





Ddhaw Ghro
Habitat Protection Area
Management Plan

2018

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This plan shall not create any commitments or obligations that are legally binding on the parties or create or affect any legal rights of the parties. Without limiting the generality of the foregoing, this plan shall not create, affect, define, interpret or apply any roles, responsibilities, rights or interests under land claim agreements other than what has been referenced already in relation to the Ddhaw Gro Habitat Protection Area. Implementation of this plan is subject to the management priorities and budgetary constraints of each of the parties. For some actions plan implementation is not expected to be completed by the five year plan review.

Any formal participation by the Mayo District and Selkirk Renewable Resources Councils in the implementation of the Ddhaw Ghro Habitat Protection Area Management Plan and its recommendations in accordance with Final Agreements is subject to the resolution of overlapping claims in accordance with Schedule B, Chapter 2 of the First Nation of Na-Cho Nyäk Dun and Selkirk First Nation Final Agreements.

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Ddhaw Ghro Habitat Protection Area Management Plan

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Executive Summary

The Ddhaw Ghro Habitat Protection Area encompasses an isolated mountain range in central Yukon. The area has been important to Northern Tutchone people for thousands of years. It has several features of regional significance, including unglaciated alpine areas and plant communities. It is known for the Chu Tthaw Hot springs, the fannin sheep population, the rich cultural history of the Northern Tutchone people, and the intact mountain ecosystem. The Chu Tthaw Hot Springs is within the boundary of the habitat protection area but excluded from the designated Ddhaw Ghro Habitat Protection Area.



In 1948, the Government of Canada established the McArthur Game Sanctuary. In 1993, this same area was identified as a Special Management Area under the First Nation of Na-Cho Nyäk Dun Final Agreement. In 1997, the Selkirk First Nation Final Agreement confirmed the establishment of the area as the Ddhaw Ghro Habitat Protection Area.

As required by the Selkirk First Nation Final Agreement, a steering committee was established and tasked with developing a management plan for the area in 2000. The Final Agreement identified schedule objectives for the Habitat Protection Area and included guidelines for what needed to be considered in developing the plan. The steering committee gave thorough consideration to a wide range of management issues, including fish and wildlife populations and their habitats, trapping, fire ecology and management, cultural resources, resource-based land use, land management, and access.

This management plan was developed through a community-based planning approach. Between 2000 and 2017, many field studies were done with the involvement of community members. Several community planning workshops were held. A special effort was made to involve Northern Tutchone Elders and incorporate Traditional Knowledge, and this provided valuable guidance and direction throughout the development of the plan. The steering committee also commissioned scientific and cultural research to fill information gaps. The committee then evaluated the potential effects of possible management activities in relation to meeting the objectives as identified in the Final Agreement. These objectives include protecting the important fish and wildlife populations and their habitats, protecting the traditional interests of the Northern Tutchone people and allowing for the appreciation of the area by all Yukon people.

The steering committee's vision for the area is to protect the natural values of the Ddhaw Ghro Habitat Protection Area. This vision reflects a strong community view that the whole area should remain in its natural state, the fish and wildlife populations and habitats should not be disturbed, and the area should continue to be used mainly for traditional First Nation activities and values.

Consistent with this vision, the plan makes several recommendations to maintain the ecological and cultural resources of the area in a healthy state. It recommends that ongoing research and monitoring take place for wildlife and fish populations in the Ddhaw Ghro Habitat Protection Area. It recommends that the cultural studies started as part of the planning process be continued. It also recommends working together to reduce the impacts of wildfire on remaining woodland caribou habitat and the Chu Tthaw Hot springs.

The steering committee also recommends that development activities be prohibited in the Ddhaw Ghro Habitat Protection Area, including:

- the permanent withdrawal of the area from exploration, staking, and mining for minerals, coal, and oil and gas;
- no commercial forestry;
- no land dispositions or land-use permits issued;
- no new access trails, and no expansion of existing trails;
- no use of motorized off-road vehicles;
- the continued exclusion of commercial trapping; and,
- a cautious approach to tourism for the first five years of the plan.

The plan identifies important habitat values adjacent to the Habitat Protection Area for consideration by the First Nation of the Na-Cho Nyäk Dun, the Selkirk First Nation and the Government of Yukon if a boundary expansion is proposed following completion of this plan. This is because there are several key and important habitats outside the current boundary that are regularly used by the fish and wildlife populations that the Habitat Protection Area was established to protect. These key and important habitat areas outside the current boundaries include: 1) the sheep range on Mount Sether; 2) the winter range and rutting areas for the Ethel Lake caribou herd; and 3) the riparian areas along the boundaries of the Habitat Protection Area, including important wetlands, seasonal moose habitats, Chinook salmon spawning areas, and raptor nesting sites.

The committee recommends that an integrated and community-based approach be used to help implement the plan. It recommends that an implementation team be established with representation from all three parties. It also recommends that this team work closely with the Northern Tutchone First Nations through the annual May Gathering to review research and monitoring information on the area and identify potential management activities. Through the May Gathering, Elders and community members can also give the implementation team advice regarding Traditional Knowledge and laws. The First Nations will bring this information forward to the parties.

As per the requirement of the Final Agreement, the management plan and its implementation will be reviewed no later than five years after its initial approval.

The committee recommends that the review include consideration of the following:

- progress on plan implementation, including capacities and adequacy of funding;
- whether Yukon First Nations Elders' roles and views have been adequately considered and addressed;
- risks related to potential effects of development in areas adjacent to the Ddhaw Ghro Habitat Protection Area;
- whether the Habitat Protection Area designation under the Yukon *Wildlife Act* provides appropriate protection;
- plan revisions that may be required to reflect changing management conditions, priorities, and evolving perspectives; and
- where appropriate, revised recommendations table and responsibilities.

The steering committee's job was limited to making plan recommendations. The Government of Yukon, the Selkirk First Nation and the First Nation of the Na-Cho Nyäk Dun are responsible for approving and implementing the plan.

Acknowledgements

The Ddhaw Ghro Habitat Protection Area Steering Committee would like to thank all those who contributed to the development of this plan. Selkirk First Nation members included: Darin Isaac, Alex Joe, Roger Alfred, Styd Klugie, Don Trudeau, Fred Green, Lizzie Hall, Danny Joe, and Johnson Edwards. First Nation of Na-Cho Nyäk Dun members included: Mikolay Peter, Frank Patterson, Joella Hogan, Albert Genier, Kristina Kane, Steve Buyck, Millie Olsen, Jimmy Johnny, Pat Van Bibber Sr., and Tommy Moses. Johnny Sam was the Little Salmon/Carmacks First Nation delegate. Government of Yukon members included: Mark O'Donoghue, Bob Kuiper, Ella LeGresley, Bruce McLean, Karen Clyde, and John Meikle.

Bruce McLean, Karen Clyde, and Tim Sellars provided secretariat support to the steering committee. Doug Urquhart and Robert Hayes were the independent chairs.

Staff members from Selkirk First Nation, the First Nation Na-Cho Nyäk Dun and Government of Yukon provided technical advice and knowledge. The Steering Committee gives special thanks to the many Northern Tutchone Elders and citizens who attended planning meetings in Pelly Crossing, Mayo, and Carmacks. Elders respectfully passed on their Traditional Knowledge and guidance for how to manage this area of ecological, spiritual and cultural importance. Lizzie Hall provided the translation into Northern Tutchone at many community workshops.



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Introduction

The Ddhaw Ghro Habitat Protection Area is an isolated mountain block of about 1,600 km^2 lying between the Pelly and Stewart Rivers in the central Yukon. The name Ddhaw Ghro refers to the "many peaks" of the McArthur Mountains in the Northern Tutchone language.

This area has important spiritual and cultural values and has been treated with great respect by Northern Tutchone people for many thousands of years. The Doòli/traditional law process has guided the use and management of the area for many generations. The importance of the Ddhaw Ghro Habitat Protection Area and its uses by First Nations people are detailed in the 1987 document *Selkirk Indian Band: Culture and Land Use Study*. As far back as Elders tell, Northern Tutchone people have harvested sheep, moose, caribou, rabbits, porcupine, grouse, ptarmigan, ducks, fish, medicinal plants, and berries in the area as part of their seasonal travels. The area became the McArthur Game Sanctuary in 1948, established primarily to protect a small, isolated population of dark-coloured fannin mountain sheep, the special natural features, and cultural and spiritual values of the area.

The Chu Tthaw Hot springs is a 50-hectare parcel of Category 'A' Settlement Land belonging to the Selkirk First Nation. The parcel is within the boundary of the Habitat Protection Area, but is excluded from the Ddhaw Ghro Habitat Protection Area. The Selkirk First Nation is solely responsible for management and planning of the Chu Tthaw Hot springs settlement parcel.

The Purpose of the Plan

This plan provides recommendations to the Government of Yukon, Selkirk First Nation and the First Nation of Na-Cho Nyäk Dun (the parties) for the long-term management of the Ddhaw Ghro Habitat Protection Area in a manner consistent with the objectives listed in Appendix A of this plan. The plan also identifies who should be responsible for implementation of the recommendations.

Vision

Protect the Natural Values of the Ddhaw Ghro Habitat Protection Area

The vision for the Ddhaw Ghro Habitat Protection Area is to protect the natural values of the area by leaving it untouched by resource development. Northern Tutchone Elders consider the Ddhaw Ghro Habitat Protection Area their legacy to be willed to future generations and strongly expressed their desire to "leave the area as it is" throughout the development of this management plan. Through responsible land and resource management, future Yukon generations will continue to benefit from the existence of this natural area. The Ddhaw Ghro Habitat Protection Area should remain an area of unique beauty and character, with a healthy ecosystem that supports a diversity of wildlife.

The Ddhaw Ghro Habitat Protection Area is to be managed in a manner that respects and uses the Doòli/traditional law process and Traditional Knowledge—as well as contemporary law and knowledge. This is consistent with the values of cooperation reflected in the establishment of the area and in the preparation of the management plan

Plan Objectives

Five objectives were established for Ddhaw Ghro Habitat Protection Area in Schedule A of Chapter 10 of the Selkirk First Nation Final Agreement:

- to conserve and protect important fish and wildlife, and fish and wildlife habitat in the Area for the benefit of all Yukon people;
- to recognize and protect the use of the Area by the Selkirk People and Na-Cho Nyäk Dun and to facilitate their interest in sharing the Area with Little Salmon/Carmacks People and other Yukon Indian People;
- to provide for the management and protection of the Area;
- to protect the full diversity of wildlife populations and their habitats in the Area from activities which could reduce the Area's capability to support wildlife; and
- to encourage public awareness of, and appreciation for, the natural resources of the Area.

Management Topics to be Addressed

Chapter 10, Schedule A (section 6.4) requires that when developing the management plan, the steering committee shall consider and may address matters pertaining to the management of the Area including:

- fish and wildlife management and protection;
- the necessity for inventories of wildlife and habitat;
- habitat management and protection;
- land use;
- recreational use;
- access to and use of the area for commercial wilderness purposes;
- harvesting of forest resources;
- scientific research;
- Traditional Knowledge, customs and culture of Yukon First Nations in connection with the area;
- the role and views of Yukon First Nation Elders in the development of the management plan;
- measures to enhance public awareness and appreciation of the area;
- recommendations respecting any withdrawal of portions of the mines and minerals of the area from locating, prospecting or mining under the *Yukon Quartz Mining Act* and the *Yukon Placer Mining Act*; from exploration and development under the *Canadian Petroleum Resources Act*; and from staking out a location for the mining of coal and from issuance of a license to explore for coal pursuant to the *Territorial Lands (Yukon) Act*;
- division of the area into zones for management purposes;
- specific economic opportunities for the Selkirk First Nation, Selkirk Firms, the First Nation of Na-Cho Nyäk Dun and Na-Cho Nyäk Dun Firms; and
- permitting or other methods of regulating uses of the area in accordance with the management plan.

The steering committee's task has been to evaluate these topics against the five objectives in Schedule A, recommend how certain activities should be managed, and identify which activities should and should not be allowed in the Ddhaw Ghro Habitat Protection Area.

How the Plan was Developed

Chapter 10, Schedule A of the Selkirk First Nations Final Agreement requires that a management plan for the Ddhaw Ghro Habitat Protection Area be recommended by a steering committee comprised of six members of whom two shall be nominated by Government, two shall be nomiated by the Selkirk First Nation and two shall be nominated by the First Nation of Na-Cho Nyäk Dun.

In considering the management topics listed above, the steering committee chose a community-based approach to information gathering and consultation.

Plan development followed these steps.

1. Information was gathered, including traditional and scientific knowledge to address key management topics;
2. Field studies were conducted to fill information gaps;
3. Management issues were identified and discussed by steering committee members in the communities through workshops and meetings;
4. Traditional and scientific knowledge, and experts' opinions were considered by the steering committee and recommendations and actions drafted;
5. Community consultations were held in Mayo, Pelly Crossing, Carmacks, and Whitehorse both during plan development, and when a draft management plan was complete. A sample list of public and First Nation comments gathered at public consultations and steering committee meetings are included in Appendix B; and
6. The steering committee considered all comments received on the draft management plan during a four month consultation period, and made appropriate changes.

At each step the steering committee incorporated and considered traditional and scientific knowledge with equal weight. There was a significant effort made to collect Traditional Knowledge during workshops, and in the field. Elders were brought to the area to give their advice about the suitability of various areas as different wildlife habitats, and to locate culturally important places. There could be additional views of Yukon First Nations Elders that need to be considered and included in future reviews of this management plan. Several scientific studies were also conducted in the Ddhaw Ghro Habitat Protection Area.

Community meetings were held to review information, hear the views and knowledge of Elders about management topics, and get advice on recommendations. The steering committee invited experts to present information about heritage, archaeology, geology, mining, land-use, wildfire management, forestry, tourism and recreation. The committee also provided progress updates to communities and the parties.



Background

Location and Status

Location of Ddhaw Ghro Habitat Protection Area

The Ddhaw Ghro Habitat Protection Area is approximately 1,600 km^2. The boundaries of the area generally follow the boundaries of the original McArthur Game Sanctuary. North Crooked Creek and Nogold Creek form the northern border. The western border follows Crooked Creek. The eastern boundary follows various landmarks and mountain peaks from Nogold Creek to the Kalzas River (Appendix F: Map 1). The legal boundary is noted in Appendix B of the Selkirk First Nation Final Agreement.

Land Status

The majority of the Ddhaw Ghro Habitat Protection Area is public land under the administration of the Government of Yukon. The Selkirk First Nation Final Agreement ensures governments are obliged to provide for the management and protection of the area for the benefit of all Yukon people. An important objective of the area is to recognize and protect the use of the area by Selkirk First Nation and the First Nation of Na-Cho Nyäk Dun citizens, and to facilitate their interest in sharing the area with Little Salmon/Carmacks First Nation citizens and other First Nations people.

The Ddhaw Ghro Habitat Protection Area was identified as a Special Management Area in 1993 in Chapter 10 of the First Nation of Na-Cho Nyäk Dun Final Agreement. In 1997, Chapter 10 Schedule A of the Selkirk First Nation Final Agreement states that the area shall be designated a Habitat Protection Area under the Yukon *Wildlife Act*.

Schedule A required withdrawal orders under the Yukon *Quartz Mining Act*, Yukon *Placer Mining Act*, the Canada *Petroleum Resources Act*, and *Territorial Lands (Yukon) Act* while planning proceeded for the Habitat Protection Area. At the time of withdrawals there were no development activities in the Habitat Protection Area.

Also within the Ddhaw Ghro Habitat Protection Area, there are two site-specific Selkirk First Nation land selections: a one-hectare parcel at Crystal Lake (S-60B/D) that is included in the Habitat Protection Area and subject to this management plan, and a 50-hectare parcel on Hot springs Creek (S-116A/D) that is excluded from the Habitat Protection Area (Appendix F: Map 2). In 2002, the Selkirk First Nation produced a management plan for its settlement lands, including these two parcels. The Chu Tthaw Land Use Plan sets out rules and recommendations for the hot springs parcel (Appendix D), based upon Doòli/traditional law process of the Northern

Tutchone people. Any person who wishes to visit the Chu Tthaw Hot springs must get permission from the Selkirk First Nation and follow rules for visiting the area. The Selkirk First Nation Final Agreement states that parcel R-27A, which is adjacent to the southern boundary of the Ddhaw Ghro Habitat Protection Area, shall be managed in a manner consistent with the objectives of the Area.

Natural Setting

Terrain and Vegetation

The Ddhaw Ghro Habitat Protection Area is a special area. Much of the area was not covered by the continental ice sheets during the recent ice ages (Appendix F: Map 3). For thousands of years, the high peaks of the area were much like an island in a sea of surrounding ice, providing a refuge for many plants and animals. After the ice sheets melted, the area was one of the few places in the central Yukon that had un-glaciated geology, undisturbed soils and ancient grasslands.

Ddhaw Ghro is the traditional Northern Tutchone name for the McArthur Mountains, which reach elevations of 2194 metres. At the highest elevations, melting glaciers have created cirques with near-vertical headwalls, giving the range a rugged character. There are many post-glacial features associated with the colder climate, including rock glaciers and fractured bedrock terraces. The glaciers, tarn lakes and temporary snow pack have an important role in the hydrology of the area by providing surface and subsurface water in summer. Alpine soils have variable moisture conditions, resulting in a wide range of vegetation, a benefit to wildlife using these habitats.

Glacial moraines are common in the area. Moraines consist of wide-ranging sediment sizes and are generally well-drained. There are also various landforms in the valleys caused by the melting of the Cordilleran ice-sheet, such as narrow lakes which line the bottom of canyon-like channels in the Kalzas River valley. A notable feature in the Ddhaw Ghro Habitat Protection Area is the North Crooked Creek canyon. The creek has cut deeply into the granite bedrock and provides remarkable vistas. Landslides are common and terrain instability appears to be widespread in the region. Landslides are associated with steep terrain, glacial sediment and ground water.

There are many types of terrain and plant communities, ranging from exposed rock at high elevations to mixed forest in the lower valleys (Appendix F: Map 4). The alpine community includes ancient grasslands, sedge, shrub and lichen. Sub-alpine areas vary from wide scree slopes with little vegetation, to areas of abundant willow, dwarf birch shrubs and feather moss scattered with sub-alpine fir and white spruce. Lower elevations are mainly mixed stands of spruce pine and aspen. Poorly drained areas contain small ponds, swamps, and lakes.

In 2004, wildfires burned large tracts of forest in the lower elevations especially in the Crystal Creek, Woodburn Creek and Grey Hunter Creek areas (Appendix F: Map 5).

The Chu Tthaw Hot springs are located in the southwest foothills of the area. The springs are caused by circulation of groundwater that flows through porous sedimentary rock. The water is heated deep in the earth, and then it rises back to the surface through fractures along the Tintina Fault. The constant warmth and moisture produced by the hot springs results in unique vegetation. The hot springs are also unique due to the high temperature, low dissolved-solid content and high fluoride and silica content.





Wildlife and Habitats

First Nations people have always known the area for its rich and abundant plant communities and animal populations. The high mountains of the Ddhaw Ghro Habitat Protection Area rise above the lower hills and mountain ranges of the Upper Yukon Plateau, providing important alpine habitats for wildlife.

About 70 dark-coloured mountain sheep (fannin) live in the Ddhaw Ghro Habitat Protection Area and on adjacent Mount Sether. Because the McArthur Mountains and Mount Sether are isolated from other mountain ranges, there are no other sheep populations nearby. It is not known if these sheep were present during the ice age or if they moved there since the ice receded. The McArthur Game Sanctuary was established largely to protect these isolated sheep. People were worried that the construction of the Klondike Highway would provide easy access and the sheep would be over-hunted. The no-hunting rules of the sanctuary have been followed by all Yukoners, including First Nation people. Sheep numbers have remained low, making the herd especially sensitive to over-hunting and habitat disturbance.

The Ethel Lake woodland caribou herd consists of about 450 animals. Most of the summer and fall range is within the Ddhaw Ghro Habitat Protection Area, but most of the winter range lies outside. This small herd is vulnerable to disturbance and over-harvest. Genetic studies show that woodland caribou seldom cross-breed with nearby herds, increasing the risk to the Ethel Lake herd of over-hunting, disturbance or loss of important habitat. From 1998 through 2011, relatively few calves survived their first year, further increasing the risk of the herd declining.

The Ethel Lake caribou herd ranges within the Ddhaw Ghro Habitat Protection Area during most of the year. In the spring, cows calve in the high alpine to protect their young from predators. The herd forages in the alpine in summer and they rut there in the fall. During winter the herd moves to the lowland areas. Wildfires burned over half of the winter range of the Ethel Lake caribou herd between 2004 and 2015. First Nations people believe that caribou and other animals use seasonal ranges to consume plants that provide nourishment and have medicinal value which promotes healing.

The Habitat Protection Area also provides important shrubs for moose to feed on through the fall and early winter. This habitat is important for moose to regain body condition after the rut and before the long Yukon winter begins. In winter, moose move to lower areas or use some of the higher willow draws in the Ddhaw Ghro Habitat Protection Area. In summer, moose calve and inhabit the rich riparian areas along the creeks and rivers that form the boundaries of the Habitat Protection Area.

The Ddhaw Ghro Habitat Protection Area provides important habitat for other wildlife. Waterfowl breed in the wetland complex on the west side of the Habitat Protection Area (Appendix F: Map 6). Peregrine falcons, gyrfalcons, and golden eagles nest in its mountains. Chinook salmon are known to spawn and rear in Little Kalzas River, Kalzas River and Crooked Creek. They likely also spawn in some of the smaller creeks in the Habitat Protection Area. In the 1930s, trappers caught many furbearers in the area, including coyotes, fox and beaver. Grizzly bears, black bears, wolves, marmots, pika and a host of other animals and plants make their homes in the wide variety of habitats from lowland forests to alpine ridges.

Human History

Prehistoric and Recent History

First Nations people have lived in south-central Yukon for thousands of years. There are pre-historic aboriginal sites near the Ddhaw Ghro Habitat Protection Area ranging from 3,000–4,000 years ago to recent times. The area has few permanent cultural sites, but there are Northern Tutchone names for prominent features in the area, demonstrating traditional use of the area for a long time.

Long ago, the Ddhaw Ghro Habitat Protection Area was known as an important hunting place and used for seasonal travel. Some families traveled from Ta'tla Mun (Tatlmain Lake) to the area where they would gather summer foods, dry meat, then return to the lake for the winter. Sheep and caribou in the area regularly attracted hunters from the Isaac, Simon and Johnny families.

Robert Campbell of the Hudson's Bay Company was the first European person to settle in the central Yukon. He set up a trading post at Fort Selkirk in 1848. The Ddhaw Ghro Habitat Protection Area and Little Kalzas Lake were hunted and fished by the Hudson's Bay Company.

Between 1900 and 1948, Ira and Eliza Van Bibber and their family built cabins and camps for trapping and hunting in and around Ddhaw Ghro. Anton Leland, Harry Woodburn and Joe Winterholder built trapping cabins along the western edge of the Ddhaw Ghro area.

There was a small mineral staking rush on the south branch of Crooked Creek in 1915. Various geological surveys were made from the 1920s to the 1940s.

In the 1940s, following the advice of First Nations people, Dr. Hugh Bostock carried out

scientific studies of the geology of the area, the hot springs and rare plant communities. He recommended the McArthur mountains and area should be protected. In 1948, the McArthur Game Sanctuary was designated by the Government of Canada. Within the sanctuary there could be no trapping or hunting. The Van Bibber family was forced to leave their cabins and trap lines without compensation for the loss of livelihood.

In the late 1950s, the McArthur Game Sanctuary was seen as important enough to be considered for a national park. The interest eventually shifted to the Kluane area. In 1968, biologists working for the International Biological Program did more studies in the Sanctuary. Their report recommended human activities be excluded to protect the sheep, ancient alpine grassland plants, the hot spring flora, and diverse alpine plant communities.

Prospecting and mining activities were not encouraged, nor were they prohibited. In the early 1970s, Grey Hunter Peak was heavily staked, but only modest exploration followed. Since then there has been little mining interest in the area. In 1995, there were no active claims when the area was first designated a Special Management Area in the First Nation of Na-Cho Nyäk Dun Final Agreement. No mining activities have been allowed since then.

The Ddhaw Ghro Habitat Protection Area remains a mainly pristine wilderness with little evidence of human activity besides the scattered cabins. Northern Tutchone people continue to visit and use the Chu Tthaw Hot springs, which has no structures built in the vicinity. Most of the old trapper cabins in the Habitat Protection Area have either collapsed or have been burned by wildfires. There are no useable cabins remaining. Most of the traditional trapping and hunting trails have become overgrown. There are no mining exploration roads, trails or abandoned camps in the area.



Traditional Knowledge

Understanding the Role and Use of Traditional Knowledge and Law in this Plan

Elders have contributed their extensive Traditional Knowledge to the Ddhaw Ghro Habitat Protection Area planning process. This plan has greatly benefited from the contribution, guidance and wisdom of the Elders' traditional concepts about protecting the land and all the things that live on it for future generations.

Throughout the process, and with the guidance of the Elders, some Traditional Knowledge has been recorded on maps, in reports, on audio and video recordings and in the minutes from meetings and workshops. The result has been a greater understanding and appreciation for Traditional Knowledge among steering committee members and technical staff.

From a First Nations perspective, the ecosystem is always seen as a connected whole, and cannot be defined by separating it into parts. Human activities, such as hunting, fishing and trapping, cannot be separated from the Dooli/traditional law process and cultural values and principles of how people relate to and understand the area. It is impossible to fully communicate this relationship and understanding of the plants, wildlife, fish and the land and water of this area through text.

From a First Nations perspective, the ecosystem is always seen as a connected whole, and cannot be defined by separating it into parts.

The steering committee has struggled with how to present the large amount of Traditional Knowledge documented over the years, and relay the importance of the information in a way that readers can fully appreciate. Including Traditional Knowledge in the text has required taking some elements and separating them into the various parts of the management plan. This selected Traditional Knowledge is included in this management plan on the maps and in sidebars in the relevant sections. The information is only a small example of the Traditional Knowledge about each subject that helped guide this plan.

It is important to respect and protect Northern Tutchone Traditional Knowledge as it plays

an essential role in supporting traditional management and culture. To ensure the objectives of the plan are met, Traditional Knowledge, culture, and customs of Selkirk First Nation, First Nation of Na-Cho Nyäk Dun, and Little Salmon/Carmacks First Nation Elders will continue to provide guidance to the First Nations on the implementation of this plan. This will be done according to the Dooli/ traditional law processes that include annual May Gatherings, General Assemblies, and traditional land management.

May Gathering

The annual May Gathering is an important part of the self-governing process, based on the principles of respect, caring, sharing and teaching. The May Gathering will incorporate Traditional Knowledge and provide guidance to the First Nation of Na-Cho Nyäk Dun and Selkirk First Nation for the ongoing management of the Ddhaw Ghro Habitat Protection Area. The May Gathering promotes awareness and responsibility as well as the stewardship role of First Nations and others. Elders from the three Northern Tutchone First Nations, staff, and interested citizens meet to discuss the status of fish, wildlife and the land. The May Gathering is also a time to visit and enjoy traditional foods and entertainment. Each May Gathering is summarized in three reports:

- a detailed account of fish and wildlife populations and harvests;
- minutes of the gathering; and
- a summary of decisions, recommendations and resolutions.

Recommendations from traditional governance processes will be brought forward by the First Nations and others for consideration in the annual implementation of the Ddhaw Ghro Habitat Protection Area management plan.





Resource Descriptions and Management Recommendations



Fish and Wildlife

There has been considerable effort spent to gather scientific and Traditional Knowledge about fish and wildlife populations and their habitats in the Ddhaw Ghro Habitat Protection Area. Detailed Traditional Knowledge and sensitive information such as the locations of raptor nests and mineral licks are not included in the management plan, but such information was considered by the steering committee in making its recommendations.

Fish and wildlife recommendations in the following sections have the common theme of encouraging healthy populations through preservation of habitat and population monitoring. Management recommendations are timely and involve decision-making processes at both the community and government levels.

Chapter 10, Schedule A, of the Selkirk First Nation Final Agreement states that public harvest of wildlife will continue to be prohibited in the Ddhaw Ghro Habitat Protection Area. The Selkirk First Nation and First Nation of Na-Cho Nyäk Dun, and their citizens, have the right to continue to harvest fish and wildlife in the Habitat Protection Area. These First Nations also have powers and responsibilities in the management of fish, wildlife and their habitats as stated in Chapter 16 of their respective Final Agreements. In addition, there are special provisions to accommodate the sharing of the Ddhaw Ghro Habitat Protection Area with Little Salmon/Carmacks First Nation people.









Sheep



Traditional Knowledge

According to the Elders, there were three different kinds of sheep in the 1930s: white Dall sheep, stone and the black sheep. The dark sheep that are there today are described as a cross between Dall and stone sheep.

Work to Date

There is more historical information about mountain sheep in the Ddhaw Ghro Habitat Protection Area than any other wildlife. Geologist Hugh Bostock mapped the places where he saw sheep between 1939 and 1943 as part of the research to designate the McArthur Game Sanctuary. Two biologists studied the sheep population and the habitat between 1969 and 1972. Government of Yukon biologists carried out spring lamb surveys in 1986 and 1987, and summer and fall surveys in 1976 and 1978.

The steering committee requested information to help determine the status of the sheep population and where the most important seasonal habitats were within the area. In 2003, Marilyn Van Bibber and the Government of Yukon staff conducted interviews with 21 Northern Tutchone Elders who knew the area. The Elders mapped their Traditional Knowledge of seasonally important habitats, mineral licks and places they formerly hunted sheep. Biologists completed aerial sheep surveys in the spring 2001, annually in the fall from 1993 through 2017, and during early and late winter of 2001 and 2002. All survey information was used to map key habitats of sheep during lambing, rutting and winter periods (Appendix F: Map 7). A vegetation classification map of the area was used as the basis for developing habitat suitability maps for sheep (Appendix F: Map 8) in the summer and winter seasons, using ratings provided by biologists and Elders.

Current Status

There are presently about 65–70 sheep that live in Ddhaw Ghro. This is about the same number estimated in the late 1960s and early 1970s. Their range is mostly in the northern part of the Habitat Protection Area, although some sheep migrate to Mount Sether, outside of the area's boundary, to the northwest. Elder interviews and the records of Hugh Bostock indicate that sheep formerly ranged in southern mountains of the Ddhaw Ghro Habitat Protection Area. Sheep disappeared from this part of their range sometime after the 1940s.

Lambing occurs mainly on steep cliffs on Big Sheep Mountain and other northern mountains of the Habitat Protection Area. Rutting occurs in November and December, mostly in the northern mountain ranges, on Big Sheep Mountain and on the riparian bluffs above Nogold Creek. Winter habitat is more restricted, with most sheep concentrating on Big Sheep Mountain and the Nogold Creek bluffs. Elders mapped eight mineral licks within the sheep range. Habitat suitability mapping (Appendix F: Map 7) indicates there is good quality habitat for sheep in the southern mountains of the Habitat Protection Area, consistent with historical records.

Mount Sether is northwest of the Habitat Protection Area and it is open to public hunting. However, due to the small number of sheep using the Mount Sether area, there is currently no licensed harvest and little First Nation hunting of these sheep.

Management Concern

The sheep population in the Ddhaw Ghro Habitat Protection area is small and isolated. As a result, they could be sensitive to the effects of climate change on habitat, and to development activities outside of the Habitat Protection Area. These sheep need to be monitored closely to determine if numbers decline, remain stable or increase.

RECOMMENDATION 1

Periodically monitor sheep in the Ddhaw Ghro Habitat Protection Area in coordination with other activities in the area and as resources are available.

Monitor the age and sex composition as an indication of the population's condition, and investigate causes if problems are found. If a problem is found, the parties and the renewable resources councils should make recommendations to address the problem.

Implementation
Conduct aerial sheep counts at the same time as the annual Ethel Lake caribou herd rut counts. *Who: Government of Yukon.*
Monitor and report sheep information and make population management recommendations. *Who: Government of Yukon, Selkirk First Nation, First Nation of Na-Cho Nyäk Dun, and renewable resources councils.*

Management Concern

Sheep might benefit from controlled burning of their range, but more research is needed to understand how to carry out this work. Research should focus on understanding traditional fire management practices, and the potential benefits and impacts of carrying out range enhancement for sheep in the Ddhaw Ghro Habitat Protection Area.

RECOMMENDATION 2

Research the use of controlled burns to enhance sheep range, including traditional fire management practices.

This research should examine other examples of controlled burns to enhance sheep habitat, and incorporate knowledge from Elders about these methods.

RECOMMENDATION 3

Based on the outcome of the research, the parties need to consider appropriate actions to enhance sheep habitat.

This should be carried out with involvement of the renewable resources councils. These recommendations should be linked to the fire management plan proposed for the area.

Implementation
Research range enhancement techniques using controlled burns, including traditional methods. *Who: Government of Yukon.*
Consider research results and actions to enhance sheep habitat. *Who: Government of Yukon, Selkirk First Nation, First Nation of Na-Cho Nyäk Dun, and renewable resources councils.*

Management Concern

Sheep in the Ddhaw Ghro Habitat Protection Area move to Mount Sether at times, which is outside the Habitat Protection Area. People sometimes hunt these sheep, and even a small harvest could cause sheep numbers to decline in Ddhaw Ghro.

RECOMMENDATION 4

Monitor and report harvest of sheep that use the Ddhaw Ghro Habitat Protection Area to ensure hunting is sustainable.

RECOMMENDATION 5

The renewable resources councils should make recommendations to the parties to address any problems related to the harvest of sheep that use the Ddhaw Ghro Habitat Protection Area.

Implementation
Monitor and report harvest of sheep by all hunters. *Who: Government of Yukon, Selkirk First Nation and First Nation of Na-Cho Nyäk Dun.*
Make recommendations to address any sheep or harvest problems found. *Who: Renewable resources councils to the parties.*

Caribou



One winter in the early 30s, we could hardly trap there was so many caribou, the whole country was dug up with caribou. This herd never stays in one area, and is constantly moving.

— Elder

Traditional Knowledge

During the 1930s, the migratory Fortymile caribou herd passed through the area. One Elder said the caribou were "just like squirrels" as they were so plentiful. Another Elder described the caribou coming through at Pelly Crossing as "coming over the hill all day, a steady wide stream of caribou", and also said, the caribou made it difficult to trap in the Ddhaw Ghro area, because there were so many of them.

Work to Date

Radio-collared caribou were followed in and around the area from 1989 to 1993 to identify the range and important seasonal habitats of the Ethel Lake caribou herd. Locations of these animals were used to map the key rutting and winter habitats (Appendix F: Map 9). The herd was last counted in 1993. Since 1993, the Government of Yukon has conducted an annual composition count of the proportion of bulls, cows and calves in the herd. As a part of this planning process, the steering committee interviewed 21 Elders and collected detailed information about caribou in the area. Biologists also rated the seasonal use of the different vegetation types in the area by caribou, to prepare habitat suitability maps (Appendix F: Map 10).

Current Status

Historically, the Fortymile caribou herd sometimes wintered in the region, but it has not been seen in the area for many decades. The Ethel Lake woodland caribou are the only herd inhabiting the Ddhaw Ghro Habitat Protection Area today. Current herd size is about 450 animals, the same as in 1993. Its range centers in the McArthur Mountains, and extends north to the Stewart River, east to Big Kalzas Lake, and south to the Macmillan River and west to the Willow Hills (Appendix F: Map 9). Most calves are born in the high alpine areas of the Habitat Protection Area and surrounding mountains. The herd spends most of the summer on subalpine plateaus in and around the Ddhaw Ghro Habitat Protection Area. The traditional fall rutting areas are mainly on the subalpine ridges in north and east parts of the area, on Big and Little Sheep mountains, on the mountains south of Ethel Lake, on the ridges north and east of Nogold Creek and on Kalzas Twins. During winter, caribou inhabit forested cover along Crooked, North Crooked and Nogold creeks. Elders have mapped 14 mineral licks within the range of this herd.

Management Concern

Large fires from 2004 to 2015 burned over half of the known winter range of the Ethel Lake caribou herd (Appendix F: Map 5). By doing annual herd counts, biologists monitor

calf production and can determine if the herd is increasing, decreasing, or stable.

RECOMMENDATION 6

Regularly monitor the Ethel Lake caribou herd to determine herd composition by counting a sample of cows, bulls, and calves.

RECOMMENDATION 7

Report the population monitoring results of the Ethel Lake caribou herd to the parties and renewable resources councils.

RECOMMENDATION 8

Make management recommendations to address population concerns regarding the Ethel Lake caribou herd.

Implementation
Regularly monitor the Ethel Lake caribou herd. *Who: Government of Yukon.*
Report monitoring results to the parties and renewable resources councils. *Who: Government of Yukon.*
Make management recommendations. *Who: Government of Yukon, Selkirk First Nation, First Nation of Na-Cho Nyäk Dun, and renewable resources councils*

Management Concern

Any harvest during the current period of low calf survival could cause the Ethel Lake caribou herd to decline. The voluntary closure of hunting follows First Nation traditional management practices of periodically giving an area a rest from hunting.

RECOMMENDATION 9

Continue with the voluntary no-hunting request for the Ethel Lake caribou herd as long as calf survival stays low.

Wait until survival is adequate to sustain the population before lifting the no-hunting request.

Implementation
Continue to promote and support the continued voluntary hunting closure. *Who: Government of Yukon, Selkirk First Nation, First Nation of Na-Cho Nyäk Dun, and other Yukon First Nations citizens*
Annually report caribou recruitment information. *Who: Government of Yukon to the parties and renewable resources councils*
Develop management recommendations as necessary. *Who: The parties, renewable resources councils.*

Moose



Traditional Knowledge

Elders say the moose were found all over the Ddhaw Ghro Habitat Protection Area and were very abundant in the 1930s and 1940s. Moose are still a very important food source for Northern Tutchone people. There are several factors that contribute to where moose may be found in each season, but moose movements are generally more localized than caribou.

Work to Date

There is considerably less scientific information about moose in the Ddhaw Ghro Habitat Protection Area than there is about sheep or caribou. The Yukon Fish and Wildlife Branch conducted early-winter surveys of moose in the western part of the Ddhaw Ghro area in 1988, and a late-winter survey in the same area in 1989. Late-winter aerial surveys of moose recruitment were conducted annually from 1993 to 1999, which included parts of the Habitat Protection Area. Key habitats for moose have not been mapped for the area. The Selkirk First Nation funded a survey of late-winter moose habitat over the whole region in 2001. In 2002 and 2017, the First Nation of Na-Cho Nyäk Dun and Selkirk First Nation worked with the Government of Yukon to complete early winter moose surveys covering the western part of the Ddhaw Ghro Habitat Protection Area.

The steering committee gathered Traditional Knowledge of the important seasonal habitat areas for moose from Elder interviews. Elders and biologists mapped moose habitat suitability for all seasons using a vegetation classification map of the area (Appendix F: Map 11).

Current Status

Densities of moose are about 160 for every 1000 km² in area, slightly above the Yukon average. At this time, the proportions of calves and bulls are healthy enough to sustain the population. Moose have their calves in late May, in sheltered habitats that provide good food and protection from predators. Lowland habitats along rivers and creeks are good calving areas. In the summer and fall, moose reside in a variety of habitats often near water. After rutting in September and October, moose move into high-elevation sub-alpine shrub habitats. The willow and birch flats and draws around the Habitat Protection Area are ideal for moose, until deep snows force them to low-elevation forest cover, later in the winter. Kalzas River, Crooked and North Crooked creeks and the lower parts of Grey Hunter Creek are all important late-winter habitats for moose. Fires burned some of the late-winter range along Crooked Creek and the lower Kalzas River, in 2004. These burn areas will provide little late winter habitat for moose, especially in deep-snow years, until the forest grows back.

Management Concern

There is currently no harvest of moose in the Ddhaw Ghro Habitat Protection Area, but moose seasonally move in and out of the Habitat Protection Area. Moose numbers need to be monitored in the region because they are the main subsistence food for local residents.

RECOMMENDATION 10

Continue to monitor moose populations that use the Ddhaw Ghro Habitat Protection Area.

Implementation
Conduct aerial and ground-based moose monitoring. *Who: Government of Yukon, Selkirk First Nation and First Nation of Na-Cho Nyäk Dun.*
Report moose monitoring results. *Who: Government of Yukon, Selkirk First Nation and First Nation of Na-Cho Nyäk Dun, and to the renewable resources councils*
Develop management recommendations, as required. *Who: Government of Yukon, Selkirk First Nation and First Nation of Na-Cho Nyäk Dun, renewable resources councils.*

Management Concern

Although there is no moose harvest in the Ddhaw Ghro Habitat Protection Area, over harvest in nearby areas could affect moose that use the Habitat Protection Area.

RECOMMENDATION 11

Continue to monitor the harvest of moose that use the Ddhaw Ghro Habitat Protection Area.

Implementation
Collect moose harvest information. *Who: Government of Yukon, Selkirk First Nation and First Nation of Na-Cho Nyäk Dun, Little Salmon/Carmacks First Nation.*
Report and share moose harvest information. *Who: Government of Yukon, Selkirk First Nation and First Nation of Na-Cho Nyäk Dun, and to the renewable resources councils.*
Develop management recommendations, as required. *Who: Government of Yukon, Selkirk First Nation and First Nation of Na-Cho Nyäk Dun, renewable resources councils*

Bears



Traditional Knowledge

One Elder said the grizzly bears are "living right up around timberline. They'd eat grass and everything, chasing sheep—they'd kill sheep and whistlers (marmots), they'd dig up whistlers and gopher out of the rocks. They'd eat berries." This Elder also talked about there being a lot of bear sign around the Chu Tthaw Hot springs where he even once saw a bear lying on its back in the water.

Work to Date

When the Ddhaw Ghro Habitat Protection Area planning process began, there was no recorded information about bear numbers or habitat use in the Habitat Protection Area. To fill this gap, Elders mapped their Traditional Knowledge of important habitats for grizzly and black bears. The steering committee also developed habitat suitability maps based on Elders' ratings of expected bear habitat use by vegetation type (Appendix F: Map 12).

Current Status

The number of bears that use the Ddhaw Ghro Habitat Protection Area is unknown. Elders say that grizzly bears are abundant there. The extensive alpine and sub-alpine areas in the Habitat Protection Area and surrounding mountains are habitat types preferred by grizzly bears. Black bears are likely more abundant in valley bottoms, especially along Crooked Creek and the Little Kalzas River.

Management Concern

Based upon current knowledge, bear populations appear to be healthy. Grizzly bears are assessed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) as Special Concern. Once listed on the federal *Species at Risk Act*, a management plan for the species will be required. Grizzly bears are also a significant predator of various big game species, and have the potential to affect the sheep, moose and caribou populations in the Ddhaw Ghro Habitat Protection Area.

The Yukon Fish and Wildlife Management Board and the Government of Yukon are in the process of developing a Grizzly Bear Conservation and Management Plan for Yukon.There are no immediate management concerns or recommendations about bears in this plan. Local information will continue to be gathered, and recommendations will be considered, should a change in bear numbers be observed or management concerns arise.

Waterfowl



It seems there are less and less ducks every summer. When I used to hunt muskrat — the ducks drove me crazy — making so much noise — but not anymore.

— Elder

Traditional Knowledge

Ducks are a traditional food and are very important for First Nation people. A wide variety of waterfowl use the Habitat Protection Area including many ducks such as mallards, bluebills, butterball/buffalo head (bufflehead), black ducks and canvasbacks.

Work to Date

Elders mapped their Traditional Knowledge of nesting and staging habitat for ducks, geese, and swans in and around the Ddhaw Ghro Habitat Protection Area. In June 2004 and 2005, Ducks Unlimited Canada surveyed waterfowl from helicopters on 53 ponds in the wetland complex stretching from Little Kalzas Lake in the southeast to the northwest corner of Ddhaw Ghro along Crooked Creek. The southern portion of Habitat Protection Area is excellent habitat for ducks and geese, either for staging temporarily in spring and fall, or for nesting.

Current Status

The wetlands along the Little Kalzas River, Woodburn Creek and Crooked Creek that make up the southwest border of the Habitat Protection Area (Appendix F: Map 6), are excellent nesting habitat for ducks. There were 15 species of ducks, loons and grebes found nesting during aerial surveys. There were especially high numbers of scaup, which are a duck of conservation concern in North America. The 2004 wildfires burned many areas around the ponds, but 2005 surveys showed that waterfowl continued to use most of the ponds. Little Kalzas Lake is just outside the Habitat Protection Area and is used for fall migration, as well as by nesting swans and ducks.

Management Concern

The wetlands along the western edge of the Ddhaw Ghro Habitat Protection Area are the only substantial wetlands in the Habitat Protection Area. Much of the forest cover surrounding the wetlands was burned by wildfires in 2004. Given concerns about the effects of fire on wildlife habitat, the wetland survey before the 2004 fires provides the opportunity to monitor the post-fire recovery of wetlands in the northern boreal forest.

RECOMMENDATION 12

Support Ducks Unlimited Canada's study about the effects of wildfire on waterfowl habitat use, and Ducks Unlimited Canada's regular monitoring of waterfowl habitat use along the Little Kalzas River, Woodburn Creek, and Crooked Creek.

Implementation
Provide support to conduct the wildfire-waterfowl habitat use study and to conduct regular monitoring of waterfowl habitat use of Little Kalzas River, Woodburn Creek, and Crooked Creek. *Who: Government of Yukon, Selkirk First Nation and First Nation of Na-Cho Nyäk Dun.*
Request presentation of monitoring and research findings, including final report. *Who: Government of Yukon, Selkirk First Nation and First Nation of Na-Cho Nyäk Dun*

Birds of Prey



Traditional Knowledge

Eagles are an important part of Northern Tutchone culture, and have nests in the Ddhaw Ghro Habitat Protection Area. They have spiritual value and there are many customs that relate to eagles.

Work to Date

There were no key habitats of eagles or hawks mapped in the Ddhaw Ghro Habitat Protection Area at the start of the management planning process. Elders mapped traditional bald eagle nest sites and places that they had seen activity by bald eagles, golden eagles, hawks, owls and ravens. In June 2004, the Government of Yukon conducted an aerial survey of the Habitat Protection Area to locate cliff-nesting raptors.

Current Status

There are four known bald eagle nesting sites along creeks and lakes in the Ddhaw Ghro Habitat Protection Area. Also mapped are seven golden eagle nests, one gyrfalcon nest and two peregrine falcon nests in the area (Appendix F: Map 13). These nesting sites are used from year to year by these birds. Nesting birds are especially sensitive to disturbance by human activity.

Management Concerns

There are no concerns or recommendations for birds of prey in this management plan.

Fish



Traditional Knowledge

Fish play a vital part in the health of the Northern Tutchone people and the animals. Fish need good quality, fresh water for continued survival in the ecosystem. Although no Elder claims to have seen it, some of them recall hearing about flying fish in Crystal Lake when they were young. Those Elders now say that maybe they were talking about grayling because of their large fins which span when they jump out of the water.

Work to Date

Field studies of Chinook salmon were carried out on Crooked Creek and the Little Kalzas River in the 1992 by the Department of Fisheries and Oceans and Selkirk First Nation. In 1993, interviews were conducted with Elders about salmon in the Mayo area. As a part of the Ddhaw Ghro Habitat Protection Area planning process, field studies of fish were conducted in 2002 in the three largest lakes in and around the area: Little Kalzas, Crystal and Sideslip Lakes. Also in 2002, Selkirk First Nation funded fish research in Macmillan River tributary streams, including the Little Kalzas and Kalzas Rivers. Elders have mapped their Traditional Knowledge of freshwater fish and salmon in the creeks and lakes in the Ddhaw Ghro Habitat Protection Area.

Current Status

Adult Chinook salmon spawn and juveniles live in Crooked Creek as far upstream as its junction with Woodburn Creek. Salmon spawning and rearing have been documented in the Little Kalzas River up to Little Kalzas Lake. Kalzas River is also used as salmon spawning and rearing habitat. Some of its tributaries, including Grey Hunter Creek, could also be suitable salmon habitat. Elders have seen adult salmon entering Nogold Creek during August and the creek has good spawning habitat, but there have been no scientific surveys to document use of this creek by salmon (Appendix F: Map 14).

Arctic grayling and slimy sculpins are widely spread throughout the creeks, ponds, and lakes of the area. Little Kalzas Lake has lake trout, whitefish, pike, suckers and burbot. The inlet and outlet of the lake are both whitefish spawning areas. Crystal Lake has good populations of arctic grayling and round whitefish. Sideslip Lake has large numbers of arctic grayling and suckers spawn at the lake outlet. Woodburn Lake and some other small lakes have good pike spawning in the weedy shores and creeks.

Chinook salmon are a main subsistence food of the Northern Tutchone people, and salmon has great cultural importance. Conservation of salmon habitat is a high priority for First Nations.

Management Concern

Nogold and Grey Hunter Creeks are important watersheds originating in the Ddhaw Ghro Habitat Protection Area, and use of these creeks by salmon has not been documented.

RECOMMENDATION 13

Conduct a study to determine salmon use of Nogold Creek and Grey Hunter Creek.

Implementation
Submit a research proposal to the Yukon River Panel, Restoration and Enhancement Fund. *Who: First Nation of Na-Cho Nyäk Dun.*
Conduct a study on salmon use of Nogold and Grey Hunter Creeks. *Who: First Nation of Na-Cho Nyäk Dun with the Department of Fisheries and Oceans*

Management Concern

There is a lack of information regarding various fish species. Critical areas have not been documented for freshwater fish such as whitefish and trout.

RECOMMENDATION 14

Evaluate whether research should be done for various fish species in other rivers and creeks of the Ddhaw Ghro Habitat Protection Area.

Implementation
Evaluate if research is needed to identify important fish habitat. *Who: Government of Yukon, Selkirk First Nation, First Nation of Na-Cho Nyäk Dun, with renewable resources councils, Department of Fisheries and Oceans.*

Other Wildlife



Traditional Knowledge

In the early days, big and small game animals were abundant throughout the Ddhaw Ghro area. Some fur bearing animals, like coyotes and rabbits, came into abundance in cycles. They would be plentiful, and then disappear for a few years before coming back. Coyotes seemed to die out when the Fortymile caribou herd stopped coming through.

Elders remember wolves running in large packs and that there were "wide wolf trails." One Elder told a story of her mother calling the children back. They thought that they heard their father coming home with the dog team and were rushing down the trail to meet him. "It was not our father's dog team, but a great big pack of wolves."

Work to Date

Hunting, trapping, fishing and the gathering of berries and medicinal plants happened throughout Ddhaw Ghro. Elders have mapped their Traditional Knowledge about squirrel, marmot, pika, snowshoe hares and porcupine. They have also mapped traditional hunting, trapping, and fishing areas and places where they harvested berries and medicinal plants.

In 1987, the Government of Yukon and Selkirk First Nation conducted a vegetation classification survey in the Ddhaw Ghro Habitat Protection Area. They recorded plants, animals and animal sign at over 500 sites in the area.

Current Status

The Ddhaw Ghro Habitat Protection Area provides important habitat for a wide range of mammals, birds, plants and other wildlife, most of which have been inadequately documented. In addition to the fish and wildlife discussed above, it is known that the high mountains are good habitat for marmot, arctic ground squirrel, and pika. Lowland forests are home to marten, lynx and wolves. The wetlands along the creeks, rivers, and lakes likely have healthy numbers of beaver, muskrat, mink, otters and birds.

There are no significant management concerns or recommendations for other wildlife in this management plan.

Trapping

Traditional Knowledge

The Elders recall learning to hunt and trap for small game such as squirrels, rabbits and weasels when they were small children. Any trapping activities in the Ddhaw Ghro Habitat Protection Area should consider Doòli law, as there are traditional ways that Northern Tutchone people handle animals.

Trapping History

For centuries before the establishment of Fort Selkirk by the Hudson's Bay Company, the Northern Tutchone had been regular traders with other native groups, including the coastal Tlingit, Tagish, Dene, Han, Kutchin and Inuit. The Northern Tutchone people depended on other native peoples for manufactured goods, trading their valuable interior furs for these items.

The Van Bibber family trapped in the Ddhaw Ghro Habitat Protection Area since the early 1900s. Others trapped parts of the area during the 1920s to 1940s. During the 1930s, the Van Bibber family trapped over 100 coyotes in one season. The coyote population suddenly declined in the late 1930s. Then, foxes quickly increased and the Van Bibbers caught over 100 in one winter. Large wolf packs were common, especially when the Fortymile caribou herd wintered in the area. Lynx, wolverine and marten were never abundant in the area and there were only a few places where they were trapped. Trapping in the area ended in 1948, when the McArthur Game Sanctuary was established. Trapline cabins were abandoned and have since fallen into disrepair.

Management Concern

Selkirk and Na-Cho Nyäk Dun Elders were consulted about their interest in trapping in the Ddhaw Ghro Habitat Protection Area, and all said they did not want trapping reopened. They believe the area should be left as it is. The key reason is that they are concerned about providing new access into the area.

Non-concession trapping could be one method to address future conservation problems in and around the Ddhaw Ghro Habitat Protection Area. For example, predators of moose, caribou and sheep could be reduced if there was a conservation problem. Also, beaver dam creeks and could limit the movement of fish, including spawning salmon. It is important to include Little Salmon/Carmacks First Nation in this work recognizing the interest in sharing the area with Little Salmon/Carmacks people.

RECOMMENDATION 15

There should be no trapping concessions or development of trapping trails in the Ddhaw Ghro Habitat Protection Area.

The parties should not establish trapping concessions within the Habitat Protection Area.

RECOMMENDATION 16

Allow non-concession trapping in the Ddhaw Ghro Habitat Protection Area to address wildlife conservation problems identified by the Parties.

Implementation
No trapping concessions should be issued in the Ddhaw Ghro Habitat Protection Area. *Who: Government of Yukon.*
If required, identify conservation problems for which non-concession trapping would be appropriate and work collaboratively to develop rules for how, where and when trapping activities for conservation purposes are appropriate. *Who: Government of Yukon, Selkirk First Nation and First Nation of Na-Cho Nyäk Dun.*



Fire Ecology and Management

The steering committee spent considerable time consulting with communities about fire management in the Ddhaw Ghro Habitat Protection Area. Three important concerns were raised during this process:

- wildland fire has affected the winter range of the Ethel Lake caribou herd.
- the Chu Tthaw Hot springs is an important cultural area for Northern Tutchone people and is a unique and special habitat for wildlife.
- traditional fire management practices should be used to manage fires in this area.

Traditional Knowledge

Traditionally, fire would be left alone to burn out, unless it posed an immediate danger to animals, communities, trap lines or other interests. In such cases, axes, shovels and picks would be used to build fire guards around an area that needed protecting. Any fire fighting would be done at night, when the fire is calmer, and fire fighters would pay close attention to signs such as wind.

First Nations have traditionally used fire management activities as a habitat maintenance measure and to "keep it clean." They did this to maintain their lifestyle and livelihood. For example, after an area has been burned, animals are attracted by the opportunity to feed on the new growth.

There are a variety of ways in which fire was used to maintain or improve habitat and for safety. When the first snow fell, Selkirk First Nation people created a fire guard at the lowest snow elevation, to prevent fires from destroying the alpine feeding ranges of various species. In the fall and winter, individual trees in wetland areas would be set on fire at any site where they harvested big game. Selective burning of grass and shrubs was done in spring to deal with disease, debris, and troublesome weeds.

Work to Date

Wildland fire management within Yukon is undertaken using a coordinated approach as identified by Government of Yukon's Wildland Fire Management Zones Directive (2003) policy. The Ddhaw Ghro Habitat Protection Area spans across four of Yukon's Fire Management Zones, including the Full, Strategic, Transitional and Wilderness Fire Management Zones. The largest portion of the plan area is located in the Wilderness Zone. Wildland fires that occur in this zone are generally observed and will receive a response commensurate with the values at risk, expected fire behaviour, and

cost associated with the fires. This action may include managing the fire to steer or direct it away from threatened values, using suppression techniques such as burning off to keep the fire to a specific area or to steer or direct the fire, site values protection and monitoring.

As problematic fires occur, or the level of fire activity escalates in Yukon, the Wildland Fire Analysis form is used by Wildland Fire Management staff to evaluate risks associated with specific fires and to assist fire managers in setting priorities across Yukon and allocating resources at the regional level. During this process information is gathered about values that may be impacted by the fire, anticipated fire weather and behaviour is analyzed, and the costs associated with managing different fire response options are considered.

Current Situation

Wildland fires are a natural disturbance process, necessary to maintain ecological integrity and mosaic of healthy forested ecosystems within Yukon. The Ddhaw Ghro Habitat Protection Area is located in the boreal forest and has adapted to fire disturbance for thousands of years. Many species of plants and animals within the area have adapted to this boreal fire regime. This management plan recognizes the role that wildland fire plays in maintaining the ecosystem in its natural state.

Wildland fires can have both positive and negative effects on wildlife habitat. Species requiring mature forest habitats such as caribou, marten, and some songbirds will avoid recently burned areas. Moose, lynx, and snowshoe hare, on the other hand, are attracted to areas recently burned because of the growth of herbs and shrubs following fires.

Wildland fires are caused by humans or lightning. Lightning causes the majority of wildland fires in central Yukon. The forests in the western portion of the Ddhaw Ghro Habitat Protection Area are near the North Klondike Highway and the Ethel Lake campground, adding the risk of human-caused ignitions.

One of the primary factors determining the fire regime is elevation. Most burned areas in the Yukon are at low and mid-slope elevations. Higher areas are characterized by cooler, damper conditions that impede vigorous burning. Because much of the Habitat Protection Area is comprised of mountains, the risk of fire is limited to the lower slopes.

The fire regime of the Ddhaw Ghro Habitat Protection Area is characterized by large stand replacing forest fires occurring at long intervals. Since 1950, there have been nine fires burning a total of about 35,307 hectares in the area. Fire cycle is an indicator of how long it would take the Habitat Protection Area to burn based on wildland fire history. The fire cycle for Ddhaw Ghro Habitat Protection Area is estimated at about 315 years. The surrounding region of central Yukon burns more frequently, with a fire cycle of about 210 years.

In 2004, a large area in and to the southwest of the Habitat Protection Area was burned including the Little Kalzas River, Woodburn Creek, and Crystal Creek areas (Appendix F: Map 5). Also, there was another large burn in the Grey Hunter Creek area. In 2013, a lightening-caused fire also burned a large area of forest east of Ethel Lake in the Mayo District. As a result, these areas will not be suitable winter habitat for caribou for another 50 to 100 years. The Northern Mountain population of Woodland Caribou are listed as a species of 'Special Concern' under the federal *Species at Risk Act*, so conservation of key habitats should be given special consideration. This Habitat Protection Area management plan

DECADE	NUMBER OF FIRES	AREA BURNED (hectares)
1950 to 1959	2	313
1960 to 1969	0	0
1970 to 1979	1	1,430
1980 to 1989	1	266
1990 to 1999	1	823
2000 to 2009	3	21,998
2010 to 2013	1	10,477
TOTAL	9	35,307

Table 1: Wildland fires in Ddhaw Ghro Habitat Protection area 1950 to 2015 (source: Government of Yukon, Wildland Fire Management).

considers the effects of fire on wildlife habitat in making recommendations for how fire should be managed in the Ddhaw Ghro Habitat Protection Area.

The Chu Tthaw Hot Springs is an important cultural place for Northern Tutchone people. During public meetings about the Ddhaw Ghro Habitat Protection Area management plan, many ideas about ways to protect the Hot Springs from wildland fires were raised. These included:

- use "light on the land" fire suppression techniques (i.e., do not use mechanized equipment on the ground or chemical fire retardant);
- better understanding of the potential impacts to the Hot Springs by mapping fire risk in the surrounding area;
- develop a landing site for helicopters away from the Hot Springs;
- consider storing fire-fighting tools in the area to help fight a fire at the Hot Springs;
- use traditional fire management practices outside of the fire season to lessen the risk of a fire and to develop an appropriate firefighting strategy; and
- develop and communicate a strategy to convey the importance of the Habitat Protection Area and appropriate fire management techniques to inform regional fire management staff and local fire crews.

The Chu Tthaw Hot Springs area, regardless of annual precipitation levels, remains verdant throughout the summer due to the constant supply of water, which filters throughout the area's subsurface. The result is that the vegetation in the Hot Springs area has not experienced the same fire disturbance as has occurred in other portions of the Ddhaw Ghro Habitat Protection Area.

Management Concerns

There is a need to inventory ecological and cultural values at risk from wildland fires in the Ddhaw Ghro Habitat Protection Area. Much of this work has been done through the development of this plan. Further discussions between the parties will help to clearly document and map values of concern. Once inventoried, a risk analysis can be jointly completed to inform all parties about levels of risk, and identify potential responses and actions given financial and operational constraints. Of special concern is the need to plan in advance if a fire occurred at the Chu Tthaw Hot Springs.

Elders and community members want to see proactive steps taken to reduce the impacts associated with wildland fires and fire suppression activities occurring at the Hot Springs. Of special note, if suppression of fire were to occur near the Chu Tthaw Hot Springs damage to the Chu Tthaw Hot Springs from suppression activities should be minimized by, "light on the land" techniques for both ground and aerial suppression activities and avoiding the use of heavy equipment and of fire retardants harmful to surviving vegetation.To reduce the fire hazard in the immediate area of the Chu Tthaw Hot Springs, deadwood should be periodically removed and brush cleared. The goal is to protect important Chu Tthaw Hot Springs features and medicinal plants.

RECOMMENDATION 17

Inventory ecological and cultural values at risk from wildfire in the Ddhaw Ghro Habitat Protection Area.

RECOMMENDATION 18

Complete a wildland fire risk assessment for the Ddhaw Ghro Habitat Protection Area to identify and prioritize potential responses and actions to address ecological and cultural values in the Ddhaw Ghro Habitat Protection Area.

RECOMMENDATION 19

Investigate and delineate the ecological extent of the Chu Tthaw Hot Springs to better understand the potential impact that a wildland fire may have on the area.

RECOMMENDATION 20

Collaborate to develop a site protection plan for the Chu Tthaw Hot Springs to mitigate potential impacts associated with wildland fires.

Implementation
Inventory ecological and cultural values at risk from wildfire in the Ddhaw Ghro Habitat Protection Area. *Who: Government of Yukon, Selkirk First Nation and First Nation of Na-Cho Nyäk Dun.*
Complete a wildland fire risk assessment for the Ddhaw Ghro Habitat Protection Area to identify and prioritize potential responses and actions to address ecological and cultural values in the Ddhaw Ghro Habitat Protection Area. *Who: Government of Yukon, Selkirk First Nation and First Nation of Na-Cho Nyäk Dun.*
Investigate and delineate the ecological extent of the Chu Tthaw Hot Springs to better understand the potential impact that a wildland fire may have on the area. *Who: Government of Yukon, Selkirk First Nation and First Nation of Na-Cho Nyäk Dun.*
Collaborate to develop a site protection plan for the Chu Tthaw Hot Springs to mitigate potential impacts associated with wildland fires. *Who: Government of Yukon, Selkirk First Nation and First Nation of Na-Cho Nyäk Dun*

Management Concerns

Elders and community members have expressed an interest to further understand the impacts of wildland fire on wildlife in the Ddhaw Ghro Habitat Protection Area. Of particular interest are the effects on sheep and the Ethel Lake caribou herd. Opportunities to accurately map, assess, and where possible, study the effects of wildland fire on populations can inform management decisions regarding changes in population levels and range use in the Ddhaw Ghro Habitat Protection Area. Both current science and knowledge of traditional fire management practices can inform objectives to manage wildlife habitat and wildland fires.

RECOMMENDATION 21

Collaborate to map, assess, and where possible, study the effects of wildland fire on sheep and the Ethel Lake caribou herd.

Implementation
Gather and communicate existing and available information about the effects of wildland fires on sheep and caribou generally. *Who: Government of Yukon, Selkirk First Nation and First Nation of Na-Cho Nyäk Dun.*
Consider more specifically the effects of wildland fire on sheep and the Ethel Lake caribou herd in the Ddhaw Ghro Habitat Protection Area. Communicate these results. *Who: Government of Yukon, Selkirk First Nation and First Nation of Na-Cho Nyäk Dun.*

Management Concerns

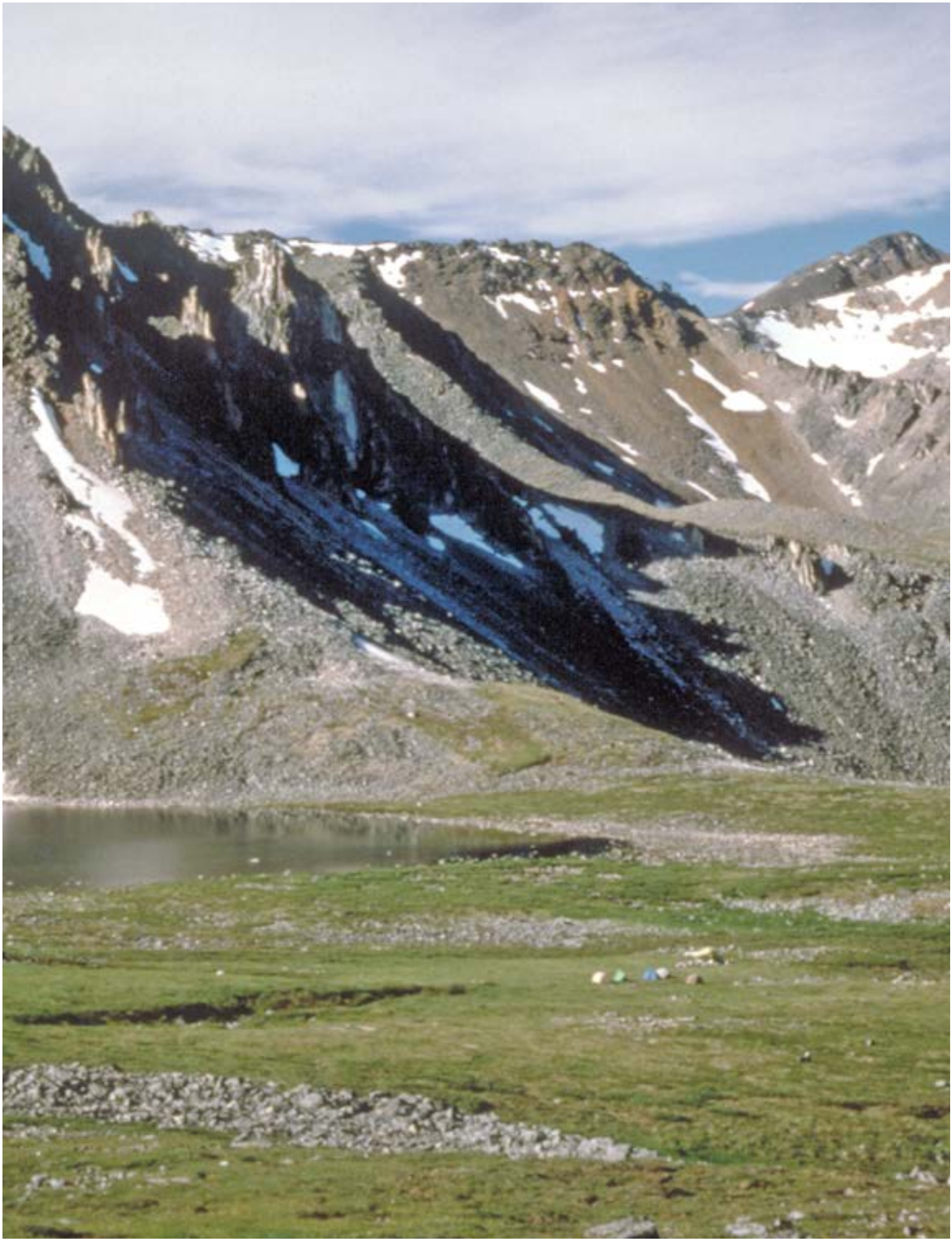
Communication and outreach about wildland fire management in Yukon is important to engage communities in a proactive way. In the past, Elders and community members voiced concern that communication was not adequate about values needing protection and how to fight fires (e.g., using traditional methods) in the Ddhaw Ghro Habitat Protection Area.

RECOMMENDATION 22

Based on the work to address the above recommendations determine the best way to share knowledge about:

- **values at risk and understanding the potential impact that wildland fires may have on them;**
- **traditional First Nation fire management practices and how these could be applied;**
- **current Government of Yukon wildland fire management policy and tools (e.g., Fire Smart and prescribed burning) available to mitigate risk; and**
- **how to proactively collaborate to convey the importance of the Ddhaw Ghro Habitat Protection Area to fire crews on an annual basis.**

Implementation
Share knowledge about values at risk and understanding the potential impact that wildland fires may have on them. *Who: Government of Yukon, Selkirk First Nation and First Nation of Na-Cho Nyäk Dun.*
Share knowledge about traditional First Nation fire management practices and how these could be applied. *Who: Government of Yukon, Selkirk First Nation and First Nation of Na-Cho Nyäk Dun.*
Share knowledge about current Yukon government wildland fire management policy and tools (e.g., Fire Smart and prescribed burning) available to mitigate risk. *Who: Government of Yukon, Selkirk First Nation and First Nation of Na-Cho Nyäk Dun.*
Share knowledge about how to proactively collaborate to convey the importance of the Ddhaw Ghro Habitat Protection Area to fire crews on an annual basis. *Who: Government of Yukon, Selkirk First Nation and First Nation of Na-Cho Nyäk Dun.*





Cultural Resources

Traditional Knowledge and Archaeological Studies

Due to the sensitivity of cultural information, this plan does not identify the exact location of places and artefacts discussed herein. First Nations Elders talk about the Ddhaw Ghro area and how it has been used for many generations of Northern Tutchone people. This use is supported by archaeological evidence dating back at least 3,000 and 4,000 years ago. In recent times, several projects have aimed at identifying this evidence of occupation and documenting oral histories.

In the 1930s and 1940s, there were 12 cabins in the Ddhaw Ghro Habitat Protection Area used by the Van Bibber family. Over the years, these cabins were also used by other families and hunters in the area. Today, only a few of these structures still remain. At that time, there existed an extensive trail network throughout the area. These are animal and foot trails that were used by people on foot, snowshoe and dog teams. One gravesite has been identified within the Ddhaw Ghro Habitat Protection Area. Oral accounts suggest it belongs to a Pelly Crossing family from around 1900. Other evidence of occupation includes various caches, traps, a sheep snare and many historic and archaeological artefacts.

Work to Date

Extensive cultural research was done between 2000 and 2003 with Northern Tutchone Elders in the Ddhaw Ghro Habitat Protection Area. Information was collected through interviews, workshops, and meetings in Pelly Crossing and Mayo. In addition, there were surveys and reports about the history and heritage of Ddhaw Ghro and the Chu Tthaw Hot springs. Some of this work has been done in partnership with the Government of Yukon.

Elders have provided information about the locations of good hunting and fishing spots, trapping areas, locations of cabins, old camps and graves. Many of the sites have historical significance. Work in the area has led to the discovery of one pre-contact era archaeological site. Artefacts include three partially shaped stone knives, stone flakes and burned animal bone.

Also evident in much of the research was the special healing uses of the Hot springs and of people who have been cured by using the Hot springs. One result of the heritage work is the "Ddhaw Ghro Hot springs—Rules for Using the Hot springs," which are discussed in Chapter 7 of the Chu Tthaw Hot springs Land Use Plan (full document available from Selkirk First Nation).

Management Concern

The heritage studies that were conducted are only a preliminary review of the cultural resources of Ddhaw Ghro. More field work is required to document sites and include them for possible protection under the *Historic Resources Act*.

In the Ddhaw Ghro Habitat Protection Area, there is an urgency to document Traditional Knowledge and cultural sites before Elders pass on, and the information is lost forever. Because of the cultural importance of the area, heritage research should be an important priority. It is important to include Little Salmon/Carmacks First Nation in this work, recognizing the interest in sharing the area with Little Salmon/Carmacks people.

RECOMMENDATION 23

As resources are available, conduct field studies in the Ddhaw Ghro Habitat Protection Area to document and map traditional, historic and archaeological sites and trails that have been identified by Elders.

Implementation
Document, do field work and map traditional, historic, and archaeological sites and trails. *Who: Government of Yukon, Selkirk First Nation and First Nation of Na-Cho Nyäk Dun.*
Ensure protection of heritage/historic sites under the *Historic Resources Act*. *Who: Government of Yukon, Department of Tourism and Culture.*

Management Concern

Northern Tutchone place names in the Ddhaw Ghro Habitat Protection Area are not complete, and they are not shown on past maps. Because of the strong emphasis on traditional uses in the Habitat Protection Area, traditional names for places, waterways, and areas need to be included in all documents. Similarly, many features in the area were given English names by the Van Bibber family. These local place names need to be recorded on maps also. It is important to include the Government of Canada in these initiatives where appropriate.

RECOMMENDATION 24

Recommend to the Yukon Geographical Place Names Board that the traditional Northern Tutchone names in the Ddhaw Ghro Habitat Protection Area be adopted through section 13.11 of the Selkirk First Nation and the First Nation of Na-Cho Nyäk Dun Final Agreements. Northern Tutchone and local place names should be included in all documents, maps, and awareness and appreciation products.

Implementation
Submit names to the Yukon Geographical Place Names Board. *Who: Government of Yukon, Selkirk First Nation and First Nation of Na-Cho Nyäk Dun.*
Use officially approved English and Northern Tutchone (Selkirk dialect) names where appropriate. *Who: Government of Yukon, Selkirk First Nation and First Nation of Na-Cho Nyäk Dun.*





Resource-based Land Use - Forestry

Traditional Knowledge

Long ago, when the land and its resources were healthy, Selkirk First Nation people used Traditional Knowledge to guide management of land, water, resources and the environment. The Traditional Knowledge of the Northern Tutchone takes into account all of the forest as a continuous living useful resource, as a whole.

Work to Date

The Government of Yukon has completed a forest inventory for much of Yukon, including the Ddhaw Ghro Habitat Protection Area. The forest inventory is compiled from a combination of air photo interpretation and field work. The inventory identifies leading vegetation species, tree age, height, canopy cover and other details. From this information, it is possible to map where timber is of appropriate size for commercial harvest. The Government of Yukon also maps areas burned by wildfires.

Current Status

The forests of the Ddhaw Ghro Habitat Protection Area are composed of about equal amounts of pine, spruce and aspen. Areas with significant forest stands are mainly along the major creek and river valleys. These areas include Little Kalzas River, Kalzas River, Woodburn Creek, Grey Hunter Creek, Nogold Creek, Sideslip Creek, Crooked Creek and North Crooked Creek (Appendix F: Map 5). There has been no commercial harvesting of timber in this area mainly because there is no easy access. There are more suitable areas for commercial timber harvest elsewhere in the region.

Several large areas in and near the Ddhaw Ghro Habitat Protection Area were burned in 2004 providing potential commercial fuel wood. Because there is no access and there is a large supply of fuel wood in surrounding areas, harvest of fuel wood in Ddhaw Ghro is not economical.

Management Concern

Boreal forests provide habitat for a variety of wildlife. Much of the mature forest around the Ddhaw Ghro Habitat Protection Area burned in 2004. The remaining forests are important winter range for the Ethel Lake caribou herd. Any harvest of wood in the Ddhaw Ghro Habitat Protection Area would require access roads, which would be a major concern.

RECOMMENDATION 25

There should be no commercial harvest of timber in the Ddhaw Ghro Habitat Protection Area.

Harvest of remaining mature spruce forests in the area should be avoided to protect important habitats.

RECOMMENDATION 26

Selective timber harvesting in the Ddhaw Ghro Habitat Protection Area could be acceptable for forest fire mitigation.

Any harvesting activities must comply with the access and fire management recommendations in this plan.

RECOMMENDATION 27

Harvesting should be allowed for personal use only when people are in the Ddhaw Ghro Habitat Protection Area.

Logs may be harvested to provide timber for construction of educational or cultural structures as discussed in other sections of this plan.

Implementation
Do not issue commercial timber or fuel wood cutting permits. *Who: Government of Yukon*
Collect information about forest insect infestation and disease. *Who: Government of Yukon.*
Inform visitors of management plan recommendations regarding wood cutting. *Who: Government of Yukon, Selkirk First Nation, First Nation of Na-Cho Nyäk Dun, and renewable resources councils.*





Resource-based Land Use - Mineral Resources

Traditional Knowledge

The introduction of mining in Yukon brought about many changes to the cultures and lifestyles of First Nations people, and damaged the environment upon which the First Nations people are dependent. The Northern Tutchone people have seen the direct results of this through the mining on Mount Nansen, as well as nearby in Dawson and Faro. Elders today often talk about the changes that mining brought to the region and are adamantly against allowing the industry in the Ddhaw Ghro Habitat Protection Area. Elders feel that Ddhaw Ghro is an area to teach about the old ways to the younger generations and that allowing mining in there goes against Doòli/ traditional law and traditional values.

Geology of Ddhaw Ghro

The Ddhaw Ghro Habitat Protection Area is located in the McArthur Mountains immediately northeast of the Tintina Trench. The region is within the maximum western limit of Pleistocene Glaciations (1.8 million years to 10,000 years before present), when continental ice sheets filled the lower surrounding valleys (Appendix F: Map 3). The peaks of the McArthur Mountains in the Habitat Protection Area were not glaciated and much of the ancient terrain remains, including felsenmeer flanks and scattered erosion remnants (tors) on ridge tops.

Sedimentary rocks form much of the area. The McArthur batholith is a large igneous formation that underlies the central part of the area. The batholith contains components of the older sedimentary rock and is surrounded by metamorphic structure that formed through reaction with the sedimentary rocks. The hot springs in the area result from the circulation of groundwater through porous sedimentary rocks. The water is heated deep within the earth, and then rises up through structures that are related to the Tintina Fault.

Previous Geological Work

Mineral exploration in the region dates back to 1929, when Treadwell Yukon claimed to have discovered a large, low-grade copper deposit in the McArthur Mountains. More recent investigations have failed to locate the occurrence.

Hugh Bostock, a geologist with the Geological Survey of Canada, first studied the geology of the region from 1939–1942. Charlie Roots, also with the Geological Survey of Canada, mapped the bedrock geology of the region in 1997. Exploration by individuals and companies happened sporadically in the region from 1969 to 1997, identifying several mineral occurrences.

In the early 1970s, the mountains around Grey Hunter Peak were heavily staked, but exploration by individuals and companies happened only sporadically over the next three

decades. However, several mineral occurrences were reported. By 1995, when the area was designated a Special Management Area, there were no active mineral claims. At that time, the area was withdrawn from mineral prospecting and mining.

Mineral potential

Currently there are no coal reserves and no defined mineral resources in the region. The Government of Yukon completed a regional mineral assessment of the Ddhaw Ghro Habitat Protection Area in 2001 (Appendix F: Map 15). The study concluded that in relation to other areas of Yukon, the Habitat Protection Area contains geology that has areas of moderate to high potential for the future discovery of metallic minerals.

A subsequent detailed mineral assessment divided the Habitat Protection Area into 16 tracts based upon the underlying geology. Tracts were assessed individually for up to 15 different mineral deposit types.

The detailed mineral assessment made the following observations and conclusions.

- The area has potential to contain several types of mineral deposits, including poly-metallic veins, skarns and intrusion-related gold deposits.
- There is also potential for deposits within sedimentary rocks of the Earn Group and limestone of the Hyland Group and Rabbitkettle Formation.
- The area contains anomalous metals in stream sediment samples. The source of these metals is unknown.
- The area has the potential to contain gold, copper, lead, zinc, tungsten, silver and barite.
- The area has no potential for oil and gas deposits.

Mineral resource assessments are inherently uncertain because they rely mainly on estimations of the probability of finding economical ore bodies, rather than direct study and measurements of minerals in the ground. These assessments are limited by the available data and current knowledge. Relative rankings of land tracts can also change as geological knowledge, technology and societal demand for resources evolve. Further assessment work may or may not result in the delineation of economic amounts of minerals within the area.

Current Situation

The Ddhaw Ghro Habitat Protection Area is presently under withdrawal orders for mineral, and oil and gas exploration and development, and for staking and exploring for coal.

Management Concerns

There are two important management concerns in relation to potential mineral, oil and gas, and coal resource development in the Habitat Protection Area.

1. The potential impacts of these types of developments on the capability of the Ddhaw Ghro Habitat Protection Area to protect and support its full diversity of wildlife populations and habitats.

2. The potential impacts of these types of developments on the uses of the area by the Selkirk, Na-Cho Nyäk Dun and Little Salmon/Carmacks First Nations people.

Potential impacts on Wildlife and Habitats

The majority of the Ddhaw Ghro Habitat Protection Area supports wildlife habitats that have been assessed as either being "key" or "highest suitability rating" for various species. These include key habitats for sheep, woodland caribou and birds of prey. The Habitat Protection Area also has habitats with the highest suitability ratings in critical seasons for woodland caribou, sheep, moose, bears, and birds of prey. These habitats are considered to be limited in their regional availability. The areas are historically used by wildlife and are critical to the health and survival of wildlife populations.

Limited exploration activities and controlled aerial access may have little or no effects on wildlife and habitat. On the other hand, actual mineral or other extraction and development operations have demonstrated a greater potential for negative effects on wildlife habitats and populations. These include:

- direct loss of habitat;
- behavioural disturbance of wildlife caused by human activities;
- detrimental effects of contaminants on the wildlife, fish, land, and water; and,
- the development of access roads resulting in disturbance of habitat areas that will need to be traversed by the road; additional use of the road by other people including other development interests, hunters and recreationalists; and spread of alien invasive plants species along access routes.

These potential negative effects may reduce the ability of habitats to support fish and wildlife populations.

Potential impacts on the use of the area by First Nations people

The Selkirk, Na-Cho Nyäk Dun and Little Salmon/Carmacks people currently use the Ddhaw Ghro Habitat Protection Area for traditional pursuits, and as a place of healing. These First Nations have clearly and consistently stated that they wish continue to use the area for this purpose, therefore the Ddhaw Ghro Habitat Protection Area must be kept in a natural and undisturbed state. The Northern Tutchone people have expressed strong objections to any exploration or development of mineral or petroleum resources within the Ddhaw Ghro Habitat Protection Area. They have also consistently rejected their own economic opportunities in the Habitat Protection Area. Community comments reflect this perspective (see Appendix C: Public Comments).

RECOMMENDATION 28

Permanently withdraw the Ddhaw Ghro Habitat Protection Area from mineral exploration and development under the *Quartz Mining Act* and the *Placer Mining Act,* from oil and gas exploration and development under the *Oil and Gas Act*, and from staking a location for mining coal and from issuance of a licence to explore for coal under the *Territorial Lands (Yukon) Act.*

Implementation
Permanently withdraw the area from mineral, oil and gas, and coal staking, exploration and disposition. *Who: Government of Yukon*



Tourism and Recreation

The designation of the area as a Habitat Protection Area could increase the attractiveness of the area for personal recreation, and for commercial wilderness guiding opportunities. Currently, the limited access keeps interest in recreation and tourism activities low.

Traditional Knowledge

When considering tourism and recreation, all of the area is traditionally important to the First Nations people, not just the Hot springs. The entire area must be treated with respect to ensure the protection of the land and the traditional ways. Although the Ddhaw Ghro Habitat Protection Area belongs to all people and should be shared with all people having the responsibility of protecting the area, Doòli/ traditional law process should be respected throughout the area.

Work to Date

During community consultations, there was limited interest expressed in using the Ddhaw Ghro Habitat Protection Area for tourism and recreation (Appendix C). The steering committee found there is some interest in future tourism and recreation.

There has not been a detailed analysis of the tourism or recreation potential of the area.

In 1988, a recreation features inventory of Yukon was completed, including areas in the Ddhaw Ghro Habitat Protection Area (Appendix F: Map 16). The central mountains, including Black Ram Peak, are ranked as high potential value for hiking and landscape viewing. The Silver Trail Region Tourism Plan, produced in 1998, did not identify tourism associated with the area. One local tourism operator ran guided tours in the Ddhaw Ghro area, but stopped when the area was identified as a possible Special Management Area under the First Nation of Na-Cho Nyäk Dun Final Agreement.

Fishing-related tourism and recreation is limited in Crystal Lake and Sideslip Lake, which support small arctic grayling and other freshwater fish, but these lakes are accessible only by air. The rivers and creeks of the area have higher potential for recreational fishing, mostly for grayling.

The Chu Tthaw Hot springs is a sacred healing place and not appropriate for tourism or recreation. Because the hot springs are entirely within Selkirk First Nation settlement land, the control and management is not part of this plan.

Current Status

There are currently no commercial tourism activities in the area. There is no easy way to get to the Ddhaw Ghro Habitat Protection

Area, except by horseback or by aircraft. There is some hiking, associated wildlife and landscape viewing, and fishing. The Selkirk First Nation is concerned that tourists and recreationalists will visit the Hot springs without permission or proper information about how to conduct themselves at this important cultural site.

Management Concern

Unmanaged tourism and recreation could affect wildlife behaviour and habitats, environmental values and traditional uses. It is important that ways to effectively manage and control visitor use be in place before increasing tourism opportunities. Although existing laws cannot prevent visitors from going to the Ddhaw Ghro Habitat Protection Area, public awareness of the area and cooperation from tourism operators can help minimize recreation and tourism effects at this time.

There is a strong community concern that access to Chu Tthaw Hot springs through the Ddhaw Ghro Habitat Protection Area could degrade this sensitive area. The uncontrolled development of the Nash Creek Hot springs north of Mayo was often referred in community meetings as an example of how a culturally important hot springs can be degraded by mismanagement. It is important to include Little Salmon/Carmacks First Nation in this work recognizing the interest in sharing the area with Little Salmon/Carmacks people.

RECOMMENDATION 29

There should be no land tenure granted for the purpose of tourism in the Ddhaw Ghro Habitat Protection Area.

RECOMMENDATION 30

There should not be active promotion of the Ddhaw Ghro Habitat Protection Area as a tourism destination at this time.

The parties should not advocate recreation and tourism activities in the Ddhaw Ghro Habitat Protection Area in information brochures and other materials. This recommendation could be revisited in future plan reviews, with respect to limited wilderness guiding and First Nation economic development.

Implementation
Prohibit land dispositions for commercial tourism purposes. *Who: Government of Yukon.*
No active promotion of the Ddhaw Ghro Habitat Protection Area in tourism publications. *Who: Government of Yukon, Selkirk First Nation and First Nation of Na-Cho Nyäk Dun.*





Research and Monitoring

Traditional Knowledge

Respect for all of the life in the area is vitally important. Traditional values should be respected in research and monitoring in the area. The Dooli/traditional law process includes regular reporting of fish and wildlife harvest information at annual May Gatherings, providing a simple and efficient way to monitor wildlife use in the area. Following the gathering the First Nation of Na-Cho Nyäk Dun and Selkirk First Nation will share appropriate information with the Yukon government to help the parties guide the management of the area. For thousands of years, traditional monitoring and stewardship by the First Nations people has been a responsibility, ensuring environmental and ecosystem balance.

Work to Date and Current Situation

A wide variety of research has already been completed in the Ddhaw Ghro Habitat Protection Area as part of this management plan. This includes fish and wildlife surveys, mapping of habitat and areas of traditional use, visits to heritage sites, forest inventory, mineral assessments, and vegetation mapping. Details about these studies are provided in previous sections. Apart from the early studies in the McArthur Game Sanctuary, there has been little other scientific research in the area.

> **"There is lots of work to do. We don't have to rush into things, take our time and do it right. Make things work better for our future generations".**
>
> **— Elder.**

Traditional knowledge was collected as part of this planning. It is an important baseline for including in future research and monitoring in the Ddhaw Ghro Habitat Protection Area. Research can use Traditional Knowledge to assist in determining research gaps, study objectives, and field work planning.

One concern is that researchers rarely provide information about their study results to local communities in a format that is understandable. This fosters misunderstanding, distrust, and questions about the value of the studies. Future research projects will likely arise, especially after the area has been designated as a Habitat Protection Area. Currently, archaeological investigations require a permit under the *Archaeological Sites Regulations* of the *Historic Resources Act*. Under the current provisions of the *Scientists and Explorers Act*, researchers from outside the territory require permits. As part of the permit requirements, researchers should be required to better inform the communities about the purpose and results of their studies. It is

important to involve Little Salmon/Carmacks First Nation recognizing the interest in sharing the area with Little Salmon/Carmacks people.

RECOMMENDATION 31

Proposals for research projects in the Ddhaw Ghro Habitat Protection Area should be reviewed and assessed by the parties.

Due to the sensitivity of the area, the parties should develop a collaborative process for reviewing and monitoring all research projects that reflects relevant legislation, regulations, and First Nation protocol agreements.

RECOMMENDATION 32

A summary of research results from the Ddhaw Ghro Habitat Protection Area should be made available to the parties and communities in an appropriate presentation and in a timely manner.

RECOMMENDATION 33

Obtain applicable approvals where required from First Nations prior to conducting any Traditional Knowledge research related to the Ddhaw Ghro Habitat Protection Area.

Other recommendations relating to research and monitoring are found in other sections of this plan.

Implementation
Develop a collaborative process for reviewing, approving and monitoring research projects. *Who: Government of Yukon, Selkirk First Nation and First Nation of Na-Cho Nyäk Dun.*
A summary of results of Ddhaw Ghro Habitat Protection Area research projects should be made available to the parties and local communities. *Who: Researchers.*
Consult with First Nations regarding Traditional Knowledge research. *Who: Researchers.*





Awareness and Appreciation

Traditional Knowledge

There is a traditionally held belief that there will always be changes to the land and the life on it. This principle should be part of the management of the Ddhaw Ghro area. There is respect for the area as a whole. The appreciation of the traditional practices and laws have protected and managed the Ddhaw Ghro area for thousands of years.

During the 2003 Traditional Mapping Project for the Ddhaw Ghro Habitat Protection Area, several Elders talked about cultural knowledge used by the old timers. In an earlier interview, Elders spoke about the "goodness and honesty" of people long ago and of "living a good life" on the land and caring for the animals so we have something to give our children when they need it. They were taught to "leave things as they are, not to disrupt nature." Elders speak passionately about the sacred healing nature of the Chu Tthaw Hot springs. Each Elder interviewed has had a strong message of respect for the land, the animals and the plants.

The following are Elder comments to the steering committee about their appreciation of the area:

- "We need to keep this area clean and good water for our future generations."

"People have wills. A long time ago the elders had nothing to leave behind. Ddhaw Ghro is like a will that we can leave for our future generations".

— Elder.

- "And he can remember all the dog teams going by from Ross River to the Ddhaw Ghro Hot springs. Generations have known about this area."
- "It is important that future generations know cultural ways, and know how to hunt and look after the animals."

Management Concerns

Land and resources managers and users need to be aware of the importance of this area, in order to make decisions which are in the best interest of the area. Ignorance about the important habitat and wildlife of the area could lead to poor management decisions.

The steering committee is concerned that publicity about the Ddhaw Ghro Habitat Protection Area may result in overuse, diminishing or destroying the natural values of the area.

RECOMMENDATION 34

The parties should work towards creating greater public awareness of the Ddhaw Ghro Habitat Protection Area, in a way that does not promote increased travel to the area.

RECOMMENDATION 35

To encourage respect for Ddhaw Ghro Habitat Protection Area, the parties should make information available to the public.

This information could be provided in the following forms:

- a brochure and/or video to promote awareness of history, wildlife and sensitivity of the area;
- information in community and First Nation newsletters; and
- a highway pull-off with interpretive signs describing the natural features and values of the area, the history of management of the area (including its prior status as the McArthur Wildlife Sanctuary, the importance of the area to the Northern Tutchone People (including the history and use of the area), and restrictions that may apply to activities in the area.

Implementation
Develop a communications strategy and materials (e.g., brochures, videos, community newsletters). *Who: Government of Yukon, Selkirk First Nation and First Nation of Na-Cho Nyäk Dun.*
Develop and establish a highway pull-off and signage. *Who: Government of Yukon, Selkirk First Nation and First Nation of Na-Cho Nyäk Dun.*

Management Concerns

There is a need and desire to educate Yukon people, especially youth, about the significance of the Ddhaw Ghro Habitat Protection Area and the Chu Tthaw Hot springs. Through education, they may appreciate and respect the land and wildlife, as well as have an understanding of the cultural and historic significance of the area. Respect for the area by the local residents will benefit the long-term management of the Ddhaw Ghro Habitat Protection Area.

Also, Elders strongly believe the Habitat Protection Area should be used to educate younger generations about nature, cultural/traditional values and the environment to revitalize the traditional way of life. Traditional principles and practices need to be included in any education occurring in the area. It is important to involve Little Salmon/Carmacks First Nation in this work recognizing the interest in sharing the area with Little Salmon/Carmacks people.

RECOMMENDATION 36

Use the Ddhaw Ghro Habitat Protection Area as a 'classroom' to teach about Northern Tutchone culture, traditions, and customary practices, as well as history, wildlife, ecosystems, tourism, climate change, geology, and conservation.

Implementation
Develop lesson plans and resources, including opportunities for Elders to talk about the area. *Who: Selkirk First Nation and First Nation of Na-Cho Nyäk Dun, with support from Government of Yukon.*
Conduct educational field trips to the area. *Who: Selkirk First Nation and First Nation of Na-Cho Nyäk Dun, with support from the Government of Yukon.*
Provide ongoing education to people about the area and its importance. *Who: Government Yukon, Selkirk First Nation and First Nation of Na-Cho Nyäk Dun.*



Land Management - Land Use and Tenure



Traditional Knowledge

It is traditionally known that the land is provided to the first peoples by the "The Highest from Above" ("ot'o dinche" as Elders stated in Northern Tutchone), God. The land is there to provide for a balanced life and the land has all that is needed to provide for life. Traditionally, land tenure and permits did not exist within the First Nations on papers. A land decision took into careful consideration all First Nations people and future generations, and was the responsibility of all people. The people assigned lands to the family caretakers in defined areas.

Current Situation

Hunting, trapping, fishing and cultural activities were the important uses of the Ddhaw Ghro Habitat Protection Area in the past. Trapping cabin leases were the only land granted in the area, but nearly all these structures have deteriorated since closure of trapping in the area in 1948. There were no other parcels of land that were tenured.

With the exception of the two Selkirk First Nation settlement lands at Crystal Lake and Chu Tthaw Hot springs, all land within the Habitat Protection Area is regulated under the *Territorial Lands (Yukon) Act*, as well as by Government of Yukon land administration policies. There are land interests near the Ddhaw Ghro Habitat Protection Area that may affect the area. At the northwest corner of the area the Klondike Highway right-of-way includes a notation for a power transmission line and three gravel pit reservations. To the south, the Selkirk R-27A R-Block borders the Habitat Protection Area. To the north is a provisional notation in the Ethel Lake area for a territorial park.

The Ddhaw Ghro area was protected as the McArthur Wildlife Sanctuary for nearly 50 years before it was identified as a Special Management Area in Final Agreements. There have been no known land use permits issued since detailed ledgers were developed in 1982.

RECOMMENDATION 37

There should be no land tenure granted in the Ddhaw Ghro Habitat Protection Area for the following activities: gravel extraction, agriculture, grazing leases, rural or recreation residences, or for any other commercial activity.

Exceptions may be made for grandfathered family cabin sites and educational facilities agreed to by the parties.

RECOMMENDATION 38

Land use permits should not be issued in the Ddhaw Ghro Habitat Protection Area, except to meet the requirements of this management plan.

Implementation
Prohibit issuance of land tenure in the Ddhaw Ghro Habitat Protection Area. *Who: Government of Yukon.*
Prohibit issuance of land use permits in the Ddhaw Ghro Habitat Protection Area. *Who: Government of Yukon*





Land Management - Access

There was a general concern raised during management planning regarding the negative effects that ground access to this area could have to fish, wildlife, and their habitats. These concerns are reflected throughout the recommendations of this management plan by not supporting resource-based activities, tourism, and other land based activities in the area by any of the Parties. Although there may not currently be a substantial demand for access by recreational users or others in this area, this area should be protected from possible damage caused by motorized vehicles.

Traditional Knowledge

People made many trails in the area that animals and people continue to use. In the community mapping project, the Elders identified 47 trails in the Ddhaw Ghro area. People traveled on these trails by foot and dog packs, snowshoes or by dog team.

Current Situation

Apart from the northwest corner of the Habitat Protection Area near the Klondike Highway, most of the area is inaccessible by ground. Much of the forest around the Ddhaw Ghro Habitat Protection Area was burned in 2004, making some of the trails difficult to reach even by snowmachine in winter. The nearest roads are the Ethel Lake road to the north, and the Acorn Road to the southwest, but these roads are not close to the Habitat Protection Area.

> **"People moved around the area just like caribou."**
>
> **— Elder.**

With old travel trails in poor condition and travel on small creeks difficult, ground access to the area is limited. Access by fixed-wing airplanes is limited, to the larger lakes. Helicopter access is unlimited, but at present time there is not substantial activity. Amount and impacts of air access should be considered during future management plan reviews.

At this time, there are no regulations in place to enforce a restriction to motorized access in the area. The Yukon *Wildlife Act* enables the development of regulations for Habitat Protection Areas, and this may be a way to restrict motorized access within the Ddhaw Ghro Habitat Protection Area.

Management Concern

The main concern raised during the development of this management plan was that improved access routes will encourage more people to visit, leading to negative impacts on wildlife and habitats in the

area. Off-road vehicle traffic in the Habitat Protection Area could create significant negative impacts through destruction of vegetation, introduction of exotic plant species, disturbance of the soil, development of new access routes, creation of ruts that are susceptible to erosion, and increased noise and human activity that will disturb wildlife.

At some time in the future, some parties may wish to look at options for developing an access right-of-way through the Habitat Protection Area to travel elsewhere. Because the Ddhaw Ghro Habitat Protection Area is mainly rugged mountains or is surrounded by incised creeks to the north and west, it seems unlikely that access through the area is feasible. More suitable routes exist outside the Habitat Protection Area.

RECOMMENDATION 39

Develop and advance regulation proposals that address the prohibition of motorized ground access into the Ddhaw Ghro Habitat Protection Area.

RECOMMENDATION 40

Existing foot trails in the Ddhaw Ghro Habitat Protection Area should not be widened or improved in any way that could allow motorized traffic.

RECOMMENDATION 41

Any access for emergency purposes into the Ddhaw Ghro Habitat Protection Area should be by air to the extent possible.

Implementation

The parties will discuss developing and advancing regulations that address the prohibition of motorized ground access in the area.
Who: Government of Yukon, Selkirk First Nation and First Nation of Na-Cho Nyäk Dun.

Upon approval of regulations to prohibit motorized ground travel for this area, off road users will be informed.
Who: Government of Yukon, Selkirk First Nation, First Nation of Na-Cho Nyäk Dun, with renewable resources councils.





Important Wildlife Habitat in Adjacent Areas

Traditional Knowledge

The Northern Tutchone people consider all species' habitats in their traditional management practices. This ensures a healthy ecosystem for future generations.

Significant Traditional Knowledge is known for the area surrounding the Ddhaw Ghro Habitat Protection Area that is not presented in this plan because of protocol agreements with First Nations. Previously collected Traditional Knowledge was the basis for a boundary expansion proposed by the First Nation of Na-Cho Nyäk Dun in 2002.

Work to Date

Section 4.5 of Schedule A (Chapter 10) of the Selkirk First Nation Final Agreement states the parties may agree to expand the boundaries of Ddhaw Ghro Habitat Protection Area. The parties can recommend a boundary expansion as an Additional Area. This Additional Area must be guided by the same five objectives of this plan.

In January 2002, the First Nation of Na-Cho Nyäk Dun recommended the Mount Sether-Ethel Lake area be included in the Ddhaw Ghro Habitat Protection Area. This recommendation included a map with a proposed expanded boundary for the Habitat Protection Area. In October 2002, the Minister of Environment



replied that before any expansion could be considered, the Ddhaw Ghro Steering Committee should first identify the values and issues that extend beyond the current boundary. In 2003, First Nation Elders of Selkirk and Na-Cho Nyäk Dun recommended "that an expanded Area be considered to include the rich habitat areas adjacent to Ddhaw Ghro, along the south side of the Crooked Creek valley corridor..."

Since 2003, the steering committee reviewed the scientific and Traditional Knowledge gathered about wildlife and their habitats in Ddhaw Ghro and surrounding areas. In a March 2004 letter to the three parties, the steering committee concluded that boundaries of Ddhaw Ghro do not include all the critical habitats of the wildlife populations that the Habitat Protection Area was established to protect. Key issues outside the boundary are included below.

- The fannin sheep annual range includes Mount Sether, which is outside the Habitat Protection Area and has no special management conditions. Because the population is small, it is vulnerable to disturbance and hunting in this part of its range.
- The Ethel Lake caribou herd winters mostly outside of the Habitat Protection Area in the forested lowlands east, north, and southwest of the area. Also, many caribou rut on the alpine ridges north and west of Kalzas Twins and south of Ethel Lake, outside the Ddhaw Ghro Habitat Protection Area. These habitats are considered critical to the survival of the Ethel Lake caribou herd (Appendix F: Map 17).
- The present Habitat Protection Area boundaries follow the middle of creeks and rivers, protecting one side of the creek, but not the other. These riparian areas are important calving and late winter range for moose, and provide key annual habitats for many wildlife species, including spawning Chinook salmon. Wetlands along Woodburn and Crooked Creeks are valuable habitat for waterfowl, beavers, and muskrats. Riparian habitats should be left intact on both ides of the creeks and rivers so that they maintain their highest habitat values. This is especially important given the loss of much of these forested habitats in the 2004 fires.
- Nests of raptors including bald eagles, golden eagles, and peregrine falcons (which are a species at risk) are near and on the borders of the Ddhaw Ghro Habitat Protection Area, and these require adequate buffers to limit disturbance to the nests.

Current Situation

There are land interests surrounding the Ddhaw Ghro Habitat Protection Area that could affect the objectives of the Habitat Protection Area in the future (Appendix F: Map 2). As discussed above, important habitats for fish and wildlife that live in the area extend outside the current boundary. These habitats need to be considered when developing access and resources to lands around the Ddhaw Ghro Habitat Protection Area.

The following are the known land interests. Other interests may arise in the future.

- At the northwest corner of the Habitat Protection Area the Klondike Highway right-of-way includes a notation for a power transmission line and three gravel pit reservations.
- To the south, the Selkirk R-27A parcel borders the Habitat Protection Area and shall be managed in a manner consistent with the first four objectives of Schedule A (Appendix A).
- To the north is a provisional notation in the Ethel Lake area for a territorial park.
- Section 7.8 of the Selkirk First Nation Final Agreement identifies the Granite Canyon on the upper Pelly River as a possible hydro-electric site. Should this development proceed, the water storage would flood areas below 1,900 ft., including much of the upper Pelly and MacMillan Rivers (Appendix F: Map 18). The flooded areas would include areas of the Habitat Protection Area drained by Little Kalzas River.
- Appendix A of the Selkirk First Nation Final Agreement includes access rights across the settlement lands for the Dromedary Resource Road and Proposed Extension. The 60-metre right-of-way begins at the

Klondike Highway, passing south of the Ddhaw Ghro Habitat Protection Area, then arcing north-east through the Moose River to the Dromedary Mountain area.

- There are existing trails that lead to the boundary of the Ddhaw Ghro Habitat Protection Area. Some of these cross First Nation settlement lands. This plan recommends that motorized ground access not be allowed in the Habitat Protection Area.
- There are several blocks of quartz mining claims in the area. The majority have lapsed (i.e. expired), however, active claims exist in the Summit Lake area to the west and the Kalzas Twins area to the east. (Appendix F: Map 19).
- Although there has been little development here, access to the claims could pass close to the Habitat Protection Area.
- The Selkirk Renewable Resources Council submitted a proposal to the Yukon government for a Habitat Protection Area along the MacMillan River to the south of Ddhaw Ghro. This area likely provides important winter range and calving habitat for Ddhaw Ghro moose.

Management Concerns

Fish and wildlife populations rely on important habitat and seasonal ranges found outside the boundary of the Habitat Protection Area. Activities occurring outside the Ddhaw Ghro Habitat Protection Area can affect these populations. For example, a potential Granite Canyon dam project flooding would impact moose and salmon habitats in the Ddhaw Ghro Habitat Protection Area.

The parties may agree to a boundary expansion to protect important fish and wildlife values. In completing the work described in the schedule, the steering committee also documented wildlife habitat values that extend beyond the boundaries of the Habitat Protection Area for future use if a boundary expansion is considered. Based on extensive study, the steering committee recommends that the parties consider a significant Additional Area in a manner consistent with the provisions of Schedule A, Chapter 10 of the Selkirk First Nation Final Agreement. This should give consideration to the important adjacent habitat areas identified in Appendix F: Map 17.

It is important to note that in completing the task of identification of wildlife habitats that fall outside of the Habitat Protection Area, the steering committee was not directed to complete a full review of other land and resource interests (e.g., forest or minerals values) in these areas. This task is still outstanding.

RECOMMENDATION 42

Important habitats adjacent to the Ddhaw Ghro Habitat Protection Area should be considered by the parties if and when a boundary expansion is requested. These habitats include wetlands, Mount Sether sheep range, riparian areas on both sides of boundary creeks, Ethel Lake caribou herd winter and rutting ranges, and buffers around raptor nests on the Habitat Protection Area border.

Appendix F: Map 17 identifies habitats based on scientific surveys. In addition to this information there is Traditional Knowledge about habitats that is not shown.

RECOMMENDATION 43

Land use activities in adjacent areas that have the potential to affect the ecology of the Ddhaw Ghro Habitat Protection Area will be identified by the Government of Yukon, Selkirk First Nation and the First Nation of Na-Cho Nyäk Dun during the Yukon Environmental and Socio-Economic Assessment review process. All three governments will identify relevant local and Traditional Knowledge and provide this as input to the review process. Activities that may result in significant impacts to the ecology of the Habitat Protection Area should not be supported.

Implementation

Consider a boundary expansion to include additional key habitats identified and described in this plan.
Who: Government of Yukon, Selkirk First Nation and First Nation of Na-Cho Nyäk Dun.





Plan Approval and Implementation

Plan Approval

The final plan requires acceptance by the Government of Yukon, Selkirk First Nation and the First Nation of Na-Cho Nyäk Dun. Governments may develop co-operative ways to implement and monitor the approved management plan.

Plan Implementation

Through implementation of this plan, the intent is that the Ddhaw Ghro Habitat Protection Area will continue to have a healthy ecosystem and wildlife populations, while providing clarity and certainty for land users in the area. To assist in plan implementation, ongoing collaboration and communication between the Government of Yukon and the First Nation governments will be required.

Future community-based fish and wildlife work plans in the region should consider the recommendations of this plan.

In developing recommendations and actions, the steering committee has tried to ensure there is reasonable integration with existing programs and activities of the parties. The committee recognizes that recommendations need to be consistent, justifiable, and cost-effective.

Expenditures associated with plan implementation will be shared according to the areas of responsibilities of the parties and budgeted consistent with financial administration processes of the parties. An obligation to implement these recommendations is subject to money being appropriated by the parties for the purpose of the approved management plan.

Any formal participation by the Mayo District and Selkirk Renewable Resources Councils in the implementation of this plan and its recommendations is subject to the resolution of overlapping claims in accordance with Schedule B, Chapter 2 of the First Nation Final Agreements.

RECOMMENDATION 44

The parties should work together to assign priorities to recommendations described in the Ddhaw Ghro Habitat Protection Area, as identified in the Selkirk First Nation Final Agreement, Schedule A, Section 8.2.

RECOMMENDATION 45

A team should be established by the parties to monitor, review, and report to the parties on the Ddhaw Ghro Habitat Protection Area plan implementation progress.

Reports on plan implementation progress should be presented and discussed during the May Gathering. The First Nations would consult with Elders at the May Gathering to receive guidance about how management actions should be carried out in the Ddhaw Ghro Habitat Protection Area. This information would be shared with the parties as appropriate.

RECOMMENDATION 46

During the first five years after the plan is approved, the parties should work together to develop ways to accommodate Traditional Knowledge and Dooli/traditional law in the management of the Ddhaw Ghro Habitat Protection Area and any related legislation.

This could address situations where there is a disparity between traditional law and other legislation.

Implementation Schedule

It is anticipated that once the management plan is approved, the parties will immediately begin budgeting time and resources to complete the actions set out in the plan.

Plan Review

Under Chapter 10, Schedule A, section 8.3, the Government of Yukon, Selkirk First Nation and the First Nation of Na-Cho Nyäk Dun are required to jointly review the approved management plan and implementation no later than five years after its initial approval. Thereafter, the need for reviews will be considered every five years, with joint reviews performed at least every ten years. Changing conditions may require more frequent reviews by the parties.

Each plan review should consider:

- progress on plan implementation, including the staff capacity of the three parties, and the adequacy of funding to fulfill commitments;
- whether Yukon First Nations Elders' roles and views have been adequately considered and addressed;
- risks related to potential effects of development in areas adjacent to the Ddhaw Ghro Habitat Protection Area;
- determination of whether the Habitat Protection Area designation provides appropriate protection;
- plan revisions that may be required to reflect changing management conditions, priorities, and evolving perspectives; and
- where appropriate, revised recommendations table, responsibilities, and timelines.

Any party may request a special plan review at any time, to respond to unforeseen circumstances or changing conditions that may warrant a revision to the management plan. Any such changes require agreement from the Government of Yukon, Selkirk First Nation and the First Nation of Na-Cho Nyäk Dun.

Appendices

Appendix A: Selkirk First Nation Final Agreement — Chapter 10, Schedule A

DDHAW GHRO HABITAT PROTECTION AREA

1. ***Objectives***

1.1 The objectives of this schedule are:

1.1.1. to establish the Ddhaw Ghro Habitat Protection Area (the "Area") to conserve and protect important Fish and Wildlife and Fish and Wildlife habitat for the benefit of all Yukon people;

1.1.2. to recognize and protect the use of the area by the Selkirk People and Na-Cho Nyäk Dun and to facilitate their interest in sharing the area with Little Salmon/Carmacks People and other Yukon Indian People;

1.1.3. to provide for the management and protection of the area;

1.1.4. to protect the full diversity of Wildlife populations and their habitats in the area from activities which could reduce the area's capability to support Wildlife; and

1.1.5. to encourage public awareness of and appreciation for the natural resources of the area.

2. ***Definitions***

In this schedule, the following definitions shall apply

"Forest Resources" has the same meaning as in Chapter 17 — Forest Resources.

"Little Salmon/Carmacks People" has the same meaning as in the Little Salmon/Carmacks First Nation Final Agreement.

"Na-Cho Nyäk Dun" has the same meaning as in the First Nation of Na-Cho Nyäk Dun Final Agreement.

"Na-Cho Nyäk Dun Firm" has the same meaning as in the First Nation of Na-Cho Nyäk Dun Final Agreement.

3. ***Sharing Process***

3.1 For greater certainty, the Selkirk First Nation may cause any of its rights, obligations and liabilities set out in this schedule to be held or performed on its behalf by an entity comprised of the Selkirk First Nation, the First Nation of Na-Cho Nyäk Dun, the Little Salmon/Carmacks First Nation or other Yukon First Nations, in accordance with 2.11.7 of Chapter 2 — General Provisions.

4. ***Establishment***

4.1 The boundaries of the area shall be as set out on map "Ddhaw Ghro Habitat Protection Area, (DGHPA)" in Appendix B — Maps, which forms a separate volume to this Agreement and which for greater certainty includes Parcel S-60B/D and excludes Parcels R-27A and S-116A/D.

4.2 Canada shall transfer to the Commissioner of the Yukon Territory the administration and control of Crown Land within the area, excluding the mines and minerals and the right to work the mines and minerals, as soon as practicable after the Effective Date of this Agreement.

4.3 As soon as practicable after the transfer referred to in 4.2, the Yukon shall designate the area as a protected habitat area pursuant to the Wildlife Act, R.S.Y. 1986, c.178.

4.4 The designation as a protected habitat area shall not be removed from any part of the area except with the agreement of Government, the Selkirk First Nation and the First Nation of Na-Cho Nyäk Dun.

4.5 Government, the Selkirk First Nation and the First Nation of Na-Cho Nyäk Dun may agree to expand the boundaries of the area.

4.6 The boundaries of the area shall not be altered except with the agreement of Government, the Selkirk First Nation and the First Nation of Na-Cho Nyäk Dun.

4.7 Government, the Selkirk First Nation or the First Nation of Na-Cho Nyäk Dun may, at any time, request the others to consider an expansion to the boundaries of the area, in which case the parties shall, within 90 days of receiving the request, advise each other of the manner in which each wishes to address the request.

4.8 The identification of any expanded boundaries shall be guided by the objectives of and considerations consistent with this schedule.

4.9 Except as provided for under 4.5.5, the provisions of this schedule shall apply to any area added as a result of the boundary expansion (the "Additional Area").

4.10 The public harvesting of Wildlife in the Additional Area shall be addressed in the agreement to expand the boundaries.

4.11 The Additional Area may, for the purposes of this schedule, be designated by a name other than Ddhaw Ghro Habitat Protection Area.

4.12 Subject to 4.6.1, Canada shall withdraw the mines and minerals in the area from locating, prospecting or mining under the Yukon Quartz Mining Act, R.S.C. 1985, c. Y-4 and the Yukon Placer Mining Act, R.S.C. 1985, c. Y-3, from exploration and development under the Canadian Petroleum Resources Act, R.S.C. 1985 (2d Supp.), c. 36, and from staking out a location for the mining of coal and from issuance of a license to explore for coal pursuant to the Territorial Lands Act, R.S.C. 1985, c. T-7, for 24 months from the Effective Date of this Agreement or until a management plan is approved under 7.0, whichever is earlier.

4.13 The withdrawal shall be subject to:

4.14 recorded mineral claims and leases under the Yukon Quartz Mining Act, R.S.C. 1985, c. Y-4 and recorded placer mining claims and leases to prospect under the Yukon Placer Mining Act, R.S.C. 1985, c. Y-3, existing on the Effective Date;

4.15 oil and gas rights, interests and privileges under the Canadian Petroleum Resources Act, R.S.C. 1985 (2d Supp.), c. 36, existing on the Effective Date;

4.16 rights granted under section 8 of the Territorial Lands Act, R.S.C. 1985, c. T-7, existing on the Effective Date; and

4.17 new licenses, permits or other rights, which may be granted in respect of an interest described in 4.6.1.1, 4.6.1.2, or 4.6.1.3.

5. ***Fish and Wildlife***

5.1 The public harvesting of Wildlife shall be prohibited within the area.

5.2 For greater certainty:

5.2.1. the Selkirk First Nation, Selkirk People, the First Nation of Na-Cho Nyäk Dun and Na-Cho Nyäk Dun have, within the area, all rights set out in Chapter 16 — Fish and Wildlife, of the Selkirk First Nation Final Agreement and of the First Nation of Na-Cho Nyäk Dun Final Agreement, respectively; and

5.2.2. Little Salmon/Carmacks People have the right to harvest within the area in accordance with 16.4.0 with the consent of the Selkirk First Nation or the First Nation of Na-Cho Nyäk Dun pursuant to 16.5.0 of Chapter 16 — Fish and Wildlife, of this Agreement or of the First Nation of Na-Cho Nyäk Dun Final Agreement, as the case may be.

6. ***Management Plan***

6.1 A management plan shall be prepared for the area.

6.2 A steering committee shall be established to prepare the management plan referred to in 6.1.

6.2.1. The steering committee shall be comprised of six members of whom two shall be nominated by Government, two shall be nominated by the Selkirk First Nation and two shall be nominated by the First Nation of Na-Cho Nyäk Dun.

6.2.2. Upon request by the steering committee, Government, the Selkirk First Nation and the First Nation of Na-Cho Nyäk Dun shall make available to the steering committee information in their possession reasonably required for the steering committee to carry out its functions under this schedule.

6.3 The management plan shall be consistent with the objectives of this schedule.

6.4 The steering committee shall consider and the management plan may address matters pertaining to the management of the area including:

6.4.1. Fish and Wildlife management and protection;

6.4.2. the necessity for inventories of Wildlife and habitat;

6.4.3. habitat management and protection;

6.4.4. land use;

6.4.5. recreational use;

6.4.6. access to and use of the area for commercial wilderness purposes;

6.4.7. harvesting of Forest Resources;

6.4.8. scientific research;

6.4.9. traditional knowledge, customs and culture of Yukon Indian People in connection with the area;

6.4.10. the role and views of Yukon First Nation elders in the development of the management plan;

6.4.11. measures to enhance public awareness and appreciation of the area;

6.4.12. recommendations respecting any withdrawal of portions of the mines and minerals of the area from locating, prospecting or mining under the Yukon Quartz Mining Act, R.S.C. 1985, c. Y-4 and the Yukon Placer Mining Act, R.S.C. 1985, c. Y-3, from exploration and development under the Canada Petroleum Resources Act, R.S.C. 1985 (2d Supp.), c. 36, and from staking out a location for the mining of coal and from issuance of a license to explore for coal pursuant to the Territorial Lands Act, R.S.C. 1985, c. T-7;

6.4.13. division of the area into zones for management purposes;

6.4.14. specific economic opportunities for the Selkirk First Nation, Selkirk People, Selkirk Firms, the First Nation of Na-Cho Nyäk Dun, Na-Cho Nyäk Dun and Na-Cho Nyäk Dun Firms; and

6.4.15. permitting or other methods of regulating uses of the area in accordance with the management plan.

6.5 The preparation of the management plan shall include a process for public consultation, which, for greater certainty, includes consultation with Selkirk People, Na-Cho Nyäk Dun and Little Salmon/Carmacks People.

6.6 The steering committee shall make best efforts to recommend the management plan to the Minister, the Selkirk First Nation and the First Nation of Na-Cho Nyäk Dun within two years of the Effective Date of this Agreement.

6.6.1. If the members of the steering committee are unable to reach agreement on the provisions to be included in the management plan, the Minister, the Selkirk First Nation or the First Nation of Na-Cho Nyäk Dun may refer the matter to dispute resolution pursuant to 26.4.0.

7. *Approval of the Management Plan*

7.1 Within 90 days of receipt of the management plan, the Minister, the Selkirk First Nation and the First Nation of Na-Cho Nyäk Dun shall each decide whether to accept, vary or set aside the provisions set out therein.

7.2 Government, the Selkirk First Nation and the First Nation of Na-Cho Nyäk Dun shall jointly review their decisions under 7.1.

7.3 Where the provisions set out in the management plan are accepted by the Minister, the Selkirk First Nation and the First Nation of Na-Cho Nyäk Dun, such management plan shall be the "Approved Management Plan".

7.4 Where the Minister, the Selkirk First Nation and the First Nation of Na-Cho Nyäk Dun do not agree on the provisions set out in the management plan, any of them may refer the matter to the dispute resolution process under 26.4.0.

7.5 In the event the dispute referred to the dispute resolution process under 7.4 is not resolved, the Minister may accept, vary or set aside the provisions set out in the management plan and the decision of the Minister shall be forwarded to the Selkirk First Nation and to the First Nation of Na-Cho Nyäk Dun.

7.6 The management plan accepted pursuant to the process set out in 7.4 or decided upon under 7.5 shall be the "Approved Management Plan".

8. ***Implementation and Review***

8.1 The Area shall be managed in accordance with the Wildlife Act, R.S.Y. 1986, c.178 and the Approved Management Plan.

8.2 Government, the Selkirk First Nation and the First Nation of Na-Cho Nyäk Dun shall consider and may develop mechanisms or enter into agreements to facilitate co-operative implementation and monitoring of the Approved Management Plan.

8.3 Government, the Selkirk First Nation and the First Nation of Na-Cho Nyäk Dun shall jointly review the Approved Management Plan and its implementation no later than five years after its initial approval and shall consider the need for review at least every five years thereafter, provided that there shall be a joint review at least every 10 years.

9. ***Interim Measures***

9.1 In the period prior to the implementation of the Approved Management Plan, the area shall be managed in a manner consistent with the objectives of this schedule.

10. ***Development Assessment and Land Use Planning***

10.1 In carrying out their functions under Chapter 12 — Development Assessment, the Yukon Development Assessment Board and a Designated Office shall consider the Approved Management Plan.

10.2 In developing a land use plan which includes all or part of the area, a Regional Land Use Planning Commission shall consider the Approved Management Plan.

11. ***Management of Settlement Land***

11.1 The Selkirk First Nation shall manage Parcel R-27A in a manner consistent with the objectives set out in 1.1.1 through 1.1.4 of this schedule.

Appendix B: Ddhaw Ghro Planning History 2000-2007

Dates of Meeting	Topics Covered	Steering Committee Members Present and Attendees
3 May, 2000 Pelly Crossing	Defined the planning process, developed a budget, and discussed developing a terms of reference.	Mikolay Peter, NND Darren Isaac, SFN Fred Green, SFN Bruce McLean, YG Mark O'Donoghue, YG
29 November, 2000 Whitehorse	Discussed information requirements and background materials needed, and operating procedures for the Steering Committee.	Frank Patterson, NND Darren Isaac, SFN Teddy Charlie, SFN George Magrum, SFN Bruce McLean, YG Mark O'Donoghue, YG Bob Kuiper, YG
10 January, 2001 Pelly Crossing	Developed a terms of reference, workplan and budget.	Frank Patterson, NND Darren Isaac, SFN Steve Buyck, NND Alex Joe, SFN Elder Bruce McLean, YG Mark O'Donoghue, YG Bob Kuiper, YG
31 January, 2001 Mayo	Reviewed the Steering Committee's mandate, workplan, and discussed plans for public consultation.	Mikolay Peter, NND Steve Buyck, NND Pat Van Bibber Sr.,NND Elder Tommy Moses, NND Elder Bruce McLean, YG Mark O'Donoghue, YG Bob Kuiper, YG
22 February, 2001 Whitehorse	Discussed traplines, considered the extension of boundaries, and reviewed a workplan. Presentations were made regarding the Tombstone Park planning process, a mineral assessment, and wildlife data for Ddhaw Ghro.	Frank Patterson, NND Steve Buyck, NND Mikolay Peter, NND Pat Van Bibber Sr.,NND Elder Fred Green, SFN Darren Isaac, SFN Tommy Moses, NND Elder Danny Joe, SFN Elder Bruce McLean, YG Mark O'Donoghue, YG Bob Kuiper, YG Shelley Gallatly, YG Dawn Dixon, Tombstone Park Committee Member Anna Fonseca, YG

Dates of Meeting	Topics Covered	Steering Committee Members Present and Attendees
3 May, 2001 Mayo	Planned community workshops for May 2001, and presentations were made that covered fire management, surficial geology, and vegetation mapping.	Danny Joe, SFN Elder Fred Green, SFN Darren Isaac, SFN Johnson Edward, SFN Elder Frank Patterson, NND Mikolay Peter, NND Steve Buyck, NND Mark O'Donoghue, YG Bruce McLean, YG Bob Kuiper, YG Johnny Sam, LSCFN Elder Paul Butra, YG Jeff Bond, YG y Catherine Kennedy, YG
22 May, 2001 Gold Rush Inn, Whitehorse Public Information Session	Presentations were made that included information about planning process, geology, vegetation mapping, wildlife and habitat, and heritage.	Mark O'Donoghue Jeff Bond, YG Yukon Geological Bob Kuiper, YG Catherine Kennedy, YG Bruce McLean, YG Ruth Gotthardt, YG Doug Urquhart, Facilitator
24 May, 2001 Pelly Crossing Public Information Session	Information was exchanged about the planning process, access, economic opportunities, research, monitoring, protection and management, Chu Tthaw Hot springs, wildlife and habitat, timber harvesting, tourism.	Many participants from NND, SFN, YG, other levels of government and general public
7 June, 2001 Pelly Crossing	Planned for 2001 field season.	Mark O'Donoghue, YG Johnson Edward, SFN Elder Bruce McLean, YG Bob Kuiper, YG Frank Patterson, NND Don Trudeau, SFN

Dates of Meeting	Topics Covered	Steering Committee Members Present and Attendees
5 November, 2001 Pelly Crossing	Reviewed May workshops and summer fieldwork.	Steve Buyck, NND Bob Kuiper, YG Karen Clyde, YG Mark O'Donoghue, YG Bruce McLean, YG Dave Moses, NND Elder Danny Joe, SFN Elder Robert Van Bibber, SFN
3 December, 2001 Mayo	Reviewed geology fieldwork, May workshop summaries, and draft newsletter.	Steve Buyck, NND Frank Patterson, NND Melody Hutton, NND Jimmy Johnny, NND Roger Alfred, SFN Bob Kuiper, YG Bruce McLean, YG Karen Clyde, YG Anna Fonseca, YG
14 January, 2002 Mayo	Reviewed SFN's Doòli law, a draft policy for using traditional knowledge, and concerns about outfitting, Chu Tthaw Hot springs, mining, tourism, boundary expansion, access, and forestry.	Frank Patterson, NND Mikolay Peter, NND Danny Joe, SFN Elder Roger Alfred, SFN Bob Kuiper, YG Karen Clyde, YG Bruce McLean, YG
18 January, 2002 Pelly Crossing	Discussed mineral assessment work. Planned next round of community consultations.	Steve Buyck, NND Frank Patterson, NND Pat Van Bibber, NND Roger Alfred, SFN Don Trudeau, SFN Danny Joe, SFN Elder Bob Kuiper, YG Bruce McLean, YG Karen Clyde, YG

Dates of Meeting	Topics Covered	Steering Committee Members Present and Attendees
20 February, 2002 Whitehorse	Presentation by Steering Committee to Yukon government managers.	Steve Buyck, NND Frank Patterson, NND Roger Alfred, SFN Don Trudeau, SFN Danny Joe, SFN Elder Bob Kuiper, YG Bruce McLean, YG Karen Clyde, YG Mark O'Donoghue, YG Pat Van Bibber, NND Shirley Abercrombie, YG Don Hutton, YG Kent Jingfors, YG Janet Moddie, YG Catherine Kennedy, YG Ruth Gotthardt, YT
11 April, 2002 Pelly Crossing	Reviewed mineral assessment reports posted on the Yukon government website that related to Ddhaw Ghro.	Albert Genier, NND Don Trudeau, SFN Roger Alfred, SFN Bruce McLean, YG
3-4 October, 2002 Pelly Crossing	Established revised terms of reference, draft research guidelines, and interim operating procedures for the steering committee.	Mikolay Peter, NND Steve Buyck, NND Pat Van Bibber Sr., NND Elder Dave Moses, NND Elder Roger Alfred, SFN Fred Green, SFN Johnson Edward, SFN Elder Danny Joe, SFN Elder Mark O'Donoghue, YG Bob Kuiper, YG John Miekle, YG Karen Clyde YG Doug Urquhart, Chair

Dates of Meeting	Topics Covered	Steering Committee Members Present and Attendees
3, 4 October, 2002 Pelly Crossing 26, 27 November, 2002 Mayo Elders Meeting	Reviewed key management issues, process for plan approval, workplan, and operating procedures.	Albert Genier, NND Mikolay Peter, NND Jimmy Johnny, NND Elder Pat Van Bibber Sr., NND Elder Roger Alfred, SFN Danny Joe, SFN Elder Bob Kuiper, YG Karen Clyde YG Doug Urquhart, Chair
7 January, 2003	Developed workplan for collection of traditional knowledge.	Albert Genier, NND Roger Alfred, SFN Mark O'Donoghue, YG John Miekle, YG Karen Clyde, YG
21 March, 2003 Pelly Crossing	Planned for 2003 summer field work.	Albert Genier, NND Roger Alfred, SFN Mark O'Donoghue, YG John Miekle, YG Karen Clyde, YG
5 May, 2003 Pelly Crossing	Planned for 2003 summer field work.	Albert Genier, NND Roger Alfred, SFN Mark O'Donoghue, YG Karen Clyde, YG Doug Urquhart, Chair Marilyn Van Bibber, Consultant
6, 7 October, 2003 Pelly Crossing	Reviewed recommendations from summer traditional knowledge mapping project, and preliminary habitat mapping work. Developed workshop schedule for management plan recommendations by topic.	Kristina Kane, NND Pat Van Bibber Sr., NND Elder Roger Alfred, SFN Johnson Edward, SFN Elder Lizzie Hall, SFN Elder translator Roddy Blackjack, LSCFN Elder Clyde Blackjack, LSCFN Elder Mark O'Donoghue, YG Bob Kuiper, YG John Miekle, YG Karen Clyde, YG Bob Hayes, Chair Doug Urquhart, Former Chair Chris Thomas, Consultant

Dates of Meeting	Topics Covered	Steering Committee Members Present and Attendees
1-3 December, 2003 Mayo	Discussed and developed draft recommendations regarding fish and wildlife population and habitat in Ddhaw Ghro.	Albert Genier, NND Kristina Kane, NND Roger Alfred, SFN Styd Klugie, SFN Bob Kuiper, YG Mark O'Donoghue, YG Pat Van Bibber Sr., NND Elder Johnson Edwards, SFN Elder Jimmy Johnny, NND Elder Karen Clyde, YG Bob Hayes, Chair
18-20 February, 2004 Pelly Crossing	Completed draft fish and wildlife recommendations; heard presentations on heritage values, and developed draft recommendations, and discussed trapping in Ddhaw Ghro.	Albert Genier, NND Pat Van Bibber Sr., NND Elder Chief Steve Buyck, NND Roger Alfred, SFN Danny Joe, SFN Elder Clyde Blackjack, LSCFN Elder Ruth Goddardt, YG Bob Kuiper, YG Mark O'Donoghue, YG Karen Clyde, YG Bob Hayes, Chair
15 March, 2004 Mayo Elders Meeting 16, 17 March, 2004 Pelly Crossing	Discussed recommendations about minerals, forestry and fire protection in Ddhaw Ghro.	Albert Genier, NND Pat Van Bibber Sr., NND Elder Styd Klugie, SFN Danny Joe, SFN Elder Bob Kuiper, YG Mark O'Donoghue, YG Ella LeGresley, YG Karen Clyde, YG Bob Hayes, Chair Geoff Bradshaw, YG Judy St. Amand, YG Pat McDonnell, YG Al Beaver, YG

Dates of Meeting	Topics Covered	Steering Committee Members Present and Attendees
14 April, 2004 Pelly Crossing	Held a community meeting with Environment's Deputy Minister, stating community views on management of Ddhaw Ghro.	Pat Van Bibber Sr., NND Elder Roger Alfred, SFN Danny Joe, SFN Elder Bob Kuiper, YG Mark O'Donoghue, YG Ella LeGresley, YG Karen Clyde, YG Bob Hayes, Chair Ed Huebert, YG
27, 28 November, 2004 Mayo	Discussed wildfire management during the 2004 fire season, and considered recommendations for the plan. Ducks Unlimited reported on summer 2004 field work in the Ddhaw Ghro area. Further fish and wildlife habitat use was considered.	Albert Genier, NND Joella Hogan, NND Millie Olsen, NND Pat Van Bibber Sr., NND Elder Roger Alfred, SFN Styd Klugie, SFN Danny Joe, SFN Bob Kuiper, YG Mark O'Donoghue, YG Karen Clyde, YG F Bob Hayes, Chair Amy Leach, Ducks Unlimited Dave Milne, YG
16, 17 November, 2004 Pelly Crossing	Reviewed fire management recommendations from elders, discussed and drafted access and permitting recommendations.	Joella Hogan, NND Dave Moses, NND Elder Roger Alfred, SFN Styd Klugie, SFN Bob Kupier, YG Mark O'Donoghue, YG Danny Joe, SFN Elder Karen Clyde, YG Bob Hayes, Chair

Dates of Meeting	Topics Covered	Steering Committee Members Present and Attendees
7-10 December, 2004 Whitehorse	Discussed and drafted economic opportunities, tourism, recreation, public awareness and appreciation, and land tenure recommendations.	Albert Genier, NND Joella Hogan, NND Millie Olsen, NND Pat Van Bibber Sr., NND elder Roger Alfred, SFN Styd Klugie, SFN Danny Joe, SFN elder Bob Kuiper, YG Mark O' Donoghue, YG Karen Clyde, YG Bob Hayes, Chair Catherine Paish, YG Afan Jones, YG Marg White, YG Mike Draper, YG
4 February, 2005 Mayo	Discussed fire management in Ddhaw Ghro and related research, including traditional uses of fire, potential boundary expansion, and Chinook salmon habitat research.	Albert Genier, NND Pat Van Bibber Sr., NND elder Jimmy Johnny, NND elder Styd Klugie, SFN Roger Alfred, SFN Mark O'Donoghue, YG Bob Kuiper, YG Karen Clyde, YG Bob Hayes, Chair David Natcher, Memorial University
4 April, 2005 Pelly Crossing	Discussed fire ecology in the Ddhaw Ghro area, and fire management recommendations.	Albert Genier, NND Pat Van Bibber Sr., NND elder Jimmy Johnny, NND elder Styd Klugie, SFN Roger Alfred, SFN Mark O'Donoghue, YG Karen Clyde, YG Bob Hayes, Chair David Milne, YG
3, 4 October, 2005 Whitehorse	Developed a vision statement for Ddhaw Ghro, reviewed recommendations completed, and developed a work plan and timeline for plan completion.	Joella Hogan, NND Pat Van Bibber Sr., NND elder Styd Klugie, SFN Roger Alfred, SFN Lizzie Hall, SFN elder (translator) Johnny Sam, LSCFN elder Bob Kuiper, YG Tim Sellars, YG

Dates of Meeting	Topics Covered	Steering Committee Members Present and Attendees
7, 8 November, 2005 Whitehorse	Confirmed recommendations, plan content, and discussed funding concerns.	Joella Hogan, NND Millie Olsen, NND Pat Van Bibber Sr., NND elder Styd Klugie, SFN Roger Alfred, SFN Lizzie Hall, SFN elder Mark O'Donoghue, YG Bob Kuiper, YG Tim Sellars, YG Bob Hayes, Chair
12, 13 December, 2005 Whitehorse	Reviewed recommendations and confirmed timeline and work plan. Presentation was made regarding the Fort Selkirk Management Plan.	Joella Hogan, NND Millie Olsen, NND Pat Van Bibber Sr., NND elder Styd Klugie, SFN Roger Alfred, SFN Lizzie Hall, SFN elder Mark O'Donoghue, YG Bob Kuiper, YG Tim Sellars, YG Bob Hayes, Chair Bruce Barrett, YG
16, 17 February, 2006 Mayo	Reviewed input from elders and government meetings, revised draft plan, and considered possible linkage between plan implementation and SFN's May Gathering.	Joella Hogan, NND Millie Olsen, NND Pat Van Bibber Sr., NND elder Styd Klugie, SFN Roger Alfred, SFN Lizzie Hall, SFN elder Mark O'Donoghue, YG Bob Kuiper, YG Tim Sellars, YG Bob Hayes, Chair
27 March, 2006 Pelly Crossing	Revised the draft plan.	Millie Olsen, NND Pat Van Bibber Sr., NND elder Styd Klugie, SFN Roger Alfred, SFN Lizzie Hall, SFN elder Mark O'Donoghue, YG Tim Sellars, YG Bob Hayes, Chair

Dates of Meeting	Topics Covered	Steering Committee Members Present and Attendees
19, 20 April, 2006 Mayo	Revised the draft plan, and considered public consultation requirements.	Joella Hogan, NND Millie Olsen, NND Pat Van Bibber Sr., NND elder Styd Klugie, SFN Roger Alfred, SFN Lizzie Hall, SFN elder Mark O'Donoghue, YG Bob Kuiper, YG Tim Sellars, YG r Bob Hayes, Chair
23, 24 May, 2007 Mayo	Steering committee reviewedthe April 19, 20, 2006 draft plan.	Joella Hogan, NND Millie Olsen, NND Pat Van Bibber Sr., NND elder Roger Alfred, SFN Mark O'Donoghue, YG Bob Kuiper, YG Karen Clyde, YG Bob Hayes, Chair
12 June, 2014 Pelly	The parties met to discuss proposed Yukon government changes to the recommended management plan and next steps for finalizing the plan. Although the parties agreed on most of the proposed changes work was still required to come to agreement on the fire ecology and management section.	Joella Hogan, NND Ray Sabo, NND Mathew McHugh, NND Karen Clyde, YG Michelle Sicotte, YG Mark O'Donoghue, YG William Sydney, SFN George Magrum, SFN Eddie Tom Tom, SFN
22 April, 2016 Pelly	The parties met to discuss an approach to resolving outstanding items in the Fire Ecology and Management section of the recommended plan.	Joella Hogan, NND Millie Olsen, NND Ray Sabo, NND Eugene Alfred, SFN William Sydney, SFN Mark O'Donoghue, YG Karen Clyde, YG
3 May, 2016 Pelly	The parties met to come to agreement on the concepts to be included in the Fire Ecology and Management section of the plan.	Joella Hogan, NND Ray Sabo, NND William Sydney, SFN Mark O'Donoghue, YG Karen Clyde, YG Jennifer Young, YG Dean Gill, YG Eugene Alfred, SFN

Appendix C: Public Comments

Note: The following summarizes public comments received by the Ddhaw Ghro Steering Committee during the planning process from 2000 to 2006. This is not a complete list, and has been edited to reflect the variety of comments only. It does not represent majority or minority views of the public.

Access

- Increased access will lead to increased environmental impacts on the land and wildlife. No further development of trails in the area.
- No more access to the area than already exists.
- No motorized vehicles. Access should be by walking only. Place signs on trails stating no motorized vehicles allowed.
- Access should only be by skiing, hiking, helicopter or float plane.
- An access permit should be required for accessing the area. The permit would define rules for human activity in the area and provide an orientation to the area.
- Should develop rules and regulations for air access and educate the companies.
- We don't want anyone using the trails until a monitor is in place (at the Hot springs). Should develop a walking trail from Woodburn Lake to the Hot springs.
- Future development projects adjacent to the area will have economic impacts to consider, and may increase access to Ddhaw Ghro.
- Use of 4-wheelers in the NND territory has resulted in gas cans left behind on trails. This is disrespectful. There are no trails wide enough for a 4-wheeler.
- There is a trail from the Klondike Highway to Ddhaw Ghro that is being used for hunting. People should have to walk in after they come to Crooked Creek.
- Consider allowing Woodburn Lake access and cabin, as an alternative to the Hot springs.
- Consider the need for access to take youth in or for conservation-based trapping (including snow machine access). Trappers and others can make trails up to the boundary of Ddhaw Ghro. There is no way to keep people off a trail that is already there.
- The area is very rough to travel through because of large boulders. Travel on the flats at the Ddhaw Ghro boundaries is a little easier. A snow machine trail could be made along Crooked Creek to Kalzas Creek.

Community Involvement

- We have to look at the capacity, needs and priorities of the community. We need to involve both First Nations and other residents.
- Community training in forestry, business management, scientific research and surveying is needed.
- Find funding to help train First Nation in guiding and business management. Goal to have capacity for guided day hikes, backcountry excursions and other non-consumptive tourism operations.

- Organize seasonal culture camps, wildlife camps and science camps. Important that kids are informed and involved in the planning process.
- There is the desire for education, teaching children and others about Ddhaw Ghro. Would like to go and spend some time in Ddhaw Ghro—"one week won't hurt anyone."

Forest Fires

- Use water, not chemicals to fight fires.
- If public awareness and appreciation increases, there will be more people in the area and an associated increase in risk of fire. A sustainable fire management plan involves fuel management.
- Fire protection involves thinning of fuel wood.
- Communication between First Nations and Yukon government Wildland Fire Management needs to be improved. Camp fire is important to First Nations, especially for drying meat.
- Use of Fire Smart funding would put people to work and reduce forest fire risk—especially important for areas around cabins and at the Chu Tthaw Hot springs.
- After a fire, the ponds and lakes expand. This results in more flooding and landslides
- People should be looking in the winter for smoke in the area, to identify where fires may be smoldering and may start up again next year.
- The 2004 forest fires burned important caribou range, when people were not allowed to fight the fire. Elders say if government keeps fighting fires, it will only create a big fire.
- Years ago, people let the fires burn and things were fine.
- It is important to let fires burn fully so that the roots burn and allow new growth to be stronger.
- First Nations have historically used fire as a management tool. People used to light fires and let it go to reduce brush growing up and getting thick. Burning it twice results in better growth.

Forest Harvesting

- Timber in certain areas could be considered for commercial timber harvesting. Issue with commercial harvest is that access would have to be developed.
- No commercial forestry, only personal use (fuel wood and tent poles). Leave this area alone, no forestry clear-cuts.
- There is interest in timber harvesting potential, particularly in the southeast corner. Forest harvesting could affect tourism and wildlife.
- Forestry has implications for wildlife, as they need trees to protect themselves from predators. Small animals are affected too. There should be no commercial timber harvesting. In addition to the habitat implications, there are related access issues.
- If you start cutting timber, it won't stop.
- Personal use of wood should be allowed, providing it respects Doòli rules.
- What about cutting a few to build a cabin? Cabin building would result in trails and outhouses.

Hot springs

- The hot springs are the heart of the area.
- The hot springs is a good hospital, a place for people to heal themselves, and has to be protected.
- The area is special and priceless: there are unique plants and unusual geological features that must be cared for.
- No one forgets that area. It is well known, and has to be respected. There is vegetation around it that is probably doing the healing and it should be very well managed and protected.
- Hot springs is the hospital. Protect and take care of it, and it can be used for everyone. There is lots of power in that water. Hot springs is a healing place, and our native people believe in using our own medicine.
- The animals use it too. Bears, caribou, sheep use the hot spring to heal themselves.
- The Chu Tthaw Hot Springs is Category A Selkirk First Nation land and is not included in the SMA. Selkirk First Nation has sole ownership rights of the hot springs.
- The hot springs belong to all First Nations.
- Anyone who uses the areas should go to the First Nations for permission. Managing the hot spring—is it up to the First Nation or the elders?
- There is a need to integrate management for the Habitat Protection Area and the hot springs work together so the hot springs will continue to be intact.
- The management plan has to recognize the traditional way of caring for the hot springs. Protect the hot springs — keep it clean and have no road access.
- Hot springs must stay in natural state — no cutting of trees or disturbing plants, no moving or removal of rocks.
- No soap or shampoo should be used or alcohol or drugs while at the hot springs. No horses, as they destroy plants and cause erosion.
- Build a cabin for storage of fire protection gear and comfort of the elders. Fire protection zone should include the hot springs.
- Will there be somebody on site enforcing things like ‘don’t touch the plants’ restrictions? Area should be open, as long as it is kept clean and is respected as a sacred place.
- A 10-mile radius around the hot springs, where nothing happens (mining, logging, trapping, hunting), but have it open for use for everybody.
- When you go to the hot springs, don’t break any plants and don’t bring anything home. The plants are for healing. We use that spruce gum for infections. There is a lot of good medicine in the bush.
- Any building at the hot springs should be downstream of the springs. Build a sidewalk around the water.
- Survey the whole area to find all hot spring outlets to make sure buffer is large enough No tourists or commercial enterprise at the hot springs.

Management Plan & Process

- Have to consider the objectives of the Final Agreement schedule for Ddhaw Ghro. Need good laws to management the area in a way that fits with the Final Agreement. Should be kept the way it is now.
- Will there be a formal management role for the First Nations or the elders? Let's make the level of protection clear.
- There needs to be a list of what we will allow. Also how it should be done and why it should be done that way. We need flexibility and adaptive management.
- We need policies in place before we can allow development.
- We need a management plan that integrates with a plan for the entire traditional territory.
- There are lots of things we don't understand yet. A research agenda (strategy) should be reflected in the management plan. The area is balanced and we need to keep it that way — that should be the main goal.
- The area should be open for all Yukoners, not only First Nations.
- People should be able to go in, with restrictions and if accompanied by a First Nation elder. Nobody should be allowed in there.
- If it is closed off, grandchildren cannot go in there and it is important to get youth out in the bush. Protect the habitat and the history.
- There should be no mining, trapping or timber cutting
- People that have lived in the area should be allowed to experience the area.
- The original intention here was to create a "hands-off" area. For now, it should be that; money is no good compared to what we have.
- There is a desire to use the area for education and enhance public awareness, but don't want to have the area overrun with people.
- We want to protect the existing ecological health of the area, or even enhance productivity in the area.
- When will the government equivalent to elders (senior management) come to the meetings and hear the concerns? Sharing information with presentations and publications should be a requirement of permitting research applications. Need translators at these workshops, to hear information in our own language.

Mining

- Keeping areas open for mining gives the message that Yukon is open for business. There should be no mining.
- Clean up other mines in Yukon before mining allowed in Ddhaw Ghro.
- Maybe we can leave minerals alone for now — use it as a fallback option for the future. Elders don't want to see old claim posts in Ddhaw Ghro. They have not been removed yet. This plan has to address the issue of exploration for unknown placer potential.

- Crooked Creek has placer potential.
- There is a copper vein at the northwest end of Sideslip Creek.
- Copper has been found north of Hot springs Creek, in a different drainage.
- If exploration and development are prohibited, the area could become a park. We may want to have the option of resource extraction at some point.
- First Nation people need prospecting training opportunities.
- Concern about the impact of mining on wildlife — e.g. moose at Fairchild Lake with yellow meat near oil spilled in the area. Ddhaw Ghro is important because it hasn't been damaged by mining.
- Concern over mining, waste disposal, the use of chemicals and the potential for pollution — specifically cyanide that may leach into water.
- Mining activities poison the water and eventually kill the wildlife. This affects cultural activities.

Research and Monitoring

- We need to create First Nation youth programs that would link with research and economic development.
- Local participation in research is important, since the communities don't always know what type of research is being done. Habitat, and fish and wildlife should be a priority on the research agenda.
- We should look for contaminants in high altitudes, climate change, and waste accumulation, and do ongoing monitoring. Research could contribute to tourism.
- We need baseline information about the area.
- We should look into identification and monitoring of indicator species. We could have a "State of Ddhaw Ghro Report."

Tourism and Recreation

- The area is suitable for commercial wilderness guiding.
- Hiking guide companies should have a permit and be accompanied (monitored) by someone. Taking people for healing and teaching is okay.
- Skiing is an acceptable activity (not heli-skiing) No 4-wheelers.
- Set up a limit to the number of tourists at a time. The hot springs are a draw for back-country tourists. Don't promote tourism in Ddhaw Ghro.
- It is important to share knowledge about the area with others.
- Want to enhance public awareness but not have the area overrun with people.
- Develop a pullout on highway with public information about Ddhaw Ghro, especially the history.
- Have brochures available to people who want to go there explaining the history and importance of the area. You allow tourists in there, and it can become too developed and polluted (with garbage and litter).
- Tourism requires infrastructure (trails, cabins, and outhouses) and people to monitor use. This is too expensive for First Nations to monitor.

- Tourism can be good and bad, but can get out of hand.
- Concern that people in the area will disturb wildlife — even people taking pictures can leave their scent and scare off animals.
- Make a special place for helicopters to land at the hot springs.
- Elders suggest that some of the cabins could be fixed up for tourism (e.g. Woodburn Lake). Elders said that would be okay and that it would not hurt the animals.
- The local community would benefit if tourism access was via the local community, rather than Whitehorse or Europe.
- All guiding by First Nation guides only, Doòli should apply.
- Take care of horses. Ensure they are not eating in sensitive areas which may result in loss of important plant life or cause erosion.

Traditional Culture, Knowledge and Laws

- Protect First Nations traditional use of Ddhaw Ghro. All of Ddhaw Ghro is sacred.
- Important that future generations know cultural ways, and know how to hunt and look after the animals. Traditional knowledge is important — it should be collected and shared.
- Work with school kids in Mayo, Pelly, and Carmacks to teach culture from elders. Gather traditional stories while they are still available.
- Develop skills in the context of the traditional culture.
- English and Northern Tutchone names should be noted for places. Suggestion that a mountain be named after the young boy who died.

Vegetation

- Cotton grass growing in a cirque basin, which is quite unusual.
- The weather is very rainy which makes for a very lush environment even at high elevations. Vegetation should be surveyed and monitored.

Water

- There should be a category in the plan for water protection and spirituality.
- We need to keep the area clean and ensure good water for our future generations.

Wildlife

- The area was set aside to protect all wildlife and their habitats.
- The current boundary doesn't encompass important habitats and full ranges of some wildlife populations. Should be able to harvest game in there.
- Never shoot a cow with a calf.
- In an emergency, people may have to shoot animals, so we can't say "no hunting." Fishing in

there? If you can catch it, you eat it.

- There should be no fly-fishing in that area.
- Hunting regulations and restrictions should apply to both First Nation and non-First Nation people. Trapping rights which were taken away in the past should be reinstated.
- Trapping of "problem" wildlife should be allowed under special circumstances (e.g. beavers, coyotes).
- If it weren't for the animals there, the elders wouldn't be here. Concern that mining activity will turn Ddhaw Ghro into a "Dawson" and that people will have nowhere to hunt.
- The meaning of "conserve and protect" needs to be understood. First Nations have always managed their wildlife, while conservation means something drastic.
- First Nations are afraid that signing a plan for conservation will result in hunting getting cut off. "It is in our diet all of the time."
- Areas where rocks are covered with lichens make good habitat for sheep. The slopes along Sideslip and Nogold are important for lambing.
- Elders are concerned that mining and logging will affect important habitat. It is important that government hears this message.
- Snow slides are one of the worst enemies of sheep in Ddhaw Ghro. Golden eagles and grizzly bears are after the young sheep.
- If sheep get near the bush, they may run into wolves. Should try to "erase" some of the wolves. Concern expressed that predators are causing low wildlife numbers.
- Concern of the accuracy of information on sheep populations. It seems there are less ducks every summer.
- Caribou stay at the edges of burns. Some caribou will feed in burned areas, including eating burned poplar bark.
- When water levels rise after fire, minerals in the water benefit caribou.

Appendix D: Chu Tthaw Land Use Plan Recommendations

Use	Activity	Management	Recommendations for Work
Shooting	No shooting allowed within 3 mile radius of boundary	No permits (show on all hunting permits and in hunter's manual). This is a safety measure for people using the area and also to respect animals that come to the springs.	Elder's field trip to look at boundaries. Some elders need to travel to Chu Tthaw to check out where boundaries and buffers should go. Include no hunting buffer in fish and wildlife Dooli book.
Trapping	Permitted in specific areas only	Advise trapper RRC "bylaw." The RRC can make bylaws to restrict trapping.	Contact RRC re: trapping bylaw. Elder's field trip to include trapping boundaries.
Camping	Will be permitted in designated areas only	Obey Dooli on permit. Monitors on site. Camping area paths and signs developed. Fees based on non-commercial and commercial use. Campers orientation by Selkirk First Nation through Chu Tthaw/ Ddhaw Ghro book.	Design and print Chu Tthaw access permit for various activities with attached rules behaviour. Fully document all the traditional Dooli activities of respect for the area. Develop camping area below the spring. This is to ensure no contamination of the water. Also to make it accessible for ill people. Camping area paths and bridge all designed with elder's advice. Have two monitor/guides stationed there in the summer. Train the guides when the elder's are there
Mining	No mining or exploration in this area or in Buffer Area	No mineral exploration permits issued for Chu Tthaw and none for Ddhaw Ghro which will be the Buffer Area. Particular concern about blasting near the springs and causing damage to the earth that might affect the flow of the water.	Establish Ddhaw Ghro as the no mining Buffer Area for Chu Tthaw in the Ddhaw Ghro management plan.

Use	Activity	Management	Recommendations for Work
Fire Control	Stop fire in the area with minimum damage and contamination. Particular concern about large machinery and retardant damaging the area. Local fires should be fought by hand.	Selkirk First Nation training and coordination under UFA/Selkirk First Nation FA. Fire abatement around the immediate area. Removing all the deadwood that might cause a fire near the spring. Ddhaw Ghro will be the Buffer Area for Chu Tthaw for fire fighting coordinated with DIAND.	Work with DIAND on fire training. Clean up brush around spring. Establish Ddhaw Ghro as the fire fighting Buffer Area for Chu Tthaw in the Ddhaw Ghro management plan and the DIAND action zone map.
Logging	No logging in Chu Tthaw	No permission for logging from Selkirk First Nation in Chu Tthaw. Ddhaw Ghro will be the no-logging Buffer Area for Chu Tthaw.	Establish Ddhaw Ghro as the no logging Buffer Area for Chu Tthaw through the Ddhaw Ghro management plan.
Access	No vehicle access except helicopter; human access only with permission from Selkirk First Nation	Only foot trail access to the spring. Signs will indicate No Off Road Vehicles. Access Permit required for access. Attached to the permit will be rules for human activity in the area and orientation to the area by Selkirk First Nation through Chu Tthaw/Ddhaw Ghro book.	Produce signs on trail explaining no machines allowed. The trapper will have to walk up to Chu Tthaw and cannot use a skidoo to get there.
Tourism	Only with permission	Permit and fee. Need a Selkirk First Nation guide. Tourist orientation by Selkirk First Nation through Chu Tthaw/Ddhaw Ghro book.	Guide training by Selkirk First Nation by elders. Guide training should happen during elder's field trip.

Use	Activity	Management	Recommendations for Work
Heritage	Full appreciation of importance of area to Northern Tutchone	History of Chu Tthaw documented.	Make a book about Chu Tthaw and Ddhaw Ghro. Coordinate story gathering for book with elder's field trip.
Culture and Education	Ensuring that the youth understand the importance of the area and how to look after it	Education for Northern Tutchone youth.	Field trips to area for elders to educate youth about their culture.

This is the draft of the Chu Tthaw Land Use Plan for community consultation before the General Assembly in June 2002.

Appendix E: Development of Habitat Suitability Maps

Methods

Habitat suitability refers to the ability of habitat to provide the conditions (e.g. food, cover) to support a species. Suitability maps differ from key habitat maps because they are not based on wildlife sightings. Rather, the maps are based on habitat rankings of broad landscape and vegetation types to support different species at various seasons.

For this management plan, a completed vegetation classification map was used as the basis for developing habitat suitability rankings. Yukon government staff completed the mapping with help from community members in the 1980s. The result was a map that covered the Ddhaw Ghro Habitat Protection Area as well as adjacent habitats. Field staff also conducted ground surveys to assess wildlife species' use by vegetation class.

Yukon government biologists and First Nations elders were interviewed for their expert opinion about expected use of habitat types, based on vegetation classes for sheep, caribou, and moose. Elders provided ratings for grizzly and black bear.

Habitat rating values were defined as:

0 = not suitable
1 = some suitability
2 = modest suitability
3 = best suitability

Most elder suitability ratings were obtained during field work and site visits during the summer 2003. Follow-up sessions in communities and with biologists were conducted using photos and detailed descriptions of representative vegetation classes.

Value ratings were applied to mapped vegetation classes by season for the five species. Sheep habitat suitability was rated for winter, spring and summer. Moose habitat was rated for early and late winter, spring and summer, and fall. Caribou habitat ratings gathered from elders were based largely on Forty Mile caribou herd knowledge. Although useful for other discussions, the herd no longer ranges in the area. Woodland caribou habitat suitability was rated for winter, spring, summer and fall. Bear habitat suitability mapping incorporates First Nation elders' suitability ratings for both grizzly bear and black bear. Bear ratings were equally weighted and defined as a single rating for all seasons.

Ratings were applied to mapped vegetation classes, assigning the highest values to each vegetation class, regardless of season or source. Maps were produced individually by species, by season, and by source for consideration by the Steering Committee. Maps in this management plan are compiled for all seasons, by species.

For more information about the methodology followed to create these maps, contact Habitat Management, Fish and Wildlife Branch, Department of Environment, Government of Yukon.

Appendix F: Maps

Map 1:	Ddhaw Ghro HPA and Surrounding Area
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Map 3:	Glacial Limits
Map 4:	Generalized Vegetation Classes
Map 5:	Timber Resources and Wildlife Activity
Map 6:	Wetlands
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Map 8:	Sheep Habitat Suitability - All Seasons
Map 9:	Caribou Key Areas
Map 10:	Caribou Habitat Suitability - All Seasons
Map 11:	Moose Habitat Suitability - All Seasons
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Map 13:	Key Raptor Areas
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Map 15:	Mineral Potential
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Map 17:	Significant Wildlife Areas
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Map 19:	Adjacent Areas Regional Map

Disclaimer

Maps in this plan are for illustrative purposes only. These are graphical representations, which depict the approximate size, configuration and spatial relationship of geographic features and themes. While great care has been taken to ensure the best possible quality, these maps are not offical land surveys and are not intended for legal descriptions and/or to calculate precise areas, dimensions or distances. We do not accept any responsibilities for errors, omissions or inaccuracies in this data.

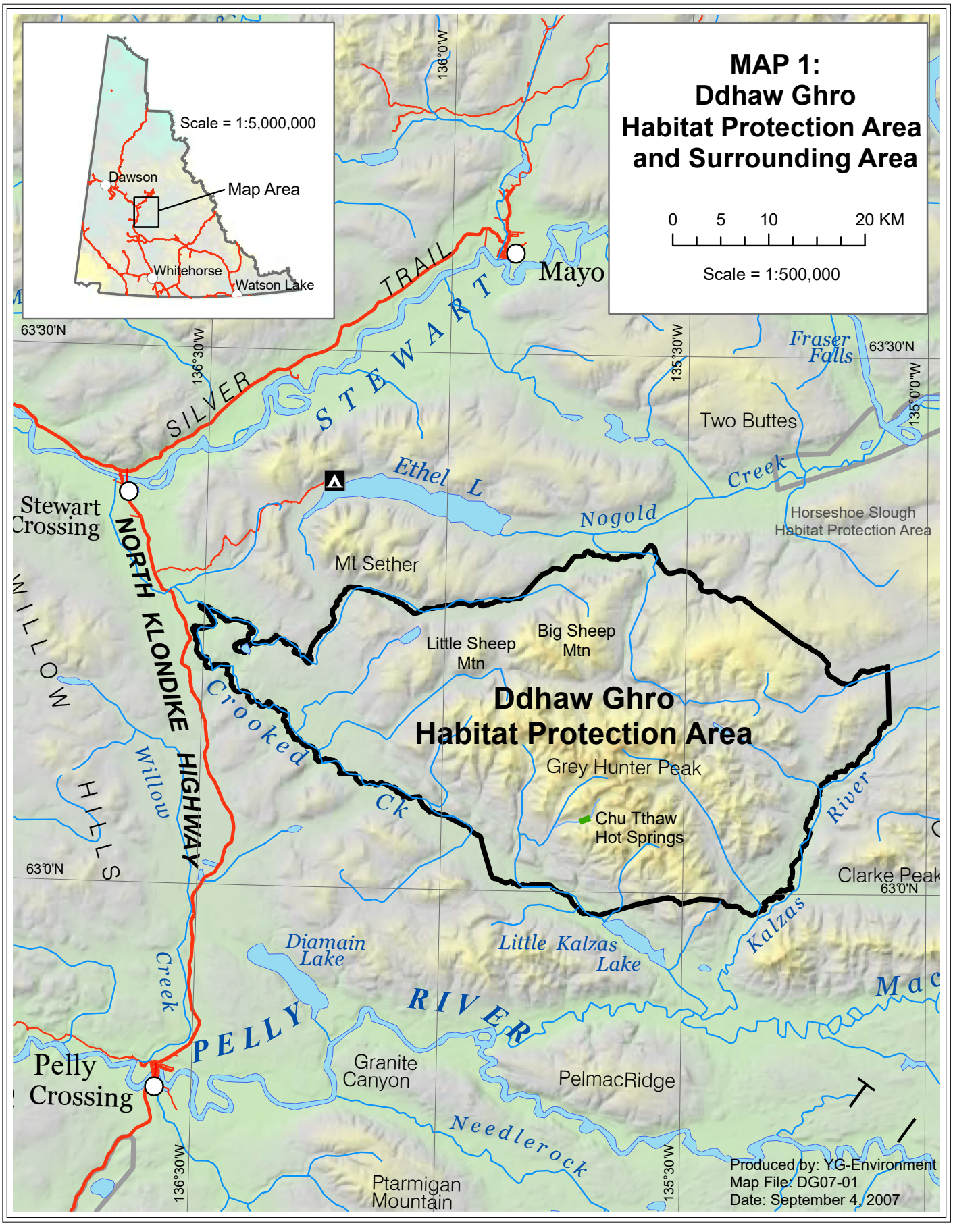
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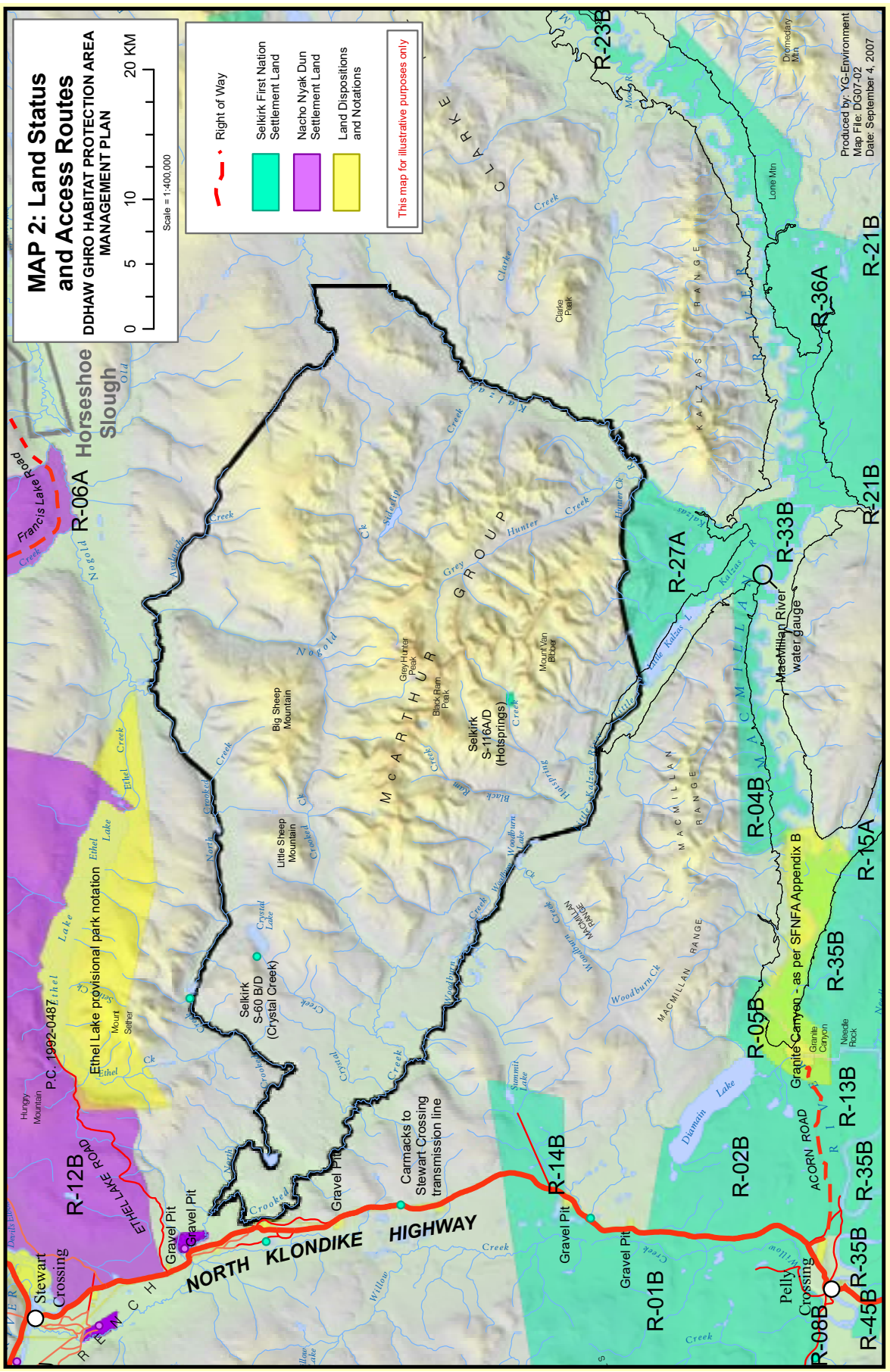
National Topographic Database (NTDB) © Her Majesty the Queen in Right of Canada, Department of Natural Resources. All Rights Reserved.

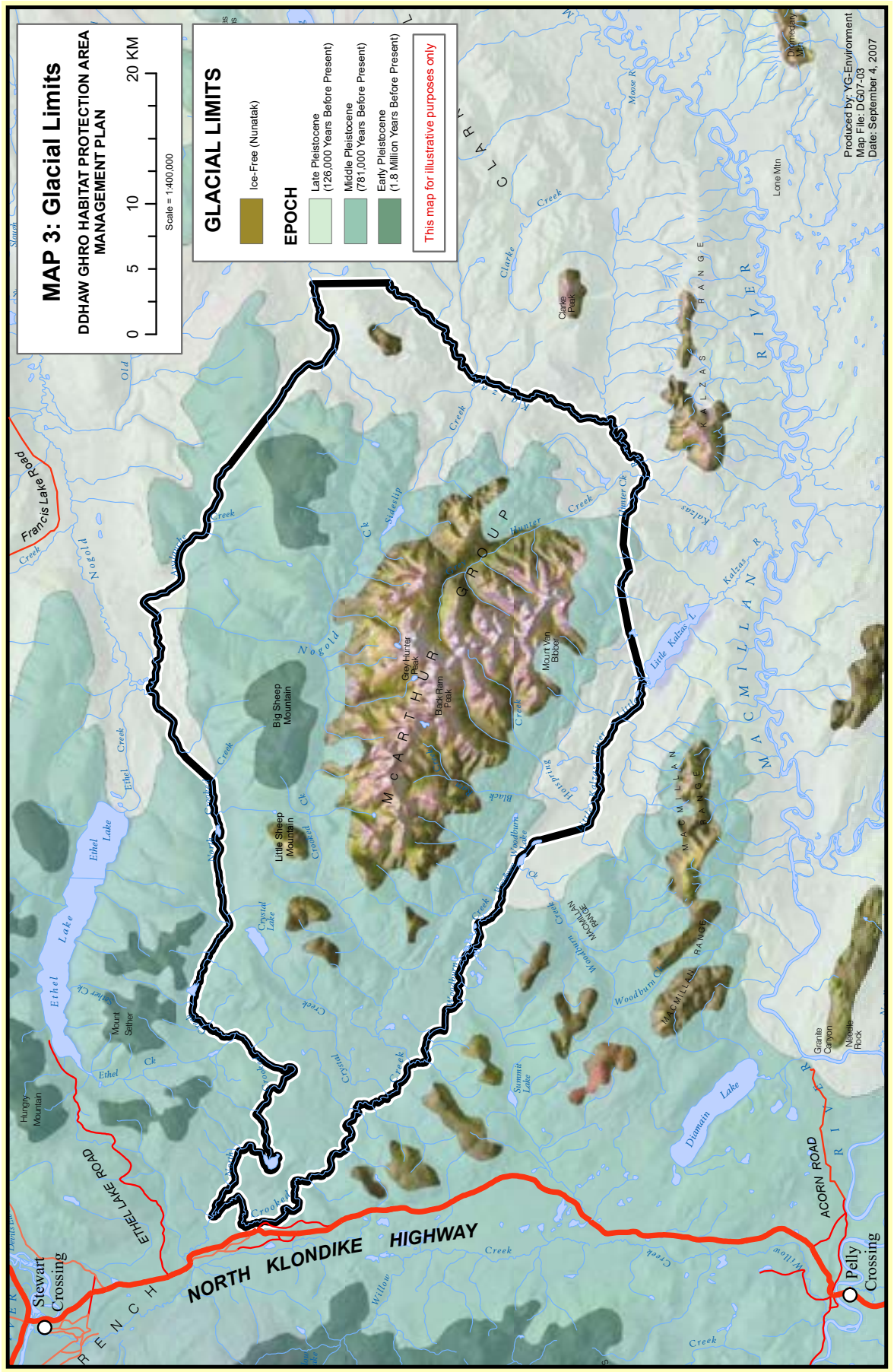
First Nations Settlement Lands obtained from Natural Resources Canada 1:30,000 maps, recompiled by the Department of Environment Yukon 1:250,000 NTDB.

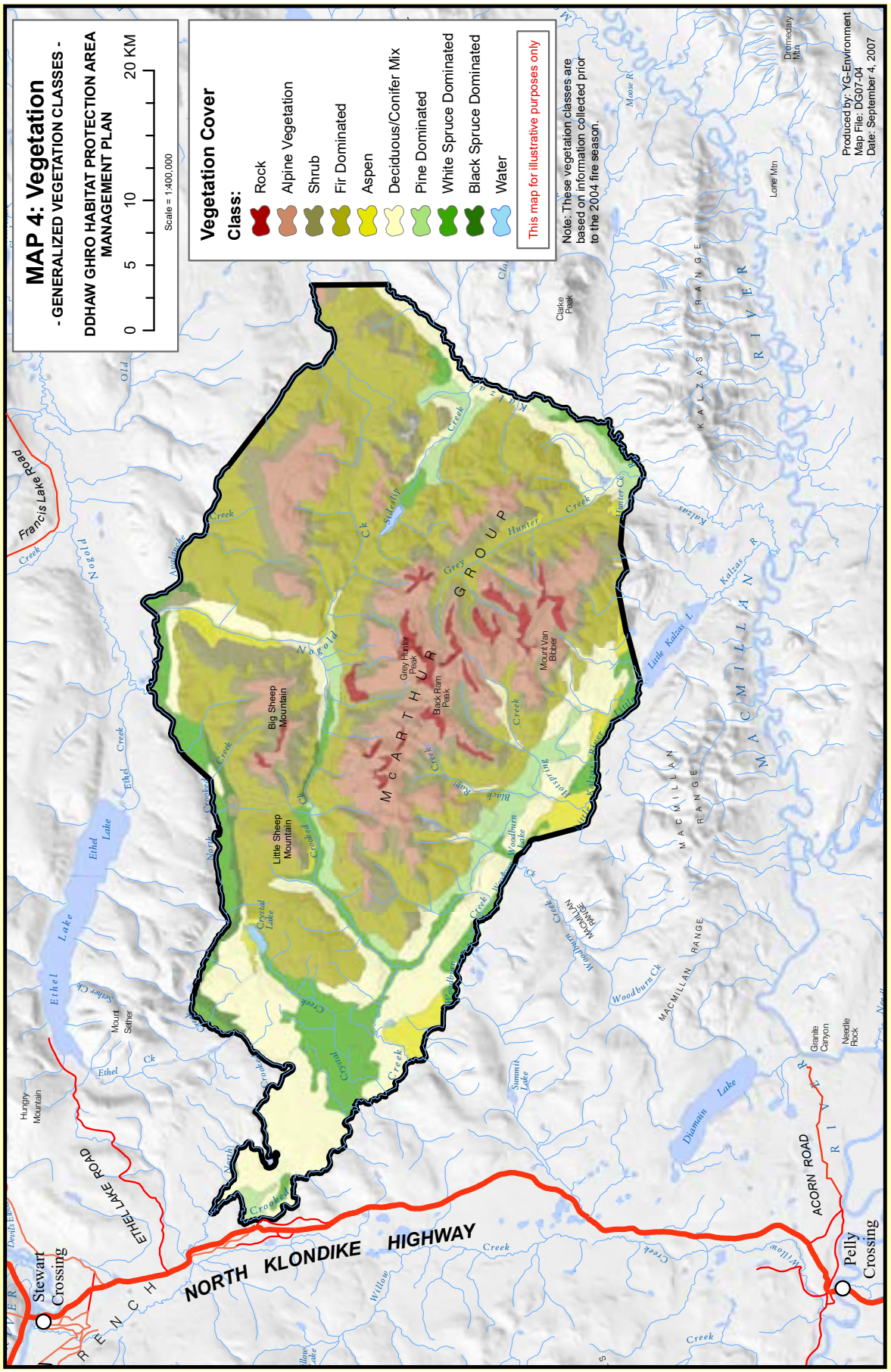
Wildlife Key Area Inventory

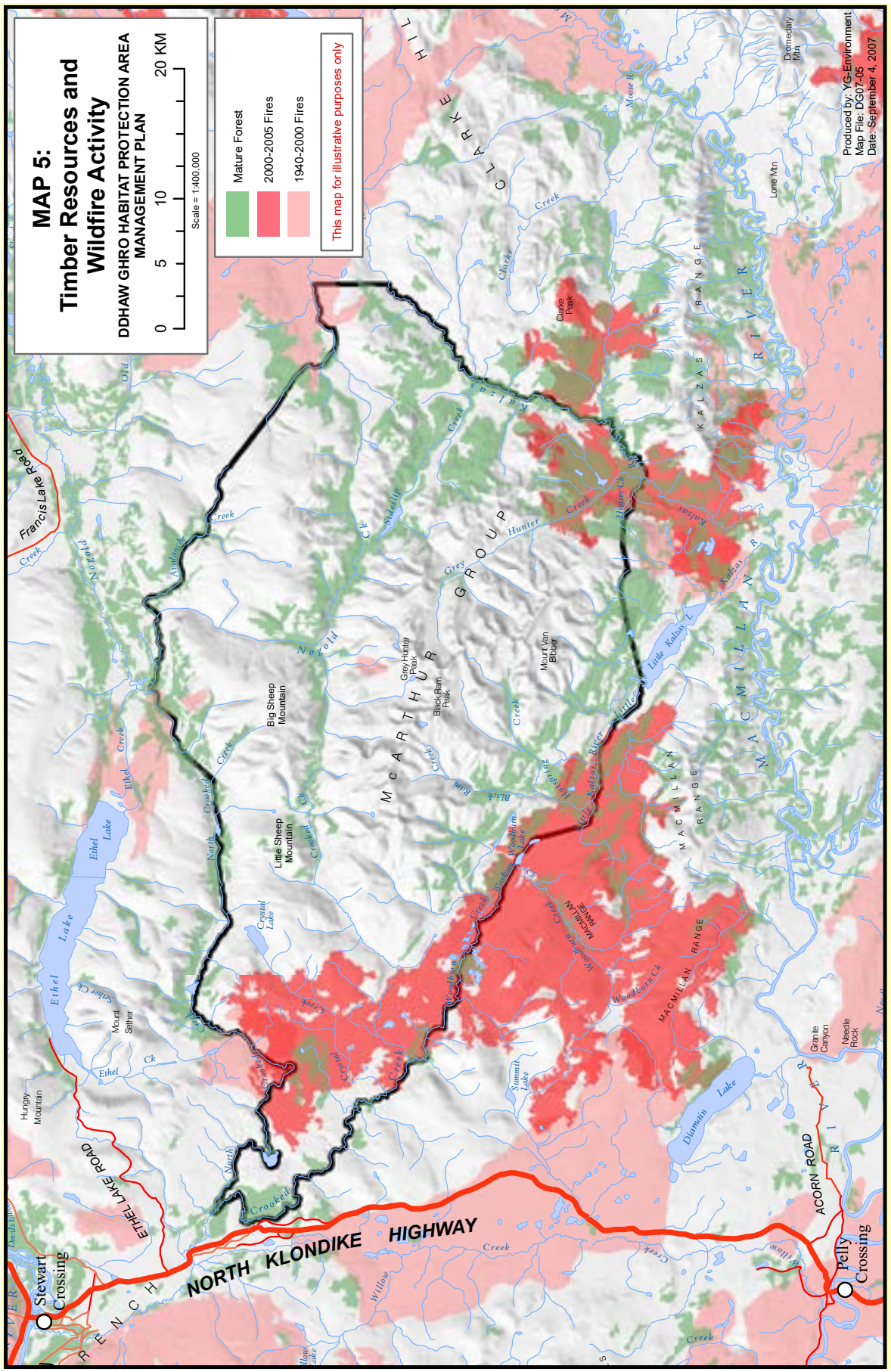
Wildlife Key Areas (WKA) are compiled by the Yukon's Department of Environment WKA Inventory Program, against 1:250,000 NTDB from various data sources. Key areas are based on observed locations of willdife at key times of year, not on habitat assessment. With new information, boundaries and designations of key areas can change and additional key areas can be identified. Furthermore, key areas are not the only sites important for wildlife. Other information sources can identify other sites important for wildlife for reasons outside the scope of the WKA Inventory Program. Updates to key areas occur only periodically. If you have questions or would like to contribute to the WKA database, please contact the WKA Inventory Program (wka@gov.yk.ca).

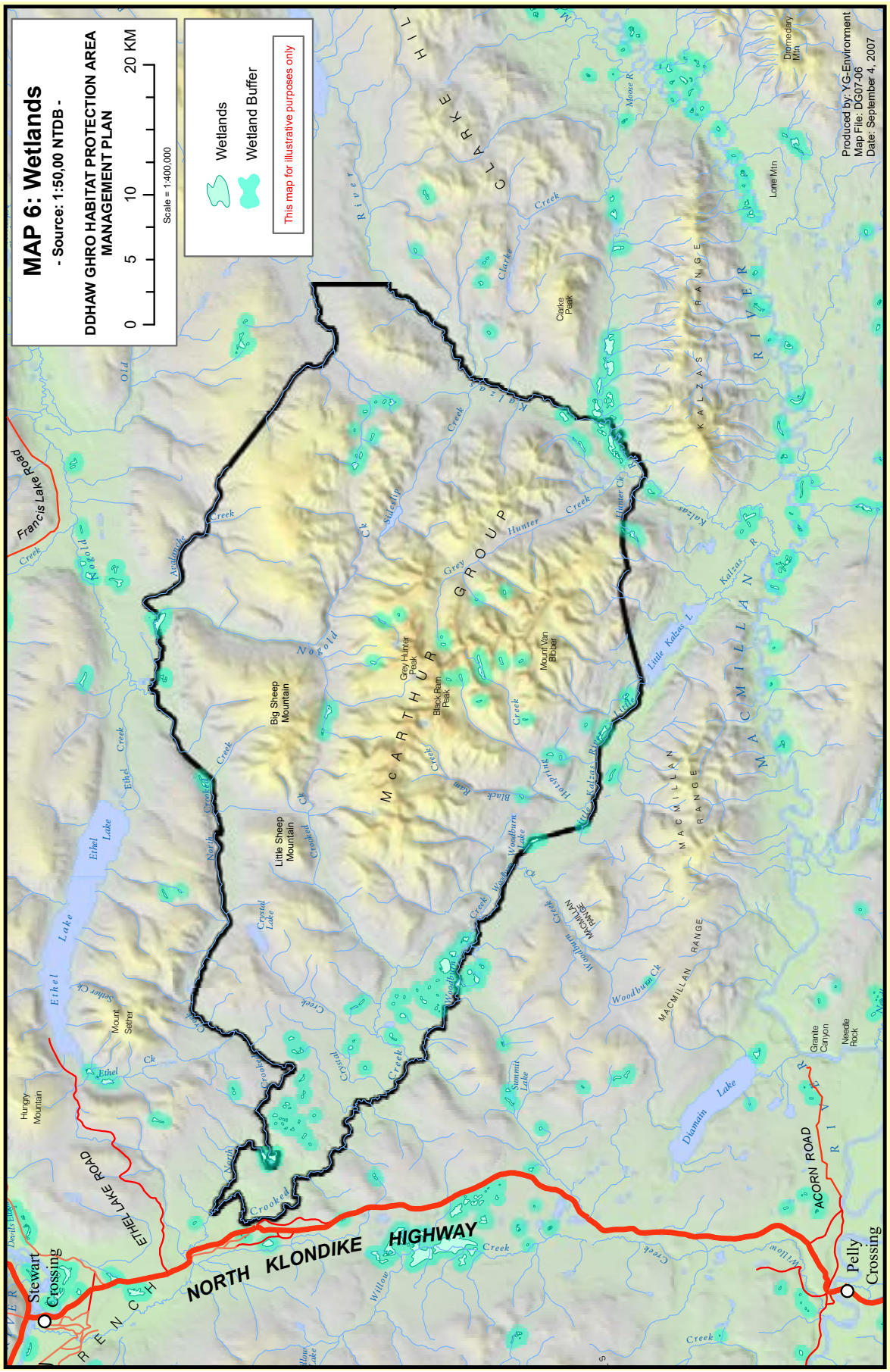

MAP 1:
Ddhaw Ghro
Habitat Protection Area
and Surrounding Area
0 5 10 20 KM
Scale = 1:500,000
Scale = 1:5,000,000
Dawson
Map Area
Whitehorse
Watson Lake
Mayo
TRAIL
STEWART
SILVER
Fraser Falls
Two Buttes
Creek
Ethel L
Nogold
Horseshoe Slough
Habitat Protection Area
Stewart Crossing
NORTH KLONDIKE HIGHWAY
Mt Sether
Little Sheep Mtn
Big Sheep Mtn
Ddhaw Ghro
Habitat Protection Area
Grey Hunter Peak
Chu Tthaw
Hot Springs
Crooked Ck
Willow
HILLS
WILLOW
River
Clarke Peak
Kalzas
Diamain Lake
Little Kalzas Lake
Creek
PELLY
RIVER
Pelly Crossing
Granite Canyon
PelmacRidge
Needlerock
Ptarmigan Mountain
63°30'N
63°0'N
136°0'W
136°30'W
135°30'W
135°0'W
Produced by: YG-Environment
Map File: DG07-01
Date: September 4, 2007

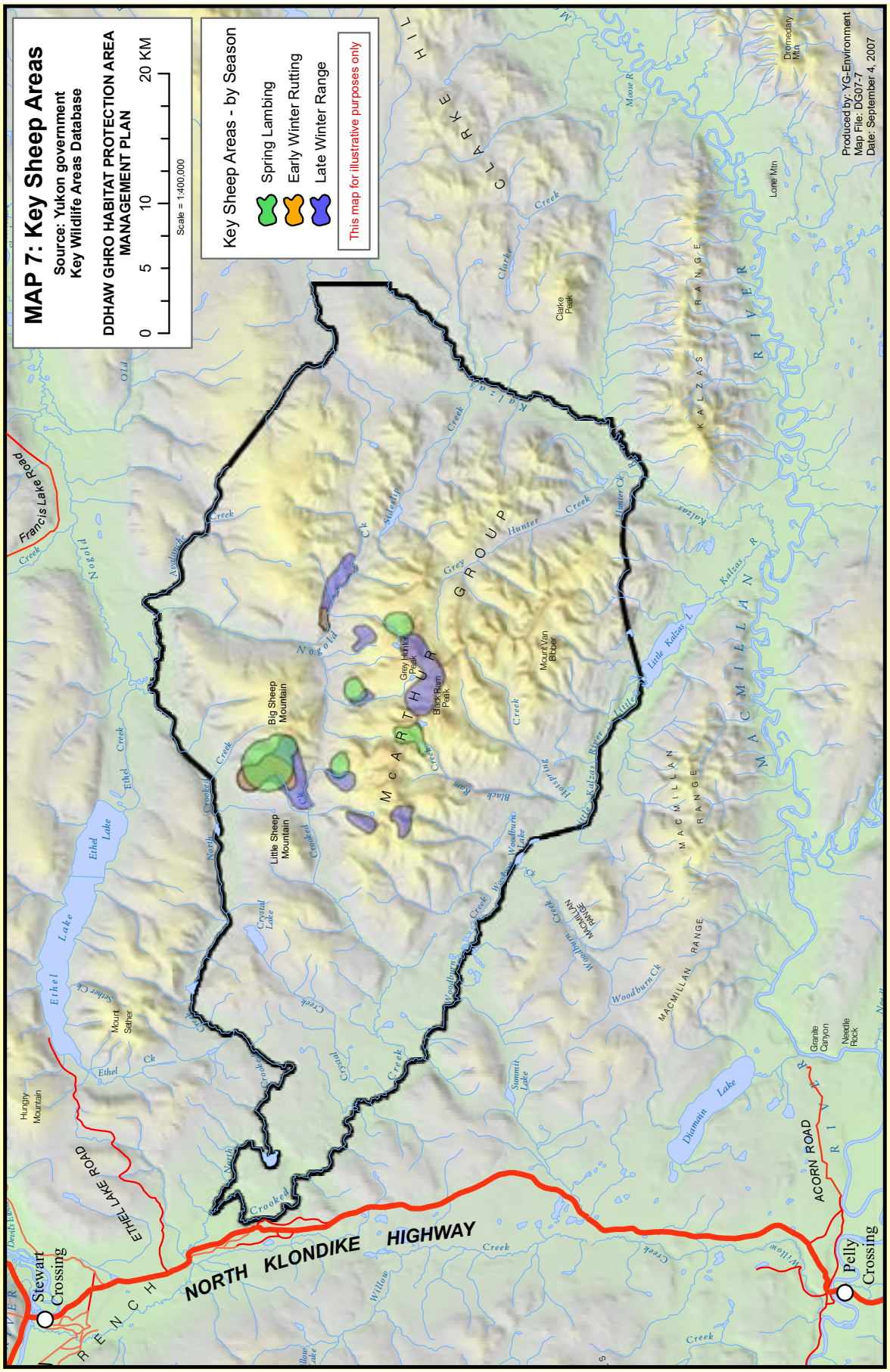

MAP 2: Land Status and Access Routes
DDHAW GHRO HABITAT PROTECTION AREA MANAGEMENT PLAN
Scale = 1:400,000
0 5 10 20 KM
Right of Way
Selkirk First Nation Settlement Land
Nacho Nyak Dun Settlement Land
Land Dispositions and Notations
This map for illustrative purposes only
Produced by: YG-Environment
Map File: DG07-02
Date: September 4, 2007
Ethel Lake provisional park notation
P.C. 1992-0487
Stewart Crossing
Pelly Crossing
NORTH KLONDIKE HIGHWAY
ETHEL LAKE ROAD
ACORN ROAD
Carmacks to Stewart Crossing transmission line
Gravel Pit
Selkirk S-60 B/D (Crystal Creek)
Selkirk S-116A/D (Hotsprings)
Granite Canyon - as per SFNFA Appendix B
MacMillan River water gauge
R-12B
R-06A
R-01B
R-02B
R-04B
R-05B
R-08B
R-13B
R-14B
R-15A
R-21B
R-23B
R-27A
R-33B
R-35B
R-36A
R-45B
Horseshoe Slough
Francis Lake
Big Sheep Mountain
Little Sheep Mountain
Mount Van Bibber
Grey Hunter Peak
Black Ram Peak
Clarke Peak
Lone Mtn
Dromedary Mtn
Hungry Mountain
Mount Selther
Granite Canyon
Needle Rock
MACMILLAN RANGE
KALZAS RANGE
MACMILLAN PASS
MCARTHUR GROUP
CLARKE RANGE
YUKON RIVER

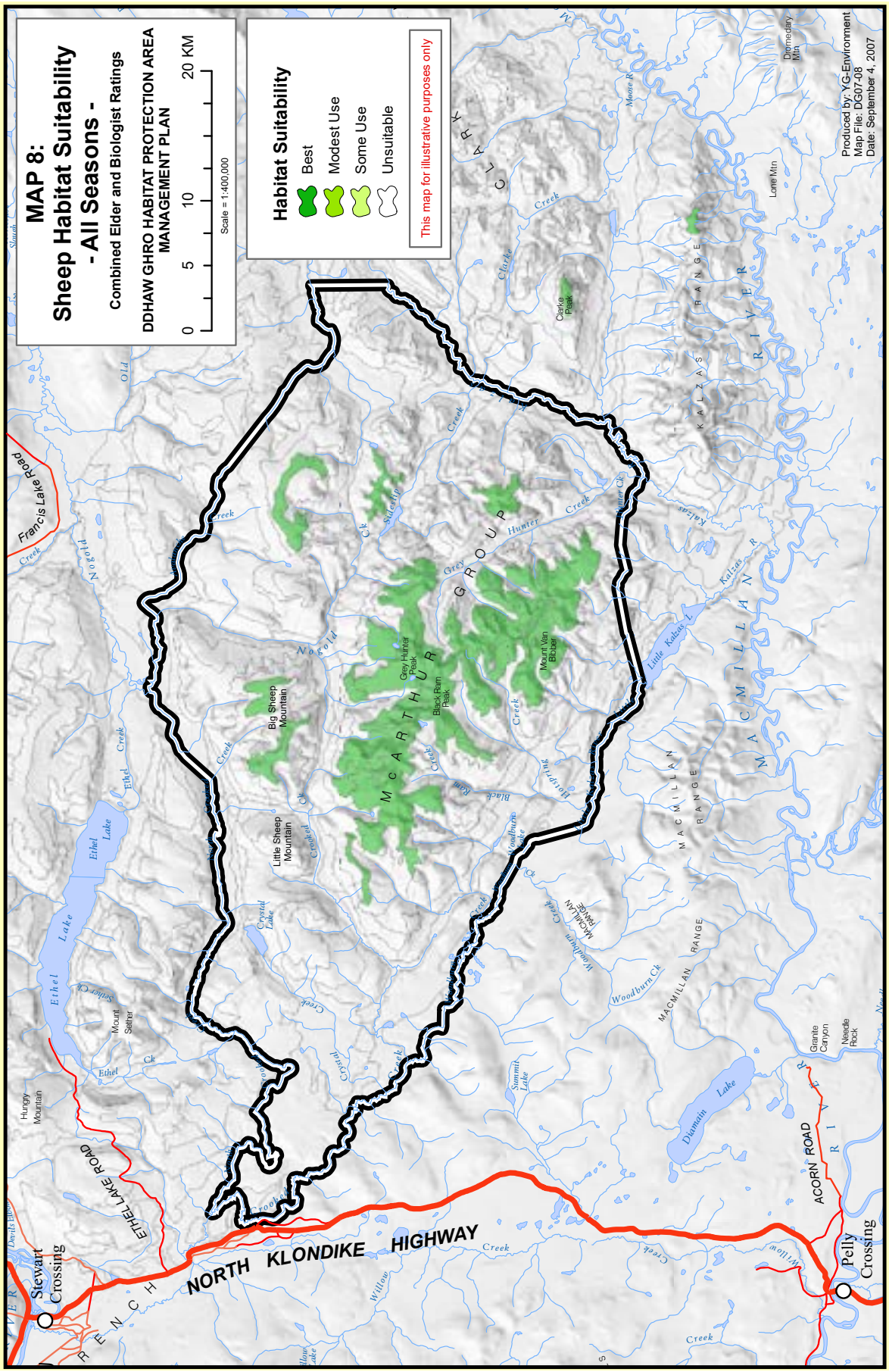

MAP 3: Glacial Limits
DDHAW GHRO HABITAT PROTECTION AREA
MANAGEMENT PLAN
0 5 10 20 KM
Scale = 1:400,000
GLACIAL LIMITS
Ice-Free (Nunatak)
EPOCH
Late Pleistocene (126,000 Years Before Present)
Middle Pleistocene (781,000 Years Before Present)
Early Pleistocene (1.8 Million Years Before Present)
This map for illustrative purposes only
Produced by: YG-Environment
Map File: DG07-03
Date: September 4, 2007
NORTH KLONDIKE HIGHWAY
ETHEL LAKE ROAD
ACORN ROAD
Stewart Crossing
Pelly Crossing
Francis Lake Road
McARTHUR GROUP
MACMILLAN RANGE
KALZAS RANGE
Big Sheep Mountain
Little Sheep Mountain
Grey Hunter Peak
Black Ram Peak
Mount Van Bibber
Clarke Peak
Lone Mtn
Hungry Mountain
Mount Sether
Granite Canyon
Nordale Rock
Ethel Lake
Crystal Lake
Summit Lake
Diamain Lake
Nogold Creek
Hunter Creek
Woodburn Creek
Kalzas River
Pelly River

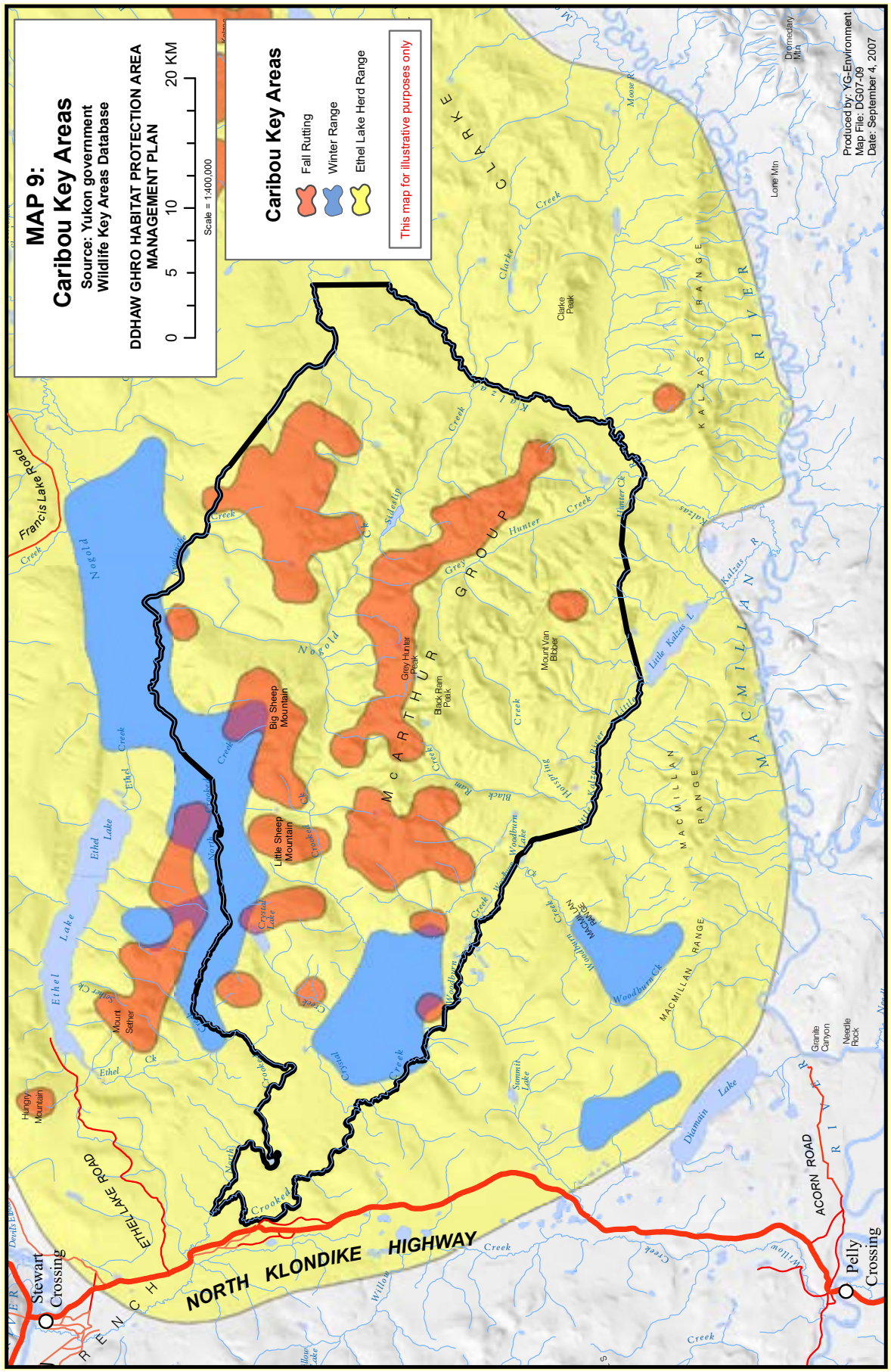

MAP 4: Vegetation
- GENERALIZED VEGETATION CLASSES -
DDHAW GHRO HABITAT PROTECTION AREA
MANAGEMENT PLAN
0 5 10 20 KM
Scale = 1:400,000
Vegetation Cover
Class:
Rock
Alpine Vegetation
Shrub
Fir Dominated
Aspen
Deciduous/Conifer Mix
Pine Dominated
White Spruce Dominated
Black Spruce Dominated
Water
This map for illustrative purposes only
Note: These vegetation classes are based on information collected prior to the 2004 fire season.
Produced by: YG-Environment
Map File: DG07-04
Date: September 4, 2007
McARTHUR GROUP
MACMILLAN RANGE
KALZAS RANGE
MACMILLAN RIVER
NORTH KLONDIKE HIGHWAY
ETHEL LAKE ROAD
ACORN ROAD
Stewart Crossing
Pelly Crossing
Francis Lake Road
Ethel Lake
Crystal Lake
Woodburn Lake
Diamain Lake
Summit Lake
Big Sheep Mountain
Little Sheep Mountain
Grey Hunter Peak
Black Ram Peak
Mount Van Bibber
Mount Sather
Hungry Mountain
Granite Canyon
Needle Rock
Lone Mtn
Clarke Peak
Dromedary Mtn
Moose R
Kalzas R
Little Kalzas L
Hunter Ck
Woodburn Ck
Nogold Creek
Crooked Creek
Ethel Creek
Grey Creek
Hunter Creek
Black Ram Creek
Horsepunch Creek
Willow Creek
Sidestep Ck
Sather Ck

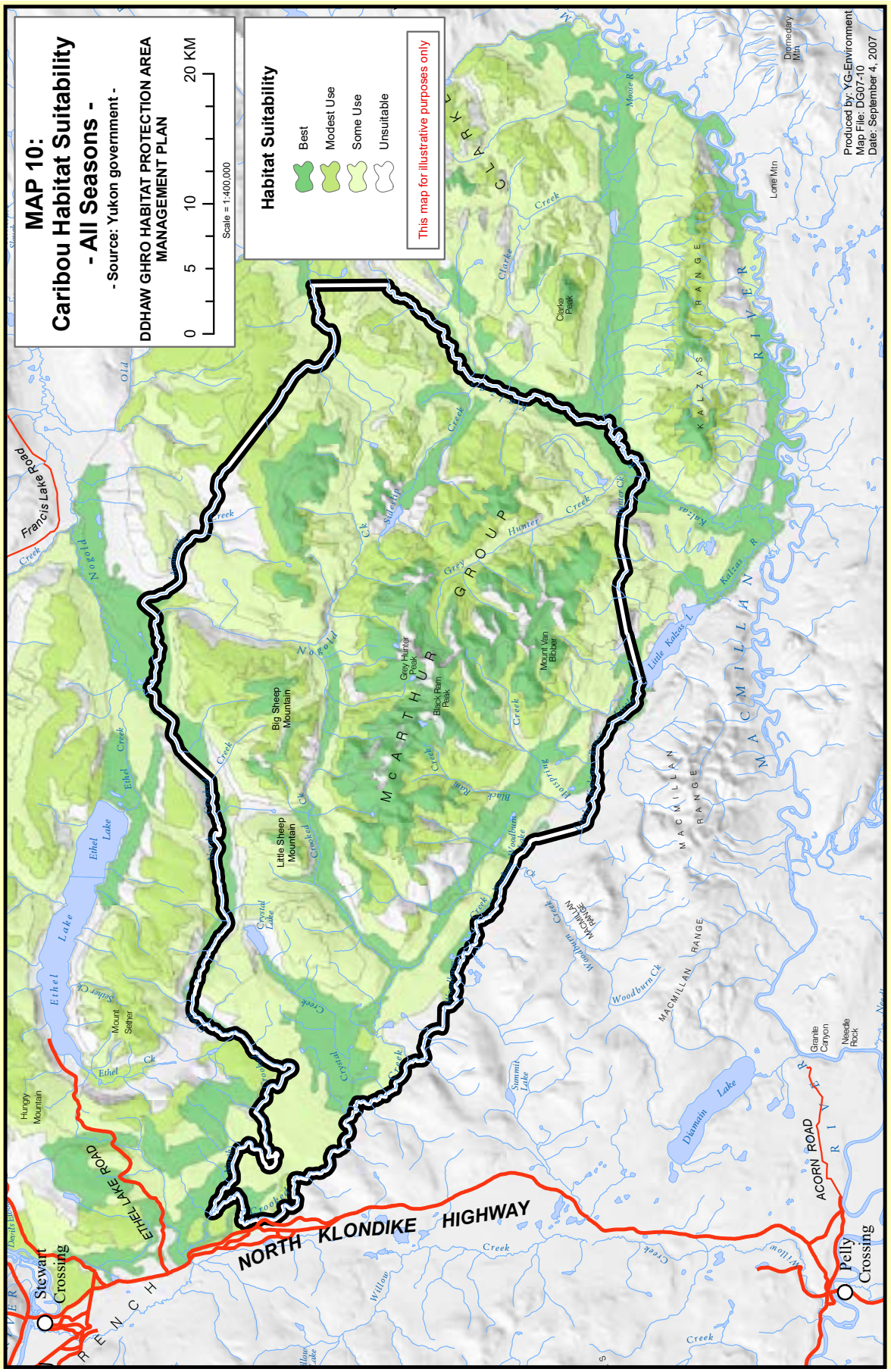

MAP 5:
Timber Resources and Wildfire Activity
DDHAW GHRO HABITAT PROTECTION AREA
MANAGEMENT PLAN
0 5 10 20 KM
Scale = 1:400,000
Mature Forest
2000-2005 Fires
1940-2000 Fires
This map for illustrative purposes only
Produced by: YG-Environment
Map File: DG07-05
Date: September 4, 2007
NORTH KLONDIKE HIGHWAY
ETHEL LAKE ROAD
ACORN ROAD
Stewart Crossing
Pelly Crossing
Francis Lake Road
MACMILLAN RANGE
KALZAS RANGE
MACARTHUR GROUP
Ethel Lake
Crooked Creek
Big Sheep Mountain
Little Sheep Mountain
Mount Selther
Hungry Mountain
Grey Hunter Peak
Black Ram Peak
Mount Van Bibber
Clarke Peak
Lone Mtn
Dromedary Mtn
Granite Canyon
Needle Rock
Diamain Lake
Simmit Lake
Woodburn Ck
Little Kalzas L
Kalzas
Hunter Ck
Sidelip Creek
Avalanche Creek
Nogold
Crystal Lake
Woodburn Lake
Hot Springs Creek
Black Run
Grey Creek
Clarke Creek
Moose R
Willow Creek
Willow Lake

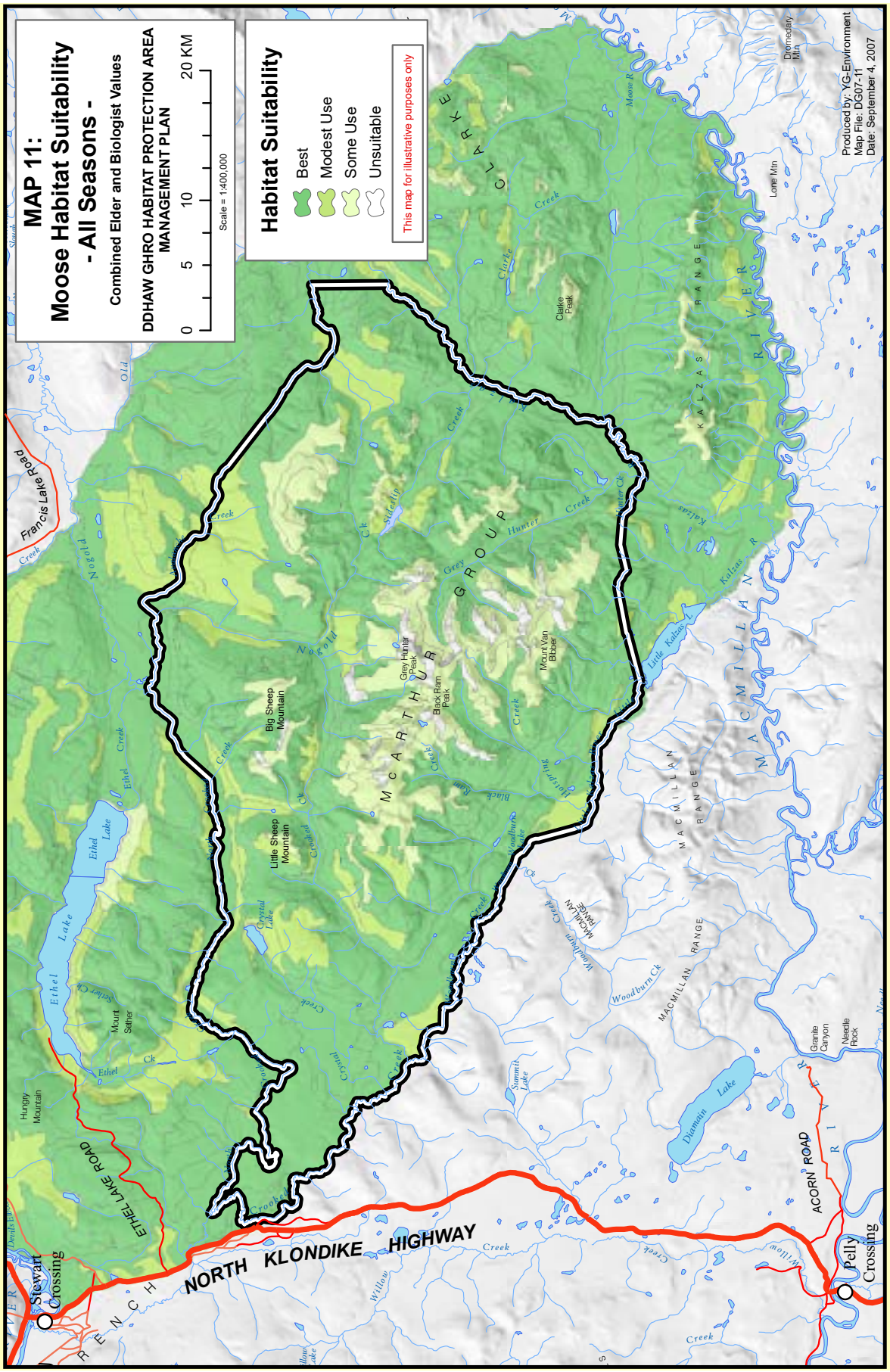

MAP 6: Wetlands
- Source: 1:50,00 NTDB -
DDHAW GHRO HABITAT PROTECTION AREA
MANAGEMENT PLAN
0 5 10 20 KM
Scale = 1:400,000
Wetlands
Wetland Buffer
This map for illustrative purposes only
Produced by: YG-Environment
Map File: DG07-06
Date: September 4, 2007
NORTH KLONDIKE HIGHWAY
ETHEL LAKE ROAD
ACORN ROAD
Stewart Crossing
Pelly Crossing
Francis Lake Road
MACMILLAN RANGE
KALZAS RANGE
MACMILLAN RIVER
KALZAS RIVER
MCARTHUR GROUP
CLARKE HILL
Ethel Lake
Crystal Lake
Woodburn Lake
Summit Lake
Diamain Lake
Big Sheep Mountain
Little Sheep Mountain
Mount Selther
Hungry Mountain
Grey Hunter Peak
Black Rum Peak
Mount Van Bibber
Clarke Peak
Lone Mtn
Domedary Mtn
Granite Canyon
Needle Rock

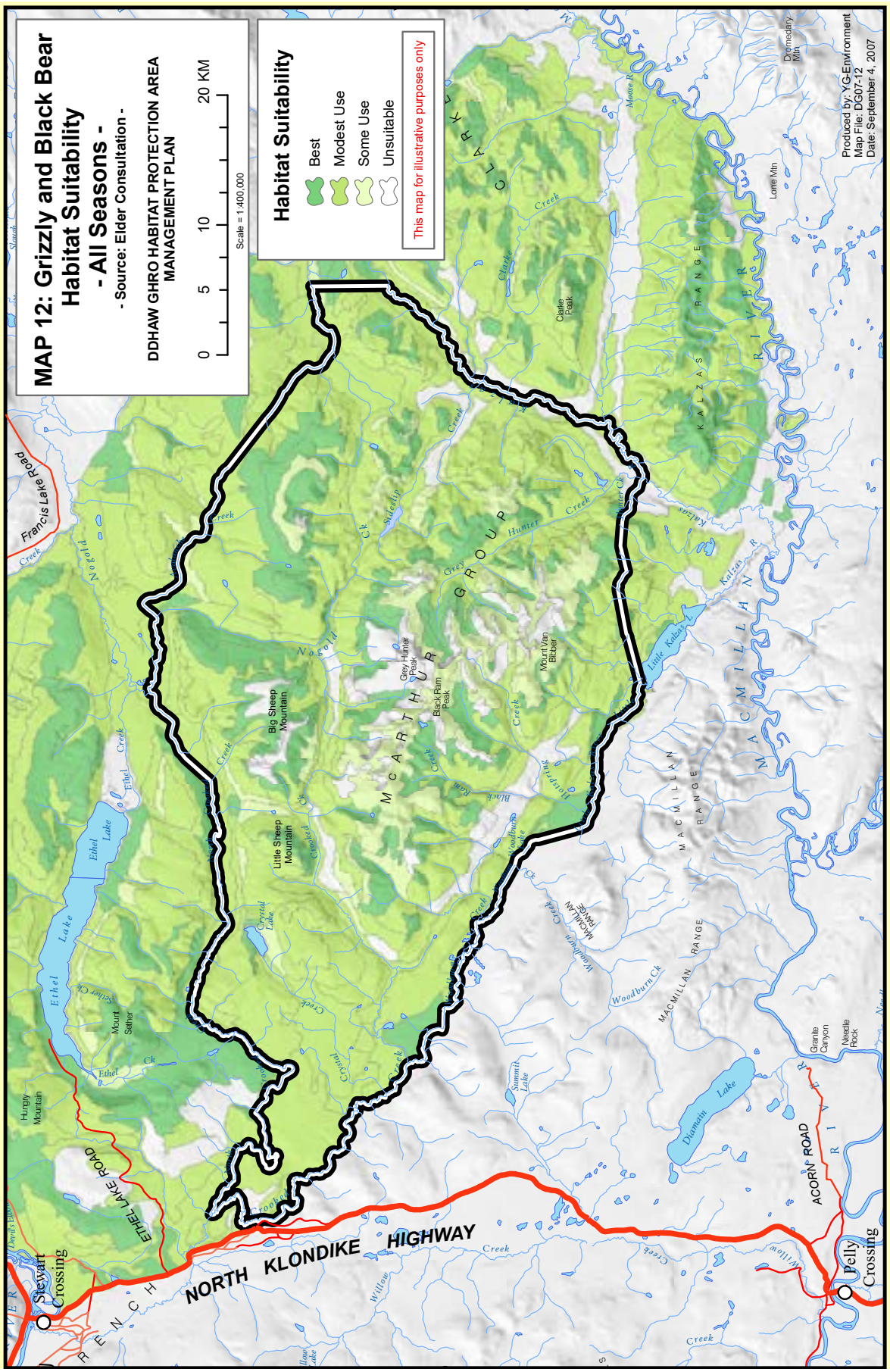

MAP 7: Key Sheep Areas
Source: Yukon government
Key Wildlife Areas Database
DDHAW GHRO HABITAT PROTECTION AREA
MANAGEMENT PLAN
0 5 10 20 KM
Scale = 1:400,000
Key Sheep Areas - by Season
Spring Lambing
Early Winter Rutting
Late Winter Range
This map for illustrative purposes only
Produced by: YG-Environment
Map File: DG07-7
Date: September 4, 2007
NORTH KLONDIKE HIGHWAY
ETHEL LAKE ROAD
ACORN ROAD
Stewart Crossing
Pelly Crossing
Francis Lake Road
MACMILLAN RANGE
KALZAS RIVER
MACMILLAN RIVER
GROUP
Big Sheep Mountain
Little Sheep Mountain
Grey Hunter Peak
Black Ram Peak
Mount Van Bibber
Clarke Peak
Lone Mtn
Dromedary Mtn
Granite Canyon
Needle Rock
Mount Sather
Hungry Mountain
Diamatin Lake
Ethel Lake
Crystal Lake
Summit Lake
Woodburn Lake

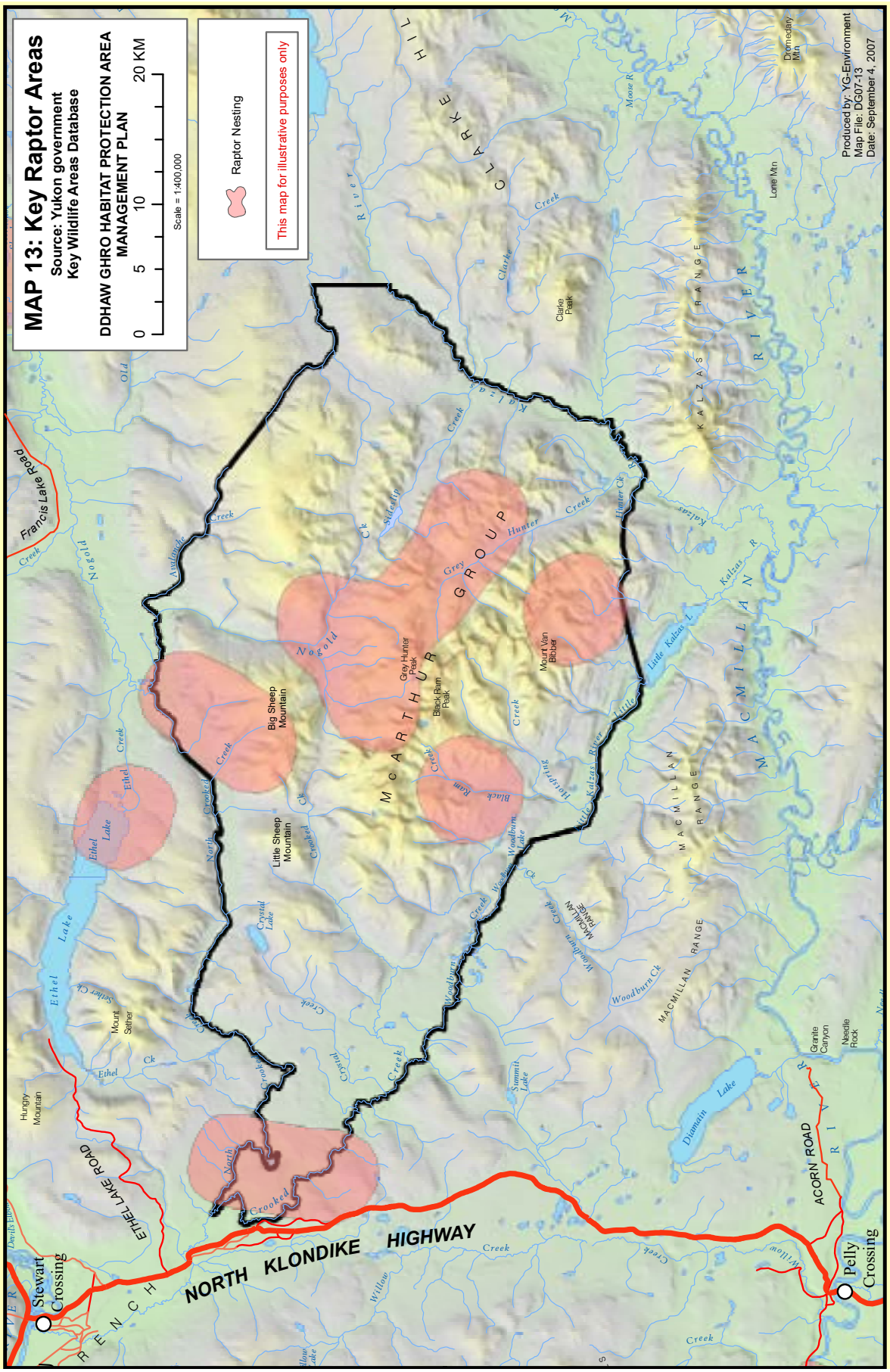

MAP 8:
Sheep Habitat Suitability
- All Seasons -
Combined Elder and Biologist Ratings
DDHAW GHRO HABITAT PROTECTION AREA
MANAGEMENT PLAN
0 5 10 20 KM
Scale = 1:400,000
Habitat Suitability
Best
Modest Use
Some Use
Unsuitable
This map for illustrative purposes only
Produced by: YG-Environment
Map File: DG07-08
Date: September 4, 2007
McARTHUR GROUP
Big Sheep Mountain
Little Sheep Mountain
Grey Hunter Peak
Black Rim Peak
Mount Van Bibber
Clarke Peak
Lone Mtn
Domedary Mtn
Hungry Mountain
Mount Selther
Francis Lake Road
ETHEL LAKE ROAD
NORTH KLONDIKE HIGHWAY
ACORN ROAD
Stewart Crossing
Pelly Crossing
Ethel Lake
Diamain Lake
Summit Lake
Crystal Lake
Granite Canyon
Needle Rock
MACMILLAN RANGE
KALZAS RANGE
CLARK RANGE
PELLY RIVER
RENCH
Creek
Ck

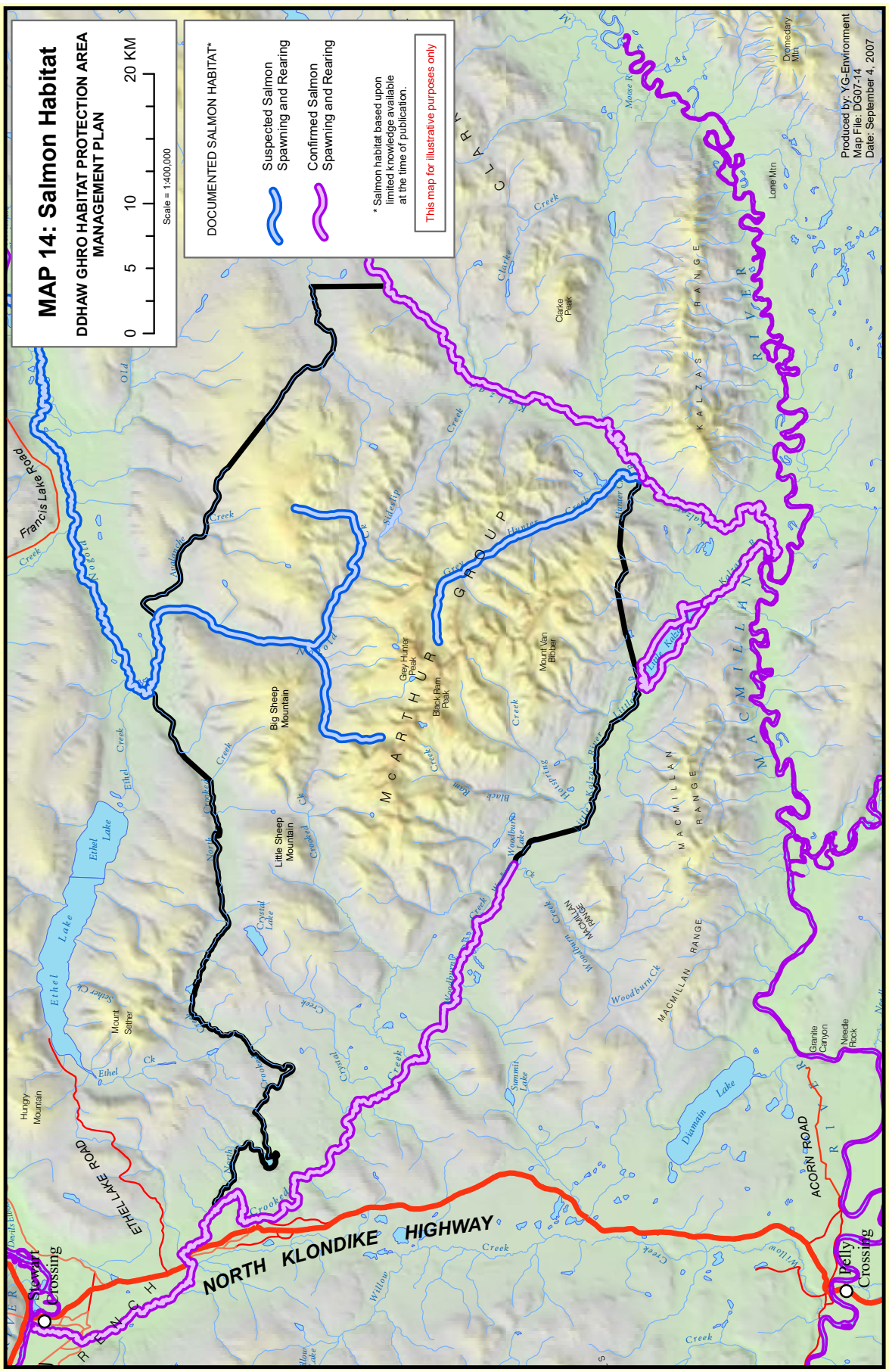

MAP 9:
Caribou Key Areas
Source: Yukon government
Wildlife Key Areas Database
DDHAW GHRO HABITAT PROTECTION AREA
MANAGEMENT PLAN
0 5 10 20 KM
Scale = 1:400,000
Caribou Key Areas
Fall Rutting
Winter Range
Ethel Lake Herd Range
This map for illustrative purposes only
Produced by: YG-Environment
Map File: DG07-09
Date: September 4, 2007
NORTH KLONDIKE HIGHWAY
ETHEL LAKE ROAD
ACORN ROAD
Stewart Crossing
Pelly Crossing
Francis Lake Road
MACMILLAN RANGE
KALZAS RANGE
MACMILLAN RIVER
KALZAS RIVER
MACARTHUR GROUP
Big Sheep Mountain
Little Sheep Mountain
Grey Hunter Peak
Black Ram Peak
Mount Van Bibber
Mount Sather
Hungry Mountain
Clarke Peak
Lone Mtn
Dromedary Mtn
Granite Canyon
Needle Rock
Ethel Lake
Crystal Lake
Woodburn Lake
Summit Lake
Diamain Lake
Nogold Creek
Hunter Creek
Clarke Creek
Crooked Creek
Woodburn Creek
Coast Creek
Willow Creek

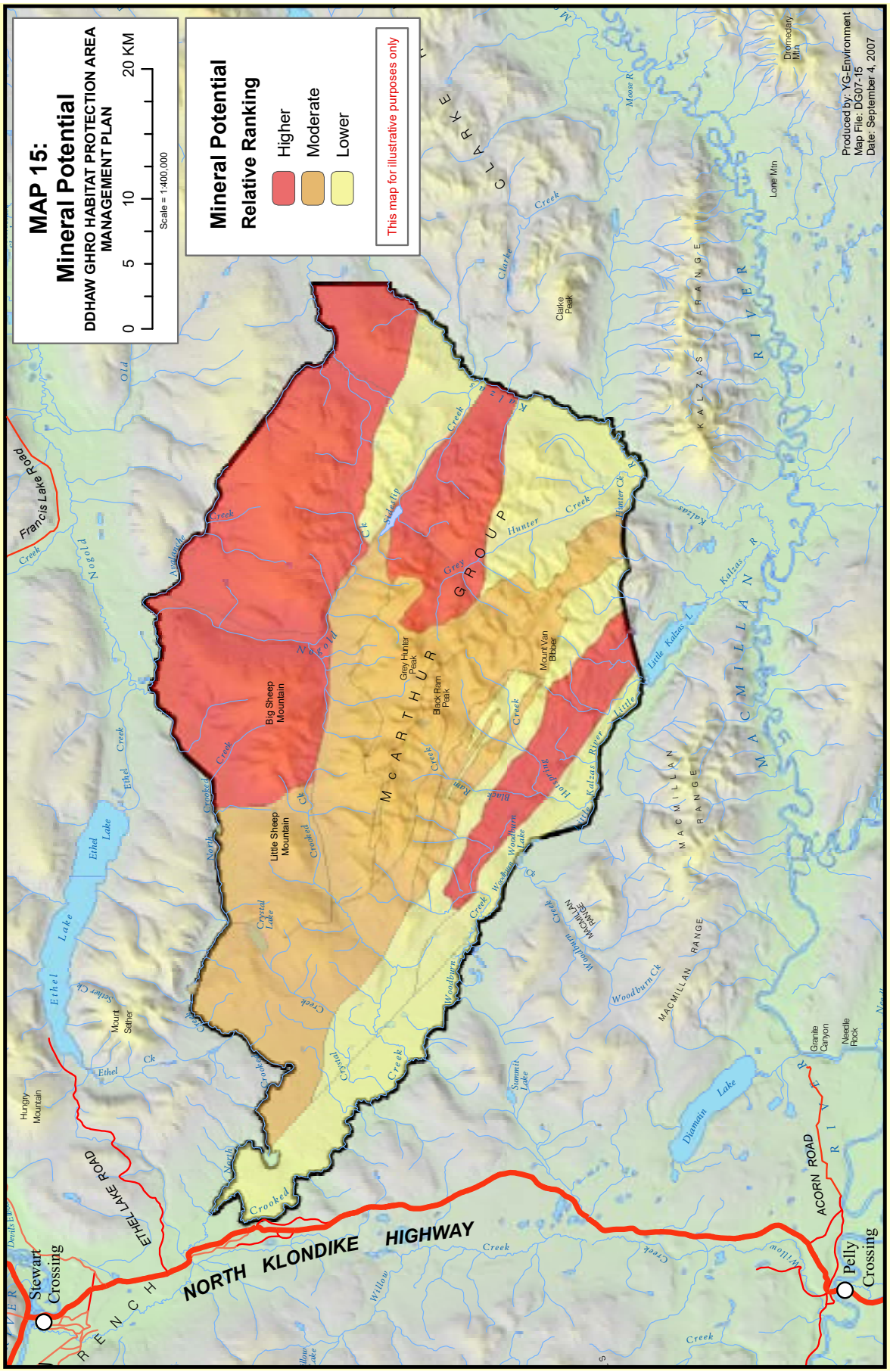

MAP 10:
Caribou Habitat Suitability
- All Seasons -
- Source: Yukon government -
DDHAW GHRO HABITAT PROTECTION AREA
MANAGEMENT PLAN
0 5 10 20 KM
Scale = 1:400,000
Habitat Suitability
Best
Modest Use
Some Use
Unsuitable
This map for illustrative purposes only
Produced by: YG-Environment
Map File: DG07-10
Date: September 4, 2007
NORTH KLONDIKE HIGHWAY
ETHEL LAKE ROAD
ACORN ROAD
Stewart Crossing
Pelly Crossing
McARTHUR GROUP
MACMILLAN RANGE
KALZAS RANGE
CLARKE RANGE
Ethel Lake
Diamain Lake
Summit Lake
Crystal Lake
Little Kalzas L.
Francis Lake Road
Big Sheep Mountain
Little Sheep Mountain
Grey Hunter Peak
Black Ram Peak
Mount Van Bibber
Mount Sether
Hungry Mountain
Clarke Peak
Lorrie Mtn
Dromedary Mtn
Granite Canyon
Needle Rock
Hoole Canyon
Nogold
Hunter Creek
Woodburn Ck
Willow Creek
Moose R.
Kalzas R.
MACMILLAN RIVER

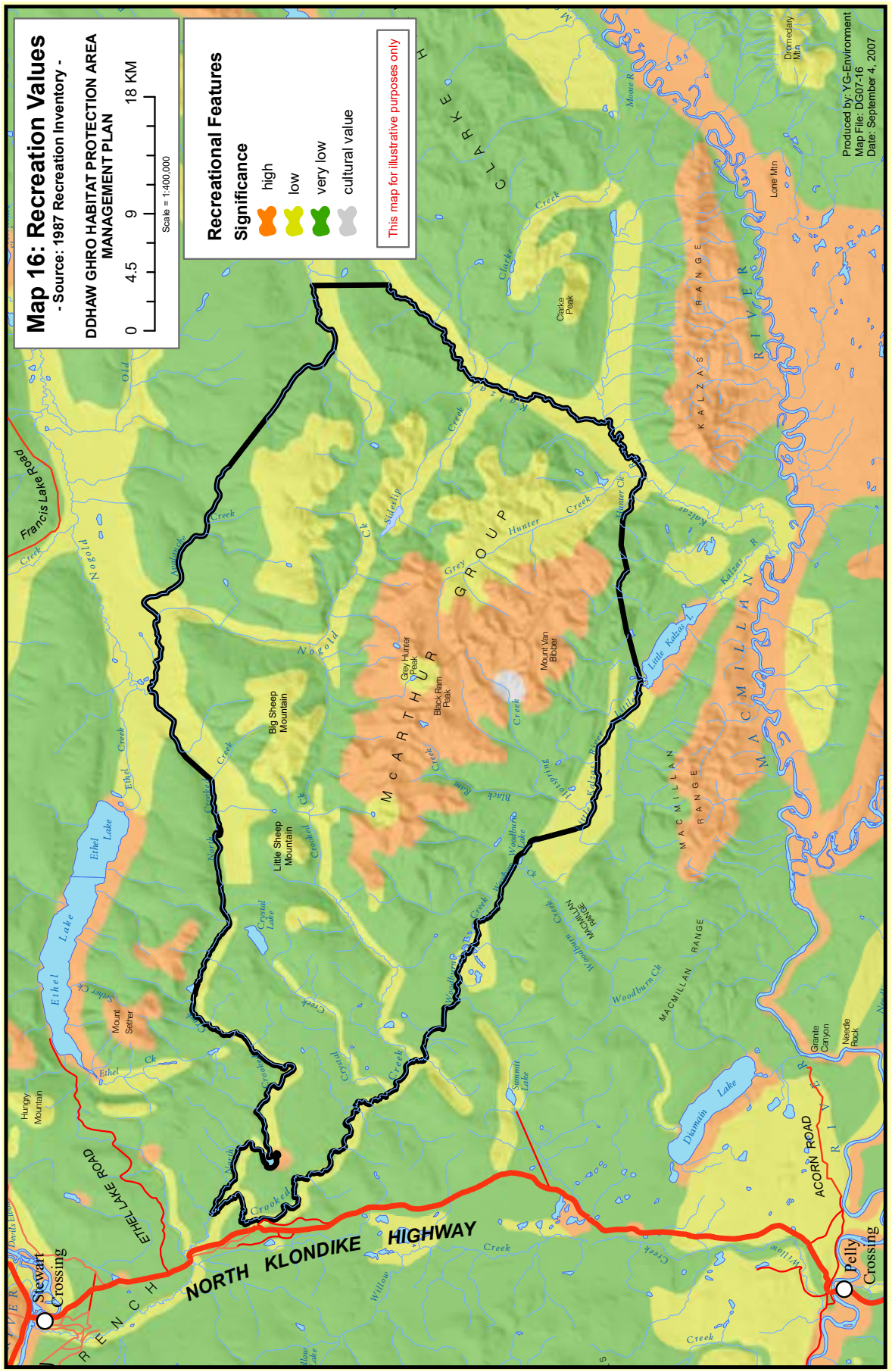

MAP 11:
Moose Habitat Suitability
- All Seasons -
Combined Elder and Biologist Values
DDHAW GHRO HABITAT PROTECTION AREA
MANAGEMENT PLAN
0 5 10 20 KM
Scale = 1:400,000
Habitat Suitability
Best
Modest Use
Some Use
Unsuitable
This map for illustrative purposes only
Produced by: YG-Environment
Map File: DG07-11
Date: September 4, 2007
NORTH KLONDIKE HIGHWAY
ETHEL LAKE ROAD
ACORN ROAD
Stewart Crossing
Pelly Crossing
MACMILLAN RANGE
KALZAS RANGE
CLARKE RANGE
MACMILLAN RIVER
KALZAS RIVER
MCARTHUR GROUP
Francis Lake Road
Ethel Lake
Mount Sather
Hungry Mountain
Big Sheep Mountain
Little Sheep Mountain
Grey Hunter Peak
Black Ram Peak
Mount Van Bibber
Clarke Peak
Lone Mtn
Dromedary Mtn
Granite Canyon
Needle Rock
Diamatin Lake
Summit Lake
Woodburn Ck
Hunter Ck
Nobold Creek
Crystal Creek
Willow Creek
Moose R

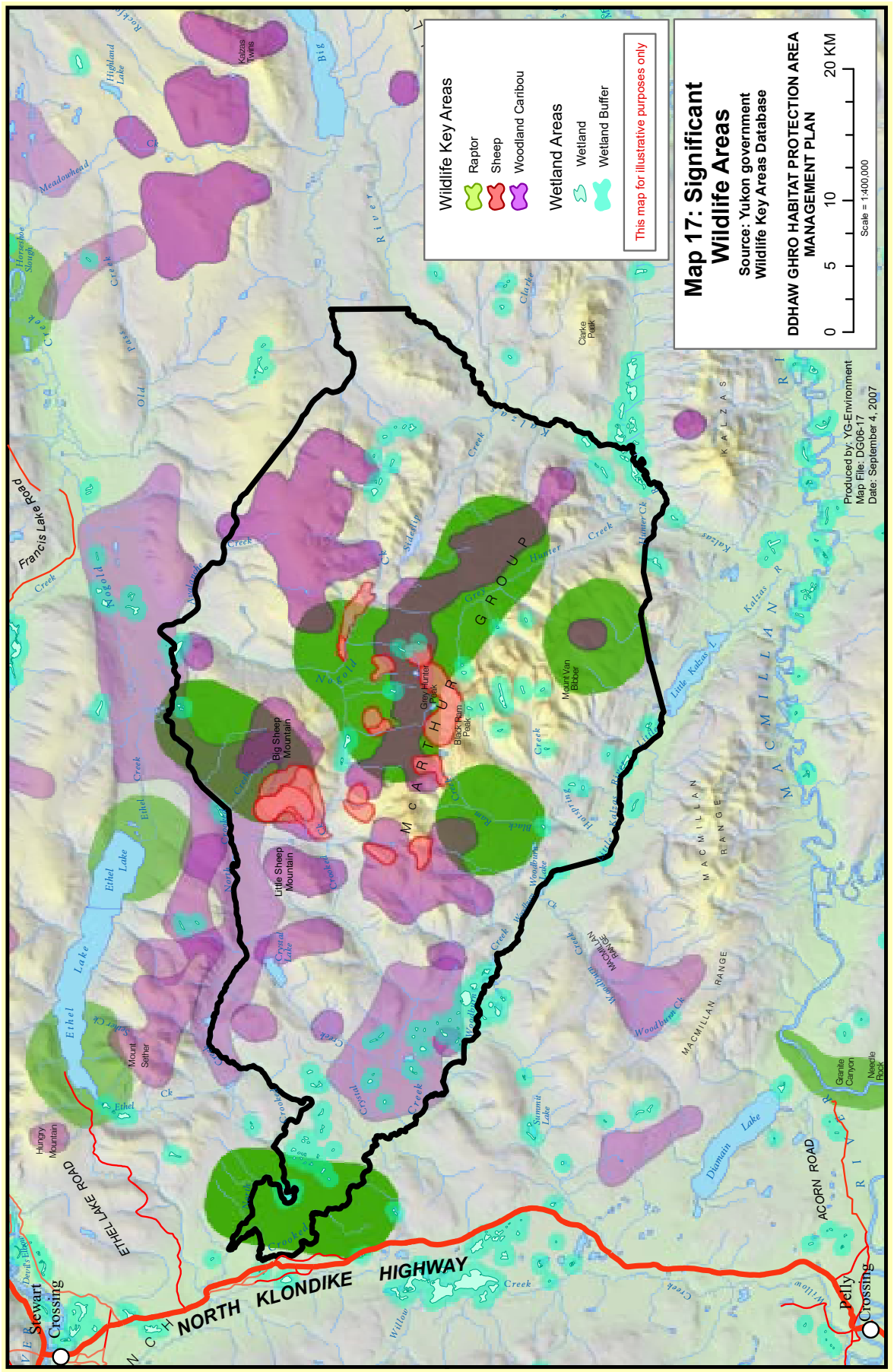

MAP 12: Grizzly and Black Bear
Habitat Suitability
- All Seasons -
- Source: Elder Consultation -
DDHAW GHRO HABITAT PROTECTION AREA
MANAGEMENT PLAN
0 5 10 20 KM
Scale = 1:400,000
Habitat Suitability
Best
Modest Use
Some Use
Unsuitable
This map for illustrative purposes only
Produced by: YG-Environment
Map File: DG07-12
Date: September 4, 2007
NORTH KLONDIKE HIGHWAY
ETHEL LAKE ROAD
ACORN ROAD
Stewart Crossing
Pelly Crossing
MACMILLAN RANGE
MACMILLAN RIVER
KALZAS RANGE
KALZAS RIVER
McARTHUR GROUP
Francis Lake Road
Ethel Lake
Mount Sether
Hungry Mountain
Big Sheep Mountain
Little Sheep Mountain
Grey Hunter Peak
Black Ram Peak
Mount Van Bibber
Clarke Peak
Lone Mtn
Dromedary Mtn
Granite Canyon
Needle Rock
Summit Lake
Diamain Lake
Crystal Lake
Woodburn Ck
Nogold Creek
Hunter Creek
Little Kalzas R
Monte R

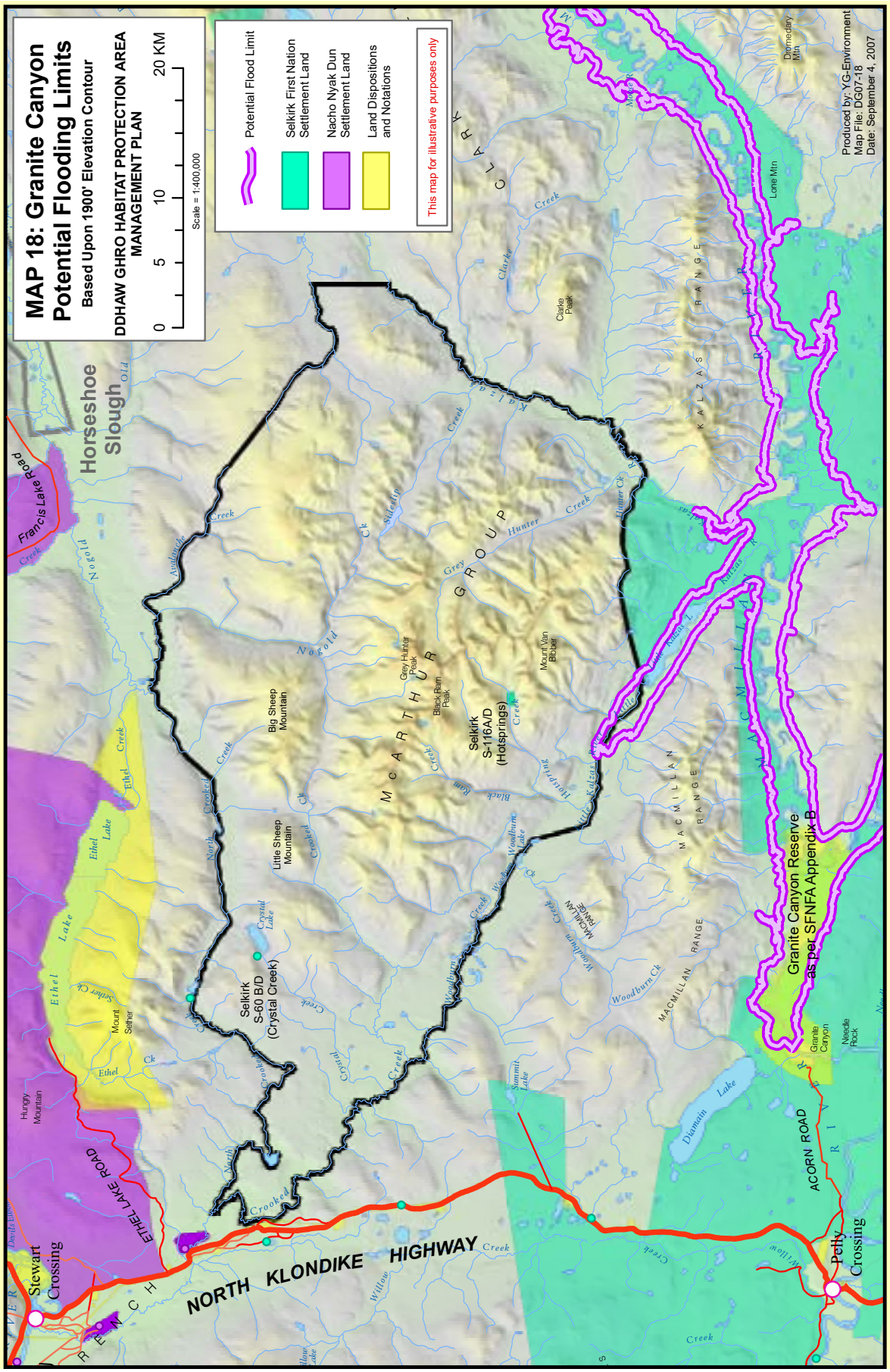

MAP 13: Key Raptor Areas
Source: Yukon government
Key Wildlife Areas Database
DDHAW GHRO HABITAT PROTECTION AREA
MANAGEMENT PLAN
0 5 10 20 KM
Scale = 1:400,000
Raptor Nesting
This map for illustrative purposes only
Produced by: YG-Environment
Map File: DG07-13
Date: September 4, 2007
McARTHUR GROUP
CLARKE HILL
KALZAS RIVER
MACMILLAN RANGE
Big Sheep Mountain
Little Sheep Mountain
Grey Hunter Peak
Black Ram Peak
Mount Van Bibber
Clarke Peak
Lone Mtn
Dromedary Mtn
Francis Lake Road
ETHEL LAKE ROAD
NORTH KLONDIKE HIGHWAY
ACORN ROAD
Stewart Crossing
Pelly Crossing
Ethel Lake
Crystal Lake
Woodburn Lake
Summit Lake
Diamain Lake
Mount Sether
Hungry Mountain
Granite Canyon
Needle Rock

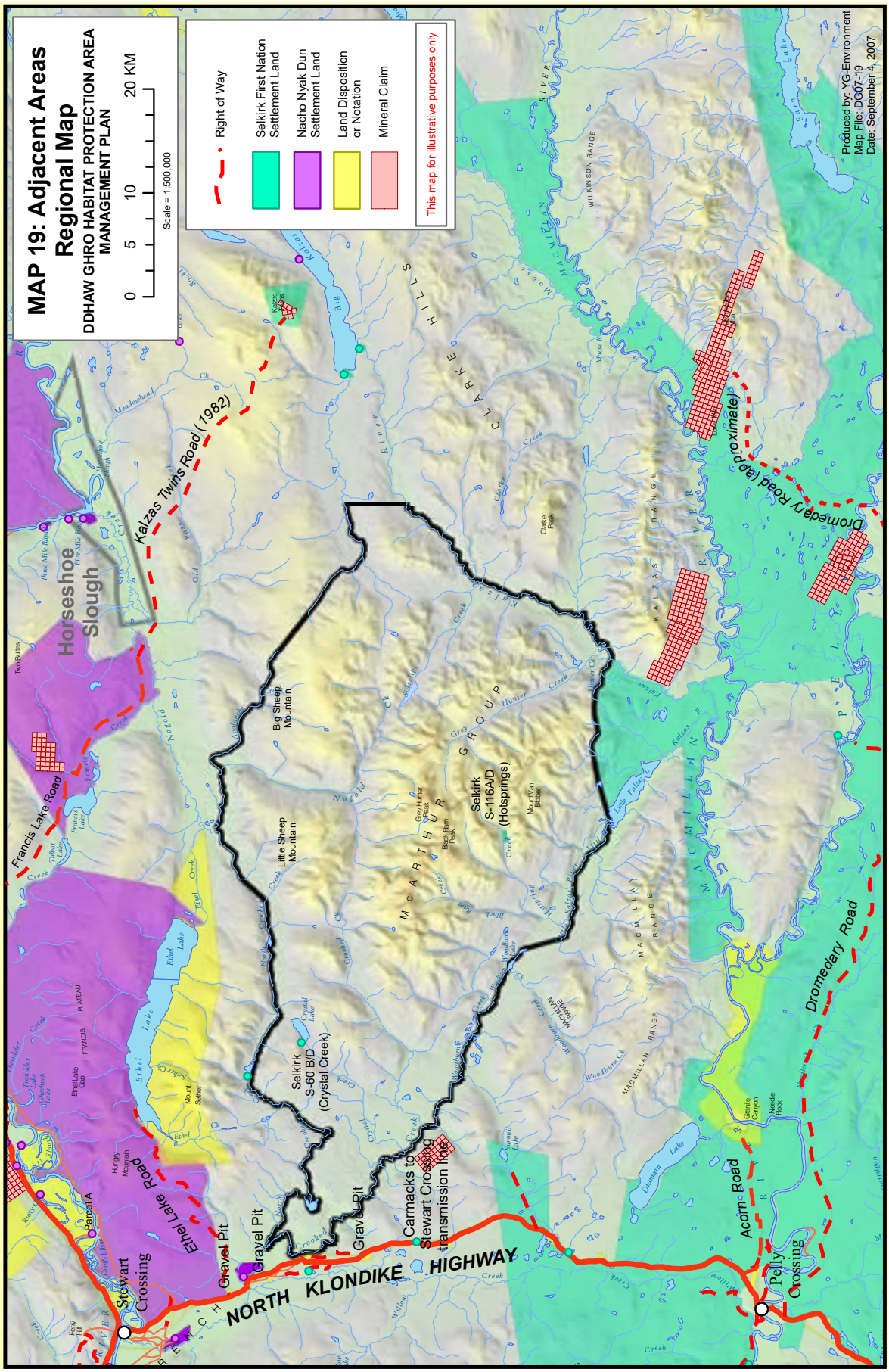

MAP 14: Salmon Habitat
DDHAW GHRO HABITAT PROTECTION AREA
MANAGEMENT PLAN
0 5 10 20 KM
Scale = 1:400,000
DOCUMENTED SALMON HABITAT*
Suspected Salmon Spawning and Rearing
Confirmed Salmon Spawning and Rearing
* Salmon habitat based upon limited knowledge available at the time of publication.
This map for illustrative purposes only
Produced by: YG-Environment
Map File: DG07-14
Date: September 4, 2007
NORTH KLONDIKE HIGHWAY
ETHEL LAKE ROAD
ACORN ROAD
Stewart Crossing
Pelly Crossing
MACMILLAN RANGE
KALZAS RANGE
MCARTHUR GROUP
Big Sheep Mountain
Little Sheep Mountain
Grey Hunter Peak
Black Ram Peak
Mount Van Bibber
Clarke Peak
Lone Mtn
Domedaisy Mtn
Granite Canyon
Needle Rock
Mount Selher
Hungry Mountain
Ethel Lake
Crystal Lake
Woodburn Lake
Summit Lake
Diamain Lake
Francis Lake Road


MAP 15:
Mineral Potential
DDHAW GHRO HABITAT PROTECTION AREA
MANAGEMENT PLAN
0 5 10 20 KM
Scale = 1:400,000
Mineral Potential
Relative Ranking
Higher
Moderate
Lower
This map for illustrative purposes only
Produced by: YG-Environment
Map File: DG07-15
Date: September 4, 2007
NORTH KLONDIKE HIGHWAY
ETHEL LAKE ROAD
ACORN ROAD
Stewart Crossing
Pelly Crossing
MACMILLAN RANGE
KALZAS RIVER
MACMILLAN RIVER
McARTHUR GROUP
Big Sheep Mountain
Little Sheep Mountain
Grey Hunter Peak
Black Ram Peak
Mount Van Bibber
Clarke Peak
Dromedary Mtn
Lone Mtn
Granite Canyon
Needle Rock
Hungry Mountain
Mount Sather
Francis Lake Road
Ethel Lake
Crystal Lake
Woodburn Lake
Summit Lake
Diamain Lake
Little Kalzas Lake
Nadaleen River
Ethel Creek
Crooked Creek
North Crooked Creek
Woodburn Creek
Hunter Creek
Grey Hunter Creek
Black Ram Creek
Hoarfrost Creek
Willow Creek
Clarke Creek
Moose R
Kalzas R
Little Kalzas River
Hunter Ck
Woodburn Ck
Nadaleen Ck
Sekelty Ck
Sather Ck
Ethel Ck
Crooked Ck
Willow Lake


Map 16: Recreation Values
- Source: 1987 Recreation Inventory -
DDHAW GHRO HABITAT PROTECTION AREA
MANAGEMENT PLAN
0 4.5 9 18 KM
Scale = 1:400,000
Recreational Features
Significance
high
low
very low
cultural value
This map for illustrative purposes only
Produced by: YG-Environment
Map File: DG07-16
Date: September 4, 2007
NORTH KLONDIKE HIGHWAY
ETHEL LAKE ROAD
ACORN ROAD
Stewart Crossing
Pelly Crossing
MACMILLAN RANGE
MACMILLAN PASS
MCARTHUR GROUP
KALZAS RANGE
KALZAS RIVER
CLARKE RANGE
Ethel Lake
Crystal Lake
Woodburn Lake
Summit Lake
Diamarin Lake
Big Sheep Mountain
Little Sheep Mountain
Mount Selther
Hungry Mountain
Grey Hunter Peak
Black Ram Peak
Mount Van Bibber
Clarke Peak
Lone Mtn
Dromedary Mtn
Granite Canyon
Needle Rock
Francis Lake Road


Map 17: Significant Wildlife Areas
Source: Yukon government
Wildlife Key Areas Database
DDHAW GHRO HABITAT PROTECTION AREA MANAGEMENT PLAN
0 5 10 20 KM
Scale = 1:400,000
Wildlife Key Areas
Raptor
Sheep
Woodland Caribou
Wetland Areas
Wetland
Wetland Buffer
This map for illustrative purposes only
Produced by: YG-Environment
Map File: DG06-17
Date: September 4, 2007
McARTHUR GROUP
MACMILLAN RANGE
KALZAS
Big Sheep Mountain
Little Sheep Mountain
Grey Hunter Peak
Black Ram Peak
Mount Van Bibber
Mount Sather
Hungry Mountain
Clarke Peak
Granite Canyon
Needle Peak
Diamain Lake
Summit Lake
Ethel Lake
Crystal Lake
Woodburn Lake
Francis Lake Road
ETHEL LAKE ROAD
NORTH KLONDIKE HIGHWAY
ACORN ROAD
Stewart Crossing
Pelly Crossing


MAP 18: Granite Canyon
Potential Flooding Limits
Based Upon 1900' Elevation Contour
DDHAW GHRO HABITAT PROTECTION AREA
MANAGEMENT PLAN
0 5 10 20 KM
Scale = 1:400,000
Potential Flood Limit
Selkirk First Nation Settlement Land
Nacho Nyak Dun Settlement Land
Land Dispositions and Notations
This map for illustrative purposes only
Produced by: YG-Environment
Map File: DG07-18
Date: September 4, 2007
Granite Canyon Reserve
as per SFNFA Appendix B
Selkirk S-116A/D (Hotsprings)
Selkirk S-60 B/D (Crystal Creek)
NORTH KLONDIKE HIGHWAY
ETHEL LAKE ROAD
ACORN ROAD
Stewart Crossing
Pelly Crossing
Horseshoe Slough
Francis Lake Road
Big Sheep Mountain
Little Sheep Mountain
Mount Sether
Hungry Mountain
Mount Van Bibber
Grey Hunter Peak
Black Ram Peak
Clarke Peak
Lone Mtn
Dromedary Mtn
Granite Canyon
Needle Rock
Summit Lake
Diamain Lake
Ethel Lake
Crystal Lake
Woodburn Lake
Nogold Creek
Crooked Creek
Ethel Creek
Sether Ck
Woodburn Ck
Hunter Ck
Grey Hunter Creek
Clarke Creek
Willow Creek
Avalanche Creek
Sidestrip Ck
Black Ram Creek
Little Kalzas R
Kalzas R
Kalzas Lake
Nisutlin R
Pelly R
MACMILLAN RANGE
MACMILLAN PASS
MACARTHUR GROUP
KALZAS RANGE
CLARK RANGE


MAP 19: Adjacent Areas
Regional Map
DDHAW GHRO HABITAT PROTECTION AREA
MANAGEMENT PLAN
0 5 10 20 KM
Scale = 1:500,000
Right of Way
Selkirk First Nation Settlement Land
Nacho Nyak Dun Settlement Land
Land Disposition or Notation
Mineral Claim
This map for illustrative purposes only
Produced by: YG-Environment
Map File: DG07-19
Date: September 4, 2007
Kalzas Twiths Road (1982)
Dromedary Road (approximate)
Francis Lake Road
Ethel Lake Road
Horseshoe Slough
Big Sheep Mountain
Little Sheep Mountain
Selkirk S-60 B/D (Crystal Creek)
Selkirk S-116A/D (Holsprings)
Carmacks to Stewart Crossing transmission line
Gravel Pit
Gravel Pit
Gravel Pit
Parcel A
Stewart Crossing
Pelly Crossing
Acorn Road
Dromedary Road
NORTH KLONDIKE HIGHWAY
CLARKE HILLS
WILKINSON RANGE
MACMILLAN RANGE
MACARTHUR GROUP
KALZAS RIVER
PELLY RIVER
YUKON RIVER

Selkirk First Nation

NA-CHO NYAK DUN

Yukon