



YORK FACTORY FIRST NATION TEN SHILLING AERODROME

Summary Initial Project Description

Submitted to:

Impact Assessment Agency of Canada

April 2025



**ERGENERGY
SERVICES**

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Calgary AB T2R 0E4

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1.0 INTRODUCTION

ERG Energy Services Ltd. (ERGES) is pleased to submit the Initial Project Description (IPD) on behalf of York Factory First Nation (YFFN) (the Proponent) for the York Factory First Nation Ten Shilling Aerodrome (the Project). This IPD has been prepared in accordance with regulations and guidance from the Impact Assessment Agency of Canada (IAAC) including:

- *Information and Management of Time Limits Regulations SOR/2019-283*
- *Guide to preparing and Initial Project Description*

This document is organized to align with the required information outlined in the Information and Management of Time Limits Regulations SOR/2019-283

2.0 GENERAL INFORMATION

The Proponent is proposing to develop an aerodrome in northern Manitoba which will allow access to their traditional lands and ancestral homeland as there is only seasonal access available. The Project will be located approximately 4.5 kms SE of the York Factory Historical Site along the Hayes River, approximately 122kms NW of Shamattawa, Manitoba and approx.160km NE of the town of Gillam, Manitoba. See [Table 1](#)

The proposed site will occupy approximately 37.86 acres/ 15.45 hectares(ha)

Table 1. General Project Information								
Name of Project:			York Factory First Nation Ten Shilling Aerodrome					
Type/Sector:			Aerodrome					
Proposed Location of Aerodrome:			NAD83 15V 541,573.800E 6,313,749.436N Centroid GPS Coordinates of the full airstrip is: N 56° 57'55.66" W-92°18'58.53" Legal Land Description: P/O Sec 09-10-092-11-E2M Beginning and end points of the airstrip:					
Desc	Lat	Long	Label Lat	Label Long	X	Y	Label X	Label Y
NW - Runway	56.969802	-92.306556	N 56° 58'11.28"	W 92° 18'23.60"	542158.9273	6314238.345	542,158.927	6,314,238.345
SW - Runway	56.961124	-92.325962	N 56° 57'40.04"	W 92° 19'33.46"	540988.6724	6313260.527	540,988.672	6,313,260.527

Proposed Project Location see: [Figure 1- Project Location](#), [Figure 2- Project Location Detail](#)

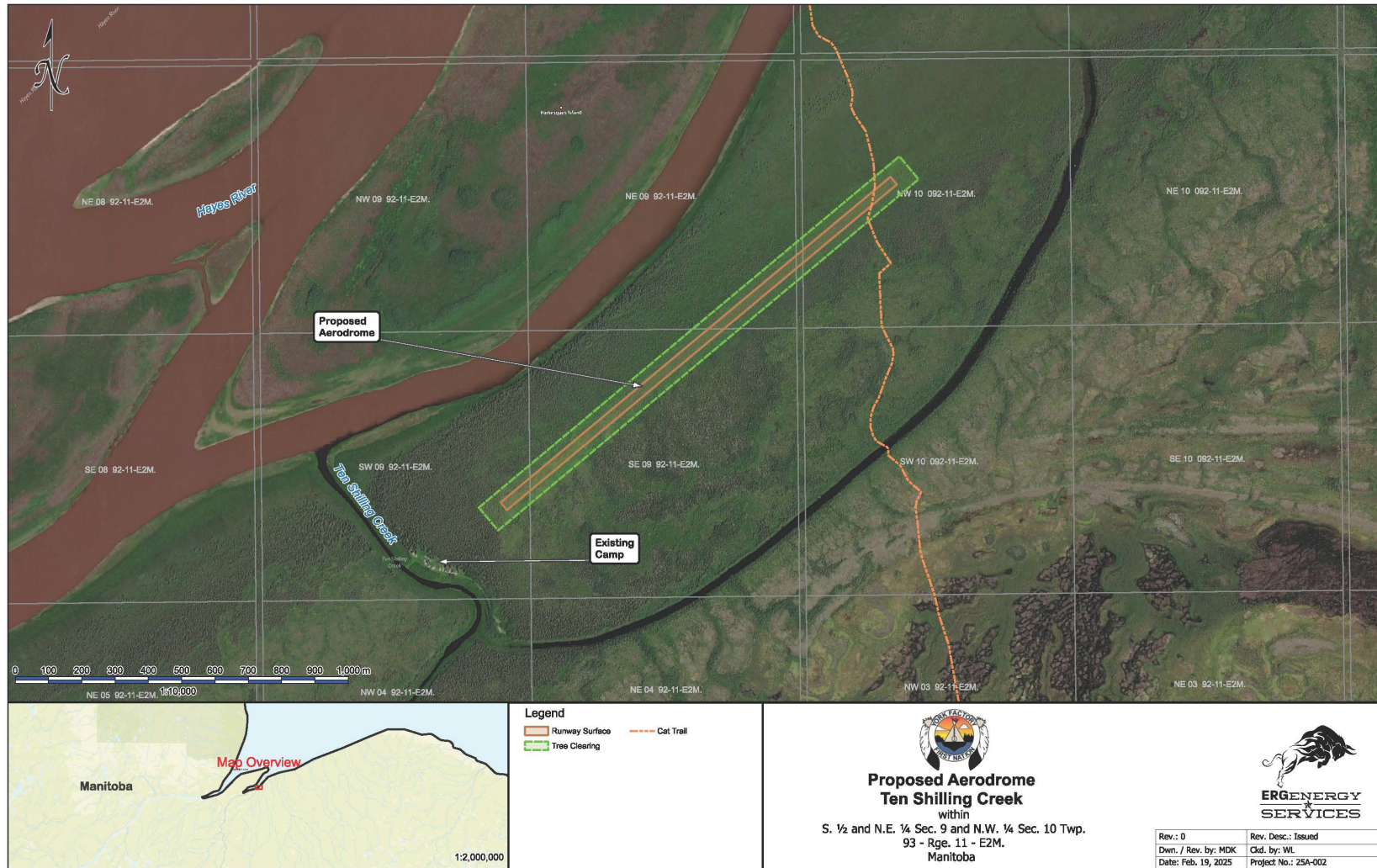


Figure 2- Project Location Detail

2.1 Proponent Name and Contact Information

Table 2 - Proponent Name and Contact Information	
Name of Proponent	York Factory First Nation
Address of Proponent	Band Office Box 257, York Landing, MB R0B 2B0 Phone: (204) 341-2180 Website: http://www.yffn.ca/ Thompson Office 206-55 Selkirk Avenue, Thompson, MB R8N 0M5
Principal Contact Person:	Jim Beardy, CEO Kawechiwask Development Corporation jmbeardy@gmail.com (204) 679-0140 302-83 Churchill Drive Thompson, MB R8N 0L6

2.2 Engagement with Jurisdictions or Agencies

The following engagements have been undertaken to support the approval process for York Factory First Nations, Indigenous Services Canada, Impact Assessment Agency of Canada and Transport Canada.

Table 3 below is a summary of agencies/parties that have been engaged to date.

2.2.1 Federal Stakeholder Engagement

Impact Assessment Agency of Canada (IAAC)

IAAC was initially contacted in October 2024 to discuss the proposed project. Further discussions and meetings were held in November 2024. Engagement with IAAC will be ongoing throughout the project review.

Transport Canada (TC)

Transport Canada requires specific consultation activities prior to approval and construction of a new aerodrome. The Project pre-consultation activities included outreach to Transport Canada. The official consultation period is underway following notifications to adjacent seasonal stakeholders and Indigenous groups, as part of the Transport Canada consultation requirements.

Nav Canada

Once the Project description is approved a copy of the proposal will be submitted 8-12 weeks prior to construction. Construction Notification Form of proposed construction commencement is to be submitted 10 days prior to construction to the Land Use Office landuse@navcanada.ca., Construction Completion Notification must also be submitted to the Land Use Office.

Parks Canada – York Factory Historical Site

York Factory Historical Site is located approximately 4.5kms NW of the proposed aerodrome. A Project notification call was made to Parks Canada on January 28th, 2025, and was advised by Parks

Canada that in February 2024 Parks Canada met with York Factory First Nation to engage with them on another project they had underway. During that meeting, YFFN advised Parks Canada about their intent for this Proposed Project. A notification letter and Project Location map have been sent to Parks Canada advising that the project was being submitted to IAAC.

Table 3 - Federal Stakeholder Engagement	
IAAC	YFFN/ERG contacted IAAC in late 2024 to notify them of the proposed project. Recommendations for the project proposal as well as engagement guidelines. Engagement with IAAC will be ongoing.
Transport Canada Nav Canada	Submissions and engagement to be done prior to construction and reviews by IAAC.
Parks Canada York Factory Historic Site	YFFN initial discussion February 2024, Discussion again January 2025 – Initial Project notification sent, ongoing engagement continues

2.2.2 Provincial Stakeholders Engagement

Manitoba Environmental Approvals Branch (EAB)

EAB was contacted October,2024 to notify them of the Initial Project Description submission to IAAC and asked if the project needed to be submitted at the same time to them. The project does not fall within the Classes of Development, *The Environment Act (C.C.S.M.c.E125)*. They advised it may be sent through IAAC but was not sure.

Manitoba Sport, Culture, Heritage & Tourism Branch

Initial call/email was made in January 2025, to advise of the Project and request any potential historical data for the Project location. A response was received advising that a Heritage Resource Impact Assessment (HRIA) will be required prior to construction.

2.2.3 Municipal Stakeholder Engagement

The Project is owned by YFFN and does not fall within a Municipality. No Municipal engagement has been done.

2.2.4 Landowner Engagement

The project is owned by YFFN. YFFN's members are all in support of the Project moving forward and are looking forward to better access to their traditional lands and the protection of it.

2.2.5 Resident(s) Stakeholder Engagement

The closest permanent residents are located approximately 120kms south of the Project at Shamattawa. However, there are seasonal Parks staff with Parks Canada at the York Factory Historical Site between June to early September. The Nanuk Polar Bear Lodge which is approximately 43kms to the NE of the Project also has seasonal staff from July to November.

2.2.6 Industry Stakeholder Engagement

No industry stakeholder engagement has been done. The closest industry projects found were to the south along the Nelson River at Bird (Manitoba Hydro Limestone Facility) which is fully operational.

Table 4- Provincial Stakeholder Engagement	
Manitoba Environmental Approvals Branch (EAB)	Contacted in October 2024 and again in January 2025 to confirm the project does not fall within the Classes of development with the Environment Act
Manitoba Sport, Culture, Heritage & Tourism Branch	Initial contact was made in January 2025 – An HRIA will be required prior to construction. Engagement will be ongoing
Resident(s)	Seasonal resident(s) (staff) at the York Factory Historical Site and Nanuk Polar Bear Lodge. Engagement with Parks Canada is ongoing.

2.3 Indigenous Engagement

The Proponent of this project is Indigenous, and the Project is located within their Traditional Territory. The following outlines the Proponent’s engagement summary for the Project to date and commitments related to engagement with Indigenous groups. As part of our commitment to engaging and including Indigenous communities in the Project, the York Factory First Nation Ten Shilling Aerodrome Project has committed to the following principles:

- 1) Open and transparent engagement with Indigenous communities
- 2) The provision of factual and timely information to Indigenous communities

Following the Project announcement, members of the York Factory Ten Shilling Aerodrome Project team reached out to staff at IAAC to understand which Indigenous communities may have an interest in the Project. IAAC provided the following list of Indigenous communities to be scoped in for engagement:

- Fox Lake Cree Nation
- Shamattawa First Nation
- Tataskwey Cree Nation
- War Lake First Nation
- Manitoba Metis Federation

With this information an engagement document was created for all to ensure that who ever may interest or have potential to be affected by the project, they will be able to share their comments and or support.

YFFN asked to be the conduit for on inputs from other First Nations on the YFFN Ten Shilling Aerodrome project. On Wednesday the 22nd of January the YFFN produced a draft letter that was revised and signed by YFFN Chief Daryl Wastesicoot, dated, January 28th and presented by hand to the respective Chiefs of the Kitaskeenan Kaweekanawaynichikatek project, Fox Lake Cree Nation, Tataskweyak Cree Nation, War Lake First Nation, and Shamattawa First Nation, at the Assembly of Manitoba Chiefs Special Chiefs Assembly conference on the 29th of January 2025 in Winnipeg at the Canad Inn, Polo Park.

To date no in person or written responses have been received from the original engagement document dated January 28th, 2025. As part of the ongoing engagement all comments/requests will be addressed as well as updates will be provided at all milestone events unless required sooner.

2.4 Studies and Plans

Various studies and plans were utilized throughout the Project proposal:

- Pre-feasibility study (Hart Aviation Strategies, 2350062 Alberta Ltd.).
- Hayes River Management Plan (2005) https://gov.mb.ca/sd/pubs/parks-protected-spaces/management_plan/hayes_river_mgmt_plan.pdf
- York Factory National Historic Site of Canada Management Plan (October 2007)
- York Factory Resource Management Area (RMA)
- Traditional Land Use Studies (TLU)
 - Voices from Hudson Bay
https://www.google.ca/books/edition/Voices_from_Hudson_Bay/9axc1sVUBhgC?hl=en&qbpv=1&printsec=frontcover
 - York Factory as a Native Community
[https://portal.usask.ca/docs/Prairie%20Forum/York%20Factory%20\(v17no2_1992_pg275-294\).pdf](https://portal.usask.ca/docs/Prairie%20Forum/York%20Factory%20(v17no2_1992_pg275-294).pdf)
 - KIPEKISKWAYWINAN Our Voices –<http://www.yffn.ca/>

2.5 Strategic Assessments

The Strategic Assessment of Climate Change (SACC; ECCC 2020) is a strategic assessment under Section 95 of the Impact Assessment Act and is relevant to the Project. The quantification of greenhouse gas (GHG) emissions per the SACC guidelines are presented in *6.5 Greenhouse Gas Estimate*.

3.0 PROJECT INFORMATION

3.1 Project Purpose and Need

The People of York Factory First Nation were forcefully removed from their traditional homelands on the west coast of Hudson Bay in and around the York Factory area. The forced dispersal and removal were fully completed by the summer of 1957. Government agents burned down their settlement houses in York Factory to prevent the People from trying to return to their homeland. There were several small settlements throughout the York Factory coastal area where the People lived. Ten Shilling Creek (aka Seepastik) was one of them. The People have never stopped, since relocation, trying to maintain regular and yearly contact with their traditional coastal homeland. Shortly after relocation, members went by boat down the Nelson River to access York Factory to continue to pursue their traditional livelihoods on their lands that they knew intimately. Then it was by skidoo, then by helicopter. A makeshift landing strip was cleared on Hay Island which is directly across from the York Factory historic site. It was used for several years but was continually damaged by spring ice every year because of its location. Rocks and boulders had to be cleared every year. There was no equipment to help with this task. Another site on Fortesque Island was started but was later abandoned for various reasons. Current access to the York Factory coast is by boat on the Nelson River and by helicopter. Both transportation methods are extremely expensive. Up to \$17,000 by boat (10 - 12 passengers) return and up to \$25,000 return by helicopter (3 - 5 passengers).

Not only will this Project address the financial cost of access, but it will also greatly improve the health and social well-being of the People of York Factory First Nation. It will help to address the harms that were inflicted on the York Factory People that resulted from the forced dispersal and relocation. It will lead to healing and reconciliation efforts.

The Project is to allow access to and from Ten Shilling by the members of YFFN who will be re-occupying their traditional lands and will assist the YFFN People in re-establishing a permanent presence in their traditional homelands. There is discussion by some that they would like to re-settle on a smaller scale at this former site where many still living members were born and raised.

Executing the build of this project will require series of logistics and staging of increasingly capable equipment in stages as the build progresses. The use of the existing CAT trail will allow for the first stage of equipment delivery and preparation of the surface. All the alternatives of barging, airlifting and river boats have been identified and summarily discounted due to the high cost and/or limited capability. The surface will take best advantage of the in-situ materials and apply the appropriate technologies to offer a suitable year-round landing surface.

3.2 Project Applicable Physical Activities Regulation

The Project is subject to Section 46(a) of the Schedule of *Physical Activities Regulation* (GOC 2019c), as follows:

46 The construction, operation, decommissioning and abandonment of one of the following:

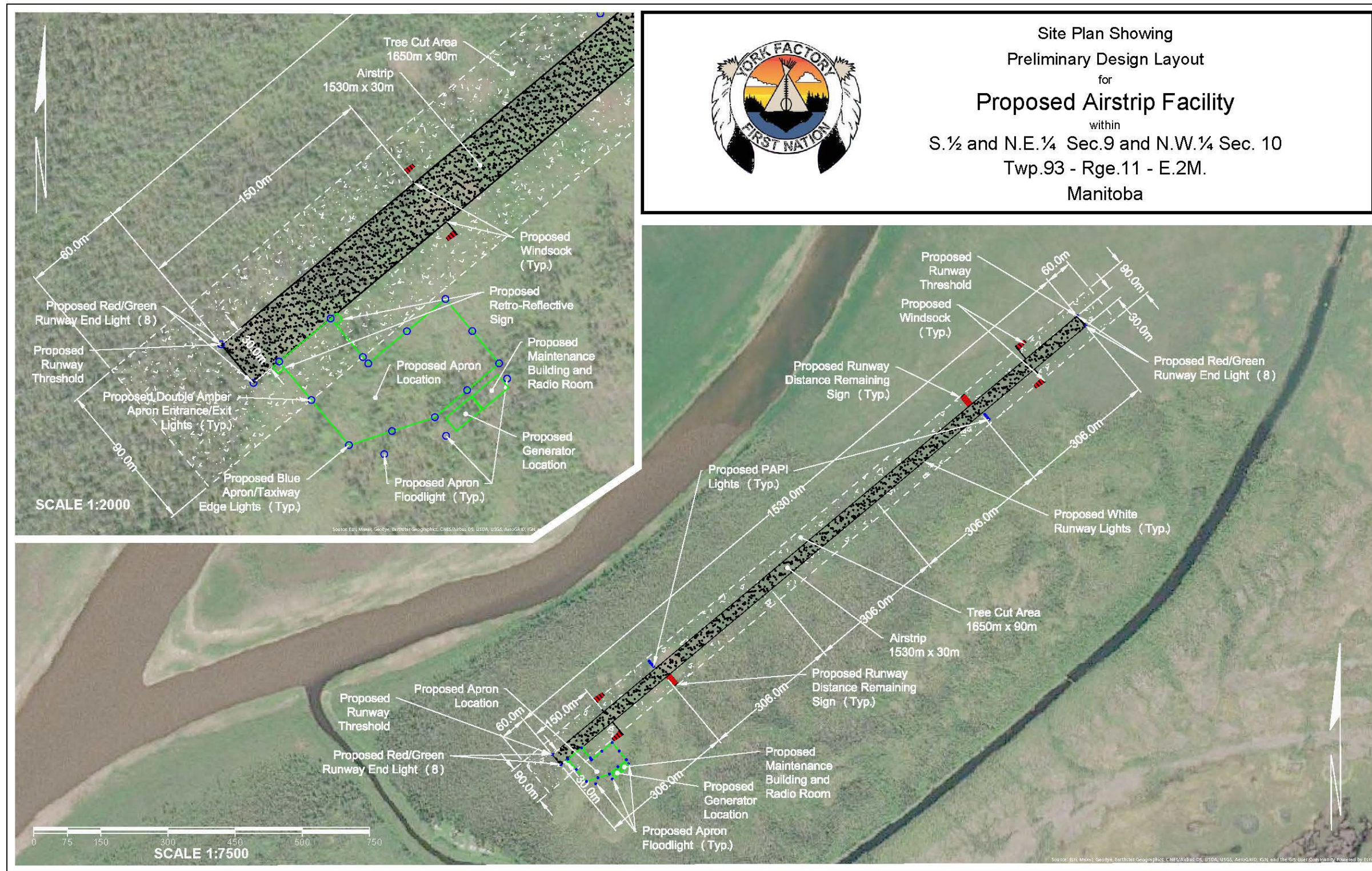
(a) a new aerodrome with a runway length of 1000m or more

The runway is proposed to be 1530m long. No other criteria presented in the Schedule to the *Physical Activities Regulation* are applicable to the proposed Project.

3.3 Project Activities, Infrastructure and Physical Works

3.3.1 Proposed New Infrastructure and Project Activities

The proposed aerodrome will be a **non-certified**, single runway with a compacted gravel top approximately 5,000 feet (1,530 m) in length and up to 100 feet (30m) in width for the runway strip allowance. Other features will include a taxiway that will connect the runway to a parking apron. The parking apron will be designed to accommodate a variety of aircraft and will include tie-down areas for aircraft that are not in use. The property is entirely remote and has no electrical service, so generators will supply power for runway lighting and outbuildings where required. The proposed site layout and facility information is shown in *Figure 3*.



FILE: D:\Project Files\ERG\USA-002 Ten Shilling Creek Approval\Acad\25A-002 Airstrip.dwg

Figure 3 - Aerodrome Preliminary Design Layout

The civil works included with the construction of the Project include:

- Mobilization equipment to the Project
- Construction surveying
- Tree clearing
- Stripping
- Earthworks – cut to fill with grading and compaction
- Install either soil cement or granular base
- Construct ancillary facilities
- Installation of airfield lighting and electrical works (generator powered)
- Runway inspection
- Runway operational

Operational activities will include site maintenance, impermeable storage for any hazardous materials including a small fuel cache (impermeable tanks), grading of the runway, and management and staffing of the aerodrome itself. While fuel will be available for an aircraft, most flights in the north leaving a large well-established base will carry enough fuel for a round trip and some extra. Locations of storage tanks and infrastructure have not yet been determined and will be completed at the design phase of the Project. All storage for hazardous materials will follow the Workplace Hazardous Materials Information System (WHMIS) Guidelines www.whmis.gc.ca. The property is entirely remote, care will be taken to position all infrastructure for the Project as far as possible from sensitive receptors (such as Hayes River and Ten Shilling Creek).

3.3.2 Existing Infrastructure

York Factory First Nation aerodrome will be located near their traditional camp located at Ten Shilling Creek which has been in operation since the 1970's. The camp consists of various buildings including four sleeping cabins, a kitchen cabin and miscellaneous outbuildings. This camp will be utilized to house workers for the construction and operations of the aerodrome.

The aerodrome will have a tree buffer to the existing cabins and regulated clearance requirements for the flight path.

3.4 Production Capacity

The final product for the Project will be an aerodrome with a single runway with a compacted gravel top approximately 5,000 feet (1,530m) in length and up to 100 feet (30 m) in width. The frequency of the flights currently is estimated to be 2 flights per week. The aerodrome will be a registered aerodrome and the aircraft(s) that will be utilized fall within the Aircraft Group Number (AGN) 111B (eg. Dash 8-300).

3.5 Anticipated Schedule

Table 5- Anticipated Schedule	
Task	Schedule
• Preparation regulatory submission	Q1 2025
• Design engineering	Q2 2025
• Clearing Trees	Q3 2025
• Acquire equipment.	Q4 2025
• Mobilize equipment to site.	Q1 2026
• Construction of airstrip	Q2 & Q3 2026
• Operation phase	Q4 2026 onward
Decommissioning	Not anticipated

3.6 Potential Alternatives

The purpose of the project is to have the land accessible year-round to the YFFN members and their requirements, ranging from access to health care and necessities of life like other remote communities that require a serviceable airstrip.

The Project has been evaluated by consultants and engineers including performing engineering and geo-technical review, lidar survey and soil samples. The results having narrowed to the means of carrying out the Project contained in *2.4 Studies and Plans* of the planning/location study of July 2024.

There are no other viable alternative means of serving the purpose of the proposal, or the means to carry out the project due to the following:

- Barge is unreliable due to tides, water depth, infrastructure and ice, and costly.
- River boat is seasonal, load restricted, and unreliable due to tide and water depth variance.
- Helicopter is costly and load limited

4.0 LOCATION INFORMATION AND CONTEXT

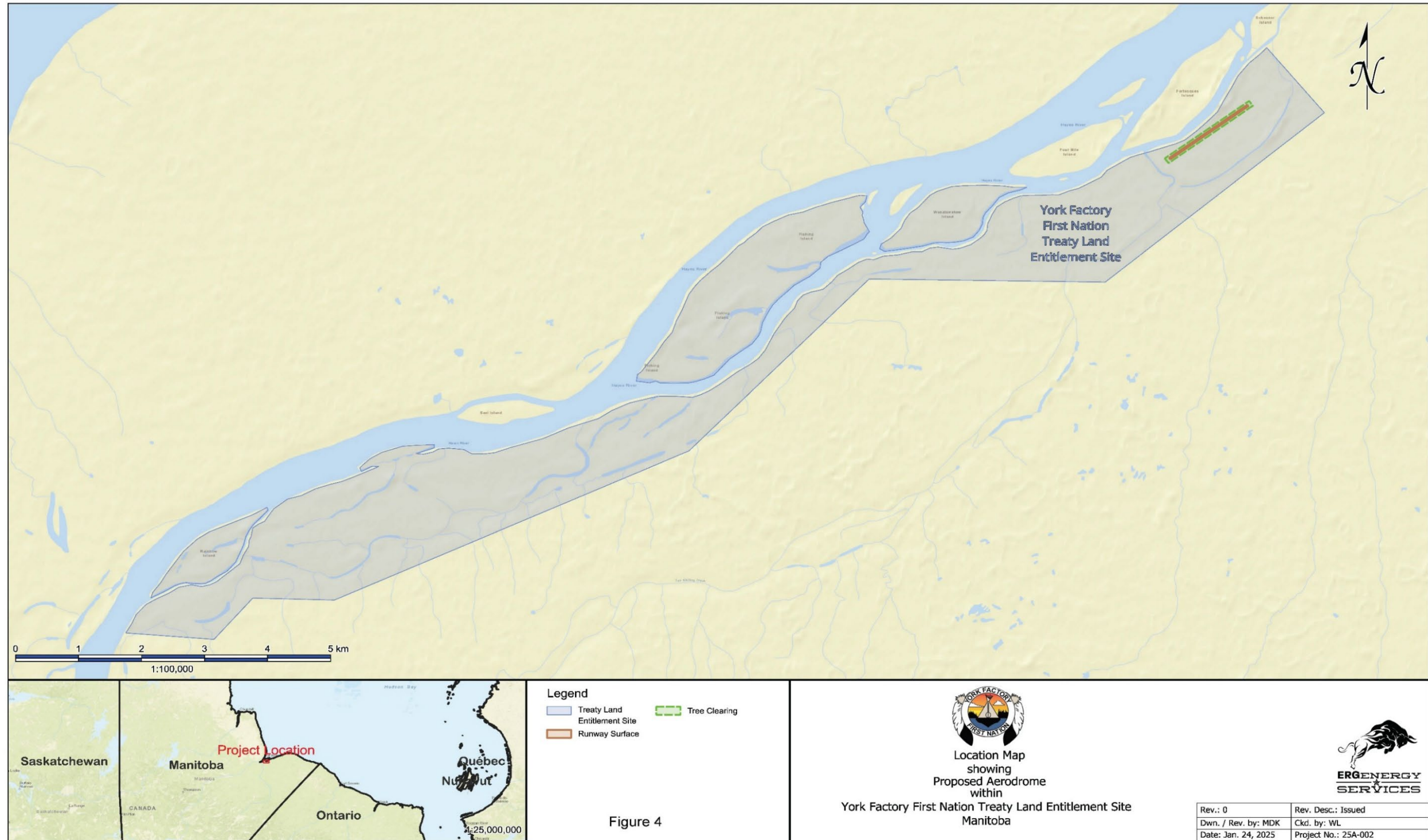
4.1 Geographic Coordinates

The Project is in northern Manitoba approximately 4.5kms SE of York Factory Historical Site along the Hayes River, approximately 122kms NW of Shamattawa, Manitoba and approx.160km NE of the town of Gillam, Manitoba. The area is currently only accessible by boat, helicopter or skidoo in the winter as there is no existing roads.

The Universal Transverse Mercator (UTM) coordinates for the Project are NAD83 15V
541,573.800E 6,313,749.436N

Centroid GPS Coordinates of the full airstrip is N 56° 57'55.66" W 92° 18'58.53"

The land is within the York Factory First Nation Traditional Land Entitlement (TLE) Lands as shown in *Figure 5 - YFFN TLE Lands*



D:\Project Files\ERG\25A-002 Ten Shilling Creek Approval\25A-002 Ten Shilling Creek Approval.qgz Layout: 25A-002 Treaty Entitlement

Figure 4 - YFFN TLE Land

4.1.1 Site Maps

All site maps are listed in the *Table of Figures* on *Page4*

4.1.2 Legal Land Descriptions and Landowner Documents

The Project falls within legal land description – SW-SE 09, NE09, NW10 092-11-E2M as shown in the *Figure 1- Project Location*. The Project is located within York Factory First Nation Traditional Land (TLE) Entitlement lands. *Figure 5 - YFFN TLE Lands* The Ten Shilling Creek TLE lands are part of the overall traditional lands and territory of the YFFN people. The Ten Shilling Creek TLE selected lands have not yet been converted to reserve status as that is still in process with Manitoba and Canada.

4.1.3 Proximity to Residents and Communities

York Factory Historical Site, Gillam & Shamattawa, Manitoba

The closest seasonal residence(s) to the Project would be the York Factory Historical Site approximately 4.5kms NW of the proposed Project location. Facilities and services are limited and there is no electricity and no cell phone service. There is a fenced compound for camping and no accommodations or meals at the historical site for the public. Tours are available in in July & August depending on the weather and tide so could be very limited. The Park staff do have accommodations while on site from early July to September weather dependent. The Nanuk Polar Bear Lodge is approximately 43kms NE. This eco lodge is open for different adventures through October- November and approximately 10 days in March. All access to the lodge is by plane out of Churchill, Thompson or Winnipeg as there is no road access. Shamattawa is approximately 120kms SE and Gillam is approximately 160kms SW both of which have permanent residents.

4.1.4 Project Proximity to Traditional Indigenous Uses

The Project is located on land within - *Figure 5*

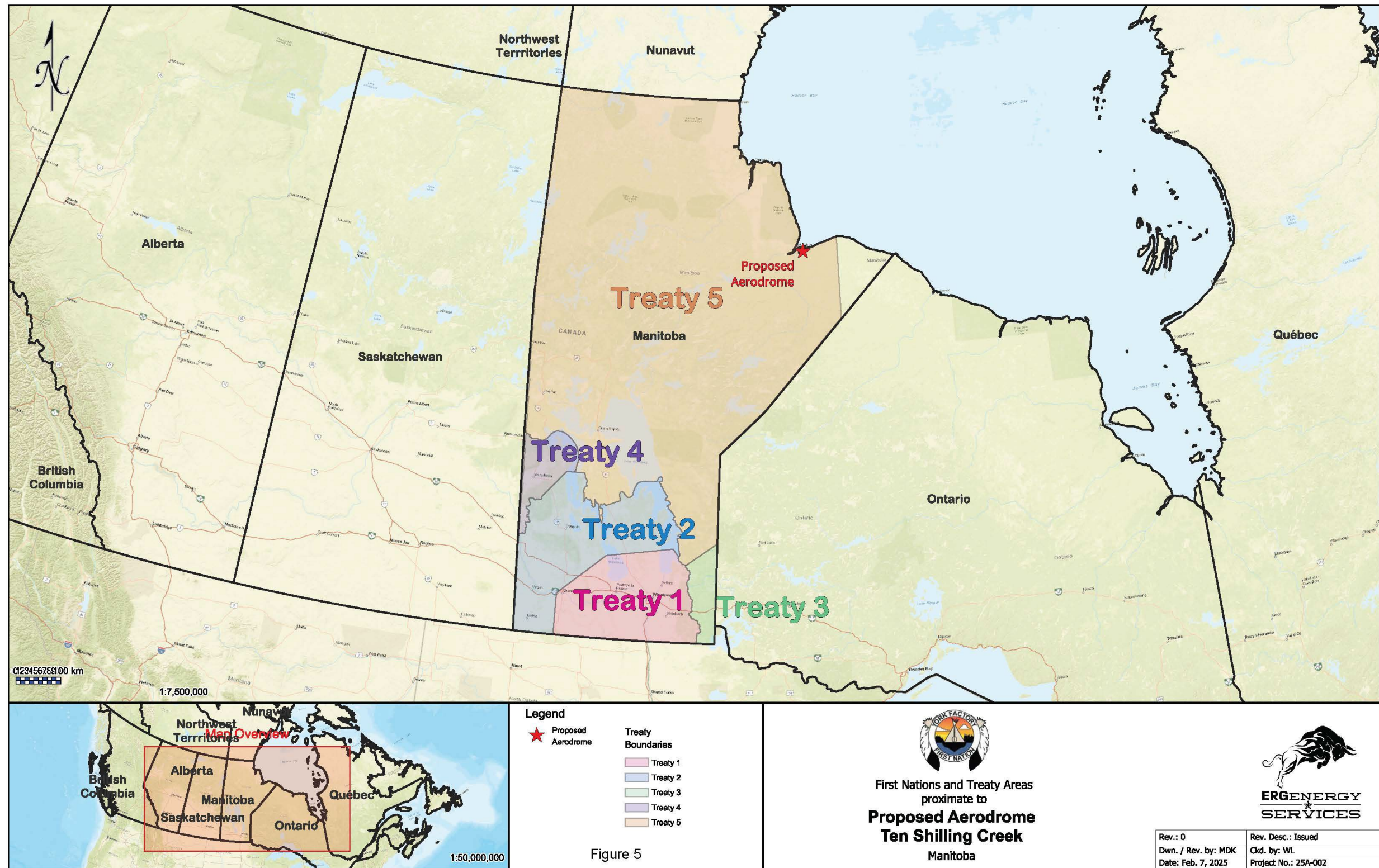


Figure 5 - Treaty 5 Territory Map

Traditional territories within the Treaty 5 Territory include Shamattawa First Nation, War Lake First Nation, Fox Lake Cree Nation and Tataskweyak Cree Nation. *Table 6* provides information on the Nations surrounding the Project, and *Table 7* lists the communities and the distance from the Project and Canada Census population data.

Indigenous Knowledge (IK) in this area goes back thousands of years. The First Nations (Nayhenaway Ininewuk, are a Cree people) and were the original inhabitants. When the European explorers/traders arrived in the Hudson Bay area, the Hudson Bay Company (HBC) established the York Factory Depot at the mouth of the Hayes River. From which an economy was built utilizing the First Nations knowledge and skills. In 1957 York Factory First Nation was relocated to the shores of Split Lake and has since worked towards moving back to their homeland.

This coastal homeland is their ancestral home, and they remain deeply connected to their traditional territory. Every opportunity, they have, they return to the coast to celebrate their community, land, and culture. YFFN contributes considerable resources to bring community members that are resource users to their ancestral home to trap, hunt, and fish, maintaining a connection and knowledge of the land, waters, and wildlife at the coast every fall. Their traditional lodge sits amidst the foundations of their former homes in York Factory and the camp at Ten Shilling Creek looks over the same waters that their members have fished for the entirety of their oral history. The location of these traditional lands fall on both sides of the Hayes River as does the traditional land use as it has since the beginning. This area is a vital part of their indigenous culture and history.

York Factory First Nation, along with the other four Nations have been working together since 2020 on a proposal for an Indigenous Protected and Conserved Area (IPCA) called Kitaskeenan Kaweekanawaynichikatek (translation – "the land we want to protect") Their goal is to ensure the protection of the land, water, wildlife, fisheries and biodiversity for all as shown in *Table 6*

Table 6 - Indigenous Nations surrounding the Project			
Nation	Status	Government of Canada Registered Population (2016)	Distance from the Project Area (approximate kms)
Shamattawa First Nation	No 307	1020	120 kms
War Lake First Nation	No 323	110	235 kms
Fox Lake Cree Nation	No 305	155	125 kms
Tataskweyak Cree Nation	No 306 (Split Lake 171, 171A, 171B)	2040	252 kms

Distance from Project Area is shown as the approximate direct distance (kms)

Source: Government of Canada Crown-Indigenous Relations and Northern Affairs Canada (note this Census data is based on information posted within this site only)

<https://fnp-ppn.aadnc-aandc.gc.ca/fnp/Main/Search/SearchFN.aspx?lang=eng>

Table 7 below lists the communities and the distance from the Project and Canada Census population data

Table 7 - Communities surrounding the Project			
Community Name	Status	Population in 2021 Census	Distance from the Project (km)
Gillam	Town	1007	160 kms
Iford	Settlement	62	225 kms
Shamattawa 1	Reserve No 307	1020	120kms
Thompson	City	13,035	365 kms

Stats Can Census Profile, 2021 Census of Population

4.1.5 Proximity to Federal Lands

Proposed project proximity to Federal lands would include Wapusk National Park (approx. 22kms NW), Shamattawa First Nation No 307 (approx. 120kms SE), Fox Lake Cree Nation No 305 (approx. 125kms SW), War Lake First Nation No 323 (approx. 235kms SW) and Tataskweyak Cree Nation No 306 (Split Lake 171, 171A, 171B) approx. 252kms SW) as shown in *Figure 6 - Nearby Communities* also shows Federal lands (Reserves)

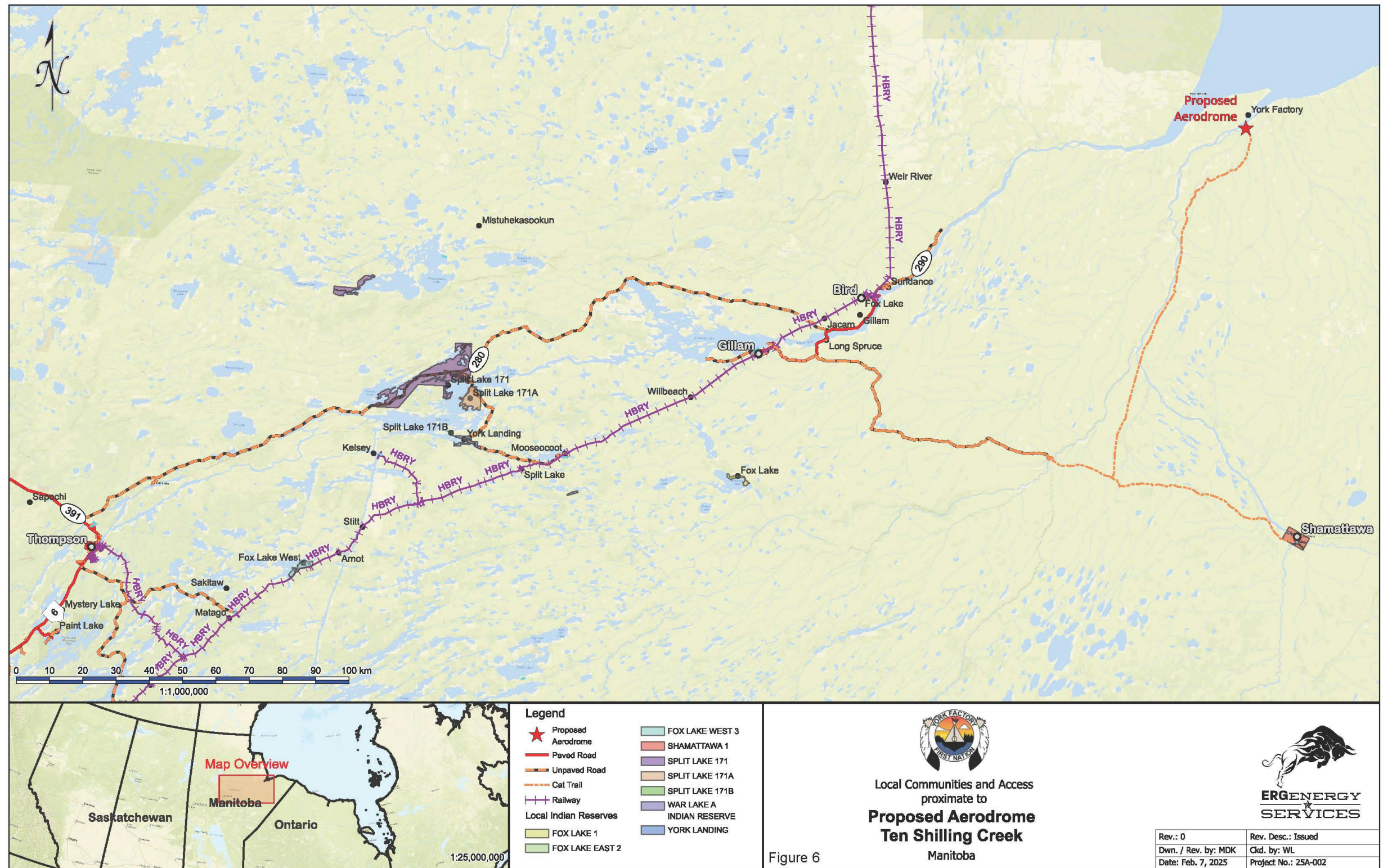


Figure 6 - Nearby Communities

4.2 Physical and Biological Environment

The following sections describe the physical and biological environment of the Project location in the following sections:

- Terrain and Soil
- Vegetation
- Wildlife and Wildlife Habitat
- Water – Surface, wetlands and groundwater
- Fish and fish habitat, Aquatic Environment
- Air Quality and Noise

4.2.1 Terrain and Soil Summary

Based on desktop and field assessment (geo-technical survey) the existing terrain and soil conditions are summarized below (as described in IPD):

- The terrain is gently sloping
- No unusual landforms were observed on the site
- Natural drainage patterns to be implemented during construction and maintained

A field visit was completed in July 2024 to gather topographical and geotechnical information for the proposed aerodrome. The topographical data was collected through a LiDAR survey conducted using a drone, resulting in a topographical map used to determine grades and cut/fill calculations. This data helps optimize the airstrip's location and orientation. see [Figure 7 - Airstrip Elevation Contours](#). Geotechnical information was obtained using a Shaw Coring machine and Dynamic Cone Penetration test, which provided soil samples and in-situ strength measurements to confirm the site's suitability. The results of the geotechnical survey identified that the soil onsite consists of approximately 0.15-0.20 m of organic over approximately 0.60 m of mainly fine-grained silty soil on top of bedrock (Hart Aviation Strategies, 2350062 Alberta Ltd.)

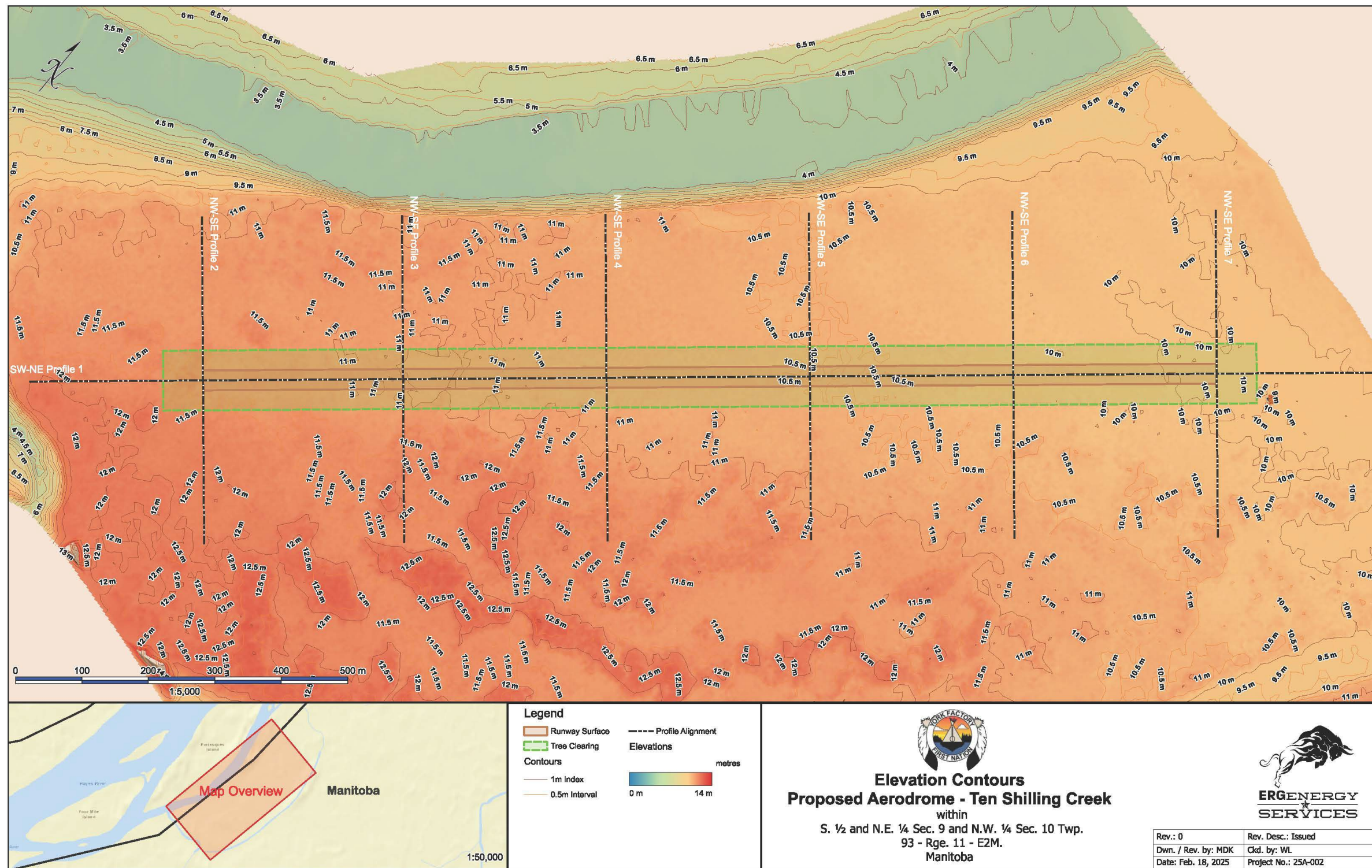


Figure 7 - Airstrip Elevation Contours

4.2.2 Vegetation

Drone imagery and videos and ground photographs were collected by (Hart Aviation Strategies, 2350062 Alberta Ltd.) during summer 2024. All images and videos were reviewed to determine the general dominant vegetative species cover within the direct vicinity of the proposed Project area. Historical data and mitigations shown in IPD.

4.2.3 Wildlife and Wildlife Habitat

The Project site lies within the Kaskatamagan Wildlife Management Area and Marsh Point Area of Special Interest. There are various sensitive species listed within SARA and COSEWIC of which will be reviewed during pre-construction surveys and mitigation measures implemented during the Project development. SARA and COSEWIC data are listed in the IPD under Section 4.2.3

4.2.4 Water –Surface Water, Wetlands, and Groundwater

Surface Water Hydrology

The nearest water body to the Project is Ten Shilling Creek and the Hayes River. The project is not expected to directly impact the Hayes River, Ten Shilling Creek or any other waterbody. The pre-construction topographical study (lidar imaging) was completed as part of the site design process and the Project will be designed to ensure all potential receptors and drainage requirements are considered

4.2.5 Fish and Fish Habitat and Aquatic Environment

The Hayes River and Ten Shillings Creek are the closest known fish-bearing water bodies within the Project LSA. Hayes River is 200 m at the nearest point, and Ten Shilling Creek is approximately 191 m southwest of the airstrip boundary.

No known fish spawning areas within the Hayes River or Ten Shilling Creek within the vicinity of the Project. Lake sturgeon typically spawns in fast-moving water found at the base of falls, rapids or dams (COSEWIC, 2017b). These features are observed in reaches along the Hayes River further upstream from the Project area, therefore it is anticipated that the potential for spawning lake sturgeon within the portion of the Hayes River adjacent the Project would be low.

No known fish-bearing wetlands are located within or proximity to the project footprint.

4.2.6 Air Quality and Noise

4.2.6.1 Noise

Noise sources in the area are minimal:

- Aircraft landing, taxi and takeoff (short duration)
- Generator (for power short duration)
- Snow removal equipment (winter only short duration)

4.2.6.2 Air Quality

The air quality effects from the Project construction and operations are expected to be low given that mitigation measures will be in place to limit emissions.

4.3 Health, Social, and Economic Context

4.3.1 Health Context

Manitoba is divided into five Regional Health Authorities. The Project is located with the Northern Region which covers a vast area. The Northern Health Region Provincial population in June 2023 was 77,229 and the overall population of Manitoba at that time was 1,454,902.

The closest health centre is in Shamattawa approximately 120kms SE and Gillam has a health centre and hospital approximately 160kms south of the Project. The nearest ambulance and RCMP detachment and fire services to the Project are also located in Gillam.

4.3.2 Social Context

The Project is located within Treaty 5 Territory and the nearest town is Gillam which is approximately 160 kms south located on the Nelson River. It is situated between Thompson and Churchill on the Hudson Bay Railway Line. The area of Gillam is large due to the size of the Local Government District, but the population is relatively small. The town's amenities include Community Health Services, Hospital, local schools, public pool, gaming centre, golf court, restaurants, rail transportation, RCMP, and an airport.

The largest community closest to the Project is the City of Thompson, which is approximately 367 kms to the SW, with a population of approximately 13,025 as per the 2021 Census. Thompson was historically known as a mining town and now primarily serves as the Hub of the North providing goods and services to the surrounding communities (such as health care and the retail trade). Recreational activities such as the Thompson Regional Community Centre, walking/biking trails, Heritage North Museum, hockey/ice skating and aquatics center (City of Thompson directory).

4.3.3 Economic Context

The Project falls within the Churchill Economic Area but is closer to the Gillam Economic Area. Many of Gillam's residents are employed by Manitoba Hydro. The Gillam Local Government District was established in the 1960's by the Manitoba Government in the mid 60's to facilitate the development of hydroelectricity on the lower Nelson River. Some of the major employers in the Gillam and Thompson areas are Manitoba Hydro and Mining companies. This northern area has a strong tourism industry, and which attracts hunters and anglers to the area.

5.0 FEDERAL, PROVINCIAL, INDIGENOUS INVOLVEMENT AND EFFECTS

5.1 Federal Financial Support

Currently YFFN is the sole financier of the Project.

5.2 Federal Project Lands

No federal lands will be used for the Project. The Project will not be carried out on federal land and is not a federal work undertaking, as defined in *subsection 3(1) of the Canadian Environmental Protection Act, 1999*.

5.3 Jurisdictions with Powers, Duties, or Functions

Table 8 - Jurisdictions with Powers, Duties, or Functions		
Agency and Legislation/Regulation/Policy	Resource Protected/Managed	Potential Powers/Duties/Functions
Federal		
Impact Assessment Agency of Canada <i>Impact Assessment Act (IAA)</i> <i>Strategic Assessment of Climate Change (SACC)</i> (ECCC 2020)	IAAC manages the process to collect the information needed to understand the potential effects of a proposed project and assesses the effects of designated projects in areas within federal jurisdiction” What is an impact assessment - Canada.ca	Decision Statement issued by Federal Minister of Environment and Climate Change or Cabinet or A decision that a federal impact assessment is not required
Environment and Climate Change Canada <i>Migratory Birds Convention Act (MBCA)</i>	The MBCA protects migratory birds, their nests, and eggs anywhere they are found in Canada	The MBCA restricts certain activities during nesting periods
Transport Canada <i>Canadian Aviation Regulations (CARs)</i>	The CARs are rules that govern civil aviation in Canada, including noise resulting from aircraft operation	All aircraft operators must comply with the noise operating restrictions and noise abatement procedures required by Transport Canada, which are published by NAV CANADA
Agency and Legislation/Regulation/Policy	Resource Protected/Managed	Potential Powers/Duties/Functions
Provincial		
Manitoba Environment and Protected Area Water Act	The <i>Water Act</i> supports and promotes the conservation and management of water in Manitoba, including wetlands	<i>Water Act</i> authorization required before Project construction to address potential effects to any wetlands
Manitoba Environment and Climate Change - Manitoba Environment Act	The Environment Act outlines the environmental assessment and licensing process for developments in Manitoba that may have potential for significant environmental and / or human health effects.	If a Project is deemed a development, then the Environmental Approvals Branch (EAB) will review and make a determination for Provincial approval.
Manitoba Environment and Climate Change - Water Rights Act and Regulation	The Manitoba Environment and Climate Change issue licenses for water use for municipal and industrial purposes or if the use exceeds more than 25,000 litres per day. License is required for the disturbance to Class 3, 4 or 5 wetlands.	A water use license must be obtained prior to diversion of water for use on the Project or disturbance to Class 3, 4 or 5 wetlands.
Manitoba Endangered Species and Ecosystem Act and Regulation	The Act and Regulation ensure the protection and to enhance the survival of endangered and	Species that at endangered, threatened, extirpated or special concern or ecosystems that are

	threatened species and species of special concern in the province and to conserve and protect endangered and threatened ecosystems in the province and promote the recovery of those ecosystems.	endangered or threatened must not be harmed throughout the Project.
Manitoba Environment and Climate Change - Manitoba Water Protection Act <ul style="list-style-type: none"> - Aquatic Invasive Species Regulation - Water Quality Standards, Objectives and Guidelines Regulation 	The Act provides protection and stewardship of Manitoba’s water resources and aquatic ecosystems. The Act ensures sufficient supply of clean water, planning for watersheds, protection to high quality drinking water sources, addressing the threat of aquatic invasive species, and protection of riparian areas and wetlands.	Proponents must adhere to requirements for mitigating the spread of invasive aquatic species and ensuring water meets the provincial standard and objectives for drinking water.
Manitoba Noxious Weeds Act and Regulation	The Act and Regulation mandates the destruction and/or control of Tier 1, 2 and 3 noxious weeds within Manitoba.	The Act specifies what the owner needs to destroy and/or control regarding Tier 1-3 noxious weeds. The regulation specifies what weed species are categorized under which Tier.
Manitoba The Heritage Resources Act (HRA)	The HRA manages the preservation and study of historic resources in Manitoba including archaeological sites, paleontological sites, historic buildings, and Aboriginal traditional use sites	HRA approval prior to Project construction

Other Federal and Provincial legislation were considered in relation to the Project’s environmental effects, but the Project does not include features relevant to their mandates, as follows:

Federal *Species at Risk Act (SARA)*

The Project does not affect fish or fish habitat because it is not expected to release stormwater off-site to areas with fish habitat; therefore, there are no SARA requirements for aquatic species to be met (Section 4.2.5). As the environmental studies have not been completed, we have not identified any Species at Risk, there are no SARA requirements for vegetation or wildlife. (Section 4.2.2 & 4.2.3).

Federal Fisheries Act

Since the Project does not affect fish or fish habitat and does not release stormwater off-site (except potentially through the ditches planned on each side of the runway), there are no *Fisheries Act* requirements to be met.

Federal Canadian Navigable Water Act

There are no waterways affected by the construction or operations of the Project.

Provincial Environmental Assessment

Manitoba Environmental Approvals Branch (EAB) advised that the Project does not fall within the Classes of Development (*The Environment Act (C.C.S.M.c.E125)* – January 30, 2025)

6.0 POTENTIAL EFFECTS OF THE PROJECT

6.1 Relevant Environmental Legislation

Acts	Regulations
Provincial	
The Wildlife Act	Manitoba Environment and Protected Area Water Act
Manitoba Noxious Weeds Act	Manitoba Environment Act
Water Rights Act	Water Rights Regulation
Manitoba Endangered Species and Ecosystem Act	Manitoba Endangered Species and Ecosystem Regulation
Manitoba Water Protection Act	
Federal	
Migratory Bird Convention Act	Migratory Birds Regulation
Canadian Environmental Protection Act	
Species At Risk Act	
Fisheries Act	

6.1.1 Fish and Fish Habitat

Fish and Fish Habitat

It is crucial that due to the Project's proximity to the Hayes River and Ten Shilling Creek, the work area boundaries are well defined and clearly marked to ensure there are no impacts on the water bodies. No in-water work is anticipated for the Project. If any disturbance is proposed within the boundaries of any waterbodies, then all requirements stated in provincial and federal regulations will be adhered to and any applicable mitigation measures stated in the Project EPP. An Erosion and Sediment Control Plan will be developed for the Project and followed throughout the Project development. No refueling will occur within the vicinity of any water bodies and spill kits will be present and accessible at all refueling locations and fuel storage areas. All fuel storage areas will have adequate impermeable containment structures that will accommodate 110% of the fuel stored within.

The York Factory First Nation members and associated contracted support companies/staff will comply with the prohibitions in the Species at Risk Act and Fisheries Act throughout all stages of the project. Mitigation measures proposed for each stage of the project are provided in [Table 9](#) and [Table 10](#).

Table 9 - Fish and Fish Habitat - Potential Impacts and Mitigation - Construction Phase	
Potential Impacts	Mitigations
Hayes River & Ten Shilling Creek	<ul style="list-style-type: none"> • The project is not expected to directly impact the Hayes River, Ten Shilling Creek or any other waterbody. • An Erosion and Sediment Control Plan will be developed and implemented during construction phases of the Project. • A 200m vegetated buffer will be maintained between the proposed airstrip clearance area and Hayes River. • Construction during sensitive fish timing for spring and summer spawning species (April 15 to July 15) will be avoided for work near water. • If work is to be completed within the sensitive fish timing, a qualified environmental specialist should be present to provide recommendations. • No in-water work will be completed as part of this Project phase. • Natural drainage patterns will be maintained, and surface water drainage will be managed properly. • All cleaning, fueling, and servicing of equipment will be done in accordance with Project EPP and in an area where spill or wash water will not enter any water bodies including Hayes River and Ten Shilling Creek. • Equipment operating near any water body will be properly maintained and in sound mechanical condition. • Drip trays and containment under mechanical equipment will be used when working near water bodies.
Sedimentation	<ul style="list-style-type: none"> • Reduce dust and airborne particles by watering the ground surface (or using other dust prevention amendments) during dry, windy conditions. • If possible, cover or vegetate areas with a high potential for erosion. • Reduce dust generation through speed limits. • Erosion and sediment control will be developed and implemented as needed by the Erosion and Sediment Control Plan.
Accidental Spills	<ul style="list-style-type: none"> • Emergency response plans will be included in the Project EPP spill response requirements to provide quick detection, control, and management of any spill during construction/operation and to ensure proper disposal of hazardous waste. • Development and implementation of a Hazardous Materials Management Plan. • All waste and debris generated by the Project will be collected and disposed of in accordance with provincial requirements. • Properly designed facilities for the storage of hazardous materials and fuel. • Spill kits will be available at fuel storage areas and at all work areas during construction.

Table 10 - Fish and Fish Habitat - Potential Impacts and Mitigation - Operation Phase	
Potential Impacts	Mitigations
Hayes River & Ten Shilling Creek	<ul style="list-style-type: none"> • The project is not expected to directly impact the Hayes River, Ten Shilling Creek or any other waterbody. • No in-water work will be completed as part of this Project phase. • Natural drainage patterns will be maintained, and surface water drainage will be managed properly. • All cleaning, fueling, and servicing of equipment will be done in accordance with Project EPP and in an area where spill or wash water will not enter any water bodies including Hayes River and Ten Shilling Creek. • Equipment operating near any water body will be properly maintained and in sound mechanical condition. • Drip trays and containment under mechanical equipment will be used when working near water bodies.
Sedimentation	<ul style="list-style-type: none"> • Reduce dust and airborne particles by watering the ground surface (or using other dust prevention amendments) during dry, windy conditions. • Reduce dust generation through speed limits. • Erosion and sediment control will be developed and implemented as needed by the Erosion and Sediment Control Plan.
Accidental Spills	<ul style="list-style-type: none"> • Emergency response plans will be included in the Project EPP spill response requirements to provide quick detection, control, and management of any spill during construction/operation and to ensure proper disposal of hazardous waste. • Development and implementation of a Hazardous Materials Management Plan. • All waste and debris generated by the Project will be collected and disposed of in accordance with provincial requirements. • Properly designed facilities for the storage of hazardous materials and fuel. • Spill kits will be available at fuel storage areas and at all work areas during construction.

6.1.2 Aquatic Species and Marine Plants

The Species at Risk Act prohibit the killing, harming, harassing, or capturing of species listed within the Act. The MBCDC Biotics database (MBCDC, 2024) identified threespine stickleback as the only provincially tracked fish species within the Coastal Hudson Bay Lowland Ecoregion and the CAMP monitoring program (CAMP, 2024) identified lake sturgeon as a federally listed fish species within the Hayes River.

It is crucial that due to the Project's proximity to the Hayes River and Ten Shilling Creek, the work area boundaries are well defined and clearly marked to ensure there are no impacts on the water bodies. No in-water work is anticipated for the Project.

Mitigation measures proposed for the protection of species under the Species at Risk Act categorized by project phase are provided in [Table 11](#) and [Table 12](#).

Table 11 - Aquatic Species and Marine Plants under the Species at Risk Act– Potential Impacts and Mitigations – Construction Phase

Potential Impacts	Mitigations
<p style="text-align: center;">Hayes River & Ten Shilling Creek</p>	<ul style="list-style-type: none"> • The project is not expected to directly impact the Hayes River, Ten Shilling Creek or any other waterbody. • An Erosion and Sediment Control Plan will be developed and implemented during construction phases of the Project. • A 200m vegetated buffer will be maintained between the proposed airstrip clearance area and Hayes River. • Construction activities near water will be avoided during the lake sturgeon spawning period of (May 15 to July 15; DFO, 2013). • If work is to be completed within the sensitive fish timing, a qualified environmental specialist should be present to provide recommendations. • No in-water work will be completed as part of this Project phase. • Natural drainage patterns will be maintained, and surface water drainage will be managed properly. • All cleaning, fueling, and servicing of equipment will be done in accordance with Project EPP and in an area where spill or wash water will not enter any water bodies including Hayes River and Ten Shilling Creek. • Equipment operating near any water body will be properly maintained and in sound mechanical condition. • Drip trays and containment under mechanical equipment will be used when working near water bodies.
<p style="text-align: center;">Sedimentation</p>	<ul style="list-style-type: none"> • Reduce dust and airborne particles by watering the ground surface (or using other dust prevention amendments) during dry, windy conditions. • If possible, cover or vegetate areas with a high potential for erosion. • Reduce dust generation through speed limits. • Erosion and sediment control will be developed and implemented as needed by the Erosion and Sediment Control Plan.
<p style="text-align: center;">Establishment of noxious weeds and other introduced invasive plants</p>	<ul style="list-style-type: none"> • Prevention of the introduction and spread of prohibited, noxious, nuisance, and invasive plants will be addressed in the environmental management plan. • Confirm all equipment arriving at the Project site will be clean and free of soil and vegetative debris to avoid the spread of weeds. Monitor disturbed areas for weeds and implement corrective measures to avoid growth. • Control noxious weeds and species as identified in the Manitoba Noxious Weeds Act. • Disturbed areas will be re-seeded with native vegetation as soon as possible. • Reclaimed areas will be included in weed management efforts until these areas represent vegetation of the surrounding area. • If regulated weeds are found immediate measures will be taken to eradicate those species.
<p style="text-align: center;">Accidental Spills</p>	<ul style="list-style-type: none"> • Emergency response plans will be included in the Project EPP spill response requirements to provide quick detection, control, and management of any spill during construction/operation and to ensure

Table 11 - Aquatic Species and Marine Plants under the Species at Risk Act– Potential Impacts and Mitigations – Construction Phase

Potential Impacts	Mitigations
	<p>proper disposal of hazardous waste.</p> <ul style="list-style-type: none"> • Development and implementation of a Hazardous Materials Management Plan. • All waste and debris generated by the Project will be collected and disposed of in accordance with provincial requirements. • Properly designed facilities for the storage of hazardous materials and fuel. • Spill kits will be available at fuel storage areas and at all work areas during construction.

Table 12 - Aquatic Species and Marine Plants under the Species at Risk Act– Potential Impacts and Mitigations – Operation Phase	
Potential Impacts	Mitigations
Hayes River & Ten Shilling Creek	<ul style="list-style-type: none"> • The project is not expected to directly impact the Hayes River, Ten Shilling Creek or any other waterbody. • No in-water work will be completed as part of this Project phase. • Natural drainage patterns will be maintained, and surface water drainage will be managed properly. • All cleaning, fueling, and servicing of equipment will be done in accordance with Project EPP and in an area where spill or wash water will not enter any water bodies including Hayes River and Ten Shilling Creek. • Equipment operating near any water body will be properly maintained and in sound mechanical condition. • Drip trays and containment under mechanical equipment will be used when working near water bodies.
Sedimentation	<ul style="list-style-type: none"> • Reduce dust and airborne particles by watering the ground surface (or using other dust prevention amendments) during dry, windy conditions. • Reduce dust generation through speed limits. • Erosion and sediment control will be developed and implemented as needed by the Erosion and Sediment Control Plan.
Establishment of noxious weeds and other introduced invasive plants	<ul style="list-style-type: none"> • Prevention of the introduction and spread of prohibited, noxious, nuisance, and invasive plants will be addressed in the environmental management plan. • Control noxious weeds and species as identified in the Manitoba Noxious Weeds Act. • If regulated weeds are found immediate measures will be taken to eradicate those species.
Accidental Spills	<ul style="list-style-type: none"> • Emergency response plans will be included in the Project EPP spill response requirements to provide quick detection, control, and management of any spill during construction/operation and to ensure proper disposal of hazardous waste. • Development and implementation of a Hazardous Materials Management Plan. • All waste and debris generated by the Project will be collected and disposed of in accordance with provincial requirements. • Properly designed facilities for the storage of hazardous materials and fuel. • Spill kits will be available at fuel storage areas and at all work areas during construction.

6.1.3 Migratory Birds

The Migratory Bird Convention Act protects migratory birds, their nests, and eggs anywhere they are found in Canada and prohibits the harming of migratory birds or the disturbance/destruction of their nests and eggs. The general breeding bird window is from the middle of April to end of August. There are treed areas and vegetated areas within the footprint of the project which could potentially be used as habitat for breeding birds.

Table 13 - Migratory Bird Species - Potential Impacts & Mitigation	
Potential Impacts	Mitigations
Loss of Migratory Bird Habitat	<ul style="list-style-type: none"> • The Project footprint will be kept to the smallest extent possible to do the work safely and work area boundaries will be maintained for the duration of construction. • Work area boundaries will be maintained for the duration of construction. The boundaries will be surveyed and clearly marked to ensure construction remains within the proposed footprint. • Limit the removal of potential migratory bird nesting habitat to the areas necessary.
Disturbance of Migratory birds, nests and eggs during construction activities	<ul style="list-style-type: none"> • Potential impacts to the environment will be assessed in a screening assessment and pre-construction wildlife survey, and mitigation measures will be developed where necessary along with follow-up monitoring programs. • Complete clearing activities outside of the migratory bird nesting period (generally in middle of April to end of August). • In the event construction activities need to be completed within the migratory bird breeding window or the species-specific restricted timing a wildlife sweep will be completed a maximum of 7 days prior to construction. • If nests/dens are detected during the sweep, determine a species-specific temporary setback buffer, in consultation with a qualified person, and apply the setback to all construction activities until the nest has been deemed fledged or inactive by a qualified person.
Wildlife-vehicle interactions	<ul style="list-style-type: none"> • Include wildlife incidents, such as accidental vehicle collisions, in site-specific protocols as well as the steps to report an incident and additional mitigation measures to implement to prevent the incident from re-occurring. • Avoid interactions with wildlife including hunting, chasing, or feeding. • Shut off vehicles and equipment when not in use to minimize disturbance to wildlife species. • Avoid unnecessary travel on and to and from the Project site to reduce the risk of wildlife-vehicle interactions. • Existing clearings and trails will be used where possible to access project components, reducing the potential impacts on wildlife, such as roads as barriers to movement or the creation

Table 13 - Migratory Bird Species - Potential Impacts & Mitigation	
Potential Impacts	Mitigations
	<p>of edge effects.</p> <ul style="list-style-type: none"> • Follow posted speed limits to reduce risk of wildlife-vehicle interactions.
<p>Establishment of weeds affecting potential habitat</p>	<ul style="list-style-type: none"> • Prevention of the introduction and spread of prohibited, noxious, nuisance, and invasive plants will be addressed in the environmental management plan. • Confirm all equipment arriving at the Project site will be clean and free of soil and vegetative debris to avoid the spread of weeds. • Disturbed areas will be re-seeded with native vegetation as soon as possible. • Reclaimed areas will be included in weed management efforts until these areas represent vegetation of the surrounding area. • If regulated weeds are found immediate measures will be taken to eradicate those species.

6.2 Changes to Federal Lands

The Project does not fall within any Federal Lands.

6.2.1 Impact to the Marine Environment

The Project is located entirely on terrestrial environment and no in-water work is proposed for this phase of the Project. The Project is approximately 14 km from Hudson Bay. As stated in Section 4.2.4, the measures to mitigate the potential for impacts to waters adjacent the Project and will be adhered to throughout the project duration. No impacts to marine environment are anticipated throughout the Project.

6.2.2 Impact to Interprovincial or International Waters

The Project is located entirely within the province of Manitoba and impacts to interprovincial or international waters are not anticipated. As stated in Section 4.2.4, the measures to mitigate the potential for impacts to provincial, interprovincial and international waters and will be adhered to throughout the Project duration.

6.3 Impact to Indigenous Peoples

The Ten Shilling Aerodrome is owned by YFFN who claim this area as their Traditional Territory. YFFN would be best positioned to assess potential cumulative impacts on their traditional territory as they have been protecting this area for many years. YFFN does not believe there will be any cumulative impacts they are unable to manage, however, if any of the other First Nations they have engaged with have concerns they will be sure to address them.

The lands within proximity to the Project are only utilized by YFFN and know of no other First Nation groups that utilize the Project area for traditional land uses. The Proposed Aerodrome is a very small area within their traditional territory, and it will not affect their ability to undertake their traditional activities, however it

will be possible for future economic opportunities if so desired. The Project footprint will be cleared of trees and vegetation but will not affect any gathering, hunting or trapping.

Within Manitoba, any work, activity, development or project that alters or disturbs the surface of the land is subject to a review by Manitoba Culture, Heritage and Citizenship. The proposed projects are screened in terms of location, the types of landforms involved, the amount of disturbance, proximity to known heritage resources already examined and proximity to water *The Heritage Resources Act C.C.S.M.c.H39.1*.

6.4 Effect to the Health, Social or Economic Conditions of Indigenous Peoples

YFFN believes that this project will have a very positive effect on the Indigenous people and surrounding communities. These communities (York Factory First Nation, Fox Lake Cree Nation, Tataskweyak Cree Nation, War Lake First Nation, and Shamattawa First Nation) have worked together for a very long time on protecting lands they are connected to. In doing so, they have created a document called “OUR VISION” which was supported by Environment and Climate Change Canada & Metcalf Foundation. Their vision is to protect the land, work together to do so, follow their guided beliefs, values and traditional laws, ensure that their youth has a future and to always protect their lands.

Economic benefits of the Project will be the creation of jobs during the construction and operation phase(s). Work will be subcontracted to companies and organizations within YFFN and outside of YFFN from other First Nations and locations. Once the Project is approved the subcontractor scoping/hiring process will commence. The Project will allow easier access for medical and emergency services that is greatly needed as well as provide safer and reliable transportation for all into the area (including their neighbors).

6.5 Greenhouse Gas Estimate

The Strategic Assessment of Climate Change (SACC; ECCC 2020) requires the proponents to calculate net GHG emissions. Project construction and operation activities will generate greenhouse gas (GHG) emissions and result in land clearing that will cause a one-time loss of carbon and carbon sink loss. A Climate change analysis was conducted for the Project (6.5 of the IPD) which considers:

- How operations may affect climate change (ie. The Project’s contribution to climate change through the emission of Greenhouse Gases (GHGs).

GHG Assessment

Scope 1 - Direct Emissions such as construction and operations equipment

Scope 2 – Indirect Emissions Acquired Energy – were not applicable

Scope 3 – Indirect Emissions – transportation to project, related air travel and biogenic emissions

Based on the GHG estimation, it has been assessed the Project would lead to an estimated 776.16 t CO₂e /year for operations with the highest total emissions (5,205.0 t CO₂e during construction). These levels of emissions are below any emissions reporting criteria either federally or provincially. The Project GHG emissions are also not likely to affect Canada's ability to reach the national emission reduction targets or Canada's alignment to transition to a low carbon economy and the net-zero targets.

6.6 Types of Waste and Emissions

6.6.1 Air

Project construction and operation activities will result in air emissions through mobile equipment emissions (land-based vehicles), space heating emissions, aircraft operations emissions, and fugitive dust generation.

- Mobile equipment emissions include emissions from haul trucks, dozers, excavators, employee vehicle traffic.
- The key emissions from mobile equipment exhaust, and aircraft operations are fossil-fuel combustion emissions including oxides of nitrogen (NO_x), carbon monoxide (CO), and greenhouse gases (GHGs).
- Fugitive dust will primarily be generated during the construction phase by on-site vehicles, including earth moving equipment. Fugitive dust can also be generated by windblown dust on non-vegetated surfaces.

The following mitigation measures will be implemented during construction and operations to limit adverse effects to air quality:

- Stationary and mobile equipment will adhere to applicable federal emission standards, where applicable, and will be regularly maintained.
- Dust suppressant or water will be applied to construction areas and roads as necessary to mitigate dust.
- Project traffic will adhere to reduced speed limits will be implemented within the Project
- Air operations will adhere to the Canadian Aviation Regulations.

The predicted residual effects on air quality from Project construction and operations are expected to be low given that mitigation measures will be in place to limit emissions. The effects are not expected to extend beyond the Project study area and the duration of effects is short-term and infrequent, as they will occur only during construction and during intermittent flight operations

6.6.2 Water

If water is required for dust control etc., a water license will be obtained for water use for the aerodrome. The approaches for managing wastewater and stormwater are still being considered but multiple options are available and being considered.

6.6.3 Land

Hazardous materials will be handled and stored in compliance with the Hazardous Substances and Waste Dangerous Goods Regulations. All chemicals and hazardous substances will be stored and handled according to Transportation of Dangerous Goods Regulations (TDG) and Workplace Hazardous Material Information System (WHMIS) requirements.

Signature Page

Original Signed by:

Wendy Lafontaine
Environmental Advisor
ERG Energy Services Ltd.

Original Signed by:

Stewart Nelson, P.Eng
Stenell Investments Ltd.

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