

City of Whitehorse

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# Trail Plan

## Background Report

Prepared for:



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This background report was prepared as part of Task 1 of the Whitehorse Trail Plan process.

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# 1 INTRODUCTION

The City of Whitehorse trail network is a highly valued part of the City’s open space network, and an important part of the community identity. The trail network is a draw for tourism, provides recreational opportunities, and commuter trails serve as active transportation connectors within the City. Much has evolved since the City’s first trail plan in 1997, including major updates in 2007 and 2012, and subsequent neighbourhood trail planning initiatives.



Figure 1. Biking on City of Whitehorse trails (Photo: Ben Horowitz)

The current trail inventory is estimated to include over 850 km of mapped trails within municipal boundaries (see Appendix A – Overall Trail Network Map). The network includes a full range of trail types from paved trails, double track trails, natural surface single-track trails, old roads and hinterland trails. The network allows trail users a multitude of experiential options that reflect the unique wilderness setting of the City and promote the City’s natural and cultural heritage.

With one of the most extensive municipal trail networks in North America,

Whitehorse citizens highly value the trail network, and are committed to its preservation, use and enjoyment.

This update of the Trail Master Plan is a critical task to ensure that Whitehorse area trails continue to be developed and managed to the highest standards of user enjoyment and sustainability, and establish a vision for the trail network that we can all be proud of.

## 1.1 PURPOSE AND SCOPE

Working with government partners, the public and local stakeholders, the purpose of this project is to develop a Trail Plan that directly benefits trail users and the community through a shared vision. As a long-range planning document, the Trail Plan will identify strategic priorities and direct the City in future trails-related initiatives, policies, and actions spanning the next ten years.

Key areas to be addressed in the Trail Plan include:

1. Establish a community vision for the Whitehorse trail network;
2. Build upon and integrate existing policies, bylaws, management plans and safety documents;
3. Conduct a meaningful engagement process with government, stakeholders and the public;
4. Emphasize key issues and opportunities for the existing trail network;
5. Improve connectivity between neighbourhoods and community amenities;
6. Explore opportunities to increase active transportation and recreational opportunities;
7. Identify opportunities for new trail development and growth;
8. Propose a concept for developing a standardized trail classification and permitted use system;
9. Recommend updates to conflict resolution policies and procedures;
10. Outline strategies for developing an extensive inventory of trails, amenities and wayfinding signage;
11. Mitigate impacts on ecologically significant areas through thoughtful planning processes;
12. Provide a long-term plan containing practical and innovative recommendations that ensures the success of future trail planning and management initiatives.

## 1.2 PLANNING PROCESS

The Trail Planning process includes the following five tasks:

Figure 2. Trail Planning Process



**Task 1 – Project Familiarization and Background Report** – The first task involves confirming project objectives, outcomes, schedule and preparing the community engagement plan. Background data information gathering and review conducted during this phase is summarized in this Background Report.

**Task 2 – Government, Stakeholder and Public Engagement** – The first round of engagement includes opportunities for feedback from government partners, internal and external stakeholders, and the general public.

**Task 3 – Mapping** – This task will involve reviewing and consolidating existing map resources for trails currently adopted into the City’s Trail Maintenance Policy. Preliminary trail maps are included in Appendices A and B.

**Task 4 – Implementation Items** – A key part of the Trail Plan is a suite of recommendations that are within municipal jurisdiction and consistent with the City’s existing trails policy framework. Draft recommendations will be summarized in an implementation plan that prioritizes actions, identifies organizational leads and potential partners, and approximate timeframes.

**Task 5 – Draft and Final Plans** – Information compiled during the first four tasks will be compiled into a Draft Trail Plan (75%) which will be presented to the project stakeholders, the general public, and City Council to gather feedback on draft recommendations and actions. Once refined, the final Trail Plan will be presented to Council for adoption.

### 1.3 SUMMARY OF RELATED PLANS AND POLICIES

The Trail Plan is being developed in the context of existing plans, policies and City legislation. A summary of background documents relevant to the Trail Plan is presented in the table below.

Table 1. Summary of Related Plans and Policies

DOCUMENT TITLE	CONTENT	IMPLICATIONS
CITY OF WHITEHORSE PLAN & STUDIES		
Parks and Recreation Master Plan (2018)	Includes an inventory of current areas of City responsibility, a review of trends in recreation, and identifies areas for improvement.	Opportunity to realize recommendations for improved trail signage, accessibility and meeting the future needs and demands for trail experiences.
Downtown Master Plan (2018)	Provides recommendations for the Downtown study area around a 10-year planning horizon.	Identifies priorities for extension of the lower escarpment trail system, a second staircase at Rogers St and a more complete network of looped trails at a range of distances.
Marwell Master Plan (2018)	Provides recommendations for the Marwell study area around a 10-year planning horizon.	Identifies potential for a continuous extension of the paved riverfront trail from Downtown, interpretive trail connections within KDFN Lot 226, and over the escarpment.
Whitehorse Sustainability Plan (2015)	Comprises 12 goals that describe what the community wants to achieve in the long term.	The Trail Plan can help to achieve the City’s goals of “Efficient, Low-Impact Transportation” and “Safe and Healthy Community” by enhancing recreation and commuter network linkages, increasing trail use and fostering and encouraging trail stewardship.

DOCUMENT TITLE	CONTENT	IMPLICATIONS
Official Community Plan (2010)	Provides overarching policy guidance for land use in the City of Whitehorse.	Opportunity to fulfill Cultural Identity, Active Transportation and Active Living objectives.
Downtown South Master Plan (2011)	Sets out a 20-year vision for the future of development and redevelopment in the Downtown South sub-area. Contains specific action items to guide the City and other partners to create a revitalized area.	Proposes development of a new paved trail along the Lower Escarpment. Identifies future connections from a new Lower Escarpment Trail to the Millennium Trail and upper escarpment via a new staircase at Rogers Street.
Transportation Demand Management Plan (2014)	Identifies policies, programs and services to reduce impacts associated with automobile use, and facilitate increased walking, cycling, and transit.	The Trail Plan can play a role in supporting the improvement of active transportation options.
Bicycle Network Plan (2018)	Establishes a long-term vision for cycling, increasing transportation choices, and improving facilities for safe and accessible year-round bicycle transportation.	Provides recommendations for future multi-use pathway connections that could become part of the trail network.
Robert Service Way Planning Study (2018)	Examines current and potential future land uses in the 337-hectare planning area known as Robert Service Way, which contains a variety of development and recreational interests.	Identifies well-used and potential trails in the RSW study area that could be integrated into the City trail network. Opportunities include improved connections between the airport escarpment and Millennium Trail, and trail routes to/from Ear Lake and Schwatka Lake.
Type 1 Trail Design Guidelines (Draft 2020)	Provides guidance for trail design including treatment for signage, intersections, and pavement markings.	Addresses Type 1 Trails as defined in the Trail Maintenance Policy.



DOCUMENT TITLE	CONTENT	IMPLICATIONS
CITY OF WHITEHORSE BYLAWS		
Snowmobile Bylaw (2012)	Regulates the control, use and operation of snowmobiles on motorized multiple use trails and in other areas of the City of Whitehorse.	Provides for the designation of motorized multiple use trails in accordance with the Trail Plan.
CITY OF WHITEHORSE POLICIES		
Trail Development Policy (2018)	Describes the procedure to authorize construction, rehabilitation and maintenance of trails on municipal and/or Crown lands within the City.	Opportunities for trail stewards, trail user groups and the public to work within the framework; achieve trail development, rehabilitation and maintenance that benefits all users.
Trail Maintenance Policy 2016-04 (June 2018)	Describes trails types within municipal boundaries, sets out maintenance responsibilities and level of service for identified trails.	Trail type classifications in the Trail Maintenance Policy and Trail Plan should be aligned.
OTHER PLANS AND STUDIES		
Kwanlin Dün First Nation Traditional Territory Land Vision (2017)	Establishes values and principles and provides guidance for planning initiatives undertaken on KDFN traditional territory.	Recognizes the importance of traditional trails, and the conservation of areas with high heritage and wildlife values.
Yukon Active Living Strategy (2012)	Recognizes the provision of trails for recreation and active transportation as an important component of active living.	Ensure opportunities for access to welcoming and well-maintained trails.

## 1.4 TRAIL INITIATIVES IN OTHER PLANS

Specific trail initiatives have been identified in other City plans. These include, but are not limited to:

- Potential trail enhancements at Ear Lake, opportunities for improved connections between the airport escarpment and Millennium Trail, and trail routes to/from Ear Lake and Schwatka Lake (Robert Service Way Planning Study 2018)
- Construction of a new staircase to the escarpment from Downtown South, and completion of a continuous paved lower escarpment trail (Downtown South Plan 2011, Downtown Plan 2018)
- Various active transportation pathway connections that could become part of the trail network, including connections between Two Mile Hill and the riverfront trail, and Two Mile Hill to Black Street (Bicycle Network Plan, 2018).
- Potential for an extension of the Riverfront Trail to Marwell and (Official Community Plan 2010).
- Extension of the riverfront trail to Tlinglit Street, interpretive trail connections within KDFN Lot 226, and enhanced trail connections to the escarpment (Marwell Master Plan 2018).
- Opportunities for Grey Mountain Dream trail, enhanced trail access to Hidden Lake #1, and a new flow trail. Protection of culturally significant traditional trails (Chadburn Lake Park Management Plan 2017).

## 1.5 DEMOGRAPHIC PROFILE

### 1.5.1 DEMOGRAPHIC OVERVIEW

The Yukon Bureau of Statistics Population Reports (2019), reveal the following key characteristics about the population of the City of Whitehorse:

- As of December 2019, there were 29,703 people living within the Whitehorse Municipal Boundaries.
- Riverdale is the most populous neighbourhood with 5,461 residents, followed by Porter Creek (4,022) and Copper Ridge (3,654).
- Children and youth represented 22% of the total population in 2019.
- The average age in Whitehorse is 37.9 years.
- Approximately forty percent of the total population is between the ages of 25 and 49, with the highest concentration (17%) between the ages of 30 to 39 years of age. This is slightly younger than the national average.
- The City of Whitehorse’s population is projected to reach just over 35,000 in 2030 (Population Projections 2018).



Figure 3. Viewpoint on the Yukon River.

### **1.5.2 IMPLICATIONS FOR THE TRAIL PLAN:**

To match the trail network with a growing and changing population, the City should focus on providing:

- Family-oriented trails where a mix of ages can spend time recreating together;
- Trails within walking distance (5 to 10-minute walk) for all residents;
- Recreational opportunities for people (particularly children) to interact with the natural environment in a meaningful manner;
- Trails for a variety of users and levels of mobility, ensuring accessibility to as many residents as possible, creating a community where people can age in place, and
- Trail facilities and activities that encourage interaction among residents and offer opportunities for connecting people, building community and reducing isolation.

## 2 BENEFITS AND TRENDS

### 2.1 BENEFITS OF TRAILS

Trails have numerous benefits on a community, including positive effects on individual health and well-being, community connectedness, ecological health, as well as cultural, educational and economic benefits. Whitehorse residents place high value on the trail network and the benefits it provides. A summary of the evidence of these benefits is outlined below. By planning and managing an accessible and well connected network, these benefits can be further augmented.

#### Health Benefits



Health concerns including obesity, diabetes, and mental health issues are on the rise (Public Health Agency of Canada, 2017) due to contributing factors such as increasingly sedentary lifestyles, the increased prevalence of technology (i.e. screen time), and an aging population. Trails promote movement within and between neighbourhoods and encourage people to get outside to get physical activity, whether that be walking, running, or cycling. Provision of convenient, safe, and connected walking and cycling infrastructure is at the core of promoting active travel (Buehler, 2016).

Trail infrastructure contributes to long term reductions in healthcare costs associated with the health burden of physical inactivity and associated chronic diseases. These conditions, including high blood pressure, heart disease, type 2 diabetes, respiratory disease, cancer, obesity and others, require significant and ongoing medical monitoring and intervention. It is estimated that an increase of 10% in physical inactivity rates in Canadians would result in \$280 billion dollar reduction in direct healthcare costs (BC Provincial Health Services Authority, 2019).

#### Community Social Benefits



A connected trail network brings people together by providing opportunities for low or no cost active transportation in all seasons such as cycling, walking, snowshoeing and skiing. Trails can also provide links to key community hubs such as schools, commercial areas, and civic spaces. “Places with high levels of people traveling by foot and by bicycle can encourage more opportunities for daily social interaction” (Transport Canada, 2006). Trails can also provide locations for local trail focused events, such as Reckless Raven (ultramarathon), Royalty of the Canyon (mountain biking), or Run for Mom, which bring community members together.



### Environmental Benefits

There are many ways that trails can help the community mitigate and adapt to climate change, as well as reduce community contributions to carbon emissions. A few of the top benefits include:

- Developing safe alternative transportation infrastructure can decrease the number of cars on the road, thereby reducing air pollution, greenhouse gas emissions, and the accidents and stress that are by-products of driving, as well as associated health and ecosystem costs (The Trust for Public Land, 2006)
- Trail networks that feature native plants and ecosystems help reduce habitat fragmentation and support biodiversity and pollinators. Trees along trail networks help reduce urban heat island effect and offer shade during the summer months.



### Economic Benefits

With the rising popularity of outdoor recreation activities, the economic value of trails has become increasingly evident. Trails have been shown to boost economic activity while contributing to community, social development, education of citizens, and respect for the environment. Designing and managing a connected trail network can further augment these benefits.

Trails:

- Diversify local economies;
- Are a tourism draw, and
- Increase property values - offering residents scenic views and on-hand recreational opportunities.

## 2.2 TRENDS IN TRAIL USE

A number of emerging trends should be considered in the management and development of trails within Whitehorse. Many of these highlight an increasing recognition of the importance of trails.



### Changing demographics

Yukon Bureau of Statistics population projections indicate that the population will increase to 40,600 by 2040 which is an increase of 12,004 people or 42% in comparison to the 2018 population. With an increasing population the need for affordable outdoor infrastructure will increase and there will be added use and pressure on the trail network.



## Tourism

In 2018, the Whitehorse international Airport welcomed over 194,000 passengers, representing a 6% growth in visitors arriving at the airport since 2017 (Tourism Yukon 2018 Year-End Report). Whitehorse is becoming a more popular destination for visitors from across Canada and the world. Adventure tourism is a major draw to Whitehorse and visitors are looking for outdoor activities when visiting.

The top ten activities for Yukon visitors included from the 2017/18 Yukon Bureau of Statistics Visitor Exit Survey:

- Visit a Visitor Information Centre
- Visit a historic site, park or building
- Visit a museum
- Wildlife viewing or birdwatching without guide
- Camping without guide
- Hiking without guide
- Visit a cultural centre
- Take a community walking tour
- Use a recreation facility (e.g. The Canada Games Centre)

Almost all of these activities depend on a well-connected trail network.

## Diversifying Users and Activities



As people’s schedules become increasingly busy, there is greater demand for informal and individual leisure activities such as walking or cycling, rather than programs with set schedules. Participation in outdoor recreation, and particularly in nature-based activities, has increased significantly overall. Recreation and Leisure was reported as one of the top reasons for visiting Yukon (2017/18 Yukon Bureau of Statistics Visitor Exit Survey) suggesting that a major draw to Whitehorse is the trail network.

Activities such as mountain biking, cycling for recreation, horseback riding, motorized trail use, walking and hiking continue to increase in popularity – highlighting the importance of planning and managing for diverse use and possible conflicts associated with shared use of trails. An emerging trail activity is the use of electric mobility devices such as e-bicycles, scooters and skateboards. There is increasing interest in e-biking on trails.



### **Accessibility**

With an aging population, there will be growing numbers of people facing mobility challenges at a time in their lives when the importance of getting out and staying active increases. Providing safe and accessible options to walk, cycle, or wheel to destinations will be increasingly important for aging adults as they reduce, limit or stop driving altogether.

Trail options that are safe and pleasant for elders and those with limited mobility are attractive and usable for all age groups, including children and parents with strollers. Safe, connected, and easily usable trails are especially important in encouraging and empowering children and youth to incorporate physical activity into their daily life for healthy development and curbing child obesity trends.

Accessibility is not just an issue for children and elders. According to the Canadian Survey on Disability Reports, one in five (22%) of the Canadian population aged 15 and older had one or more disabilities in 2017 (Statistics Canada). Disabilities ranging from mild to severe pose challenges to the most vulnerable members of the community in accessing public facilities. In order to achieve the many benefits of trails for everyone, accessibility is a key consideration.

While accessibility often refers to issues of universal physical accessibility for those with reduced mobility, such as appropriate surfacing and curb let-downs for wheelchairs and strollers, accessibility also addresses social-economic factors. These include whether everyone in Whitehorse has access to trails and has the choice to meet daily needs by active modes of travel, and whether barrier free facilities are available for all ages, abilities and lifestyles. Such features may include benches and rest areas appropriately spaced along key routes within the trail network, and signage and wayfinding incorporating universal design principles.

### **Access to Nature**



There is a growing awareness and concern about climate change, water quality, species decline, and other environmental issues having an effect on peoples' perceptions and behavior. Further, the health, educational and cognitive development benefits of access to nature are becoming increasingly known. The outdoors is being incorporated into the educational curriculum and many schools in Whitehorse are embarking on outdoor education and experiential learning programs that get kids outside to learn.





### Climate Change

The north is experiencing the effects of climate change that contribute to wildfire risk, extreme weather events, and other changes that impact residents' health and community infrastructure. In 2019, the City of Whitehorse declared a climate change emergency, reflecting the urgent need to take action. As a key part of the City's recreational and active transportation system, actions outlined in the Trail Plan can help to advance the City's commitment to build resilience to climate change by reducing vehicle trips, and supporting the protection of the City's ecosystems.



Changing weather patterns are also affecting trail use and trail maintenance needs. Wetter conditions are leading to increased (and more frequent) maintenance of trails, due to increased vegetation growth and the potential for erosion. Winter grooming and maintenance activities may need updating. Winter trail use and access during shoulder seasons may also become more unpredictable.

### Social Isolation

Social isolation is on the rise and vulnerable populations, such as the elderly, are particularly at risk. Many people, ranging from newcomers to Canada and new residents, to life-long community members, do not feel connected to their neighbours or the broader community. Social isolation negatively affects physical and mental health of community members.

## 3 EXISTING TRAILS – WHERE ARE WE TODAY?

### 3.1 EXISTING NETWORK OVERVIEW

The City of Whitehorse has an extensive and diverse trail network that has evolved over time for the use and enjoyment of both residents and visitors. The network of trails within City of Whitehorse municipal boundaries is estimated to include over 850 km of mapped trails. Review and consolidation of current City of Whitehorse GIS data is ongoing. The trail network is comprised of paved pathways, single and double track trails, hinterland trails and old roads used in all seasons. A description of existing trail types is included in Section 3.4.

Maps in Appendix A (Overall Trail Network) and Appendix B (Trail Sector Maps) provide an overview of the existing trail network overlaid with key land uses, geographical features and neighbourhoods. Further mapping work will be undertaken as part of Task 3.



The City's trail network is significantly larger in size than that of comparable municipalities in northern and western Canada (Table 2). This vast network represents a unique and highly valued outdoor recreation asset and underscores the importance of a shared community vision to ensure the success of future trail planning and management initiatives.

The City has approximately 33.9 km of trails per 1,000 residents based on population estimates (Statistics Canada, 2016). This provision of trails is higher than the Canadian average which, in 2018, was a median of 0.9 km per 1,000 residents (Yardstick, 2018). The City's provision of trails is similar to that of other communities broadly recognized as trail destinations. It should be noted, that many municipalities do not use these types of quantity standards because the amenities and quality of trails play an equal, if not more important, role in meeting community needs. This metric is provided as a reference point for understanding how the

City's supply of trails fares relative to national norms.

Table 2. Municipal Trail Network Comparison

Municipality	Total Estimated Trail Infrastructure (km)	Population (Statistics Canada, 2016)	Km of Trail per 1,000 population
Whitehorse	850 km	25,085	33.9
Yellowknife	25 km <sup>1</sup>	18,884	1.3
Prince George	87 km <sup>2</sup>	74,003	1.2
Fort McMurray	130 km <sup>3</sup>	66,573	1.9
Quesnel	49 km <sup>4</sup>	12,064	4.1
Squamish	222 km <sup>5</sup>	17,587	12.6
Whistler	310 km <sup>5</sup>	8,713	35.6
Pemberton	172 km <sup>5</sup>	1,957	87.9
Banff	22 km <sup>6</sup>	7,851	2.8

## 3.2 FIRST NATIONS

The City of Whitehorse trail network is located within the traditional territories of the Ta’an Kwäch’än Council (TKC) and Kwanlin Dün First Nation (KDFN), for whom trail use is an important part of the traditional way of life. Mapping of cultural and heritage trail routes is currently being undertaken by local First Nations, and through the “How We Walk with the Land and Water” initiative. The importance of

<sup>1</sup> Yellowknife Trail Enhancement and Connectivity Strategy 2018

<sup>2</sup> Prince George Centennial Trail Project 2008

<sup>3</sup> Parks Master Plan 2019

<sup>4</sup> Quesnel Trails Master Plan 2017

<sup>5</sup> Sea to Sky Corridor Recreation Trail Strategy 2007

<sup>6</sup> Banff Trails Master Plan 2015

historic aquatic trails, such as the Yukon River, is also acknowledged. First Nation citizens continue to use the area’s trails today in a variety of ways.

Both Ta’an Kwäch’än Council and Kwanlin Dün First Nation are significant landowners within the City of Whitehorse municipal boundaries. Ta’an Kwäch’än Council and Kwanlin Dün First Nation land parcels are illustrated on trail maps in Appendix B.

### **3.2.1 CURRENT TRAIL USE AND MANAGEMENT**

The City of Whitehorse and Kwanlin Dün First Nation have a Memorandum of Understanding for Trail Management and Planning which outlines trail planning activities, as well as management and maintenance of City-adopted trails located on KDFN parcels. The MOU authorizes use and management of a number of recreational trails which provide significant community benefit.

With a growing population and increasing participation in outdoor recreation, many informal trails on settlement land parcels are seeing increased use. The Ta’an Kwäch’än Council and Kwanlin Dün First Nation are actively assessing the impacts of unauthorized trail use and looking at management measures to encourage appropriate trail use and mitigate cumulative environmental impacts.

### **3.2.1 FUTURE LAND PLANNING**

As large landowners within the City of Whitehorse, Ta’an Kwäch’än Council and Kwanlin Dün First Nation will play a key role in future land development. An important goal will be ensuring the integration of future residential development into the existing trail network to ensure trail continuity and access to trails for new developments. An interconnected network of active transportation routes, including trails, will be critical to create connectivity and ensure that contiguous routes are established to access the downtown core.

Partnerships between the Ta’an Kwäch’än Council, Kwanlin Dün First Nation and City of Whitehorse around trail management and planning activities are integral to ensuring the overall sustainability of the trail network, promoting wildlife, heritage and cultural values, and fostering a cooperative relationship between all trail users and landowners.

### 3.3 TRAIL USES AND EXPERIENCES

Urban trail networks face the unique challenge of having to offer a wide range of trail experiences to a variety of users. The City’s trail network currently supports a variety of non-motorized and motorized uses, including:

#### Non-Motorized Uses:

- Walking;
- Hiking;
- Trail running;
- Nature appreciation;
- Dog walking;
- Cycling and mountain biking;
- Cross-country skiing, skijoring and biathlon;
- Kick-sledding
- Orienteering (especially novice and intermediate);
- Horseback riding;

#### Public Engagement on Trails

In the Parks & Recreation Master Plan (2018):

- “Unpaved/natural trails” and “Paved Trails” were listed as the top two most used outdoor spaces in the City.
- Participants expressed a desire for more mountain bike trails (27%) and more nature/interpretive trails (25%).

#### Motorized Uses

- Dirt biking
- Snowmobiles
- All-terrain vehicles (ATV)

Growing and emerging trail uses since the completion of the 2007 Trail Plan include:

- Electric mobility devices (i.e., e-bikes), and
- Fat biking.

User groups representing the above trail uses were invited to participate in a stakeholder engagement process to ensure the Trail Plan reflects the needs and aspirations of all trail users. A trail plan survey was conducted to gain a better understanding of the public’s:

- Knowledge of the City’s trail system;
- Satisfaction with the existing trail system;
- Needs and demands for trails and trail use;
- Any barriers to using trails;

- Prevalent trail issues, strengths, concerns and opportunities;
- Vision for the future, including potential for growth and new trail development, and
- Areas for enhanced trail connectivity, other actions and improvements.

Conflicts between uses is also being explored through the community engagement process to ensure the plan identifies strategies to meet a variety of user needs. Further information on Task 2 engagements can be found in the What We Heard report.

### 3.4 TRAIL CLASSIFICATIONS

Trail classification is an important management tool that provides the City a baseline from which to evaluate trail development and plan management and maintenance activities. Consistent trail classification provides trail users with a clear understanding of what can be expected on a trail and allows them to better select trails that meet their skill level and desired experience. A formalized trail classification also affords all stakeholders and partners a better understanding of the objectives of a particular trail during planning, construction and maintenance. An extensive trail network, such as the City of Whitehorse has should include a range of trail widths, surface and lengths.

The City of Whitehorse Trail Maintenance Policy currently outlines four general types of trails (Table 3). These are adapted from the Whistler Trail Standards (2003). Type I trails have the highest amount of traffic of any trail type in the City with multiple user types, while Type IV trail see the least amount of traffic with specific users.

Table 3. City of Whitehorse Trail Types (Trail Maintenance Policy)

Existing Trail Type	Description	Tread Width	Typical Use
Type I	Double-track trails paved with asphalt or chip seal	2-3 metres	Walking and cycling with limited motorized use
Type II	Surfaced single-track or double-track trails	Up to 1 metre (single-track), 2 metres (double-track)	Walking and cycling with limited motorized use
Type III	Unsurfaced single-track and double-track trails	50-70 centimetres (single-track), up to 2 metres (double-track)	Hiking and mountain biking with limited motorized use
Type IV	Hinterland trails	30-50 centimetres	Hiking and mountain biking

This trail planning process includes a review of trail types and potential updates to the existing trail classifications and uses to ensure appropriate and consistent standards.

### 3.5 TRAIL COUNTER DATA

The paved Millennium Trail and Riverfront Trail are the City’s most used and accessible trails. These paved trails are ideal for all ages and abilities. In order to gain a better understanding of the volume of users on the paved riverfront trail network, the City has trail counters installed at four key locations (Appendix C – Trail Counter Locations). These include:

- Chambers House (Frostbite)
- Visitor Information Centre
- Skate park
- Rotary Centennial Bridge

Trail counter results available from 2019 and 2020 are summarized in the following graphs. The data collected provides strong evidence of the importance of Type 1 trails within the community for both transportation and recreation opportunities, and information about the relative volumes and timing of trail users at these locations. Data was collected from March 19, 2019 to April 16, 2020.

A summary of the trail use data collected is provided in Tables 4 and 5, and Figures 4 and 5.

Table 4. Trail Use Counts - Summary

Date	Chambers House	Visitor Centre	Skate Park	Centennial Bridge
<b>2019</b>				
March 19 - March 31	3,559	9,478	7,279	6,482
March 31 - April 10	1,698	3,905	3,069	2,710
April 10 - April 23	3,579	8,239	5,445	4,445
April 23 - May 7	4,215	10,252	vandalized	4,954
May 7 - May 16	3,189	7,571	4,348	3,716
May 16 - May 23	2,501	6,503	3,591	2,742
May 23 - June 5	2,528	8,903	5,230	5,265
June 5 - June 12	2,882	5,130	3,875	2,571
June 12 - June 19	3,021	5,991	3,232	2,782
June 19 - July 3	6,475	14,787	6,742	6,242
July 3 - July 10	3,558	-	6,222	4,585
July 10 - July 30	6,265	-	4,033	7,285
July 30 - Aug 20	7,314	-	5,146	7,507
Aug 20 - Aug 28	2,788	-	2,782	3,082
Aug 28 - Sept 4	2,388	-	2,495	2,717
Sept 4 - Sept 19	6,456	-	4,602	4,803
Sept 19 - Sept 30	1,925	-	2,722	2,494
Sept 30 - Oct 10	2,121	-	1,804	1,476
Oct 10 - Oct 24	2,135	-	2,373	1,915
Oct 24 - Nov 13	3,002	-	3,004	2,551
Nov 13 - Nov 26	2,393	-	1,432	1,931
Nov 26 - Dec 16	3,185	-	1,199	1,654
Dec 16 - Jan 16	2,993	-	1,143	1,381
<b>2020</b>				
Jan 16 - Feb 12	2,414	-	1,349	1,615
Feb 12 - Mar 3	4,818	-	2,837	2,982
Mar 3 - Mar 17	2,263	-	1,473	1,945
Mar 17 - April 7	2,959	-	2,189 (chewed by dog)	4,899
April 7 - April 16	2,364	-	2,697	3,797
<b>TOTALS</b>	<b>94,988</b>	<b>80,759</b>	<b>92,313</b>	<b>100,528</b>

## Key Findings:

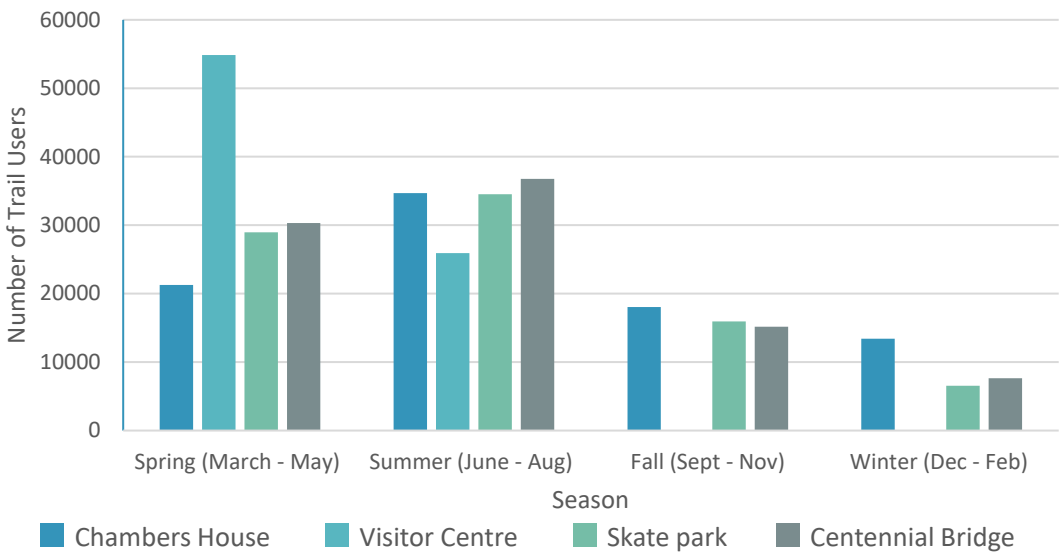
- Trail counter data from the Centennial Bridge shows the Millennium Trail receives around 100,00 uses per year (Table 4).



Table 5. Trail Use Counts - By Season

Date	Chambers House	Visitor Centre	Skate Park	Centennial Bridge	TOTALS
<b>Spring (March - May)</b>	21,269	54,851	28,962	30,314	<b>135,396</b>
<b>Summer (June - Aug)</b>	34,691	25,908	34,527	36,771	<b>131,897</b>
<b>Fall (Sept - Nov)</b>	18,032	-	15,937	15,170	<b>49,139</b>
<b>Winter (Dec - Feb)</b>	13,410	-	6,528	7,632	<b>27,570</b>
<b>TOTALS</b>	<b>87,402</b>	<b>80,759</b>	<b>85,954</b>	<b>89,887</b>	

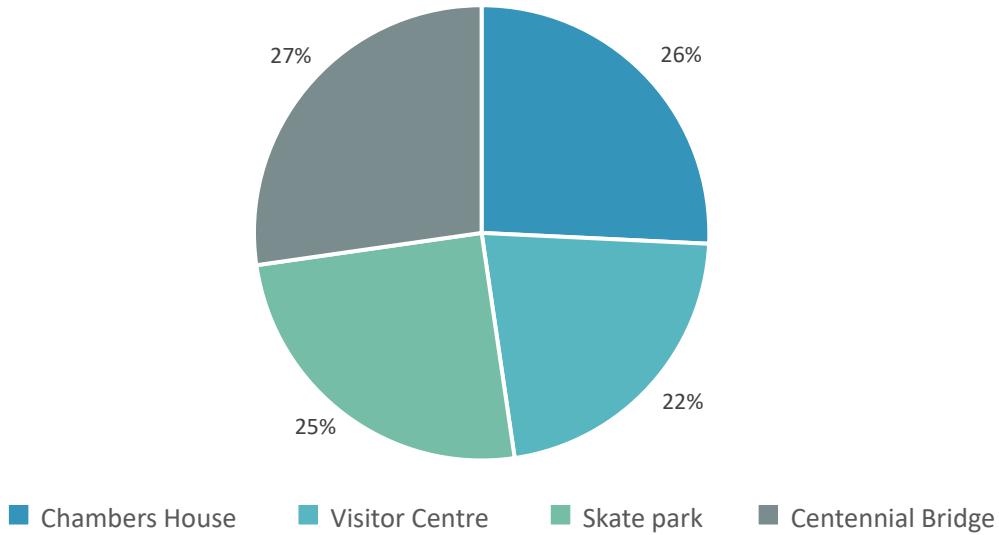
Figure 4. Total Trail Use Counts by Season (Spring, Summer, Fall, Winter)



Key findings:

- Trail use was highest during the summer at 3 out of 4 of the counter locations (Figure 4).
- The highest seasonal trail count number was in spring at the Visitor Centre location with 54,851 trail users (Figure 4). This may be because this section of the riverfront trail is more widely used by both visitors and residents.
- The lowest seasonal trail count number was at the skate park location in the winter with 6,528 trail users (Figure 4).

Figure 5. Total Trail Use Counts by Location



Key findings:

- The Centennial Bridge had the highest total number of uses of the four trail counter locations (100,538), highlighting the popularity of the Millennium Trail loop (Figure 5). The high percentage of counts at this location may also be due to its use as a commuter route from Riverdale.

## 3.6 SUMMARY OF KEY ISSUES AND OPPORTUNITIES

There are a number of key planning considerations to be addressed through the Trail Plan. The following summarizes some of the key issues arising through the background review:

### **Establishing a community vision for the Whitehorse trail network;**

- The City has a highly valued and extensively used trail network with diverse needs; an updated vision and guiding principles are required to reflect the City's unique shared trails culture.

### **Building upon and integrating existing policies, plans and bylaws;**

- Gaps and inconsistencies exist between the 2007 Trail Plan and bylaws and policies related to trails. The Trail Plan must build upon and integrate with existing policies, plans and legislation to provide clarity for the public, government partners and trail users.

### **Updating classifications for trail types and uses;**

- Trail classifications would benefit from updating both as a management tool, and to provide a better understanding of the objectives of particular trails. Trail types outlined in the Trail Maintenance Policy and the Trail Plan should be aligned.

### **Integrating interpretive and educational opportunities;**

- There is an opportunity to develop trail infrastructure that promotes the area's unique natural, cultural, and heritage resources, and traditional uses in the area, through City and community resources and in partnership with First Nations.

### **Increasing accessibility of trails for a broad user base; and**

- Strategies and guidelines are needed to manage multiple trail uses, as the variety of uses expands. This means ensuring access for a diverse range of trail users, and emerging trail uses.
- The trail network will need to sustainably accommodate more use by both residents and visitors as the City's population increases, and the tourism sector grows.

### **Identifying opportunities for new trail development and growth;**

- While extensive, the existing trail network has some gaps where trail connections would further enhance connectivity between neighbourhoods and key destinations.
- There is an opportunity to create a more complete network of Type 1 trails for active transportation and recreational use.
- Identify recreational loop trails that connect key points of interest at a range of distances.
- There is a desire to ensure trail development balances economic and community benefits while protecting ecological, wildlife and heritage values.

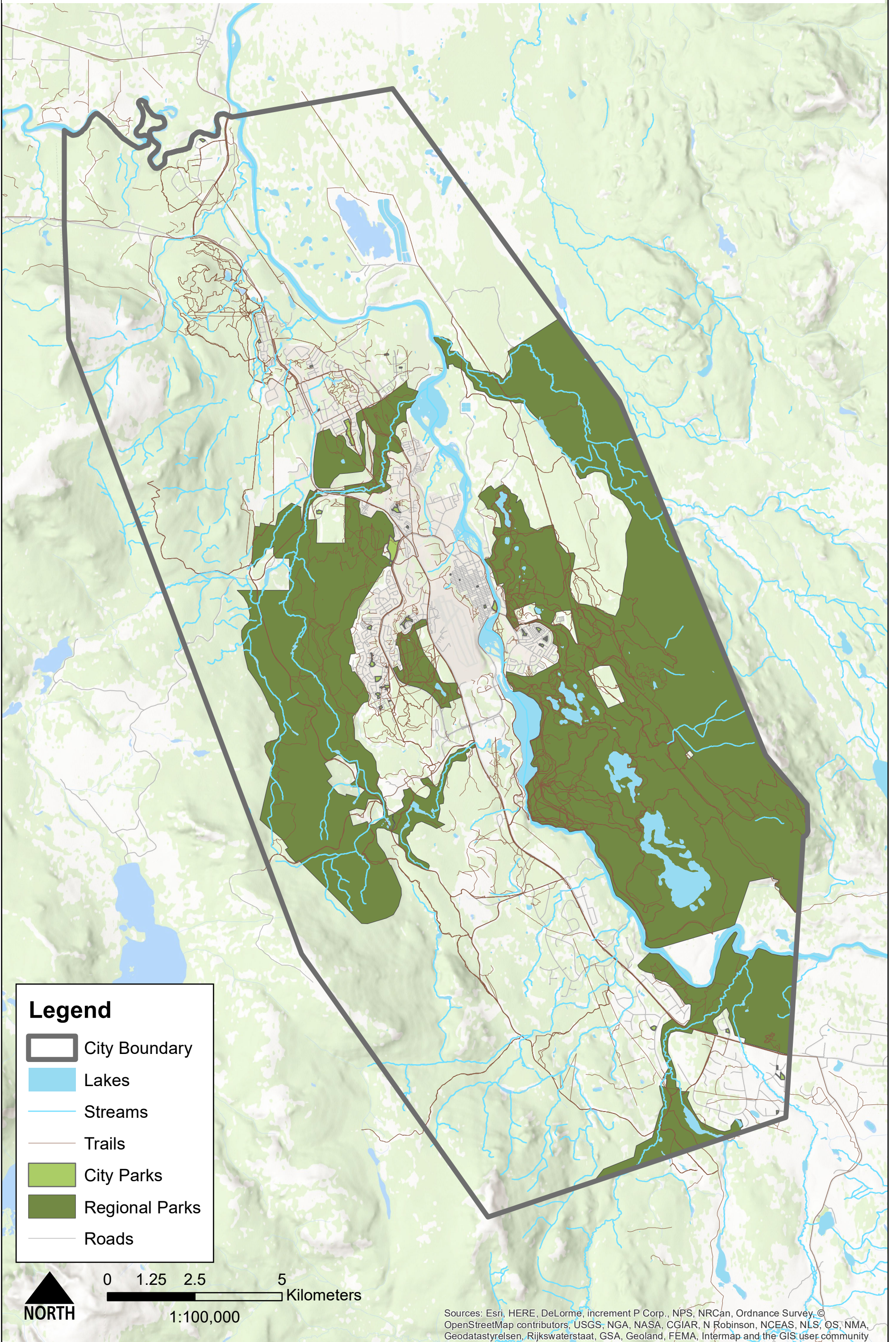
## 4 APPENDICES

# APPENDIX A: OVERALL TRAIL NETWORK MAP

# WHITEHORSE EXISTING TRAIL MAP

WHITEHORSE TRAIL PLAN

LEFS  
ASSOCIATES



## Legend

- City Boundary
- Lakes
- Streams
- Trails
- City Parks
- Regional Parks
- Roads



0 1.25 2.5 5 Kilometers

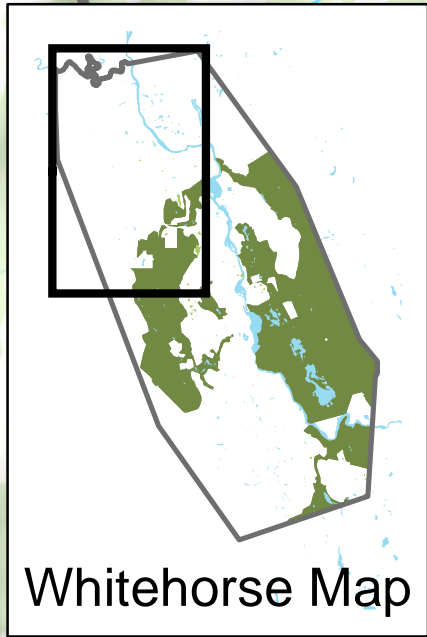
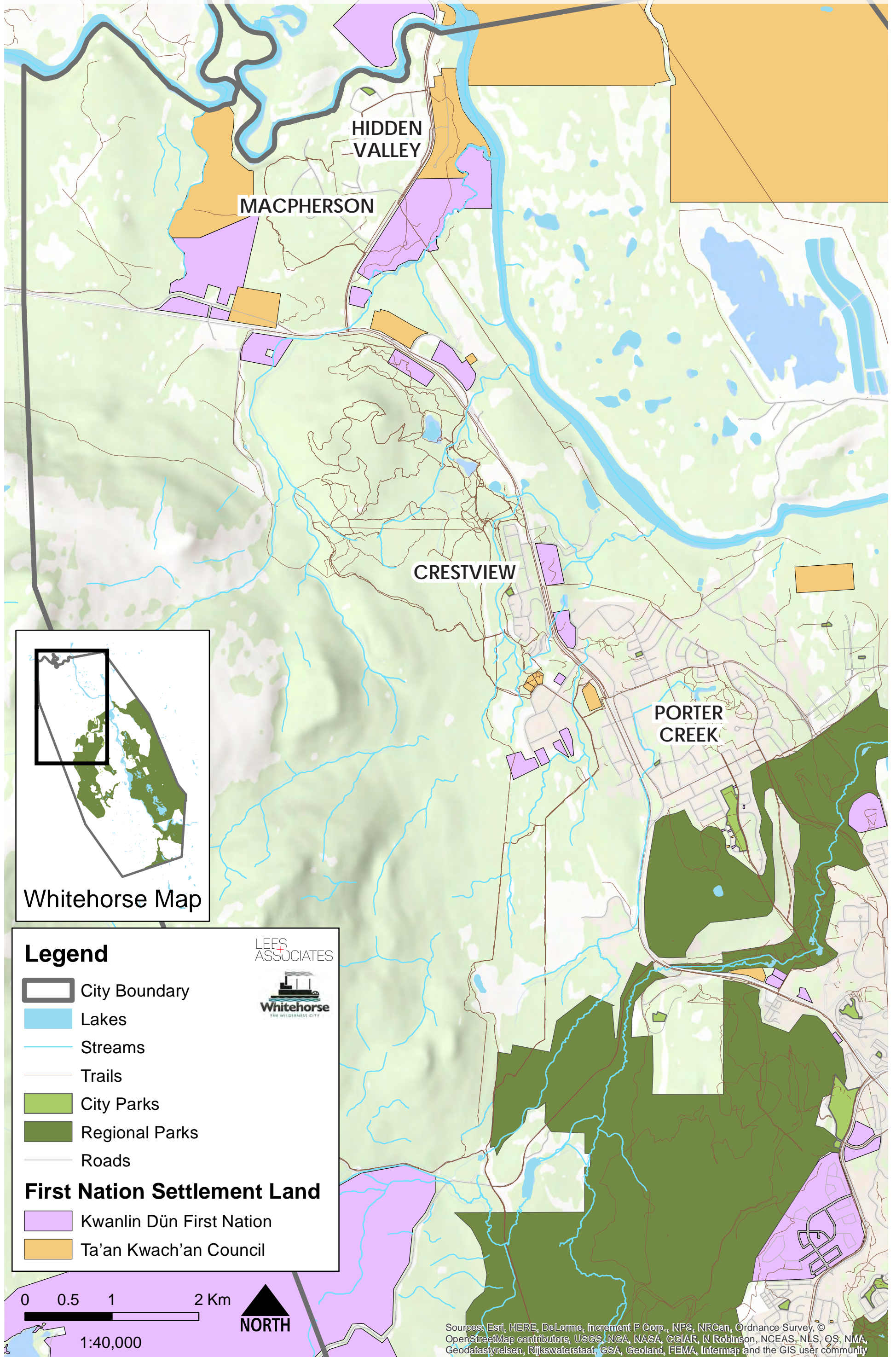
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# APPENDIX B: TRAIL SECTOR MAPS

# NORTHWEST WHITEHORSE TRAIL MAP

WHITEHORSE TRAIL PLAN



**Legend**

- City Boundary
- Lakes
- Streams
- Trails
- City Parks
- Regional Parks
- Roads

**First Nation Settlement Land**

- Kwanlin Dün First Nation
- Ta'an Kwach'an Council

LEES ASSOCIATES  
Whitehorse THE WILDERNESS CITY

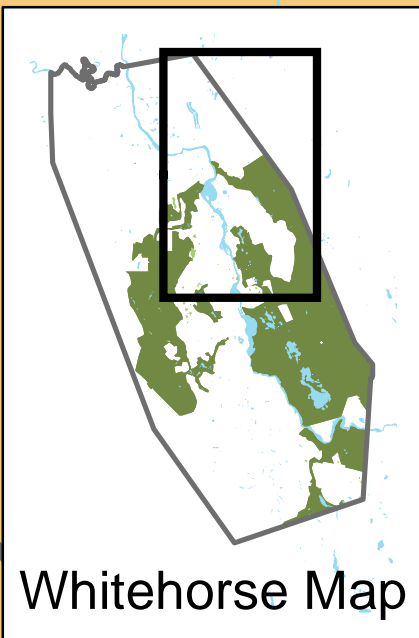
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# NORTHEAST WHITEHORSE TRAIL MAP

WHITEHORSE TRAIL PLAN

LEFS ASSOCIATES



## Legend

- City Boundary
- Lakes
- Streams
- Trails
- City Parks
- Regional Parks
- Roads

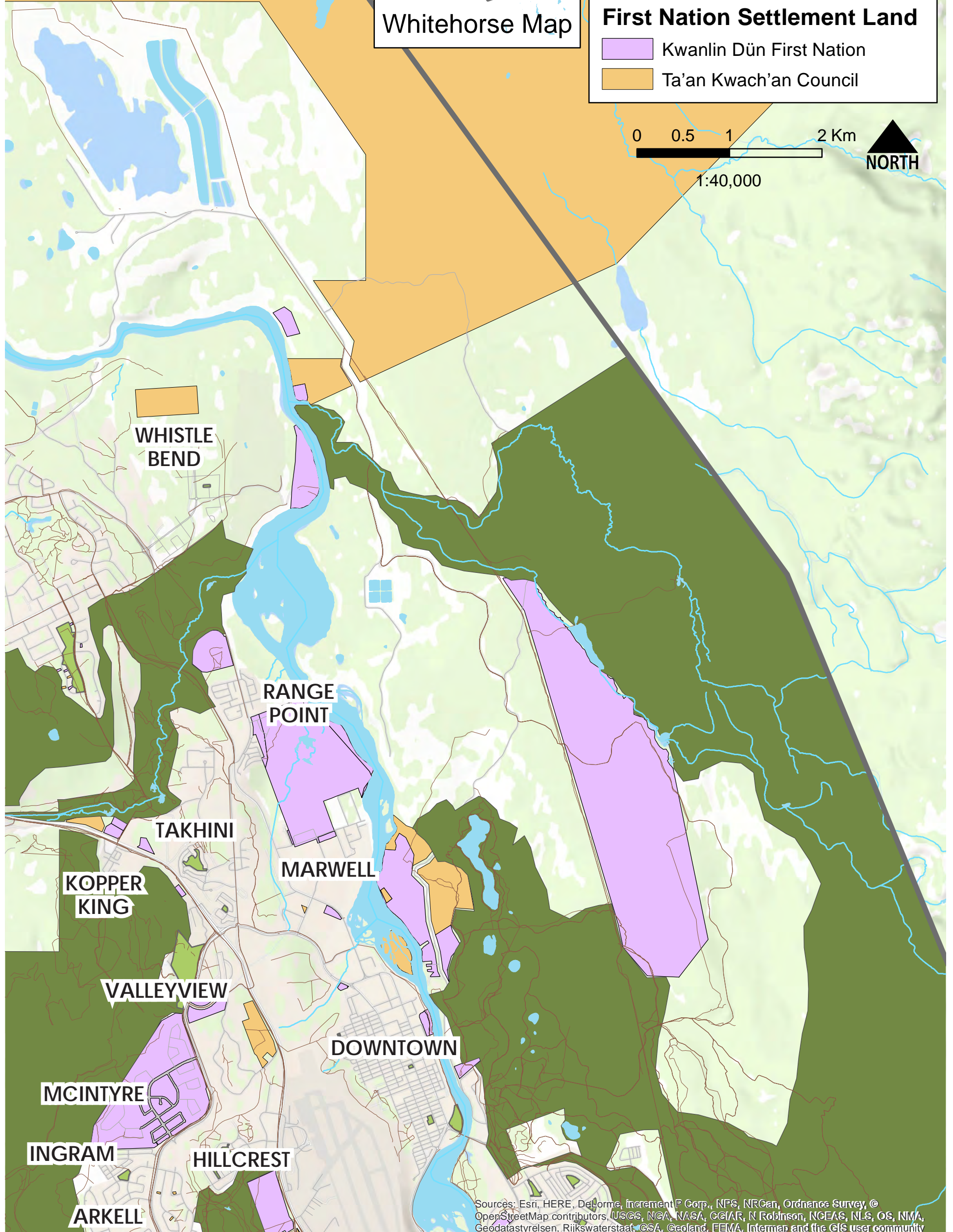
## First Nation Settlement Land

- Kwanlin Dün First Nation
- Ta'an Kwach'an Council

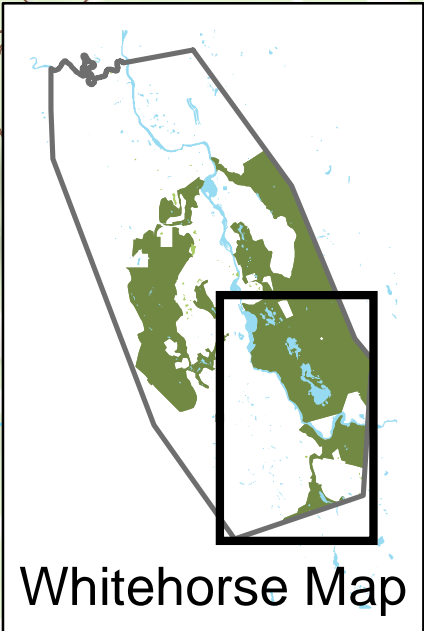
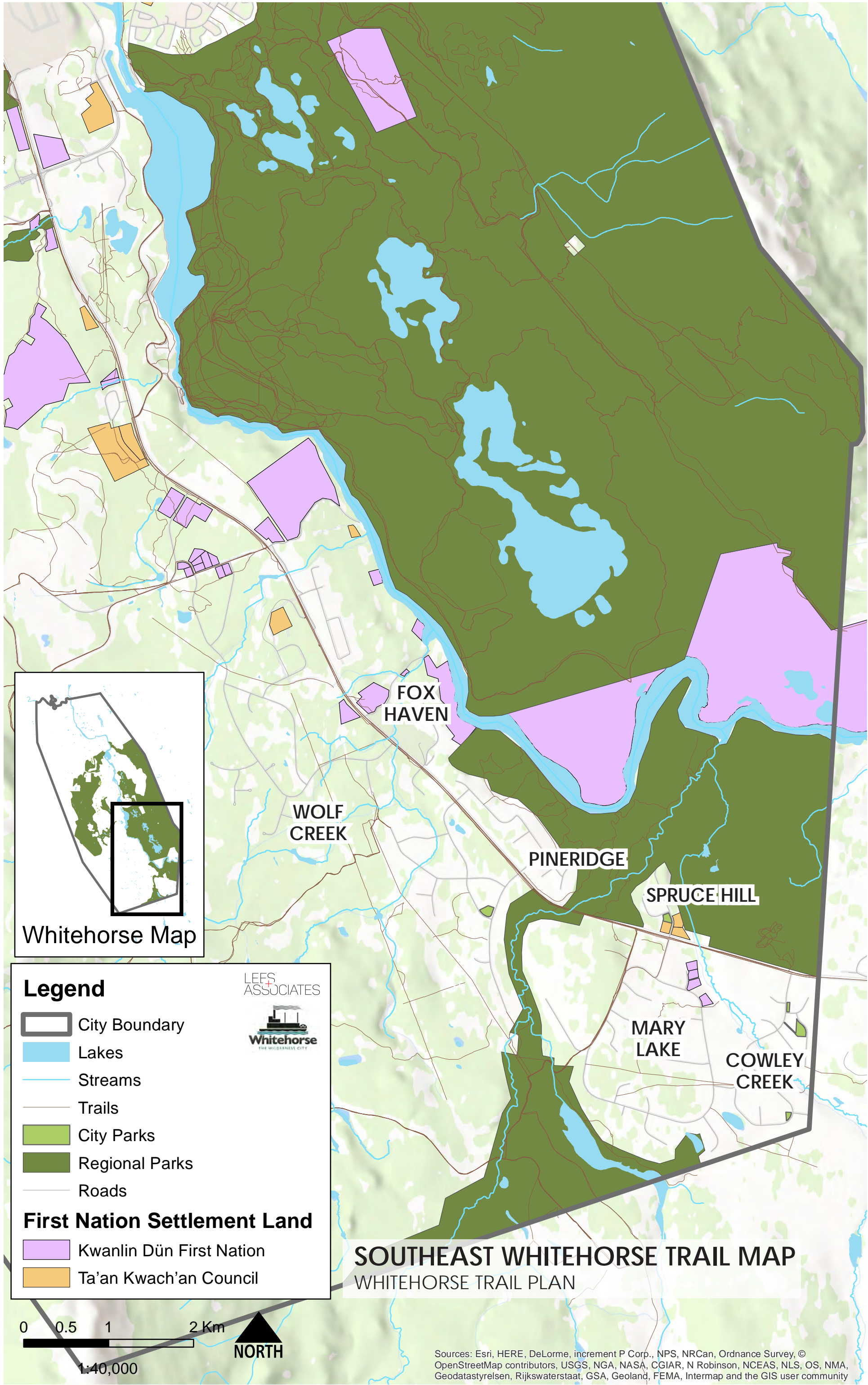
0 0.5 1 2 Km



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**Legend**

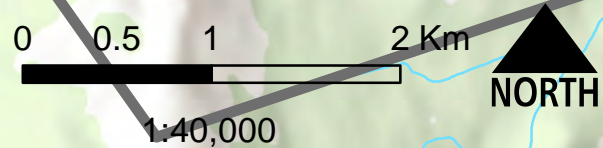
- City Boundary
- Lakes
- Streams
- Trails
- City Parks
- Regional Parks
- Roads

**First Nation Settlement Land**

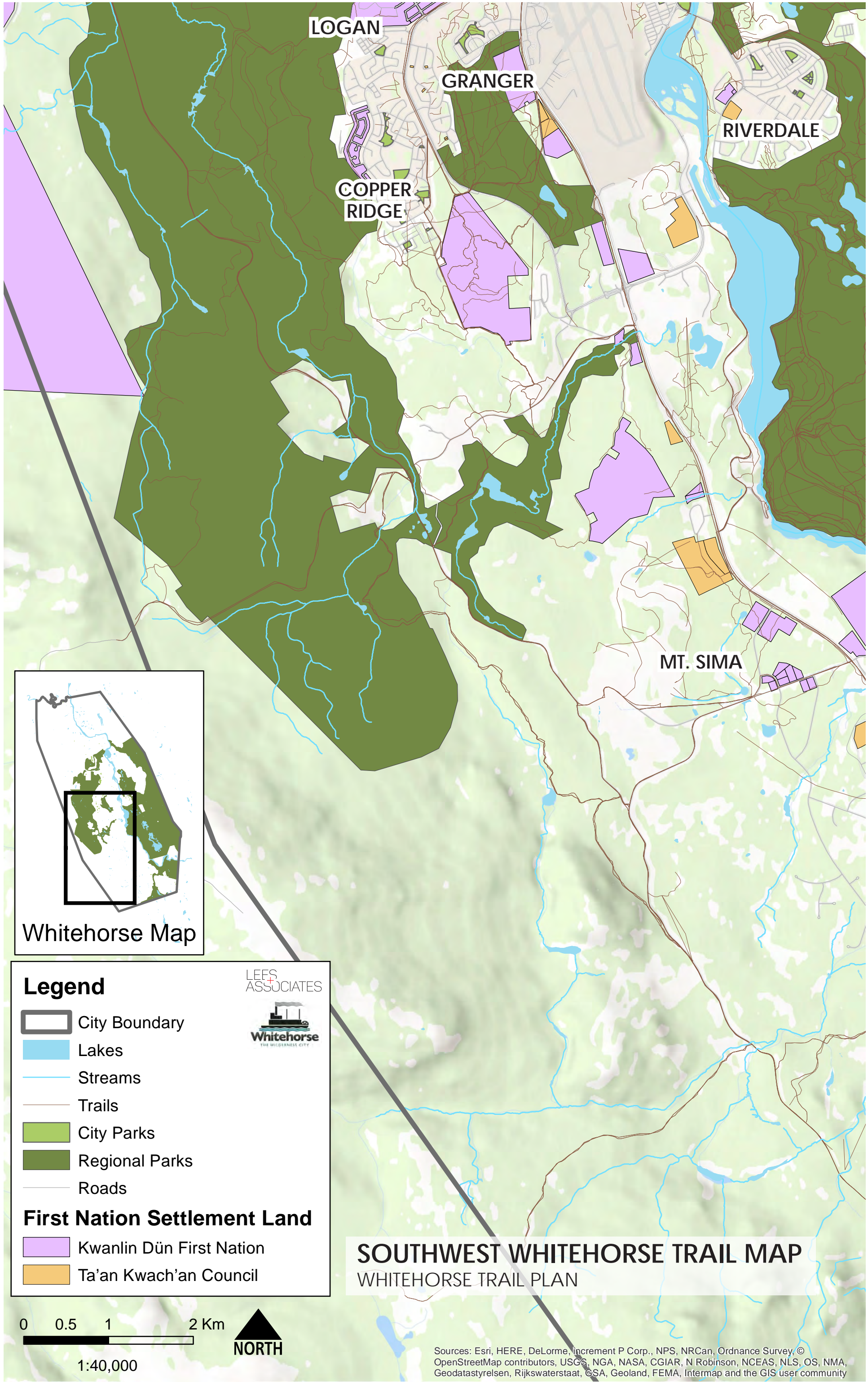
- Kwanlin Dün First Nation
- Ta'an Kwach'an Council



**SOUTHEAST WHITEHORSE TRAIL MAP**  
WHITEHORSE TRAIL PLAN



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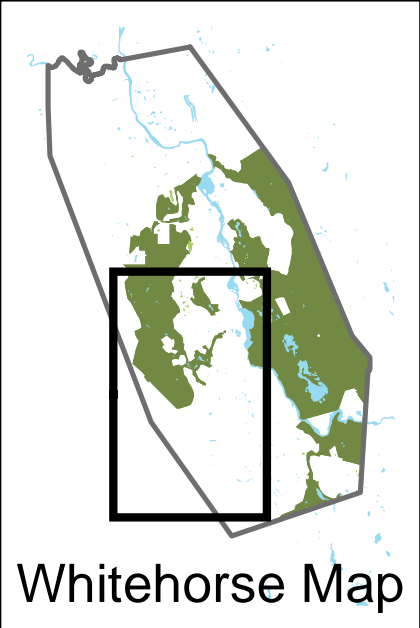
LOGAN

GRANGER

RIVERDALE








COPPER  
RIDGE

MT. SIMA





Whitehorse Map

**Legend**

-  City Boundary
-  Lakes
-  Streams
-  Trails
-  City Parks
-  Regional Parks
-  Roads

**First Nation Settlement Land**

-  Kwanlin Dün First Nation
-  Ta'an Kwach'an Council



**SOUTHWEST WHITEHORSE TRAIL MAP**  
WHITEHORSE TRAIL PLAN

0 0.5 1 2 Km



1:40,000



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# APPENDIX C: TRAIL COUNTER LOCATIONS

# Trail Counter Locations

