



Regional Assessment of Wildlife in the Yukon Southern Lakes Area

Volume 1: Context and Recommendations



Regional Assessment of Wildlife in the Yukon Southern Lakes Area

Volume 1: Context and Recommendations



Prepared by:
Southern Lakes Wildlife Coordinating Committee

Regional Assessment of Wildlife in the Yukon Southern Lakes Area

Volume 1: Context and Recommendations

Acknowledgements

The *Regional Assessment of Wildlife in the Southern Lakes Area* was developed by the Southern Lakes Wildlife Coordinating Committee (Appendix A, Volume 1). The Committee acknowledges the support of Michelle Sicotte, Shawn Taylor, Tami Hamilton, and Joella Hogan.

Volume 1 was drafted primarily by Brian Pelchat and Thomas Jung, with contributions and reviews by committee members, Michelle Sicotte, Tami Hamilton, Heather Clarke, and Shawn Taylor. Adam Roth provided the maps.

Status assessments for Volume 2 were compiled by Rosa Brown, Frank Doyle, Rob Florkiewicz, Jim Hawkings, Michelle Henley, Scott Herron, Manfred Hoefs, Maria Leung, Wendy Nixon, Graham Pelchat, Ben Schonewille, Dave Sembsmoen, Mike Settingington, Michelle Sicotte, Pam Sinclair, Brian Slough, and Shawn Taylor. Committee members and staff from the governments reviewed drafts. Michelle Sicotte and Teresa Earle compiled the document.

Several committee meetings were facilitated by Lindsay Staples, Norm McLean, Doug Clarke, Kelly Milner, and Betsy Jackson. Nancy Campbell and Dennis Senger provided communications support. Teresa Earle edited the documents. Staff members from the governments shared technical information, provided feedback on the assessment, participated in meetings, and assisted with logistics.

The Committee would like to thank the people from the Southern Lakes area who attended meetings and participated in the development of the regional wildlife assessment. In particular, Elders respectfully passed on traditional knowledge on the wildlife of the region, and guidance on how the area should be managed.

Disclaimer

This report describes the results of work by the Southern Lakes Wildlife Coordinating Committee. The Southern Lakes Wildlife Coordinating Committee recommendations shall not create any commitments or obligations that are legally binding or create or affect any legal rights of the Parties. Without limiting the generality of the foregoing these recommendations shall not create, affect, define or interpret any roles, responsibilities, rights, or interests under the First Nation Final or Self-Government Agreements.

Plain language interpretations of First Nation Final Agreement provisions are intended to assist the reader. However, for greater certainty First Nation Final Agreement language prevails.

Copies available from:

Yukon Department of Environment
Fish and Wildlife Branch, V-5A
Box 2703, Whitehorse, Yukon Y1A 2C6
Phone (867) 667-5721, Fax (867) 393-6263
E-mail: environmentyukon@gov.yk.ca

Also available online at www.southernlakeswildlife.ca

Cover photos by Government of Yukon (caribou, swans) and Mark Connor (wood frog)

Suggested citation:

Southern Lakes Wildlife Coordinating Committee. 2012. Regional Assessment of Wildlife in the Yukon Southern Lakes Region: Volume 1: Context and Recommendations. Environment Yukon, Whitehorse, Yukon 76 pp.

Executive Summary

For generations, First Nations people have lived along the lakes and rivers of the Southern Lakes. They welcomed other First Nations from far away and assisted many early explorers and prospectors. First Nations people hunted moose in the valleys, sheep and goats in the high alpine, trapped fox, mink, lynx, marten, coyote and wolf, and fished the lakes and rivers for grayling, trout and pike. Many plants, game birds, and smaller mammals were heavily relied upon for subsistence. People met along the big rivers to feast, celebrate, visit and trade. Many changes have effected the land and its wildlife since the Klondike Gold Rush, more than 110 years ago. Today the Southern Lakes area is closed to licensed caribou hunting, and sheep and moose are on limited entry hunts. Harvested wildlife populations are a fraction of pre-Gold Rush numbers, and numerous attempts to recover these populations, involving wolf control and licensed harvest restrictions, have had limited success. First Nation people in the Southern Lakes area, however, continue to maintain their values as stewards of the land and wildlife.

The Southern Lakes area has several overlapping First Nation traditional territories, resulting in a large group of parties with responsibilities for land and wildlife management in the area, including government and non-government entities. It is an area that is facing increasing land use pressures and is jurisdictionally complex.

The Southern Lakes Wildlife Coordinating Committee (the Committee) was established on April 1, 2008. Its composition, mandate and duties are set out in Schedules B and E, respectively, of Chapter 16 of the Kwanlin Dün and Carcross/Tagish First Nations' Final Agreements. Nine committee members represent government parties that have authority and responsibilities for land and wildlife management. These governments include Kwanlin Dün First Nation, Carcross/Tagish First Nations, Ta'an Kwäch'än Council, Teslin Tlingit Council, Champagne and Aishihik First Nation, Taku River Tlingit First Nation, Canada, Yukon and British Columbia. The Committee's objectives are to coordinate management of caribou, moose, sheep and other wildlife populations and their habitats in the Southern Lakes area to promote the recovery and conservation of these populations, and to coordinate the involvement of and improve communications among the governments with regard to all aspects of the recovery and management of wildlife populations and their habitats in the Southern Lakes area.

The recommendations contained in the regional wildlife assessment is the first joint effort by all governments to recover and conserve wildlife populations and their habitat in this area. The assessment compiles all relevant and current information on wildlife populations and their habitats in the area. The recommendations guide and enable the parties to coordinate their efforts in the management of wildlife and habitats in the Southern Lakes area. The Southern Lakes regional wildlife assessment has two volumes:

Volume 1 (this volume) provides the context and the recommendations. It describes the Committee and its work, the Southern Lakes area, the current wildlife management regimes, and includes the Committee's recommendations. Volume 2 provides a status assessment of each species (or groups of species) and their habitats. The regional wildlife assessment and its recommendations fulfill the duties of the Committee.

The regional wildlife assessment is intended to complement existing plans for wildlife and their habitats in the area.

Preparing the regional wildlife assessment involved collaboration with the Yukon Fish and Wildlife Management Board, local Renewable Resources Councils, user and interest groups, and the public. In the early stages, the Committee developed a communication strategy to share information about its activities and progress through meetings, a website, regular newsletters, meeting minutes, briefings, and other outreach.

The main audience for the regional wildlife assessment is the parties who are responsible for wildlife and habitat management in the Southern Lakes area. Another important audience includes the Yukon Fish and Wildlife Management Board, local Renewable Resource Councils, and other bodies involved in land use planning and resource management. It is anticipated that this assessment and associated recommendations may also be of interest to non-governmental organizations and associations and academic institutions that have an interest in delivering wildlife-related programs that focus on monitoring, research, education, or outreach in the Southern Lakes area.

The recommendations in the regional wildlife assessment are separated into key and supporting recommendations. Key recommendations are those that are either paramount for the public management of wildlife, such as cooperation among the responsible parties and public education, or recurring themes for many groups of species, such as harvest and habitat management. Key recommendations are essential for effective wildlife management in the area, and the Committee respectfully requests that the responsible parties work together to implement them.

The supporting recommendations are specific to each species or group of species, and number over 80. These recommendations are intended to guide the parties when setting management priorities or addressing issues for specific species, such as moose or furbearers. The supporting recommendations may also serve as guidance to others interested in benefiting wildlife in the region.

The Committee encourages the senior-level managers of the responsible parties to meet on a regular basis to promote effective communication and consideration of the advancement of any of the recommendations. The regional wildlife assessment and its recommendations should be used as a guiding document for these discussions.

Table of Contents

| | |
|---|----|
| 1.0 The Southern Lakes Wildlife Coordinating Committee | 2 |
| 2.0 The Regional Wildlife Assessment..... | 3 |
| 3.0 The Southern Lakes Area | 6 |
| 3.1 Cultural Importance to First Nations..... | 7 |
| 3.2 Since the 1900s | 8 |
| 3.3 Biophysical description | 9 |
| 3.4 The Southern Lakes area today..... | 10 |
| 4.0 The Management Regime | 11 |
| 4.1 Government of Canada | 11 |
| 4.2 Government of Yukon | 13 |
| 4.3 First Nation Governments | 14 |
| 4.4 First Nations' Traditional Territory Overlap | 15 |
| 4.5 Municipal Governments | 16 |
| 4.6 Boards and Councils..... | 16 |
| 4.7 Management of Protected Species..... | 17 |
| 4.8 Management of Licensed and Subsistence Hunting | 18 |
| 4.9 Yukon/British Columbia Trans-boundary Considerations | 20 |
| 4.10 Non-Government Organizations | 21 |
| 4.11 Coordination with Existing and Future Planning | 21 |
| 4.11.1 <i>Species Plans</i> | 21 |
| 4.11.2 <i>Community-based Fish and Wildlife Workplans</i> | 22 |
| 4.11.3 <i>Forest Management Plans</i> | 23 |
| 4.11.4 <i>Local Area Plans</i> | 23 |
| 4.11.4 <i>Plans in Preparation</i> | 23 |
| 5.0 The Recommendations | 24 |
| 5.1 Key Recommendations | 25 |
| 5.2 Supporting Recommendations | 27 |
| Appendix A. Southern Lakes Wildlife Coordinating Committee members | 65 |
| Appendix B: List of species considered in the assessment..... | 66 |
| Appendix C. Legally protected species in the Southern Lakes area..... | 72 |
| Appendix D. Maps..... | 74 |
| Figure 1. Overview map of the Yukon Southern Lakes area. | |
| Figure 2. Map of First Nation traditional territories and settlement lands in the Yukon Southern Lakes area. | |

1.0 The Southern Lakes Wildlife Coordinating Committee

The Southern Lakes Wildlife Coordinating Committee (the Committee) was established on April 1, 2008. Its composition, mandate and duties are set out in Schedules B and E, respectively, of Chapter 16 of the Kwanlin Dün and Carcross/Tagish First Nations' Final Agreements.

Nine committee members represent government parties that have authority and responsibilities for land and wildlife management. These governments include Kwanlin Dün First Nation, Carcross/Tagish First Nation, Ta'an Kwäch'än Council, Teslin Tlingit Council, Champagne and Aishihik First Nations, Taku River Tlingit First Nation, Canada, Yukon and British Columbia. Members of the committee are listed in Appendix A.

Mandate

The Committee's objectives are:

1. To coordinate management of caribou, moose, sheep and other wildlife populations and their habitats in the Southern Lakes area to promote the recovery and conservation of these populations, with consideration for the future subsistence needs of the First Nations in the Southern Lakes area, as well as the future needs of other users, both consumptive and non-consumptive; and
2. To coordinate the involvement of and improve communications among the First Nations, governments of Yukon, Canada, British Columbia, and others with regard to all aspects of the recovery and management of caribou, moose, sheep and other wildlife populations and their habitats in the Southern Lakes area.

The Committee's duties are:

1. To make recommendations to the parties on any matters affecting caribou, moose, sheep and other wildlife and their habitat, including recommendations concerning legislation, policies, and programs; and
2. To prepare and submit a regional wildlife assessment taking into account past and present status of wildlife populations and habitats, harvest, subsistence needs, existing regulations, programs, policies and plans, and scientific, traditional and local knowledge.

2.0 The Regional Wildlife Assessment

The Southern Lakes regional wildlife assessment and recommendations is the first joint effort by all governments (Canada, Yukon, British Columbia and First Nations) to recover and conserve wildlife populations and their habitat in this area. The authority, structures and objectives of First Nation final and self-government agreements made this collaboration possible.

Governance in the Southern Lakes area is complex, with governing parties in the Yukon, boards and councils with wildlife responsibilities, and transboundary management with British Columbia and the Taku River Tlingit First Nation. Open communication, shared goals and cooperation will be needed to effectively manage wildlife and their habitats. This is the purpose of the Southern Lakes regional wildlife assessment and recommendations.

Scope

The most comprehensive assessment of wildlife knowledge and concerns to date, the assessment compiles all relevant and current information on wildlife populations and their habitats in the area. See Appendix B for a list of species considered in the assessment. The responsible parties, Yukon Fish and Wildlife Management Board, Renewable Resources Councils and the public provided extensive input. The recommendations guide and enable the parties to coordinate their efforts in the public management of wildlife and habitats in the Southern Lakes area.

The Southern Lakes regional wildlife assessment has two volumes:

- Volume 1 (this volume) provides the context and the recommendations. It describes the Committee and its work, the Southern Lakes area, the current wildlife management regimes, and includes the Committee's recommendations.
- Volume 2 provides a status assessment of each species (or groups of species) and their habitats.

The regional wildlife assessment does not include fish, because they are not considered wildlife in First Nation Final Agreements. Freshwater fish are addressed through Schedule D of Chapter 16 of the Kwanlin Dün First Nation Final Agreement.

The regional wildlife assessment does not include subsistence harvest numbers, patterns, and needs as this information was not available at the time the assessment was completed. Some First Nations have established wildlife legislation and programs to monitor harvest, while others are still in the process of developing such programs. The Committee addressed the need for improved subsistence harvest management through its recommendations.

Audiences

The main audience for the regional wildlife assessment is the parties who are responsible for wildlife and habitat management in the Southern Lakes area. The federal, territorial and First Nation governments collectively have legislative powers for land use and disposition, wildlife management, and harvest management.

Another important audience is the Yukon Fish and Wildlife Management Board, local Renewable Resource Councils, the Yukon Environmental and Socio-economic Assessment Board, and other bodies involved in land use planning and resource management.

It is anticipated that this assessment and associated recommendations may also be of interest to non-governmental organizations and associations, and academic institutions that deliver wildlife-related programs that focus on monitoring, research, education or outreach in the Southern Lakes area.

Activities

Preparing a regional wildlife assessment involved collaboration with the Yukon Fish and Wildlife Management Board, Renewable Resources Councils, user and interest groups, and the public. In the early stages, the Committee developed a communication strategy to share information about its activities and progress through meetings, a website (www.southernlakeswildlife.ca), regular newsletters, meeting minutes, briefings, and other outreach.

Some urgent issues required immediate attention. For example, the Committee provided interim assessments and recommendations for caribou and moose populations and their habitats early in its mandate. The caribou assessment and recommendations presented on January 27, 2010 completed the work of Southern Lakes Caribou Recovery Committee. At the time, the federal government was working on a management plan for the Northern Mountain population of woodland caribou (which includes all Southern Lakes caribou herds) following the listing of caribou as a species of special concern under the federal *Species at Risk Act* (see 4.7 Management of Protected Species). The Committee put forward the moose assessment and recommendations on August 31, 2010.

To gather people's observations, concerns and ideas about what needs to be done to recover moose populations, public meetings were held in Teslin, Whitehorse and Carcross, a workshop was held with elders from Kwanlin Dün First Nation and Ta'an Kwäch'än Council, and meetings were held with the Carcross/Tagish Land First Nation Land Use Team, the Laberge Renewable Resources Council and the Yukon Fish and Wildlife Management Board. Following this, the Committee distributed a newsletter on what it heard in order to keep the public informed and to invite further input.

Later in its mandate, the Committee completed a comprehensive regional wildlife assessment and recommendations. The Committee consulted extensively with the public through meetings and workshops, and it reported on its findings through regular newsletters. Before it completed the final assessment and recommendations, the Committee held an Elders workshop in Carcross, interviews with Kwanlin Dün First Nation Elders, a workshop with the Yukon Fish and Wildlife Management Board and Southern Lakes Renewable Resources Councils, and two open houses in Tagish and Whitehorse. Committee members regularly consulted the organizations they represent for input.

The Southern Lakes regional wildlife assessment and its recommendations fulfill the duties of the Committee.

3.0 The Southern Lakes Area

Yukon's Southern Lakes area is a rich and diverse ecological region that has fed and supported people for centuries. Covering 24,753 km², the area is bounded by the British Columbia-Yukon border to the south, Teslin Lake to the east, and Kusawa Lake to the west (Figure 1). The northern portions encompass the Miners Range and Lake Laberge.

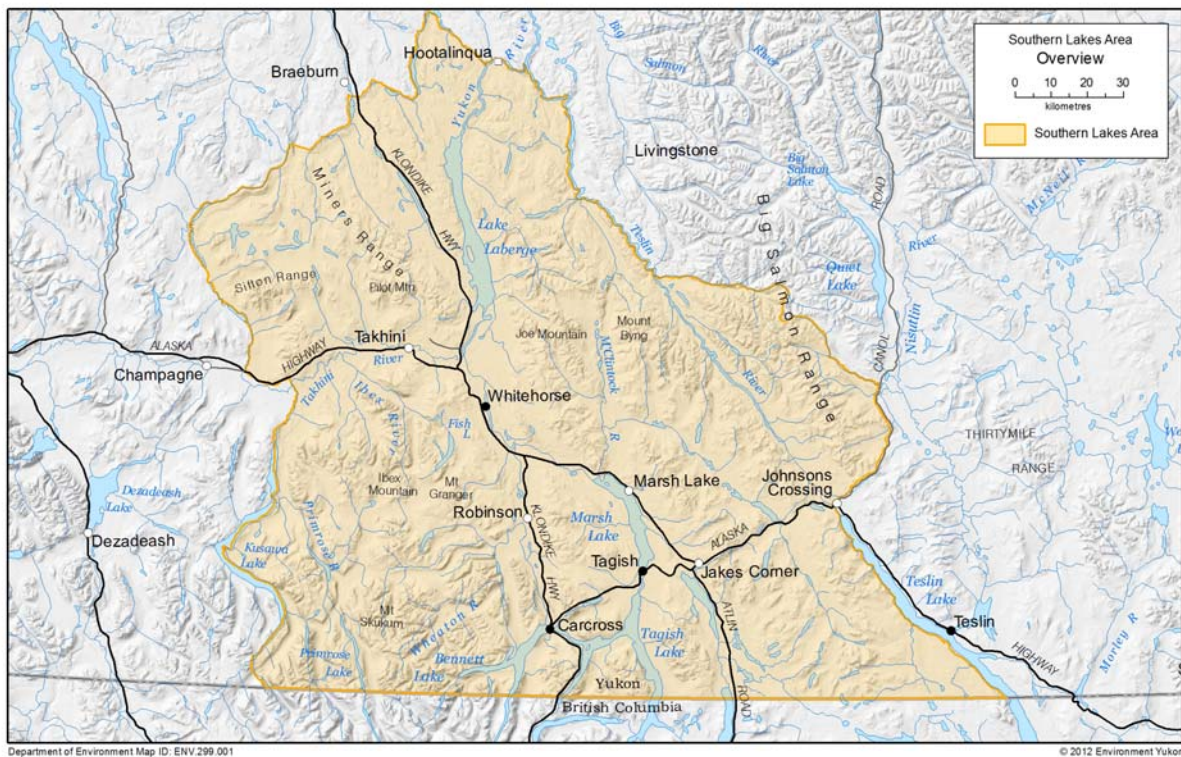


Figure 1. Overview map of the Yukon Southern Lakes area.

The area contains all of Game Management Zone (GMZ) 9, southeastern portions of GMZ 8, and the southwestern tip of GMZ 5. Outfitting Area 17 and a small portion of Outfitting Area 19 along the Teslin River are within the area. Numerous traplines are located in the Southern Lakes, including a small portion of the Teslin Group Trapping Area (See Appendix D for maps).

Kwanlin Dün First Nation, Carcross/Tagish First Nation, Ta'an Kwäch'an Council, Champagne and Aishihik First Nations, Teslin Tlingit Council, and Little Salmon/Carmacks First Nations have traditional territories in the Southern Lakes area (Figure 2). Its boundaries maintain the ecological integrity of moose and caribou populations and follow Government of Yukon's game management and survey units for these species.

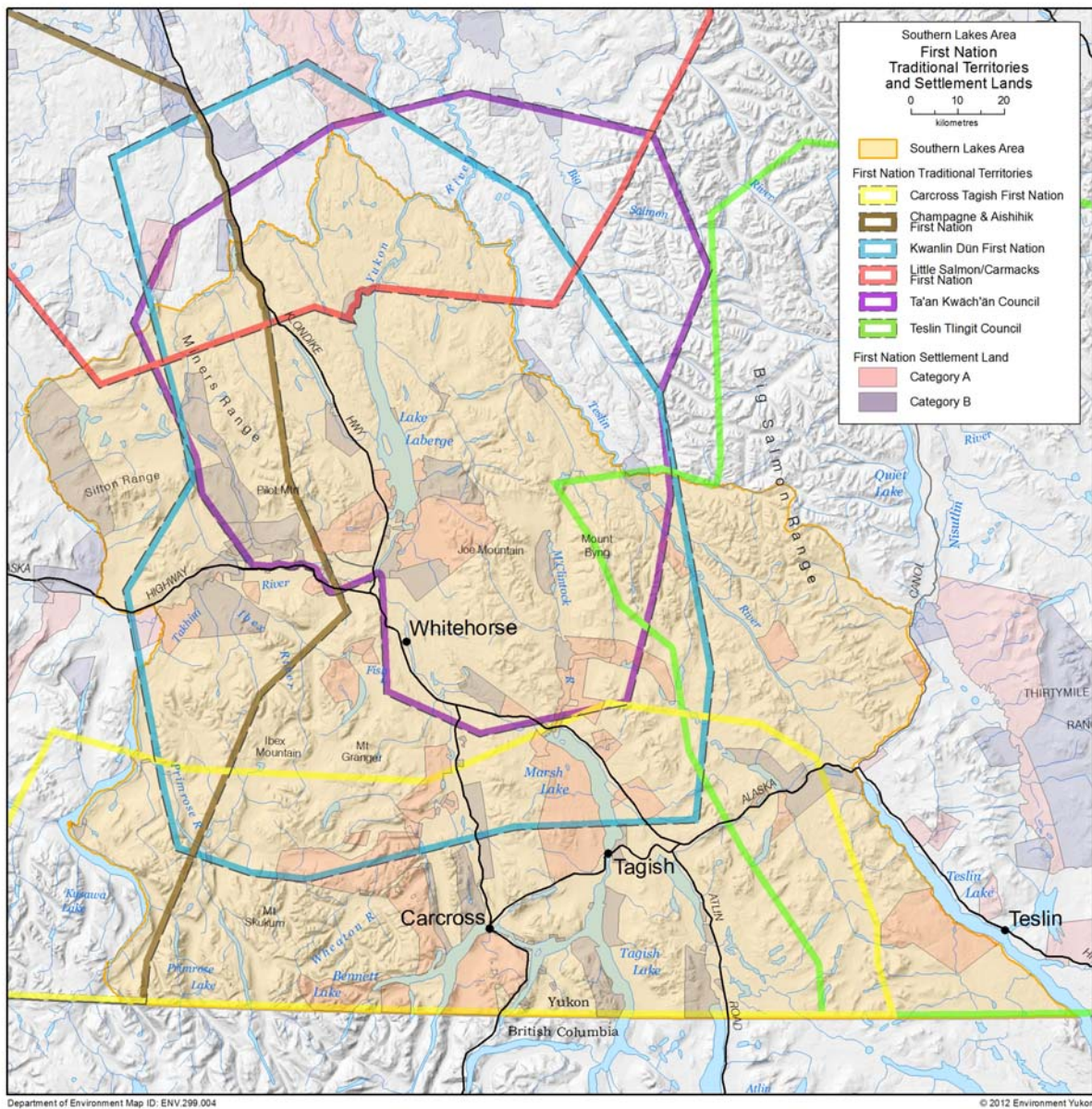


Figure 2. Map of First Nation traditional territories and settlement lands in the Yukon Southern Lakes area.

3.1 Cultural Importance to First Nations

For generations, First Nations people have lived along the lakes and rivers of the Southern Lakes. They welcomed other First Nations from far away and assisted many early explorers and prospectors. Waterways defined the maps of human settlement. In summer First Nation people traveled by raft, birch-bark and dugout canoe, and moose skin boat. They traveled by foot over a vast network of trails extending thousands of square kilometres. Some of these trails are now the Alaska and South Klondike highways.

In the fall, First Nations people hunted moose in the valleys near Teslin, Marsh, Laberge and Tagish lakes. They hunted sheep and goats in the high alpine such as Pilot Mountain, Deadman, and Montana Mountain. Southern Lakes caribou continue to be an important component of some First Nation peoples subsistence diet and cultural identity. Beyond living memory, bison were also hunted by First Nations people. In the winter, when pelts were in prime condition, First Nations people trapped fox, mink, lynx, marten, coyote and wolf. In summer, people harvested medicines made from barks, berries and roots. Small mammals like rabbit (hare), gopher, squirrel, porcupine and marmot were also key species that were harvested.

First Nations people traveled to fishing spots on lakes, creeks and rivers to harvest salmon. Other species fished throughout the year included grayling, ling cod, whitefish, pike, herring and lake trout.

People met along the Yukon, Teslin and Tagish rivers and their tributaries to feast, celebrate, visit and trade. First Nations people of the Southern Lakes conducted trade with First Nations people from different regions including the Alaskan coast, the inland Kaska and Dene, and the Han and Gwich'in in the far north. Elders tell of a time when only First Nations people lived along the lakes and rivers in the Southern Lakes. They hunted, trapped, fished and raised generations of children along the lakes and rivers. The waterways defined First Nations people.

In the 1890s missionaries, prospectors and fur traders brought towns, roads, industrial development, disease and social problems to the Southern Lakes that permanently altered the First Nations peoples way of life. The White Pass railway and the Alaska Highway also caused great changes to the way First Nations people lived. However, First Nation people in the Southern Lakes area continue to maintain their values as stewards of the land and wildlife.

3.2 Since the 1900s

The Klondike Gold Rush significantly changed the Southern Lakes area. The federal government passed the *Yukon Territorial Act* in 1898. The White Pass & Yukon Route railway opened in 1900, establishing Whitehorse and Carcross as transportation centres connected to Skagway. Gold and silver were discovered and the boomtown of Conrad was established in 1909 to service mining operations along Windy Arm and Montana Mountain. By 1902 a winter road connected Whitehorse and Dawson. The Alaska Highway was built in 1942-43, and a road linking Whitehorse and Carcross opened in the 1950s connecting to coastal Skagway by 1978.

The flood of people traveling through during the early gold rush years devastated many wildlife populations and their habitats, especially in the Southern Lakes area. The first hunting regulations came into effect during the early 1900s, but hunting seasons were long and bag limits were high. Caribou

hunting was year-round until 1947, with no bag limits until 1920. Seasons were shortened to 4 months by the 1950s with reduced bag limits (1 moose, 5 caribou). Licensing was applied to market hunting, big game guiding and fur trading by the 1920s, and trapline registration came into effect in the early 1950s.

After the Alaska Highway opened, the Yukon became a desirable destination for trophy hunting. Big game guiding became popular in the 1950s and 60s, promoted by the Government of Yukon. Wolf bounties were in effect for many years to bolster game populations, and wolf poisoning was done throughout the 1950s.

In the 1960s, Outfitting Area 18 was discontinued due to competition with resident hunters for moose, caribou and sheep. Limited entry sheep hunting was introduced in the 1970s to further reduce hunter congestion. In the 1980s the government used a wolf control program to ease pressure on overhunted moose populations. Concerns about caribou in the 1990s led to efforts to reduce hunting and recover caribou populations. The Southern Lakes Caribou Recovery Committee was established to oversee efforts by First Nations and the Government of Yukon to rebuild caribou herds and address moose conservation.

Today the Southern Lakes area is closed to licensed caribou hunting, and sheep and moose are on limited entry hunts in much of the area. Harvested wildlife populations are a fraction of pre-Gold Rush numbers, and numerous attempts to recover these populations, involving wolf control and licensed harvest restrictions, have had limited success.

3.3 Biophysical description

The Southern Lakes area lies in the Boreal Cordillera (See Appendix D for maps). This ecozone is characterized by boreal forest with strong gradients of elevation, temperature, and precipitation over short distances. Peak stream flow typically occurs in July or August due to snowfield and glacier melt. The ecozone is situated south of the permafrost zone, and ground water discharge generally occurs year-round. The cold climate ranges from sub-humid to semi-arid. Winters are long and cold while summers are short and warm.

About 73 per cent of the Southern Lakes area is forested, with plateaus, rolling hills and broad valleys occupied by lakes and rivers. Major drainages include the Takhini, Yukon, and Teslin rivers, while major lake systems include Lake Laberge, Marsh Lake, Tagish Lake, Bennett Lake, and Little Atlin Lake. The Coast Mountain Range lies to the southwest, while the Big Salmon Range is to the northeast. Mount Arsell is the highest peak in the area at 2377 metres above sea level.

Wildfires are uncommon in the Southern Lakes area. Since the 1940s, only 21 per cent of the area has been burned (See Appendix D for maps).

Vegetation is dominated by open coniferous and mixed wood forest. Medium shrubs dominate higher elevation slopes with dry dwarf shrub tundra on mountain summits. Salt flats and dry south-facing slopes are ecosystems of particularly high biodiversity in the Southern Lakes area which support many of the known species of conservation concern.

Several protected areas have been established as Special Management Areas under the Kwanlin Dün First Nation and Carcross/Tagish First Nation Final Agreements. These include Kusawa Territorial Park, Lewes Marsh Habitat Protection Area, Tagish River Habitat Protection Area, and Agay Mene Territorial Park (See Appendix D for maps).

3.4 The Southern Lakes area today

In the Southern Lakes area, many different interests compete for lands including mining, timber harvesting, wilderness recreation, and agricultural and residential developments.

Whitehorse is the largest community in the Southern Lakes area, with a population of over 26,000. The Whitehorse municipal boundary encompasses 420 km², or 1.6 per cent of the area. Ninety per cent of Yukoners live in the Southern Lakes area, and the population of this area will continue to grow. About 1,100 km of roads cover the area, including two major highways (the Klondike and Alaska highways) and several secondary roads and local access roads. The Southern Lakes area receives substantial recreational use year-round. Activities include fishing, hunting, off-road vehicle and snowmobile use, hiking, cycling, skiing, and boating. Over the past 20 years, public interest in wildlife viewing and outdoor recreation is believed to be high.

Swan Haven at M'Clintock Bay on Marsh Lake hosts a spring spectacle of returning swans and other waterbirds. The slopes of Mount White along the Atlin Road afford spectacular viewing opportunities for mountain goats. Canoeists and kayakers paddle the Takhini, Watson and Wheaton rivers all summer long, and recreational boaters travel on the lakes. Hikers, cyclists and all-terrain vehicles use backcountry trails in the summer, and skiers and snowmobiles use them in winter. New trails are built each year.

Current land-based industries include quartz and placer mining, tourism, forestry, fuelwood harvest, and agriculture. Increased development results in habitat loss, fragmentation, and disturbance to wildlife.

The Southern Lakes Wildlife Coordinating Committee intends to bring all parties together regarding their respective wildlife programs. The regional wildlife assessment and recommendations can help the responsible parties coordinate their efforts in the public management of wildlife and habitats in the Southern Lakes area.

4.0 The Management Regime

The Southern Lakes area has several overlapping First Nation traditional territories, resulting in a large group of parties with responsibilities for land and wildlife management. The federal and Yukon governments have legislation, policies and programs for land and natural resource management. As final and self-government agreements come into effect, First Nation governments are in the early stages of natural resource management. All levels of government work together on the management of natural resources. The Yukon Fish and Wildlife Management Board and four Renewable Resources Councils also have advisory responsibilities to all levels of government.

This section describes the general powers and responsibilities of all levels of government, including the Yukon Fish and Wildlife Management Board and Renewable Resources Councils, with respect to wildlife management. It also describes the management of protected species, licensed and subsistence hunting, First Nation traditional territories overlap, trans-boundary species management, and coordination with existing plans. Section 4.4 describes the provisions that are affected in overlapping areas.

4.1 Government of Canada

Environment Canada manages wildlife matters that are the responsibility of the federal government. These include the protection and management of:

- Bird species listed under the *Migratory Birds Convention Act* (1994) (MBCA);
- Species at risk pursuant to the *Species at Risk Act* (SARA);
- Nationally significant habitat on federal lands pursuant to the *Canadian Wildlife Act* (CWA) and the *Convention on Wetlands* (Ramsar, Iran, 1971) (RAMSAR); and
- The import, export and interprovincial transportation of wild species under the *Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act* (WAPPRIITA).

In addition, Environment Canada works on wildlife issues of national and international importance. Through SARA, Environment Canada provides incentive programs for wildlife and habitat stewardship.

The MBCA and its regulations protect bird species listed under the Act, their eggs, their nests, and their habitats, and regulates the hunting of migratory game birds by non-aboriginal hunters. Migratory Bird Sanctuaries can be created under the MBCA, to protect birds and their habitat.

SARA prevents wildlife species from becoming extinct, and secures the necessary actions for their recovery. The Committee on the Status of Endangered Species in Canada (COSEWIC) is a committee of experts

established under SARA that assesses and designates which wildlife species are in some danger of disappearing from Canada.

The CWA creates, manages and protects wildlife areas of national significance. National Wildlife Areas (NWAs) conserve habitat for migratory birds and other wildlife species.

The RAMSAR Convention commits the federal government to maintain the ecological character of wetlands of international significance, and to plan for the sustainable use of all wetlands.

WAPPRIITA forbids the import, export and inter-territorial/inter-provincial transportation of the following species, unless the specimens are accompanied by the appropriate documents (licenses, permits):

- Species on control lists of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES);
- Foreign species whose capture, possession, and export are prohibited or regulated by laws in their country of origin;
- Canadian species whose capture, possession, and transportation are regulated by provincial or territorial laws; and
- Species whose introduction into Canadian ecosystems could endanger Canadian species.

In all cases, the Act applies to the plant or animal, alive or dead, as well as to its parts and any derived products. CITES is an international agreement between countries to ensure that international trade in specimens of wild animals and plants does not threaten their survival.

The Federal Wetlands Policy was established in 1991 in response to the Convention on Wetlands (Ramsar, Iran, 1971). The policy provides goals, guiding principles and strategies for conserving wetlands on federal lands and those significant to Canadians. For example, Environment Canada considers Lewes Marsh/M'Clintock Bay a wetland of national significance. This area has been identified as a Habitat Protection Area pursuant to Schedule B of Chapter 10 of the Carcross/Tagish First Nation and Kwanlin Dün First Nation Final Agreements.

Wildlife species involving federal management in the Southern Lakes area include species listed under the MBCA and species listed on Schedule 1 of SARA (see 4.7 Management of Protected Species). SARA is directed towards preventing wildlife species from becoming extinct or lost from the wild, helping in the recovery of species that are at risk, and promoting stewardship. The Act prohibits the killing, harming or harassing of listed species; the damage and destruction of their residence; and the destruction of critical habitat. In the Yukon, the prohibitions apply to all Threatened, Endangered and Extirpated species listed on Schedule 1 of SARA on federal lands. On lands that are not federal lands, the prohibitions apply only to those listed species at risk that are

also bird species listed under the MBCA, and to aquatic species (under the Fisheries Act) unless an Order under SARA section 34(2) is made.

SARA plans for Peregrine Falcon, Wood Bison and Woodland Caribou are drafted and the Committee's recommendations follow these plans. SARA plans for the remaining Schedule 1 species are not yet prepared.

4.2 Government of Yukon

The Government of Yukon is responsible for public lands and management of water, forestry, wildlife and mineral resources. The *Yukon Act* (2003) gives authority to the Yukon Legislature to make laws in relation to the conservation of wildlife and its habitat, other than in a federal conservation area. In the Southern Lakes these laws apply to First Nation people and must be applied consistent with First Nation Final Agreements. There are no federal conservation areas in the Southern Lakes area. Environment Yukon manages wildlife under to the *Yukon Wildlife Act* (2002) and in accordance with First Nation Final Agreements.

The *Yukon Wildlife Act* (2002) defines "wildlife" as any vertebrate animal of any species or type that is wild by nature, and includes wildlife in captivity, but does not include fish or a species of animal prescribed by the regulations not to be wildlife. This Act provides rules for hunting and trapping, outfitting and guiding, licensing, enforcement, and habitat protection. It also gives authority to make various regulations, such as identifying specially protected wildlife, setting measures to protect those species, prescribing areas to be wildlife sanctuaries, methods of hunting and trapping, licensing and permitting conditions, and the submission of harvest information. The Act is typically amended every 10-20 years while regulations can be updated annually.

Government of Yukon continues to develop species and habitat guidelines to support wildlife and habitat management. Guidelines are not formal policy, but working guidelines are periodically reviewed and amended based on new and additional information, including local and traditional knowledge and experience.

Conservation officers follow an operational directive when responding to conflicts between wildlife and humans. The first principle is to prevent conflicts through education, awareness and safe practices. Sometimes conflicts are unavoidable. Protection of human life is the highest priority in these situations. Wild animals that have become a nuisance can sometimes be live-trapped and moved away from residential areas. When an animal acts aggressively or kills pets or livestock, it is often destroyed.

Government of Yukon administers four Special Management Areas in the Southern Lakes area in accordance with the Kwanlin Dün and Carcross/Tagish First Nations Final Agreements. Lewes Marsh and Tagish

River Habitat Protection Areas, as well as Kusawa and Agay Mene territorial parks, are awaiting management plans.

The Southern Lakes area contains portions of Outfitting Areas 17 and 19. Outfitters hunt grizzly bear, moose and caribou on quotas recommended with advice from Renewable Resources Councils and the Government of Yukon.

4.3 First Nation Governments

The Southern Lakes area encompasses much of the Kwanlin Dün, Ta'an Kwäch'än and Carcross/Tagish First Nations' traditional territories, as well as the eastern and western portions of the Champagne and Aishihik First Nations and Teslin Tlingit Council traditional territories, respectively. The traditional territory of the Taku River Tlingit First Nation extends into the Yukon, however no transboundary land claim has been settled in the Yukon.

First Nation governments are responsible for settlement lands and resource management on these lands. Additionally, First Nations have legislative powers to manage, administer and control the right or benefits, which are realized pursuant to Final Agreements, of persons enrolled under Final Agreements.

The Kwanlin Dün First Nation is currently developing a *Lands Act*. This Act will ensure that settlement land is managed in a respectful and sustainable way allowing for the protection of Kwanlin Dün culture, traditions and way of life and the rights of Kwanlin Dün beneficiaries while providing opportunities for economic development and the betterment of Kwanlin Dün citizens. Kwanlin Dün has an informal practice of not allowing non-beneficiaries to subsistence hunt in their traditional territories, while allowing licensed elk hunters access to their settlement lands.

The Carcross/Tagish First Nation is currently developing and legislating a *Lands Act*. This Act will ensure settlement land is managed within the mandate and mission of Carcross/Tagish First Nation. Carcross/Tagish First Nation is also currently developing a *Fish and Wildlife Act*, providing guidance toward managing wildlife harvest by all users.

Carcross/Tagish First Nation has initiated wholistic land use planning, providing the First Nation government and its citizens a path to fulfill their mandate and mission. The Carcross/Tagish First Nation government is mandated to protect the environment, health, education and aboriginal rights its citizens; to continue to preserve and protect its culture and traditions; to protect and develop natural resources and strengthen the economy and the government of the Carcross/Tagish First Nation for future generations.

The Ta'an Kwäch'än Council is preparing a *Land and Resources Act* that is intended to balance protection of natural resources and the rights and interests of Ta'an Kwäch'än citizens using settlement lands. The Act will

establish a Land Management Commission with the power to issue land use authorizations, enable land use and resource management plans, set rules affecting settlement lands, and monitor and enforce provisions for the Act.

The Ta'an Kwäch'än Council has no policies related to wildlife and has not signed any harvesting agreements with neighbouring First Nations. The Ta'an Kwäch'än Council has an informal practice of not allowing non-beneficiaries to subsistence hunt in their traditional territories, while allowing licensed elk hunters access to their settlement lands.

The Teslin Tlingit Council has enacted a *Fish and Wildlife Act* (1998). The Act establishes the Teslin Tlingit Renewable Resources Council and outlines its duties. It sets hunting and trapping rules for Teslin Tlingit Citizens and non-Citizens, sets trapping rules for Category 1 traplines, protects habitat, and enables licensing, permits, regulations and enforcement. Other First Nation and non-First Nation people can obtain wildlife harvest permits (as proof of consent by Teslin Tlingit Council), but these individuals must adhere to specific Teslin Tlingit Council regulations within the wildlife harvest permit. Harvest data is collected for moose and caribou using a Teslin Tlingit Council wildlife permit.

The Champagne and Aishihik First Nations has enacted a *Fish and Wildlife Act* (1998). The Act sets rules for harvesting by citizens, hunting by non-citizens, Category 1 traplines, and prohibitions and enforcement provisions. Yukon residents and Yukon First Nation people must apply in person for a consent and access license to hunt on Champagne and Aishihik First Nations settlement lands and traditional territory.

4.4 First Nations' Traditional Territory Overlap

All First Nation traditional territories in Yukon overlap to some extent with neighboring First Nations. In the Southern Lakes area this overlap is extensive. In overlapping areas many First Nation government and Renewable Resources Council powers and responsibilities are affected, including the following provisions:

- All provisions that reference Renewable Resources Councils are not in effect;
- First Nation governments cannot manage, administer, allocate or otherwise regulate the exercise of the rights of non-beneficiaries;
- First Nation governments do not have the final allocation authority on Category 1 traplines and may not align, realign or group Category 1 traplines; and
- Provisions for total allowable harvest allocations are not in effect.

Provisions suspended in overlap areas are detailed in Schedule B, Chapter 2 of First Nation Final Agreements. The suspension of these provisions profoundly limits the First Nations' abilities to manage First Nation harvesters and trapping in the areas of overlap. Many of the recommendations in the Regional Wildlife Assessment call for actions to manage and regulate harvesting, but these cannot be carried out for subsistence harvesting in overlap areas.

For example, in most of the Kwanlin Dün First Nation and Ta'an Kwäch'än Council traditional territories, total allowable harvest cannot currently be implemented. The Kwanlin Dün First Nation and Ta'an Kwäch'än Council cannot regulate subsistence harvesting by non-beneficiaries, and cannot list, manage, administer or regulate Category 1 traplines. The Laberge Renewable Resources Council has very limited jurisdiction and the Ibx Renewable Resources Council has yet to be established for these reasons.

First Nations have not yet reached agreement on resolving their overlapping claims.

4.5 Municipal Governments

The City of Whitehorse is the only municipal government in the Southern Lakes area. All other communities are unincorporated communities with elected advisory councils where the Government of Yukon has authority for subdivision, development, disposition and planning for lands.

Unincorporated communities include Carcross, Tagish, Hamlet of Ibx Valley, Hamlet of Mount Lorne, South Klondike, and Marsh Lake. The City of Whitehorse has land responsibilities including land use and community planning, development and subdivision approval, and zoning bylaws under the *Municipal Act*.

4.6 Boards and Councils

Yukon Fish and Wildlife Management Board

The Yukon Fish and Wildlife Management Board is established under Section 16.7.0 of Yukon First Nation Final Agreements as an instrument of public government for fish and wildlife management in Yukon. The board makes recommendations to the affected Minister, the affected First Nation, and Renewable Resources Council on matters related to fish and wildlife management, legislation, research, policies and programs.

Governments and First Nations are required to make information available to the board. The board has focused its efforts on territorial policies,

legislation and other measures to guide management of fish and wildlife, conserve habitats, and enhance the renewable resource economy.

Renewable Resources Councils

Renewable Resources Councils are established in each First Nation's traditional territory under Section 16.6.0 of Yukon First Nation Final Agreements as an instrument of public government for local renewable resource management. Renewable Resources Councils make recommendations to governments, the Yukon Fish and Wildlife Management Board, and the Yukon Salmon Sub-Committee on matters related to the conservation of fish and wildlife and forest resource management. Governments are required to make information available to Renewable Resources Councils.

Once legislative amendments to the *Yukon Wildlife Act* (2002) are made, Renewable Resources Councils may establish bylaws under the Act for the management of furbearers. Renewable Resources Councils do not have powers in areas where traditional territories overlap until overlapping claims are resolved according to Schedule B of Chapter 2 of First Nation Final Agreements.

The following Renewable Resources Councils have been established:

- Carcross/Tagish Renewable Resources Council in the non-overlapping portions of the Carcross/Tagish First Nation traditional territory;
- Laberge Renewable Resources Council in the non-overlapping portions of the Ta'an Kwäch'än Council traditional territory, which is minor;
- Teslin Renewable Resources Council in the non-overlapping portions of the Teslin Tlingit Council traditional territory; and
- Alesk Renewable Resources Council in the non-overlapping portions of the Champagne and Aishihik First Nations traditional territory.

The Ibex Renewable Resources Council for the Kwanlin Dün First Nation traditional territory has not yet been established.

4.7 Management of Protected Species

Federal, Yukon and First Nation governments have a history of cooperation on species at risk. In 1996, wildlife ministers in Canada agreed in principle to an Accord for the Protection of Species at Risk. Under the Accord, governments recognize that intergovernmental cooperation is crucial to the conservation and protection of species at risk, that governments must play a leadership role, and that complementary federal and provincial/territorial legislation, regulations, policies and programs are essential to protecting species at risk.

The Canadian Endangered Species Conservation Council (CESCC) was formed in 1998 by federal, provincial and territorial wildlife ministers. The Council oversees the listing and recovery of species that are at risk nationally, and plays a role in resolving issues under the Accord. Species assessments are made by COSEWIC and forwarded to CESCC along with a rationale for each designation.

COSEWIC determines the national status of wild Canadian species, subspecies and varieties that are suspected of being at risk of extinction or extirpation. COSEWIC includes a subcommittee that focuses on aboriginal traditional knowledge in status assessments. All native mammals, birds, reptiles, amphibians, fish, arthropods, molluscs, vascular plants, mosses and lichens are included in COSEWIC's current mandate.

SARA provides legal protection for wildlife species and the conservation of their biological diversity. SARA provides the means for governments, organizations and individuals to work together to ensure the protection and recovery of species, implements a species assessment process to list species requiring protection, and provides sanctions for offences. The federal Species at Risk program currently funds capacity building and recovery planning for listed species through the Aboriginal Funds for Species at Risk. The parties to the Committee have been involved in recovery planning for Northern Mountain population of Boreal caribou and for Baikal Sedge.

Government of Yukon participates through membership on CESCC and COSEWIC, and it participates, along with First Nations, in developing management and recovery plans for listed Yukon species. The Government of Yukon operates a Conservation Data Centre that gathers, maintains and distributes information on animals, plants and ecological communities at risk or of conservation concern in Yukon, with federal government participation. Government of Yukon has been considering species at risk legislation.

The status of legally protected species is summarized in Appendix C.

4.8 Management of Licensed and Subsistence Hunting

This section summarizes the laws affecting licensed hunters, the subsistence hunting rights of First Nation people, the powers of governments to limit subsistence hunting, and the status of subsistence harvest management. Hunting and harvest information for licensed hunters is provided in Volume 2.

Yukon Wildlife Act

Each year the Government of Yukon considers changes to regulations under the *Yukon Wildlife Act* (2002) in response to public or management concerns. Governments, Renewable Resources Councils, special interest groups and individual citizens can all propose changes to regulations. The Yukon Fish and

Wildlife Management Board presents proposed changes to the public each fall. Once public consultation is complete, the Board reviews all information and provides recommendations to the Minister of Environment. As provided by First Nation Final Agreements, the Minister accepts, varies or sets aside the Board's recommendations. Any accepted or varied recommendations become new regulations.

Migratory Game Birds

Environment Canada reviews hunting regulations for migratory game birds annually. As part of this process, Environment Canada produces three reports each year. Organizations and individuals with an interest in migratory game bird conservation can review these reports and provide input on hunting regulations. If any changes affect hunting in Yukon, Environment Canada reviews the proposals with the Yukon Fish and Wildlife Management Board. In turn, the Board makes recommendations to the federal Minister.

The first report, Population Status of Migratory Game Birds in Canada (commonly called the November report), contains population and other biological information on migratory game birds, and thus provides the scientific basis for management. The second report, Proposals to Amend the Canadian Migratory Birds Regulations (the December report), outlines the proposed changes to the annual hunting regulations, as well as other proposed amendments to the Migratory Birds Regulations. The third report, Migratory Birds Regulations in Canada (the July report), summarizes the hunting regulations for the upcoming hunting season.

Conservation

Under Section 16.3.0 of First Nation Final Agreements, the management and harvesting of fish and wildlife and their habitats is governed by the principle of conservation. This provides for regulation of users to ensure the quality, diversity and long-term productivity of fish and wildlife populations, with the primary goal of ensuring a sustainable harvest. Harvesting rights are also subject to limitations for conservation, public health, and public safety as well as limitations imposed directly by First Nation authorities. Any limitations in legislation must be consistent with Final Agreements, reasonably required to achieve those purposes and may only limit those rights necessary to achieve those purposes. The harvesting of wildlife by Yukon First Nation citizens is subject to the laws of general application as specified by their Final Agreements.

Subsistence Hunting

First Nation beneficiaries have the right to harvest for subsistence all species of wildlife for themselves and their families in all seasons and in any number on settlement and crown lands within their traditional territory pursuant to Section 16.4.0 of their Final Agreements. First Nation people have the right to employ traditional and current methods of hunting, and can hunt within the traditional territory of another Yukon First Nation with that First Nation's permission.

First Nation people have the right to give, trade, barter or sell among themselves, and with beneficiaries of trans-boundary adjacent agreements in Canada, all edible wildlife products harvested by them for subsistence purposes. First Nation people have the right to give, trade, barter or sell to any person any non-edible by-product of fish and wildlife that is obtained from the harvesting of furbearers or incidental to subsistence harvesting. Non-edible by-product means the fur, hide, skin, antlers, horns, skeleton or other portions of fish or wildlife not used for food but used for other purposes such as clothing, medicine, domestic or personal decoration, or art.

First Nation governments have the power to manage and administer the rights or benefits of citizens which are realized pursuant to its final agreement, and the power to enact laws necessary to enable the First Nation to fulfill its responsibilities under its final agreement, pursuant to Section 3.0 of their self-government agreements. Accordingly, First Nations have the power to regulate subsistence hunting in their traditional territories subject to the Final Agreements.

The federal and Yukon governments also have the power to impose a legislative limitation on subsistence hunting for the purpose of conservation, public health or public safety, but must consult with the affected First Nation before imposing the limitation. Currently, no conservation limitations have been imposed or considered for subsistence hunting in the Southern Lakes area by the Yukon or First Nation governments.

4.9 Yukon/British Columbia Trans-boundary Considerations

The British Columbia/Yukon border is the southern boundary of the Southern Lakes area. Yukon and British Columbia governments have a long history of trans-boundary teamwork on wildlife surveys and management. The two jurisdictions differ with respect to caribou harvest management for transboundary herds.

Southern Lakes caribou have been under a management regime for over 15 years to promote population growth with season closures for licensed hunters. Yukon First Nations have imposed a voluntary hunting ban and patrol key hunting areas to promote this ban. However, promoting the subsistence hunting ban is increasingly difficult as caribou populations grow.

In British Columbia, Southern Lakes caribou are managed with a bull-only licensed harvest to allow harvest opportunities consistent with caribou recovery objectives, with allocations to resident and non-resident hunters. The British Columbia management regime was recently changed to take into account the subsistence harvest of the Taku River Tlingit, with a reduction of licensed harvest opportunities in the Atlin Herd.

4.10 Non-Government Organizations

Various non-governmental organizations and associations, and academic institutions deliver wildlife-related projects or programs in the Southern Lakes. These programs benefit many of the wildlife species addressed in the Regional Wildlife Assessment. For example, the Wildlife Conservation Society completed a Strategic Conservation Assessment for the Northern Boreal Mountains of Yukon and British Columbia, and conducts research projects on wildlife in the area; the Yukon Fish and Game Association, Yukon Conservation Society, and the Yukon Bird Club are all active in providing outreach and education related to wildlife; and, Yukon College, Society of Yukon Bird Observatories, and Ducks Unlimited have active wildlife monitoring programs in the area. The assessment is intended to provide additional guidance to complement new and ongoing work by non-governmental organizations in the area.

4.11 Coordination with Existing and Future Planning

A number of plans are currently in effect for fish and wildlife, protected species and forest management in the Southern Lakes area. Further, Clause 16.3.15 of First Nation Final Agreements requires the parties to avoid duplication in the public management of fish and wildlife. The regional wildlife assessment is intended to complement existing plans.

4.11.1 Species Plans

Caribou recovery planning has been in place for many years. The previous Southern Lakes Caribou Recovery Committee produced the Southern Lakes Caribou Recovery Plan over 10 years ago. The SARA-mandated *Management Plan for the Northern Mountain Population of Woodland Caribou (Rangifer tarandus caribou) in Canada* was being drafted in 2009 when the Committee was developing its caribou recommendations. Committee members participated in the drafting of the federal SARA plan. The Committee's caribou recommendations are intended to replace the Southern Lakes Caribou Recovery Plan, and are consistent with the federal SARA plan.

The *Yukon Wolf Conservation and Management Plan* (2012) has guided wolf management since 1992. This plan was reviewed and updated by the Yukon Fish and Wildlife Management Board and the Government of Yukon in

2011/2012. The plan sets out goals and objectives to conserve wolf populations, manage harvests, and integrate wolf and ungulate management goals. The Regional Wildlife Assessment and recommendations are consistent with the *Yukon Wolf Conservation and Management Plan*.

Wood bison are a transplanted species in the Yukon, and their management is part of a national recovery effort. Management in Yukon is coordinated through the Wood Bison Management Committee with advice from a Technical Team. A draft *Management Plan for the Aishihik Wood Bison (Bison bison athabasca) Herd in the Southwest Yukon* (2011) has been prepared. The Regional Wildlife Assessment recommends following this plan.

Elk are a transplanted species, with the first transplants occurring in the 1950s. Elk were transplanted to provide a diversity of big game species to hunt in the area. The Elk Management Committee includes representation from Government of Yukon and four First Nations whose traditional territories encompass the elk management area. A technical team provides advice and recommendations to the committee. Elk are managed according to the *Management Plan for Elk (Cervus elaphus) in the Yukon* (2008) that was prepared with considerable public consultation. The Committee's elk recommendations are consistent with the elk plan.

Many existing bird conservation plans apply to this area, including: waterfowl (North American Waterfowl Management Plan, NAWMP Plan Committee 2004), shorebirds (Canadian Shorebird Conservation Plan, Donaldson et al. 2000), landbirds (Partners in Flight North American Landbird Conservation Plan, Rich et al. 2004), and waterbirds (Wings Over Water: Canada's Waterbird Conservation Plan, Milko et al. 2003). These national plans also provide the foundation for the Bird Conservation Region (BCR) Plan for the Northwestern Interior Forest area, which extends from northern British Columbia through southern and central Yukon. The regional wildlife assessment is consistent with these broader national plans.

4.11.2 Community-based Fish and Wildlife Workplans

In some traditional territories, the Yukon and First Nation governments and Renewable Resources Councils coordinate their efforts to manage fish and wildlife on a traditional territory basis through joint fish and wildlife workplans. These workplans are updated about every 5 years.

Currently draft fish and wildlife workplans exist for the Teslin Tlingit Council, Little Salmon/Carmacks and Champagne and Aishihik traditional territories. Workplans have not been developed for the Kwanlin Dün, Ta'an Kwäch'än Council and Carcross/Tagish traditional territories. The Regional Wildlife Assessment is intended to guide the development of future fish and wildlife workplans, but not to change existing ones.

4.11.3 Forest Management Plans

The Government of Yukon is required to prepare forest management plans in each First Nation traditional territory pursuant to Chapter 17 of First Nation Final Agreements. Forest management plans have been developed for the Teslin Tlingit Council and Champagne and Aishihik traditional territories. The regional wildlife assessment is intended to provide guidance on future forest management planning regarding wildlife and habitat requirements, and not to change existing plans.

4.11.4 Local Area Plans

Local area plans have been developed for several portions of the Southern Lakes area, including Ibex Valley, Deep Creek, Hotsprings Road, Golden Horn, and Mount Lorne. These have had varied participation by First Nation and other governments.

4.11.4 Plans in Preparation

A number of plans for wildlife and habitat protection area plans are in various stages of preparation. These include the *Yukon Management Plan for Amphibians*, *Management Plan for the Western Toad (*Anaxyrus [Bufo] boreas*) in Canada*, and the Bird Conservation Region (BCR) #4 planning area known as the Northwestern Interior Forest. The Committee's recommendations for amphibians and birds are believed to be consistent with the direction of these draft plans.

Management plans in development for the Lewes Marsh Habitat Protection Area and Tagish River Habitat Protection Area are consistent with the Chapter 10 (Special Management Area) provisions and schedules in First Nation Final Agreements and the *Yukon Wildlife Act*.

Park management plans in development for Kusawa Territorial Park and Agay Meme Territorial Park are consistent with the Chapter 10 provisions and schedules in First Nation Final Agreements and the *Yukon Parks and Land Certainty Act*.

Local area plans are currently being developed for Marsh Lake and Carcross. Regional land use planning under Chapter 11 of Yukon First Nation Final Agreements has not yet begun in the Southern Lakes area.

5.0 The Recommendations

The following describes the recommendations of the Southern Lakes Wildlife Coordinating Committee. The recommendations are separated into key and supporting recommendations. The supporting recommendations are specific to each species or group of species, and number over 80. These recommendations are intended to guide the parties when setting management priorities or addressing issues for specific species, such as moose or furbearers. The supporting recommendations may also serve as guidance to others interested in benefiting wildlife in the region.

The key recommendations are those that are either paramount for the public management of wildlife, such as cooperation among the responsible parties and public education, or recurring themes for many groups of species, such as harvest and habitat management. Key recommendations are essential and the Committee specifically requests that the responsible parties collaboratively consider the recommendations.

The Committee acknowledges any advancement of these recommendations will require long-term cooperative work by the responsible parties. Any advancement of these recommendations will take many years to accomplish and, in time, new issues will emerge requiring priorities to be reset and new recommendations acted upon. However the Committee is confident that, through collaboration on these recommendations, future issues will be fewer and more easily managed.

The Committee encourages the senior-level managers of the responsible parties to meet on a regular basis to promote effective communication and consideration of the advancement of any of the recommendations. Senior-level managers will have the ability to set wildlife program priorities and budgets within their respective governments. These meetings should occur annually, or more frequently if required, to discuss the overall direction of wildlife and habitat management, to jointly set priorities and actions, and to review progress. The regional wildlife assessment and its recommendations should be used as a guiding document for these discussions.

Finally, some recommendations will have to be considered in sequential order. For example, a managed harvest of caribou will have to be coordinated prior to any conservation measures for moose that may limit subsistence harvesting. Moose and caribou are the main supply of subsistence food for First Nation's people in the area. The beneficiaries of Kwanlin Dün First Nation, Carcross/Tagish First Nation and Ta'an Kwäch'än Council have a subsistence hunting right only within their traditional territories, and opportunities to hunt elsewhere will be limited and likely restricted to licensed hunting.

5.1 Key Recommendations

The Committee developed key recommendations after completing the supporting recommendations. Key recommendations address priority areas that the Committee believes the parties should focus their efforts toward wildlife management in the Southern Lakes area. Many are recurring themes throughout the supporting recommendations.

Collaborative work by the parties in the coming years would focus on these key recommendations.

| Recommendations | |
|-----------------|--|
| 1.1 | Continue to develop and advance cooperative and coordinated management of wildlife and their habitats among responsible governments. |
| 1.2 | Develop and implement complementary legislation, policies, guidelines, and standards to manage wildlife and their habitats. |
| 1.3 | Develop and implement a managed harvest framework that integrates rigorous and verifiable information on licensed and subsistence harvest to ensure long-term sustainability of all harvested species, with an immediate focus on caribou and moose. |
| 1.4 | Identify, map, and carefully manage key wildlife habitats. The focus should be on ecologically significant areas (e.g., wetlands, riparian, sand dunes, salt flats, older forests), and sensitive habitat for traditionally used species and species at risk that require a higher duty of care with respect to human development and disturbance. |
| 1.5 | Work collaboratively towards developing significant tools and products to be used in land use and resource management planning that takes into account wildlife and their habitats in the Southern Lakes area. |
| 1.6 | Develop, implement and coordinate effective monitoring protocols for traditionally used species and species at risk to ensure their long term conservation, using scientific, local and traditional knowledge. |
| 1.7 | Develop a coordinated Game Guardian program that would enhance wildlife monitoring, stewardship and education in the Southern Lakes area. |
| 1.8 | Continue to develop and implement outreach and education materials and programs to reduce human-wildlife conflicts (e.g. road collisions, disturbance to calving ungulates, and carnivores in communities). |

| | |
|-----|---|
| 1.9 | Continue to develop and implement education and outreach programs and materials aimed at increasing knowledge and appreciation of wildlife and their habitats, with a focus on furthering management and conservation objectives. An emphasis should be placed on youth and schools, where appropriate. |
|-----|---|

5.2 Supporting Recommendations

Inter-Party Communications and Coordination Recommendations

The term of the Southern Lakes Wildlife Coordinating Committee expired with the completion of the regional wildlife assessment and accompanying recommendations. The management of wildlife and wildlife habitat in the Southern Lakes area involves several governments and can be complex at times.

Recommendations on inter-party communications and coordination address the value in continuing communicating between the parties and improving coordination among them. These recommendations are intended to encourage the parties to continue building capacity, sharing knowledge and resources, and working in a coordinated fashion toward common wildlife and habitat management objectives.

| Recommendations | |
|-----------------|---|
| 2.1 | Collaboratively prioritize key recommendations in this Regional Wildlife Assessment. |
| 2.2 | Develop and implement complimentary legislation, policies, guidelines, and standards to manage wildlife and their habitats. |
| 2.3 | Communicate on reviews of key development proposals, to the extent possible. |
| 2.4 | Communicate better on the rationale and rules for harvest regulations for various species. |
| 2.5 | Coordinate cooperative and complementary compliance and outreach programs. |
| 2.6 | Continue to develop and implement cooperative and complementary monitoring programs. |
| 2.7 | Evaluate and implement effective communication strategies to better engage the public in wildlife management decision-making. |
| 2.8 | Develop and implement programs to share expertise and build capacity among the parties. |

Wildlife Habitat Recommendations

Habitat loss and degradation is one of the most important pressures facing wildlife in the Southern Lakes area. These recommendations are intended to ensure habitat is carefully managed, and to promote land management that conserves wildlife habitat. The wise use of wildlife habitat is a joint responsibility, shared by governments, non-government organizations, the public, and the private sector.

In the Southern Lakes area, competing interests for wildlife habitats include mining, oil and gas exploration, timber harvesting, wilderness recreation, and agricultural and residential developments. Access is a major issue with recreational users and hunters gaining further access and establishing new trails into important habitats each year.

Habitat recommendations identify and conserve wildlife habitats required to support healthy and self-sustaining wildlife populations in the Southern Lakes area. In particular there is a need to identify and carefully manage sensitive wildlife habitats and other ecosystems that are of high value for biodiversity conservation.

| Recommendations | |
|-----------------|--|
| 2.9 | Identify and map key wildlife habitats, with a focus on ecologically important areas (wetlands, riparian, sand dunes, salt flats, older forests) and sensitive habitats requiring special protection for traditionally-used species and species at risk. |
| 2.10 | Develop and distribute a database (map) of key wildlife habitats in the region for use in environmental assessment and resource management. |
| 2.11 | Promote studies on the effect of landscape change on wildlife habitats, with a focus on impacts from climate change and land developments. |
| 2.12 | Evaluate the current network of conservation lands to identify gaps related to the maintenance of sensitive habitats, including connectivity among these areas. |
| 2.13 | Work collaboratively towards developing significant tools and products to be used in land use and resource management planning that takes into account wildlife and their habitats in the Southern Lakes area. |
| 2.14 | Develop and implement policies, guidelines, or best management practices for securing sensitive habitats, including the management of access and mitigation of development, including cumulative effects. |

| | |
|------|---|
| 2.15 | Address gaps in the securing of sensitive habitats, through protective measures by First Nation, territorial, or federal governments, where feasible. |
| 2.16 | Develop and implement means to keep alien and invasive species from becoming established. |

Caribou Recommendations

First Nations within the Southern Lakes area have relied on the caribou for subsistence, traditional and cultural needs for thousands of years. Subsistence hunting of caribou was a way of life and a part of each individual, as well as the community.

Declining caribou populations have been the focus of wildlife conservation initiatives in the Southern Lakes area for close to two decades. Caribou recovery remains a priority for wildlife conservation in the region.

In fairly recent times, tens of thousands of caribou inhabited the region. Their distribution extended west of Kusawa Lake, and to the east, caribou crossed the narrows near Carcross in large numbers. Their decline began in the late 1800s and is associated with the Klondike Gold Rush. Thousands of caribou from the region were commercially harvested to feed the burgeoning population. Despite substantial conservation efforts, caribou have never recovered to those historic highs.

Recent stressors and threats for caribou include overharvest, habitat loss and fragmentation, human disturbance, and traffic mortalities. Long-term impacts from climate change remain unknown, but are an important consideration.

Woodland caribou are legally listed as a species of *Special Concern* in Canada's *Species at Risk Act*. The *Management Plan for the Northern Mountain Population of Woodland Caribou (Rangifer tarandus caribou)* was developed in 2011. This plan summarizes threats facing Northern Mountain caribou, and sets out management goals and objectives, and recommends a series of recovery measures. Recommendations below are consistent with this management plan.

| Recommendations | |
|-----------------|--|
| 2.17 | <p><u>Monitor the status of caribou populations.</u></p> <ul style="list-style-type: none">• Caribou monitoring programs should focus on collecting scientific data and local information that will contribute to tracking changes in their population size and age-sex structure, adapting harvest regulations, and providing recommendations on development proposals, where appropriate.• While annual monitoring is important to determine herd status, an accurate estimate of the population is needed for any discussion on sustainable harvest, and to evaluate the success of conservation initiatives. The Carcross herd is the priority for the next census, followed by the Atlin and Ibex herds. All three herds should be inventoried within 5 years. |

| | |
|------|--|
| | <ul style="list-style-type: none"> • Annual recruitment surveys for the Atlin, Carcross and Ibex herds are necessary to track population changes. • Caribou monitoring would benefit from continued participation by Game Guardians. • Sensitive traditional knowledge should be protected. |
| 2.18 | <p><u>Carefully manage human use of caribou habitats, with a particular focus on limiting access, development and human disturbance in important caribou habitat.</u></p> <ul style="list-style-type: none"> • Mapping the areas needed for caribou recovery is essential. The map should include scientific, traditional, and local knowledge about important moose habitats in the Southern Lakes area. • A zone of influence map should be updated as necessary, to be used to evaluate land use applications and proposals with respect to important caribou habitat. Caribou habitat can be directly or functionally lost through land use and developments and human activity. Zone of influence mapping considers the actual development site in addition to the adjacent area that is impacted by things such as noise and increased human activity. • Protection of important caribou habitats (winter and calving areas, and travel corridors) needs to be a key consideration in land use decisions, as well as land use planning processes. • Mechanisms capable of managing or regulating human access into important caribou habitats should be developed and implemented. The aim is to reduce human disturbance to caribou, particularly in winter or during the calving season. • The effects of cumulative impacts and climate change should be incorporated into caribou habitat management initiatives. |
| 2.19 | <p><u>Develop and implement a managed harvest for caribou.</u></p> <ul style="list-style-type: none"> • Development and implementation of a managed harvest for caribou is a priority. • A managed harvest for caribou would include the collection and sharing of all information from licensed hunters and First Nations on area-specific population size and trends, and the number and age-sex composition of the harvest. • This information would provide the basis for a coordinated approach to the recovery and sustainable use of caribou in the Southern Lakes. • Governments will need to collaborate and assist one another to implement a managed harvest, but implementation would be done by each responsible government. |

| | |
|------|---|
| 2.20 | <p><u>Develop and implement measures to reduce loss of caribou due to highway traffic collisions.</u></p> <ul style="list-style-type: none"> • Traffic collisions are a key concern for Southern Lakes caribou. • Efforts to reduce caribou mortality from traffic accidents needs to continue. • Continue to improve roadside vegetation management practices, deploy caution signs, and educate drivers about the threat posed to local caribou populations. • Explore and evaluate aversive measures, such as the application of alternative road de-icing compounds. |
| 2.21 | <p><u>Promote continued development and implementation of education and outreach programs and materials that further caribou conservation goals and public appreciation of caribou and caribou management.</u></p> <ul style="list-style-type: none"> • Community support is essential for a successful caribou recovery program. • Current information on the status of, and recovery initiatives for, caribou should be made available to the public in different ways. Communication initiatives for Southern Lakes caribou recovery should be a priority. • These initiatives should specifically address key caribou recovery goals, such as a managed harvest framework, careful management of important caribou habitat, reducing new access into important areas for caribou, and human disturbance. • Use a coordinated Game Guardian program to help deliver key messages about caribou recovery and management in the region. • Engage with groups such as the Klondike Snowmobile Association to share information related to human disturbance. |

Moose Recommendations

The parties should give high priority to Southern Lakes Wildlife Coordinating Committee recommendations regarding moose recovery.

Moose provide valued meat to families, and are a very popular target of Yukon hunters. They also have significant ecological importance, particularly as a prey species for many other animals. They prosper in areas that are recovering from natural disturbances, such as fire, and that receive little human activity.

Moose surveys began in the Southern Lakes area more than 30 years ago, in discrete monitoring areas. All areas that have repeatedly been surveyed show declining populations, some of which have been severe. Traditional and local knowledge substantiate the decline. Over-harvest has been the most significant threat to moose populations. However, other factors may have contributed as well, such as predation, habitat loss, and access and land developments in important habitats.

Much discussion is needed to establish moose recovery goals and initiate recovery actions. A managed harvest framework is essential to recovering the moose population and ensuring harvest is sustainable, and it is the priority for action by the parties. Managing important habitats, including human access and disturbance, is also key. It is imperative that moose recovery initiatives have public support.

| Recommendations | |
|-----------------|--|
| 2.22 | <p><u>Establish a moose population recovery goal that is supported by the public, ensures moose will continue to be on the land over the long-term, and is capable of sustaining a harvest for future generations.</u></p> <ul style="list-style-type: none">• Drawing on the success of past efforts to recover caribou populations in the Southern Lakes area, it is recommended that the parties agree on a moose population recovery goal for the area.• As moose populations are variable throughout the area, goals may be required for specific portions within the Southern Lakes area.• These goals must have strong support from the parties and the public in order to be achievable. |
| 2.23 | <p><u>Continue to develop and implement moose monitoring initiatives in support of moose recovery efforts.</u></p> <ul style="list-style-type: none">• Moose monitoring programs should focus on collecting scientific data and local information that will contribute to tracking changes in their population size and age-sex structure, adapting harvest regulations, and providing recommendations on development proposals, where |

| | |
|------|---|
| | <p>appropriate.</p> <ul style="list-style-type: none"> • Different areas may have different priorities in terms of the level of moose monitoring needed, with some being more urgent than others. • Non-invasive monitoring techniques are preferred over field studies that include live-capture and handling. • Moose monitoring would benefit from increased participation and coordination by Game Guardians. |
| 2.24 | <p><u>Develop and implement a managed harvest framework for Southern Lakes moose.</u></p> <ul style="list-style-type: none"> • Development and implementation of a managed harvest for moose is a priority. • A managed harvest for moose would include the collection and sharing of all information from licensed hunters and First Nations on area-specific population size and trends, and the number and age-sex composition of the harvest. • This information would provide the basis for a coordinated approach to the recovery and sustainable use of moose in the Southern Lakes area. • Governments will need to collaborate and assist one another to implement a managed harvest, but implementation would be done by each responsible government. |
| 2.25 | <p><u>Work towards understanding predator/prey interactions and decreasing moose predation rates, where appropriate.</u></p> <ul style="list-style-type: none"> • Compile, review and share existing information on bear and wolf populations and their impact on moose populations to better understand the potential consequences of wolf and bear predation on moose populations. • Publicly acceptable measures to manage wolf and bear predation on moose should be considered. These measures should be based on sound scientific data, conservation principles, approved species management plans and generally be supported by the public. |
| 2.26 | <p><u>Identify existing moose habitat and habitat requirements, and carefully manage important moose habitats.</u></p> <ul style="list-style-type: none"> • A map of the areas needed for moose recovery is required. This would include important areas currently used by moose, as well as new areas required under the scenario of a recovering, or growing, population. The map should include scientific, traditional, and local knowledge about important moose habitats in the Southern Lakes. |

| | |
|------|--|
| | <ul style="list-style-type: none"> • Develop a zone of influence map that can be used to evaluate land use applications and proposals with respect to important moose habitat. This map should accurately reflect the impacts of human development and disturbance on moose and moose habitat. Moose habitat can be directly or functionally lost through land use and developments and human activity. Zone of influence mapping considers the actual development site and the adjacent area that is impacted by things such as noise and increased human activity. • The protection of important moose habitats (winter and calving areas, and travel corridors) needs to be a key consideration in land use decisions, as well as land use planning processes. • Mechanisms capable of managing or regulating human access into important moose habitats should be developed and implemented. The focus should be on limiting new access into places where moose are at greater risk from harvest. Increasing access in some areas is a cause for concern because these areas would have the potential to be over-harvested. • The effects of cumulative impacts and climate change should be incorporated into moose habitat management initiatives. |
| 2.27 | <p><u>Provide education and communication initiatives to support moose recovery.</u></p> <ul style="list-style-type: none"> • Community support is essential for a successful moose recovery program. • Current information on the status of, and recovery initiatives for, moose should be made available to the public in different ways. • Communication initiatives should closely follow those that worked for caribou recovery in the Southern Lakes area. It should include both scientific and traditional knowledge and perspectives. • Develop and implement a moose education program for schools. • Use a coordinated Game Guardian program to help deliver key messages about moose recovery and management in the region. • Specifically address key moose recovery goals, such as a managed harvest framework, careful management of important moose habitat, and reducing new access into important areas for moose. • Any efforts to reduce pressure on moose populations in the Southern Lakes area should be coordinated with nearby communities outside the Southern Lakes area to ensure harvest pressure is not shifted to other populations that are unable to withstand increased harvest. |

Thinhorn Sheep and Mountain Goat Recommendations

Sheep and goats have played an important role in First Nation subsistence hunting. They are also popular with resident hunters and contribute significantly to Yukon outfitter businesses.

Sheep populations appear to be relatively stable in the territory. Increasing use of off-road vehicles and associated trails accessing sheep alpine areas, however, contribute to increased disturbance and displacement of sheep in some areas.

Mountain goats are relatively rare in the Yukon and they are only found in a few areas. Populations in the Southern Lakes are largely transboundary. Goat populations in the Yukon have been monitored less frequently than sheep and are difficult to accurately monitor because they are less likely to be in open, visible areas. Mountain goat management presents challenges. Goats can sustain relatively low levels of harvest and require a long period of time to recover from overharvest. They are sensitive to disturbance, have low reproduction, high natural mortality and relatively low dispersal. Hunters can have a difficult time identifying sex of goats in the field. Due to goats’ population sensitivity and their low numbers, harvest opportunities should remain conservative in Southern Lakes area.

| Recommendations | |
|-----------------|--|
| 2.28 | <p><u>Ensure adequate information is available on population size, trends and demographics to support sheep and mountain goat management decisions.</u></p> <ul style="list-style-type: none"> • Work towards consistent survey methods and coordinated efforts for regular population inventory monitoring of sheep and goats. • Incorporate scientific, traditional and local knowledge on sheep and mountain goat population size, trends and demographics. |
| 2.29 | <p><u>Ensure that sheep and mountain goat populations remain free of diseases of concern, through the development of policies and programs.</u></p> <ul style="list-style-type: none"> • This work should focus on areas of potential interaction between wild and domestic sheep and goats. • Continue monitoring for diseases of concern in sheep and mountain goat populations through existing programs. • A policy regarding agriculture and disease transfer between farmed and wild sheep is needed. |

| | |
|------|--|
| 2.30 | <p><u>Promote studies that will help develop an understanding about the effects of climate change on sheep populations.</u></p> <ul style="list-style-type: none"> • Sheep and goats rely on access to alpine habitats and are sensitive to the impacts of climate change. • Evaluate the feasibility of monitoring the effects of climate change on sheep populations, their ecology, and their habitats. • Promote or conduct investigations on climate-induced habitat change on sheep populations (e.g. evaluate whether changing patterns in precipitation and temperature are having effects on sheep habitat use or productivity and/or evaluate potential of forests encroaching on alpine to negatively effect goat and sheep populations). |
| 2.31 | <p><u>Ensure key habitats for sheep are carefully managed, with an emphasis on reducing human-related disturbance.</u></p> <ul style="list-style-type: none"> • Refine existing guidelines and best management practices to reduce potential disturbance to sheep, with a particular focus on specific guidelines relative to off-road vehicle access, and mining and exploration activities. • Develop no-fly buffers around key lambing areas that establish where and when aircraft overflights are not allowed (e.g. height and season). • Increase knowledge of baseline (human) trail densities that access sheep habitat. Parties may need to discuss information sharing protocols to protect this sensitive information. • Carefully manage important sheep and goat ranges that are particularly well known and easily accessed (e.g. Dall Creek, Tutshi, White Mountain, Pilot Mountain, Caribou Mountain, Ibex Mountain). • Reduce recreational disturbance during specific seasons (e.g. encourage the public to keep dogs on leashes on sheep and goat ranges). |
| 2.32 | <p><u>Ensure the long-term sustainability of sheep and mountain goat harvest.</u></p> <ul style="list-style-type: none"> • Review the current sheep and goat hunting regimes with the aim of minimizing disturbance and displacement. • Work towards coordinated monitoring of sheep and goat harvest, including the numbers and locations of all sheep and goats harvested each year and sharing this information among governments for management purposes. |

| | |
|------|---|
| 2.33 | <p><u>Develop and implement educational materials and programs that increase appreciation for sheep and mountain goats, and their management.</u></p> <ul style="list-style-type: none"> • Increase wildlife viewing opportunities for sheep and goats which are appropriate with respect to activities and seasons, and which do not disturb the animals. • Use sheep and goats as a medium to provide public education and outreach on the potential effects of climate change on alpine species. • Sheep and goat hunters should be educated through the Hunter Education and Ethics Development Program on signs of disease in sheep and how to report potential disease issues. • Better communicate sheep population ecology to the public, and the rationale behind sheep and goat harvest regimes (e.g. full curl, disturbance and displacement, permit system, identification of mature rams, disease, etc) through a hunter education program including alternative management systems. • Educate industry on best management practices for working in sheep and goat habitat. |
|------|---|

Wood Bison, Elk and Mule Deer Recommendations

Wood bison, elk and mule deer are relatively new species in the Yukon, having only arrived in recent times. Wood bison and elk were historically in the Yukon but became extinct about 350 and 1,200 years ago, respectively. Wood bison and elk were brought to the Yukon as transplanted species. Wood bison were reintroduced, whereas elk are alien and introduced. Mule deer are naturally colonizing the Yukon, arriving from northeastern British Columbia. They are likely responding to climate change and land clearing activities.

Given that the current populations are relatively new, their use has been somewhat limited. However, these species may become more important to communities in the future as wildlife populations change in response to climate change and other factors.

A co-operatively-derived management plan is in place for elk and a draft plan is in place for wood bison. These plans provide detailed recommendations for addressing management issues and sustainable use. Recommendations below are intended to support the existing wood bison and elk plans. There is no management plan in place for mule deer.

Wood bison are a species at-risk and are nationally listed as threatened under Canada’s *Species at Risk Act*.

Focused education and outreach could aid in achieving many of these objectives as well as creating awareness of these species among residents of the Southern Lakes area.

| Recommendations | |
|-----------------|---|
| 2.34 | <p><u>Work towards implementing management plans for wood bison and elk, as appropriate.</u></p> <ul style="list-style-type: none"> • Implementation of management plans for wood bison and elk is desirable, where appropriate and feasible. |
| 2.35 | <p><u>Promote the development a management plan for mule deer.</u></p> <ul style="list-style-type: none"> • Management of mule deer would benefit from having the direction of management plan that was developed with public input. |
| 2.36 | <p><u>Continue to develop and implement cost-effective monitoring programs for wood bison and elk.</u></p> <ul style="list-style-type: none"> • Wood bison and elk monitoring programs should focus on collecting scientific data and local information that will contribute to tracking changes in their population size and age-sex structure, monitoring for changes in range use, and adapting harvest regulations, where appropriate. • Non-invasive monitoring techniques are preferable over field studies |

| | |
|------|---|
| | <p>that include live-capture and handling.</p> <ul style="list-style-type: none"> • Monitoring would benefit from increased participation by Game Guardians. |
| 2.37 | <p><u>Identify and carefully manage critical habitat for wood bison.</u></p> <ul style="list-style-type: none"> • Identifying and carefully managing critical habitat for wood bison is a legal requirement under Canada's <i>Species at Risk Act</i>. • Information on the critical habitats of wood bison should be captured in Environment Yukon's Key Wildlife Areas database. |
| 2.38 | <p><u>Ensure that wood bison, elk and mule deer populations remain free of diseases of concern, through the development of policies and programs.</u></p> <ul style="list-style-type: none"> • Diseases and parasites of concern for wood bison, elk, and mule deer include bovine burcellosis, tuberculosis, chronic wasting disease and winter ticks. Surveillance for these diseases should be continued, where feasible. • The submission of samples from hunters would make a significant contribution toward monitoring for diseases of concern for these species and should be promoted. |
| 2.39 | <p><u>Develop and implement measures to reduce the risk that wood bison, elk, and deer pose to motorists.</u></p> <ul style="list-style-type: none"> • Wood bison, elk and deer are attracted to grasses planted along highways and can pose threats to motorists. • Explore methods to reduce the attractiveness of roadside vegetation to wildlife, communicate with the public to increase awareness of wildlife on the roads, and remove animals that are frequenting roadsides and posing threats to motorists. • Any activities considered to reduce the risk to motorists must also consider the potential impact to wildlife viewing opportunities. |
| 2.40 | <p><u>Ensure harvest of wood bison, elk, and mule deer is not detrimental to the long-term persistence of these species.</u></p> <ul style="list-style-type: none"> • While populations of wood bison, elk and mule deer in the Yukon appear to be healthy, they are relatively small populations that occur in isolation from other populations elsewhere in Canada. There is a need for the governments to ensure the harvest of these species is sustainable or they can quickly go into a sharp decline. With this in mind, the allowable harvest and harvest regime should be periodically reviewed and improved, as necessary. • Species management teams for wood bison and elk provide a useful forum for relevant governments, the Yukon Fish and Wildlife |

| | |
|-------------|--|
| | <p>Management Board, and Renewable Resources Councils to share information about harvest for these species and develop practical recommendations on the allowable harvest and harvest regime.</p> |
| <p>2.41</p> | <p><u>Promote the continued development of education and outreach materials and programs for wood bison, elk and mule deer.</u></p> <ul style="list-style-type: none"> • As new species on the landscape, education and outreach are important to provide the public information on the history, biology and management of these species. • Education and outreach initiatives should focus on increasing appreciation and knowledge of these species, and furthering management and monitoring goals for them. • Wildlife viewing opportunities should be further promoted in existing environmental education programs such as Environment Yukon’s Wildlife Viewing Program. • Hunter education and ethics development (HEED) courses are important in that they provide useful species-specific information to hunters about these species, and should be available on a periodic basis. • Ideal interpretative sites for these species include the Yukon Wildlife Preserve, and the Takhini Valley for elk and mule deer. • Local Game Guardians have an important role to play in transferring knowledge about these species to the public. |

Bear Recommendations

Bears are a species of cultural significance to First Nation peoples, and are often discussed during community meetings about wildlife. The management challenges posed by bears are often difficult and sometimes divisive.

Both black bears and grizzly bears live in the Southern Lakes area; however, there are substantial differences in their conservation status and management needs. The local black bear population is believed to be healthy; while it is believed that grizzly bears in the region have declined over the past 20-30 years. Both species of bears are vulnerable to development activities, particularly urban sprawl and agricultural development, which often brings bears into conflict with humans.

Grizzly bears and black bears are listed under the Convention on the International Trade in Endangered Species (CITES). As such, trade in bear trophies or parts is highly regulated and subject to international scrutiny. Nationally, grizzly bears are listed as a species of special concern and awaiting protection under Canada's *Species at Risk Act*.

Key management activities include: assessing the viability of the grizzly bear population; reducing negative interactions between humans and bears, ensuring that harvest is sustainable, and managing wildlife viewing opportunities for grizzly bears.

| Recommendation | |
|----------------|---|
| 2.42 | <p><u>Inventory the grizzly bear population.</u></p> <ul style="list-style-type: none">• Given concerns over the conservation status of grizzly bears in the Southern Lakes area, there is a need to obtain a reliable population estimate from which to base management decisions. Environment Yukon is currently working with local partners to do this work.• The results of this work needs to be communicated to relevant governments, boards and councils upon its completion. |
| 2.43 | <p><u>Implement cost-effective monitoring programs for grizzly bears.</u></p> <ul style="list-style-type: none">• Grizzly bear monitoring programs should focus on collecting scientific data and local information that will contribute to tracking changes in their conservation status and adapting harvest regulations, where appropriate. These should be long-term in nature and coordinated so that climate change and other impacts can be tracked.• Where appropriate and feasible, non-invasive monitoring techniques and the use of carcasses submitted by hunters are preferable over those that include live-capture and handling.• Monitoring of grizzly bears would benefit from increased participation |

| | |
|------|--|
| | <p>by Game Guardians.</p> <ul style="list-style-type: none"> • Data collected on grizzly bears should be made available for incorporation into the Yukon Conservation Data Centre database. |
| 2.44 | <p><u>Identify, map, and carefully manage important habitats for grizzly bears, with an emphasis on denning habitats and movement corridors.</u></p> <ul style="list-style-type: none"> • Important habitats for grizzly bears, such as denning habitats, movement corridors, and late summer feeding areas, should be the focus of identification, mapping and habitat management. • Environment Yukon’s Wildlife Key Areas database should be reviewed to ensure that areas identified as particularly important for grizzly bears are included in the database. • Best management practices should be implemented for land use developments occurring in or near important habitats for grizzly bears. Avoiding these areas is in the best interest of bears and public safety. |
| 2.45 | <p><u>As a priority, continue to develop and implement measures that reduce human-bear conflicts.</u></p> <ul style="list-style-type: none"> • Measures that reduce human-bear conflicts, particularly near communities and residences, should be reviewed and improved, as necessary and feasible. • Game Guardians could play an important role in ensuring that key messages about human activities that attract bears are delivered. |
| 2.46 | <p><u>Ensure that harvest of grizzly bears and black bears is sustainable and well documented.</u></p> <ul style="list-style-type: none"> • International trade in grizzly bear and black bear trophies and parts are regulated under CITES (Convention on the International Trade in Endangered Species). There is a need for the governments to ensure the sustainability of bears that are harvested and traded internationally, and that this can be defended. Failure to do so could result in future trade bans on Yukon bears. With this in mind, the harvest regime and reporting structure for grizzly bears and black bears should be periodically reviewed and improved, as necessary. • Human-bear conflicts should be managed according Environment Yukon’s Human-Wildlife Directive. |
| 2.47 | <p><u>Continue to develop and disseminate public education and outreach programs and materials that increase public appreciation of bears and assist in furthering bear management goals.</u></p> <ul style="list-style-type: none"> • Education and outreach is a key activity that can help reduce human-bear conflicts and should be a primary focus of bear management. |

| | |
|--|---|
| | <ul style="list-style-type: none">• Information should be focused on bear conservation and means to reduce human-bear conflicts.• Bear education and outreach programs should be coordinated among governments and others providing information about bears, to ensure that consistent messages are being delivered.• Communities require information on how to handle urgent and emerging issues related to defense of property and life, so that they can make informed choices.• Programs that disseminate information related bear conservation, sustainable use of bears, and human-bear conflicts, should be reviewed and improved, as necessary, to ensure effectiveness.• Potential conflicts between hunting opportunities and roadside wildlife viewing opportunities for grizzly bears should be considered and addressed. |
|--|---|

Wolf Recommendations

The wolf is an integral part of natural ecosystems, being an important predator of ungulates. They occupy all habitats of the Southern Lakes area, from valley bottom to the alpine tundra. Wolves are important to First Nations people and symbolize a First Nations clan in the Southern Lakes area. Wolves are also symbolic of wilderness, and play an important role in the tourism economy.

Wolves have been intensively managed in the Southern Lakes area in the past. Currently, wolves are managed as a big game species and a furbearer under the *Yukon Wildlife Act*, and can be hunted and trapped. At this time, there are no conservation concerns with wolves in the Southern Lakes area – their flexible social structure has allows pack splitting and colonization of vacant territories, and their reproductive capabilities are greatest at low densities.

In some areas, there are concerns about wolves coming into communities. Wolves that become conditioned to humans are often destroyed. The importance of Integrating and sharing local, traditional and scientific knowledge has been brought forward as a collaborative way to address management concerns related to wolves.

Wolf predation is a major factor in controlling ungulate population dynamics, like moose and caribou, and therefore it is important to integrate wolf and ungulate management. They help maintain the health of prey populations, and have played an important role in the evolution of prey species. Wolves respond to new access which facilitates their movement, potentially further impacting ungulate populations.

| Recommendation | |
|----------------|--|
| 2.48 | <p><u>Work towards implementing the Yukon Wolf Conservation and Management Plan (2012), as appropriate.</u></p> <ul style="list-style-type: none">• Specific implementation activities described in the plan will be addressed by the appropriate parties. This approach enables governments, boards and councils to engage directly on those parts of the plan that affect them. |
| 2.49 | <p><u>Use local, scientific, and traditional knowledge to monitor wolf populations.</u></p> <ul style="list-style-type: none">• Continue to better understand the role of wolves in the ecosystem and maintaining biodiversity using local, scientific, and traditional knowledge.• Maintain and cultivate expertise in monitoring wolf populations (including community based monitoring, aerial surveys). |

| | |
|------|--|
| 2.50 | <p><u>Address human-wolf conflicts in communities, using the human-wildlife conflict directive.</u></p> <ul style="list-style-type: none"> • As described in the Yukon Wolf Conservation and Management Plan, consider developing individual protocols in affected Southern Lakes communities to address human wolf conflicts. |
| 2.51 | <p><u>Support trapping activities related to wolves that contribute to wolf management goals.</u></p> <ul style="list-style-type: none"> • The sustainable harvest of wolves should be managed in recognition of their social, cultural and economic value. • Where appropriate, remove hindrances pertaining to trapping opportunities, including addressing issues related to trapline access in the Southern Lakes area. • Engage in territory-wide discussions on possible locations to consider local wolf harvest program to enhance moose and caribou numbers. |
| 2.52 | <p><u>Continue to promote opportunities for the public to learn about wolves.</u></p> <ul style="list-style-type: none"> • Address potential conflicts between wolf harvesters and other land users, including recreational users. • Better balance the use of scientific, local and traditional knowledge with respect to wolf management. • Include education about the role of wolves in northern ecosystems and predator-prey dynamics, as well as interactions between people and wolves, into opportunities for the general public and youth. |

Furbearer Recommendations

The Southern Lakes area is home to 13 of Yukon's 14 furbearing animals. Most furbearer species are common and widespread in the Southern Lakes area. Exceptions are river otter, wolverine, fisher and marten, which are rare or absent from some areas. The wolverine is listed as a species of special concern under Canada's *Species at Risk Act*.

Furbearers may be harvested by registered trappers and, for some species with a big game species license. Trapping is an important social, cultural, traditional and economic activity for many Southern Lakes residents, especially First Nation people. Low fur prices and the rising costs of getting out on the land means trapping is not an economically viable activity. Members of many Southern Lakes communities have expressed interest in fur harvest support programs similar to other resource use sectors. Continual improvement of trapping devices to ensure furbearers are trapped humanely also remains important.

Some furbearer species may become a cause for concern in terms of damage they may cause to personal property and the threat they pose to domestic animals. When wildlife-human conflicts occur, these animals are often destroyed. Beavers are routinely removed when their damming activities inundate property and roads.

Furbearers have some site-specific habitat requirements. Female lynx require dense overhead and lateral cover for denning. Wolverine dens are constructed either in boulders, under deadfall, under logs in avalanche debris, or in snow tunnels. Some dens may be reused for many years.

International trade in fur is highly regulated and, in some cases, a source of controversy. Species listed under the Convention on International Trade in Endangered Species (CITES) are subject to a Non-Detrimental Finding report in order to demonstrate that the harvest in Yukon is sustainable and well managed. Non-Detrimental Findings are evaluated by importing nations and trade is suspended if they are found deficient.

| Recommendations | |
|-----------------|--|
| 2.53 | <p><u>Develop a monitoring program for key furbearing species.</u></p> <ul style="list-style-type: none">• A monitoring program for furbearers should focus on those species of particular importance to Yukon trappers (e.g. lynx, marten, muskrat), species at risk (wolverine), and species that are particularly important to ecosystems (beaver).• Furbearer monitoring programs should be long-term in nature and coordinated so that climate change and other impacts can be tracked.• Non-invasive monitoring techniques and the use of carcasses submitted by trappers are preferable over field studies that include |

| | |
|------|--|
| | <p>live-capture and handling.</p> <ul style="list-style-type: none"> • Furbearer monitoring programs should focus on collecting scientific data and local information that will contribute to tracking changes in their conservation status and adapting harvest regulations, where appropriate. • Monitoring of select furbearers (e.g. lynx, marten) may be captured within the existing Community Ecological Monitoring Program, and would benefit from increased participation by Game Guardians. • Protected areas, such as Agay Mene and Kusawa territorial parks and Lewes Marsh Habitat Protection Area, would be ideal locations to include in a network of areas where furbearer populations are monitored. • Data collected on species at risk should be made available for incorporation into the Yukon Conservation Data Centre database. |
| 2.54 | <p><u>Identify and carefully manage important furbearer habitats.</u></p> <ul style="list-style-type: none"> • Important habitats for furbearers, such as wetlands, riparian areas and older forest, should be the focus in terms of identification, mapping and habitat management. • Environment Yukon’s Wildlife Key Areas database should be reviewed to ensure that areas identified as particularly important for furbearers (with an emphasis on species at risk) are included in the database. • Best management practices should be developed for land use developments occurring in or near important habitats for furbearers. |
| 2.55 | <p><u>Review the current harvest regime for furbearers to ensure it is sustainable.</u></p> <ul style="list-style-type: none"> • There is a need for the governments to ensure the sustainability of furbearers that are harvested and traded internationally, and that this can be defended. Failure to do so could result in future trade bans on Yukon furs. With this in mind, the harvest regime and reporting structure for furbearers should be periodically reviewed and improved, as necessary. |
| 2.56 | <p><u>Continue to support the fur trapping industry so that it remains viable.</u></p> <ul style="list-style-type: none"> • The fur trapping industry has been historically important to the Yukon economy and continues to be of cultural importance in the Southern Lakes area. In addition, fur trappers provide an important “early warning” system for changes on the landscape because of their detailed knowledge of the land and its animals and changes that occur from year to year, or over the years. |

| | |
|------|---|
| | <ul style="list-style-type: none"> • Means to ensure that fur trappers remain competitive in the international market and stay on the land need to be fully explored. For example, training and transfer of knowledge about new and emerging technologies that reshape the industry need to continue. Trappers need the best information. |
| 2.57 | <p><u>Promote opportunities to learn about furbearers and their management.</u></p> <ul style="list-style-type: none"> • In most instances, furbearers are not easily visible. Beaver are a notable exception, and wildlife viewing and nature interpretation programs should consider events and program materials that discuss the biology and ecological and cultural importance of beaver. • On-the-land programs with youth, such as the “take a kid trapping” program, should be encouraged. • Educational talks about furbearers, such as at schools, should be done by trappers, where feasible. |

Small Mammal Recommendations

The Southern Lakes area is home to a number of varied and interesting small mammals.

Some species such as ground squirrels (gophers), snowshoe hare, and porcupine are particularly important to First Nations because they are traditionally used and offer food security. First Nations value these small mammals and harbour a tremendous amount of knowledge about their life history, and changes in their abundance and local distribution.

A few other small mammals are particularly important to the health of ecosystems and other species. Red-backed voles, for example, are important prey for marten, owls and other species. Like snowshoe hares, their populations go up and down between years, which may affect the number of their predators.

Yet other small mammals are species of conservation concern. Little brown bats and collared pika are listed under Canada’s *Species at Risk Act*. The little brown bat is threatened by disease (white-nose syndrome) spreading from eastern North America, while the collared pika is threatened by climate warming.

House mice are an introduced species that are recently established in Whitehorse, but not currently known from other communities or in the wild.

Our knowledge of the small mammals of the Southern Lakes area is reasonably good, particularly because of studies done since the 1970s in the Kluane Lake area. There are key gaps in our knowledge.

| Recommendations | |
|-----------------|--|
| 2.58 | <p><u>Continue to monitor representative species of small mammals that are of particular management interest.</u></p> <ul style="list-style-type: none"> • A monitoring program for small mammals should focus on traditionally-used species (e.g. ground squirrels, porcupine and snowshoe hare), species at risk (little brown bats and collared pika), and species that are particularly important to ecosystems (e.g. red-backed vole and snowshoe hare). • Small mammal monitoring programs should be long-term in nature and coordinated so that climate change and other impacts can be tracked. • Small mammal monitoring programs should focus on collecting scientific data and local information that will contribute to tracking changes in their conservation status. • Monitoring of red-backed voles and snowshoe hare is captured within |

| | |
|------|---|
| | <p>the Community Ecological Monitoring Program.</p> <ul style="list-style-type: none"> • House mouse populations should be periodically monitored to assess changes in their occurrence in the Southern Lakes area. • Game guardian type programs may be particularly useful for monitoring small game mammal populations. • Protected areas, such as Agay Mene and Kusawa territorial parks and Lewes Marsh Habitat Protection Area, would be ideal locations to include in a network of areas where small mammal populations are monitored. • Data collected on species at risk should be made available for incorporation into the Yukon Conservation Data Centre database. |
| 2.59 | <p><u>Identify, map, and carefully manage key habitats for small mammals that are a species at risk.</u></p> <ul style="list-style-type: none"> • Important habitat for small mammal species at risk, such as wetlands, riparian areas and older forest (little brown bats) and talus slopes (collared pika), should be the focus in terms of identification, mapping and habitat management. • Environment Yukon’s Wildlife Key Areas database should be reviewed to ensure that areas identified as particularly important for small mammal species at risk are included. • Areas identified as important habitats for small mammal species at risk should be monitored with a higher duty of care with respect to land development. |
| 2.60 | <p><u>Monitor for diseases of concern that may occur in small mammal species.</u></p> <ul style="list-style-type: none"> • White-nose syndrome is the primary threat to bat species at risk, and monitoring for its arrival is a priority. • Some small mammals live in close association with people (e.g. bats and mice) and they should be monitored for diseases of human health concern, using existing monitoring programs, where feasible. |
| 2.61 | <p><u>Review the current harvest regime and reporting scheme for harvested small mammals.</u></p> <ul style="list-style-type: none"> • There is a need for the governments to develop a user-friendly and effective harvest reporting system for harvested species of small mammals. • The harvest regime for small game mammals should be reviewed and improved, as necessary. |

| | |
|------|---|
| 2.62 | <p><u>Discourage the use of poison on ground squirrel populations.</u></p> <ul style="list-style-type: none"> • Ground squirrels are an important food source for First Nations. The use of poisons to control ground squirrel populations should be discouraged. |
| 2.63 | <p><u>Continue to promote opportunities to learn about small mammals and their habitats.</u></p> <ul style="list-style-type: none"> • Small mammal viewing opportunities should be further promoted in existing environmental education programs such as Environment Yukon’s Wildlife Viewing Program, field excursions or demonstrations offered by the Yukon Bird Club excursions, Yukon Bird Observatory, and the Yukon Conservation Society, as well as First Nation culture camps. • Wildlife viewing opportunities should focus on easily viewed species, such as bats or ground squirrels. Both offer tremendous opportunities to promote citizen science and local conservation initiatives. • Educational initiative for traditionally-used small mammal species should include a specific cultural significance component contributed by First Nations. • Ideal interpretative sites for ground squirrels include the Yukon Wildlife Preserve, the Beringia Centre, Takhini Valley, and near Jake’s Corner. Sites for bats include Chadburn Lake and Squanga Lake. • Environment Yukon’s “Yukon Wild” brochure on bats is a valuable resource that should continue to be made available, as appropriate. |

Upland Game Bird Recommendations

The Southern Lakes area has an outstanding diversity of upland game birds, with seven species present. They are distributed among habitats from river valley bottoms to the highest tops of the tallest mountains. The more numerous species, such as willow ptarmigan and spruce grouse, are a key food source for people. These species provide food for many predators and are of considerable cultural and ecological importance.

Some species are of conservation concern (e.g. willow ptarmigan and dusky grouse). However, there is a general lack of information on upland game bird population trends in the Southern Lakes area.

| Recommendations | |
|-----------------|---|
| 2.64 | <p><u>Monitor upland game bird populations, through existing programs.</u></p> <ul style="list-style-type: none"> • A monitoring program for upland game birds should focus on population trends of willow ptarmigan and spruce grouse, because they are the most important species in the region for hunters and as prey for other wildlife. In addition, willow ptarmigan are emerging as a species of conservation interest. • The feasibility of monitoring spruce grouse populations within the Community Ecological Monitoring Program should be explored. • Game guardian type programs may be particularly useful for monitoring upland game bird populations. Any monitoring program, however, should be long-term in nature and coordinated. • Data collected by various monitoring programs should be made available for incorporation into the Birds of Yukon database. |
| 2.65 | <p><u>Review the current harvest regime and reporting scheme for upland game birds.</u></p> <ul style="list-style-type: none"> • There is a need for the governments to develop a user-friendly and effective harvest reporting system for upland game birds. • The harvest regime for upland game birds should be reviewed and improved, as necessary. |
| 2.66 | <p><u>Continue to promote opportunities to learn about upland game birds and their habitats.</u></p> <ul style="list-style-type: none"> • Educational materials could be developed about upland game birds in the Yukon, focusing on their identification, natural history, and conservation and management. One such product could be a “Yukon Wild” brochure similar to those developed for bats and amphibians by |

| | |
|--|--|
| | <p>Environment Yukon, or a DVD or other audio visual media.</p> <ul style="list-style-type: none">• Educational opportunities for Yukon hunters should be a priority. Information supplied to hunters should focus on species identification, ethical issues, and suitable firearms, etc. This information could be delivered one of any number of means (e.g., hunter workshop, DVD, pamphlet, etc.). |
|--|--|

Resident Wintering Birds Recommendations

Resident birds include those hearty species that endure the harsh cold and limited food supply of a Yukon winter. Several of these species are the source of much enjoyment by Southern Lakes residents that watch and monitor them at their feeders all winter.

The Southern Lakes area is in the middle of the Northwestern Interior Forest Bird Conservation Region. Of the 18 species of birds that regularly overwinter in the Southern Lakes area, three have been identified as priority for regional stewardship in the draft Northwestern Interior Forest Bird Conservation Region Plan. This means that a large proportion of their continental and/or world population occurs in the Northwestern Interior Forest Bird Conservation Region, so if these species are not given attention for conservation here, no other region can compensate. Some of the priority species also have specific habitat needs, such as cavity trees for nesting.

Ravens are Yukon’s territorial bird and important in the culture of many First Nations.

| Recommendations | |
|-----------------|---|
| 2.67 | <p><u>Participate in national citizen science programs that monitor resident bird populations.</u></p> <ul style="list-style-type: none"> • Existing monitoring programs done by volunteers such as the Christmas Bird Count, Breeding Bird Survey and Project FeederWatch should be the emphasis for monitoring resident birds. • Particular emphasis should be afforded to monitoring species of emerging conservation concern (e.g. mountain chickadees, boreal chickadees) and tracking the occurrence and possible establishment of species moving up from coastal Alaska (e.g. northwestern crows and Stellar’s jays). • New monitoring programs could be implemented by the governments, non-government organizations or community groups, as well as individual citizens. Any monitoring program, however, should be long-term in nature and coordinated with existing programs. • Data collected by various monitoring programs should be incorporated into the Birds of Yukon database. |
| 2.68 | <p><u>Monitor for diseases of concern in resident birds.</u></p> <ul style="list-style-type: none"> • West Nile virus is an avian disease of concern in the region. It can be found particularly in birds of the corvid family (ravens, crows, magpies, jays). • Surveillance for West Nile virus should be continued, where feasible |

| | |
|------|--|
| | (e.g. testing of corvids found sick or dead). |
| 2.69 | <p><u>Identify, map, and carefully manage sensitive habitats (e.g. wetlands, riparian areas, older forests) that are be used by resident birds.</u></p> <ul style="list-style-type: none"> • Important nesting habitats for resident birds, such as cliffs, wetlands, riparian areas and older forest, should be the focus in terms of identification, mapping and habitat management. • Environment Yukon’s Wildlife Key Areas database should be reviewed to ensure that areas identified as particularly important for resident birds (with an emphasis on species at risk) are included in the database. • Best management practices should be developed for land use developments occurring in or near important habitats for resident birds, such as riparian forest and cliffs. • The inadvertent, or unintended destruction of nests that may occur, for example, during land clearing, is called “incidental take”. The incidental take of resident birds that are listed under the <i>Migratory Birds Convention Act</i>, through activities such as fur trapping, land clearing and fuelwood harvest is prohibited. |
| 2.70 | <p><u>Promote increased public awareness of, and appreciation for, resident birds and their habitats, through existing programs.</u></p> <ul style="list-style-type: none"> • Resident bird viewing opportunities should be further promoted in existing environmental education programs such as Environment Yukon’s Wildlife Viewing Program, field excursions or demonstrations offered by the Yukon Bird Club excursions, Yukon Bird Observatory, and the Yukon Conservation Society, as well as First Nation culture camps. • Wildlife viewing and interpretative programs focused on ravens could be initiated. • A pamphlet on the birds that can be seen at Yukon bird feeders during winter would be a good source of information. It should include information on the identification and natural history of the species. • Educational initiatives for this group of birds should include a specific cultural significance component contributed by First Nations. |

Migratory Bird Recommendations

About 129 migratory bird species return to the Southern Lakes area each year to nest and produce young. Many Southern Lakes residents enjoy viewing these birds and look forward to their return.

Several species are in decline, due to a wide range of threats. In Canada, threats include changes to habitat from various development activities, increased disturbance, and climate change effects. Outside Canada, key migration, wintering and breeding habitats may be lost or degraded through development, agriculture, forestry, resource extraction or other human activity. Other threats include collision with man-made structures, and exposure to toxic pollutants, including chemicals which may be banned or tightly regulated in Canada and the United States but are more freely available elsewhere. While the United States and Mexico have passed laws similar to Canada's Migratory Birds Convention Act, 1994, which provide legal protection to many birds, other countries have not and migratory birds can be threatened by unsustainable or illegal hunting and persecution.

Activities on their breeding grounds in the Southern Lakes area, including removal of large diameter trees and snags and water level management, and may also impact local populations. Species such as common nighthawk, rusty blackbird, and olive-sided flycatcher are protected under Canada's *Species at Risk Act*.

Bird use of spring open water areas is well documented. Wetlands and riparian areas (i.e. areas adjacent to rivers and streams, lakes and wetlands) in the Southern Lakes area are particularly important for many of these species. Migratory birds, along with many other wildlife species, would benefit from development of a wetland policy to guide and direct management of wetlands both in the Southern Lakes area and Yukon as a whole. A wetland policy would ensure a common understanding of the value and vulnerability of wetlands.

| Recommendations | |
|-----------------|--|
| 2.71 | <p><u>Develop a coordinated monitoring program for migratory birds, with a focus on species at risk and traditionally used species.</u></p> <ul style="list-style-type: none">• Traditionally-used species (e.g. ducks and geese) and species of conservation concern (e.g. several aerial insectivores) should be the focus of monitoring programs in the Southern Lakes area.• Existing monitoring programs that contribute data to larger national or continental-wide monitoring initiatives should be the focus. Key examples of these types of programs, which are primarily done by volunteers, include the Breeding Bird Survey, spring staging surveys, Roadside Waterfowl Monitoring Program, Feeder Watch, Nest Watch, and the Canadian Lakes Loon Survey. |

| | |
|------|---|
| | <ul style="list-style-type: none"> • Additional monitoring programs to address gaps (e.g. woodpeckers, aerial insectivores, etc) could be implemented by the governments, non-government organizations or community groups, as well as individual citizens. Any monitoring program should be coordinated and long-term in nature. • Protected areas, such as Agay Mene and Kusawa territorial parks and Lewes Marsh Habitat Protection Area, would be ideal locations to include in a network of areas where migratory bird populations are periodically monitored. • Data collected by various monitoring programs should be made available for incorporation into the Yukon Conservation Data Centre database and the Birds of Yukon database, as appropriate. • Where feasible, disease surveillance should be incorporated into other existing monitoring programs. |
| 2.72 | <p><u>Identify, map, and carefully manage spring staging areas for waterfowl and wading birds.</u></p> <ul style="list-style-type: none"> • Important spring staging areas for waterfowl and wading birds need to be identified and mapped. There is a need to determine if there are additional important spring staging areas for migratory birds. Environment Yukon’s Wildlife Key Areas database should be reviewed and updated, if necessary. • Important spring staging areas include Lewes Marsh, Shallow Bay, Tagish Narrows, McClintock Bay, and Teslin River. These and other identified areas need to be carefully managed for the potential impacts on waterfowl and wading birds. Potential impacts include human disturbance, habitat loss through shoreline development, and the timing and extent of water level manipulations for hydro-electrical development. • Shoreline development guidelines would be important for carefully managing habitat for waterfowl, as well as a host of other fish and wildlife species using riparian and aquatic areas. • Important spring staging areas should be included in the region’s network of protected areas. • A policy for wetlands would help provide direction for how these important waterfowl habitats are managed. |
| 2.73 | <p><u>Identify, map, and carefully manage key habitats for migratory birds, with an emphasis on species using habitat important for biodiversity conservation (e.g. wetlands, riparian areas, older forests) and species at risk.</u></p> <ul style="list-style-type: none"> • Important nesting habitats for migratory birds, such as wetlands, |

| | |
|------|--|
| | <p>riparian areas and older forest, should be the focus in terms of identification, mapping and habitat management for migratory birds.</p> <ul style="list-style-type: none"> • Environment Yukon’s Wildlife Key Areas database should be reviewed to ensure that areas identified as particularly important for migratory birds (with an emphasis on species at risk) are included. • Best management practices should be developed for land use activities occurring in or near important habitats, such as wetlands and riparian areas. • Incidental take is the inadvertent or unintended destruction of nests that may occur, for example, during land clearing. The incidental take of migratory birds that are listed under the <i>Migratory Birds Convention Act</i>, through activities such as land clearing and fuelwood harvest is prohibited. Strategies should be developed to stop the incidental take of these birds due to activities such as land clearing and fuelwood harvest. |
| 2.74 | <p><u>Continue to monitor the harvest of waterfowl through existing programs.</u></p> <ul style="list-style-type: none"> • The harvest of waterfowl should be monitored and the harvest regime modified if the harvest is not sustainable. |
| 2.75 | <p><u>Promote increased public awareness of, and appreciation for, migratory birds and their habitats, through existing programs.</u></p> <ul style="list-style-type: none"> • Celebration of Swans and Swan Haven are among the territory’s premier nature interpretation events and make a significant contribution toward increasing public awareness and appreciation of migratory birds, particularly waterfowl. • Waterfowl viewing should be promoted at other key spring staging areas, perhaps through interpretative events or interpretative panels on site. • Some educational initiatives and materials should be focused on addressing human impacts to migratory birds, such as human disturbance to staging waterfowl or incidental take of migratory birds due to land clearing or fuelwood harvest. The incidental take of migratory birds listed under the MBCAct is prohibited. Strategies should be developed to stop the incidental take of these birds due to activities such as land clearing and fuelwood harvest. • Citizen science initiatives to monitor migratory birds should be encouraged and include educational aspects. |

Birds of Prey Recommendations

Fifteen species of birds of prey are known to breed in the Southern Lakes area, but as with most top of the food chain predators, their populations are small relative to prey species. For this reason, raptors may be particularly vulnerable to changes in available prey. Activities on their wintering grounds outside of the Yukon, such as use of pesticides, pose a significant threat to some species. Local threats, such as electrocution and nest disruption, also are likely smaller in their impact on populations and should also be carefully managed. The ongoing monitoring programs (Breeding Bird Survey, Christmas Bird Counts) are poor for tracking birds of prey populations.

In the Southern Lakes area birds of prey are occasionally injured by collisions, or young are found malnourished and unable to migrate. A new rehabilitation centre at the Yukon Wildlife Preserve has the capacity to care for these birds.

| Recommendations | |
|-----------------|--|
| 2.76 | <p><u>Inventory and monitor birds of prey, with a focus on species at risk, using existing programs.</u></p> <ul style="list-style-type: none">• Species of conservation concern should be the focus of monitoring programs in the Southern Lakes area (e.g. gyrfalcon, peregrine falcon, short-eared owl, and kestrels).• Monitoring programs could be developed and implemented by the governments, non-government organizations or community groups. Any monitoring program, however, should be long-term in nature and coordinated.• National and international birds of prey monitoring programs should be adopted in the Yukon, rather than creating a stand-alone program.• Existing programs that serve as excellent examples include the Nocturnal Owl Survey program and the International Peregrine Falcon Survey.• Nest box monitoring programs also are effective for monitoring some owl populations, as well as kestrels, and are already in place in the Southern Lakes area.• The Coast Mountain gyrfalcon population should continue to be monitored.• Protected areas, such as Agay Mene and Kusawa territorial parks and Lewes Marsh Habitat Protection Area, would be ideal locations to include in a network of areas where bird of prey populations are periodically monitored. |

| | |
|------|--|
| | <ul style="list-style-type: none"> Data collected by various monitoring programs should be made available for incorporation into the Yukon Conservation Data Centre database and the Birds of Yukon database, as appropriate. |
| 2.77 | <p><u>Identify, map and carefully manage sensitive habitats that support birds of prey.</u></p> <ul style="list-style-type: none"> Important nesting habitats for birds of prey include cliffs and old forest with big dead trees, particularly in riparian areas. These areas should be the focus in terms of identification, mapping and habitat management for birds of prey. Some key bird of prey nesting habitats are mapped in the Wildlife Key Areas database, such as for cliff-nesting species (peregrine falcons, golden eagles). Best management practices should be developed for land use developments occurring in or near important habitats, such as cliffs and riparian forest. Some birds of prey will abandon their nests if disturbed. Efforts to reduce human disturbance through public education should be a priority. Roadside verges are attractive hunting grounds for several species of birds of prey (some owls, northern harriers, kestrels), occasionally resulting in birds of prey being struck by vehicles. Roadside vegetation management should seek means to reduce the attractiveness of these areas to birds of prey. Existing and potential energy development initiatives need to consider measures to reduce mortality of birds of prey through electrocution on power lines or strikes with wind turbines. |
| 2.78 | <p><u>Maintain the prohibition on the harvest and possession of birds of prey, and minimize incidental take.</u></p> <ul style="list-style-type: none"> The prohibition on harvest of gyrfalcon populations in the Yukon portion of the Coast Mountains should be maintained. The incidental take of birds of prey, through activities such as land clearing, fuelwood harvest or fur harvesting, is believed to be minimal in the Southern Lakes area. Regardless, efforts should be made to minimize incidental take through best management practices. These species are not included under the <i>Migratory Birds Convention Act</i>. |
| 2.79 | <p><u>Promote increased public awareness and appreciation of birds of prey.</u></p> <ul style="list-style-type: none"> Birds of prey viewing opportunities should be further promoted in existing environmental education programs such as Environment Yukon's Wildlife Viewing Program, field excursions or demonstrations |

| | |
|--|---|
| | <p>offered by the Yukon Bird Club excursions, Yukon Bird Observatory, and the Yukon Conservation Society, as well as First Nation culture camps.</p> <ul style="list-style-type: none">• Various sites in the Southern Lakes area are excellent opportunities for promoting both birds of prey viewing and education, such as the bald eagle nest near the Robert Service campground in Whitehorse, or osprey nests near the Snafu Lake campground in Agay Mene Territorial Park. These and similar sites would be ideal for educational panels that deliver information on the biology and conservation of birds of prey.• The Yukon Wildlife Preserve has the potential to provide excellent educational and viewing opportunities for birds of prey, particularly in relation to their new wildlife rehabilitation centre. It is an ideal location for school groups. |
|--|---|

Amphibian Recommendations

Frogs and toads are culturally important to some First Nations, and they are important indicators of overall ecosystem health, primarily of aquatic systems. Globally, amphibians are subject to many threats and many species are declining: primary threats in the Yukon include diseases, loss of habitat, introduction of non-native species, and climate change.

Two species of amphibian are confirmed in the Southern Lakes area: the wood frog and the Columbia spotted frog. The wood frog is common and widespread, while the Columbia spotted frog is rare and is ranked as may be at risk in the Yukon. No regular monitoring of these populations occurs in the Southern Lakes area.

Recommendations made by the committee are in line with the draft *Yukon Amphibian Management Plan* and with national and international monitoring programs.

| Recommendations | |
|-----------------|--|
| 2.80 | <p><u>Develop a coordinated amphibian population and inventory and monitoring program.</u></p> <ul style="list-style-type: none"> • Given their cultural and ecological value as indicators, coupled with conservation concern, amphibian species would be an important group of species to monitor in the Southern Lakes area. • Monitoring programs could be developed and implemented by the governments, non-government organizations or community groups. Any monitoring program, however, should be long-term in nature and coordinated. • National and international amphibian monitoring programs should be adopted in the Yukon, rather than creating a stand-alone program. • Protected areas, such as Agay Mene and Kusawa territorial parks and Lewes Marsh Habitat Protection Area, would be ideal locations to include in a network of areas where amphibian populations are periodically monitored. • Data collected by various monitoring programs should be made available for incorporation into the Yukon Conservation Data Centre database. |
| 2.81 | <p><u>Monitor key amphibian populations for diseases of concern.</u></p> <ul style="list-style-type: none"> • Chytrid fungus is the disease of concern for amphibians, and key populations in the Southern Lakes area should be monitored periodically for the disease. • Collaborative efforts with British Columbia, Alaska and the Northwest |

| | |
|------|---|
| | <p>Territories should be considered to prevent the spread of chytrid fungus.</p> |
| 2.82 | <p><u>Continue to identify, map, and carefully manage habitats for amphibian species at risk.</u></p> <ul style="list-style-type: none"> • Wetlands and other aquatic areas are a key habitat requirement for amphibians, and efforts should continue to identify and map those used by amphibians. • Areas identified as regionally important for amphibians should be entered into Environment Yukon’s Wildlife Key Areas database. These areas should be given a higher duty of care in relation to land use applications and dispositions. |
| 2.83 | <p><u>Continue to promote opportunities to learn about amphibians and their habitats.</u></p> <ul style="list-style-type: none"> • Environment Yukon’s “Yukon Wild” brochure on Yukon Amphibians (Environment Yukon 2005) is a valuable resource that should continue to be made available. • Amphibian viewing opportunities should be promoted in the Yukon. For example, local wood frog breeding ponds, such as Paddy’s Pond and Pelly Pond in Whitehorse, can make excellent field sites for outdoor education and interpretation about amphibians and their aquatic habitats. • There may be opportunities to bring national amphibian monitoring programs, such as FrogWatch, to schools in the Southern Lakes area. These may be helpful in educating students about amphibians and issues for their conservation. |

Appendix A. Southern Lakes Wildlife Coordinating Committee Members

Current Members

| | |
|--------------------------------------|---------------------------|
| Kwanlin Dün First Nation | Dave Sembsmoen (co-chair) |
| Carcross/Tagish First Nation | Patrick James |
| Ta'an Kwäch'än Council | Emmie Fairclough |
| Teslin Tlingit Council | Sandy Smarch |
| Champagne and Aishihik First Nations | Michael Jim |
| Taku River Tlingit | Mark Connor |
| Canada | Wendy Nixon |
| Yukon | Thomas Jung (co-chair) |
| British Columbia | Mark Williams |

Past Members

| | |
|------------------------|---------------------------------|
| Ta'an Kwäch'än Council | Rosa Brown |
| Taku River Tlingit | Jerry Jack Nichole Gordon |
| Canada | Brian Pelchat |
| Yukon | Rob Florkiewicz Bruce McLean |

Appendix B: List of species considered in the Regional Wildlife Assessment for the Southern Lakes Area

Ungulates

| English Common Name | Scientific Name |
|----------------------------|-------------------------------|
| Bison | <i>Bison bison</i> |
| Caribou | <i>Rangifer tarandus</i> |
| Elk | <i>Cervus canadensis</i> |
| Mule Deer | <i>Odocoileus hemionus</i> |
| White-tailed Deer | <i>Odocoileus virginianus</i> |
| Moose | <i>Alces americanus</i> |
| Dall's Sheep | <i>Ovis dalli</i> |
| Mountain Goats | <i>Oreamnos americanus</i> |

Large Carnivores

| English Common Name | Scientific Name |
|----------------------------|-------------------------|
| Grizzly Bears | <i>Ursus arctos</i> |
| American Black Bear | <i>Ursus americanus</i> |
| Wolves | <i>Canis lupus</i> |

Furbearers

| English Common Name | Scientific Name |
|----------------------------|--------------------------------|
| Red Squirrel | <i>Tamiasciurus hudsonicus</i> |
| Beaver | <i>Castor canadensis</i> |
| Muskrat | <i>Ondatra zibethicus</i> |
| Coyote | <i>Canis latrans</i> |
| Red Fox | <i>Vulpes vulpes</i> |
| Wolverine | <i>Gulo gulo</i> |
| River Otter | <i>Lontra canadensis</i> |
| Marten | <i>Martes americana</i> |
| Fisher | <i>Martes pennanti</i> |
| Ermine | <i>Mustela erminea</i> |
| Mink | <i>Neovison vison</i> |
| Lynx | <i>Lynx canadensis</i> |

Small Mammals

| English Common Name | Scientific Name |
|----------------------------|-------------------------|
| Cinereus Shrew | <i>Sorex cinereus</i> |
| American Pygmy Shrew | <i>Sorex hoyi</i> |
| Dusky Shrew | <i>Sorex monticolus</i> |
| American Water Shrew | <i>Sorex palustris</i> |
| Little Brown Myotis | <i>Myotis lucifugus</i> |

| | |
|--------------------------|--------------------------------|
| Collared Pika | <i>Ochotona collaris</i> |
| Snowshoe Hare | <i>Lepus americanus</i> |
| Northern Flying Squirrel | <i>Glaucomys sabrinus</i> |
| Hoary Marmot | <i>Marmota caligata</i> |
| Woodchuck | <i>Marmota monax</i> |
| Arctic Ground Squirrel | <i>Urocitellus parryii</i> |
| Least Chipmunk | <i>Neotamias minimus</i> |
| Nearctic Brown Lemming | <i>Lemmus trimucronatus</i> |
| Long-Tailed Vole | <i>Microtus longicaudus</i> |
| Singing Vole? | <i>Microtus miurus</i> |
| Root Vole | <i>Microtus oeconomus</i> |
| Meadow Vole | <i>Microtus pennsylvanicus</i> |
| Northern Red-Backed Vole | <i>Myodes rutilus</i> |
| Bushy-Tailed Woodrat | <i>Neotoma cinerea</i> |
| Northwestern Deermouse | <i>Peromyscus keeni</i> |
| North American Deermouse | <i>Peromyscus maniculatus</i> |
| Eastern Heather Vole | <i>Phenacomys ungava</i> |
| Northern Bog Lemming | <i>Synaptomys borealis</i> |
| House Mouse | <i>Mus musculus</i> |
| Meadow Jumping Mouse | <i>Zapus hudsonius</i> |
| North American Porcupine | <i>Erethizon dorsatum</i> |

Upland Game Birds

| English Common Name | Scientific Name |
|----------------------------|---------------------------------|
| Ruffed Grouse | <i>Bonasa umbellus</i> |
| Spruce Grouse | <i>Falcipennis canadensis</i> |
| Willow Ptarmigan | <i>Lagopus lagopus</i> |
| Rock Ptarmigan | <i>Lagopus mutus</i> |
| White-tailed Ptarmigan | <i>Lagopus leucurus</i> |
| Dusky Grouse ¹ | <i>Dendragapus obscurus</i> |
| Sharp-tailed Grouse | <i>Tympanuchus phasianellus</i> |

Birds of Prey

| English Common Name | Scientific Name |
|----------------------------|---------------------------------|
| American Kestrel | <i>Falco sparverius</i> |
| Bald Eagle | <i>Haliaeetus leucocephalus</i> |
| Boreal Owl | <i>Aegolius funereus</i> |
| Golden Eagle | <i>Aquila chrysaetos</i> |
| Great Gray Owl | <i>Strix nebulosa</i> |
| Great Horned Owl | <i>Bubo virginianus</i> |
| Gyr Falcon | <i>Falco rusticolus</i> |
| Merlin | <i>Falco columbarius</i> |
| Northern Goshawk | <i>Accipiter gentilis</i> |

| | |
|-----------------------|---------------------------|
| Northern Harrier | <i>Circus cyaneus</i> |
| Northern Hawk Owl | <i>Surnia ulula</i> |
| Northern Saw-Whet Owl | <i>Aegolius acadicus</i> |
| Osprey | <i>Pandion haliaetus</i> |
| Peregrine Falcon | <i>Falco peregrinus</i> |
| Red-Tailed Hawk | <i>Buteo jamaicensis</i> |
| Rough-Legged Hawk | <i>Buteo lagopus</i> |
| Sharp-Shinned Hawk | <i>Accipiter striatus</i> |
| Short-Eared Owl | <i>Asio flammeus</i> |
| Swainson's Hawk | <i>Buteo swainsoni</i> |

Migratory Birds

| English Common Name | Scientific Name |
|----------------------------|--------------------------------|
| Red-throated Loon | <i>Gavia stellata</i> |
| Pacific Loon | <i>Gavia pacifica</i> |
| Common Loon | <i>Gavia immer</i> |
| Pied-billed Grebe | <i>Podilymbus podiceps</i> |
| Horned Grebe | <i>Podiceps auritus</i> |
| Red-necked Grebe | <i>Podiceps grisegena</i> |
| Double-crested Cormorant | <i>Phalacrocorax auritus</i> |
| Sora | <i>Porzana carolina</i> |
| American Coot | <i>Fulica americana</i> |
| Sandhill Crane | <i>Grus canadensis</i> |
| Black-bellied Plover | <i>Grus grus</i> |
| American Golden-Plover | <i>Pluvialis dominica</i> |
| Semipalmated Plover | <i>Charadrius semipalmatus</i> |
| Killdeer | <i>Charadrius vociferus</i> |
| Greater Yellowlegs | <i>Tringa melanoleuca</i> |
| Lesser Yellowlegs | <i>Tringa flavipes</i> |
| Solitary Sandpiper | <i>Tringa solitaria</i> |
| Wandering Tattler | <i>Heteroscelus incanus</i> |
| Spotted Sandpiper | <i>Actitis macularia</i> |
| Upland Sandpiper | <i>Bartramia longicauda</i> |
| Whimbrel | <i>Numenius phaeopus</i> |
| Semipalmated Sandpiper | <i>Calidris pusilla</i> |
| Least Sandpiper | <i>Calidris minutilla</i> |
| Baird's Sandpiper | <i>Calidris bairdii</i> |
| Pectoral Sandpiper | <i>Calidris melanotos</i> |
| Short-billed Dowitcher | <i>Limnodromus griseus</i> |
| Long-billed Dowitcher | <i>Limnodromus scolopaceus</i> |
| Wilson's Snipe | <i>Gallinago delicata</i> |
| Wilson's Phalarope | <i>Phalaropus tricolor</i> |
| Red-necked Phalarope | <i>Phalaropus lobatus</i> |
| Bonaparte's Gull | <i>Larus philadelphia</i> |

| | |
|-------------------------------|-----------------------------------|
| Mew Gull | <i>Larus canus</i> |
| Ring-billed Gull | <i>Larus delawarensis</i> |
| Herring Gull | <i>Larus argentatus</i> |
| Thayer's Gull | <i>Larus thayeri</i> |
| Glaucous-winged Gull | <i>Larus glaucescens</i> |
| Glaucous Gull | <i>Larus hyperboreus</i> |
| Arctic Tern | <i>Sterna paradisaea</i> |
| Common Nighthawk | <i>Chordeiles minor</i> |
| Rufous Hummingbird | <i>Selasphorus rufus</i> |
| Belted Kingfisher | <i>Ceryle alcyon</i> |
| Yellow-bellied Sapsucker | <i>Sphyrapicus varius</i> |
| Northern Flicker | <i>Colaptes auratus</i> |
| Olive-sided Flycatcher | <i>Contopus cooperi</i> |
| Western Wood-Pewee | <i>Contopus sordidulus</i> |
| Alder Flycatcher | <i>Empidonax alnorum</i> |
| Least Flycatcher | <i>Empidonax minimus</i> |
| Hammond's Flycatcher | <i>Empidonax hammondi</i> |
| Dusky Flycatcher | <i>Empidonax oberholseri</i> |
| Say's Phoebe | <i>Sayornis saya</i> |
| Northern Shrike | <i>Lanius excubitor</i> |
| Warbling Vireo | <i>Vireo gilvus</i> |
| Horned Lark | <i>Eremophila alpestris</i> |
| Tree Swallow | <i>Tachycineta bicolor</i> |
| Violet-green Swallow | <i>Tachycineta thalassina</i> |
| Northern Rough-winged Swallow | <i>Stelgidopteryx serripennis</i> |
| Bank Swallow | <i>Riparia riparia</i> |
| Cliff Swallow | <i>Petrochelidon pyrrhonota</i> |
| Barn Swallow | <i>Hirundo rustica</i> |
| Golden-crowned Kinglet | <i>Regulus satrapa</i> |
| Ruby-crowned Kinglet | <i>Regulus calendula</i> |
| Mountain Bluebird | <i>Sialia currucoides</i> |
| Townsend's Solitaire | <i>Myadestes townsendi</i> |
| Gray-cheeked Thrush | <i>Catharus minimus</i> |
| Swainson's Thrush | <i>Catharus ustulatus</i> |
| Hermit Thrush | <i>Catharus guttatus</i> |
| American Robin | <i>Turdus migratorius</i> |
| Varied Thrush | <i>Ixoreus naevius</i> |
| American Pipit | <i>Anthus rubescens</i> |
| Bohemian Waxwing | <i>Bombycilla garrulus</i> |
| Cedar Waxwing | <i>Bombycilla cedrorum</i> |
| Tennessee Warbler | <i>Vermivora peregrina</i> |
| Orange-crowned Warbler | <i>Vermivora celata</i> |
| Yellow Warbler | <i>Dendroica petechia</i> |
| Yellow-rumped Warbler | <i>Dendroica coronata</i> |
| Townsend's Warbler | <i>Dendroica townsendi</i> |

| | |
|-------------------------|----------------------------------|
| Blackpoll Warbler | <i>Dendroica striata</i> |
| American Redstart | <i>Setophaga ruticilla</i> |
| Northern Waterthrush | <i>Seiurus noveboracensis</i> |
| Common Yellowthroat | <i>Geothlypis trichas</i> |
| Wilson's Warbler | <i>Wilsonia pusilla</i> |
| American Tree Sparrow | <i>Spizella arborea</i> |
| Chipping Sparrow | <i>Spizella passerina</i> |
| Brewer's Sparrow | <i>Spizella breweri</i> |
| Savannah Sparrow | <i>Passerculus sandwichensis</i> |
| Fox Sparrow | <i>Passerella iliaca</i> |
| Lincoln's Sparrow | <i>Melospiza lincolnii</i> |
| White-throated Sparrow | <i>Zonotrichia albicollis</i> |
| White-crowned Sparrow | <i>Zonotrichia leucophrys</i> |
| Golden-crowned Sparrow | <i>Zonotrichia atricapilla</i> |
| Dark-eyed Junco | <i>Junco hyemalis</i> |
| Red-winged Blackbird | <i>Agelaius phoeniceus</i> |
| Rusty Blackbird | <i>Euphagus carolinus</i> |
| Brown-headed Cowbird | <i>Molothrus ater</i> |
| Gray-crowned Rosy-Finch | <i>Leucosticte tephrocotis</i> |
| Purple Finch | <i>Carpodacus purpureus</i> |
| Pine Siskin | <i>Carduelis pinus</i> |

Resident Birds

| English Common Name | Scientific Name |
|--------------------------------|------------------------------|
| Rock Pigeon | <i>Columba livia</i> |
| Downy Woodpecker | <i>Picoides pubescens</i> |
| Hairy Woodpecker | <i>Picoides villosus</i> |
| American Three-Toed Woodpecker | <i>Picoides dorsalis</i> |
| Black-Backed Woodpecker | <i>Picoides arcticus</i> |
| Gray Jay | <i>Perisoreus canadensis</i> |
| Black-Billed Magpie | <i>Pica hudsonia</i> |
| Common Raven | <i>Corvus corax</i> |
| Black-Capped Chickadee | <i>Poecile atricapilla</i> |
| Mountain Chickadee | <i>Poecile gambeli</i> |
| Boreal Chickadee | <i>Poecile hudsonica</i> |
| Red-Breasted Nuthatch | <i>Sitta canadensis</i> |
| American Dipper | <i>Cinclus mexicanus</i> |
| Pine Grosbeak | <i>Pinicola enucleator</i> |
| Red Crossbill | <i>Loxia curvirostra</i> |
| White-Winged Crossbill | <i>Loxia leucoptera</i> |
| Common Redpoll | <i>Acanthis flammea</i> |
| House Sparrow | <i>Passer domesticus</i> |

Waterfowl

| English Common Name | Scientific Name |
|-----------------------------|----------------------------------|
| Greater White-Fronted Goose | <i>Anser albifrons</i> |
| Snow Goose | <i>Chen caerulescens</i> |
| Brant | <i>Branta bernicla</i> |
| Canada Goose | <i>Branta canadensis</i> |
| Trumpeter Swan | <i>Cygnus buccinator</i> |
| Tundra Swan | <i>Cygnus columbianus</i> |
| Gadwall | <i>Anas strepera</i> |
| Eurasian Wigeon | <i>Anas penelope</i> |
| American Wigeon | <i>Anas americana</i> |
| Mallard | <i>Anas platyrhynchos</i> |
| Blue-Winged Teal | <i>Anas discors</i> |
| Northern Shoveler | <i>Anas clypeata</i> |
| Northern Pintail | <i>Anas acuta</i> |
| Green-Winged Teal | <i>Anas crecca</i> |
| Cinnamon Teal | <i>Anas cyanoptera</i> |
| Canvasback | <i>Aythya valisineria</i> |
| Redhead | <i>Aythya americana</i> |
| Ring-Necked Duck | <i>Aythya collaris</i> |
| Greater Scaup | <i>Aythya marila</i> |
| Lesser Scaup | <i>Aythya affinis</i> |
| Harlequin Duck | <i>Histrionicus histrionicus</i> |
| Surf Scoter | <i>Melanitta perspicillata</i> |
| White-Winged Scoter | <i>Melanitta fusca</i> |
| Long-Tailed Duck | <i>Clangula hyemalis</i> |
| Bufflehead | <i>Bucephala albeola</i> |
| Common Goldeneye | <i>Bucephala clangula</i> |
| Barrow's Goldeneye | <i>Bucephala islandica</i> |
| Hooded Merganser | <i>Lophodytes cucullatus</i> |
| Common Merganser | <i>Mergus merganser</i> |
| Red-Breasted Merganser | <i>Mergus serrator</i> |
| Ruddy Duck | <i>Oxyura jamaicensis</i> |

Amphibians

| English Common Name | Scientific Name |
|----------------------------|--|
| Wood Frog | <i>Lithobates sylvaticus</i> [<i>Rana sylvatica</i>] |
| Columbia Spotted Frog | <i>Rana luteiventris</i> |

Appendix C. Status of legally protected species in the Southern Lakes area.

| Species | Legislation | Status |
|------------------------|---|--|
| Woodland Caribou | Federal <i>Species at Risk Act</i> (SARA) | <ul style="list-style-type: none"> • Listed as special concern on Schedule 1 of SARA • National management plan in review • No licensed hunting in Southern Lakes area; subsistence hunting rights apply |
| Rusty Blackbird | Federal SARA | <ul style="list-style-type: none"> • Listed as special concern on Schedule 1 of SARA • No management plan in effect |
| Olive-sided Flycatcher | Federal SARA | <ul style="list-style-type: none"> • Listed as threatened in Schedule 1 of SARA • No recovery strategy in effect |
| Common Nighthawk | Federal SARA | <ul style="list-style-type: none"> • Listed as threatened in Schedule 1 of SARA • No recovery strategy in effect |
| Wood Bison | Federal SARA; <i>Yukon Wildlife Act</i> | <ul style="list-style-type: none"> • Listed as threatened in Schedule 1 of SARA • Listed as game species in <i>Yukon Wildlife Act</i> • Transplanted species; no subsistence hunting rights • National recovery strategy in review |
| Cougar | <i>Yukon Wildlife Act</i> | <ul style="list-style-type: none"> • Listed as specially protected in <i>Yukon Wildlife Act</i> • No harvest by licensed hunters |
| Gyr Falcon | <i>Yukon Wildlife Act</i> | <ul style="list-style-type: none"> • Listed as specially protected in <i>Yukon Wildlife Act</i> • No harvest allowed |
| Peregrine Falcon | Federal SARA; <i>Yukon Wildlife Act</i> ; CITES | <ul style="list-style-type: none"> • Listed as special concern on Schedule 1 of SARA • No national management plan in effect • No harvest allowed |
| Trumpeter Swan | <i>Yukon Wildlife Act</i> | <ul style="list-style-type: none"> • Listed as specially protected in <i>Yukon Wildlife Act</i> • No harvest by licensed hunters |
| Grizzly Bear | | <ul style="list-style-type: none"> • Waiting to be placed on Schedule 1 of the federal SARA, as a species of special concern • Game species in the <i>Yukon Wildlife Act</i> • Hunting is allowed |
| Wolverine | | <ul style="list-style-type: none"> • Waiting to be placed on Schedule 1 of the federal SARA, as special concern • Game species in the <i>Yukon Wildlife Act</i> • Hunting and trapping is allowed |
| Western Toad | Federal SARA | <ul style="list-style-type: none"> • Listed as special concern on Schedule 1 of SARA • Federal and territorial management plans are being reviewed |

| | | |
|------------------------|---|--|
| Woodland Caribou | Federal <i>Species at Risk Act</i> (SARA) | <ul style="list-style-type: none"> • Listed as special concern on Schedule 1 of SARA. • National management plan in review • No licensed hunting in Southern Lakes area; subsistence hunting rights apply |
| Rusty Blackbird | Federal SARA | <ul style="list-style-type: none"> • Listed as special concern on Schedule 1 of SARA • No management plan in effect |
| Olive-sided Flycatcher | Federal SARA | <ul style="list-style-type: none"> • Listed as threatened in Schedule 1 of SARA • No recovery strategy in effect |

Appendix D. Maps

