

Considerations for Habitat Protection in the Southern Lakes

A review to support protected area planning

Prepared for the Carcross/Tagish Renewable Resources Council

By Lars Jessup

March, 2023



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Summary and Recommendations

The Carcross/Tagish Renewable Resources Council (C/TRRC) was tasked with addressing concerns related to habitat protection under the 2020 Community-Based Fish and Wildlife Workplan for the Carcross/Tagish Traditional Territory. One of the actions identified in the plan was to “Identify appropriate mechanisms for habitat protection and develop proposals” in important areas. This report supports the C/TRRC in accomplishing this task by discussing potential mechanisms, identifying areas of local interest from past processes, and listing available data sources to support the development of proposals. However, taking the next step and developing protected area proposals must be done in partnership with Carcross/Tagish First Nation (C/TFN), Yukon government (YG), and other partners. Future proposals will require strong rationale based on environmental and cultural values as well as demonstration of community support, and this can only be achieved through collaboration. There have been many important habitat areas and values identified in previous planning and engagement processes in Southern Lakes, and this report discusses several of the more recent examples. There is also a wealth of traditional, cultural, local, and scientific information that could be useful for future proposals, and this report highlights information sources known to the author. Current federal government initiatives to increase the number of protected areas coincides nicely with the C/TRRC work and may provide resources to support proposal development and engagement work.

Recommendations

- Collaborate with C/TFN and YG, sharing information and resources to strengthen the case for specific protected areas and mechanisms for protection. A meeting with these partners would be a good next step.
- Leverage past planning and engagement work to identify priority areas, beginning with the areas identified within this report.
- Consider the suitability of habitat protection mechanisms within the local context to build community support; some may be too restrictive and others not restrictive enough.
- Capitalize on available funding sources to support development of proposals and engage communities.

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Introduction

The Carcross/Tagish Renewable Resources Council (C/TRRC) heard many concerns related to fish and wildlife habitat during planning of the 2020 Community-Based Fish and Wildlife Workplan for the Carcross/Tagish Traditional Territory. These concerns resulted in the inclusion of several actions within the plan which the C/TRRC was tasked with completing (Table 1). The C/TRRC began by conducting an online survey to poll Southern Lakes residents on their interest and support for habitat protection (C/TRRC, 2022). This report was prepared to support implementation of the second action from Table 1 and summarizes potentially “appropriate mechanisms” for habitat protection. This report also identifies information that could be used to build rationale and develop proposals for future habitat protection. This includes highlighting important wildlife habitat areas and values identified through past processes, as well as outlining available information, such as wildlife survey data or Traditional Knowledge. While this report does not “develop proposals suited to each area”, it can be used to prioritize potential areas and identify information available to support proposals, as well as any data gaps that might exist. Future work to prioritize potential areas and develop proposals must be done collaboratively with Carcross/Tagish First Nation (C/TFN) and Yukon government.

Table 1 – Objectives, actions, and outcomes related to habitat protection, excerpted from the 2020 Community-Based Fish and Wildlife Workplan for the Carcross/Tagish Traditional Territory, pg. 30.

OBJECTIVE	ACTIONS and OUTCOMES
Explore and collaborate on habitat protection for priority areas.	<ul style="list-style-type: none">Engage the public on this concept to gauge support, interest and priorities.Identify appropriate mechanisms for habitat protection and develop proposals suited to each area.

The body of this report is divided into three sections. The first summarizes habitat protection options, or mechanisms, stemming from current legislative, regulatory, or other policy sources. Relevant considerations for each option are presented, especially as they relate to the C/TRRC and the Southern Lakes. The next section outlines the habitat values, concerns, and areas identified by Southern Lakes residents through a variety of recent processes. Finally, a short summary is given of available information sources which could be used to support the creation of proposals for habitat protection.

The C/TRRC has initiated this work at an advantageous time. The recent bilateral Nature Agreement between Yukon and Canada (Government of Yukon, 2022), and Canada’s target of conserving 25% of lands and waters by 2025 and 30% by 2030 (Government of Canada, 2022) indicate their intent as well as urgency to establish new protected areas. These initiatives also arrive with potential resources to assist planning and establishment of new protected areas (e.g., Canada Nature Fund; Government of Canada, 2022). The new focus by Government of Canada on Indigenous Protected and Conserved Areas (IPCAs) may indicate a willingness to work with communities to achieve conservation that aligns with local interests. Regardless of the protection mechanism selected, proposals will need to demonstrate a combination of ecological, traditional, and cultural values and rationale for conservation, as well as support from local communities. Potential proposals should be co-developed between the C/TRRC,

C/TFN, Yukon government, and any overlapping First Nations, RRCs, or other implicated parties, such as the Southern Lakes Caribou Steering Committee.

Habitat Protection Options

Special Management Areas

Chapter 10 of the Umbrella Final Agreement describes provisions for creation of Special Management Areas (SMAs). Within the agreements, SMA is a catch-all term describing lands managed by the federal, territorial, or First Nation governments where special considerations for co-management are implemented. An SMA might include national or territorial parks, wildlife or bird sanctuaries, watershed protection areas, habitat protection areas, or other tools, as agreed by the parties. The mechanisms listed under this heading in this report are those listed specifically in Chapter 10 or those identified in various Final Agreements. However, other mechanisms listed in this report might also be considered SMAs, as per Chapter 10. The objective of SMAs is to “maintain important features of the Yukon’s natural or cultural environment for the benefit of Yukon residents and all Canadians while respecting the rights of Yukon Indian People and Yukon First Nations”. Most SMAs have been established through provisions in First Nation Final Agreements, such as the Tagish River Habitat Protection Area (HPA), but others have been created through implementation of Regional Land Use Plans (RLUP), such as the Ch’ihilii Chik Habitat Protection Area (HPA). One SMA, the Devil’s Elbow and Big Island HPA, was created following recommendations in a community-based fish and wildlife work plan. Management plans are required to be created for SMAs and provisions are described for the involvement of RRCs in their creation and management.

Special Management Areas may be designated under various territorial, federal, or First Nation statutes, such as the Yukon *Wildlife Act* in the case of HPAs, the Yukon *Parks Certainty Act* in the case of territorial parks, or the Canada *National Parks Act* in the case of National Parks. They may also draw on legislative tools found in other statutes, such as withdrawals from land disposition in the *Yukon Lands Act* and *Territorial Lands Act*, prohibitions from staking in the *Quartz Mining Act or Placer Mining Act*, off-road vehicle restrictions found in the *Territorial Lands Act*, or hunting restrictions under the Yukon *Wildlife Act* or Canada *Wildlife Act*, as agreed by the parties (Note that there are two overlapping pieces of legislation related to the governance of surface lands in Yukon, and that Yukon government is currently seeking to replace these with an updated public lands act). While these legislative links lend SMAs some teeth, SMAs also have some limitations, including their often-limited geographic scope, the requirement to complete a management plan (and potentially lengthy planning process), and implementation of recommendations once plans are complete. Note that proposals to establish new SMAs should clearly demonstrate how they meet the objectives established in Chapter 10 of the UFA.

SMAs identified under the C/TFN Final Agreement

- Tagish River HPA (Plan completed in 2022)
- Kusawa Natural Environment Park (Plan drafted but not finalized, area designated under the *Parks and Lands Certainty Act*)
- Lewes Marsh HPA (Planning not initiated; not yet designated under the *Wildlife Act*)

- Agay Mene Natural Environment Park (Planning not initiated; not yet designated under the *Parks and Lands Certainty Act*)

Habitat Protection Areas

- Habitat Protection Areas are a specific type of SMA established under the Yukon *Wildlife Act* (s. 187) and associated regulations (s. 92). Regulations may be created for the management of HPAs under the *Wildlife Act*. Surface and sub-surface lands within an HPA are often withdrawn from potential disposition under relevant legislation.
- There are currently two HPAs established in the CTFN TT, Tagish River and Lewes Marsh, although the Lewes Marsh is not yet designated under the *Wildlife Act*. These HPAs are both of relatively limited geographic extent, a common characteristic of HPAs in Yukon.
- HPA regulations can include options not available under other legislative tools, such as regulation of snowmobile use, which has been used in the Ddhaw Ghro HPA in central Yukon. However, the extent of potential regulatory options has not been widely tested to date.

Territorial Parks

- Territorial Parks are established under the Yukon *Parks and Lands Certainty Act* and many of the Parks have been established in accordance with Chapter 10 of various Final Agreements. The *Act* also establishes provisions for the creation of future parks. The establishment of a *Territorial Park* typically comes with withdrawals under relevant legislation for surface and subsurface land uses, although existing land interests such as active mining claims may continue to exist after the creation of the park. There are currently two *Territorial Parks* in the C/TFN Traditional Territory, Kusawa and Agay Mene, although Agay Mene is not yet designated under the *Parks and Lands Certainty Act*.
- The *Parks and Lands Certainty Act* identifies several types of park which may be established :
 - Ecological Reserve – “a park established to protect an area of unique natural significant, unique ecological characteristics or importance for a population of rare or endangered flora or fauna which is intended to remain in its natural state”
 - Natural Environment Park – “a park established to protect a representative or unique landscape that displays ecological characteristics or features of one or more of the Yukon’s ecoregions”
 - Wilderness Preserve – “a park established with a view to protecting an ecological unit or representative core area by conserving biodiversity and ecological viability”
 - Recreation Park – “a park established to provide outdoor recreation or environmental education opportunities for the public, and includes a Yukon government campground”
- Parks have an increased ability to regulate activities, such as hiking or camping, when compared to HPAs, although as previously stated, the regulatory tools within HPAs have not been widely tested.
- Parks sometimes carry a connotation or even expectation of elevated recreational value, compared to areas explicitly protecting habitat.

Wildlife Sanctuaries

- Established under the *Wildlife Act*, there are current two Wildlife Sanctuaries in Yukon, the Kluane Wildlife Sanctuary, and the Ddhaw Ghro Wildlife Sanctuary (now the Ddhaw Ghro HPA).

- The purpose of a wildlife sanctuary is largely to restrict hunting and they appear to have limited utility for habitat protection.

National Parks

- National Parks are established and managed following the *Canada National Parks Act* (which also covers the management of National Historic Sites) and associated regulations.
- National Parks are federal lands, and the Government of Canada is responsible for managing land use activities within the park, following the guidance of required management plans. Renewable Resources Councils retain their mandate to make recommendations regarding fish and wildlife and their habitats to the federal Minister within National Parks. Yukon First Nations retain their treaty rights to harvest fish and wildlife for subsistence.
- There are currently no National Parks within C/TFN Traditional Territory. National Parks in other parts of Yukon include Ivvavik, Vuntut, and Kluane National Parks and the Kluane National Park Reserve (the Park Reserve designation exists within the White River First Nation Traditional Territory as the claim has not been settled).
- National Parks introduce an additional layer of jurisdictional complexity to management, with some common activities being managed by Parks Canada (e.g., the requirement for a Parks fishing licence) and other activities subject to general prohibitions (such as hunting, trapping, or carrying a firearm).

National Wildlife Areas

- National Wildlife Areas (NWAs) are established and managed under the *Canada Wildlife Act* and associated *Wildlife Area Regulations*. National criteria exist to establish new candidate areas, many of which are linked to habitats for migratory birds or species at risk.
- Like National Parks, NWAs come with stringent habitat protection built in, and many types of activities are covered by a general prohibition, including hunting, fishing, and trapping, access for recreational activities, lighting fires, and use any type of vehicle. However, exemptions to the prohibitions can be authorized following the guidance of the required management plan.
- There is only one NWA in Yukon, the Nisutlin National Wildlife Area, established under Chapter 10 of the Teslin Tlingit Council Final Agreement. The area is managed in partnership between Environment and Climate Change Canada and the Teslin RRC. Exempted activities authorized in the Nisutlin NWA include hunting, fishing, trapping, operating a snowmobile, boating, berry picking, lighting fires, and grazing of horses (by permit).
- NWAs enable a wide array of restrictions by default, and many common activities such as hunting and fishing must be authorized by the federal minister.

National Historic Sites

- Managed under the *Canada National Parks Act* and often administered by Parks Canada, there are primarily small-scale *National Historic Sites* (NHS) in Yukon (e.g., S.S. Klondike in Whitehorse and Dredge #4 in Dawson) and none within C/TFN Traditional Territory in Yukon.
- The Chilkoot Trails NHS falls within C/TFN Traditional Territory in British Columbia and is managed by Parks Canada. The Chilkoot Trail NHS is large enough to be contain substantial wildlife habitats

and Parks Canada is a member of the Southern Lakes Caribou Steering Committee in recognition of Carcross Caribou herd summer habitat within the NHS.

Off-Road Vehicle Management Areas

- Off-Road Vehicle (ORV) Management Areas are established through regulation under section 4.1 of the *Territorial Lands Act*. The regulations establish a variety of conditions for ORV use in designated areas, including prohibitions, establishment of trail plans or designated routes, and issuance of permits and attached conditions.
- ORV Management Areas provide a mechanism to control trail expansion or rehabilitate areas impacted by previous trail development. This might be a useful option if trail-expansion is a significant concern, but the regulation does not apply to other types of use, such as snowmachines or dog teams. For the purposes of the *Act*, an ORV does not include a snowmobile. However, the current process to update the *Lands Act* may provide an opportunity to include snowmobiles in future legislation.
- There are currently three active ORV Management Areas in Yukon: the West Hart River Landscape Management Unit, established following the *Peel Watershed RLUP*, the Ddhaw Ghro Habitat Protection Area, and the territory wide Alpine ORV Management Area. All three were established when the ORV regulation was passed in 2021.
- Further ORV Management Areas may be proposed by RRCs, First Nations, or other agencies following guidelines provided by Yukon government (<https://yukon.ca/en/outdoor-recreation-and-wildlife/atvs-and-road-vehicles/propose-new-road-vehicle-management-area>).

First Nation Legislation

- C/TFN settlement lands cover a considerable portion of the Traditional Territory. Several of these areas, particularly the rural Category A and B lands, were selected in part to secure their ecological and cultural integrity. Several of these areas also overlap with other identified areas of interest for habitat protection, such as Montana Mountain and the Monkey Creek area west of Marsh Lake.
- C/TFN governs activities on settlement lands pursuant to their *Land Interests Act*, established under the authority of their Self-Government Agreement (SGA). This legislation would allow them to implement measures or regulations to protect important habitats.

Indigenous Protected and Conserved Areas

- The term Indigenous Protected and Conserved Areas (IPCAs) was used by the Indigenous Circle of Experts (2018) to encompass a variety of land protection initiatives which share the characteristics of Indigenous autonomy and leadership.
- IPCAs are created under the legal authority of Indigenous governments and their legal status under Canadian law is unclear. However, they could be supported by existing or future legislation, such as the *Parks and Lands Certainty Act* or First Nations legislation. There are few examples to reveal the potential benefits or shortcomings as compared to other options, although this is evolving. One example is the Edézhíé IPCA in Northwest Territories, established under Decho First Nation law in 2018. This area is managed in partnership between the Decho First Nation and the Government of Canada, who contributed to the areas protection by establishing it as a National Wildlife Area under

the *Canada Wildlife Act* in 2022. In this area, Dehcho First Nation members maintains their rights, but other users must obtain a permit to access, hunt, or fish in the area.

- Within Yukon, the Inuvialuit may be creating an IPCA on the Yukon North Slope, between the Babbage River and the NWT border. The area west of the Babbage River to the Alaska border is the Ivvavik National Park, established following the *Inuvialuit Final Agreement*. The entire Yukon North Slope area was already established under the *Inuvialuit Final Agreement* as an area “under a special conservation regime whose dominant purpose is the conservation of wildlife, habitat and traditional native use”. The updated Wildlife Conservation and Management Plan for the North Slope, which is currently in review, may speak to the creation of the IPCA.
- IPCAs may bring funding opportunities, and the Canadian government is currently distributing funds through the Indigenous-Led Area-Based Conservation program (<https://www.canada.ca/en/environment-climate-change/services/nature-legacy/indigenous-led-area-based-conservation.html>).

Ecologically Significant Areas (Canada Fisheries Act)

- The recent updates to the federal *Fisheries Act* brought in a new option for protection of aquatic habitats, the *Ecologically Significant Area* (Section 35.2(2)). This designation adds a level of protection to important aquatic habitats beyond those protections inherent in the *Act*.
- This tool has not been utilized in Yukon to date, but may bring additional habitat protection measures beyond other options (such as the *Areas of Special Consideration* established under the Yukon placer management regime, which only establishes protection from placer mining, not other activities).
- Protection of fisheries habitat would have ancillary benefits to aquatic habitats for birds and mammals and might be used in conjunction with other tools to address these concerns.

Wilderness Management Areas

- *Wilderness Management Areas* (WMAs) are a tool available under section 74 of the Yukon *Environment Act*. However, no WMAs have been established in Yukon to date.
- While the *Act* exists to protect the environment for Yukoners, the utility of the WMA or the potential to develop regulations for the management of WMAs is not clear. The Yukon *Environment Act* establishes the people of Yukon’s right to “a healthful natural environment”. It also establishes the environmental public trust doctrine in Yukon, whereby Yukon Government is the *trustee* of the public trust, managing the environment for the benefit of the public.
- The advantages/disadvantages of WMAs compared to other types of protected areas is uncertain as there are no current examples and a potentially limited ability to create regulations for their management.

Wilderness Tourism and Licencing Act

- The *Wilderness Tourism and Licencing Act* requires all commercial tourism operators to have a licence.
- The *Act* also allows for the establishment of regulations “limiting the type of use, volume, location, and duration of wilderness tourism activities for conservation purposes or sustainability of the

wilderness resource” (Section 14, c). However, regulations enabling this section of the *Act* have not been developed.

- Development of regulation might help mitigate some local concerns surrounding the impacts of human recreation and the growing scope of commercial tourism.

Regional Land Use Planning

- Chapter 11 of the UFA describes provisions for establishment of land use plans at regional and sub-regional levels. Within the Yukon, two Regional Land Use Plans (RLUP) have been completed to date, in the North Yukon and the Peel Watershed, and the draft Dawson RLUP has been recommended.
- The RLUPs are significant mechanisms to enact habitat protection provisions. They typically do this by dividing the landscape into areas with varying classifications for the purpose of managing land use. For example, in the *Peel Watershed RLUP*, two types of lands were established, Conservation Areas and Integrated Management Areas. Conservation Areas were further divided into Special Management Areas and Wilderness Areas, with the difference being permanent versus interim protection, respectively. Six SMAs were established under the Peel plan but have not yet been designated or had management plans created. The designation of the West Hart River Landscape Management Unit as a Wilderness Area and the associated recommendations led to the creation of the West Hart River ORV Management Area. Another example from the *North Yukon RLUP* was the formation of the Ch’ihilii Chik HPA, which had a management plan completed in 2019.
- Regional planning has not been initiated in the Southern Lakes, despite provision 11.4.1.1 within the C/TFN Final Agreement that stipulates the parties shall “commence discussions with a view to determining priorities and timeframes for establishing a Regional Land Use Planning Commission” for C/TFN territory within 90 days of the agreement coming into force.
- While Chapter 11 makes no specific provisions for the involvement of RRCs in the development of RLUPs, the RRCs have a broad mandate to make recommendations “on any matter related to the Conservation of Fish and Wildlife”, as per 16.6.9.

Education

- While not a regulatory tool, education has a place within the conversation about habitat protection. Several participants of the 2022 local knowledge survey expressed interest in developing educational tools to help mitigate the impacts of human recreation of wildlife, especially in caribou winter range (Jessup and Larsen, 2022). Several of them expressed a preference for education rather than regulation.
- Educational initiatives can be wide of scope, applied across the Southern Lakes, and are much quicker to implement than formal habitat protection measures. However, education has its limitations and is more suited to managing the impacts of human recreation than it is to mitigating impacts of land development.

Administrative Holds

- Administrative holds or environmental dispositions and notations are non-regulatory land designations that identify a pre-existing land interest and can be used to prevent or discourage developments on an interim basis. Several of these currently exist in Southern Lakes, mainly along

the roadways to prevent further developments in important movement and migration corridors of the Carcross caribou herd.

Summary of Identified Habitat Values and Concerns

Concerns have been raised by Southern Lakes residents regarding habitat protection through several recent processes. This section outlines several of these processes and lists values, concerns, or specific areas identified within each. The CTRRC surveyed the public in 2022 regarding public interest in future *Habitat Protection Areas* (C/TRRC, 2022). This work stemmed from the 2020 *Community-Based Fish and Wildlife Workplan for the Carcross/Tagish Traditional Territory*, which had additional areas and interests identified during community engagement (Fish and Wildlife Planning Team, 2020). The 2022 *Local Knowledge Survey of the Southern Lakes* interviewed knowledgeable locals, several of whom made recommendations towards habitat protection measures (Jessup and Larsen, 2022). The C/TRRC also interviewed locals specifically about their knowledge related to moose (Two Crows, 2022). Regulatory and legal processes have also provided insight into local concerns about important habitats.

Community-Based Fish and Wildlife Workplan (2020)

- The Community-Based Fish and Wildlife Workplan (CBFWWP) was created by the C/TRRC, C/TFN, and Yukon government to align fish and wildlife management priorities and initiatives in response to community concerns. The planning process included outreach in the communities of Tagish, Carcross, Marsh Lake, and Mount Lorne.
- The community plan identified several areas of concern related to habitats, including:
 - Increased disturbance of sheep due to ORV use and associated trails, and lack of understanding about the effects on important sheep habitat.
 - Cumulative impacts of a growing human population and associated developments, including unregulated expansion of trail networks, recreation, and wilderness tourism.
 - Impacts on moose and caribou from human disturbance including winter recreational activities like snowmobiling and dog mushing.
 - Growing risk of wildfire.
 - Concerns about degradation or change to important fish habitats, especially related cisco in the Tagish and Nares Rivers.
- More details may be available from notes taken during community engagement sessions held during planning (available from Environment Yukon, if not C/TRRC).
- In addition to the objectives and actions related to the land (listed in Table 1), the Workplan includes objectives and actions related to access and recreation, which are relevant to protected area planning. From pg. 36 of the plan:
 - Objective - Identify areas and develop awareness focused on recreational activities in key habitat areas.
 - Action – Install focused signage at identified areas that helps alert people that the area is shared with wildlife.
 - Action – Develop recreational guidelines for what to do when wildlife is encountered (e.g. caribou).

- Objective – Research potential tools and approaches to limit and/or manage access and associated disturbance.
 - Action – Explore tools to manage winter recreation activities including snowmobile access.
 - Action – Investigate, prioritize, and designate high-use areas for recreational access.
 - Action – Represent community concerns about managing trail-building, particularly those pertaining to access falling under the 1.5 m threshold for requiring a permit.

Southern Lakes Habitat Protection Areas Community Survey Results (2022)

- The C/TRRC posted a survey online between November 2021 and January 2022 and received responses from 102 residents of the Southern Lakes or surrounding areas. The survey was directly seeking input on the creation of new HPAs, one of the many habitat protection tools described above.
- 82% of respondents were in favour of additional Habitat Protection Areas, with 10% uncertain.
- Common responses in the survey identified Montana Mountain, Nares Mountain, and the Weaton Valley as areas of concern while other areas identified included 10 Mile and Carcross Desert.
- Several aquatic areas were identified, including Little Atlin, Kusawa, Bennett, and Squanga Lakes, Tagish River, Yukon River watershed, McClintock River, and Mitchie and Judas Creeks. Several of these areas already fall within established protected areas such as Tagish River, Lewes Marsh, and Kusawa Lake.
- Caribou habitat was the most common reported concern, but others included moose habitat, waterfowl and migratory bird staging areas, fisheries concerns, goat kidding and sheep lambing areas, wolf den sites, and bear habitats.

Local Knowledge Survey of the Southern Lakes (2022)

- The CTRRC interviewed 15 Southern Lakes residents with extensive land-based experience in late-winter 2022.
- Participants were asked about their main concerns related to fish and wildlife and what they felt should be done to address those concerns. The most common concern was the impacts of human recreation and the growing human population.
- Specific concerns included the impacts of off-road vehicles and trail creation, impacts of snowmobiles, dog-mushers, and other recreators in early and late winter caribou habitat, and continued expansion of human development into important habitats.
- Education was commonly expressed as being required to address the wide-sweeping concerns related to the impacts of recreation.
- Specific geographic areas of concern that were identified included Caribou Mountain and the 12 Mile, Tagish, and Lewes Creeks uplands, Tally-Ho Mountain and Annie Lake Road areas, and the Squanga Lake area.

Local Knowledge Moose Survey (2022)

- The CTRRC interviewed 11 knowledge holders about their moose knowledge in the late winter of 2022.

- When asked about their concerns about what is impacting moose and their habitats, human recreation and access were the most common responses. Participants felt that moose were moving into less accessible areas to avoid interactions with people.
- Managing recreational activities and development of protected areas were two tools cited by participants to help support local moose populations. Other tools included on-the-land observations, managing predators, education, and rotational hunting refuges.
- Participants marked their knowledge on a map, giving a spatial resource to help identify important areas for moose. This completed map and associated interview transcripts will provide more details.

Whitehorse and Southern Lakes Forest Resources Management Plan (2022)

- The Whitehorse and Southern Lakes Forest Resources Management Plan (SLFRMP) process included the Southern Lakes First Nations and RRCs as planning partners, and C/TRRC was on the planning committee. The plan included a survey of Traditional knowledge holders and this information was incorporated in the plan. C/TFN retains the transcripts from these interviews.
- While the SLFRMP applied an overtly resource-focused approach to planning, the value of forests a wildlife habitats was evident during the planning process and in the final product. Local interest in personal fuelwood and wildfire risk mitigation were the primary forest-resource concerns or values identified.
- Concerns were raised about the impacts of access, forestry roads, and associated trails, as well as climate change, and cumulative effects of human developments.
- The plan supported the creation of community wildfire protection plans, and C/TFN and KDFN are currently working towards such a plan.
- The plan created 3 zones, with Zone 1 surrounding the communities and developed areas where future timber harvest may be considered, and Zone 2 more remote areas where salvage logging might be considered following forest fires. The SLFRMP will be most relevant to future habitat protection initiatives if and where they overlap with Zones 1 and 2, as these areas must consider wildlife and cultural values when timber harvest planning.

Southern Lakes Wildlife Coordinating Committee Regional Assessment of Wildlife: Volume 1 Context and Recommendations (2012)

- The Southern Lakes Wildlife Coordinating Committee (SLWCC, 2012) was an implementation outcome of the Carcross/Tagish and Kawnlin Dün Final Agreements and included representatives from nine governments with overlapping responsibilities for wildlife management in the Southern Lakes. The C/TRRC participated in the work of the SLWCC which operated between 2008 and 2012, when the two-volume *Regional Assessment of Wildlife in the Southern Lakes* was completed.
- The SLWCC recommendations were broad and do not help to prioritize or establish future habitat protection measures. However, they do outline a planning approach and illustrate commitments made by the parties towards habitat protection. For example:
 - Rec. 2.12 – Evaluate the current network of conservation lands to identify gaps related to the maintenance of sensitive habitats, including connectivity among these areas.
 - Rec. 2.15 – Address gaps in the securing of sensitive habitats, through protective measures by First Nation, territorial, or federal governments, where feasible.

- The SLWCC recommendations contain habitat-related recommendations for many species wildlife and birds (not fish). While there are too many to review within this document, it is worth looking at the specific habitat recommendations related to caribou because of the focus that caribou habitat receives in Southern Lakes:
 - Rec. 2.18 – Carefully manage human use of caribou habitats, with a particular focus on limiting access, development, and human disturbance in important caribou habitat.
 - 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 disturbance to caribou, particularly in winter or during the calving season.

Regulatory Processes

Regulatory processes have resulted in an accumulation of information on environmental and cultural values in response to development proposals. Renewable Resources Councils, First Nations, Department of Environment, residents, and stakeholders have all recorded habitat-related concerns around proposed developments. Since 2005, these comments as well as the assessments of potential impacts can be found on the Yukon Environmental and Socio-economic Assessment Board (YESAB) Online Registry (<https://yesabregistry.ca>). Proposals in some areas have garnered consistent opposition to development. This section highlights a few of these areas, listing the relevant projects, YESAB’s recommendation, the decision of the regulator, and the concerns cited in the review process. The numerous documents available on the Online Registry, including comment submissions and YESAB evaluation reports, provide information and rationale that might be useful for developing protected area proposals.

Judas Creek/Jakes Corner

2015-0204 and 2018-0025 – Two proposals for placer mining in Judas Creek in 2015 and 2018. YESAB recommended both not proceed, citing concerns for the Carcross caribou herd that could not be mitigated. The regulator accepted the recommendations and the proposed placer mines have not been developed, although small-scale mineral exploration continues in the area. During the review, the valleys of Judas and Truck Trap Creeks were identified as being regionally important areas, connecting the southern and northern portions of the Carcross caribou herd’s range. The historic recovery efforts and the cultural significance of caribou and ongoing voluntary harvest restrictions by First Nations were considered heavily in the assessment.

2017-0093 – Application for a rural residential property at Jakes Corner. YESAB recommended it not proceed, citing concerns for the Carcross caribou herd that could not be mitigated. The regulator accepted the recommendation, and the project was not approved. The rationale included limiting the growth of current development nodes within important caribou habitats.

Non-YESAB: Commercial forestry and gravel resources. The Department of Environment has historically opposed commercial forestry activities and gravel resources extraction in the Judas Creek/Jakes corner

area going back to the 1990s and 2000s, in support of the Southern Lakes Caribou Recovery Program. More information may be available from Environment Yukon.

Squanga Lake

2012-0209 – Application for a rural residence near Squanga Lake. YESAB recommended it not proceed, citing concerns for the Carcross caribou herd that could not be mitigated. The recommendation was accepted by the regulator and the project did not proceed.

2012-0104 – Proposal for advanced quartz exploration near Squanga and Summit Lakes (the ‘MAG property’). YESAB recommended the project not proceed based on concerns for the Carcross caribou herd that could not be mitigated. The recommendation was varied by the regulator, who disagreed that the effects could not be mitigated, and issued a licence with conditions attached. The mitigations included mapping two areas (‘Area A’ and ‘Area B’; see the Evaluation Report, pg.25) with different operating conditions in each. ‘Area B’ amounted to a protected area where no activities that impacted caribou habitat were permitted while ‘Area A’ had seasonal restrictions. Detailed concerns were submitted by several parties.

2021-0182 – Proposal to upgrade the Squanga Campground road and boat launch. The project was withdrawn by the proponent and there was no YESAB assessment completed. CTFN, TTC, TRRC all submitted comments citing concerns related to fish and fish habitat, including the Squanga Whitefish, as well as wildlife, including moose and caribou. The possibility of establishing some type of protected designation for the lake, such as non-motorized access only, was raised in the comments.

Tagish and Tenmile Road Areas

2018-0034 – Application for rural residence near Crag Lake. YESAB recommended it not proceed based on impacts to the Carcross caribou herd that could not be mitigated. The regulator accepted the recommendation, and the project did not proceed. This project contributed to the development of administrative holds implemented by YG in 2021, intended to prevent development proposals in areas with elevated movement and migration value for caribou.

2010-0203 - Application for rural residence on the straight stretch of the Tagish Road just east of the Tenmile Road junction. YESAB recommended the project not proceed based on impacts to Carcross caribou herd that could not be mitigated. The regulator accepted the recommendation, and the project did not proceed.

Non-YESAB: Tenmile Road Subdivisions. Several applications for subdivision of the large historical agriculture properties on the Tenmile Road have been reviewed over the past years. These subdivisions have been consistently opposed by Environment Yukon, citing concerns over the impact of increasing density of development on the Carcross caribou herd. These proposed projects did not trigger YESAB assessments and so are not available on the Online Registry. Opposition to the projects by CTFN led to legal action against Yukon Government in 2021 (Plonka, 2021).

Lewes Marsh

2020-0133 – Proposed construction of all-season forest resource roads and harvest of commercial and personal fuelwood in the Lewes Marsh Timber Harvest Area. The project was withdrawn by the

proponent (Forest Management Branch) and a YESAB assessment not completed. The project was opposed by Environment Yukon as well as C/TRRC, C/TFN, and KDFN based largely on concerns related to creation and upgrades to access roads and effect on the Carcross caribou herd.

Jubilee Mountain

2016-0018 – Proposal for advanced quartz mining exploration. YESAB recommended that the project could proceed with terms and conditions and the project was authorized by the regulator. However, several comments were received raising concerns in relation to the project, including C/TRRCs recommendation that the project not proceed. Due to vocal concerns, YESAB hosted a public meeting in Tagish, and many residents spoke up about the habitat values and their concerns related to wildlife. Concerns were raised primarily around caribou, but also other species such as moose, grizzly bear, and wolverine.

Summary of Areas with Identified Interest

Several of the identified concerns overlap geographically and could be captured within the same potential habitat protection designation. The following list summarizes some of the areas identified:

- Important caribou winter range in the Judas Creek, Marsh Lake, Squanga Lake, Tagish, Tenmile, and Annie Lake Road areas.
- Important caribou movement and migration corridors across the Southern Lakes.
- Important fall and early winter moose and caribou habitat in subalpine areas near upper 12-Mile, Tagish, and Lewes Creeks, Montana Mountain, Tally-Ho Mountain, Nares Mountain, and Jubilee Mountain.
- Sheep lambing areas on Caribou Mountain (Gopher Mountain) and Needle Mountain.
- Important wetlands in the Nares Lake, Judas Creek, and Monkey Creek areas.
- Important moose calving areas as well as late winter moose habitat in the Monkey Creek area west of Marsh Lake.
- Important fish habitats, particularly at the narrows in the Southern Lakes system such as Tagish and Nares Rivers.

Available Information

Several data sources are available to support potential habitat protection planning. Scientific data is collected by Yukon Government Department of Environment and much of it is publicly available. C/TFN maintains a database which includes traditional use sites, cultural values, and data collected by ongoing monitoring programs. The How We Walk with the Land and Water process is collecting information to support land use planning. C/TRRC's local knowledge surveys have only just begun, but already form a valuable dataset, with an additional survey planned for 2023. As discussed above, the development assessment process has also created a rich dataset which is publicly available through the YESAB Online Registry.

C/TFN Community Knowledge Keeper

- C/TFN's Community Knowledge Keeper (CKK) is a spatial database containing land and water-based data collected by C/TFN. It spatially depicts environmental and socio-cultural values derived from

Elder interviews, environmental monitoring work, heritage research, and other sources. Examples include traditional use sites for hunting, fishing, and trapping, cabins and campsites, wildlife habitat values, traditional trails, and other information. Recently, C/TFN and C/TRRC responses to development proposals have been compiled and can be searched by geographic area or type of concern within the CKK.

- The spatial nature of the database makes it extremely useful for finding resources related to specific areas of interest.
- The CKK database is a valuable potential resource to support future protected areas proposals. However, it is only accessible to CTFN staff, highlighting the necessity to co-develop future habitat protection proposals with C/TFN.

How We Walk with the Land and Water

- How We Walk with the Land and Water (HWWLW) is an initiative of three Southern Lakes First Nations, Carcross/Tagish First Nation, Kwanlin Dün First Nation, and Ta'an Kwäch'än Council, to prepare for Regional Land Use Planning. This project began in 2017 and continues into 2023, based on the guidance of Elders and First Nation communities. They have collected a significant amount of information that would be extremely valuable for protected areas planning. However, the process is ongoing and much of the information is not yet available to the public. Working closely with C/TFN, some of the information might be available to support habitat protection planning.
- Some examples of information gathered by the HWWLW team include interviews with Elders and Knowledge Holders, seasonal habitat models for caribou, moose, sheep, and goats, a caribou movement and migration model, mapped cultural and traditional values, and a landscape-wide predictive ecosystem map.

Local Knowledge Survey of the Southern Lakes

- C/TRRC conducted its first targeted local knowledge survey in 2022. While only a single year of data is currently available, the survey may be conducted annually in future. A 2023 survey is currently planned in partnership with C/TFN. The 2022 report provides an overview and results, while the raw interview data contains additional details.

Environment Yukon

- The Fish and Wildlife Branch of Yukon government collects and stores information related to fish and wildlife and their habitats, except for salmon and migratory birds which remain under federal jurisdiction. Scientific data collected from observations of animals can provide a slightly different perspective of important habitat areas complementary to areas of concern already identified. For example, in the Southern Lakes, local knowledge is more readily available and local concerns are more likely to apply to the Carcross caribou herd, which lives in closer proximity to human populations, compared to the Ibex herd, which is more isolated from human disturbance. Scientific data can be used to both complement the local knowledge and concerns, and fill gaps to ensure important habitats are protected across the region.
- The current management regime began collecting wildlife population data in the 1970s, providing almost 50 years of data for some species in the Southern Lakes. While there is too much information to summarize in detail, the following list provides a brief outline of relevant information. Partnering

with the Fish and Wildlife Branch on habitat protection planning is critical, both to align priorities and increase the chances of success, but also to ensure that the most up-to-date information is available.

- Aerial survey data for sheep and goats dates back to the mid-1970s, mostly focused in the Coast Mountains. Most of these surveys were flown during early summer, although some have been done during lambing and winter periods.
- Aerial surveys for moose and caribou date back to the early 1980s across the Southern Lakes, with some coarse survey work extending back into the 1970s. For caribou, most surveys have been done during the rut, with some during late winter. For moose, most surveys have been done in early winter, with a much smaller number of late winter surveys.
- Winter aerial surveys for wolves date back to the early 1980s.
- Radiotelemetry and GPS collar data for Ibex, Carcross, and Laberge caribou herds dates from the mid-1990s to present, with periodic gaps in some areas, and recent data collected for all three herds.
- GPS collar data is currently being collected for a relatively small number of sheep in the Coast Mountains.
- Radiotelemetry data for wolves exists linked to population research from the 1980s while GPS collar data was collected for some packs in the early 2020s, linked to predation and wolf inventory research.
- GPS collar data for grizzly bears was collected during population research in the early 2010s. Additional GPS data for bears may be available through an ongoing monitoring program related to translocation of bears.
- The Wildlife Key Area (WKA) database provides spatial depictions of important habitats for a wide suite of species, based on survey data or local knowledge. The WKA database is available online, although updates to the Southern Lakes WKAs have not been made in some time.
- Other habitat models using underlying landscape features may be available, such as the 2015 winter habitat model for the Carcross caribou herd. Updated habitat modeling based on recent GPS collar data for caribou is planned.

Conclusion and Recommendations

There are many potential habitat protection tools available, each with associated strengths and weaknesses. This paper has given a broad overview of tools and more information could be gathered for specific tools that are of interest. There are also many potential areas and values of interest that have been identified through community engagement, planning processes, or regulatory reviews. However, these are not exhaustive, and some further engagement will be required to prioritize areas. There is a wealth of traditional, local, and scientific information that can support habitat protection planning, and further data collection, outside of community engagement, is likely unnecessary. Working in partnership with C/TFN and Yukon government is important to ensure that C/TRRC make the most of available information and potential opportunity. While regional land use planning has not yet been initiated in the Southern Lakes, habitat protection planning should take a regional view in addition to considering local

values and concerns. The following recommendations are made to guide the next steps of C/TRRC in this initiative:

- Collaborate with C/TFN and YG, sharing information and resources to strengthen the case for specific protected areas and mechanisms for protection. A meeting with these partners would be a good next step.
- Leverage past planning and engagement work to identify priority areas, beginning with the areas identified within this report.
- Consider the suitability of habitat protection mechanisms within the local context to build community support; some may be too restrictive and others not restrictive enough.
- Capitalize on available funding sources to support development of proposals and engage communities.

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