zones so they better correspond to community use and traditional harvesting areas	2	RRCs, GRRB
Encourage ongoing communications between the RRCs regarding tag allocations	As needed	-

APPENDIX B

# GWICH'IN SETTLEMENT AREA MAP



## APPENDIX C

# SHIH HARVEST SYSTEM FOR THE GWICH'IN SETTLEMENT AREA

The goal of the harvest system is to maintain a healthy and viable shih (grizzly bear, *Ursus arctos*) population in the Gwich'in Settlement Area (GSA). This harvest system takes into consideration the importance of long-term conservation of bears, traditional harvest, the Renewable Resource Councils' (RRC) responsibility for their communities' traditional use areas, and the Gwich'in Renewable Resources Board's (GRRB) mandate.

This is a voluntary tag system, meaning it is not enforceable by law. It is what the RRCs and the GRRB have agreed to as a way forward to protect and harvest shih respectfully. It is made by and intended for indigenous harvest in the GSA. However, sections where the harvest system refers to the *Wildlife Act* are enforceable by law. Resident hunters are also asked to follow this harvest system.

This harvest system replaces the 2002 *Management Agreement for Grizzly Bears in the Gwich'in Settlement Area*. It may be reviewed and revised at any time by the GRRB and the RRCs in collaboration with each other.

### How it works

**Traditional harvest** - In this system, the Gwich'in Settlement Area (GSA) is divided into four zones (see Appendix D). Each of the four RRCs holds tags for the zone where their community is located. Each RRC receives 6 tags from ENR over a three-year period. The RRCs choose how and to who they allocate these tags. Each year at the end of the season, the RRCs return any unused tags to ENR and they are replaced one-for-one with new tags for the coming year. After the 3-year cycle, unused tags are returned to ENR and the cycle starts again with 6 new tags. All shih that are harvested traditionally should be accounted for by a tag.

When requesting a tag, a harvester must tell their RRC where and when they intend to hunt. If the harvest will not be within their RRC's zone, then their RRC will inform the appropriate RRC of the harvester's plans.

If one or more RRCs have concerns about overharvest in a particular zone, they can inform the GRRB. Together, following this management plan and the Gwich'in Comprehensive Land Claim Agreement, management or monitoring actions can be put in place.

**Problem bears** - Problem bear kills (also known as defence against life and property kills (DLPs)) are not accounted for by the tags in this system. If a problem bear is shot, it does not require a tag from this system. However, anyone who shoots a problem bear must report it to ENR. This is mandatory under the *Wildlife Act*. The problem bear kill must be reported as soon as practicable. They are required to submit the lower jaw and follow the direction of an Officer. ENR may then apply a tag to any hides that are of good quality.

**Resident and General Hunting Licence harvest** - Under the *Wildlife Act*, in the GSA resident hunting of grizzly bears is only allowed in wildlife management areas (i.e., outfitting zones) G/OT/01 and a small portion of S/OT/01 (Mackenzie Mountains). ENR manages resident hunter tags and tags can be used in any of the outfitting areas. Resident hunters need permission from the Gwichya Gwich'in RRC before hunting on private lands in G/OT/01. Formal permission is not required outside of private lands by law, but requesting permission is respectful and is recommended by this plan. Under the *Wildlife Act*, General Hunting Licence (GHL) holders can harvest a grizzly bear in the GSA but must ask for

permission from the nearest RRC before hunting on private lands. To comply with the voluntary shih harvest system, GHL holders are encouraged to request permission and a tag from the RRC in the zone where they intend to harvest. These steps will be detailed in a letter of direction from the GRRB to ENR. Foreigners and Canadians from outside the territory (Non-Resident and Non-Resident Alien hunters) are not permitted to hunt shih in the GSA under the *Wildlife Act*.

Harvest of males is strongly encouraged. Harvest of cubs, females with cubs, and bears in dens is not allowed under the *Wildlife Act*. Harvest information (e.g., sex, date, and location of kill, name of harvester) and samples (the lower jaw and the baculum as evidence of sex) are to be provided to ENR after the harvest.

### **I am Gwich'in and I want to harvest a shih in the Gwich'in Settlement Area. What do I do?**

To comply with the voluntary harvest system for the Gwich'in Settlement Area, you need a tag. Call, email, or go to your local Renewable Resource Council and ask for a shih tag. Let them know when and where you plan to hunt.

If you want to hunt in a harvest zone other than where you live, you must let your RRC know when requesting a tag. Before the hunt, your RRC will inform the affected RRC (by email or phone) that one of their members plans to hunt within that RRC's zone. See Appendix D for a map of the zones.

For example: a Gwich'in harvester from Inuvik wants to hunt near the Dempster highway close to the border. This harvester requests a tag from the Nihtat RRC. The Nihtat RRC informs the Tetlit RRC that a harvester will hunt in the zone where their community is located.

Things to remember:

- Harvest of males, especially large males, is encouraged. Avoid females.
- No harvest of cubs, females with cubs, or bears in dens.
- Let the RRC know how long you plan on hunting. Once the hunt is over, give the tag back to the RRC within 2 days.

### **Can an RRC give a tag to someone who is not part of their membership?**

Yes, RRCs decide how and to who they want to allocate their tags, such as Gwich'in from other communities, GHL holders, or Inuvialuit.

### **What happens if I shoot a problem bear in the Gwich'in Settlement Area?**

Anyone can shoot a bear to prevent starvation, to prevent injury or death to a person, or to prevent damage to property. A person should take all precautions to prevent bear problems and should make all reasonable efforts to chase or scare the bear away before shooting it.

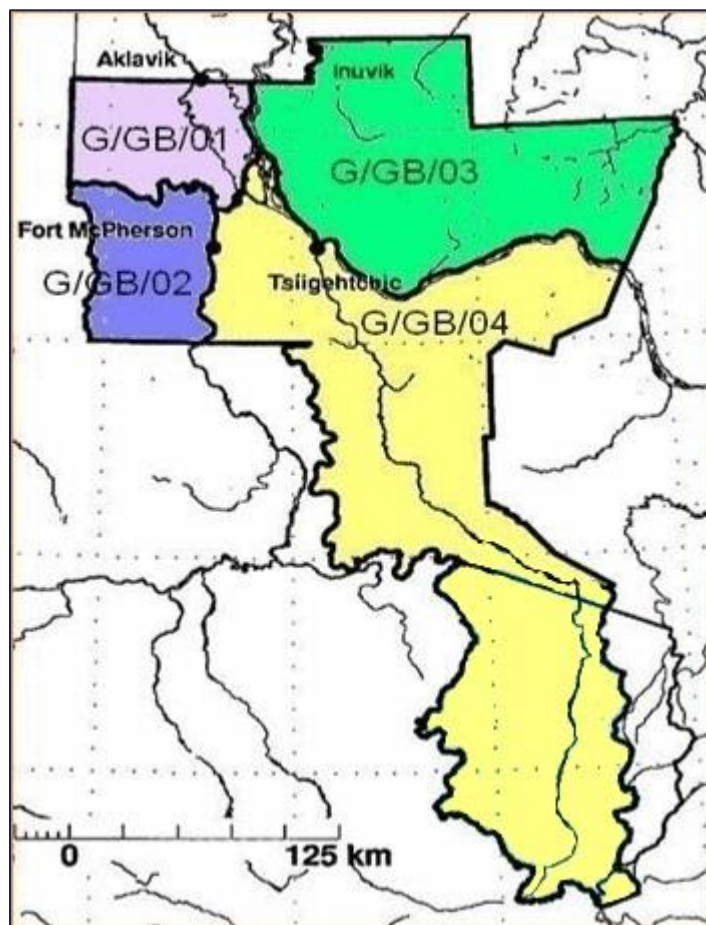
Under the *Wildlife Act*, all problem bear kills (Defense of Life and Property - DLPs) must be reported. If you shoot a problem bear, call ENR or let the local Renewable Resource Officer know as soon as possible. ENR will ask questions to figure out what happened. You will be given instructions by the officer and you may be required to take action to prevent the bear hide from spoiling. You cannot keep any part of a bear killed as a problem bear.

### **I am an NWT resident (non-indigenous) and I want to hunt a shih in the GSA. What do I do?**

Resident hunters are allowed one bear per lifetime in the NWT, except for the Inuvialuit Settlement Region. As per the *Wildlife Act*, in the GSA, resident hunting is only permitted in outfitting areas G/OT/01 or portions of S/OT/01. Contact ENR to purchase a tag. ENR will inform resident hunters that there is a voluntary harvest (tag) system in the GSA, they should contact the GRRB and GGRRRC, and that hunting on private lands is not allowed without written permission.

## APPENDIX D

## SHIH HARVEST ZONES



## Grizzly Bear Management Area Descriptions

All that portion of the Northwest Territories as shown on the National Topographic Series Maps: Aklavik 107B, Ft. McPherson 106M, Arctic Red River 106N, Martin House 106K, Blow River 117A, Bell River 116P produced at a scale of 1:250,000 by the Canada Map Office, Department of Natural Resources, Ottawa.

## 1) G\GB\01 Richardson Mountains North

- a. Commencing at 67°42 N, 136°26 W on the Yukon/NWT border east of Summit Lake.
- b. Thence east intersecting Two Oceans Creek, follow said creek to the western shoreline of Long Lake.
- c. Thence northerly following the western shoreline of said lake until intersecting a unnamed creek.
- d. Thence northerly following said creek intersecting the southern shoreline of Twin Lakes.
- e. Thence easterly following the southern shoreline of said lake intersecting Rat Creek.

- f. Thence easterly following said creek until intersecting Fish Creek at approximately 67°44 N, 136°16 W.
- g. Thence southerly intersecting Rat River.
- h. Thence easterly following the northern shoreline of Rat River until intersecting Husky Channel at approximately 67°37 N, 134°53 W.
- i. Thence southerly following the western shoreline of Husky Channel until intersecting the Peel River.
- j. Thence easterly crossing the Husky Channel to the opposite shoreline of the said named channel.
- k. Thence easterly following the northern shoreline of the Peel River until intersecting the Mackenzie River west branch at approximately 67°42 N, 134°31 W.
- l. Thence north following the west shoreline of the Mackenzie River until intersecting the Gwich'in Settlement Area (GSA) and Inuvialuit Settlement Region (ISR) border at approximately 68°13 N, 134°28 W.
- m. Thence west following the GSA/ISR border until intersecting the Yukon/NWT border at approximately 68°13 N, 136°26 W.
- n. Thence south following the Yukon/NWT border back to the commencement point.

## 2) G\GB\02 Richardson Mountains South

- a. Commencing at 67°42 N, 136°26 W on the Yukon/NWT border east of Summit Lake.
- b. Thence easterly intersecting Two Oceans Creek, follow said creek to the western shoreline of Long Lake.
- c. Thence northerly following the western shoreline of said lake until intersecting an unnamed creek.
- d. Thence northerly following said creek intersecting the southern shoreline of Twin Lakes.
- e. Thence easterly following the southern shoreline of said lake intersecting Rat Creek.
- f. Thence easterly following said creek until intersecting Fish Creek at approximately 67°44 N, 136°16 W.
- g. Thence southerly intersecting Rat River.
- h. Thence easterly following the northern shoreline of Rat River until intersecting Husky Channel at approximately 67°37 N, 134°53 W.
- i. Channel at approximately 67°37 N, 134°53 W.
- j. Thence southerly following the western shoreline of Husky Channel until intersecting the Peel River.
- k. Thence southerly following the western shoreline of the Peel River until intersecting the Yukon/NWT border 67°00 N, 135°00 W.
- l. Thence west following the Yukon/NWT border until intersecting 67°00 N, 136°10 W.
- m. Thence north following the Yukon/NWT border back to the commencement point.

## 3) G\GB\03 North of Mackenzie River

- a. Commencing on the western shoreline of the Mackenzie River at approximately 68°13 N, 134°28 W on the ISR/GSA border.
- b. Thence easterly following the ISR/GSA border until intersecting the western shoreline of the East Channel at approximately 68°13 N, 133°46 W.
- c. Thence northerly following the west shoreline of said channel intersecting 68°25 N, 133°49 W.
- d. Thence east following the ISR/GSA border intersecting 68°25 N, 132°00 W.
- e. Thence southerly in a straight line following the ISR/GSA border intersecting 68°00 N, 132°00 W.
- f. Thence easterly in a straight line following the ISR/GSA border intersecting the Iroquois River at approximately 68°00 N, 129°45 W.

- g. Thence southerly along the west shoreline of the Iroquois River intersecting with a unnamed stream at approximately 67°57 N, 129°43 W.
- h. Thence southerly along west shoreline of said unnamed stream intersecting 67°40 N, 130°01 W.
- i. Thence southerly along said longitude intersecting a seismic line at approximately 67°37 N.
- j. Thence southwesterly in a straight line to intersect the east bank of the Mackenzie River at approximately 67°18 N, 130°25 W.
- k. Thence northwesterly following the northern shoreline of the Mackenzie River intersecting an unnamed creek at approximately 67°54 N, 134°20 W.
- l. Thence west in a straight line along said latitude to intersect a unnamed creek on the western shoreline of the main branch of the Mackenzie River at approximately 67°54 N, 134°24 W.
- m. Thence northerly following the western shoreline of the Mackenzie River to the commencement point.

#### 4) GB\G\04 South of Mackenzie River and Mackenzie Mountains

- a. Commencing at 67°37 N, 134°53 W then southerly following the west shoreline of the Peel River until intersecting the Yukon/NWT border at approximately 67°00 N, 135°00 W.
- b. Thence easterly following the Yukon/NWT border until intersecting a tributary of Cranswick Creek at approximately 65°58 N, 132°21 W.
- c. Thence southerly following the Yukon/NWT border until approximately 64°20 N, 131°04 W.
- d. Thence easterly in a straight line until 64°23 N, 130°41 W
- e. Thence northerly following the heights of land between the watersheds of the Arctic Red River drainage system and the Mountain River, Gayna River, Hume River and Ramparts River drainage system and following the GSA/Sahtu border until intersecting the Mackenzie River northern shoreline at approximately 67°18 N, 130°25 W.
- f. Thence northwesterly following the northern shoreline of the Mackenzie River intersecting an unnamed creek at approximately 67°54 N, 134°20 W.
- g. Thence west in a straight line along said latitude to intersect a unnamed creek on the western shoreline of the main branch of the Mackenzie River at approximately 134°24 W.
- h. Thence southerly following the west branch of said river until intersecting mouth of the Peel River at approximately 67°42 N, 134°31 W.
- i. Thence westerly following the northern shoreline of said river back to the commencement point.

## RELEVANT LITERATURE

Arctic Borderlands Ecological Knowledge Society (ABEKS). 2020. Unpublished grizzly bear data observations. Whitehorse. Yukon

Benson, K. 2014. Gwich'in Knowledge of Grizzly Bears. Gwich'in Social and Cultural Institute/Gwich'in Renewable Resources Board. Northwest Territories.

Bullock, S.J. 1987. Questionnaire summary: traditional use of grizzly bear in the Richardson Mountains, NWT. Dept. of Ren. Res., GNWT. Inuvik, NWT. Unpubl. Report. 11pp.

Clarkson, P., I. Liepins, and L. Kutny. 1988. Brown bear research on Richards Island. Dept. of Ren. Res., GNWT. Inuvik, NWT. Unpubl. Report. 89pp.

DRWED-Inuvik Region. Grizzly bear population estimate and characteristics for the Richardson Mountains, Northwest Territories, 1992-93.

DRWED-Inuvik Region. Grizzly bear population estimate and characteristics for the Anderson-Horton Rivers area, Northwest Territories, 1987-89.

DRWED-Inuvik Region. Grizzly bear population estimate and characteristics for the Brock-Hornaday Rivers area, Northwest Territories, 1992-93.

Gwich'in Elders. 1997. Nành' Kak Geenjit Gwich'in Ginjik - Gwich'in Words About the Land. Gwich'in Renewable Resources Board. Northwest Territories.

Gwich'in Social & Cultural Institute/Gwich'in Language Centre. 2003. Gwicheyah ts'at Teetl'it Gwich'in Ginjik Gwi'dinehtl'ee' - Gwich'in Language Dictionary, Fourth Edition. Tsiigehtchic/Fort McPherson, Northwest Territories.

Harding, L.E. 1976. Den-site characteristics of arctic coastal grizzly bears (*Ursus arctos* L.) on Richards Island, Northwest Territories, Canada. *Can. J. Zool.* 54:1357-1363.

Harding, L. and J.A. Nagy. 1980. Responses of grizzly bears to hydrocarbon exploration on Richards Island, Northwest Territories, Canada. *Inter. Conf. Bear Res. and Manage.* 4:277-280.

MacHutchon, A.G. 1996. Grizzly bear habitat use study, Ivvavik National Park, Yukon: Final Report. Western Arctic District, Parks Canada, Inuvik. 142pp.

Mackenzie, W. and A.G. MacHutchon. 1996. Habitat classification for the Firth River Valley, Ivvavik National Park, Yukon. Western Arctic District, Parks Canada, Inuvik. 81pp.

Nagy, J.A. and M.A. Haroldson. 1989. Comparisons of some home range and population parameters among four grizzly bear populations in Canada. *Inter. Conf. Bear Res. and Manage.* 8:227-235.

Nagy, J.A., R.H. Russell, A.M. Pearson, M.C. Kingsley, and B.C. Goski. 1983. Ecological studies of grizzly bears in the arctic mountains, northern Yukon Territories, 1972 to 1975. *Can. Wildl. Serv. Report.* Edmonton. 104pp.

Nagy, J.A., R.H. Russell, A.M. Pearson, M.C. Kingsley, and C.B. Larsen. 1983. A study of grizzly bears on the barren grounds of Tuktoyaktuk Peninsula and Richards Island, Northwest Territories, 1974 to 1978. *Can. Wildl. Serv. Report.* Edmonton. 136pp.