Ignace Municipal Airport
Aerodrome Feasibility Study

Prepared for:
Township of Ignace

THE LOOMEX GROUP

EXPLORER SOLUTIONS
A Division of The Loomex Group Ltd.

Land Acknowledgement

Explorer Solutions acknowledges that the lands referenced throughout this report are located on the traditional territories of the Anishinaabe people of Treaty 3 and the Métis Nation. Explorer Solutions recognizes that these lands are part of the traditional territory of Wabigoon Lake Ojibway Nation, whose stewardship of the land continues to guide the cultural and environmental landscape.

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Explorer Solutions is committed to learning from and collaborating with Indigenous peoples and Indigenous communities to ensure that future development reflects a spirit of reconciliation, inclusivity, and mutual respect.

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Executive Summary

Context and Purpose

In December 2024, the Township of Ignace contracted Explorer Solutions to conduct an aerodrome feasibility study for Ignace Municipal Airport ("**ZUC**"). The study aims to provide information that Ignace can use to determine the future of the airport.

One of the main reasons for the study is the deep geological repository ("**DGR**") project that will be initiated by the Nuclear Waste Management Organization ("**NWMO**"). This project will happen at the Revell Site, which is in close proximity to Ignace. Given the scale of the project, Ignace wants to assess whether ZUC can support the NWMO while also benefiting the local community and region.

The information in this report provides an assessment of the long-term viability of ZUC, as well as the strategic value of ZUC within its region. This report also outlines the potential economic, operational, and community benefits of various aerodrome development options that Ignace may consider for ZUC. Information is also provided regarding the risks, constraints, and challenges associated with aerodrome development.

Overall, this report is intended to provide Ignace with information that it can use to leverage ZUC in a way that aligns with regional economic development goals and the needs of the aviation sector.

Key Findings

The key findings of the feasibility study are categorized below.

Site Assessment

- ZUC is located in an area that allows it to support the upcoming DGR project, and it has the potential to stimulate job creation and local economic growth.
- ZUC has been inoperable for over 15 years. As a result, the existing infrastructure is in poor condition, and there is significant vegetation overgrowth. There is also a lack of financial resources and staffing.
- ZUC can consider updating its terminal building, installing a precision approach path indicator ("**PAPI**"), and extending its operating hours.
- ZUC does not currently have enough space to accommodate increased passenger traffic. The site is also at risk due to potential infrastructure failures, a lack of insurance, and competition from Dryden Regional Airport.

Risk and Liability Assessment

There are several safety and operational concerns at ZUC due to a prolonged period of inactivity and a lack of maintenance. Key concerns include insufficient wildlife management, infrastructure deficiencies, and lack of emergency preparedness.

Governance Assessment

There are four governance models that ZUC should review:

- governance by a local government entity
- governance by an airport authority
- governance by a non-profit organization
- governance by an economic development organization

Each governance model has advantages and disadvantages regarding operational control, financial support, business orientation, and development potential.

Stakeholder Consultations

The results of a stakeholder engagement campaign revealed that 71 per cent of respondents think reopening ZUC would positively impact the community, especially from an economic perspective.

Airport Development Design Strategy

ZUC can focus on revitalizing several key pieces of on-site infrastructure (such as the runway, terminal, and taxiways) to accommodate growth.

For instance, ZUC could consider expanding its runway to 5,000 ft., relocating its existing aviation fuel tanks, and expanding its terminal building.

Alternative Airport Site Development Options

ZUC can explore a range of site development options, such as:

- Resume aviation operations with minimal passenger facilities (at an approximate cost of $8.5 million, plus one-time capital investment costs and annual operating costs).
- Upgrade and expand services in an effort to become a certified airport with Transport Canada (at an approximate cost of $41.8 million).
- Convert ZUC into a facility to support the NWMO and other resource-based projects.

- Repurpose ZUC as a tourism and recreation destination.

Economic and Social Value Assessment

If Ignace chooses to reopen ZUC, the facility may generate employment opportunities and stimulate business growth both at the airport and in the community.

Reopening ZUC could also enhance the community's access to health care, which would greatly support the needs of the aging population. Reopening ZUC could also bolster community cohesion in Ignace.

Business Investment Funding Options

ZUC can explore a range of funding options, such as:

- Enhance Your Community Program
- Strategic Innovation Fund
- Tourism Growth Program
- airport development funds
- provincial and federal investment in regional airport infrastructure

Recommendations and Overall Summary

Based on the results of the feasibility study, the main recommendations for ZUC are as follows:

1. Issue a temporary runway closure at ZUC, remove the existing fuel tanks, and begin environmental mitigation efforts.
2. Restore ZUC to its original design to support general aviation activities.
3. Position ZUC as a regional aviation hub with expanded operational capacity.
4. Conduct further field studies and follow environmental regulations.
5. Continue governing ZUC through a local government entity.
6. Develop strategic partnerships with provincial economic development organizations, local businesses, and key stakeholders (such as the NWMO).
7. Increase general aviation activity at ZUC, improve ZUC's infrastructure, and provide support services.

Overall, reopening ZUC has the potential to benefit the Ignace community, but there are numerous challenges and risks that must be addressed. Ignace is advised to form strategic partnerships, implement safety protocols, and engage with the community to ensure that future investments align with local needs and priorities.

1.0 Introduction

1.1 Context and Purpose of This Report

In the near future, the NWMO will begin constructing and operating a DGR to store spent nuclear waste. The DGR will be located at the Revell Site, which is in close proximity to the Township of Ignace. As such, Ignace wants to ensure that it is prepared for the expected economic growth that will result from this planned development.

In December 2024, Ignace contracted Explorer Solutions to conduct an aerodrome feasibility study for ZUC. ZUC, which is owned and operated by Ignace, is a registered aerodrome with Transport Canada. However, ZUC is currently unstaffed, and no winter or ongoing maintenance is performed at the facility.

The purpose of this report is to present applicable findings that Ignace can use to guide the discussions that will take place to determine the future of ZUC. Given the scale of the DGR project, Ignace wants to assess whether ZUC can support the NWMO while also benefiting the local community and region.

1.2 Scope, Approach, and Methodology

The feasibility study for ZUC involved the following components:

- a market assessment to gauge the demand for aviation services at ZUC
- a technical analysis to determine necessary infrastructure upgrades at ZUC
- a financial evaluation to estimate the capital and operational costs associated with ZUC
- a regulatory and operational review to examine ZUC's compliance with aviation standards
- an assessment to examine ZUC's impact on the local and regional economies
- a series of stakeholder consultations with key aviation, business, and municipal representatives to gather first-hand insights and opinions about ZUC

This extensive list of project components ensured that the results of the feasibility study provided a comprehensive perspective regarding future opportunities for ZUC.

1.3 Report Structure

Sections 2 to 6 of this report include a comprehensive overview of ZUC's present state. This overview includes an analysis of the airport's existing infrastructure and operational status, as well as a summary of the opinions expressed by applicable stakeholders.

Sections 7 to 9 of this report include potential development options, including various highest and best land use scenarios, the economic and social benefits of investing in ZUC, and technical and financial evaluations.

Sections 10 to 12 of this report include suggested upgrades to ZUC facilities, investment readiness considerations (including potential funding options), an overall list of recommendations, and an implementation plan for the future development of ZUC.

2.0 Overview of Ignace Municipal Airport

2.1 Location, Ownership, and Operations

Location

ZUC is a Northwestern Ontario aerodrome located in the Township of Ignace. The airport's address is 34 Highway 17 West.

Ownership

ZUC is owned and operated by Ignace.

ZUC is currently unstaffed, and no winter maintenance or other ongoing maintenance activities take place at the facility.

Operations

ZUC has a single asphalt runway (Runway 05-23). This runway is orientated in a northeast/southwesterly direction. Runway 05-23 is positioned in a way that allows it to accommodate an expansion up to 5,000 ft.

ZUC also has a connecting taxiway that leads to an aircraft parking apron.

The surfaces at ZUC are intended for commercial and general aviation aircraft. Runway 05-23 can accommodate various types of aircraft, from very small light jets (such as a TBM, Cessna Caravans, or equivalent aircraft) up to a Pilatus PC-12.

2.2 Airport Catchment Area

If ZUC resumes operating as a functioning airport, the catchment area would most likely be defined by a diverse range of primary users, including:

- the NWMO (supporting operations at the Revell Site)
- general aviation enthusiasts
- businesses meeting just-in-time supply needs (for the NWMO and other industrial projects)
- mining companies and related supply chain partners
- local businesses requiring efficient transportation and logistics solutions
- organizations supporting food security programs and other community initiatives
- medevac and emergency response operators

Figure 1 illustrates a catchment area in Ignace that is based on a 45-minute driving radius from ZUC. This driving radius is indicated by the colour red. For reference purposes, Figure 1 also indicates catchment areas that are 45 minutes from Dryden Regional Airport (highlighted in green) and Sioux Lookout Airport (highlighted in purple).

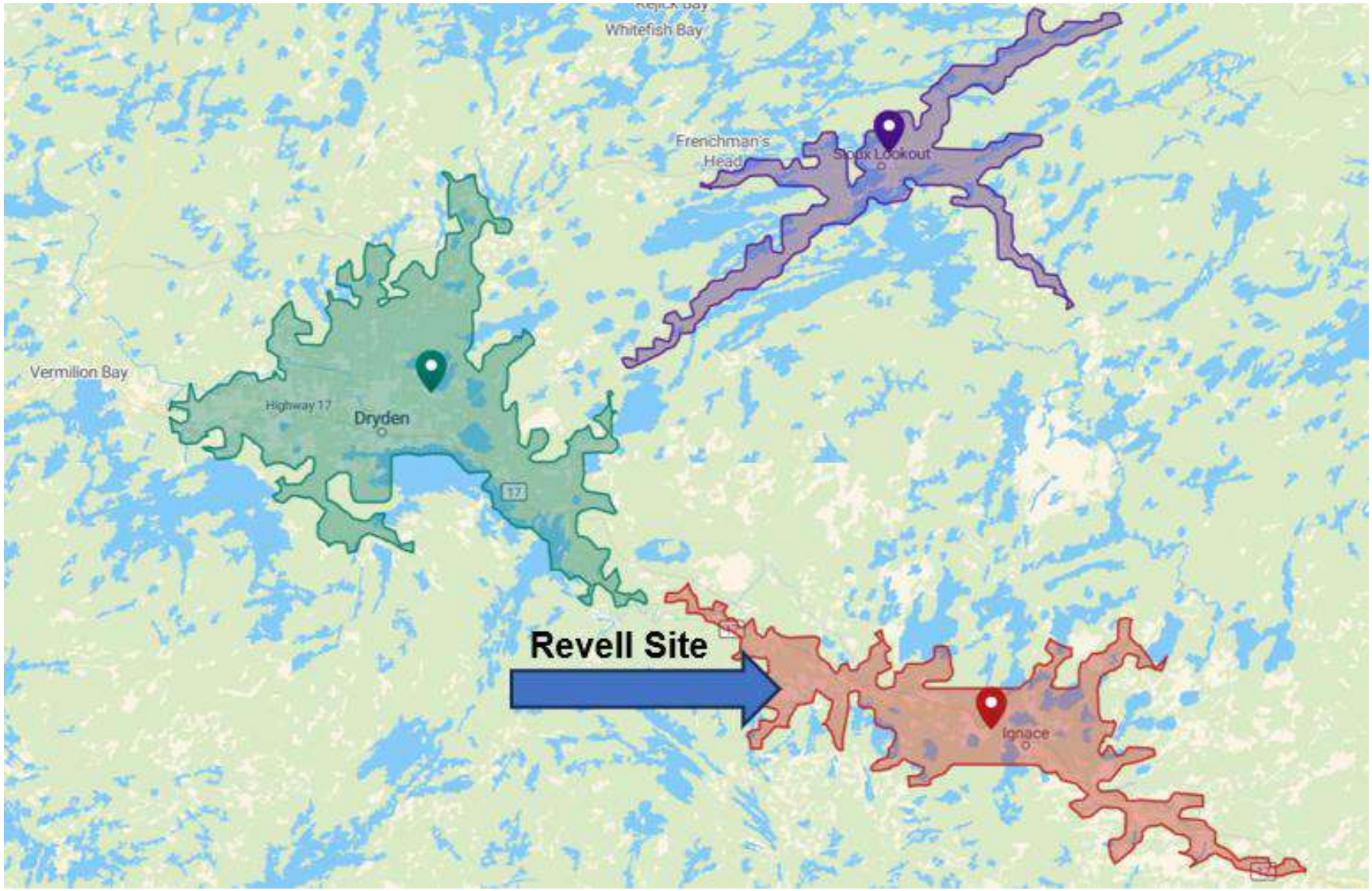

Figure 1. Catchment areas within 45 minutes of Ignace, Dryden, and Sioux Lookout.

2.3 Airport Specifications

2.3.1 Airport Certification and Zoning

ZUC is a registered aerodrome with Transport Canada.

ZUC does not have existing airport zoning regulations ("**AZRs**"), which are site-specific rules that are governed under the authority of the Aeronautics Act. The purpose of AZRs is to limit the height of buildings, structures, and natural growth on the lands that surround an airport.

According to section 22 of current zoning bylaw for Ignace, the ZUC property is designated as an "airport zone". The bylaw outlines the zone's permitted uses, requirements, and special exceptions. (The special exceptions section is reserved for future use.) As per the bylaw, the ZUC property is permitted to support the following functions:

- airport
- industrial or transportation activities that rely on (or use) air transportation
- bulk fuel depot
- flying school
- office
- open storage
- portable asphalt plant
- portable concrete plant
- warehouse

2.3.2 Operating Hours

As of this report, the airport terminal building ("**ATB**") at ZUC does not have regular hours of operation, and it is not currently staffed.

The runway at ZUC is available for daytime use, but it is not maintained during the winter.

Ignace is available by phone for inquiries and pilot information as published in the Canada Flight Supplement ("**CFS**").

2.3.3 Wildlife Control

At aerodromes, passive wildlife management techniques are used to reduce the presence of wildlife at aerodromes. Examples of these techniques include habitat removal and vegetation removal. At small airports that have few aircraft movements and limited resources, simple runway inspections are recommended. In addition, bird-dispersal should be conducted prior to aircraft arrivals and departures.

Ignace and the surrounding region are home to many types of wildlife, including moose, deer, bears, foxes, and various bird species.

ZUC does not currently have a wildlife control plan, and no wildlife maintenance activities are being conducted at the facility. The main form of wildlife control at ZUC is a perimeter fence that is installed near the ATB. Although fences can help deter animal entry onto an airport's property and runway, the existing fence at ZUC does not span the entire perimeter of the property.

2.3.4 Flight Service Station

ZUC does not have an on-site flight service station.

The current procedure is to have pilots open and/or close visual flight rules ("**VFR**") flight plans with London Flight Information Centre by phone while en route.[1]

2.3.5 Aircraft Communications

An aerodrome traffic frequency ("**ATF**") is a designated radio frequency that is intended for aircraft on the ground and in the vicinity of an uncontrolled aerodrome. The aircraft use the ATF to communicate with each other.

ZUC does not currently have a control tower. Because ZUC lacks a control tower, communication is performed using an ATF that broadcasts on a frequency of 122.3.

The airspace at ZUC is designated as Class G (uncontrolled).

2.3.6 Obstacle Limitation Surfaces

Obstacle limitation surfaces ("**OLS**") are sets of imaginary surfaces that must remain free of obstacles in order to ensure aircraft operations are kept safe during the take-off, landing, and other critical phases of a flight.

[1] This service can be reached at 866-WXBRIEF (Canada) or 866-541-4104 (Canada and the U.S.).

As of this report, there is no evidence that ongoing grounds maintenance is being done at ZUC to prevent growth into the OLS. The state of the current surfaces at ZUC are presumably non-compliant with Transport Canada's OLS requirements.[2]

2.3.7 Description of Airport Property and Real Estate Potential

ZUC spans approximately 307.10 acres. This amount of land means that ZUC has the potential to support a wide range of aviation and non-aviation activities.

Figure 3 shows an aerial view of the ZUC property.

Figure 2. Aerial view of the property at Ignace Municipal Airport.

Currently, the airport property at ZUC contains a small, combined service facility and an unoccupied main terminal building. These facilities can provide ZUC with essential infrastructure for ongoing aerodrome operations, including medevac and general aviation services.

As of this report, ZUC has surplus real estate available for development (beyond what is necessary to sustain the facility's operations as an aerodrome). This surplus land is development-ready, and Ignace may have the potential to leverage this land to support

[2] https://skyvector.com/airport/CZUC/Ignace-Municipal-Airport.

the needs of NWMO while also attracting new investors and businesses to ZUC. Moreover, the available land has the potential to support many types of operations, including the aviation sector and complementary industries.

2.4 Condition Assessment

2.4.1 Terminal Building

The ATB at ZUC has a brick exterior and is approximately 2,000 sq. ft. in size. The age of the ATB is unknown.

According to the most recent staff building assessments, the ATB is in overall good condition, and it offers easy accessibility. The building has two washrooms and a check-in counter that seem to be in good condition. However, these facilities have not been used for a considerable period, and they may require upgrades. The ATB also shows signs of minor damage that need to be repaired (such as window replacements), and there is evidence that rodents are causing further damage.

2.4.2 Fuel Stations

The existing fuel farm at ZUC is located at the most northeasterly end of the apron. The fuel farm has with one Avgas tank and one jet fuel tank. The capacity of these tanks is unknown, and they have not been operational for some time. Upon review, the existing fuel tanks are not compliant with the current fuel regulations issued by the Technical Standards and Safety Authority ("**TSSA**"). For example, leak detection systems are not present. Overall, the tanks should be removed due to their age.

Installing new fuel tanks at ZUC may be an option. These fuel systems may help attract recreational air traffic, support medevac operations, and support future air traffic.

2.4.3 Runways, Taxiways, and Aprons

- The runway at ZUC (Runway 05/23) is 3,512 ft. long by 75 ft. wide.
- The taxiway at ZUC is 550 ft. long by 60 ft. wide.
- The apron at ZUC is approximately 330 ft. long by 165 ft. wide.

In 2008, AMEC Earth and Environmental conducted an airfield pavement condition survey for ZUC. The survey identified various asphalt deficiencies that ZUC needs to repair in order to facilitate safe aircraft operations. The runway was rated in good condition, and the pavement subgrade was deemed to be in good condition. As a recommendation, ZUC was advised to complete an overlay for the runway only.

The taxiway at ZUC was deemed to be in fair to poor condition, and the apron was rated in poor condition. The survey suggested that the most appropriate corrective action is to pulverize the existing asphalt and then add Granular A and new hot-mix asphalt.

In 2024, staff from Ignace conducted a visual assessment of the runway. The assessment revealed that crack sealing had been undertaken, but the date of the most recent crack sealing could not be determined. However, if there has been an absence of asphalt crack sealing, it is possible that the pavement subgrade has deteriorated.

2.4.4 Critical Equipment

The critical systems and equipment at ZUC are limited, and they are unlikely to support safe operations at the aerodrome.

The field electrical centre ("**FEC**") houses runway lighting equipment (such as transformers and breaker panels) but the building is in a severely deteriorated condition. Currently, the FEC is missing an exterior door, which has left the interior of the building exposed to the weather.

The FEC equipment supports runway edge lighting and a runway visual approach slope indicator ("**VASI**"). The VASI is intended to help pilots maintain a visual glide path while completing a final approach. However, the runway lighting is not operational, and the lights are damaged and non-functional. Additionally, there is a significant amount of natural growth around the lights and the VASI.

Wind direction indicators are used to determine wind direction and speed. At ZUC, there is one wind direction indicator located midway between the centre of the runway and the threshold of Runway 23. The condition of the mast is unknown, but the life expectancy of a windsock is no more than two years. As such, ZUC will need to replace the current equipment in order to ensure accurate operations.

Finally, ZUC does not have any winter maintenance equipment, and it lacks aircraft ground support equipment.

2.4.5 Airport Services

Currently, ZUC is listed in the CFS. The listing indicates that ZUC offers long-term aircraft parking. The CFS also indicates that the public facilities that are available within 5 nautical miles of ZUC include phones, food services, taxis, and medical services.

Upon review, some of the information published about ZUC in the CFS is inaccurate or outdated.

2.5 Environmental Considerations

During the feasibility study, a preliminary constraints analysis was conducted to guide planning efforts and identify potential barriers that will affect development initiatives at ZUC. One aspect of this analysis was an examination of environmental constraints.

The primary environmental constraints identified at ZUC are described in the subsections below.

2.5.1 Fish Habitats

Osaquan Lake borders ZUC to the west, and Shell Lake borders ZUC to the north.

Fish habitats have been identified at ZUC. Any new development would likely not be permitted in these areas, and a 25 m buffer zone will likely be recommended.

2.5.2 Habitats for Endangered and Threatened Species

Due to the potential presence of endangered or threatened species at ZUC, the aerodrome is advised to conduct species-specific studies and habitat-specific studies.

Species with the potential of occurring at ZUC include the bank swallow and lesser yellowlegs (birds) and little brown myotis and Northern myotis (mammals).

2.5.3 Wetland

There are approximately 36 hectares of wetland throughout the subject property.

ZUC may be permitted to pursue new development in identified wetlands if it can be proved that the development projects will not cause negative impacts on the wetlands and their ecological functions.

If the absence of negative impacts cannot be demonstrated, new development projects would not be permitted in the wetland area at ZUC, and a 30 m buffer zone would likely be recommended.

2.5.4 Wildlife Habitats

There is an aquatic feeding area for moose near ZUC property. New development may be permitted in or near the moose aquatic feeding area if it can be proved that the development projects will not cause negative impacts on the feeding area and its ecological functions.

If the absence of negative impacts cannot be demonstrated, new development at ZUC would not be permitted in the wildlife habitat area, and a 30 m buffer would likely be recommended.

2.5.5 Hazardous Lands

Wildland fire hazard areas generally extend across ZUC except for select areas potentially associated with the main building area, runway, riparian areas, and wetland areas.

New development at ZUC may be permitted in the identified wildland fire hazard area if potential risks can be mitigated in accordance with the wildland fire assessment and mitigation standards issued by the Ministry of Natural Resources ("**MNR**").

Upon review:

- ZUC contains 103.51 hectares of low constraint area where new development is likely permissible.
- ZUC contains 40.75 hectares of medium constraint area where new development may be permissible.
- ZUC contains 20.4 hectares of high constraint area where new development is not likely permissible.

Figures 4 and 5 indicate the low, medium, and high constraint areas that are available for development at ZUC.

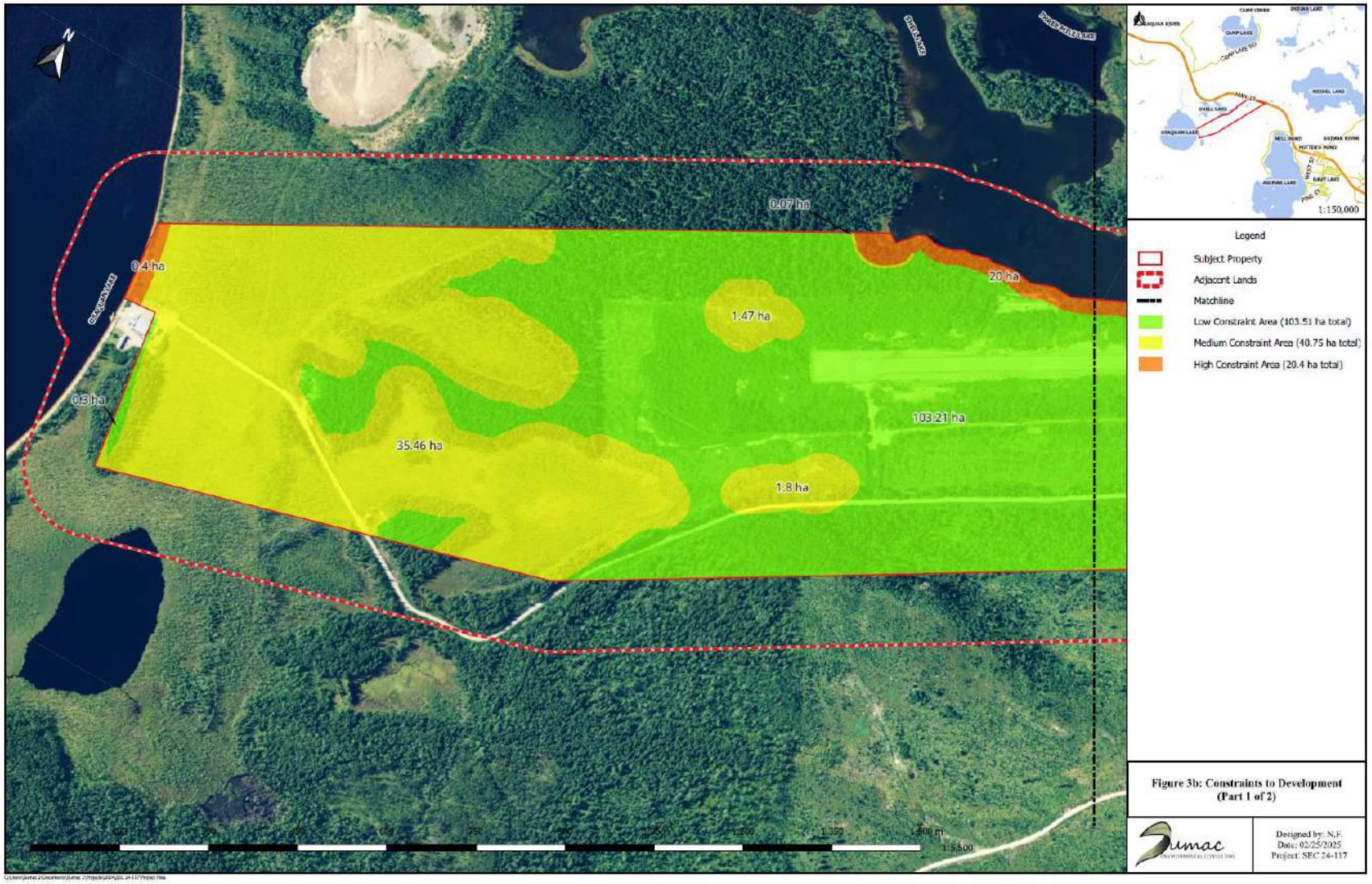

Figure 3. Development constraint areas, western portion of Ignace Municipal Airport.

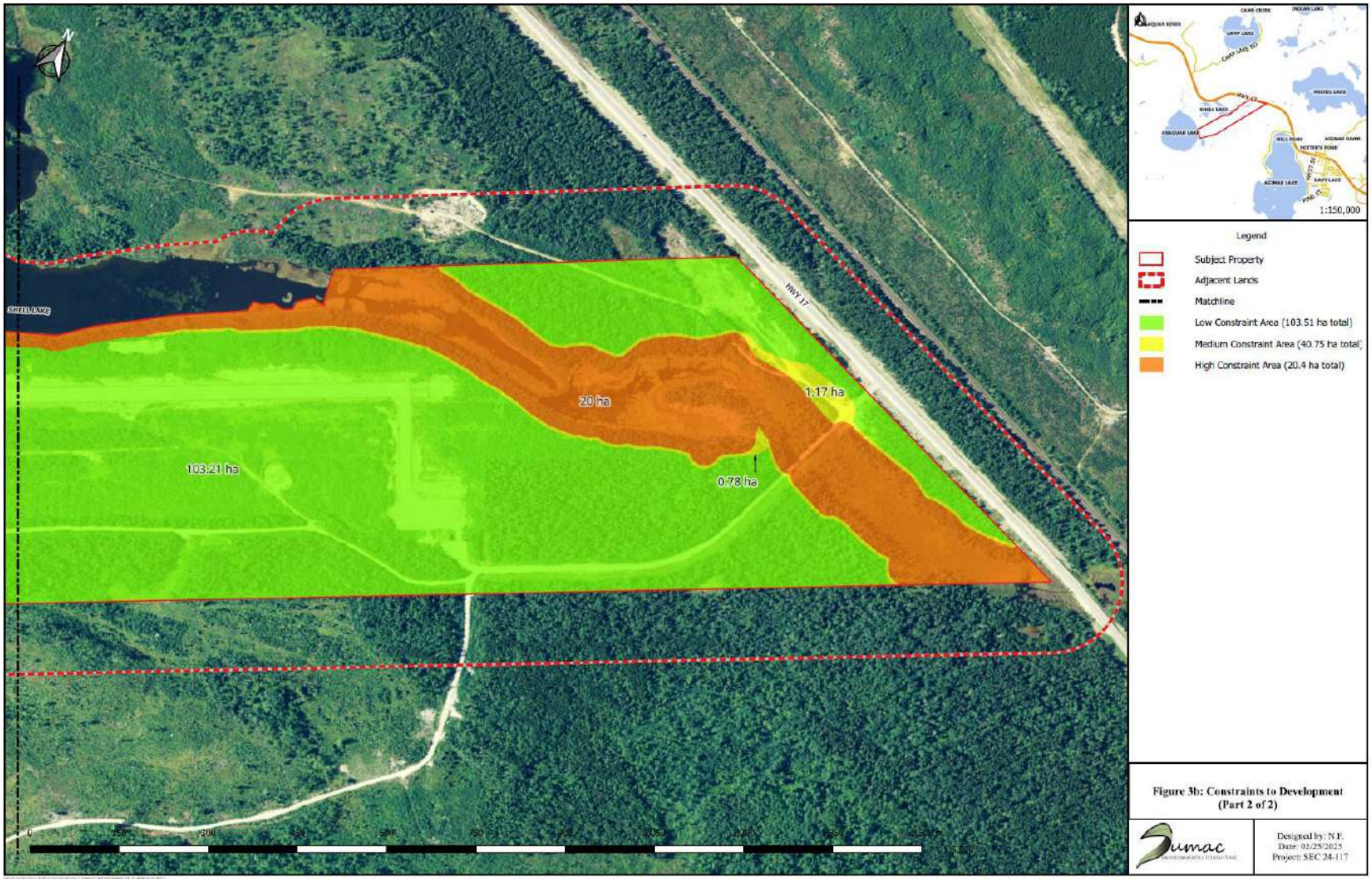

Figure 4. Development constraints, eastern portion of Ignace Municipal Airport.

2.6 Regulatory Requirements and Standards

The Canadian Aviation Regulations set the industry standards for aviation safety and operational procedures. These regulations are enforced by Transport Canada, and they comprise the main legislation that influences ZUC's operations.

As a registered aerodrome, ZUC must comply with Part 301 of the Canadian Aviation Regulations.[3] For example, these regulations require airports to keep their runways free from obstacles. The regulations also stipulate minimum aviation safety requirements that must be met. Other activities on or around the aerodrome's land are usually governed by AZRs, but Transport Canada has not created specific AZRs for ZUC.[4]

From a business perspective, the straightforward regulatory framework at ZUC presents an appealing opportunity for investment and development. Businesses that may want to operate at ZUC have the potential to expand their operations with confidence, knowing that they can do so without jeopardizing the aerodrome's compliance with industry standards.

Going forward, ZUC should maintain an awareness of all applicable governing legislation. Doing so will help ZUC understand potential impacts on safety, airport operations, infrastructure planning, and sustainability goals.

[3] https://laws-lois.justice.gc.ca/eng/regulations/SOR-96-433/FullText.html#s-301.01

[4] For a summary of relevant prohibitions, see Appendix F of this report.

3.0 Site Assessment of Ignace Municipal Airport

3.1 Overview of a Site Assessment

The purpose of a site assessment is to provide a thorough evaluation of an airport's current condition and its potential for future development.

A site assessment begins by identifying the strengths and weaknesses of an airport, as well as potential improvements and threats. This analysis helps to determine whether an airport is ready for operations and whether it is suitable for further development.

The scope of a site assessment then turns to a detailed examination of an airport's infrastructure, facilities, and surrounding land uses. Applicable compliance regulations and the airport's market position are also assessed. Collectively, the findings of these examinations help to create a balanced understanding of an airport's capabilities and limitations.

Overall, a site assessment is used to conduct an objective analysis of an airport in order to obtain findings that lay the groundwork for making informed decisions. Understanding an airport's operational potential is critical for developing strategies that align with community needs and economic possibilities, as well as the expectations of stakeholders.

3.2 Results of Site Assessment for Ignace Municipal Airport

3.2.1 Current Strengths

- ZUC is an advantageous location for activity related to the DGR project.
- Community engagement indicates that the residents of Ignace support ZUC.
- There are no adjacent land-use conflicts.
- The FEC has several panels that seem to be in working condition.
- The ATB is in good condition.
- ZUC has a positive economic impact on the community.
- ZUC can support air ambulance medevac services.
- If ZUC is reopened, it can be used to support tourism development.
- ZUC can serve as a catalyst for supporting job creation and local economic growth, and it may have the potential to help local businesses access specific markets.
- Some of the existing infrastructure at ZUC can be used to support aviation operations.

3.2.2 Current Weaknesses

- ZUC has not been operational for over 15 years.
- There is a considerable amount of vegetation around the runway and taxiway areas.
- The fuel farm is currently inoperable, which means that it would need to be replaced.
- The septic tank is beyond its life expectancy, which means that it would need to be replaced.
- The existing FEC is in poor condition overall and needs to be replaced (other than the working panels noted above).
- The runway edge lighting is in extremely poor condition.
- ZUC does not have scheduled cargo capacity.
- ZUC is not currently maintained.
- The aerodrome beacon tower is obstructed and surrounded by trees. The condition and operational ability of the tower are unknown, but the tower does appear to be damaged.
- ZUC is not safe to use, which means that major repairs are needed to return the airport to a safe and useable condition.
- There are currently no financial resources available through capital or operating budgets to invest in required upgrades.
- There are no staff members to perform the routine maintenance that is needed to maintain the safe operations of the airport.

3.2.3 Potential Improvements

- There is ample room directly adjacent to the ATB where an additional 4,000 sq. ft. expansion is plausible. This area is located east of the apron.
    - This proposed expansion would include seating, washrooms, and a baggage claim area. It could accommodate the maximum number of passengers that would travel on a Dash 8 aircraft (up to 56 passengers per aircraft incoming and outgoing).
- A 4,800 sq. ft. combined operations and maintenance building is proposed for the opposite side of the roadway (leading into the apron) from the ATB.
- It is proposed that a new pre-cast building be constructed in the same area as the existing one. The existing lighting control boxes can be reused, as they are in good condition.
- The VASI can be replaced with a PAPI, which provides a more precise visual glide slope indication for pilot safety.

- As a start, ZUC could be made accessible 24 hours per day, 7 days per week for flight operations, and the ATB should be open (for limited hours).
- A self-service fuel card lock system and aircraft radio-operated lighting system (or an ARCAL system) would allow ZUC to meet applicable safety standards while only needing to staff one airport manager until operations expand.
- Medical evacuations are a high-priority need for Ignace (especially due to aging populations).
- ZUC can become a gateway to support tourism development.
- ZUC can be used to support the air travel needs of the NWMO workforce, as well as specialists, politicians, and others who are looking for quick access to the DGR site.

3.2.4 Potential Threats

- If ZUC resumes operations and the ATB remains in its current state, the ATB will not provide sufficient space for an increased amount of passenger traffic.
- The current airport operational activities at ZUC pose a significant risk to public safety, which may result in potential liability concerns for Ignace.
- There is an increased risk of wildlife incursions due to the lack of wildlife management strategies and regular runway inspections.
- Runway maintenance is not conducted, which compromises the runway pavement load-rating capabilities at ZUC.
- An unmaintained OLS increases the risk of runway occurrences from obstacles in the protected area.
- According to the published copy of the CFS, ZUC is classified as useable.
- Infrastructure failures have the potential to cause aviation accidents, injuries, property damage, and reputational damage.
- ZUC is not insured.
- If ZUC is decommissioned, it may be extremely difficult for Ignace to rebuild the airport in the future.
- Without financial support, it may be many years before Ignace can recoup the investments it makes to maintain ZUC in a “status quo” state of operation.
- Many Ignace residents have an “out of sight, out of mind” mentality about ZUC.
- ZUC is roughly an hour’s drive from Dryden Regional Airport. As such, some residents may choose to commute to the Dryden facility.

3.2.5 Summary of Site Assessment for Ignace Municipal Airport

ZUC has a strategic location, community support, and the potential to generate economic benefits for the Ignace community. However, ZUC suffers from deficient critical infrastructure and financial constraints. There are also regulatory compliance needs that must be addressed before ZUC can be made fully operational.

Unless Ignace can address the internal issues and mitigate the external threats that are affecting ZUC, the airport cannot serve as a safe, viable, and sustainable asset for the town.

If Ignace pursues future investments in ZUC, the town can use the results of the completed site assessment to guide the decision-making process and help ensure that any future investments align with community needs, operational requirements, and broader economic development goals.

4.0 Risk and Liability Assessment

4.1 Overview of Risk and Liability Assessment

A risk or liability can refer to one of the following potential hazards:

- A **physical hazard** can impact infrastructure and equipment.
- An **operational hazard** affects airport operations and air traffic management.
- A **fire or explosion** can result from flammable materials, fuel handling, or emergency response risks.
- A **security hazard** may involve unauthorized access, vandalism, or threats to safety.
- An **environmental hazard** can affect wildlife, natural surroundings, and regulatory compliance.

Risk assessments are used to assess the likelihood and impact of a potential hazard. Each risk is assigned a probability score and a severity score. These scores are multiplied together to determine a total risk score, as well as a risk level.

4.2 Risk Scoring

Table 1 lists the probability levels used to determine risk scores, based on probability levels used by Transport Canada's risk index scoring system.[5]

Table 1. Probability levels for risk scoring.

Score	Probability Level	Expected Frequency
1	**Extremely Improbable**	Less than once in ten years.
2	**Improbable**	Less than once in five years.
3	**Remote**	Less than once in three years.
4	**Occasional**	Less than once per year.
5	**Frequent**	More than once per year.

Table 2 lists the severity levels used to determine risk scores, based on probability levels used by Transport Canada's risk index scoring system.

[5] https://tc.canada.ca/en/aviation/reference-centre/advisory-circulars/advisory-circular-ac-no-107-001

Table 2. Severity levels for risk scoring.

	Severity	Cost	Effect on Airport	Effect on Functional Capacity	Effect on Safety
1	**None**	$0	• There is no effect on airport operations.	• There are no disruptions and no damage to property.	• There are no injuries.
2	**Negligible**	<$20K	• The organization may experience slowdown or downtime. • A hazardous materials release may occur, but there are no detrimental effects, and it does not require outside assistance.	• There may be minor damage to equipment, aircraft or other assets.	• There may be minor first aid injuries, but they do not result in lost time or disability.
3	**Marginal**	<$200K	• An apron—or portion thereof—may require closure due to an inability to maintain the surface. • There may be a small uncontained hazardous materials release.	• An aircraft situation involving evacuation may be required to retrieve an aircraft for the runway. This situation might not result in damage, but it might result in damage up to $200,000.	• There may be injuries on one or more persons that require first aid and lost time, but they do not result in disability.
4	**Critical**	>$200K	• There may be major downtime. • A runway/taxiway—or portion thereof—may require closure due to an inability to maintain that surface (as per the airport operations manual). • There may be negative media attention. • A moderate hazardous materials uncontained release may occur.	• Substantial damage to an aircraft or property may occur, possibly caused by aircraft or ground equipment.	• One or more people may be seriously injured. • One or more people may be permanent disabled.

	Severity	Cost	Effect on Airport	Effect on Functional Capacity	Effect on Safety
5	**Catastrophic**	>$1M	• The airport may be closed due to an inability to maintain the manoeuvring area (as per the airport operations manual). • There may be negative media attention. • A large uncontained hazardous materials release may occur.	• A total loss of aircraft or critical equipment may occur. • There may be complete or substantial damage to ground facilities or equipment.	• Fatal injuries (including complete or heavy loss of life) may occur during an aircraft or ground collision.

Table 3 shows the possible risk levels for each range of risk scores, as well as actions to take when each level of risk occurs.

Table 3. Possible risk levels and associated actions.

Total Score	Risk Level	Associated Action
1 to 5	**Low**	Proceed with tasks after evaluating all risk elements.
6 to 12	**Medium**	Continue tasks with appropriate risk mitigation measures.
13 to 25	**High**	Do not proceed until effective control measures reduce the risk to an acceptable level.

4.3 Key Categories and Ratings of Airport Hazards

This subsection lists a series of hazards that would be present at ZUC if Ignace chooses to reopen the facility as an operational aerodrome.

Physical Hazards

Physical hazards at the airport include conditions that could lead to injuries among staff, passengers, and visitors. These risks primarily relate to the physical environment and operational tasks performed on-site.

Table 4 lists the physical hazards identified at ZUC.

Table 4. Physical hazards identified at Ignace Municipal Airport.

Risk Name and Definition	Probability	Severity	Risk Level
Slips, trips, and falls: Wet or uneven surfaces, cluttered walkways, and poor lighting can contribute to slips, trips, and falls, potentially causing injuries.	Remote (3)	Negligible (2)	**Medium (6)**
Vehicle-pedestrian collisions: The movement of ground vehicles within the airport premises, particularly in areas shared with pedestrians, introduces collision risks.	Extremely improbable (1)	Critical (4)	**Low (4)**
Heavy lifting and manual handling injuries: Airport staff may be exposed to risks associated with lifting and moving heavy objects, which could result in strains or musculoskeletal injuries.	Extremely improbable (1)	Critical (4)	**Low (4)**

Risk Name and Definition	Probability	Severity	Risk Level
Working at heights: Maintenance activities on aircraft, structures, or equipment may require working at heights, introducing the potential for falls and related injuries.	Extremely improbable (1)	Catastrophic (5)	**Low (5)**
Exposure to extreme weather conditions: Outdoor work exposes staff to harsh weather conditions, including extreme cold, heat, and precipitation, potentially impacting health and safety.	Frequent (5)	None (1)	**Low (5)**

Operational Hazards

Operational hazards encompass risks associated with the day-to-day management of aircraft and ground operations. These hazards could affect safety, efficiency, and service quality.

Table 5 lists the operational hazards identified at ZUC.

Table 5. Operational hazards identified at Ignace Municipal Airport.

Risk Name and Definition	Probability	Severity	Risk Level
Aircraft ground handling incidents: Activities such as refueling, baggage handling, and aircraft towing present risks of accidents or damage to equipment and aircraft.	Improbable (2)	Critical (4)	**Medium (8)**
Runway incursions: Unauthorized access to or mismanagement of the runway area could lead to dangerous interactions between aircraft, vehicles, personnel, and wildlife.	Extremely improbable (1)	Catastrophic (5)	**Low (5)**

Fire and Explosion Hazards

Fire and explosion hazards arise from the storage, handling, and use of flammable materials within the airport environment. These hazards pose risks to both life and property.

Table 6 lists the fire and explosion hazards identified at ZUC.

Table 6. Fire and explosion hazards identified at Ignace Municipal Airport.

Risk Name and Definition	Probability	Severity	Risk Level
Fuel spills: Accidental fuel spills during aircraft refuelling or fuel storage can lead to fire risks, requiring robust handling and emergency response procedures.	Frequent (5)	Negligible (2)	**Medium (10)**
Hazardous material storage and transportation: The airport must manage various hazardous materials, including cleaning agents and industrial chemicals, to avoid potential fire and health risks.	Frequent (5)	None (1)	**Low (5)**

Security Hazards

Security hazards involve threats to airport infrastructure, staff, and passengers, often related to unauthorized access or intentional acts of harm.

Table 7 lists the security hazards identified at ZUC.

Table 7. Security hazards identified at Ignace Municipal Airport.

Risk Name and Definition	Probability	Severity	Risk Level
Unauthorized Access to Restricted Areas: Breaches in security protocols could result in unauthorized individuals entering sensitive or restricted airport zones.	Frequent (5)	Negligible (2)	**Medium (10)**
Potential for Terrorist Activity: While the likelihood of terrorist activity is low, the airport must maintain vigilance and preparedness to address potential threats.	Frequent (5)	None (1)	**Low (5)**

Environmental Hazards

Environmental hazards include natural and human-made factors that could affect airport operations, safety, and the surrounding community.

Table 8 lists the environmental hazards identified at ZUC.

Table 8. Environmental hazards identified at Ignace Municipal Airport.

Risk Name and Definition	Probability	Severity	Risk Level
Bird Strikes: The presence of wildlife (particularly birds) near the runway poses significant risks to aircraft during takeoff and landing.	Frequent (5)	Marginal (3)	**High (15)**
Aircraft Noise: While noise pollution from aircraft is generally low risk, it could affect the quality of life for nearby residents and wildlife.	Extremely improbable (1)	None (1)	**Low (1)**
Air Quality Issues: Emissions from aircraft and ground support equipment may impact air quality.	Extremely improbable (1)	None (1)	**Low (1)**

4.4 Additional Considerations

In addition to the risks identified above, there are significant safety and operational concerns associated with the current state of ZUC. While well-maintained and well-staffed aerodromes typically exhibit minimal risk, prolonged inactivity at ZUC and the lack of routine maintenance substantially elevate the aerodrome's risk profile.

Overall, the current operational environment at ZUC presents significant liability concerns for Ignace. If Ignace chooses to make ZUC operational, wildlife control strategies and runway inspections will be required to reduce the likelihood of wildlife incursions, which could pose serious safety risks to aircraft operations. In addition, ZUC will need to address its potentially compromised runway pavement load rating and unmaintained OLS. Without addressing these issues, obstacles in protected zones may pose a risk.

4.5 Recommendations

In order to reduce risks and enhance safety, ZUC should:

- Implement comprehensive safety protocols.
- Schedule regular maintenance and inspections.
- Establish wildlife control measures to mitigate high-risk scenarios like bird strikes.

5.0 Governance Assessment

5.1 Overview of Governance Assessment

A governance assessment examines the advantages and disadvantages of establishing a certain governance model at a specific airport.

The typical governance models are as follows:

- governance by a local government entity[6]
- governance by an airport authority[7]
- governance by a non-profit organization[8]
- governance by an economic development organization

During a governance assessment, the following characteristics of each governance model are examined:

- level of financial support required
- ownership and operational responsibilities
- legal structure
- composition and decision-making processes of the governing body

A governance assessment can also examine the ways in which financial contributions from a municipality (or municipalities) can impact governance and investment potential.

5.2 Comparative Assessment of Governance Models

It is important to review different models of airport governance because the type of governance model at ZUC can impact the airport's ability to attract business investment and development.

Table 9 compares the standard types of governance models used in the aviation industry.

[6] As of this report, this is the model that Ignace uses to manage ZUC.

[7] This term refers to the 21 airports that form part of the National Airport System.

[8] A non-profit organization that governs an airport may be called a society, authority, commission, or airport development corporation.

Table 9. Comparison of aviation governance models.

Consideration	Governance by a Local Government Entity	Governance by an Airport Authority	Governance by a Non-Profit Organization	Governance by an Economic Development Organization
Private or public ownership	Public	Public	Private or public	Public
Level of government	Municipal	Federal	Municipal (if public) Not applicable (if private)	Federal
Financial Support	Funds are provided by a municipality (or municipalities).	This governance model is self-sufficient.	This governance model is self-sufficient, but it can also operate with grants from various levels of government.	This governance model is self-sufficient, but it can also operate with grants from various levels of government.
Ownership	Local government or governments (municipality, county, or district)	Federal government (Transport Canada)	Local governments (municipality, county, or district) or non-profit organization	The ownership can be assigned to a local government or an economic development organization.
Management and operations	The airport operates as a department within the municipal structure. The governing municipality appoints an airport manager who reports to a municipal department head.	The airport authority manages and operates the airport under a long-term lease from Transport Canada. The authority is solely responsible for operating, maintaining, and developing the airport or airports that it oversees.	The airport is managed by a non-profit, non-share organization. These organizations can be classified as “societies,” “authorities,” “commissions,” or “airport development corporations.”	A municipal or regional economic development organization (incorporated as a non-profit organization) is responsible for managing, operating, and developing the airport.

Consideration	Governance by a Local Government Entity	Governance by an Airport Authority	Governance by a Non-Profit Organization	Governance by an Economic Development Organization
Legal form	A municipality, county, or district governance structure is maintained. However, an advisory committee can be a part of this structure. Airport management duties fall under one of the municipality's department heads.	The 21 airport authorities operating under this governance model must act in accordance with the Airport Transfer (Miscellaneous Matters) Act. Each airport authority is a not-for-profit, non-share capital corporation.	A non-profit organization is responsible for managing and developing the airport. This entity can be an airport commission that is dedicated to the airport only.	Often, a non-profit organization is created with the current economic development organization. The non-profit organization incorporates the airport into its responsibilities.
Board members	The elected council is the de facto board of directors for the airport.	The board of directors for an airport authority has between nine and fifteen directors. Each member of the board of directors can be nominated by the Minister of Transport, the provincial government, and the local municipalities.	There is no obligation for elected officials to serve on the board of directors. However, it is recommended to include one member of the municipality, including organizations that could finance the airport. (Often, the municipality will include airport financing in its operating budget.) Other members of the private sector (such as aviation specialists and business owners) may also serve on the board of directors.	There is no obligation for elected officials to serve on the board of directors. However, it is recommended to include one member of the municipality, including organizations that could finance the airport. (Often, the municipality will include airport financing in its operating budget.) Other members of the private sector (such as aviation specialists and business owners) may also serve on the board of directors.

Consideration	Governance by a Local Government Entity	Governance by an Airport Authority	Governance by a Non-Profit Organization	Governance by an Economic Development Organization
Decision-making process	Only elected officials are allowed to vote. Each administrator has one vote, and the voting protocol remains a democratic process. When a decision is made by the council, it may be influenced by the individual politics of the council in place.	The airport authority has full autonomy. Each member has one vote, and the voting protocol remains a democratic process.	The non-profit organization has full autonomy, which means that local politics have less influence on the airport's development strategy. Each member has one vote, and the voting protocol remains a democratic process. There may be observers on the board who have no voting rights but serve in an advisory capacity.	The economic development organization has full autonomy, which means that local politics have less influence on the airport's development strategy. Each member has one vote, and the voting protocol remains a democratic process. There may be observers on the board who have no voting rights but serve in an advisory capacity.
Financial (municipal contribution)	The municipality contributes 100 per cent of the funds needed for operating expenses and capital expenditures.	The airport authorities are to remain financially independent. The airport authorities set their own fees and meet their own costs by establishing charges for aircraft operators, passengers, and commercial revenues.	The non-profit organization is responsible for all operating expenses and capital expenditures. Financing may be provided by municipal contributions and other levels of government through grants and subsidies. Other revenues come from airport operations. Reserve funds may be used to manage any surplus.	The economic development organization manages all operating and capital expenses. Funding comes from municipal contributions, government grants, and airport revenues. Reserve funds help manage any surplus.

Consideration	Governance by a Local Government Entity	Governance by an Airport Authority	Governance by a Non-Profit Organization	Governance by an Economic Development Organization
Examples of Ontario Airports	North Bay Jack Garland Airport is owned and operated by the City of North Bay. Kenora Airport is managed by the City of Kenora. Dryden Regional Airport is operated by the City of Dryden.	Thunder Bay International Airport is managed by the Thunder Bay International Airports Authority. Ottawa Macdonald-Cartier International Airport is managed by the Ottawa International Airport Authority. Toronto Pearson International Airport is operated by the Greater Toronto Airports Authority.	Edenvale Aerodrome is operated by Edenvale Aerodrome Inc. Red Lake Airport is operated under a non-profit governance structure with municipal involvement. Tillsonburg Regional Airport is managed by the Tillsonburg Airport Advisory Committee.	Sudbury Airport is operated by the Greater Sudbury Airport Community Development Corporation. Timmins Victor M. Power Airport is managed under a municipal economic development model supporting regional growth. Sault Ste. Marie Airport is operated by the Sault Ste. Marie Airport Development Corporation.

5.3 Governance Model Comparison: Key Insights and Considerations

Summary of Advantages and Disadvantages

Each of the four airport governance models compared in section 5.2 has its own set of advantages and disadvantages.

The **municipal governance model** provides a high level of control, enabling alignment with local strategic initiatives and access to public funding. However, this model presents issues related to administrative complexity. Airports that operate under this model may be affected by political considerations, which can hinder timely decision-making and responsiveness to business opportunities.

The **airport authority model** offers greater independence than the municipal governance model, as well as a more business-focused approach. As a result, airports that use this model are more likely to make rapid decisions and operate efficiently. However, this structure is better suited to airports that are financially self-sustainable.

The **non-profit organization model** combines business-oriented management with community representation. As a result, this model encourages partnerships and strategic growth while prioritizing flexibility. However, this model may make it challenging for an airport to remain financially self-sufficient. This model may also have inherent issues related to governance complexity.

The **economic development organization model** also prioritizes business acumen and encourages reinvestment in the airport and alignment with regional economic priorities. Airports operating under this model can operate independently, but competing priorities within the organization can still limit development opportunities.

For more information about the advantages and disadvantages of the four selected governance models, see Appendix D.

Governance Model Considerations for Ignace Municipal Airport

Any one of the four potential governance models could provide ZUC with ways to leverage its strategic location and available land. Each of the governance models may also present the airport with ways to capitalize on its existing partnerships while attracting investment and driving economic growth.

In order for ZUC to select the best governance model for its operations, the airport will need to determine the ideal balance between operational independence, financial sustainability, and alignment with local and regional priorities. However, before a governance model is chosen for ZUC, Ignace must determine whether the aerodrome will be reopened. (For recommendations regarding ZUC’s governance model, see section 11.2.5 of this report.)

6.0 Stakeholder Consultations

6.1 Overview of Stakeholder Consultations

Stakeholder engagement sessions are conducted in order to gain insights into an organization and its services. During the consultation process, representatives of the following groups are usually contacted:

- individuals who are responsible for providing the organization's services
- individuals who are responsible for overseeing the organization's services
- individuals who receive or use the organization's services

It is also common for the client who tendered a project to hold meetings with the third-party contractor hired to perform the required work.

6.2 Overview of Stakeholder Engagement for the Feasibility Study

During the feasibility study that was conducted for ZUC, consultation sessions were held with various stakeholders from Ignace, the NWMO, applicable government agencies, and applicable emergency management services in Northwestern Ontario.

Representatives of the following entities and business sectors participated in the stakeholder consultation process:

- prospective airport users
- tourism associations
- funding agencies
- investment thought-leaders
- community leaders
- business leaders

The stakeholder consultation process consisted of one-on-one interviews and a community-wide online survey. These initiatives encouraged participants to answer open-ended questions that were designed to let them speak freely about their roles, concerns, and expectations for ZUC. The participants were also asked questions about the airport's development potential, its overall level of investment readiness, and its level of competitiveness.

6.3 Findings of the Community Survey for the Feasibility Study

6.3.1 Key Survey Takeaways

- Seventy-one per cent of respondents think that reopening ZUC would positively impact the community, and 85 per cent of respondents think that the reopened airport would lead to the creation of local jobs.
- Ninety per cent of respondents do not have any environmental concerns about reopening ZUC.
- Fifty-nine per cent of respondents would support local funding initiatives to help reopen and maintain ZUC.
- Seventy-eight per cent of respondents stated that members of their households did not use ZUC when it was operational.
- Beyond operating ZUC as a transportation hub, 23 per cent of survey participants think that ZUC should focus on serving as an “air medical transport” facility, and 17 per cent of participants think that ZUC should focus on hosting events and tourism development.

6.3.2 Summary of Overall Community Opinion

The community survey for Ignace yielded a diverse range of opinions—both supportive and resistant—about the potential reopening of ZUC. These insights have been consolidated and organized into the categories below.

Support for Reopening

Business Attraction: Reopening ZUC may help attract workers, tourists, and businesses to the area.

Boosts Economy: Reopening ZUC can help support businesses in the area (such as the NWMO and MNR firefighting crews), as well as local industries (such as the mining sector).

Improved Connectivity: If ZUC is operational, it will provide transportation alternatives that can support emergency services and regional partnerships.

Supports Growth: If ZUC is operational, it may have the potential to support investments, reduce food insecurity, and enable rural residential development.

Concerns and Conditions

Financial Impact: There are high costs associated with reopening ZUC, and those funds may be better used for housing/infrastructure initiatives (especially if ZUC is used on a limited basis).

Viability: Historically, there has been inactivity at ZUC due to the small size of the local population, as well as the proximity to other airports in Dryden and Sioux Lookout.

Conditional Support: In order to determine whether ZUC should be reopened, a strong business case and feasibility study should be completed.

Local Business Impact

Economic Potential: Reopening ZUC may provide an increased amount of revenue for local tourism, hospitality, and essential services.

Challenges: There are mixed opinions regarding the lack of current attractions and the ability to sustain traffic levels at ZUC.

Job Creation Potential

Direct Roles: Reopening ZUC should create jobs directly related to airport management, maintenance, service staff, and aviation education.

Broader Impact: If ZUC is reopened, it may lead to broader job creation associated with transportation, logistics, warehousing, and supporting industries.

Desired Services and Amenities

Operational Needs: ZUC needs maintenance, refuelling, hangars, charter flights, and emergency services.

Passenger Amenities: ZUC needs food services, waiting areas, business facilities, and transportation options.

Strategic Partnerships

Key Stakeholders: ZUC has the potential to support partnerships with government agencies, Indigenous communities, local businesses, the NWMO, and aviation partners.

Public-Private Opportunities: ZUC may offer opportunities to engage in joint ventures and funding partnerships to reduce municipal costs.

Opportunities and Vision

Economic Development: Reopening ZUC will provide support for the NWMO, as well as construction projects, job creation opportunities, and business growth.

Community Accessibility: Reopening ZUC will improve local travel options, goods transport, and emergency services support.

Long-Term Growth: If ZUC is reopened, it can help position Ignace as a regional hub for employment and logistics.

Governance and Considerations

Broader Planning Needed: There needs to be a focus on housing and infrastructure initiatives alongside airport development projects.

Financial Viability: It is essential to ensure that investments in ZUC are strategic and align with long-term community goals.

6.4 Results of Stakeholder Consultations

For a detailed summary of the insights obtained during the one-on-one meetings and consultations, see Appendix C of this report.

7.0 Airport Site Development Options

7.1 Overview of Airport Site Development Options

This section provides an overview of four development options for ZUC that Ignace should consider:

1. Restore ZUC and reopen it as a functioning aerodrome.
2. Upgrade ZUC's facilities, reopen it as a functioning aerodrome with increased services, and consider making ZUC a certified airport in future.
3. Convert the ZUC property into a strategic supply chain and operations hub.
4. Convert the ZUC property into an outdoor wilderness and gateway hub.

7.2 Aerodrome Restoration

The restoration of the aerodrome would allow aviation operations to resume safely and efficiently. As such, the aerodrome facilities would offer many advantages to the surrounding area, as well as some potential challenges.

If Ignace restores and reopens ZUC as an aerodrome, the following will apply:

- Runway 05-23 dimensions would remain the same (3,512 ft. by 75 ft.).
    - The runway would be capable of supporting small aircraft, such as the Pilatus PC-12. At maximum, the runway could support a Dash 8-300.
- Recreational flying would continue to be the primary use of the aerodrome.
- Aviation fuel operations would resume, and lighting would be restored.
    - Resuming fuel operations would support the local flying community, as well as itinerant air traffic.
    - Airfield lighting would allow ZUC to resume night operations.
    - Restoring fuel services and lighting would support medevac operations and other emergency services that provide immediate assistance and life-saving support during accidents, fires, medical emergencies, natural disasters, and other critical situations.
- An operational aerodrome could encourage tourists to visit Ignace, positively impacting the local economy.
- The Ignace community supports the idea of an operational aerodrome (based on the results of the community survey).
- Ignace would resume the process of restoring the aerodrome.

- Major repairs are needed for ZUC to be used safely.
- ZUC would have minimal passenger facilities (including the runway and terminal building), limiting future growth opportunities.

In contrast, if the aerodrome is decommissioned at this time rather than restored, it may be difficult (or impossible) to resume aerodrome services at ZUC in the future.

7.2.1 Aerodrome Restoration Cost Analysis

If Ignace chooses to reopen ZUC as an operational aerodrome, several upgrades will be required.

Table 10 lists the repairs that would be required to make the aerodrome operational. The table also provides a “Class D” estimate of the costs required, including estimated project management costs and a 20 per cent contingency cost.

Table 10. Required repairs and associated costs (aerodrome restoration).

Item	Estimated Cost
Complete terminal upgrades	$383,500
Complete sewer and water system upgrades	$393,500
Remove and install fuel farm	$1,227,200
Replace the FEC	$38,350
Remediate the runway, taxiway, and apron	$1,677,220
Replace lighting	$1,626,790
Complete clearing and grubbing	$386,570
Install wildlife protection fencing	$767,000
Project management costs	$552,240
Subtotal	**$7,052,370**
Contingency (20%)	**$1,410,474**
Total	**$8,462,844**

In addition to the costs listed above, equipment purchases will require an estimated one-time capital cost of $850,000.

Furthermore, this option will require an annual operating budget of approximately $585,000. This budget will cover costs associated with ongoing maintenance and operations, as well as the salary of the airport manager.

Figure 5 shows a rendering of the restored aerodrome.

Figure 5. Rendering of Ignace Municipal Airport restoration.

7.3 Aerodrome Renovation

If Ignace chooses to reopen ZUC, it may choose to expand the facility's services. If so, ZUC may operate as either an aerodrome with increased functionality or a certified airport.

Ignace should consider several factors before choosing this option. The township should examine the direct and indirect impacts of the upgrades required, determine the community's current and future needs, and create long-term plans to ensure it can meet those needs.

If Ignace reopens ZUC as an aerodrome and completes renovations to enhance the facility's capabilities, the following will apply:

- ZUC would continue to operate as a registered aerodrome.
  - In future, ZUC may become a Transport Canada-certified airport.
- Runway 05-23 would be expanded to 5000 ft. by 150 ft and be reclassified as AGN-IIIA.
  - The runway would be able to support larger business jets, such as Learjets and Citation jets.
  - At a maximum, this runway could support a Global 5000.
- Aviation fuel operations would resume, and lighting would be restored.
  - Resuming fuel operations would support the local flying community, as well as itinerant air traffic.
  - Airfield lighting would allow ZUC to resume night operations.

    - Restoring fuel services and lighting would support medevac operations and other emergency services that provide immediate assistance and life-saving support during accidents, fires, medical emergencies, natural disasters, and other critical situations.

- Expanding the passenger facilities at ZUC (including the runway and terminal building) would allow for a potential increase in charter services. ZUC may also be able to support scheduled commercial traffic.
- ZUC may be able to pursue hangar development opportunities, leading to potential growth in the aviation business industry.
- ZUC's operations, maintenance, and safety procedures would improve as a result of perimeter fencing, a dedicated maintenance facility, and the adoption of standard regulatory practices.
- An operational aerodrome could encourage tourists to visit Ignace, positively impacting the local economy.
- The Ignace community supports the idea of an operational aerodrome (based on the results of the community survey).
- Major repairs are needed for ZUC to be used safely.
- There are currently no financial resources available through capital or operating budgets.
- Staff members will be required to conduct routine maintenance for safety purposes.

A cost analysis for this renovation is listed below. A more detailed analysis of the renovation is listed in section 10 of this report.

7.3.1 Full Airport Buildout Financial Cost Analysis

If Ignace chooses to renovate ZUC to increase the capability of the aerodrome, several upgrades will be required.

Table 11 lists the repairs that would be required to renovate ZUC. The table also provides a "Class D" estimate of the costs required, including estimated project management costs and a 20 per cent contingency cost.

Table 11. Ignace Municipal Airport build-out costs.

Repairs/Replacements	Estimated Cost
Complete groundside upgrades and expansions	$1,398,750
Complete terminal upgrades and construct maintenance garage	$8,682,440
Complete sewer and water system upgrades	$383,500
Remove and install fuel farm	$1,227,200
Replace the FEC	$25,120
Remediate the runway, taxiway, and apron	$19,305,330
Replace lighting	$1,240,090
Complete clearing and grubbing	$515,430
Install wildlife protection fencing	$958,750
Project management costs	$1,086,790
Subtotal	**$34,823,400**
Contingency (20%)	$6,964,680
Total	**$41,788,080**

7.4 Potential Airport Revenue Streams

ZUC does not currently have any revenue streams.

If Ignace restores or renovates ZUC, it could introduce services and fees that would generate revenue, such as:

- Introduce fuel flowage fees.
- Introduce a landing fee schedule (based on aircraft type or weight).
- Introduce an aircraft parking fee schedule (based on aircraft type or weight and length of stay).
- Introduce a passenger facility charge on a per-passenger basis.
- Introduce an airport development fee.
- Introduce an airport improvement fee (if regular services become available).
- Offer land leases for boxed hangars and a T-hangar.
- Install a vending machine within the ATB.

- Offer land leases in order to attract maintenance, repair, and overhaul services to ZUC.
- Offer land leases for groundside and airside development.
- Install a digital billboard on ZUC property that faces Highway 17.

7.5 Non-Aerodrome Alternative Land Uses

If Ignace does not choose to reopen ZUC as an aerodrome or airport, it should consider alternative land uses. Two potential alternative land uses are discussed below.

The options presented below have some limitations. If Ignace chooses either option, it will need to determine the level of financial investment required.

7.5.1 Strategic Supply Chain and Operations Hub

Ignace could lease the ZUC property to an investor or developer to establish a strategic supply chain and operations hub, serving a variety of industries. This hub could act as a centralized staging, logistics, and workforce support site, benefiting local businesses, mining operations, and other regional projects. While the NWMO may be one potential user of this facility, the hub would be positioned to attract and support a broad range of industry partners, enhancing economic opportunities for the region. (However, the NWMO's level of commitment to this development option is yet to be determined.)

This hub could include logistics and supply chain facilities, as well as specialized project infrastructure. It could also provide workforce and contractor services and economic and community integration services.

The main features of the strategic supply chain and operations hub are outlined below.

Logistics and Supply Chain Infrastructure

The hub could include the following logistics and supply chain infrastructure:

- **Warehouse and Distribution Centre:** Storage and distribution centre for project materials, specialized equipment, and just-in-time deliveries.
- **Secure Laydown and Staging Yard:** Outdoor storage area for large equipment, containers, and construction materials.
- **Intermodal Transport Hub:** Coordination point for shipping goods via truck, rail, and air.
- **Fleet Maintenance and Fueling Station:** On-site vehicle/equipment servicing and refuelling station (in order to reduce downtime for contractors).
- **Parts and Equipment Depot:** Stockpile of frequently needed components and repair parts (in order to minimize supply chain disruptions).

Specialized Project Infrastructure

The hub could include the following specialized project infrastructure:

- **Cold-Weather Equipment Storage:** Climate-controlled storage for sensitive equipment and technology used in extreme conditions.
- **Decontamination and Environmental Monitoring Station:** Facilities for cleaning equipment and monitoring environmental impacts.
- **Hazardous Material Handling Area:** Containment and disposal facilities for regulated materials.
- **Security and Access Control:** A secure perimeter with monitoring, badging, and controlled site access.

Workforce and Contractor Services

The hub could offer the following workforce and contractor services:

- **Training and Certification Centre:** Facilities for safety training, equipment operation, and site-specific certifications.
- **Worker Wellness and Recreation Facilities:** Fitness areas, common spaces, and outdoor recreation spaces to improve worker retention and morale.
- **Mess Hall and Food Services:** On-site dining hall, food trucks, or catering services to accommodate high-volume meal service.
- **Contractor Coordination Office:** Space for contractors, engineering firms, and logistics coordinators to manage operations.

Economic and Community Integration Services

The hub could offer the following economic and community integration services:

- **Indigenous Partnership Hub:** A dedicated space for Indigenous business partnerships, training, and employment programs.
- **Local Procurement and Supplier Centre:** A facility to support regional supplier capabilities (in order to streamline the procurement process for contractors).
- **Research and Innovation Centre:** A monitored site to support applied research (such as research in logistics and environmental sustainability).
- **Electric Vehicle Charging and Sustainable Energy Infrastructure:** Infrastructure to support sustainability initiatives related to fleet electrification.
- **Telecommunications and IT Hub:** A reliable high-speed data centre to support remote monitoring, project coordination, and emergency communications.

- **Multi-Use Conference and Meeting Space:** Dedicated space for project briefings, contractor coordination, and industry stakeholder meetings.

Concept Illustrations

Figures 6, 7, and 8 illustrate potential configurations for the facilities mentioned above. These illustrations are AI-generated and included as examples only.

Figure 6. Concept drawing of a supply chain and operations hub (Layout 1).

Figure 7. Concept drawing of a supply chain and operations hub (Layout 2).

Figure 8. Concept drawing of a supply chain and operations hub (Layout 3).

7.5.1.1 Site Assessment

The following site assessment evaluates the feasibility of repurposing ZUC into a strategic supply chain and operations hub. The assessment identifies the key strengths, weaknesses, opportunities, and threats associated with this proposal.

Overall, the hub could leverage its strategic location, existing infrastructure, and multi-sector potential to support major industrial projects. However, Ignace should also consider challenges related to the level of capital investment required, workforce availability, and long-term competitiveness.

Strengths

- **Strategic Location and Accessibility:** Proximity to Highway 17 provides direct access for trucks and logistics operations. Industries operating in Ignace can also leverage the CPKC main line, which runs east-west through the community. The switch yard and reload terminal offer efficient access to the rail network, providing direct connectivity to major centers across Canada and the United States, enhancing logistics and transportation opportunities.
- **Large, Available Land Base:** This base offers ample space for staging yards, warehousing, fleet maintenance, and specialized infrastructure without requiring extensive land acquisition.
- **Multi-Modal Transport Potential:** The site could serve as a coordination point for trucks and potential future air transport of specialized goods (such as just-in-time delivery).
- **Existing Infrastructure for Repurposing:** The existing runway, taxiways, and buildings could be adapted for laydown yards, storage, and operational support, reducing initial development costs.
- **Alignment with Regional Economic Goals:** The hub could support growth in industrial supply chains, contractor services, and logistics, benefiting both local businesses and larger industries.
- **Diverse Service Offerings:** The hub could offer a comprehensive set of logistics, workforce, and project infrastructure solutions, which could serve multiple industries, including the DGR project, resource extraction, energy, and construction.
- **Potential for Indigenous and Community Partnerships:** If the hub included a dedicated Indigenous Partnership Hub or local procurement centre, it could strengthen regional engagement and economic participation.

Weaknesses

- **High Upfront Capital Costs:** Significant investment is required for infrastructure work, including constructing warehouse facilities, improving roads, upgrading utilities, and adding security measures.
- **Limited Existing Workforce in Ignace:** Implementing this concept may require worker attraction initiatives, training programs, and temporary workforce accommodations.
- **Potential Land Use Conflicts:** Community stakeholders may have alternative visions for the site. In this case, Ignace may have to work with these stakeholders to build consensus.
- **Operational Complexity:** Managing multiple service offerings and industry partnerships could require strong governance and coordination efforts.

- **Remote Location for Some Suppliers:** Certain industries may prefer hubs closer to major urban centres, necessitating competitive incentives to attract tenants and contractors.

Opportunities

- **Support for Major Industrial and Infrastructure Projects:** The hub could cater to large-scale projects such as the NWMO supply chain, mining developments, or energy infrastructure expansion.
- **Workforce Development and Training Programs:** Establishing a training centre for certifications and site-specific skills could attract workers and strengthen regional employment.
- **Growing Demand for Secure Storage and Logistics:** There is an increased need for secure laydown yards, specialized warehousing, and just-in-time delivery solutions in northern supply chains.
- **Sustainability and Green Energy Integration:** The hub could incorporate electric vehicle charging, sustainable energy solutions, and eco-friendly logistics practices to align with industry trends.
- **Expansion of Digital and IT Capabilities:** A robust telecommunications and IT hub could support remote monitoring, security, and operational efficiency for contractors and suppliers.
- **Multi-Sector Appeal:** The hub could attract logistics providers, industrial suppliers, fleet operators, and emergency response teams, diversifying revenue streams.

Threats

- **Economic Fluctuations and Market Demand:** Changes in industrial activity, project delays, or downturns in key sectors could impact the demand for logistics and supply chain services. Similarly, the demand for services may decline after the DGR project is completed.
- **Regulatory and Environmental Compliance:** Development may require environmental approvals, zoning adjustments, and adherence to strict regulations for handling hazardous material.
- **Infrastructure Maintenance Costs:** Sustaining long-term operations, security, and facility upkeep may require ongoing investment and revenue generation strategies.
- **Competition from Larger Hubs:** More established industrial and logistics hubs in the region may offer stronger infrastructure and existing networks, posing a competitive challenge.

- **Public Perception and Stakeholder Buy-In:** Some community members may have concerns about industrialization, truck traffic, and environmental impacts, requiring strong engagement and communication efforts.
- **Distance to the DGR Site:** The ZUC site is approximately 30 km from the proposed DGR site. As a result, the NWMO may prefer to construct supply chain and operational support facilities at a location closer to the DGR.

7.5.2 Outdoor Wilderness and Gateway Hub

Ignace could lease the ZUC property to an investor or developer who would construct an outdoor wilderness and gateway hub. This hub would be designed to increase tourism in the Ignace area and would include a combination of accommodations, recreation, and community-driven elements. These new elements would transform the former airport into a unique outdoor destination for travellers, outdoor enthusiasts, and nature lovers.

The main features of the outdoor wilderness and gateway hub are outlined below.

Core Camping and Accommodation Features

- **Rustic Cabins and Glamping Tents:** The hub could offer a mix of traditional campsites, glamping yurts, and rustic log cabins for different camping preferences.
- **RV and Campervan Sites:** The hub could provide pull-through and back-in sites with power and water hookups for RV travellers.
- **Hike-In Tent Sites:** The hub could offer secluded sites with minimal impact, ideal for backcountry-style camping.
- **Group Camping Areas:** The hub could offer larger campsites designed for families, hunting/fishing groups, or small retreats.
- **Fire Pit and Gathering Areas:** The hub could include centralized communal firepits with seating and storytelling areas.

Outdoor Recreation and Activities

- **Lake Access and Docking Area:** The hub could provide access to Shell Lake and Three Mile Lake for canoes, kayaks, and small motorboats.
- **Fishing Platform and Cleaning Station:** The hub could include an area for easy fish cleaning and preparation.
- **Hiking, Nature, and Snowshoeing Trails:** The hub could include clearly marked trails for casual hikers and more challenging routes for adventurers. In the winter, some trails could be used for snowshoeing.

- **Mountain Biking Trails:** The hub could include biking trails designed for both beginners and more experienced riders.
- **Wildlife Observation Tower:** The hub could include an elevated structure for birdwatching and spotting wildlife.
- **Dark Sky Viewing Area:** The hub could include a dark area designated for stargazing, which would be perfect for seeing the northern lights.
- **Outdoor Sauna and Hot Tub:** The hub could include a Nordic-style sauna and wood-fired hot tub in a forest setting.
- **Ice Fishing Huts:** In winter, the hub could establish ice fishing huts on the lake.
- **ATV and Snowmobile Trails:** The hub could connect to existing off-road trail networks.
- **Archery and Axe-Throwing Range:** The hub could include a safe, dedicated area for archery and axe-throwing.

Culture, Community, and Educational Elements

- **Indigenous Cultural Area:** The hub could include a space for sharing local Ojibway traditions, storytelling, and crafts.
- **Outdoor Education Centre:** The hub could have a facility that offers wilderness survival workshops, navigation training, and ecological education.
- **Forest Canopy Adventure Park:** The hub could have a facility that includes ropes courses, zip lines, and treehouse platforms for climbing.
- **Local Hunting and Fishing Outfitter Hub:** The hub could serve as a base for guided hunting and fishing expeditions in partnership with nearby camps.
- **Seasonal Events and Markets:** The hub could host pop-up farmer’s markets, craft fairs, and outdoor concerts celebrating the local culture.

Consolidated Sports Fields

Ignace may consider combining several existing sports fields, such as baseball diamonds, soccer fields, basketball courts, and pickleball courts. This strategy can make operations and maintenance more efficient for these facilities. Consolidating these facilities could also make more land available, which Ignace could use to meet housing and development demands.

Special Events

The outdoor wilderness and gateway hub has the potential to host other special events. For instance, the Superior Classics Car Club—which hosts Drag Fest at the Terrace

Bay Airport—is receptive to expanding its annual event and believes the runway at ZUC would be an ideal potential location.

Concept Illustrations

Figures 9 and 10 illustrate potential configurations for the facilities mentioned above. These illustrations are AI-generated and included as examples only.

Figure 9. Outdoor wilderness and gateway hub (Layout 1).

Figure 10. Outdoor wilderness and gateway hub (Layout 2).

7.5.2.1 Site Assessment

The following site assessment explores the feasibility of transforming ZUC into an outdoor wilderness and gateway hub, highlighting its potential as a tourism and recreation destination.

Overall, the site benefits from its strategic location, natural surroundings, and existing infrastructure. However, the hub may face challenges related to the seasonal nature of the tourism industry, the costs of infrastructure upgrades, and competition within the regional outdoor tourism market.

Strengths

- **Strategic Location:** The site is situated along Highway 17, offering high visibility and accessibility for travellers, outdoor enthusiasts, and adventure tourists.
- **Large, Existing Land Base:** The site provides ample space for various outdoor activities, accommodations, and infrastructure without major land acquisition costs.
- **Proximity to Natural Assets:** The site is close to provincial parks, lakes, and wilderness areas, making it an ideal gateway for eco-tourism, fishing, hunting, and adventure sports.
- **Potential for Multi-Use Facilities:** The site contains enough space for cabins, RV sites, an outdoor adventure centre, and cultural tourism experiences.
- **Support from Local Community and Stakeholders:** Developing the hub could align with regional tourism strategies and economic diversification goals.
- **Existing Infrastructure for Repurposing:** The runway, taxiways, and buildings at ZUC could be adapted for new uses, reducing initial development costs.

Weaknesses

- **Seasonal Nature of Tourism:** The hub would rely on spring, summer, and fall visitors. Activity would be limited during winter months (unless the hub is properly marketed as a winter sports destination).
- **Infrastructure Requirements:** Upgrades would be needed to provide visitor amenities (such as accommodations, utilities, and access roads).
- **Distance from Major Population Centres:** Ignace is relatively remote, so strong marketing and incentives would be required to attract visitors.
- **Limited Local Workforce:** Operating the hub would require additional workforce attraction efforts or training for tourism and hospitality roles.
- **Potential Environmental Constraints:** Developing the hub may require environmental assessments and adherence to conservation guidelines.

Opportunities

- **Eco-Tourism and Adventure Tourism Growth:** There is a rising demand for sustainable tourism, including hiking, canoeing, wildlife viewing, and Indigenous cultural experiences.
- **Outdoor Recreation Partnerships:** There may be opportunities for collaboration with regional tourism organizations, outfitters, and Indigenous communities.
- **Government and Grant Funding:** Ignace may be able to access tourism development grants, infrastructure funding, and sustainability incentives.

- **Event Hosting and Guided Experiences:** The hub could host outdoor adventure events, training programs, and guided expeditions.
- **Winter Tourism Development:** The hub could support winter activities such as snowshoeing, cross-country skiing, and ice fishing to create year-round appeal.
- **Infrastructure for Remote Work and Digital Nomads:** The hub could include cabins or co-working spaces for visitors seeking an immersive wilderness retreat.

Threats

- **Economic Uncertainty:** The market demand for outdoor recreation may fluctuate based on broader economic conditions and discretionary spending trends.
- **Climate Variability:** Changing weather patterns could impact tourism seasons, outdoor conditions, and natural resource availability.
- **Competition from Established Destinations:** Other regional outdoor tourism hubs (such as Davy Lake Campground and Resort, which has 62 campsites) may already have established visitor bases and marketing strategies.
- **Environmental and Regulatory Challenges:** Permitting, zoning changes, and environmental restrictions could delay development or limit certain activities.
- **Infrastructure Maintenance Costs:** Long-term sustainability may require ongoing investment in site maintenance, utilities, and road access.
- **Public Perception and Community Buy-In:** Community stakeholders may have alternative visions for the site. In this case, Ignace may have to work with these stakeholders to build consensus.

8.0 Economic and Social Value Assessment

8.1 Overview of Economic and Social Value Assessment

The purpose of an economic and social value assessment is to examine potential initiatives and developments from the perspective of the community.

These kinds of assessments may consider a broad range of factors beyond direct financial gains, such as:

- job creation
- health care access
- the needs of an aging population
- community cohesion

8.2 Economic Value Assessment

8.2.1 Direct and Indirect Economic Contributions

Airports play a crucial role in driving local economic growth, offering both direct and indirect benefits. Common examples of these benefits are provided below.

Direct Economic Contributions

- Airports can stimulate employment opportunities, such as on-site jobs (including airport staff, airline support services, and ground operations).
- Airports can generate revenue through fuel sales, landing fees, parking fees, land leases, and investment opportunities.

Indirect and Induced Impacts

- Airports stimulate economic activity by supporting tourism, business travel, and cargo logistics.
- An increased level of household spending from airport-related employment can contribute to additional jobs within the community.

In order to determine the different kinds of direct and indirect economic contributions that ZUC can provide to the community, various alternative development scenarios were examined. These scenarios included the repurposing of ZUC as wilderness gateway or a supply chain hub. Each option would maintain economic impact principles, and they would offer potential economic diversification for Ignace.

Although repurposing ZUC may help generate revenue for Ignace, it is also worth considering the option of placing alternative land uses at other community locations. If Ignace pursues this option, ZUC will continue operating as intended while also pursuing new development opportunities. However, in order to fully assess the benefits of this "dual strategy" approach, Ignace is advised to conduct a comprehensive financial analysis (which is beyond the scope of this report).

8.2.2 Additional Economic Opportunities

Examples of other economic opportunities that Ignace may want to consider are as follows:

- **Ring of Fire Mining Project:** Reopening ZUC could offer strategic value as a support hub for mining operations (as they develop). This option could strengthen economic ties with the resource sector.
- **Medevac Services:** Given the aging population in Ignace, re-establishing medevac operations at ZUC could significantly improve emergency medical access. This option has the potential to yield both economic and social benefits.
    - Although Ornge has not used ZUC for roughly 15 years, the company has used the facility previously. This history of prior use suggests that Ornge may view the use of ZUC as a viable option in the future (if the appropriate infrastructure improvements are made).

8.3 Social Value Assessment

Airports are social assets that can support community well-being and connectivity by facilitating social interaction, enhancing accessibility, and providing emergency response readiness. For example:

- Airports can serve as community hubs that support events, local business opportunities, and cultural exchanges.
- Airports can facilitate improved access to health care services, such as medevac services. These services are especially important for communities that have identified the necessity to address the needs of vulnerable persons, such as seniors.
- Maintaining an operational airport ensures community safety by providing a staging area for disaster response and emergency services.

In terms of community engagement initiatives, airports can facilitate collaborations with local businesses (by providing retail opportunities, economic development options, and support for local supply chains). Airports can also host educational programs (such as job training and educational workshops) through collaborations with schools and other organizations.

Based on the comments received during the stakeholder consultation portion of this aerodrome feasibility study (as summarized in section 6 of this report), there is strong community support for retaining ZUC. Collectively, the comments provided by the stakeholders highlight the role that ZUC plays in supporting the local economy and social cohesion among the township’s residents.

9.0 Business Investment Funding Options

9.1 Overview of Business Investment Funding Options

This section of the report presents various funding options that ZUC may want to explore and leverage. If ZUC decides to implement any of the development concepts proposed in this report, the funding options discussed below may help support an applicable implementation strategy.

9.2 Enhance Your Community Program

The Enhance Your Community Program is offered by the Northern Ontario Heritage Fund Corporation. This program provides financial support for community and economic development initiatives that strengthen municipalities, Indigenous communities, and organizations in Northern Ontario. The program offers a conditional contribution of up to 50 per cent of eligible costs, with a funding cap of $2,000,000.[9]

Eligible applicants include municipalities, Indigenous communities, not-for-profit organizations, and local service boards. Funding can support incremental improvements, repairs, and renovations. The funding can also support capital and non-capital projects that contribute to business retention and attraction, investment readiness, and economic development. In addition, the program is used to fund technical expertise, project-related human resources, and other initiatives that strengthen local and regional economies.

Some airport-related projects may be eligible to receive funding from this program. These projects include infrastructure improvements, investment attraction, and economic development initiatives that align with the strategic priorities of the Northern Ontario Heritage Fund Corporation.

9.3 Strategic Innovation Fund

The Strategic Innovation Fund ("**SIF**") supports innovative projects across Canada. Under the management of Innovation, Science and Economic Development Canada, the SIF offers a straightforward application process and provides focused assistance aimed at achieving tangible results.[10]

[9] https://nohfc.ca/public-program/enhance-your-community-program/

[10] https://ised-isde.canada.ca/site/strategic-innovation-fund/en

The primary goal of the SIF is to drive significant investments in various sectors of the economy, thereby enhancing Canada's position in the global market centred around knowledge and innovation.

The role of the SIF is to help Canadian businesses and organizations create quality jobs and build a robust economy. Some of the key objectives of the program include:

- Encourage businesses to invest in research and development to create new technologies and bring new products, processes, and services to market.
- Support the growth and expansion of innovative companies in Canada.
- Attract and retain substantial investments in Canada.
- Cultivate partnerships among the private sector, research institutions, and non-profit organizations, especially in areas of emerging technologies and industrial research and development.

Due to the program's success, there is considerable competition for the available funds. Currently, the SIF is only accepting project submissions related to critical minerals, aerospace, and efforts to reduce emissions from large sources. It is expected that funding for new projects outside of these three categories will not be available until 2028.

9.4 Tourism Growth Program

The Tourism Growth Program is a federal initiative aimed at supporting economic development and tourism diversification across Canada, with $108 million allocated over three years. In Northern Ontario, the program provides funding to help small and medium-sized enterprises, not-for-profit organizations, municipalities, and Indigenous communities enhance local tourism products and experiences.[11]

Program Objectives

Eligible projects should have the following objectives:

- Increase visitation from urban centres to rural areas.
- Support Indigenous-led tourism initiatives.
- Promote economic, environmental, and cultural sustainability.
- Expand active outdoor tourism experiences (such as hiking, cycling, and adventure tourism).
- Extend the tourism season beyond traditional peak periods.

[11] https://fednor.canada.ca/en/our-programs/tourism-growth-program-tgp-northern-ontario

Funding and Eligible Costs

The program supports both capital and non-capital expenses:

- Capital costs refer to items such as infrastructure development, trail creation, facility improvements, and equipment purchases.
- Non-capital costs refer to items such as marketing, product development, professional services, community engagement, and technology integration.
- Funding is capped at $250,000 per recipient.
- Cost-sharing is available, up to 50 per cent for capital projects and 75 per cent for non-capital projects (higher for non-commercial initiatives).
- Indigenous-controlled businesses with broad community benefits may receive non-repayable contributions.

Additional Considerations

- Projects must provide clear economic benefits to Northern Ontario.
- Applications are assessed on an ongoing basis, considering business case, financial viability, and funding availability.
- Receiving funding is not guaranteed, as approvals depend on meeting program criteria and available budgets.

The Tourism Growth Program aligns with the Federal Tourism Growth Strategy by focusing on long-term growth, investment, and stability in Canada’s tourism sector, ensuring sustainable economic benefits for Northern Ontario communities.

9.5 Mitacs

Mitacs can facilitate access to funding and promotional innovation through collaborative efforts. This organization connects academic institutions, government agencies, and other industries to create research-based solutions. The purpose of these initiatives is to address various challenges faced by organizations while also enhancing Canada’s overall capacity for innovation.

ZUC can use the Mitacs programs to partner with universities and colleges on projects that cater to specific needs within the airport or related industries, such as improvements in aerospace systems, logistics, or environmental practices. These partnerships can help ZUC strengthen its local and international collaborations, boost its economic performance, and contribute to job creation.

9.6 Airport Development Fund

Aviation and non-aviation activities at ZUC have the potential to make positive impacts on the local economy. For example, the airport can be used to attract new investments, create job opportunities, and enhance the local tax revenue.

In order to support the funding of rehabilitation or new infrastructure projects at ZUC, the airport should consider creating an airport development fund ("**ADF**"). This fund would help meet the long-term financial needs related to maintaining and upgrading airport facilities.

The ADF would be financed by using a portion of the property taxes collected from new investments made from a set date onwards (excluding any taxes from properties that have already been built). Under this arrangement, ZUC would receive a share—ranging from 1 per cent to 100 per cent—of the new taxes arising from the construction of new buildings on airport property.

The funds generated through the ADF would be strictly allocated for the maintenance and repair of airport infrastructure. Furthermore, if the tax revenues exceed the necessary funding amounts for infrastructure needs, any surplus could be returned to the local municipality. This structure aims to ensure that any additional funds benefit the community while addressing the airport's development requirements.

9.7 Initiatives for the Provincial Government

The Airport Management Council of Ontario ("**AMCO**") has identified that the ongoing deterioration of airport infrastructure across the province is posing a significant threat to the long-term viability of Ontario's airports. In response, AMCO has conducted a study and actively lobbied the provincial government to establish dedicated support for small aerodromes. The study recommends that Ontario take a stronger leadership role in advocating for its airport network, introducing a capital funding program similar to those found in other provinces. While this initiative remains in its early stages, it has the potential to provide much-needed financial support for airport infrastructure improvements.

The Role of the Township of Ignace

Ignace can support AMCO by advocating for the inclusion of regional airports (including ZUC) in future provincial funding programs. By engaging with AMCO and applicable provincial representatives, Ignace can help highlight the economic and community benefits of maintaining and improving small airports. Additionally, the township can collaborate with local businesses, Indigenous partners, and industry stakeholders to reinforce the importance of airport infrastructure fur emergency services, economic development, and transportation connectivity in Northwestern Ontario.

9.8 Federal Government

The Canadian federal government plays a crucial role in supporting private sector investments at regional airports through various grants, funding programs, and tax incentives. Federal research and development tax credits encourage businesses to invest in innovative solutions. In addition, accelerated capital cost allowances enable companies to recover capital investment costs more quickly, reducing taxable income and promoting further infrastructure investment.

These programs can provide ZUC with opportunities to attract industries specializing in technology, infrastructure, and innovation. Additionally, targeted financial support from organizations like Natural Resources Canada and the SIF can assist businesses across various sectors, such as clean technology, infrastructure development, and aerospace. By strategically leveraging these federal resources, ZUC can enhance its investment appeal, encourage business growth, and improve its long-term sustainability and competitiveness.

ZUC is also well-positioned to apply for funding from the Federal Economic Development Agency for Northern Ontario ("**FedNor**"), which supports economic growth initiatives in Northern Ontario.

In order to be deemed eligible for funding from FedNor, several criteria must be met, including:

- **Economic Benefit:** Demonstrate a positive impact on Northern Ontario's economy in the short-to-medium term.
- **Job Creation:** Provide evidence of new or retained jobs in the region.
- **Competition:** Ensure the project does not negatively impact existing businesses.
- **Community Priorities:** Align with local economic development strategies.
- **Project Viability:** Demonstrate financial feasibility and the need for assistance.
- **Government Funding Compatibility:** Ensure the project does not replace other government programs.
- **Additional Funding Sources:** Show the potential to leverage other investments.
- **Support for Official Language Minority Communities:** Contribute to the development of bilingual or minority language communities.

The Role of the Township of Ignace

Ignace can support these efforts by actively advocating for federal investment in regional airport infrastructure and ensuring that ZUC is included in funding discussions.

Ignace can also:

- Engage with FedNor, Natural Resources Canada, and other funding bodies to highlight the strategic value of ZUC.
- Partner with local and regional businesses to promote investment opportunities.
- Support feasibility studies and project planning to enhance ZUC's funding eligibility.
- Collaborate with Indigenous communities and economic development organizations to align funding applications with regional priorities.

By taking an active role in these initiatives, Ignace can help secure critical investments that strengthen its transportation infrastructure while stimulating economic growth and positioning ZUC as a key asset for regional development.

10.0 Airport Development Design Strategy

10.1 Overview of the Airport Development Design Strategy

This section of the report outlines an airport development design strategy for expanding and revitalizing the existing infrastructure at ZUC (as suggested in section 7.3 of this report).

The proposed approach involves enhancing critical facilities (including the runway, terminal, taxiways, and support buildings) to accommodate anticipated growth and evolving operational needs.

The airport development design strategy is based on the following considerations:

- safety
- sustainability
- operational efficiency
- site constraints
- passenger traffic
- stakeholder comments

This section of the report also includes a detailed airport site plan. The site plan can be used to guide resource allocation and align development projects at ZUC with regional opportunities.

10.2 Development Concepts

The airport development design strategies that are proposed for ZUC focus on equipping the facility to handle the projected growth associated with the DGR project. The strategies are also intended to help ZUC maximize its potential to attract more industries to the Ignace area.

10.3 Airport Design Specifications

10.3.1 Runways, Taxiways, and Aprons

ZUC should make the following changes to Runway 05-23:

- Add approximately 1,500 ft. to the southern end of the runway, increasing its total length from 3,512 ft. to 5,000 ft.
- Double the width of the runway, increasing its width to 150 ft.

This expansion will allow ZUC to accommodate various types of large aircraft, such as business jets. At a maximum, ZUC could support a Global 5000.

ZUC should also expand its taxiway to provide access from the runway's midpoint to the apron, supporting future hangar development.

ZUC should also expand its apron from 55,000 sq. ft. to 130,000 sq. ft. By expanding the apron, ZUC will be able to accommodate higher traffic volumes and enhance safety. Expanding the apron may also allow ZUC to offer aircraft tie-down and parking services, which can generate revenue.

ZUC should assess the load-bearing capacity of the pavement to ensure that it meets operational needs.

10.3.2 Aviation Fuel Operations

ZUC should relocate its aviation fuel tanks to the southern end of the apron to improve safety and logistics. Removing the tanks from their current location will allow ZUC to confirm if any issues require remediation.

In addition, ZUC should make its jet fuel and Avgas fuelling pumps operational. It should also install cardlock systems for self-serve fuelling. These systems can reduce ZUC's staffing needs and attract a broader range of aircraft.

10.3.3 Airport Terminal Building

The current ATB at ZUC is 2,000 sq. ft. in size. Although the ATB is functional, it lacks the capacity to accommodate an increased volume of passengers. As such, ZUC should construct a 4,000 sq. ft. ATB expansion.

The expansion of the ATB will provide seating areas for up to 56 passengers (inbound and outbound), as well as additional washrooms, a baggage claim area, and enhanced passenger amenities.

10.3.4 Operations and Maintenance Support Building

ZUC should construct a 4,800 sq. ft. operations and maintenance support building. This building would house equipment and provide a workspace for the staff at ZUC. The building should have the capacity to accommodate maintenance activities (such as lighting repairs, vehicle storage, and equipment management), and it should also have groundside and airside access (to enable the efficient movement of staff members and resources).

10.3.5 Field Electrical Centre

ZUC should install a new, pre-cast FEC to replace the existing structure, which has deteriorated.

ZUC should also install new runway edge lighting to support night operations. It should also upgrade its VASI to a PAPI to provide a better visual tool for a more precise approach, improving pilot safety.

10.3.6 Groundside Infrastructure

ZUC should assess the functionality, compliance, and future capacity needs of its septic system. In addition, ZUC should assess its well capacity and conduct water quality tests to ensure that its infrastructure meets applicable health and safety standards.

10.3.7 Critical Equipment

ZUC should consider purchasing a half-ton pickup truck for runway friction testing and airfield maintenance. In addition, in order to ensure safe airport operations during the winter, ZUC must conduct winter runway maintenance using equipment that is designed for that purpose. As such, ZUC should also consider purchasing dedicated snow removal equipment. Various types of airport equipment are designed to push and blow snow and sweep runways, and ZUC should ensure that its winter equipment and vehicles are used exclusively at the aerodrome. Doing so will help avoid surface contamination with salt from roadways.

ZUC should perform the following annual maintenance on its wind direction indicator to remain compliant with Transport Canada safety regulations:

- Ensure the mast of the wind direction indicator can rotate freely around the shaft.
- Replace the windsock annually (or as needed) to ensure the fabric is free from damage or colour fading.
- Ensure the windsock is lit to maintain safety and visibility during nighttime operations.

ZUC should also ensure that all maintenance activities are documented appropriately.

10.3.8 Wildlife Control

Effective wildlife management is critical to maintaining aircraft safety. ZUC should ensure that it has enough staff members who are available and trained to conduct wildlife management operations and report wildlife strikes.

ZUC should implement proactive control strategies to minimize risks to aircraft. Ongoing control measures can help reduce the presence of species that are hazardous to aircraft movements.

ZUC should also conduct regular airfield inspections to reduce wildlife encounters with arriving and departing aircraft.

10.3.9 Staffing Levels and Hours of Operation

In order to maintain safety and compliance with Transport Canada regulations, ZUC should take the following actions:

- Remain accessible on a 24/7 basis for flight operations, keeping the terminal open during limited hours.
- Use self-service systems, such as a fuel card lock system and aircraft radio control of aerodrome lighting.
- Hire one airport manager to oversee operations at ZUC. As operations expand, consider hiring part-time support personnel.

By taking the actions listed above, ZUC can introduce an operational model that is scalable in proportion to the growth of the aerodrome’s operations. This model is designed to balance cost efficiency and operational readiness.

10.4 Proposed Site Designs and Layout

Figures 11 and 12 illustrate the site design/layout of proposed airport development options at ZUC.

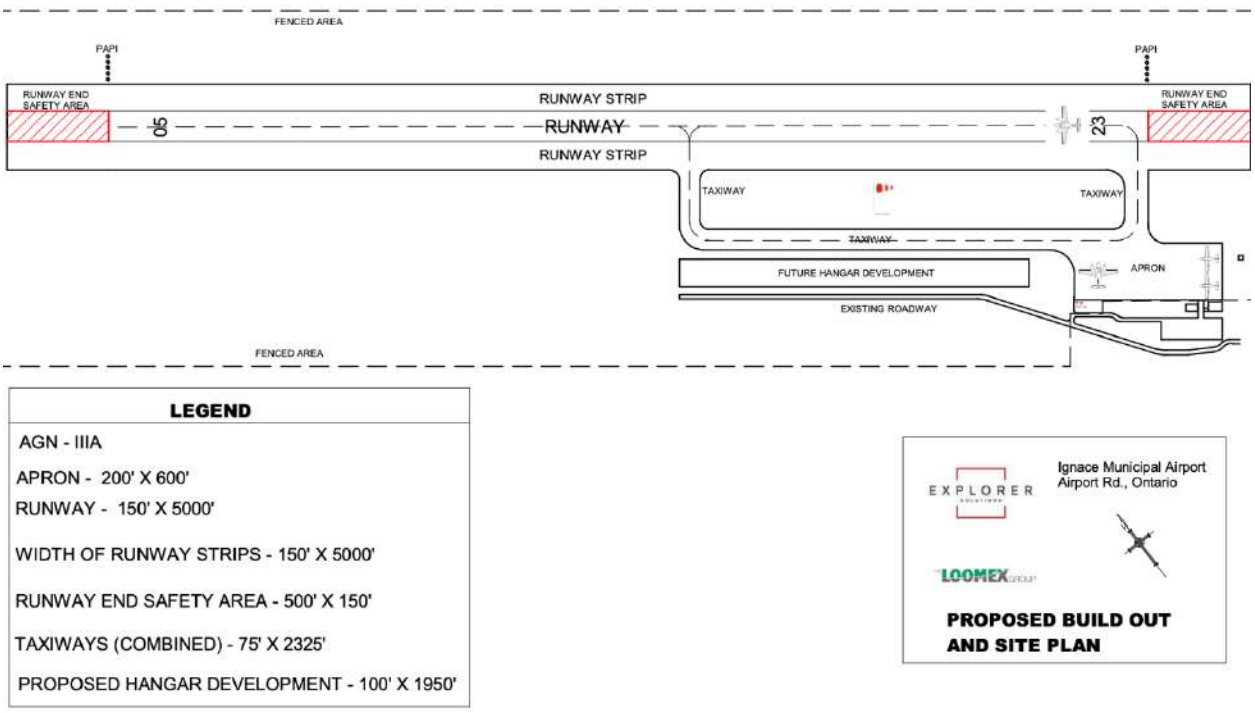

Figure 11. Proposed buildout and site plan, Ignace Municipal Airport.

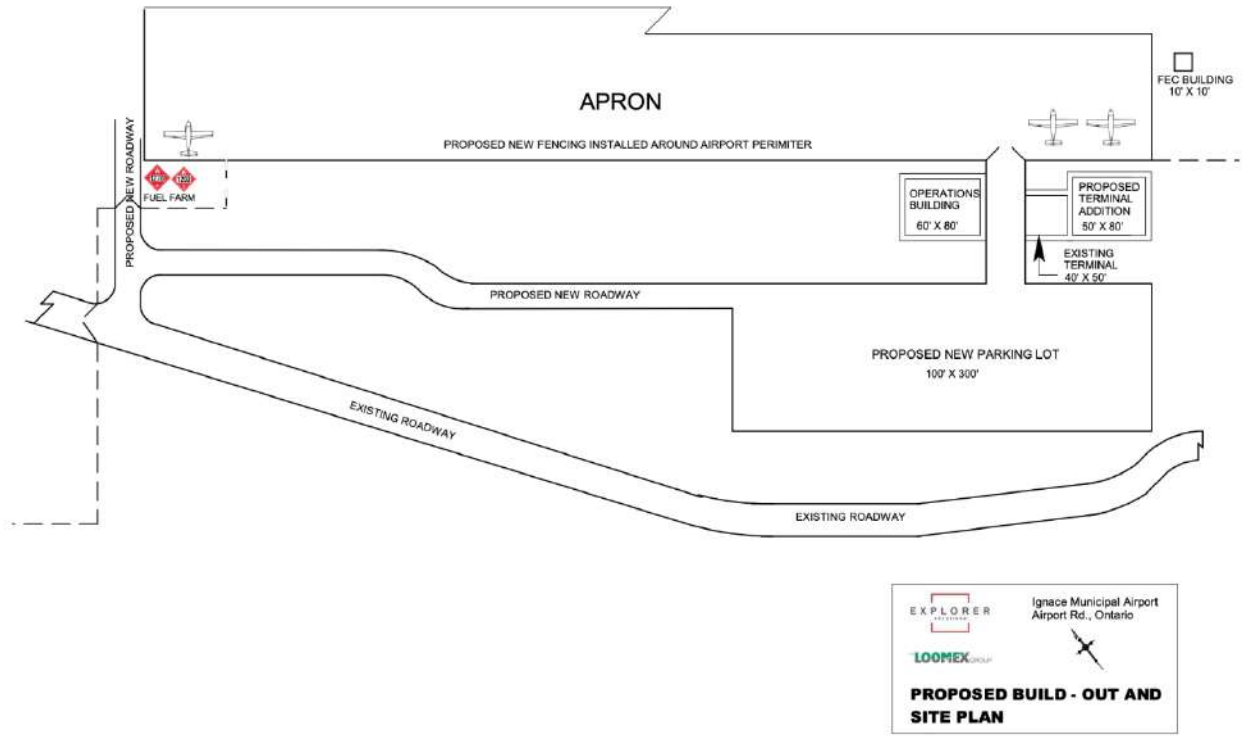

Figure 12. Proposed buildout and site plan, Ignace Municipal Airport.

11.0 Recommendations

11.1 Overview of Recommendations

This section of the report presents a series of recommendations designed to help ZUC attract business investment and drive sustainable growth. These recommendations are based on the findings of the feasibility study that have been presented throughout this document.

The recommendations provide ZUC with strategies that can help the facility:

- Enhance its appeal to investors
- Strengthen its partnerships.
- Diversify its revenue streams

Additional information that provides context or justifies the intent of the recommendations is also included (as applicable). In some cases, the decision to implement a recommended strategy will depend on whether ZUC or Ignace plans to take a specific course of action. For instance, if Ignace decides to decommission ZUC, restoration of the airport site will not be needed.

By focusing on infrastructure investments, industry-specific collaborations, and emerging market opportunities, ZUC may have the potential to position itself as a competitive and attractive investment hub in Northwest Ontario.

11.2 Summary of Recommendations

11.2.1 Immediate Actions

Given the current state of aerodrome safety measures and infrastructure at ZUC, immediate action is required to mitigate liability risks and ensure regulatory compliance. By completing the required tasks, Ignace can address pressing safety concerns, regulatory obligations, and liability risks in order to position the site for its next phase of development.

Temporary Runway Closure

- Due to inactive aerodrome safety measures, Ignace should issue a NOTAM regarding a temporary runway closure. This action will prevent unauthorized aircraft operations and reduce safety risks.

Fuel Tank Removal and Environmental Mitigation

- The on-site fuel tanks are aging, and they present increasing liability risks, including the threat of potential contamination. Ignace should initiate the removal of these tanks to mitigate environmental hazards.
    - A preliminary environmental assessment should be conducted to determine whether any contamination has already occurred. Appropriate remediation efforts should then take place (as needed).

Permanent Closure and Decommissioning (If Applicable)

- If Ignace decides to close ZUC permanently, the township must formally notify Transport Canada so that all relevant aviation publications can be updated accordingly.
- In accordance with regulatory requirements, permanent closure markings must be placed on the runway as a clear indication that ZUC is no longer in operation.
- Ignace should plan to repurpose the property at and around ZUC for alternative community or economic development purposes.

11.2.2 Restoration of Ignace Municipal Airport

In order to re-establish ZUC as a functional aviation facility, Ignace is advised to proceed with restoring the aerodrome to its original design while maintaining a focus on operational sustainability. Restoring ZUC to its original design will reinforce its role as a regional aviation asset, support recreational flying, and provide essential services to small aircraft operators while keeping operational costs and infrastructure investments manageable.

Continued Operation as a Registered Aerodrome

- Maintain ZUC’s status as a registered aerodrome to support general aviation activities and small-scale air operations.
- Continue using the ATF of 122.3.

Runway Restoration

- Rehabilitate Runway 05-23 to its original dimensions of 3,512 ft. by 75 ft. and ensure that it meets applicable safety and operational standards for light aircraft.
    - The primary use of the restored runway should be to accommodate recreational flying. However, the runway should be capable of supporting other aircraft (such as the Pilatus PC-12) with a maximum operational capacity to accommodate a Dash 8-300.

Resume Aviation Fuel Services

- Reintroduce aviation fuel operations to support local and transient aircraft, ensuring reliable access to fuel for pilots and operators.
- Implement necessary safety and environmental compliance measures to prevent contamination and ensure long-term viability.

Minimal Passenger Facilities

- Maintain basic passenger facilities to accommodate small-scale aviation needs, with a focus on recreational flyers and private aircraft operators.
- Avoid significant infrastructure expansions beyond what is necessary for core aviation functions.

11.2.3 Full Airport Buildout for Ignace Municipal Airport

In order to position ZUC as a regional aviation hub with expanded operational capacity and commercial viability, Ignace is advised to pursue a full airport buildout. Doing so can enhance regional connectivity, attract aviation-related businesses, support economic growth, and provide private and commercial aviation services.

Expanded Operations for Potential Transport Canada Certification

- Maintain operations as a registered aerodrome, with a long-term objective of achieving Transport Canada certification to support commercial air service.
- Continue using the ATF of 122.3.

Runway Expansion and Upgrades

- Extend Runway 05-23 to 5,000 ft. by 150 ft. to support a wider range of aircraft.
- Upgrade the runway classification to AGN-IIIA to support business jets (such as Learjets and Citation Jets) and larger aircraft (such as the Global 5000).

Aviation Fuel Services

- Establish and operate aviation fuel services to support general aviation, business aviation, and potential commercial air traffic.

Expanded Passenger Facilities

- Develop passenger terminal infrastructure to facilitate scheduled commercial service and improve the overall passenger experience.
- Include essential passenger amenities but ensure scalability for future growth.

Opportunities for Hangar Development and Business Growth

- Encourage hangar development to attract aviation businesses, maintenance operations, and private aircraft storage.
- Support economic development by positioning ZUC as a hub for business aviation, charter services, and aerospace-related industries.

11.2.4 Environmental Considerations

The preliminary constraints analysis completed as part of this study noted several environmental concerns that ZUC should consider when developing the property. In order to address these concerns, ZUC should pursue several environmental initiatives.

Additional Field Studies

Conduct further field studies to characterize and map the water features and wetlands at and around ZUC. The study can also identify applicable constraints that may arise when pursuing initiatives that may affect these areas.

A study should also be conducted to confirm the presence/absence of any habitats that support endangered and threatened species. This study can also be used to identify any sensitive wildlife habitat areas, including nesting sites and fish spawning/nursery sites.

The potential developable area at ZUC will be determined by the results of these additional field studies.

Environmental Impact Study and Wetland Evaluation

Investors or developers that proceed with a development application for the subject property at ZUC may need to conduct an environmental impact study and wetland evaluation. If those studies are required, they will need to be completed to the satisfaction of Ignace and the MNR.

Species- and Habitat-Specific Surveys

Conduct species- and habitat-specific surveys to confirm compliance with regulations that affect proposed development at ZUC. Ensure that the proposed development does not contravene sections 9 and 10 of the Endangered Species Act, as well as other applicable municipal policies.

Wildland Fire Assessment and Mitigation

Before pursuing any development in the “Wildland Fire Hazard Area,” potential risks should be mitigated in accordance with the wildland fire assessment and mitigation standards that have been identified by the MNR.

Engage with the Ministry of the Environment, Conservation and Parks

It is possible that some projects will impact endangered or threatened species. If those impacts cannot be avoided, ZUC should work directly with district staff members from the Ministry of the Environment, Conservation and Parks to develop applicable agreements or permits.

The preliminary constraints analysis completed as part of this study identified areas of low, medium, and high constraint in regard to development at ZUC. It is the responsibility of the investor (or developer) to ensure that the development meets all municipal, regional, provincial, and federal requirements.[12]

11.2.5 Airport Governance

Based on the findings of the feasibility study, Ignace should continue governing ZUC through a local government entity. This model will maintain strategic control, financial stability, and alignment with municipal economic and tourism priorities.

Although the recommended governance model presents some challenges (such as administrative delays and funding constraints), those issues can be mitigated through proactive planning, strategic partnerships, and strengthened governance practices.

11.2.6 Partnership Development

It is essential for Ignace to develop strategic partnerships to maximize the economic potential of ZUC. By forming partnerships with provincial economic development organizations, local businesses, and other key stakeholders (such as the NWMO), Ignace can position itself as a critical player in regional development.

Examples of suggested partnerships are provided below.

Reopen and Revitalize Ignace Municipal Airport

In order to reopen and revitalize ZUC successfully, partnerships with government agencies, aviation companies, and local businesses will be required. For example:

- Regional and federal transportation authorities can help secure funding and technical support for necessary upgrades and operational readiness.

[12] The supplemental report provided does not evaluate constraints to development on the subject property for any matters except for natural heritage (as discussed). As such, the report cannot guarantee that development will be permissible. Furthermore, the supplemental report is prepared under the assumption that the proposed development will require approval under the Planning Act.

- Aviation service providers (such as charter companies) can help ZUC position itself to meet the evolving transportation needs of the region.
- Local businesses and community organizations can help garner public support for the reopening of ZUC, which may stimulate local economic activity.

Leverage Provincial Economic Development Networks

Ignace should engage with provincial economic development associations. Doing so can help the township gain insights into the businesses within the Kenora District that are contemplating expansion.

By studying the needs of regional businesses, ZUC can assess whether it has the capacity to support their operational and logistical needs. In addition, forming connections with those organizations can lead to opportunities for long-term economic growth. The partnerships can also support existing industries in the region, as well as attract new investment opportunities.

Support the NWMO Deep Geological Repository Project

Given the regional importance of the DGR project, ZUC should continue to explore different ways to serve as a critical supply chain and operations hub. For instance, ZUC may have the capacity to offer specialized services (such as freight transportation or logistics). ZUC may also be able to support the project's construction and operational needs or the fly-in fly-out needs of NWMO personnel.

Additionally, strengthening Ignace's existing relationship with the NWMO could enhance the infrastructure at ZUC and create long-term, sustainable employment opportunities.

Tourism and Wilderness Hub

If Ignace decides to repurpose ZUC as a gateway for outdoor tourism, there are several organizations that may want to partner with the township. These potential partners include with tourism organizations, outdoor recreation groups, and regional tourism boards.

There are several potential benefits associated with this initiative, such as:

- ZUC can serve as a key transportation hub for visitors exploring the area's wilderness, lakes, and outdoor activities.
- Partnerships with tour operators, lodges, and outdoor adventure providers could position ZUC as a critical player in the development of a sustainable tourism hub.
- There is the potential to generate new revenue streams, boost local business, and increase regional visibility as a premier destination for outdoor enthusiasts.

11.2.7 Strategies for Regional Business Investment Attraction

Some examples of general aviation strategies are as follows:

- **Aviation Events:** ZUC should organize, promote, and host aviation events, such as airshows, fly-ins, and pilot training workshops. Doing so may help the airport attract aviation enthusiasts from around the world.
- **Infrastructure Development:** ZUC should improve its airport infrastructure by expanding its hangar facilities and building maintenance services. The airport should also try to offer competitive fuel prices to attract investors who are looking to establish aviation-related businesses.
- **Support Services:** ZUC should provide comprehensive support services to meet the demands of general aviation visitors. Examples of these services include flight planning assistance and concierge services.
- **Marketing Campaigns:** ZUC should launch targeted marketing campaigns using established aviation-industry platforms, social media platforms, and aviation-related publications. The goal of the marketing campaigns should be to raise awareness about the services and facilities available at the airport.
- **Networking Opportunities:** ZUC should facilitate networking opportunities by hosting various industry conferences, trade shows, and events to connect potential investors with local aviation businesses and entrepreneurs.
- **Collaboration with Indigenous Communities:** ZUC should form partnerships with local Indigenous communities to support economic development initiatives, create aviation and aerospace training programs for Indigenous youth, and promote sustainable practices in the sector.

By implementing the strategies listed above, ZUC can leverage its remote location within the region and attract aviation and aerospace companies that have the means to contribute to local economic growth.

11.2.8 Strategies for Investment Readiness

Some examples of strategies to prepare ZUC for potential business investment are as follows:

- **Infrastructure Improvements:** Before it can support specific business activities, ZUC may need to upgrade key airport infrastructure, modernize the facilities in its terminal building, and develop aviation-related infrastructure (such as additional hangars, aprons, and taxiways).

- **Regulatory Support:** If a business is interested in the aviation industry, ZUC should guide that business through the necessary paperwork and make sure the business knows how to comply with the rules associated with flying and operating at the airport.
- **Business Development Services:** ZUC should create programs and services that will help new and growing businesses thrive. (These initiatives can be developed in conjunction with local partners, such as the Kenora District Services Board and Destination Northern Ontario.) For example, the airport should offer programs that provide clients with advice and opportunities to meet and learn from industry experts. In addition, ZUC's staff members and contacts should have a deep knowledge of the services and partners in the area that could support their tenants.
- **Industry Partnerships:** ZUC should work with organizations, government bodies, post-secondary institutions, and other groups to share knowledge and resources. This collaboration can help bring more businesses to the airport and support them as they grow.
- **Marketing Plan:** ZUC should develop a marketing plan to explain why the airport is an excellent investment option. That plan should highlight the airport's unique features, such as its location, available skilled workers, and potential for growth. In order to ensure the marketing plan is robust, ZUC may want to create a downloadable resource for potential investors (or update its website accordingly).
- **Community Engagement:** ZUC should consult with local residents, Indigenous groups, and nearby stakeholders on a regular basis to ensure that all potential business investments at the airport are good for the community. During this process, the airport should emphasize how new businesses can help create jobs and other opportunities that will benefit area residents.

By focusing on the initiatives listed above, ZUC can position itself to attract more business investments.

12.0 Conclusion

12.1 Summary of Feasibility Study

In conclusion, the aerodrome feasibility study explored various options for the future of ZUC, from basic restoration to a full airport buildout.

The feasibility study also considered alternative land uses for the airport property, such as the potential to serve as a strategic supply chain hub or an outdoor wilderness gateway.

In addition, the economic benefits and social value of potential infrastructure development projects were thoroughly assessed.

12.2 Identified Strengths

Based on the results of the feasibility study, the reopening of ZUC has the potential to benefit the Ignace community in several ways.

The most significant benefits are as follows:

- support for key industries (such as the mining and tourism sectors)
- support for industrial organizations (such as the NWMO)
- support for economic growth
- the creation of local jobs
- the improvement of connectivity and access to emergency services

12.3 Identified Challenges and Risks

The feasibility study identified several challenges and risks that Ignace must address in order to ensure that ZUC can enjoy long-term viability and sustainability.

The most significant challenges and risks are as follows:

- the presence of deficient infrastructure
- the need to meet and maintain regulatory compliance
- the potential for environmental impacts
- the need to secure sustainable funding
- the need to maintain effective governance

12.4 Next Steps

The results of the feasibility study identified several immediate actions that Ignace should complete in order to mitigate liability risks and ensure regulatory compliance.

Going forward, Ignace should prioritize the following actions:

- Issue a NOTAM for a temporary runway closure.
- Remove the existing fuel tanks at ZUC.
- Form strategic partnerships with key stakeholders, including government agencies, aviation companies, local businesses, and the NWMO.
- Implement comprehensive safety protocols and a regular maintenance schedule.
- Continue to engage with the community to ensure that any future investments align with local needs and priorities.
- Advocate for provincial and federal investment in regional airport infrastructure.

Ultimately, Ignace must take time to carefully review the potential benefits, risks, and trade-offs associated with each development option that has been proposed for the future of ZUC. These reviews must take place before any decision is reached.

Ignace can use the information in this report to help determine which option will best support the community and its long-term economic and social well-being.

Appendix A: List of Abbreviations

This document uses the following abbreviations and acronyms:

ADF:	airport development fund
AMCO:	Airport Management Council of Ontario
ATB:	air terminal building
ATF:	aerodrome traffic frequency
AZR:	airport zoning regulations
CFS:	Canada Flight Supplement
DGR:	deep geological repository
FBO:	fixed-base operator
FEC:	field electrical centre
FedNor:	Federal Economic Development Agency for Northern Ontario
MNR:	Ministry of Natural Resources
NWMO:	Nuclear Waste Management Organization
OLS:	obstacle limitation surfaces
PAPI:	precision approach path indicator
SIF:	Strategic Innovation Fund
VASI:	visual approach slope indicator
VFR:	visual flight rules
ZUC:	Ignace Municipal Airport

Appendix B: List of Contributors

Representatives from the following organizations contributed information that helped inform the content of this document:

- Destination Northern Ontario
- Kenora District Homes
- Kenora District Services Board
- Ministry of Northern Development – Trade, Investment, and Marketing Unit
- The Nuclear Waste Management Organization
- Ontario Provincial Police, Ignace Detachment
- Ornge Air Ambulance
- Township of Ignace

Appendix C: Summary of Consultations

The information in this appendix summarizes the results of the consultations that took place during the completion of the aerodrome feasibility study for Ignace.

The comments presented below were collected through a survey that was designed to gauge the level of community support for reopening Ignace Municipal Airport. These comments have been consolidated and categorized as applicable.

Support for Reopening

- **Boost the Economy:** Attract workers, tourists, and businesses, as well as provide support for industrial organizations (such as the NWMO, MNR firefighting crews, and mining operations) and other local services.
- **Improve Connectivity:** Provide transportation alternatives, especially in winter, as well as support emergency services and regional partnerships.
- **Support Community Growth:** Increase investment potential, reduce food insecurity, and enable rural residential development.

Conditional Support

- **Costs are Justified:** The business case is strong, and a feasibility study is completed.
- **Operational Use is Clear:** Demonstrated need for passenger, cargo, and emergency use that is aligned with regional airport strategies.

Concerns and Opposition

- **Financial Impact:** Potential high costs with limited usage, funds better spent on housing and infrastructure.
- **Viability:** Historical inactivity, low population, and proximity to airports in other communities (such as Dryden and Sioux Lookout).
- **Alternative Solutions:** Suggest focusing on partnerships with Dryden or the installation of a helicopter pad at the DGR site.

Access and Timing

- **Improved Accessibility:** Makes Ignace more accessible to visitors, businesses, and construction workers.
- **Seasonal/Project-Based Opportunities:** Businesses may benefit from a “two-week in/two-week out” work cycle adopted by projects like the DGR.

Economic Potential

- **Positive Effects:** Increase in local business revenue, including revenue for the tourism, fishing, and hunting sectors.
- **Joint Ventures and Spin-Offs:** Potential for new businesses to emerge and existing businesses to thrive due to more visitors and economic activity.

Challenges and Uncertainty

- **Mixed Opinions:** Some believe it will not significantly impact local businesses due to the lack of current attractions (such as restaurants, shopping, and banking options).
- **Skepticism:** Doubts persist about sustaining the traffic levels needed to justify investment in the airport.

Industry-Specific Impacts

- **Tourism and Hospitality:** Hotels, restaurants, and guiding organizations could benefit from increased visitors.
- **Essential Services:** Opportunities for goods, services, and EMS resources.
- **Transport and Logistics:** Potential improvements in the delivery of goods could help reduce costs for local businesses.

Employment and Community Benefits

- **Job Creation:** Employment opportunities in airport operations and associated services.
- **Youth Opportunities:** Could attract skilled professionals and offer diverse job opportunities for local youth.
- **Fly-In-Fly-Out Model:** Easier access to skilled labour and specialists.

Services and Infrastructure Needs

- **Required Infrastructure:** Shuttle services or taxis are needed to connect the airport with local businesses.
- **Strategic Development:** Success hinges on an alignment with broader economic and community development plans.

Direct Employment Opportunities

- **Operational Staff:** Airport manager, administrative staff, customer service, and flight information personnel.

- **Maintenance Roles:** Runway and facility maintenance staff, grounds crews, mechanics, and security personnel.
- **Service Positions:** Fuel suppliers, cleaners, receptionists, and hospitality staff.

Educational Pathways

- **Career Development:** Opportunities for youth to study and return to work locally in the aviation and airport management sectors.
- **Partnerships with Schools:** Engage with high schools and post-secondary institutions to develop training programs in aviation or air traffic control.

Broader Community Impact

- **Spin-Off Jobs:** Creation of roles in transportation (such as taxi, Uber, and shuttle services), logistics, and warehousing (such as support for initiatives like the Regional Food Distribution Program).
- **Economic Ripple Effects:** Potential growth for local businesses, such as lodging, food services, and specialized services (such as courier, security, and mechanical services).

Long-Term Opportunities

- **Support for Projects:** Jobs related to servicing initiatives like the DGR project and potential growth in logging, forestry, and mining sectors.
- **Central Hub Potential:** Increased access could position Ignace as a central point for specialized employment and regional logistics.

Volunteer and Partnership Models

- **Volunteer Operations:** Suggestion for a partnership model with staff and volunteers from Ignace to manage some airport functions.

Challenges and Considerations

- **Scale of Job Creation:** Mixed expectations about the number of created jobs, ranging from “a few jobs” to estimates of around 30 roles.
- **Market Viability:** Concerns over competition with Dryden positioning itself as a regional transportation hub.

Operational and Aviation Services

- **Airport Maintenance:** The regular upkeep of runways, grounds, facilities, and hangars (for aircraft storage and maintenance) will be required.

- **Refuelling and Maintenance:** Fuel availability, maintenance services, and de-icing equipment for aircraft are required.
- **Commercial and Private Flights:** Affordable domestic flights to major hubs (such as Thunder Bay, Winnipeg, and Toronto) and private plane access.
- **Charter and Tour Operations:** Flight and helicopter tours can showcase the region, potentially including partnerships with tourism operators.
- **Aviation School:** Opportunities for local education and training in aviation-related fields.

Transportation and Access

- **Ground Transportation:** Shuttle service or taxi services to and from Ignace—as well as a potential car rental service—must be considered.
- **Intermodal Opportunities:** Consideration is needed regarding warehousing, storage, and logistics to support industrial and governmental needs (such as the MNR and First Nations joint ventures).
- **Support for Emergency Services:** Enhanced medical transportation, air ambulance, and emergency response bases for urgent care and forest fire operations.

Passenger and Visitor Amenities

- **Food and Beverage Options:** Coffee shop, sandwich shop, snack bar, or small café with local food options to serve passengers and visitors.
- **Waiting Areas:** Comfortable seating, lounges, washrooms, vending machines, and free Wi-Fi.
- **Business Facilities:** Ensure a “professional station” for private virtual meetings that is suitable for travelling professionals.
- **Retail and Services:** Potential for shopping, parcel delivery, and small-scale commercial businesses.

Community and Cultural Integration

- **Local Attractions:** Indigenous art or exhibit space, museum or aviation-themed displays, and support for tourism initiatives.
- **Recreational Opportunities:** Development of a flying club or space for community events.
- **Health and Safety Services:** Medical offices, paramedic services, and support for the Regional Food Distribution Program.

Strategic and Long-Term Vision

- **Flexible Development:** Initial focus on essential services, with room to expand amenities as demand and investment both grow.
- **Collaborative Ventures:** Explore joint ventures with private, governmental, and First Nations partners.
- **Supporting Local Growth:** Potential for warehousing, central distribution, and the creation of infrastructure to support future economic initiatives.

Potential Partners (Government and Regulatory Bodies)

- all government agencies that regulate airports in Canada
- Emergency Measures Organization
- Ministry of Environment
- Ministry of Mines and Energy
- Ministry of Natural Resources
- Ministry of Training and Education
- Ministry of Transport
- Ministry of Transportation Ontario (for emergency medical lifts)
- Ontario Provincial Police
- potential airport board
- representatives of municipal, provincial, and federal government agencies
- Township of Ignace, including councillors and municipal staff members
- Transport Canada

Potential Partners (Indigenous and Community Organizations)

- Confederation College
- Health Centre, Food Bank, Second Harvest, Kenora District Services Board, fire services, and police services
- Ignace Airways
- Ignace Business Association
- Indigenous communities
- local businesses in Ignace and the surrounding areas
- local businesspeople and visionaries

- local pilots or former pilots
- partner municipalities
- postal services
- tourist operators and resort owners
- Wabigoon Lake Ojibway Nation

Potential Partners (Corporate and Industry Partners)

- airline companies
- CPKC
- medical and health service providers (such as Mary Berglund Community Health Centre and Ornge)
- mines and new industrial developments
- NexGold Mining Corp., First Mining, Critical Resources
- Northern Water Works
- The Nuclear Waste Management Organization
- private sector investors and potential corporate sponsors
- Resolute

Potential Partners (Public-Private Partnership Opportunities)

- Explore agreements with potential industry partners to cover operational costs in exchange for community use.
- Consider private-public partnerships to support complementary services and programs.
- Engage local business associations, school boards, and other community stakeholders.
- Leverage grants from the federal and provincial governments along with matched funding from various industry partners.

Other Partnership Considerations

- Engage with organizations that have vested interests in airport operations.
- Engage with individuals and organizations that may want to use the airport as a transportation hub (such as healthcare services, logistics, and business travellers).
- Seek community support for the reopening process.

- Seek public opinion and maintain transparency throughout the planning process.

Economic Development Opportunities

- **DGR Project:** The airport could serve as a complementary service for transporting workers, goods, and services for the DGR project.
- **Construction and Supply Chain:** Importing building supplies and providing quick access for developers could streamline project timelines.

Job Creation and Workforce Development

- **Local Employment:** The airport could generate job opportunities that help sustain the population and encourage youth to return home after completing their education.
- **Transient Workforce:** The airport could facilitate the movement of transient workers, particularly for large-scale projects, while also potentially attracting skilled labour not available locally.

Business Growth and Investment

- **Economic Driver:** The airport could play a role as an economic catalyst, attracting new businesses and diversifying local job opportunities.
- **Attracting New Developments:** A functioning airport could remove barriers for potential businesses looking to establish operations in the region.

Improved Connectivity

- **Accessibility:** Providing easier access to the community, reducing travel time, and enhancing convenience for residents and visitors.
- **Regional Linkages:** The airport could create a “pipeline” to connect Ignace with other Canadian communities and airports.

Transportation and Logistics

- **Goods and Services:** Facilitating the transport of goods and improving supply chain efficiency for local businesses.
- **Travel Options:** Offering additional travel options, potentially reducing the need for long drives to other airports.

Tourism Development

- **Gateway to Tourism:** The airport could act as a gateway to bring more visitors to town, including tourists from fly-in communities.

- **Enhancing Tourism Services:** Easier access could support local tourism operators, increase tourist visits, and contribute to the hospitality industry.
- **Support for Fly-In Camps:** Providing access to remote areas could boost tourism-related activities and services.

Medical and Emergency Services

- **Support for Critical Services:** Supporting medevac services and emergency medical flights is a priority.
- **Improved Access to Healthcare:** Facilitating the transportation of healthcare professionals and specialists can enhance access to healthcare at the local level.

Disaster Preparedness

- **Evacuation Hub:** The airport can serve as an evacuation hub for northern communities and provide emergency response capabilities.
- **Base of Operations:** The airport can act as a critical infrastructure asset for provincial and federal emergency management agencies.

Strategic and Long-Term Vision

- **Infrastructure and Growth:** The airport could connect the community to new business opportunities and support sustainable growth.
- **Modernization:** The airport could help Ignace stay current with modern transportation and logistical needs, aligning with broader societal advancements.

Concerns Regarding Operational Use and Longevity

- **Limited Scope:** Some community members believe the airport's impact may be limited in scope and duration, only benefiting the needs of the NWMO.
- **Historical Use:** There is a belief that, historically, the airport has been underused (even during higher population periods), which raises concerns about the facility's long-term viability.
- **Financial Viability:** There are concerns about the airport becoming a "money pit" if it is not properly managed and used.
- **Preference for Other Options:** Some residents of Ignace may continue to commute to Dryden Regional Airport for their air travel needs (given the proximity of the facility).

Governance and Oversight

- **Aerodrome Committee Status:** Clarification is needed regarding the status of the Aerodrome Committee, which operated from 2020 to 2022. There are concerns about a lack of governance and direction since the new council was established.
- **Beyond the Airport:** While the airport is a valuable asset, housing and infrastructure are seen as higher priorities, particularly with the construction activities that are expected to increase in the near future.
- **Inclusive Planning:** There is a need for a broader discussion regarding Ignace's housing strategy, infrastructure needs, and comprehensive community planning. These discussions must extend beyond just airport development.

Housing Concerns

- **Prioritization of Housing:** Many community members feel that housing development should take precedence over airport investments, as housing has a more immediate impact on quality of life and community growth.
- **Investment Concerns:** There is apprehension about using municipal funds to rehabilitate the airport. Some community members have suggested that the airport should be funded by Ignace's budget, not additional taxpayer dollars.
- **Avoiding Short-Term Housing Solutions:** The community is wary of creating small or temporary housing units. There is a preference for long-term, high-quality developments that enhance livability.

Opportunities for Broader Support and Partnerships

- **Leveraging External Resources:** There may be opportunities to obtain local, provincial, and federal assistance during the planning and development phases to maximize resources and support.

Appendix D: Governance Analysis

The following ten factors were evaluated to assess potential governance structures for ZUC:

1. Level of independence and flexibility.
2. Business-oriented approach and mindset.
3. Potential for airport development potential and opportunities.
4. Municipal financial implications and obligations.
5. Access to various forms of financing.
6. Board composition.
7. Potential partnerships.
8. Alignment with economic development vectors.
9. Self-sustainability potential of the airport.
10. Communication between stakeholders.

The results of the evaluation process, which compares the advantages and disadvantages of various governance models, are presented below.

Option #1: Governance by the Local Government Entity

Advantages

Table 12 summarizes the advantages of having a municipally owned and operated airport.

Table 12. Advantages of a municipally owned and operated airport.

Factor	Associated Considerations
Control and independence	Ignace will maintain a high level of control over airport operations, finances, development, and strategic direction while still allowing management some independence in the decision-making process.
Financial support and accessibility	The airport has access to public funding and municipal resources, enabling easier financial support during deficits. (This includes reduced borrowing costs available through Ignace.)

Factor	Associated Considerations
Stakeholder relationships	Elected officials bring political insight and community understanding, which can facilitate strong relationships with various agencies (such as the Kenora District Services Board, Destination Northern Ontario, and FedNor) and local businesses.
Strategic alignment	The airport can integrate its strategic planning with the objectives of the township and the region. Doing so can help align current political orientations, economic development, and tourism strategies.
Direct communication	Reporting directly to Ignace's CAO enhances collaboration with township council, which can streamline the decision-making process.
Potential revenue contribution	The airport can contribute to municipal revenues if it generates a surplus, and these funds can enhance the financial viability of community projects.

Disadvantages

Table 13 summarizes the disadvantages of having a municipally owned and operated airport.

Table 13. Disadvantages of a municipally owned and operated airport.

Factor	Associated Considerations
Administrative delays	Time-consuming administrative procedures can limit managerial autonomy and slow down the decision-making process, making it difficult to respond to business needs in a timely manner.
Less business orientation	The governance model is less business-oriented, which may hinder the airport's ability to adapt to market demands and opportunities.
Political influences	The political nature of this governance model can interfere with business decisions and lead to conflicts with other municipal priorities, potentially limiting the airport's growth and marketing efforts.
Funding challenges	Infrastructure improvements may be difficult to fund within the municipal budget, and the airport may have limited access to funding sources that are only available to non-profit entities.

Factor	Associated Considerations
Skills and expertise gaps	There may be a lack of appropriate airport-related skills at the board and council levels, impacting effective governance and decision-making.
Delayed relationship building	The political context can complicate relationship-building initiatives and delay potential collaborative opportunities. These delays can occur because the advisory and decision-making processes involve multiple stakeholders (such as the airport advisory committee and township council).
Dependency on clear direction	The success of this airport model relies heavily on clear strategic planning and direction from Ignace, which may fluctuate based on political climates and council priorities.

Summary

Overall, municipal ownership can facilitate collaboration, provide financial stability, and align airport strategies with community goals. However, this type of governance model may slow down the decision-making process, and it may lead to funding issues and gaps in available skill sets, which can impact the airport's operational effectiveness and growth potential.

Option #2: Governance by an Airport Authority

Context

In the early 1990s, Canada transferred the management duties of the busiest airports in the country from the federal government to 21 privately operated airport authorities. (The ownership of land remained unchanged.) Under the new arrangement, long-term leases were established as part of the National Airports System.

Traditionally, airport authorities have been better suited for large airports that can sustain themselves and handle a significant volume of air traffic and passengers.

Advantages

Table 14 summarizes the advantages of having an airport authority governance model.

Table 14. Advantages of an airport authority governance model.

Factor	Associated Considerations
Reduced administrative burden	This model simplifies managerial, operational, and developmental processes by streamlining approvals through an independent board. This arrangement reduces administrative and financial burdens.
Business orientation	This model is generally more business-focused, allowing for faster decision-making and fewer restrictions regarding development initiatives.
Access to resources	The airport can tap into more resources, forming multiple advisory committees and task forces to address specific needs effectively.
Revenue commitment	This model will maintain a strong focus on increasing airport revenues and enhancing financial sustainability.
Relieved responsibilities	The model alleviates the municipality or region from operational responsibilities associated with the airport, as well as some financial responsibilities. This arrangement allows local governments to focus on other priorities.
Self-funding and efficiency	An airport authority is primarily financed through self-generated funds and debt, which can often lead to a higher level of operational efficiency compared to government-operated airports.
Experienced governance	An independent board that consists of skilled administrators from various levels of government provides fiduciary oversight, ensuring informed decision-making.
Diverse representation	The supervisory/leadership board may include representatives from Indigenous communities, which supports inclusivity.
Partnership opportunities	This model encourages the development of partnerships for key projects, such as aerospace training programs and land development initiatives.
Self-sustaining operations	The airport operates as a self-sustaining business, supporting broader economic development in the community and surrounding region.
Financial sustainability	Airports under this governance model tend to be financially sustainable and have stable revenue streams.

Factor	Associated Considerations
Direct reporting structure	Under this model, the airport manager reports directly to the board, which helps ensure rapid decision-making and operational responsiveness.

Disadvantages

Table 15 summarizes the disadvantages of having an airport authority governance model.

Table 15. Disadvantages of an airport authority governance model.

Factor	Associated Considerations
Decision-making limitations	This model relies on the airport manager having full decision-making authority, which may not always be granted.
Financial constraints	This model can be limited by available cash flow, especially for airports that do not generate significant revenue or are running deficits.
Lack of regional alignment	There are no legal requirements for an airport authority to align with regional priorities and objectives, which may lead to conflicts with local development goals.
Suitability issues	This model is more suited to medium- to large-sized airports with steady revenues, while smaller or deficit-generating airports may struggle under this model.
Potential for mismanagement	Despite reducing the financial burden on the municipality, airport authorities can be poorly managed, which may lead to inefficiencies or issues.
Lack of government support	Generally, airport authorities do not receive government subsidies, which could limit their financial flexibility.
Board cohesion challenges	Like any board, there may be internal conflicts that require resolution for the airport authority to function cohesively.
Negotiation dynamics	Partnerships and agreements are typically managed by the airport authority rather than the municipality, and this arrangement can potentially cause a misalignment regarding municipal interests.
Economic misalignment	Although this model can respond to local economic needs, it may not fully align with the municipality’s broader economic development strategy.

Factor	Associated Considerations
Uneven revenue distribution	Even if an airport authority is financially self-sustained, its revenue surpluses may not be shared with local governments.
Communication gaps	There could be fewer updates communicated to the municipal council, leading to potential delays in situational awareness.

Summary

Overall, an airport authority governance model can enhance operational efficiency, financial sustainability, and strategic development opportunities for an airport. However, although this type of governance model provides independence and flexibility, there are challenges related to financial constraints, regional alignment, managerial effectiveness, and coordination with local government agencies and stakeholders.

Option #3: Governance by a Non-Profit Organization

Context

Several airports across Canada are run by non-profit organizations. These organizations can be referred to as “societies,” “authorities,” “commissions,” or “airport development corporations.” Regardless of the designation assigned to the non-profit organization, under this governance model, the organization’s purpose is to operate, manage, and develop an airport.

This kind of governance model often has a simple reporting structure. The airport’s staff members report to the CEO of the non-profit organization, and the CEO reports to a board of directors. Presentations to the local municipal council are usually delivered once or twice a year in order to provide financial, operational, and development updates. However, the council does not typically have any influence over the airport’s affairs unless some board members are also councillors.

This type of governance model has a hybrid operating structure because the governing entity (the non-profit organization) operates as an independent organization. However, the board of directors will include municipal or regional stakeholders (such as elected officials). This arrangement means that the local government entity maintains a certain level of control over the airport’s affairs while also keeping the airport’s governance free of political restrictions or pressures that could negatively affect its development.

Advantages

Table 16 summarizes the advantages of having a non-profit airport governance model.

Table 16. Advantages of a non-profit airport governance model.

Factor	Associated Considerations
Independence and flexibility	This model allows for high levels of independence and quick responses to business opportunities.
Business-oriented mindset	This model promotes a more business-focused approach compared to municipal governance models.
Suitability for smaller airports	This model is ideal for small- to medium-sized airports, as it allows them to focus on development and growth.
Dedication to development	A non-profit organization or airport commission is specifically dedicated to airport development.
Long-term financial stability	This model allows an airport to build a reserve fund over time to support long-term operations.
Access to diverse funding	This model provides access to a variety of funding programs that are not always available to municipalities or airport authorities.
Network of experts	This model offers access to a network of experts in airport management, aviation, and related fields.
Board diversity and expertise	This model offers the potential to have a board of directors that consists of members who are skilled in relevant areas, such as airport management and aviation.
Partnership and project opportunities	This model creates opportunities to form key partnerships and pursue various projects, including aerospace training programs and land development initiatives.
Easier partnership building	A non-profit status makes it easier for an organization and the airport it oversees to build partnerships.
Operational independence	This model enables an airport to focus on development initiatives and compliance with federal regulations without the constraints of municipal politics.
Effective governance and communication	Regular board meetings (held at least once a month) will help maintain good communication and information sharing among applicable stakeholders.

Disadvantages

Table 17 summarizes the disadvantages of having a non-profit airport governance model.

Table 17. Disadvantages of a non-profit airport governance model.

Factor	Associated Considerations
Potential limited independence	The presence of one or two elected officials on the board may compromise independence if rules/roles are not clearly defined.
Financial constraints	This model can be restricted due to financial resources, and it lacks a safety net, as the non-profit organization must be financially self-sufficient.
Non-mandatory profitability	A non-profit organization is not required to provide economic benefits to its members, which may limit incentives for financial performance.
Exclusion of local priorities	Local priorities may not always be considered or included in the decision-making process.
High set-up costs and administrative burdens	Establishing a non-profit entity involves significant costs and administrative efforts.
Absorption of deficits	Any financial deficits must be absorbed by the organization, as non-profit airports are expected to be self-sustaining.
Ongoing municipal involvement in funding	The municipality may still need to provide funding (usually through grants) for capital projects and operational costs.
Complex governance structure	A large board of directors, possibly including an advisory committee, can complicate the decision-making process and reduce flexibility.
Limited board membership	There may be a restriction regarding the number of board members, which could limit diversity and representation.
Reduced municipal control	The municipality cedes significant control over the airport to the non-profit organization, potentially weakening its influence.
Weak representation of municipal interests	If the non-profit organization does not represent municipal interests adequately, it may weaken the connection between the airport and the municipality’s objectives.

Summary

Overall, a non-profit airport governance model provides a flexible and business-oriented framework that supports airport development, strategic partnerships, and financial stability, especially for small- to medium-sized airports. Although this type of

governance model can also enhance community focus and independence, there may be challenges related to financial limitations, governance complexity, and the potential misalignment of airport operations with municipal priorities and interests.

Option #4: Governance by an Economic Development Organization

Context

Under this governance model, an airport would create an economic development organization (incorporated as a non-profit organization). The new organization would be managed by the airport's current team. The main difference between this governance model and the non-profit model is that the economic development organization has a broader mandate than a non-profit organization's governance model.

Using this model, an airport operates as an independent, self-sustained corporation that does not receive financial assistance from the municipal tax base for its operating budget. Financial contributions from the municipality or other local governments are usually in the form of a grant. The airport would use reserve funds to accumulate its revenue surplus. The economic development organization would rely on its reserve funds and on occasional government grants to address deficits. (Relying on this type of funding was especially evident during the COVID-19 pandemic and its aftermath.)

Like the non-profit model, this governance model has a board of directors that typically includes municipal or regional stakeholders (such as elected officials). This arrangement means that the local municipality or municipal council maintains a certain level of control over the airport's affairs while also keeping the airport's governance free of political restrictions or pressures that could negatively affect its development.

The difference between this governance model and the non-profit model is that an airport's staff members report to the CEO of the governing body (the economic development organization), as well as other individuals who perform functions that may not be related to the airport (such as an economic development officer).

Advantages

Table 18 summarizes the advantages of having an economic development airport governance model.

Table 18. Advantages of an economic development airport governance model.

Factor	Associated Considerations
Independence and flexibility	This model allows for high levels of independence and quick responses to business opportunities.

Factor	Associated Considerations
Business-oriented mindset	This model promotes a more business-focused approach compared to municipal governance models.
Suitability for smaller airports	This model is ideal for small- to medium-sized airports, as it allows them to focus on development and growth.
Reinvestment of profits	Any profits generated under this model are reinvested in the airport, which directly benefits users and helps enhance services.
Financial independence	This model relies on reserve funds, which reduces the municipality's financial obligations and minimizes the need for municipal support.
Access to grants and funding	This model provides an airport with access to grants and funding programs that are not typically available to municipalities.
Network of experts	This model offers access to a network of experts in the business sector.
Board diversity and expertise	This model offers the potential to have a board of directors that consists of members who are skilled in relevant areas, such as airport management and aviation.
Partnership and project opportunities	This model creates opportunities to form key partnerships and pursue various projects, including aerospace training programs and land development initiatives.
Access to economic development teams	This model provides an airport with access to an economic development team that directly manages and promotes the airport.
Focus on compliance	This model allows an airport to focus on federal regulations without the complications of municipal politics.
Regular reporting and communication	Under this model, regular board meetings (held at least once a month) ensure effective communication and information sharing among stakeholders.

Disadvantages

Table 19 summarizes the disadvantages of having an economic development airport governance model.

Table 19. Disadvantages of an economic development airport governance model.

Factor	Associated Considerations
Potential limited independence	The presence of one or two elected officials on the board may compromise independence if rules/roles are not clearly defined.
Financial constraints	This model can be restricted due to limited financial resources, which can restrict development and operational activities.
Reliance on economic development team	Airport development is dependent on the priorities of the economic development team, which may not always prioritize the airport.
High set-up costs and administrative burdens	Establishing an entity to govern an airport involves significant costs and administrative efforts. However, the associated set-up costs are less than the costs involved with setting up a new non-profit organization.
Continued municipal funding	The municipality may still need to provide financial support for the airport, especially for capital expenditures.
Complex governance structure	A large board of directors can complicate the decision-making process and reduce flexibility.
Limited board membership	There may be a restriction regarding the number of board members, which could limit diversity and representation.
Competing priorities	Airport development may compete with other organizational priorities within the economic development team.
Reduced municipal control	The municipality will cede a significant amount of control over the airport's operations and development.
Weak representation of municipal interests	If the governing entity does not represent municipal interests adequately, it may weaken the connection between the airport and the municipality's objectives.

Summary

Overall, the economic development airport governance model combines independence with access to business acumen and strategic reinvestment opportunities to support airport growth. These benefits should help an airport—especially a small- to medium-sized airport—enhance its operational efficiency and form valuable partnerships. However, although this type of governance model offers flexibility and a business-oriented approach, there are challenges associated with financial limitations and complex governing structures. The model may also lead to a dependence on broader organizational priorities, as well as a potential misalignment with municipal interests.

Appendix E: Relevant Canadian Aviation Regulations

CAR 301.08

No person shall:

(a) walk, stand, drive a vehicle, park a vehicle or aircraft or cause an obstruction on the movement area of an aerodrome, except in accordance with permission given

- (i) by the operator of the aerodrome, and
- (ii) where applicable, by the appropriate air traffic control unit or flight service station;

(b) tow an aircraft on an active movement area at night unless the aircraft displays operating wingtip, tail and anti-collision lights or is illuminated by lights mounted on the towing vehicle and directed at the aircraft;

(c) park or otherwise leave an aircraft on an active manoeuvring area at night unless the aircraft displays operating wingtip, tail and anti-collision lights or is illuminated by lanterns suspended from the wingtips, tail and nose of the aircraft;

(d) operate any vessel, or cause any obstruction, on the surface of any part of a water area of an aerodrome that is to be kept clear of obstructions in the interest of aviation safety, when ordered, by signal or otherwise, to leave or not to approach that area by the appropriate air traffic control unit or flight service station or by the operator of the aerodrome;

(e) knowingly remove, deface, extinguish or interfere with a marker, marking, light or signal that is used at an aerodrome for the purpose of air navigation, except in accordance with permission given.

- (i) by the operator of the aerodrome, and
- (ii) where applicable, by the appropriate air traffic control unit or flight service station;

(f) at a place other than an aerodrome, knowingly display a marker, marking, light or signal that is likely to cause a person to believe that the place is an aerodrome;

(g) knowingly display at or in the vicinity of an aerodrome a marker, marking, sign, light or signal that is likely to be hazardous to aviation safety by causing glare or by causing confusion with or preventing clear visual perception of a marker, marking, sign, light or signal that is required under this Subpart;

(h) allow a bird or other animal that is owned by the person or that is in the person's custody or control to be unrestrained within the boundaries of an aerodrome except for the purpose of controlling other birds or animals at the aerodrome as permitted by the operator; or

(i) discharge a firearm within or into an aerodrome without the permission of the operator of the aerodrome.

CAR 301.09

(1) Subject to subsection 301.07(12) and subsections (2) and (3), no person shall, while at an aerodrome, smoke or display an open flame

(a) on an apron;

(b) on an aircraft loading bridge or on a gallery or balcony that is contiguous to or that overhangs an apron; or

(c) in an area where smoking or the presence of an open flame is likely to create a fire hazard that could endanger persons or property.

(2) The operator of an aerodrome may, in writing, authorize maintenance or servicing operations on an apron that involve the use, production or potential development of an open flame or that involve the production or potential development of a spark where the operations are conducted in a manner that is not likely to create a fire hazard that could endanger persons or property.

(3) The operator of an aerodrome may permit smoking in an enclosed building or shelter located on an apron where such smoking is not likely to create a fire hazard that could endanger persons or property.