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# Airport Development Plan and Business Case

## South River-Sundridge District Airport





## Airport Development Plan & Business Case South River-Sundridge District Airport

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## Executive Summary

The South River-Sundridge District Airport was established during the 1930's to support the growing number of commercial and private aircraft in the area and for occasional use by the Canadian Military for flight training and emergency use. The Airport is situated in the heart of the Almaguin Highlands tourist area approximately 250km north of Toronto. The Airport is currently considered to be a General Aviation (GA) facility with approximately 15 piston-engine aircraft based at the site. Current infrastructure at the site includes two turf runways, aircraft tie-down areas, a terminal building, a maintenance facility, seaplane access to South River, and several small aircraft hangars. Scheduled air services for the general public are not currently provided at the Airport.

Five municipalities currently oversee the ownership and operation of the South River-Sundridge District Airport. – The Village of South River, the Village of Sundridge, and the Townships of Machar, Strong, and Joly. The Airport's financial position has changed noticeably in recent years, and financial contributions from the municipalities have been steadily increasing. As a result of these cost increases, the municipalities are seeking an examination of the Airport's future vision, including the future role and development of the site, the current governance structure, and the economic impact of the Airport on the local community. The Airport Development Plan and Business Case was funded in part by equal contributions from FedNor and the Northern Ontario Heritage Fund Corporation (NOHFC).

The municipalities have formed a Committee of local elected officials from the 5 communities to manage and oversee airport operations. Monthly Committee meetings are held to discuss airport operations, finances and future plans for the Airport, after which the members provide progress reports to their respective councils. Several governance options were examined within the Development Plan and Business Case including; no involvement (sell the airport), municipally owned and operated (status-quo), operation by private contract, airport commission, and airport authority.

A Workshop was held with Committee members in order to convey a better understanding of the consequences and benefits of each governance option.

After consulting with the Committee and reviewing the current position of the Airport, it is recommended that an Airport Commission be established as it will provide a more focused effort by a group of individuals with appropriate skills that could assist the airport in improving current financial performance, and promote the future development of the airport. In the short-term it is recommended that the Airport Commission report to a committee which represents the five municipalities, potentially consisting of elected officials.

In order to successfully develop the Airport and position the site as a stronger economic driver within the community, several deficiencies need to be addressed. The Development Plan and Business Case indicates that providing hard surface (paved runways) at the Airport will help increase activity levels and potentially attract additional business to the site. Airports that lack hard surface runways generally have difficulty increasing activity in terms of aircraft movements and commercial business. Improvements in the overall airport availability have also been recommended including; the implementation of non-precision instrument approaches, aerodrome lighting, and other navigational and visual aids. Other identified deficiencies included land ownership issues related to runway easements and lands currently utilized by the MNR, the lack of published seaplane facilities, and the absence of a long-term Airport Development Program. The recent expansion of Highway 11 by the Ministry of Transportation Ontario (MTO) will result in the highway being re-routed outside of the communities of South River and Sundridge. This highway realignment is expected to have negative economic impacts on the local economy and the municipalities are encouraged to approach Provincial and Federal Governments to contribute to the local economic environment by investing in the South River-Sundridge District Airport.

Although the current airport site has a limited number of tenants and commercial facilities, several potential future uses for the Airport have been identified within the Business Case and Development Plan. Flight training, perhaps in coordination with Canadore College or the Collation of Aboriginal People has a strong potential to be viable at the Airport (provided at least one paved runway is provided). Increased recreational and experimental flying activities (including tourism), natural resource and public service activities, and business and corporate aviation have also been identified as areas of potential commercial growth. The Development Plan and Business Case illustrates that the Airport has an extensive supply of lands that are suitable for all commercial opportunities identified herein, such as; a flight school, a Fixed-Base Operator (FBO), a small aircraft maintenance operator, and government/public service installations such as the MNR or the OPP.

The Development Plan for the South River-Sundridge District Airport includes a range of recommended developments within short (2011-2015), medium (2016-2021), and long-term (2022-2032) planning horizons to support further economic growth at the Airport.

Recommended short-term improvements include, but are not limited to; paving Runway 02-44 and changing the designation to a Code 2-Non Precision facility, constructing a new paved taxiway and aircraft apron, establishing turf taxiways (optional) and tie down areas, upgrades to visual aids such as aerodrome lighting, relocation of airport access roads, establishment of commercial development lots, upgrades to the seaplane facility, construction of a new air terminal and airport maintenance facility, and tree clearing. Medium and long-term improvements include but are not limited to extension of Runway 04-22 to 1,199m (3,933'), extension of access roads, establishment of a seaplane storage area, and tree clearing.

Airports with the size and scope of South River-Sundridge must realize that financial contributions are required to support the airport and they will need to continue to make financial contributions at the site in

order for the community to benefit from the continued operation of the airport and subsequent growth. Although these contributions can be reduced by increasing airport revenues, some form of municipal contribution will be inevitable going forward. In order for the financial contributions to be sustainable, local municipalities require justification for investment in the Airport to ensure that benefits to the community at large will be realized through economic spin-offs in the community at large.

The Economic Impact Analysis conducted as part of the Business Case and Development plan examined the most common economic benefit metrics including employment, output, Gross Domestic Product (GDP), and tax revenues. Four economic benefit categories were examined – direct, indirect, induced and catalytic. A set of scenarios was developed that corresponded to different levels of itinerant and local aircraft movement activities. The most likely scenario calls for 20 full-time equivalent employees at the Airport and within the regional tourism industry, with a total estimated annual economic impact of \$4.3 Million. The optimistic case calls for an additional 27 full-time equivalent positions from direct effects and a total estimated annual economic impact of approximately \$7.7 Million.

Rough Order-of -Magnitude (ROM) capital cost estimates are also provided and call for short-term airport investments of \$4.5 Million, medium-term investments of \$100,000, and long-term investments of \$1.0 Million. When comparing the results of the Economic Impact Analysis with the ROM capital cost estimates it is apparent that the economic benefits to the community could outweigh the investment made at the airport, depending on the level of growth. If the optimistic scenario were to become a reality, a \$4.5 Million investment in the airport could generate \$7.7 Million in annual economic benefit to the region.

In order to move forward with the recommended capital developments presented in the Development Plan and Business Case the Airport is encouraged to approach Provincial and Federal governments for funding.

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## 1.1 Current Situation

The South River-Sundridge District Airport was established during the early 1930's. The Airport's primary purpose was to support the growing number of commercial and private aircraft in the area, although the site was used by many small air carriers and the Canadian Military for flight training and occasional emergency use. Ownership of the Airport was transferred from the Federal Government to the Province of Ontario after World War II, at which time it was placed under the jurisdiction of the Ministry of Lands and Forests, now the Ministry of Natural Resources (MNR). In 1981, the Ministry agreed to sell the runways and a small section of land totalling approximately 200 acres to the Village of South River for approximately \$200. A year later, the Village of South River entered into an ownership and maintenance agreement with four additional local municipalities including the Village of Sundridge, and the Townships of Machar, Strong, and Joly. These five municipalities continue to own and operate the Airport, and provide basic funds for airport operations and maintenance.

Many airports in Canada and throughout the world are expanding their business beyond traditional uses to maximize revenues and capture additional aviation and non-aviation related business interests. This is partly due to the fact that many communities are recognizing airports as economic enablers, rather than simply an infrastructure asset or as a facility for recreational flying activities. As an airport owner and operator, the Villages of South River, Sundridge and the Townships of Strong, Machar & Joly have several issues to address to strategically position the Airport as an economic enabler supporting the needs of the Region.

The Airport Development Plan and Business Case was funded in part by equal contributions from FedNor and the Northern Ontario Heritage Fund Corporation (NOHFC).

## 1.2 Airport Profile

### 1.2.1 Current Role

The Airport Role Statement is the fundamental starting point in classifying current activity and determining a future position in terms of long-term activities and development at the site.

South River-Sundridge Airport is currently considered to be a General Aviation (GA) Airport. The primary user of the Airport is the South River/Sundridge Flying Club consisting of local aviators utilizing the Airport for local and itinerant GA operations. There are approximately 15 piston-engine aircraft based at the site. South River-Sundridge is one of a number of airports in the region supporting light GA aircraft operations. Other airports in the region include: North Bay Airport, Muskoka Airport, and Parry Sound Area Municipal Airport, and Elmsdale Airport.

### 1.2.2 Designation

South River-Sundridge District Airport is a municipally owned and operated airport and is not classified under Transport Canada's National Airports System. The facility is a registered aerodrome as opposed to a certified airport.

A registered aerodrome is any area of land, water, ice or other supporting surface used for the arrival and departure, movement or servicing of aircraft, as defined by Transport Canada.

A certified airport is an aerodrome for which an airport certificate has been issued that confirms all facilities meet prescribed airport design standards. In order to maintain this certificate, an airport must possess a series of operational plans (i.e. snow removal, emergency response, etc.) and is required to conform to all applicable standards listed in TP 312 – Aerodrome Standards and Recommended Practices.

A registered aerodrome is required to be certified if:

- ✈ it is utilized for scheduled service;
- ✈ it is located in a built-up area; or
- ✈ it is deemed necessary by the Minister of Transportation.

Based on the Airport's current and expected future role there are few associated benefits to justify the transition to a certified airport. Although by regulation the facility is technically an aerodrome, for the purpose of this report the facility will be referred to as the "Airport".

The Development Plan and Business case assumes that the site will be operated as a registered aerodrome throughout the short and medium-term planning horizons. However, all developments shown within this Development Plan and Business Case are designed to meet certified airport standards in order to accommodate for a small scheduled commuter air service in the long-term and beyond.

### 1.2.3 Current Infrastructure

South River-Sundridge District Airport includes two runways, a small aircraft tie down area, a small terminal building, a maintenance facility, and several small aircraft hangars. The core development area is located in the northwest quadrant of the Airport property. The Airport property is approximately 80 Ha in area. The Airport site is illustrated in Figure 1-1.

Airport information has been derived from various aeronautical references including the Canada Flight Supplement (CFS). The following table shows key data specific to the Airport. This data is generally used for aviation operations and airport planning purposes.

**Table 1-1 – Aerodrome Data**

Aerodrome coordinates	N 45° 49' 00" W 79° 20' 00"
Aerodrome Elevation	354 m ASL
Aerodrome Magnetic Variation	12°W

## Runways

The layout of the runways has a significant impact on the growth and development potential of the Airport, both with respect to their capability and dimensions and to the protective zoning areas required around the runway system as described below.

### Runway 04-22

Transport Canada classifies runways based on three elements – runway length, width and instrument classification. The length is represented by a number (1-4), while the width is represented by a letter (A-E). Three types of instrument classification are available – Non-Instrument (NI), Non-Precision (NP) and Precision (P).

The primary Runway 04-22 has dimensions of 975 m × 45 m (3,200' × 150'). The runway has the characteristics of a Code 2A - Non-Instrument (NI) facility with a grass/turf surface. The runway strip associated with Runway 04-22 is 60 m in width, (30 m on either side of the runway centreline) and extends 60 m beyond the runway thresholds. Obstacle Limitation Surfaces (OLS) are established for Runway 04-22 as shown in Table 1-2 which limit development and land use in the vicinity of the runway, and outside the Airport property boundary.

**Table 1-2 – OLS Runway 04-22**

Type	Description	04-22
Approach Surface	Length of Inner Edge	30 m
	Distance from Threshold	60 m
	Divergence	10%
	Length	2,500 m
	Slope	4% (1:25)
Transitional Surface Slope		20% (1:5)
Outer Surface	Elevation	398.6 m
	Dimensions	4,000 m



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Client

SOUTH RIVER  
SUNDRIDGE  
DISTRICT AIRPORT  
(AERODROME)

Figure

SITE PLAN

Notes

- 1. Preliminary
- 2. All dimensions



Figure No.

1-1

Drawn By

EDH

Approved By

RAM

Date

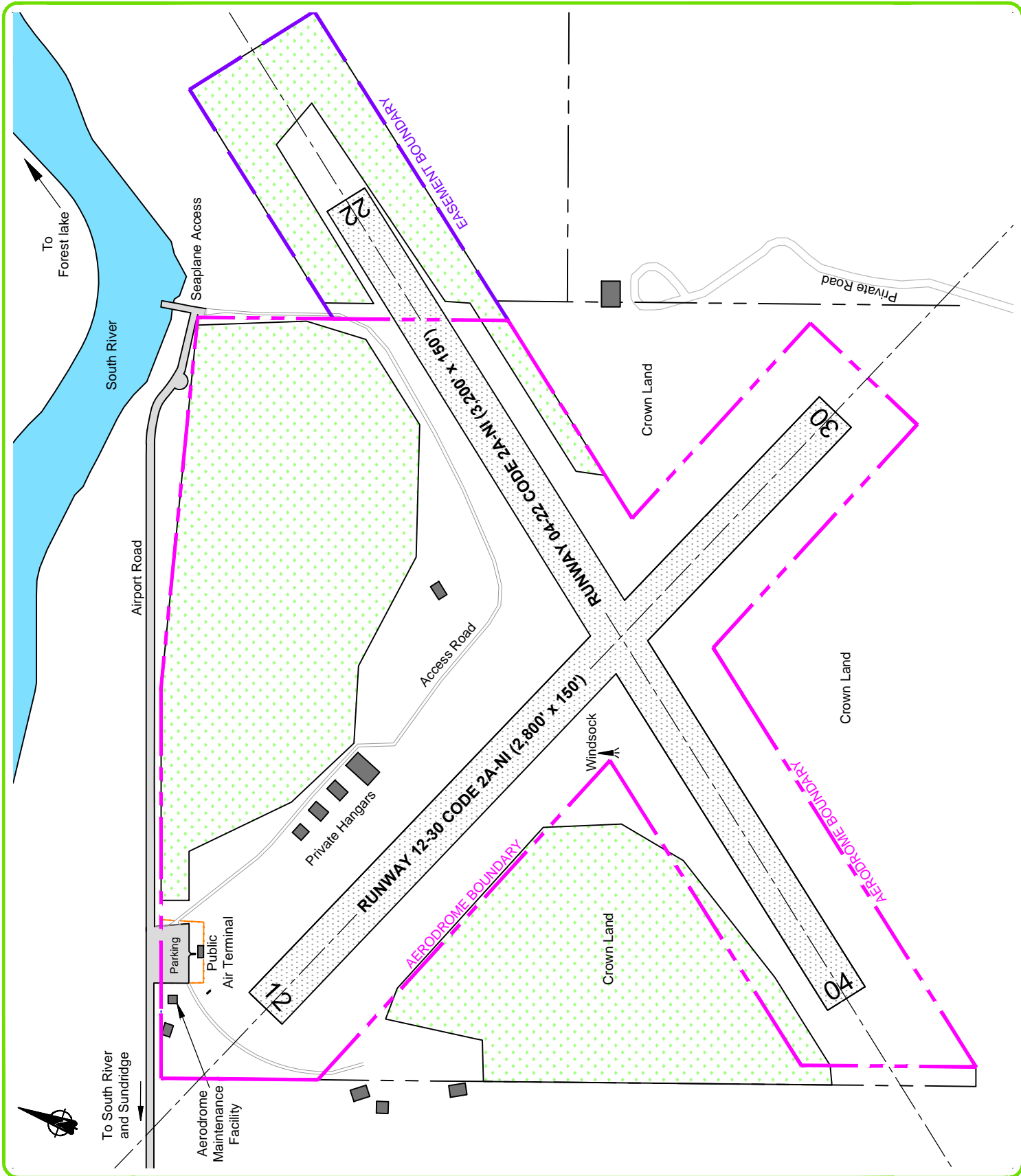
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### Runway 13-31

The secondary runway at the South River-Sundridge District Airport is Runway 12-30. This runway has dimensions of approximately 853m × 45m (2,800' × 150'). The runway has characteristics of a Code 2A – Non-Instrument (NI) facility with a grass/turf surface. The strip associated with Runway 12-30 is 60 m in width, and extends 60 m beyond the thresholds. Obstacle Limitation Surfaces associated with Runway 12-30 are identified in Table 1-3.

Table 1-3 – OLS Runway 12-30

Type	Description	12-30
Approach Surface*	Length of Inner Edge	30 m
	Distance from Threshold	60 m
	Divergence	10%
	Length	2,500 m
	Slope	4% (1:25)
Transitional Surface Slope		14.3% (1:7)
Outer Surface	Elevation	398.6 m
	Dimensions	4,000 m

\*Significant obstacle limitations observed in approach to Runway 30.

Though Runway 12-30 has characteristics of a Code 2A – NI runway, significant terrain to the east of the threshold of Runway 30 penetrates the physical zoning.

Because of this significant obstacle to the east, physical zoning supporting the runway does not meet Transport Canada standards and the use of this facility should be at the pilot or operator's discretion only.

### Taxiways

There are currently no defined taxiways to support the runway system at South River-Sundridge District Airport. The majority of aircraft taxi movements take place on the runways. Current traffic volumes are below the capacity of the airside system, and users are able to taxi utilizing the runways without interrupting operations.

### Aprons

Although there is not a defined apron provided for aircraft parking, an aircraft tie down area exists adjacent to the terminal building. This area is capable of holding approximately 10-15 small aircraft. If additional areas for aircraft parking are required, areas with a suitable turf surface are available to accommodate local and itinerant aircraft.

### Seaplane Facilities

Modest seaplane facilities are provided at the South River-Sundridge District Airport consisting of a water access ramp to South River located at the northeast corner of the Airport property. Float-equipped aircraft occasionally land on Forest Lake or South River, where some are then removed from the water via the ramp for maintenance or storage. The water aerodrome is currently unpublished and there are no docking or seaplane fuelling services available.

### Air Navigation Facilities

Air navigation facilities generally provide increased airport availability, especially during periods of darkness, low visibility, and low cloud ceiling heights. The Airport has limited air navigation facilities comprised of visual aids. Navigation to and from the Airport is accomplished using the navigational aids of neighbouring airports (i.e. North Bay).

### Visual Aids

South River-Sundridge District Airport is equipped with two wind direction indicators, one mounted on the roof of the terminal building and a second located at the intersection of runways 04-22 and 12-30. Cones are used to delineate the edge of the runways and a combination of cones and spruce boughs are used in winter months to increase contrast against snow and improve visibility. Aerodrome lighting is not currently provided at the Airport.

### Flight Services

Aircraft operators requiring flight planning services are required to contact Nav Canada's central Flight Information Centre (FIC) via telephone. The briefing service provides consultation on meteorological and aeronautical information in the pre-flight planning phases for the safe and efficient conduct of flight.

The flight service specialist at the FIC adapts meteorological information, including satellite and radar imagery, to fit the needs of flight crew members and operations personnel, and provides consultation and advice on special weather problems.

Both Visual Flight Rules (VFR) and Instrument Flight Rules (IFR) flight planning services are provided by the FIC, although IFR aircraft operations are not currently being conducted at the South River-Sundridge District Airport.

### ***Aviation Weather***

There are currently no dedicated aviation weather facilities located at South River-Sundridge District Airport. The closest weather reporting station is North Bay Airport. Although this location is approximately 60 kilometres to the north, certain weather observations such as wind speed and direction may differ between the two locations due to local topographical features.

A small electronic weather station is provided in the current air terminal facility that measures wind speed and direction. This weather information is provided at the request of aircraft operators.

### ***Aviation Communications***

An Aerodrome Traffic Frequency (ATF) is currently provided at the South River-Sundridge District Airport.

ATFs are normally designated for active uncontrolled airports that do not meet the criteria for a Mandatory Frequency (MF) service.

ATFs are established to ensure that all radio-equipped aircraft operating on the ground or within the vicinity of the aerodrome are listening on a common frequency and following common reporting procedures.

Persons possessing a valid radiotelephone licence and who are authorized to do so can communicate with pilots using two-way communication on the ATF to provide information such as: advice on the position of vehicles on the manoeuvring area, position of other aircraft on the manoeuvring area, and known runway conditions.

### ***Aviation Support Facilities***

Several aviation support facilities are available at the South River-Sundridge District Airport. The following support facilities are available as published in the Canada Flight Supplement (CFS):

- ✈ Aircraft Fuel Services including 100 Low-Lead (Avgas);
- ✈ Aircraft Storage;
- ✈ Servicing/Minor Aircraft Repairs;
- ✈ Extended Term Aircraft Parking; and
- ✈ Aircraft Tie-down Facilities

### ***Municipal Services***

Current businesses and facilities at the South River-Sundridge District Airport are not provided with municipal services such as water, sanitary sewer and natural gas.

Potable water is obtained from wells, and septic systems are used to treat sanitary waste. Buildings on the site are heated by electric or propane sources

Land-line (telephone) and electrical services are also provided to the Airport.



General Aviation hangar developments are expected to occur at the South River-Sundridge District Airport in the short-term.

## 1.3 Airport Deficiencies

A review of the airport facilities, several site visits, and stakeholder consultations allowed the study team to identify various deficiencies at the South River-Sundridge District Airport. If not corrected, many of these deficiencies may limit economic growth at the site and within the community. Each identified deficiency is described below and recommendations to overcome the deficiencies have been provided in the balance of the Development Plan and Business Case within appropriate short, medium and long-term development horizons.

### 1.3.1 Lack of Hard Surface Runways

A lack of hard surface runways significantly limits the aircraft types that can operate at an airport. Airports that only provide turf or gravel landing surfaces are generally overlooked or avoided by many aircraft operators for various reasons including; insurance restrictions (many flight training schools prohibit aircraft from operating from turf and gravel surface runways), uncertainty of runway stability and the ability to support specific aircraft types, and lack of visibility on air navigation publications (such as VFR Navigation Charts). In order to increase activity levels at the site and attract additional business, a hard surface (paved) runway should be provided.

### 1.3.2 Airport Availability

Airport availability is generally defined as the amount of time the facility is available for the take-off and landing of aircraft and is expressed as a percentage of time. Most major international airports have an airport availability of greater than 95% to support operations in various conditions. The level of airport availability is generally defined based on several parameters that are not mutually exclusive, including but not limited to:

- ✈ Runway Orientation – Runways should be best aligned into the prevailing wind direction to allow for a minimum number of crosswind landings, within certain aircraft limitations. Generally speaking, aircraft crosswind limitations increase with the corresponding aircraft size.
- ✈ Instrument Approach Capabilities – Instrument approaches allow for the arrival and departure of aircraft at an airport under conditions of low ceilings and visibilities. An airport that is without published instrument approach capabilities would be considered to have limited availability, depending on local weather patterns.
- ✈ Navigational and Visual Aids – Infrastructure such as aerodrome lighting (runway edge lighting, illuminated wind direction indicators, approach lighting, aerodrome beacon) allows for the movement of aircraft during periods of poor weather, and outside daytime hours.

The exact airport availability at the South River-Sundridge District Airport is currently unknown. In order to determine the exact airport availability, a detailed meteorological study would have to be prepared identifying prevailing wind directions and frequency of low ceilings and low visibility.

An aerodrome lighting system consisting of an aerodrome beacon, runway edge lights and illuminated wind direction indicators would assist in increasing the airport's availability from current levels.

### 1.3.3 Land Ownership

Although the core airport lands are owned by the five participating municipalities, there are several parcels of land surrounding the property that are currently being utilized by the Airport, or lands that are required to support airport development as identified in the Development Plan and Business Case. There are four particular areas where land ownership and use need to be confirmed in order for the Airport to successfully develop its facilities as per the recommendations of this Plan. The land ownership issues identified below should be addressed before government funding opportunities for airport development are explored:

✎ The lands directly to the southwest of the runway complex are currently owned by the Ministry of Natural Resources (MNR). Consultations with the airport operator and airport tenants have indicated that this parcel of land is used frequently by the MNR when operating aircraft at the South River-Sundridge District Airport to avoid paying aircraft parking fees. These lands have been identified for development in the short-term, with further expansion in the medium to long-term. It is recommended that the South River-Sundridge District Airport continue discussions with the MNR to obtain land use rights to this parcel of land. Although it would be ideal to purchase the land from the MNR, consultations suggest that 'fair market value' would be expected to be paid for the land, which could be beyond the financial abilities of the Airport. In this case, a land-use agreement or some type of property easement could give the Airport the rights to develop the land without having the financial burden of purchasing the land.

✎ The properties located immediately to the west of the airport property boundary are owned by private landowners. Based on the property information provided within the site survey, the exact location of the property boundaries is not clear. Property boundaries should be formally established before airport development progresses.

✎ The northeastern portion of Runway 04-22 is located on a property easement. This easement allows for the current runway length of 3,200' to be maintained. The study team inquired as to the ownership of these lands during stakeholder consultations; however, a clear indication as to land ownership was not provided. Airport management should investigate the terms of the current easement agreement for these lands and ensure that long-term land use agreements are put in place to enable development. The Airport could elect to purchase this land; however, if the sale price were to be near 'fair market value', it might be difficult for the Airport to secure the necessary funding.

✎ The South River-Sundridge District Airport possesses a seaplane access point to South River and beyond to Forest Lake. The lands on which the Airport's seaplane access is situated are outside the current Airport boundary. Consultations suggest that these lands are currently held by the Municipality of Joly. It is suggested that the Airport enter into an easement agreement with the Municipality in order to further develop the seaplane access.

### 1.3.4 Limited Seaplane Facilities

The ability for an airport to provide both land and seaplane access is considered as a major asset. Although access to the seaplane area is currently provided, the supporting facilities are reported to be in poor condition and require improvement. The seaplane access facilities should be upgraded and technical information should be published within NAV CANADA's Water Aerodrome Supplement. These improvements are generally considered to be low-cost and would likely increase the exposure of the Airport and bring additional business to the site.

### 1.3.5 Lack of Airport Development Program

Stakeholder consultations revealed concerns with the lack of designated development areas for private and commercial aviation uses (such as aircraft hangars). Many airport users indicated the desire to lease additional lands for the development of hangar facilities; however, it was noted that the Airport has been reluctant to enter into any new lease agreements until a long-term development plan could be prepared for the Airport.

### 1.3.6 Lack of Fuel Availability

The availability of common aviation fuels is a key attraction necessary to support General Aviation growth. The lack of variety of fuel was a concern raised by several stakeholders. The Airport currently offers 100 Low-Lead (Avgas) for sale to tenants and airport users. The addition of automotive gasoline or 'MOGAS' was suggested as it is commonly used for ultralight operations. Offering this fuel in addition to 100LL could increase operating revenue while improving the level of service for airport users.

## 1.4 Land Use

### 1.4.1 Surrounding Land Uses

The majority of the land surrounding the airport property is provincially owned and under the care and custody of the MNR. This land is largely undeveloped.

In addition to the government owned land, there are several residential lots located in close proximity to the Airport. These lots are occupied by approximately 10 private residents.

## 1.5 Airport Ownership

In 1981, the Ministry of Natural Resources sold the Airport (totalling approximately 80 hectares) to the Village of South River. One year later, the Village of South River entered into an ownership and maintenance agreement with four additional local municipalities including the Village of Sundridge, and the Townships of Machar, Strong, and Joly. These five municipalities continue to own and operate the airport, and provide basic funds for airport operations and maintenance. The financial contribution breakdown for the operation and maintenance of the Airport are detailed in Table 1-4.

**Table 1-4 – Contribution Breakdown**

Municipality	% of Total Contribution
Village of South River	25%
Village of Sundridge	25%
Township of Machar	20%
Township of Strong	20%
Township of Joly	10%

## 1.6 Current Operational Model

Currently, airport operations are overseen by a committee comprised of local elected officials from the 5 municipalities. Monthly committee meetings are held to discuss airport operations, finances, and future plans for the Airport, after which the members provide progress reports to their respective councils.

An Airport Manager and an Assistant Airport Manager report to the Airport Committee and are responsible for the day-to-day operations and maintenance of the Airport.

## 1.7 Financial Position

South River-Sundridge Airport's financial position has changed noticeably in recent years due to several factors. An analysis of the Airport's revenues and expenditures highlights these factors as well as present strategies to mitigate the operational losses currently experienced.

### 1.7.1 Revenues

South River-Sundridge District Airport, like many small GA airports in Canada, is funded primarily by municipal contributions. The revenue that the Airport generates directly is derived from fuel sales and surcharges, aircraft parking fees, and tenant lot leases. On average, these revenues equate to 20% to 40% of the Airport's annual operating cost. The remainder of these costs are covered by municipal contributions.

Table 1-5 and Figure 1-2 illustrate the gap between operational revenues and expenditures over the past 5 years.

Table 1-5 – Historical Revenues and Expenditures

Year	Revenue (less contributions)	Total Revenue	Expenditures
2005	\$3,770	\$16,770	\$17,369
2006	\$4,154	\$17,154	\$14,192
2007	\$16,422	\$33,526	\$42,091
2008	\$17,042	\$80,217	\$57,425
2009	\$27,038	\$85,410	\$86,267

South River-Sundridge is not a unique case as airports of a similar size almost always require financial contributions from municipalities or other government bodies. However, airports of this size generate economic activity within their catchment area and *the benefits derived from these activities usually outweigh the municipal contributions*. This concept is further detailed in Chapter 6 - Economic Impact.

### 1.7.2 Expenses

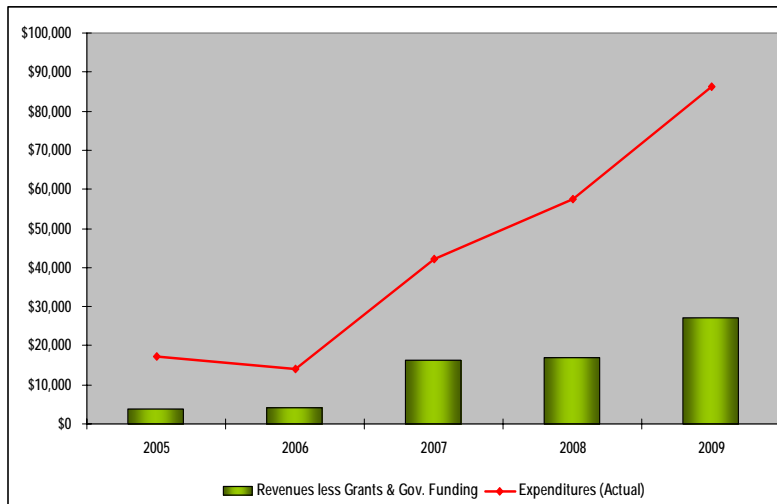
The expenses encountered by South River-Sundridge District Airport are typical of most municipal airports in Canada. These expenses include:

- ✎ employee salaries;
- ✎ airfield maintenance and equipment; and
- ✎ utilities.

Prior to 2007, the airport was managed and maintained by a local family who operated the Airport at little cost to the municipalities. When this agreement ended, the Airport Committee decided to hire a full-time airport manager and purchase maintenance equipment. These have been the primary contributing factors to the increase in the Airport's expenses.

The future development of the Airport will likely be accompanied by higher expenditures associated with increased management and maintenance costs. These costs must be considered by the Airport in addition to the costs required for improved airport infrastructure.

Figure 1-2 – Airport Revenue less Municipal Contributions



## 2.1 Geographic Context

South River-Sundridge District Airport (CPE6) is located at 45° 59' 00" North latitude, 79° 20' 00" West longitude, at an elevation of 353.6 m Above Sea Level (ASL).

The Airport is located approximately 5 km southeast of the Village of South River and 7 km northeast of the Village of Sundridge.

The Airport is situated in the heart of the Almaguin Highlands tourist area in Joly Township, just east of Highway 11, connecting southern Ontario to the communities of the near-north, including Huntsville, Burks Falls and North Bay. South River and Forest Lake lie adjacent to the Airport site and provide access for the arrival and departure of seaplanes.

## 2.2 Transportation System

### 2.2.1 Road

The Central Almaguin Region and its catchment area are served by a network of roads connecting to various parts of central, southern, and northern Ontario.

Highway 11 is one of Ontario's major north-south provincial highways and connects the region to Toronto to the south with an approximate driving time of 3.5 hours. North Bay, a major commercial centre for Ontario's near north is located approximately 40 minutes north on Highway 11.

The Ontario Ministry of Transportation (MTO) has been undertaking a major improvement project for Highway 11 over the past five years. The project will provide a complete four-lane divided highway from North Bay to Toronto which is expected to be completed by the fall of 2011. When the project is completed, Highway 11 will be re-routed outside of the communities of South River and Sundridge.

The highway realignment is expected to have negative economic impacts on the local economy, as the majority of the vehicles currently travelling through the communities of South River and Sundridge while en-route to Toronto, North Bay or points beyond are expected to decrease dramatically. Many of these travelers currently purchase fuel, food and other items but with the opening of the new highway, this activity will no longer occur at the same levels. This situation has already been experienced in the community of Trout Creek, located approximately 17 km north of the community of South River. Highway 11 was re-routed around the community and economic activity has been reported to be declining due to the lower number of vehicles passing through and visiting the community.

Provincial Highway 124 connects the Central Almaguin Region to the communities of Magnetawan and Parry Sound to the west. Further road access is provided to many smaller communities and lakes via various municipal roads.

### 2.2.2 Air

Scheduled air services for the general public are not currently provided at the South River-Sundridge District Airport. Local residents wishing to travel by scheduled air services generally drive to Toronto Pearson International Airport. A small number of residents may travel to nearby North Bay to access scheduled air services; however, Toronto is a more likely option as it has a larger selection of available destinations and frequencies. Based on low local population, the Airport's location between Toronto and North Bay and the improvements to Highway 11, it is unlikely that a scheduled air service would be established at the South River-Sundridge District Airport in the short or medium-term. The Airport might expect a small commuter (19 seats or less) air service in the long to ultimate-term, depending on local economic conditions and demand growth.

Consultations with the airport operator suggest that ad-hoc air charter services are not provided on a regular basis at the South River-Sundridge District Airport.

### 2.2.3 Marine

Although there are several lakes in the region used for various recreational and commercial purposes, Central Almaguin is not supported by any commercial marine passenger transportation services.

### 2.2.4 Rail

The Central Almaguin region is served by scheduled commercial rail service operated by Ontario Northland. Passenger rail connections are available on a daily basis from South River to points south as far as Toronto, and to points north including North Bay and Cochrane.

## 2.3 Government Jurisdictions

### 2.3.1 Government of Canada

Transport Canada currently owns, operates, or subsidizes 150 of the 726 certified airports in Canada. These airports generally include those within the National Airport System (NAS) and smaller Remote Airports where air services are essential for communities. The South River-Sundridge Airport does not fall under either of these two classifications.

### 2.3.2 Government of Ontario

The Ministry of Transportation Ontario (MTO) currently operates and manages 29 airports in northern Ontario in order to ensure access to remote communities. Aside from operating and managing these sites, the Provincial Government provides very little support to other airports in Ontario.

### 2.3.3 Municipalities

The Villages of South River and Sundridge and the Townships of Machar, Strong, and Joly own and operate the Airport. The municipalities have financial responsibility for the Airport and provide all staff and required resources to maintain the Airport's operational status. The Airport Committee (comprised of local elected officials) is responsible for administering all infrastructure projects related to the Airport.

## 2.4 Community Concerns

### 2.4.1 Community Consultations

Extensive stakeholder consultations were held during preparation of the Development Plan and Business Case. Supplemental consultations were undertaken as deemed appropriate and a number of additional stakeholders with current and potential future interest in the Airport's development were contacted.

Stakeholder consultations included, but were not limited to, airport tenants, the South River-Sundridge Flying Club, and the South River-Sundridge Airport Committee. A list of stakeholder consultations conducted during the planning process is provided in Table 2-1.



A general lack of community support for the Airport has limited growth opportunities at the site in previous years.

Table 2-1 – Consultation List

Organization	Name	Title
Village of South River	Susan Arnold	Clerk-Administrator
Village of South River	Jeffrey Dickerson	Councillor
Village of Sundridge	Elgin Schneider	Mayor
Village of Sundridge	Barry Morris	Councillor
Machar Township	Doug Maeck	Mayor
Strong Township	Merlyn Snow	Councillor
Joly Township	Bruce Baker	Councillor
South River-Sundridge District Airport	Derrick Nauss	Airport Manager
South River-Sundridge District Airport	Jack Musheeco	Assistant Airport Manager
South River-Sundridge Flying Club	Bill Brown	President
Airport Tenant	Paul Dunlop	-
Airport Tenant	Don Roberts	-
Airport User	Kevin Sweeney	-
Airport User	Eric Schlieper	-
Airport User	Gary Blanchett	-
Airport User	David Lane	-
Airport User	Gary Parks	-
Airport User	Ted Woodill	-
Airport User	Mary Norman	-
Airport User	Peter Brady	-
Central Almaguin Economic Development Association (CAEDA)	-	-

#### 2.4.2 Airport Improvements

Stakeholders generally agreed that paving at least one runway while maintaining a turf strip would help to attract additional traffic to the Airport and therefore increase airport revenues. It was suggested that a paved runway could be a factor in potentially attracting a flight school, or an aircraft maintenance organization.

Stakeholders also suggested that airfield lighting be installed to improve safety and increase the availability and use of the Airport.

#### 2.4.3 Land ownership

Acquiring the land owned by MNR adjacent to the airport property is considered to be a priority by a number of stakeholders. Having control of this land would allow for future airport development as well as additional control over airport fees. Currently, some airport users elect to park their aircraft on MNR land in an effort to avoid parking fees charged by the Airport. With control of this land, the Airport could collect additional aircraft parking fees.

#### 2.4.4 Airport Access

Airport tenants expressed interest in improved access to the Airport. Consultations suggest that roads are not consistently maintained, although signage has been installed to aid visitors in locating the Airport.

Of greater concern to stakeholders is the project currently underway to realign Highway 11, which is the main access to the region from southern Ontario. The project will have noted benefits, primarily a highway with increased speed and capacity. However, this has the potential to negatively affect the Airport and its catchment area.

#### 2.4.5 Revenue Generation

A number of suggestions were presented by tenants and other stakeholders as a means of improving service at the Airport and increasing revenues. These suggestions included increasing availability of development lots, attracting a flight school, offering automotive gas for ultralight operations, and purchasing a fuel tanker to take advantage of fuel sales to seaplanes.

According to stakeholders, the Airport has been approached on a number of occasions by prospective tenants inquiring about commercial lots for the purpose of constructing a hangar. Because the Airport previously had no development plan, the Committee was unsure where to designate lots in order to maintain safe operations and optimal land use. Designating additional commercial lots, both aeronautical and non-aeronautical, could be the first step in attracting and accommodating new tenants.

Attracting a flight school to the airport could have significant positive economic spin-offs. In 2010, a Memorandum of Understanding (MOU) was signed between the municipalities owning the airport and the National Chief of the Ontario Coalition of Aboriginal People to operate a training facility for pilots and aircraft engineers. Defining commercial lots at the Airport should be accomplished before a flight school can consider leasing land and commencing operations.

Tenants also recommended assessing aviation fuel sales at the Airport to determine the benefit of offering automotive gas or 'MOGAS' for sale and purchasing a fuel bowser. It was suggested that offering automotive gas would increase fuel sales as the airport is a base for ultralight operations.

#### 2.4.6 Water Aerodrome

A common interest shared by all stakeholders contacted during the consultation process is the potential value of the Airport's water aerodrome. An access ramp to South River is located at the northeast corner of the existing property boundary and is currently capable of supporting limited seaplane activities. The majority of stakeholders were in support of further development of the river access and water aerodrome to increase seaplane traffic and improve airport revenues.

In addition, it was recommended that a dock and/or aircraft anchors be installed to allow for visiting seaplanes to be safely secured without being removed from the water. These infrastructure improvements would likely make South River-Sundridge Airport more attractive to seaplane operators.

Stakeholders also suggested publishing South River/Forest Lake in the Water Aerodrome Supplement (WAS). This would help to make the aerodrome more visible to seaplane owners who may have, in the past, been unaware of this capability at South River-Sundridge. Having direct access to a water aerodrome will give the Airport a distinct competitive advantage over regional airports unable to offer the same capability.



South River lies adjacent to the South River-Sundridge District Airport and is used as a Water Aerodrome.

### 3.1 Background

The South River Sundridge airport has had a variety of owners and operators over the past 70 years. The relationship between the owner and the operator is the basis for the governance structure of an airport.

The Airport is currently owned and operated by the municipalities of South River, Sundridge, Machar, Strong and Joly. This arrangement is the result of ownership agreements between the five municipalities that has been active for 29 years.

The five municipalities are seeking an examination of the airport's future vision, including the governance structure. The governance structure of an airport of the size and scope of South River-Sundridge does not solve all the issues that face a municipal airport; however, an appropriate structure can contribute to making focused decisions that are in the best interest of the Airport.

The Airport is, and can be, an important tool for the municipalities to achieve their regional objectives. It can be a mechanism for economic development by attracting new businesses and developing tourism and recreational activities in the region. The role the airport management structure will play is to guide the type of development at the airport. The correct type of governance structure should assist in achieving those objectives.

The municipal owner-operator arrangement is very common in smaller communities across Canada. When there are a number of municipalities involved in the airport the method of governance can become more complicated, but the fundamental options for airport governance structure still remain. When there are many local governments involved, each with a differing degree of financial and direct management, involvement the decision making process of and agreeing what is best for the airport versus what is best for the individual municipality can be difficult.

There are very few small airports in Canada that generate a financial operating surplus. Municipalities should recognize that an airport properly developed and managed is an economic generator whereby the cost is incurred at the airport (contribution provided by the local municipalities) but the benefit is realized in the businesses throughout the communities. The municipalities benefit from the increased tax base, more employment, greater economic activity, and improved ability to attract new activity. Economic impact scenarios have been developed in Chapter 5 to illustrate the potential economic benefit to the community by further developing the airport.

There are a range of governance options that are available for airports. Each model has characteristics that are important to the type and credibility of the decisions and the ability to encourage participation by others (governments, aviation operators, aviation support businesses, potential economic opportunities, etc.) in airport development and operations.

### 3.2 Current Governance

The South River-Sundridge District Airport is currently overseen by the five municipalities who nominate an elected council member to sit on an Airport Committee. The Airport is managed on a day-to-day basis by an Airport Manager and a part time employee. The Airport Committee reports to the municipal councils on airport activities and issues. This arrangement has been in place for several years. Over time the amount of financial and operating involvement by the airport committee and Councils has varied. In recent years the movement from a private entity operating the Airport to a paid Airport Manager and part time staff has increased the need for financial support from the municipalities. As a result of this action the Airport is operating at a cost/revenue level that requires increasing financial support from the five municipalities.

The growing level of financial support is a cause of concern at the community level, mainly because local residents see the Airport as a place for recreational flying only, as opposed to a potential economic driver for the community. In addition, there has been no formal plan for the future development of the Airport. The lack of a Development Plan inhibits opportunities for new airport revenue and significant capital funding from other levels of government.

### 3.3 Governance Approaches

There are a range of governance approaches that are utilized by many airports across Canada. Some are more relevant to larger airports and some for smaller airports.

The range includes some dramatic options such as closing the Airport, up to airport authorities that require a large amount of commercial passenger traffic to be effective.

For each option there can be different operating arrangements. The municipality can operate the Airport with their own employees, the Airport can be operated by a contractor reporting to a municipal official, or a system could be put in place where a contractor would be responsible for reporting to an airport commission or committee. It is important to note that an airport governance structure is not dictated by who operates the airport, but by how decisions affecting the development of the airport will be made. The range of governance approaches is illustrated in Figure 3-1 below. The significant features of each governance option are summarized on Table 3-1.

Figure 3-1 – Range of Airport Governance Options

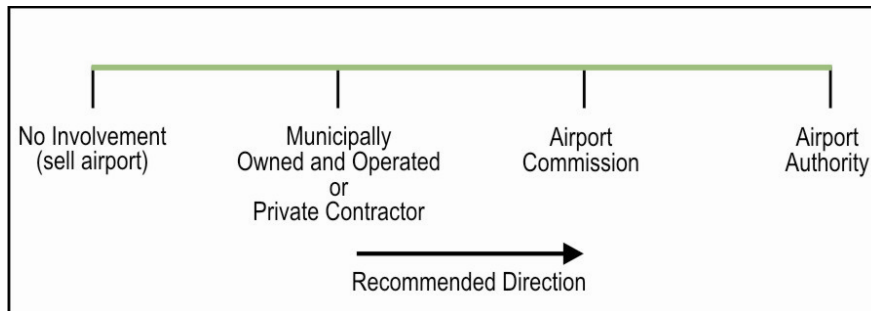


Table 3-1 – Significant Airport Governance Features

Governance Option	Significant Features	
<p>No involvement (sell or close airport)</p>	<p>-No involvement in airport ownership or funding.</p>	<p>-Loss of potential future economic asset. -Loss of future potential economic generator. -Cost to sell could be significant (environmental responsibilities, obligations to those at then airport with leases etc.). -Loss of future marketing tool to encourage future business development.</p>
<p>Municipality own and operate with current airport committee. (Status-Quo)</p>	<p>-Airport available for future development. -Municipalities maintain control over future airport development . -Communications with Councils very direct and frequent</p>	<p>-Contributions continue -Elected officials on airport board -No assurance of appropriate skill mix on airport board. -Potential missed business opportunities. -Municipalities responsible to administer the airport operations (hire manager, training, etc.). -Municipalities carry safety and any legislative liabilities (Environment, employee safety, aviation safety regulations etc.). -Airport Board membership changes may take place with each election.</p>
<p>Municipality own and utilize a private contractor reporting to existing Airport Committee.</p>	<p>-Removes day to day operating responsibility. -Airport board have reduced time commitment.</p>	<p>-Could be more costly (operator must make a profit) A party willing to operate the airport for little or no cost would be very helpful (there may be very few potential groups prepared to do this). -Airport may not be developed in a direction in the best interest of the municipalities. -Municipalities carry any safety and legislative liabilities. -Airport Committee may not have range of skills to best direct airport development (elected officials who change from time to time). -Private contractor may not be willing or able to pursue new opportunities for airport development. -Little incentive for operator to cut costs or make efficiency gains.</p>

Governance Option	Significant Features	
Airport Commission	<ul style="list-style-type: none"> <li>-Better expertise to manage the development of the airport.</li> <li>-More business like focus on running the airport.</li> <li>-Commission is responsible for the day to day airport management (remove responsibility from municipalities).</li> <li>-More consistency in membership on a commission.</li> <li>-More likely to find business opportunities for the airport.</li> <li>-Better able to find cost cutting and revenue generating opportunities.</li> <li>-Municipalities own land and direct airport development consistent with municipal plans.</li> </ul>	<ul style="list-style-type: none"> <li>-Contributions will be required.</li> <li>-Liability remains with the municipalities.</li> </ul>
Airport Authority  (This model is most applicable to very large scheduled passenger traffic type airports)	<ul style="list-style-type: none"> <li>-Liability removed from municipalities.</li> <li>-Municipalities continue to own land and assets.</li> </ul>	<ul style="list-style-type: none"> <li>-Significant overhead cost.</li> <li>-Integration with regional planning more difficult.</li> <li>-Requires significant passenger volumes or a large contribution to operations is necessary.</li> </ul>

### 3.3.1 Sell or Close

The option to sell or close the Airport could be very expensive as there may be several obligations to be met by the owner. If the Airport were to be closed there are several existing tenant leases that would have to be terminated. The property would have to be controlled in some way to ensure safety and reduce potential future liability actions. Actions such as fencing and insurance could be an ongoing cost. There may also be other obligations unknown to the study team that have been undertaken over the years that may require negotiation before the Airport could be sold or closed (i.e. land use easements, etc.).

The option to sell has many of the same risks and costs as closing the Airport. If the Airport is to be sold all the risks and obligations will need to be valued and become part of the sale price. In most cases the cost to immediately bring the Airport into a simplified sale condition will far out weigh the price a potential buyer may be willing to pay for the airport.

If the Airport is sold to a third party the municipalities will have little control over the activity that may take place on the airport property, reducing the ability to position the Airport as an economic driver within the community.

### 3.3.2 Airport Authority

The Airport Authority form of governance is most applicable for very large airports with high volumes of commercial and private aircraft operations. The Authority is created by a Provincial statute which gives it significant powers to charge fees and incur debt. The Authority has full power to plan, develop and operate the airport. This model is expensive to operate and is generally not applicable to a municipal airport.

### 3.3.3 Municipally Owned and Operated

This is the current governance structure at the South River-Sundridge District Airport. The Airport is operated by the municipalities and managed by an Airport Committee comprised of elected councillors from each municipality. Elected officials who are appointed to the Airport Committee are subject to frequent change and do not necessarily cover all the important skills to plan, develop and operate the Airport. As elected councillors, committee members may have conflicting priorities when trying to decide what is best for their constituents and the Airport. There may be times when the priorities of one may be in conflict with the priorities of the other.

The municipalities have the responsibility to hire and manage the staff at the Airport and ensure appropriate staff support activities (i.e. training, licensing, and benefits). This adds to the administrative burden for the municipalities. The current Airport committee members have many responsibilities that make it difficult to commit the time to focus on the airport development. The municipalities have direct control over the airport planning and operations and also carry any liabilities for legal and regulatory obligations.

### 3.3.4 Municipally Owned with Contractor

This option is similar to the governance option above with the exception that a private entity would operate the Airport under some type of contract arrangement. The contract conditions typically have a company operate the airport for a fee. This would eliminate the day-to-day operational obligation but there is normally a cost associated with this model. The cost usually includes a profit for the company that is operating the airport. The contractor is not focused on cost efficiency or additional revenue generation unless they share in the gain. There is little incentive for the private operator to promote the airport unless there is some form of compensation for time and costs incurred. The private operator could assist in the airport administration, but this would normally be part of the fee.

If this governance option were selected, the municipalities would still carry legal and regulatory obligations. The overall integration of the airport in regional plans and site planning would remain with the municipalities.

In general, the main benefit of this option is that day-to-day operations are removed from the direct responsibility of the municipalities. The main concern is that this option is more costly than the present approach, unless a benevolent group is prepared to operate the airport at minimal cost.

### 3.3.5 Airport Commission

An Airport Commission is a group of appointed individuals with the expertise and time to focus on the planning, management, development, and promotion of the airport. The Commission would bring a more business-like focus to the current airport operations to reduce the cost-revenue gap. Commission members would be responsible for the oversight of the day-to-day operations, relieving the Airport Committee of this task. The Airport Commission would have more consistency of membership as their appointment could be for a longer term than each municipal election. The individuals would bring the skills that are important to develop the airport (business, legal, engineering, marketing, aviation, management, etc.). These individuals would fuse their knowledge and experience to help guide the future development of the airport. Commission members often use their local contacts to promote and encourage airport funding. The presence of a Commission of qualified persons assists in creating credibility when approaching governments and industry for participation in the development of the airport. The Airport Commission would develop plans for the airport in coordination with the regional plans developed by the municipalities.

The municipalities would own the land and carry the legal and regulatory obligations. There would likely be a continuing need for a contribution from the municipalities, but with the knowledge and experience of Commission members, the amount of the contribution should decrease.

An Airport Commission comes with the benefit of the use and availability of skilled and experienced individuals focused on improving and developing the airport, consistent with the objectives of the municipalities. The airport priorities are their main concern and as appointed persons they are not in conflict with other municipal priorities.

This governance model offers many attractive features for the South River-Sundridge District Airport. It should reduce the contributions, relieve the municipal councillors of the additional work load, provide a dedicated effort to develop and promote the airport, and bring enhanced credibility to the marketing of the airport to business and governments.

## 3.4 Recommendations

Considering the current circumstances, a more focused effort by a group of individuals with appropriate skills would assist the Airport in improving the current financial performance and promoting the future development of the airport.

**It is recommended that the South River-Sundridge District Airport create an Airport Commission.** In the short-term it is recommended that the Airport Commission report to a committee which represents the five municipalities, potentially consisting of elected officials. This strategy could assist in an orderly transition to a more traditional Airport Commission approach. The transition would permit the municipalities to see the results of an Airport Commission as well as become more comfortable with the change in Governance. At some point in the future a more traditional Airport Commission reporting directly to the five municipal councils should be implemented.

## 4.1 Current Inventory

The Airport's current development area is concentrated within the northeast quadrant of the site. Several land leases are currently in place and include the South River-Sundridge Flying Club, a small aircraft maintenance operation, and other private leases.

## 4.2 Aircraft Maintenance

Aircraft maintenance activities include several support functions, some of which are currently being carried out at the South River-Sundridge District Airport. Typical aircraft maintenance activities include General Aviation aircraft inspections and routine maintenance.

Sufficient area is available to support the growth of aircraft maintenance support at the South River-Sundridge District Airport.

## 4.3 General Aviation

General Aviation (GA) is defined as civil aviation activities operated by individuals, organizations, and businesses providing the following services:

- ✈ Public charter aircraft operations;
- ✈ Private charter operations serving the regional air transportation requirements of companies, organizations, and government departments;
- ✈ Private aircraft operations for business or personal use;
- ✈ Flight training;
- ✈ Public and private helicopter operations;
- ✈ Support activities for the above including repair, sale and inspection of aircraft and associated support material;
- ✈ Private office and hangar space for GA operators; and
- ✈ Medevac services.

A review of historical aircraft movements suggests that the amount of GA operators at the Airport has increased over the past 4 years and is likely to continue to rise in the short-term and beyond.

### 4.3.1 Flight Training

The South River-Sundridge District Airport is well located to attract commercial flight training. Educational facilities could be located at the Airport within the development areas, perhaps in coordination with the National Chief of the Ontario Coalition of Aboriginal People, Canadore College, or other post secondary institutions in northern Ontario. Adequate capacity is also provided for flight training facilities throughout all planning horizons.

### 4.3.2 Recreational and Experimental

South River-Sundridge District Airport is well suited to accommodate recreational and experimental aircraft operators and supporting businesses. The Airport currently serves as a base for recreational operations, including ultralight activities. Development areas to support additional facilities related to recreational and experimental flying are provided within the Development Plan. Itinerant recreational flying related to tourism is also expected to increase at the Airport.

### 4.3.3 Natural Resource and Public Service

Aircraft operations related to natural resource and public service activities generally include firefighting, law enforcement, and other government applications.

Land adjacent to the Airport is currently owned by the Ministry of Natural Resources (MNR), which is a n occasional user of the Airport. Areas are provided within the Development Plan to support potential MNR activities, within the airside development areas.

### 4.3.4 Business and Corporate Aviation

Business and corporate aviation activities are generally related to the transportation of company executives or large charter groups, but also encompass travel by individuals with higher disposable incomes to locations not served by commercial carriers. These individuals usually own or charter an aircraft for air transportation. Analysis suggests that business and corporate aviation activities could potentially use South River-Sundridge District Airport for access to seasonal residences and resorts as cottage country moves further north, especially with the expansion of Highway 11. The construction of a Fixed-Base Operator (FBO) facility, either by the airport owner or a private investor, would support and promote these types of activities.

## 4.4 Commercial Opportunities

### 4.4.1 Aeronautical

A number of potential aeronautical commercial opportunities have been identified in Chapter 5: Economic Impact. These opportunities include:

- ✈ A small flight school;
- ✈ A Fixed-Base Operator (FBO);
- ✈ A charter flight operator;
- ✈ A small MRO operator; and
- ✈ An installation of the Ontario Provincial Police which could base one aircraft at the airport for routine law enforcement activities.

Pursuing these lines of business could stimulate airport activity and growth, and increase overall revenue streams through various aeronautical charges and land leases. It is suggested that the Airport pursue the opportunities listed as medium-high to high within Table 4-1.

### 4.4.2 Non-aeronautical

Non-aeronautical opportunities are identified separately from aeronautical to highlight the importance of diversifying airport commercial activities and land uses. South River-Sundridge District Airport has land available for development not directly related to airport operations; however, attracting these lines of business could be difficult for a number of reasons including: the abundance of available land in the region; the Airport's location in relation to the Highway; and a lack of municipal services (i.e. water, sewer, and natural gas).

Non-aeronautical opportunities have not been specifically identified within this Development Plan, although potential uses range from restaurants and RV parks to outdoor advertising and fly-in campgrounds. Nonetheless, non-aeronautical commercial land parcels have been identified within the Development Plan for future use.

Table 4-1 – Aeronautical Commercial Opportunities

Potential Use	Local Competition	Local Interest	Possibility
Aircraft Hangars	Yes	Possible	High
Flight School	Yes	Possible	Medium-high
Aircraft Maintenance	Yes	Possible	Medium-high
OPP Installation	Yes	Possible	Medium
Fixed Base Operator	Yes	Possible	Medium
Charter Flight Operator	Yes	Possible	Low

## 4.5 Commercial Lands

### 4.5.1 Demand

Historical demand for development land at the South River-Sundridge District Airport has been sporadic. For the purpose of this Development Plan and Business Case, anticipated demand includes the possible relocation of an aircraft maintenance operation from a neighbouring airport, the construction of a small flight school, leasing of T-hangars, and leasing of commercial lots by current and future users. Although this demand is anecdotal in nature, ample commercial lands have been provided in the Development Plan to sufficiently accommodate these and other future uses.

### 4.5.2 Supply

Analysis of the Airport site has shown that adequate land is available for aeronautical and non-aeronautical commercial development within the current airport property. Additional aviation commercial land parcels have been identified for the short, medium, and long-terms within the Development Concept presented in Chapter 5. These additional parcels are expected to meet or exceed the commercial needs of the Airport beyond the established planning horizons.

The proposed Development Concepts divide the aviation commercial land into 3 sites. Commercial development parcels include the following:

✎ Area 1, situated within the Airport's existing core development area has been selected for the establishment of additional airside commercial development, such as T-hangars. Area 1 also includes the establishment of groundside commercial lots.

✎ Area 2 is located in the north-eastern quadrant of the airport property, parallel to Runway 04-22, adjacent to the proposed future terminal building and apron. This area could be used for both commercial and recreational uses.

✎ Area 3 has been established to the west of the runway system, on land currently owned by the Ministry of Natural Resources. The area is comprised of airside commercial lots parallel to both Runway 04-22 and Runway 12-30, meeting at the intersection of the runways. This area could be used for commercial and recreational development, especially flight training. The future expansion of the South River-Sundridge Flying Club facilities could also be accommodated in this area.

## 4.6 Development Strategy

The development strategy is based on providing lots to potential airport tenants as demand occurs.

Table 4-2 provides a phasing strategy based on potential airport growth. The program identifies each development parcel, the available areas, and an estimated time frame for development.

It is important to note that if demand is significantly higher than forecasted levels, lands may have to be developed sooner. Conversely, if actual demand is lower than forecasted parcels should be developed within longer planning horizons.

Table 4-2 – Commercial Land Development Strategy

Parcel	Existing Area	Short Term		Medium Term		Long Term
		Area	Lots	Area	Lots	Area
Existing	0.5 Ha	-				
Area 1 (Airside)	-	0.9 Ha	7	-	-	-
Area 1 (Grounside)	-	-	-	1.3 Ha	12	-
Area 2 (Airside)	-	-	-	1.2 Ha	11	1.5
Area 3 (Airside)	-	-	-	1.7 Ha	14	2.5
<b>Totals</b>	<b>0.5 Ha</b>	<b>0.9 Ha</b>	<b>7</b>	<b>4.2 Ha</b>	<b>37</b>	<b>4.0 Ha</b>

## 5.1 Activity and Demand

Aircraft movement statistics for the South River-Sundridge District Airport were provided by the airport operator. Table 5-1 shows the recorded number of recorded aircraft movements at the site between 2007 and 2010. Aircraft movement values were not available prior to 2007 as they were not being recorded.

Consultations and site inspections identified several airport deficiencies as listed in Section 1.3. These deficiencies are currently having a negative impact on the amount of activity experienced at the South River-Sundridge District Airport. The primary reason for the relatively low aircraft movement volumes is predicted to be the lack of a paved runway. If the majority of the deficiencies are addressed as per the recommendations contained within this Plan, aircraft movement values would be expected to increase as per the forecast values presented in Table 5-1. These forecasts were developed as assumptions for the Business Case presented in Chapter 6. In order to accommodate for this anticipated increase in aircraft movements, airport facilities will require improvement as per the development recommendations contained herein.

**Table 5-1 – Aircraft Movement Activity**

Year	Actual	Forecast
2007	303	-
2008	444	-
2009	739	-
2010	965	-
2011	-	1,255
2012	-	1,578
2013	-	2,651
2014	-	3,724
2015	-	4,797
2016	-	5,870
2017	-	6,943
2018	-	8,646
2019	-	9,089
2020	-	10,162
2021	-	11,235

## 5.2 Phased Development

Airport development is recommended in phases to support current traffic levels and forecast growth. Airside development is recommended in addition to groundside developments including infrastructure such as access roads, development lots, and parking areas. These developments need to occur as activity levels at the Airport increase in order to maintain an efficient system.

The Phased Development Program in Table 5-2 identifies airside, groundside, and other developments within the defined short, medium, and long-term planning horizons.

The Phased Development Concept is illustrated in Figure 5-3. The recommended configuration of airside, air terminal, and groundside is provided based on highest and best use airport planning principles.

## 5.3 Constraints to Development

### 5.3.1 Airport Site Constraints

The Airport is constrained by many natural and some man-made features.

- ✎ The site is constrained by crown properties possessed by the Ministry of Natural Resources (MNR) directly to the east, west, and south of the current airport boundary.
- ✎ Airport Road is located to the north and Peacock Road is situated to the south of the Airport.
- ✎ Runway 22 is constrained to the southeast by marsh land.
- ✎ Runway 30 is constrained to the west by Airport Road and an airside access road.
- ✎ Runway 12 is constrained to the east by a private access road, a watercourse, and sharply rising terrain.

## 5.4 Airside

### 5.4.1 Runway 04-22

It is recommended that short-term runway development include paving Runway 04-22 (975m x 23m), upgrading the Runway from a Code 2A-NI designation to a Code 2B-Non-Precision (NP), and providing medium intensity edge, threshold, and end lighting. This runway was selected for future development because it is currently the longer of the two runways, it is aligned with the prevailing winds during summer months when the Airport is busiest, and it is not constrained by obstacles (i.e. rising terrain that will limit the future development of Runway 12-30).

- ✈ A Code 2B-NP facility will allow for a GPS approach to be developed in the future allowing the Airport to be used under Instrument Meteorological Conditions (IMC). Traditional navigational aids such as VOR/DME or NDB are not considered to be a likely acquisition in the future, primarily due to aging technologies and high capital costs.
- ✈ The current runway length of 975 m is sufficient in the short term, and is capable of supporting Beech 1900D corporate/commuter operations, which is the most demanding aircraft expected to operate at the updated facility.



Paving Runway 04-22 is expected to bring increased activity levels to the South River-Sundridge District Airport.

Long term runway development includes extending Runway 04-22 to the northeast by 224 m, resulting in a total runway length of 1,199 m.

The final runway length of 1,199m has been selected because it is the longest allowable runway under Code 2 standards. Lengthening the runway beyond 1,199m would then require Code 3 standards, which are more restrictive and could greatly reduce the land available for future development.

The current and proposed physical zoning for South River-Sundridge District Airport is illustrated in Figures 5-1 and 5-2.

It is also recommended that the airport consider establishing instrument approach procedures in the short-term after Runway 04-22 becomes paved in order to further increase the Airport's availability.

### 5.4.2 Runway 12-30

It should be noted that there is a major topographic feature (ridge) under the approach to Runway 12-30. Consequently, this runway cannot be safely developed and/or certified in its current location. It must be recognized that use of this turf runway is at the pilot or operator's own risk.



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Client

**SOUTH RIVER  
SUNDRIDGE  
DISTRICT AIRPORT  
(AERODROME)**

Figure

**CURRENT  
PHYSICAL  
ZONING**

Notes

1. Preliminary
2. All dimensions

Figure No.

5-1

Drawn By

EDH

Approved By

RAM

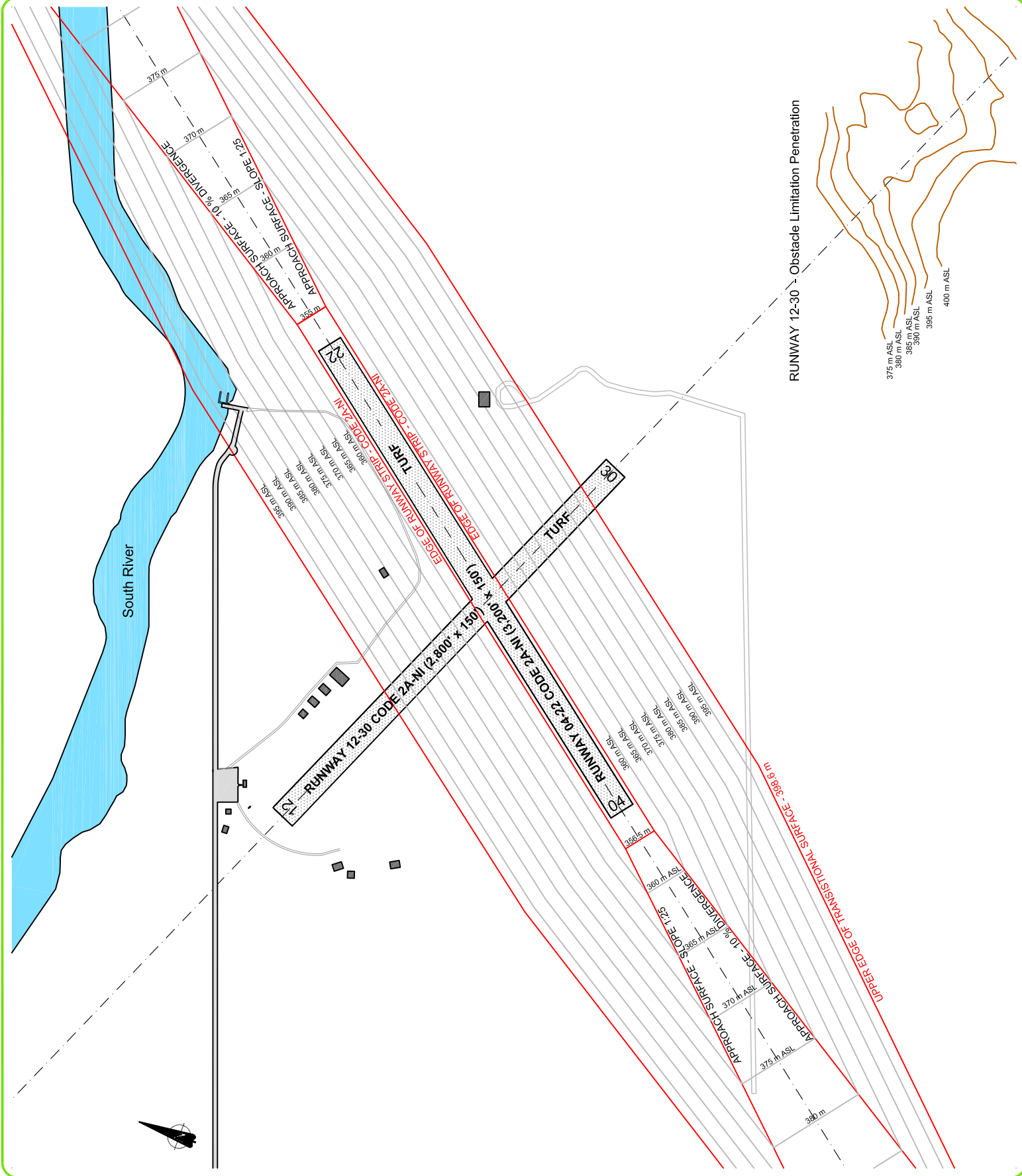
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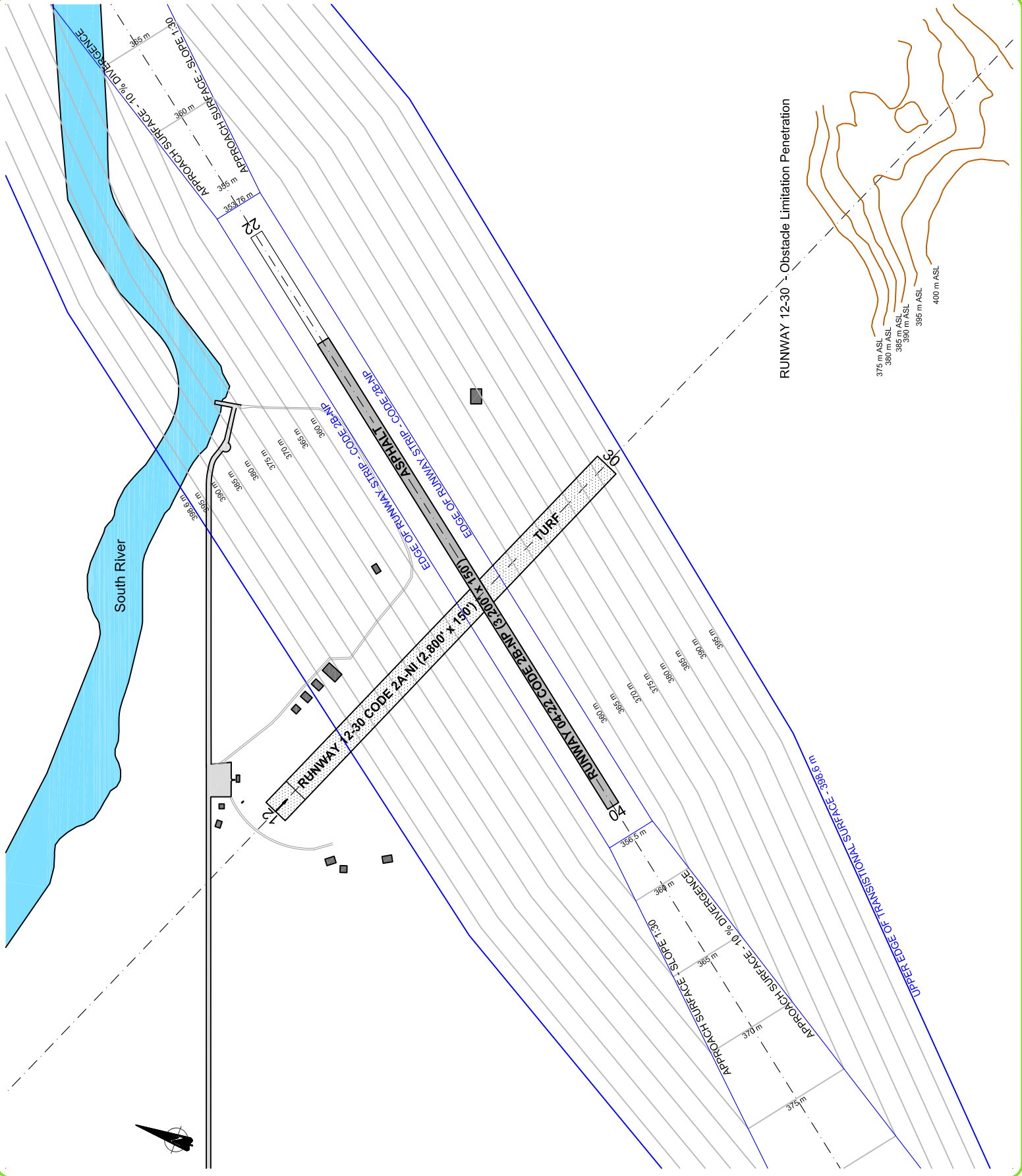
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### 5.4.3 Taxiway System

Currently, the Airport does not have a dedicated taxiway system. A paved taxiway should be constructed to support Apron I, as well as establishment of turf taxiways to support the remainder of aircraft operations. New taxiways should have a width of 10.5m, capable of supporting Code-B aircraft.

**In the short-term, construction of a new paved Taxiway 'A' connecting Runway 04-22 to a new Apron I is recommended.** The new taxiway will provide direct access from Apron I to Runway 04-22 and be capable of accommodating the recommended design aircraft.

Provision has been allowed in the Plan for new turf taxiways as required. Turf taxiways have been illustrated within the Development Plan as future reserves. The Airport can elect to designate these areas as operational taxiways as demand increases and operational budgets dictate.

### 5.4.4 Apron

**It is recommended that short-term apron development include constructing a new paved apron (77m x 42m).** The new apron, Apron I, will provide parking positions for Code A and B size aircraft. The apron will allow for power-in and power-out operations without the need for ground support vehicles. For efficient circulation and parking, the introduction of an apron taxiway is recommended.

**It is also recommended that Apron I be supported in the short-term by the establishment of a turf tie down area.** Tie-down Area 1 will have an area of approximately 4,000 m<sup>2</sup>, and be located adjacent to Apron I on the southwest side. The tie-down Area will support light aircraft using the new public terminal facility and will also be capable of supporting overflow from Apron I.

**A turf-tie down area should also be established in the short-term (once land use/ownership rights are negotiated) to support commercial lots located on the Airport's west property, currently owned by MNR.** The tie down area will be approximately 3,250 m<sup>2</sup> and located north of the Area 3 commercial development lots.

The tie-down area will provide aircraft parking for the South River Sundridge Flying Club.

In the medium-term the establishment of a second turf tie down area is required. Tie-down Area 2 will have an area of approximately 2,100 m<sup>2</sup>, and be located adjacent to Apron I, on the northeast side. This tie-down area will further increase the aircraft parking capacity available for the terminal building.

### 5.4.5 Seaplane

Detailed assessment of the Water Aerodrome was not within the scope of this study, except with respect to access to the Airport.

**It is recommended that short-term water access development includes constructing a new seaplane docking facility, upgrades to the access ramp, and publication within the Water Aerodrome Supplement.** The new dock will allow for temporary parking positions for seaplanes while providing efficient access and egress from the water to the upgraded access road. Development of the seaplane access may also help increase business levels related to seasonal seaplane storage and changeovers from floats to wheels and visa versa. The Airport might also consider purchasing a fuel bowser capable of delivering 100LL fuel to seaplanes located at the water aerodrome. This could also help attract additional seaplane operations to the South River-Sundridge District Airport.

In the Medium Term, the establishment of a seaplane storage area is recommended. This new storage area will be capable of supporting seaplanes, and allow for minimal transporting distances from the water access area.

### 5.4.6 Other Airside Development

A crucial step required for the future development of the South River-Sundridge District Airport is purchasing or obtaining access to the MNR lands to the west of the current Airport property. MNR has suggested that this land could be sold to the airport owners for 'fair market value' if a development plan for this land was prepared. **It is recommended that the airport owners enter into negotiations with the MNR in the short-term to obtain land use rights or purchase these lands for airport use.**

**The installation of medium intensity edge lighting system on Runway 04-22, Taxiway 'A', and Apron**

**It is recommended in the short-term.** This lighting system will allow for night time and low visibility operations, increase airport availability and safety, and potentially attract new users to the Airport.

**Tree clearing for the Runway 04-22 strip and the West Tie-down Area is recommended in the short-term.** This tree clearing should meet the runway strip requirements as per TP 312. The area required for clearing will be approximately 0.65 hectares.

Medium and long-term tree clearing for the runway and taxiway extensions, the seaplane storage area, and Areas 2 and 3 will also be required. It should be noted that limited tree clearing has been identified for the Runway 04-22 based on a registered aerodrome only. If the airport were to be certified, additional tree clearing may be required to avoid obstacle limitation surface penetrations in the transitional surface.

**It is also recommended that airside development lots in Area 1 be made available for lease in the short-term.**

Establishment of Airside Commercial Development lots in Area 2 is recommended in the medium-term. These lots will provide an area for typical airside commercial uses such as hangars, project warehousing, or an FBO facility.

In the long-term, the establishment of additional Airside Commercial Development lots in Areas 2 and 3 is recommended. The commercial lots will provide additional area for typical airside commercial uses, such as commercial hangars.

## 5.5 Air Terminal and Operations

Although scheduled services do not exist at the Airport, a public facility is required to accommodate charter flights, itinerant aircraft, recreational flying, sight-seeing, and public visitors.

**In the short-term, construction of a modest Air Terminal facility is recommended. A gravel surface vehicle parking area should be provided to support the Air Terminal.** The new terminal should be capable of supporting charter and itinerant flights and support a airport administration office and meeting areas.

The facility should include a public waiting room, passenger services, phones, washrooms, and related amenities.

## 5.6 Groundside

**In the short-term, tree clearing to provide for the relocated main access road is recommended.** This tree clearing will provide area for a groundside access road allowance of 13 m. **It is recommended that a 6 m gravel-surface access road be constructed in the short-term to serve commercial development Areas 1 and 2, the Air Terminal, and the South River water aerodrome access.**

**In order to provide adequate access to developments in Area 3 and the west tie-down area, it is recommended that the west access road be realigned and improved in the short-term.** This road requires realignment so it can be located outside the strip associated with Runway 12-30. The West Area Access Road should be extended toward the Runway 04 threshold in the medium and the long-term (as demand dictates) to provide groundside access for Area 3 commercial development lots.

An additional gravel access road may be required in the long-term to support the airside development lots in an expanded Area 2.

Establishment of a seaplane storage area is recommended in the medium-term. This storage area could be used for short-term or seasonal aircraft storage.

**It is also recommended that fencing be provided in the airport's core area in the short-term.** Paigewire fencing is recommended to reduce capital costs.

**Construction of a new airport maintenance facility is recommended in the short-term,** located where sufficient airside access is available. One potential location for the airport maintenance facility is near the entry of the Airport, adjacent to the existing maintenance facility.

In the medium-term, the establishment of groundside commercial development lots is recommended. These development lots will be located in Area 1. During this phase, the West Area Access Road should be extended toward Runway 04-22. This road extension would provide groundside access for Area 3 commercial development lots.

All future developments at the South River-Sundridge district airport are expected to be provided with services such as potable water and sewage treatment using the same practices as currently used on-site. Although municipal services exist several kilometres away, significant investment would be required by the municipalities in order for the services to be extended to the airport.

Table 5-2 – Phased Development Program

Year	Development Period	Airside	Groundside & Other
2011 – 2015	Short-Term (1-5 yrs)	<ul style="list-style-type: none"> <li>✈ Pave Code 2B-NP Runway 04-22 (975 m x 23m)</li> <li>✈ Construct Code B Taxiway 'A' (Paved Surface)</li> <li>✈ Construct New Apron I (77 m x 42m) (Paved Surface)</li> <li>✈ Establish Tie-down Area 1 (Turf)</li> <li>✈ Establish West Tie-down (Turf)</li> <li>✈ Install Runway, Taxiway &amp; Apron Edge Lighting</li> </ul>	<ul style="list-style-type: none"> <li>✈ Address Land Use/Ownership Issues (seaplane access, runway easement, MNR lands).</li> <li>✈ Tree Clearing (Runway, Main Access Road &amp; West Tie Down Area)</li> <li>✈ Relocate Main Access Road (Gravel Surface)</li> <li>✈ Relocate West Area Access Road (Gravel Surface)</li> <li>✈ Establish Airside Commercial Development Lots (Area 1)</li> <li>✈ Provide fencing in core area</li> <li>✈ Construct New Air Terminal Building &amp; Vehicle Parking Area (Gravel Surface)</li> <li>✈ Improve and Publish Water Aerodrome Access (Including Dock Facility)</li> <li>✈ Procure Fuel Bowser</li> <li>✈ Construct New Aerodrome Maintenance Facility</li> <li>✈ Develop Instrument Approach Procedure(s)</li> </ul>
2016 - 2020	Medium-Term (5-10 yrs)	<ul style="list-style-type: none"> <li>✈ Establish Tie-down Area 2 (Turf)</li> </ul>	<ul style="list-style-type: none"> <li>✈ Extend West Access Road</li> <li>✈ Tree Clearing (Areas 2 &amp; 3 and Seaplane Storage Area)</li> <li>✈ Establish Seaplane Storage Area</li> <li>✈ Establish Airside Commercial Development Lots (Area 2)</li> <li>✈ Establish Groundside Commercial Development Lots (Area 1)</li> <li>✈ Expand Fencing as Required</li> </ul>
2021 - 2030	Long-Term (10-20 yrs)	<ul style="list-style-type: none"> <li>✈ Extend Runway 04-22 North East (1,199 m)</li> <li>✈ Tree Clearing (Runway Extensions)</li> </ul>	<ul style="list-style-type: none"> <li>✈ Tree Clearing (Areas 2 &amp; 3)</li> <li>✈ Establish Airside Commercial Development Lots (Area 2 &amp; 3)</li> <li>✈ Extend West Access Road</li> <li>✈ Extend Main Access Road</li> <li>✈ Establish Groundside Development Access</li> <li>✈ Expand Fencing as Required</li> </ul>



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Client

**SOUTH RIVER  
SUNDRIDGE  
DISTRICT AIRPORT  
(AERODROME)**

Figure

**PROPOSED  
DEVELOPMENT  
PLAN**

Notes

1. Preliminary
2. All dimensions

Figure No.

5-3

Drawn By

EDH

Approved By

RAM

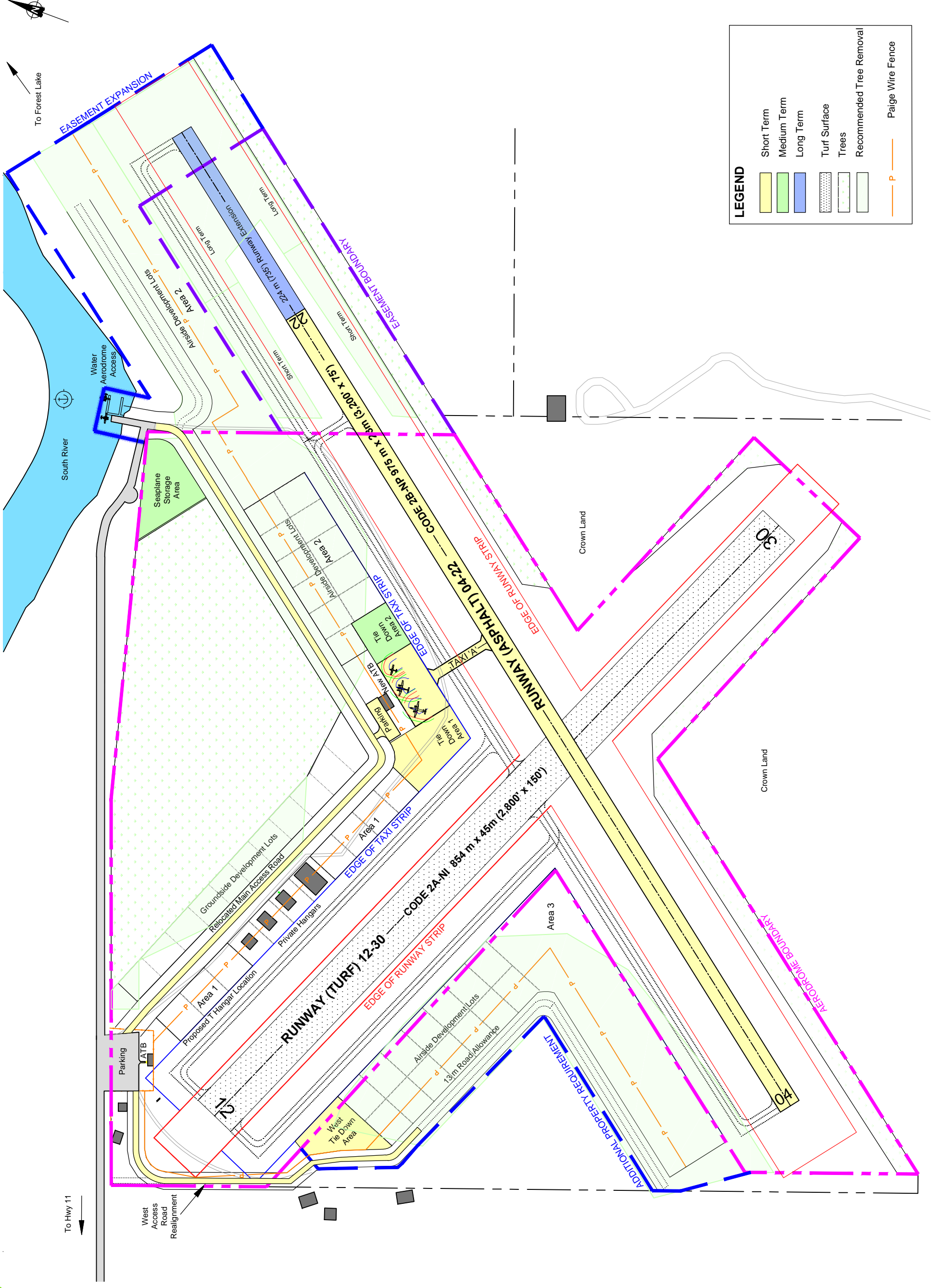
Date

MARCH 2011

Scale

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Filename  
LPS SRS DEV V5.dwg



**LEGEND**

[Yellow Box]	Short Term
[Green Box]	Medium Term
[Blue Box]	Long Term
[Dotted Box]	Turf Surface
[Green Dotted Box]	Trees
[Light Green Box]	Recommended Tree Removal
[Orange Line]	Paige Wire Fence

## 5.7 Cost Estimates

Rough Order-of-Magnitude (ROM) cost estimates for each development phase are presented in Table 5-3. Costs for all major development components of the Business Case and Development Plan are presented in Table 5-4.

Cost estimates were determined using unit cost values from recent airport development projects and industry experience. More accurate estimates will be possible once preliminary and detailed engineering designs are undertaken. Market conditions at the time of implementation may also affect the final costs.

The following assumptions should be noted:

- ✈ Short-term capital costs have been broken down into individual items. Total capital costs for medium and long-term planning horizons have been provided respectively.
- ✈ Soft costs related to Environmental Assessments and Approvals, Design, and Project Management have been included for short-term capital developments.
- ✈ A 15% project contingency was applied for short-term capital developments.

Cost estimates exclude:

- ✈ Geotechnical investigations;
- ✈ Site preparation and cut and fill costs;
- ✈ Project soft costs;
- ✈ Increased maintenance and operational costs as a result of airport development; and
- ✈ Land acquisition costs.

**Table 5-3 – Capital Development Costs**

Planning Horizon	Cost
Short-Term	\$4,500,000
Medium-Term	\$100,000
Long-Term	\$1,000,000
Total	\$5,600,000

Table 5-4 – South River-Sundridge District Airport Development Cost Estimate

Item	Short-Term 2011-2015	Medium-Term 2016-2021	Long-Term 2022-2032
Pave Runway 04/22	\$3,250,000		
Construct New Code B Taxiway (Paved)	\$61,000		
Construct New Apron (Paved)	\$260,000		
Establish Tie Down Area 1	\$12,000		
Establish West Tie Down Area	\$10,000		
Install Runway, Taxiway & Apron Edge Lighting	\$110,000		
Install Aerodrome Beacon & Illuminated Windsock	\$10,000		
Tree Clearing - Runway	\$6,000		
Tree Clearing - Main Access Road	\$10,000		
Tree Clearing - West Tie Down Area	\$1,000		
Relocate West Access Road (Gravel)	\$90,000		
Relocate Main Access Road (Gravel)	\$200,000		
Construct New Air Terminal Building	\$130,000		
Construct New Air Terminal Parking Area	\$29,000		
Install Perimeter Fencing	\$19,000		
Improve & Publish Water Aerodrome Access	\$10,000		
Procure Fuel Bowser	\$20,000		
Construct New Aerodrome Maintenance Facility	\$220,000		
Develop Instrument Approach Procedure(s)	\$15,000		
Establish Tie Down Area 2		\$6,000	
Extend West Access Road (Gravel)		\$47,000	
Tree Clearing - Groundside Commercial Lots		\$7,000	
Tree Clearing - Area 2		\$16,000	
Tree Clearing - Area 3		\$22,000	
Tree Clearing - Seaplane Tie Down Area		\$4,000	
Establish Seaplane Storage Area		\$29,000	
Extend Perimeter Fencing		\$9,000	
Extend Runway 04-22 to 1,199m			\$750,000
Provide Additional Runway Edge Lighting			\$18,000
Tree Clearing - Runway and Taxiway Extensions			\$31,000
Tree Clearing - Area 3			\$22,000
Tree Clearing - Area 2			\$27,000
Extend West Access Road (Gravel)			\$54,000
Extend Main Access Road (Gravel)			\$72,000
Extend Perimeter Fencing			\$14,000
<b>Total Capital Costs</b>	<b>\$4,500,000</b>	<b>\$100,000</b>	<b>\$1,000,000</b>
<b>Soft Costs</b>			
Project Design & Supervision	\$420,000		
Environmental Assessment & Approvals (Allowance)	\$80,000		
Project Management	\$400,000		
15% Contingency (Design & Construction)	\$675,000		
<b>Total Costs</b>	<b>\$6,100,000</b>	<b>\$100,000</b>	<b>\$1,000,000</b>

## 6.1 Introduction

The operators of the South River-Sundridge District Airport face important questions about the future of the Airport. The Airport must compete with many other priorities for scarce funds, so any investment decisions will depend on a wide set of goals. The benefits of a project are not always foreseen and usually go well beyond the revenues generated, and could affect many stakeholders, including local residents and business owners. General accounting statements do not illustrate these broader effects as they balance revenues and expenses, not the larger community economic picture.

This chapter examines the benefits that infrastructure improvements at the South River-Sundridge District Airport could generate in the widest possible sense. The Economic Impact Analysis considers many large but diffuse impacts throughout the community. An economic impact analysis is a systematic estimate of the true benefits generated by a facility, in this particular case – an airport. It draws on both data very specific to the situation, and statistical estimates of the nature of financial flows within regional economy. Through identifying a broader range of stakeholders and quantifying the full benefits, an Economic Impact Analysis provides an estimate of the benefits that can be compared meaningfully to the estimated airport development costs. The community can then make informed decisions about its future infrastructure investments.

The next section describes how economic impact analysis can resolve important questions about the advisability of a project. It outlines the methods underlying the technique, and shows how the situation at the South River-Sundridge District Airport calls for an approach that is slightly different from the “traditional” economic impact analysis.

## 6.2 What is Economic Impact?

Airports and other infrastructure projects pose major challenges to public policy. Their operating costs,

capital costs and revenues are immediately and clearly visible through standard financial statements. In many cases, revenues collected fall short of operating costs and financial contributions are required, usually from a local government source. Based on these indicators alone, the total economic benefits are not apparent. There may often be some high profile beneficiaries, such as a resident sufficiently wealthy to own their own aircraft, but there would very few examples of this at an airport like South River-Sundridge.

Nonetheless, most economic benefits generated as a result of an airport’s presence within a community are quite dispersed. The benefits, even if large, often come in very small increments, and can easily be neglected. They are experienced by many individuals at many times and places and under different circumstances. Many people may be unaware that they are even a beneficiary. These positive effects are manifest in many ways, such as tourism revenues, room and board paid by flight school students, profits at a local business such as restaurants and grocery stores, and additional taxes paid to the municipalities by airport tenants. Because the benefits are propagated so widely within the region, local constituents generally do not realize the value of the facility.

An Economic Impact Analysis helps communities better understand the benefits of a project or undertaking that generates diffuse and hard-to-observe benefits, like the development of an airport. The Analysis quantifies the benefits and costs throughout the entire community and presents a more accurate and useful ledger than a traditional income statement. Although the local municipalities are providing a financial contribution to the operation of the airport, their continuing support, coupled with additional development at the site could bring substantial economic benefit to the Almaguin Highlands.

### 6.2.1 Types of Economic Benefits

‘Economic Impact’ can have many definitions. For the purposes of this Business Case and Development

Plan, the most common economic benefits are examined, including:

- ✎ Employment;
- ✎ Output - Total production of goods and services, including those used for intermediate outputs;
- ✎ Gross Domestic Product (GDP) - A measure of the “value added” or the production available for consumption. It is widely adopted as “the” measure of economic well-being<sup>1</sup>; and
- ✎ Tax revenues.

Depending on the specific circumstances, other benefits may include safety, impacts on the environment, community prestige and changes in knowledge and education. The benefits can also be classified according to the broad economic mechanisms that produced them.

An Economic Impact Analysis usually explores four broad pathways; **direct, indirect, induced and catalytic.**

“Direct” impacts proceed immediately from expenditures made at the facility (in this case, the airport), and are clearly attributable to the airport and its core activities through accounting processes. The direct activity takes place on site.

“Indirect” effects result from expenditures made by on-site entities to off-site businesses. Wages paid to a person working for a private company that is contracted to maintain an access road to the airport is an example of a potential indirect effect.

An “induced” effect results from offsite expenditures made by direct or indirect beneficiaries to the economy at large. The expenditures have no relationship to the infrastructure<sup>2</sup> in question, they merely use funds obtained through some employment or contractual relationship with the airport infrastructure. The recipients of these expenditures make further disbursements. These purchases, in turn, create additional employment within the region. The process continues to affect additional firms and households, at a geometrically declining rate. This results from “leakage”, as funds are spent outside the South River-Sundridge district. The impetus will ultimately converge to a multiple of the original expenditure.

“Catalytic” benefits result from the lower production costs permitted by the facility. Many businesses locate near a railroad or a high capacity highway to benefit from lower transportation costs. Tourism may benefit from a nearby airport. The existence of the facility may change transactor expectations, and affect their long term behaviour. Many large firms will only open new offices at communities with high quality air services.

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<sup>1</sup> GDP and output are different. A farmer may grow corn, some of which will be sold as livestock feed and some for human consumption. All of the corn is considered as part of gross output. Only that portion consumed by humans is counted in the GDP. The corn for the livestock is excluded. The meat produced by the livestock is part of GDP. The farmer’s profits from raising this corn is also considered as part of GDP.

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<sup>2</sup> A household may spend only 60 percent of its wages on locally produced goods. The 40 percent remainder could represent taxes, expenditures on imports, or savings. These “leakages” dampen the effects of successive spending rounds. The total spending of all rounds will be the sum of an infinite geometric series that converges to a multiple of the original stimulus. The relationship between the ultimate response and the original stimulus is called a “multiplier.”

## 6.3 Methodology

### 6.3.1 “Typical” Economic Impact Analysis

The first step of a “Typical” Airport Economic Analysis is to survey airport tenants. This survey gathers data on each tenant’s employment, payroll, taxes and purchases of goods and services. A scheduled or charter airline will also be queried on the number of visitors it brings to the region if there were one or more operating at the airport. After the data is collected, direct effects can be calculated immediately. Sometimes it is necessary to correct the collected data for non-responses.

The indirect effects result from off-site expenditures of goods and services. The airport survey will not necessarily capture the indirect effects. A more accurate and widely accepted method to estimate indirect effects is to apply Statistics Canada’s input-output model of the Canadian economy. This large and highly sophisticated model tracks the flows of goods and services by industry. It examines each sector’s purchases from every other sector, and the total quantities ultimately consumed. It also incorporates imports and exports.

A second model includes each sector’s labour requirements. The model aggregates these flows by industry. It expresses, for example, the total economy-wide indirect contribution to output, GDP or employment arising from one dollar of direct output of the aviation industry. For each industry, the model includes a series of “multipliers.”

The Statistics Canada model does not estimate induced impacts as it solely views final demands for each commodity as being pre-determined. This corresponds to full employment. This framework therefore cannot resolve induced effects. These are multiplier-based processes in which income and consumption increase in response to an initial increase in consumption expenditures. Some economic impact studies have used overly aggressive estimates of induced impacts. Many practitioners believe that the most objective method is to consider only direct and indirect impacts.

However, macroeconomic data on household incomes, federal and provincial revenues, average wages and other factors can generate estimates of induced effects and induced multipliers.

Catalytic effects are particularly difficult to quantify and usually include many subjective factors. They can be estimated by detailed surveys of non-aviation businesses. A business may claim that it chose to locate in a particular community because of the airport. However, it might have very well considered many other factors when deciding to locate their business. It is difficult to determine what portion of the credit for the firm’s location decision should accrue to the airport rather than to the community’s pleasant lifestyle, its low property taxes, or its comfortable climate. Some European airports have attempted to measure catalytic impacts. However, most economic impact studies consider catalytic effects too difficult to estimate and too subjective to be incorporated into the set of benefits. This Economic Impact Analysis for the South River-Sundridge District Airport does not consider catalytic benefits.

### 6.3.2 South River-Sundridge District Airport

The Economic Impact Analysis addresses the business case for future developments recommended at the South River-Sundridge Airport. These recommended developments (primarily short-term) are identified and discussed in Chapter 5 and include:

- ✎ Paving of the primary runway
- ✎ Installation of Aerodrome lighting
- ✎ Establishment of taxiway system
- ✎ Establishment of aircraft tie down areas
- ✎ Construction of an aircraft parking apron
- ✎ Relocation of the terminal building
- ✎ Development of water aerodrome
- ✎ Construction of a new maintenance facility
- ✎ Preparation of airside and groundside commercial lots

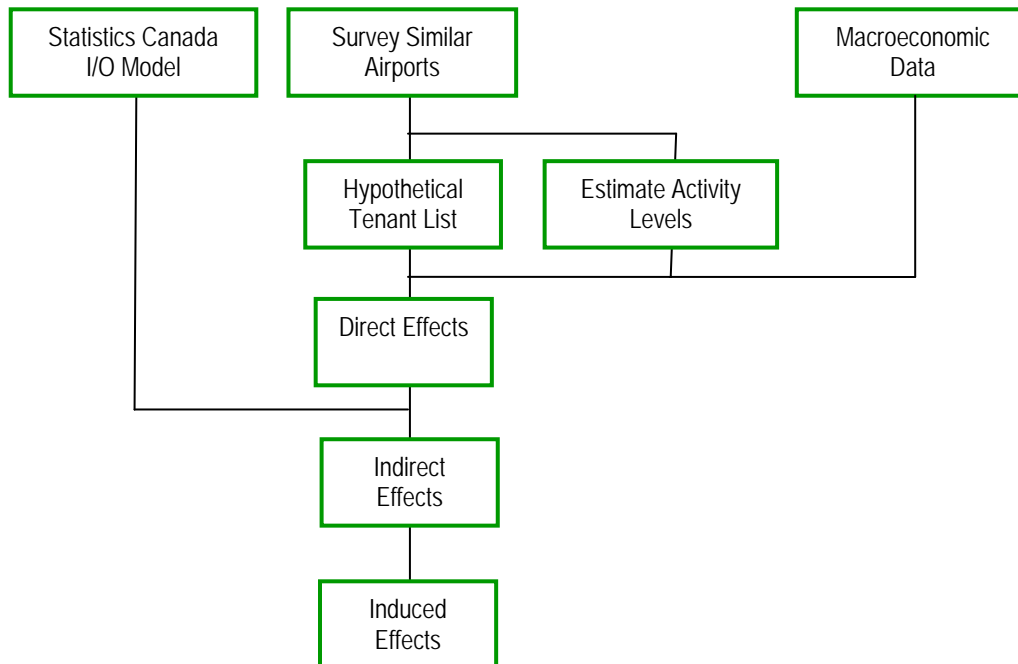
Once the recommended short-term developments (mainly paving the primary runway and providing aerodrome lighting) have been completed, the Airport could attract tenants such as a flying school, charter operator, or maintenance/repair/overhaul ("MRO") operator.

The current activity at the Airport provides little insight into the ultimate benefits of the enhanced airport. A survey of airport tenants would not provide useful data as current business levels. To overcome this shortage of information, LPS AVIA assembled a list of uses that would be characteristic of a similar facility elsewhere.

The consulting team estimated the range of sizes for such users and developed a hypothetical list of tenants. The levels of employment, wages bill, and purchases of goods and services for each hypothetical tenant were estimated from Statistics Canada data, published studies on similar-sized facilities elsewhere, and the consultant's work at other general aviation airports.

The study team also estimated how the volume of flying activity would affect their employment and purchases of goods and services Figure 6-1 summarizes the tailored approach used for the Economic Impact Analysis for the South River-Sundridge District Airport.

**Figure 6-1 – Tailored Economic Impact Analysis Methodology**



A hypothetical tenant list was developed based on the recommended and most likely airport role(s) for the South River-Sundridge District Airport that were determined through consultations with the Airport Committee, airport tenants, and other industry contacts, and knowledge of the aviation industry as a whole as possessed by the study team.

- ✈ A small flight school;
- ✈ A charter flight operator;
- ✈ A Fixed-Base Operator;
- ✈ A 1-person MRO operator;
- ✈ A second MRO operator of 1-4 persons, depending on total airport activity; and
- ✈ An installation of the Ontario Provincial Police. It would base one aircraft at the airport for routine law enforcement activities.

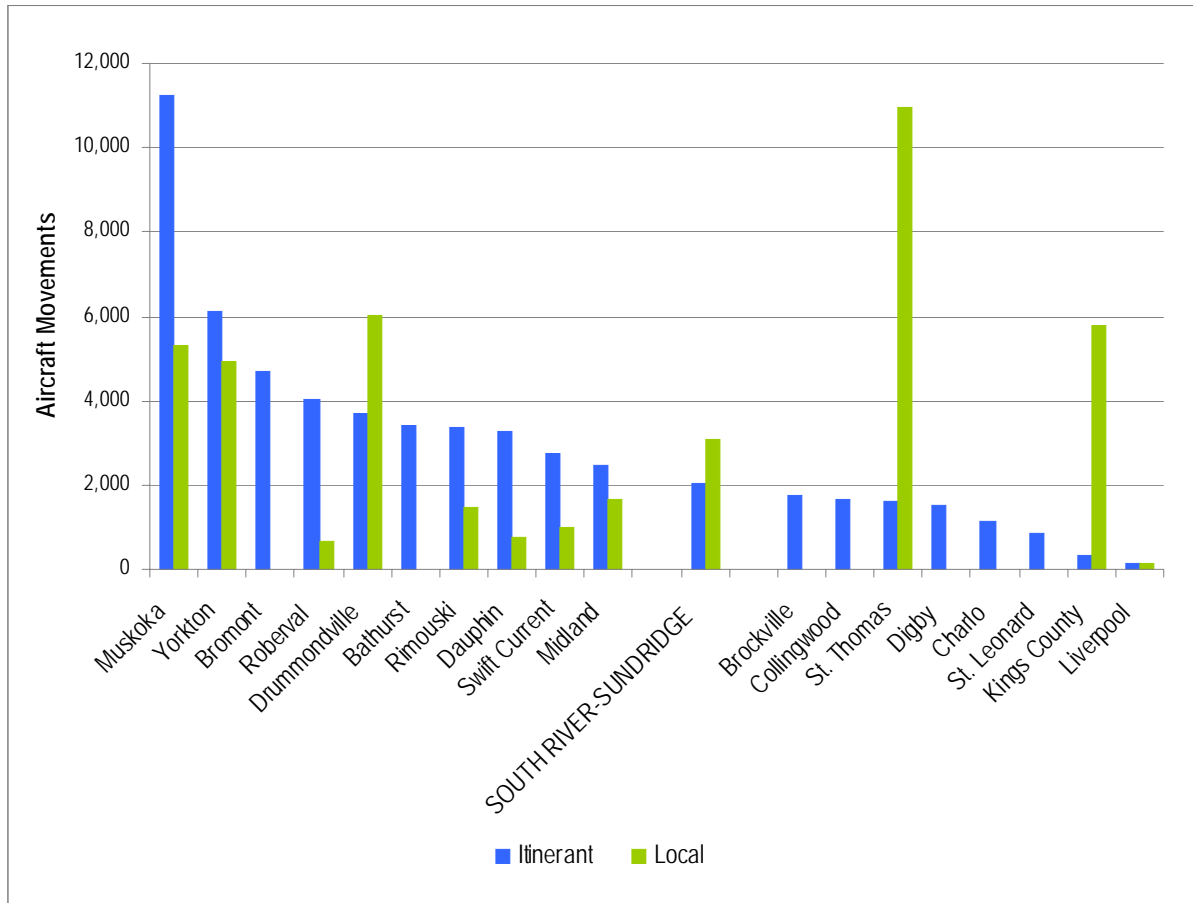
Except for the one-person MRO, the scale of each activity, as measured by the number of employees, revenues, purchases of goods and services and other expenditures, depended on the levels of itinerant and local aircraft movements at the airport.

The forecast levels of aircraft movements expected at the South River-Sundridge District Airport were calculated by selecting a series of similar airports across Canada. These airports are located in rural areas of southern Canada, have no scheduled air services. The group includes:

- ✈ Muskoka, ON;
- ✈ Brockville, ON;
- ✈ Liverpool, NS;
- ✈ St. Leonard, NB;
- ✈ Midland, ON;
- ✈ Drummondville, QC;
- ✈ Dauphin, MB;
- ✈ Bathurst, NB; and
- ✈ Yorkton, SK

This grouping simplifies the development of estimates of airport activity at the South River-Sundridge District Airport. However, the diversity among this group of communities is so large that the claim that they are in any respect “similar” is inherently weak. Figure 6-2 shows the reference airports from which relevant activity levels were derived for the South River-Sundridge District Airport.

Figure 6-2 – Activity Levels at Reference Airports



\*Source: Statistics Canada Report Aircraft Operations at Canadian Airports 2009

The level of aviation activity at the South River-Sundridge District Airport may vary from that estimated from the community group. The Airport may be more successful or less successful than the average of the reference group in attracting tenants. The level of activity will increase progressively after all (or the majority of) the recommended short-term developments presented in Chapter 6 are completed. A series of economic impact statements were therefore developed to correspond to different hypothetical activity levels.

The first step was to estimate the means of itinerant and local operations for the reference group of airports. Most of the reference group airports are well established. For the first several years following short-term airport development, the South River-Sundridge District Airport can conservatively be expected to under-perform the peer group. The baseline activity level for economic impact analysis was therefore considered to be 20 percent less than the reference group mean.

A single level of activity is usually appropriate for an economic impact analysis. The most common approach is to “take a snapshot” of an airport at a particular time and traffic volume. For South River, no such facility exists. Rather, the study team is estimating what the economic impact could or might be under certain hypothetical conditions. In theory, it could be zero, or it could exceed that of any airport in the region. The probability of either condition becomes the primary question. A single point estimate is not sufficient; where a **range** of possible values is required that span the most likely levels of activity.

The reference group of airports provided estimates of the expected levels of itinerant and local flying activity. The group was also examined to see how tightly the levels of activity of each airport were clustered around this average. The “standard deviation” measures the amount of dispersion of a group around its average. The group may resemble a bell curve, with the peak showing the average level of flight operations.

The mean and standard deviation of the reference airports suggested both a probable level of activity at the South River-Sundridge District Airport and the deviations from this level that could be expected. By basing future activity level scenarios on the means and the standard deviations, the study team constructed a series of scenarios that spanned a reasonable range of itinerant and local operations. A series of 10 scenarios were developed, numbered from -4 (most pessimistic) to 0 (likely) to plus 5 (most optimistic)

## 6.4 Airport Economic Impacts

This section describes the hypothetical economic impact of a further developed South River-Sundridge District Airport.

The economic impact analysis describes the conditions that could or might be accomplished at the South River - Sundridge District Airport. None of the results will materialize immediately after the improvements are in place; several years must elapse for the aviation industry to react. Table 6-1 summarizes the economic impact for three scenarios.

Appendix A shows detailed results for an extended set of scenarios. Each scenario corresponds to different levels of itinerant and local aircraft movement activity. The specific outcome will depend on the Airport’s success at marketing, its competition, and the strength of the national economy. The scenarios are mutually exclusive. However, they could be interpreted as they apply to successive years, as the Airport develops its clientele.

The 0 (Most Likely) case calls for 20 full-time equivalent employees at the Airport and in the regional tourism industry. The total employment impact would be 38 full-time equivalent persons employed. The GDP would expand by \$738,000 from direct effects alone. Total incremental GDP from all effects would exceed \$1.4 million. The Airport would generate \$450,000 in tax revenues, with all three levels of government benefitting. Under the most Pessimistic case, the Airport would generate 4 direct full-time equivalent positions and a total of 9 positions from all effects. The GDP would increase by \$163,000 from direct stimuli, and \$341,000. Total tax receipts would grow by \$106,000. The total economic impact under this scenario is estimated at \$4.3 Million per annum.

The most optimistic case (4) would increase GDP by \$1.3 million by direct stimulation, with an increase from all sources of \$2.5 million. Employment would increase by 37 full time equivalent positions from direct effects and by 68 positions from all effects. Tax receipts would increase by \$819,000. The total economic impact under this scenario is estimated at \$7.7 Million per annum.

Between 2001 and 2006, Almaguin gained 45 jobs from all industries<sup>3</sup>. The Airport improvements alone would generate 84 percent of this total under the Most Likely scenario. The total employment impact for the South River - Sundridge District Airport would range from 8.7 to 68.5 full-time positions. This impact is comparable to those of other general aviation airports (Table 6-2).

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<sup>3</sup> Source: Statistics Canada, as cited in Central Almaguin Economic Development Association, Central Almaguin Economic Base Review, 2009 Table 4.

Table 6-1 – Summary of Hypothetical Economic Impacts - South River-Sundridge District Airport

Scenario Number	Standard Deviation Scale Activity Level		
	-4	0	4
Itinerant Movements	404	2,021	3,637
Local Movements	1,174	3,849	6,525
<u>Direct Impacts</u>			
Employment (Full Time Equivalent)	4.47	19.55	36.64
Output	\$369,798	\$1,590,848	\$2,868,130
GDP	\$162,808	\$738,229	\$1,332,104
<u>Taxes</u>			
Fed. Pers. Income Tax	\$20,788	\$83,923	\$153,499
Fed. Corp. Income Tax	\$26,863	\$121,808	\$219,797
Prov. Pers. Income Tax	\$11,935	\$48,185	\$88,132
Prov. Corp. Income Tax	\$16,281	\$73,823	\$133,210
GST	\$9,739	\$39,316	\$71,910
HST	\$15,582	\$62,906	\$115,057
Property Taxes	\$5,058	\$20,420	\$37,349
<b>Total</b>	<b>\$106,246</b>	<b>\$450,381</b>	<b>\$818,955</b>
<u>Total Impacts</u>			
Employees (Full Time Equivalent)	8.72	38.15	68.48
Output	\$692,235	\$2,896,865	\$5,197,760
GDP	\$340,605	\$1,424,514	\$2,543,974

**Table 6-2 – Employment Impacts for Selected Airports, All Effects**

Airport	Employees	Source
Burlington WI	379	Wisconsin Bureau of Aeronautics, 2001
Dutchess County, NY	857	Hudson Valley Regional Planning Council, 1999
Haliburton/Stanhope ON	46	Haliburton/Stanhope Municipal Airport 2006
Lac du Bonnet	81	Lac du Bonnet Airport 2009
Menominee MI	148	Twin County Airport Commission, 2007
Nelson BC	41	Canadian Owners and Pilots Association
Carlyle SK	6	Government of Saskatchewan 2002
Shaunavon SK	5	Government of Saskatchewan 2002
Oshawa ON	450	City of Oshawa, 2008
Prescott AZ	738	Prescott Chamber of Commerce, 2006
St. Thomas ON	66	St. Thomas Municipal Airport, 2007
Tillsonburg, ON	9	Tillsonburg Municipal Airport, 2006
Yorkton SK	71	Yorkton Municipal Airport

The Airport may exceed or fail to attain the activity levels and corresponding economic impacts described in this analysis. A weak economy, high fuel prices, or an appreciating Canadian dollar that weakens Ontario's competitiveness could adversely affect the Airport. The North Bay Airport and other airports will compete, possibly drawing away traffic.

The quantities themselves are of relatively little importance for deciding the future of the Airport. They reflect a wide range of assumptions on general aviation; a sector that is very difficult to forecast. What is very important is that, under conditions similar to those experienced at many other general aviation airports, the increases in employment, output, GDP or tax revenues, whatever their precise magnitudes, are substantial. The risks are minimal. Improvements to the Airport offer a genuine potential for economic development. These benefits, while substantial, do not appear on the Airport's profit and loss statements, but provide substantial economic benefits to the Almaguin Region.

## 6.5 Cost Benefit

When comparing the results of the Economic Impact Analysis presented in Chapter 6 with the estimated airport development costs it becomes apparent that the economic benefits to the community could outweigh the investment made at the Airport. If commercial activity at the site were to increase based on the optimistic scenario (4), \$4.5 Million would be required for capital improvements at the Airport, and over \$7.7 Million of economic benefit to the community could be realized.

Although the economic benefit to the community is not significantly more than the infrastructure costs, the airport's unique position on the edge of Algonquin Park and within cottage country could also have an increased economic impact on the future development throughout the medium and long-term.

## 6.6 Funding Strategies

Significant financial support will be required for any infrastructure improvements at the South River-Sundridge District Airport. Funding strategies should be developed to approach Provincial and Federal Governments to provide capital for airport developments indicated within this Development Plan and Business Case.

Limited funding is provided to airports not owned by Transport Canada through the Airports Capital Assistance Program (ACAP). This program has a limited budget and provides funding to smaller certified airports offering scheduled air services that require funds to facilitate airport safety improvements and infrastructure renewal, among other specialized criteria. Because South River-Sundridge District Airport is not certified and does not serve scheduled passenger air carriers, the Airport is not eligible for ACAP funding.

Funding programs may be available for airport infrastructure improvements and renewal through the Federal Government. One example is the Building Canada Fund (BCF) – Canada's infrastructure program aimed at advancing national priorities that are important to all Canadians, such as a stronger economy, a cleaner environment and better communities.

The BCF totals \$8.8 Billion over a seven year period and focuses on projects that deliver economic, environmental and social benefits to all Canadians. Although the program gives priorities to projects related to the national highway system, drinking and wastewater, and public transit, regional and local airports have been highlighted as potential economic drivers eligible for funding under the program.

Under this initiative, most municipal infrastructure improvements are cost-shared on a one-third basis between the Municipality, the Province and the Federal Government.

Although it is an attractive program for funding airport infrastructure projects, the BCF is sometimes shared with other infrastructure projects, depending on the applications submitted within the municipalities. Projects are assigned priorities under the BCF and in many cases airports fall to the bottom end of the priority list when compared to projects related to the health and well-being of a community (i.e. a water treatment plant or hospital expansion). This can make it difficult for airports to capture their share of funding under the program.

There may be several other government funding opportunities available for the South River-Sundridge District Airport. Federal and Provincial Governments are constantly introducing new funding programs, and although they may not be specifically geared toward airport development, some capital projects may be eligible. Airport management is encouraged to maintain contact with local Provincial and Federal representatives in order to become aware of current and upcoming funding programs that may be available to the airport.

Many of the government funding programs require cost sharing (equal shares are contributed to the development project by the Federal, Provincial, and Municipal Governments); however, due to the current financial position of the South River-Sundridge District Airport, it is recommended that funding sources be secured where local contributions are minimal.

## 7.1 Land Assignment

A recommended Airport Land Use Plan has been prepared for use within all identified planning horizons.

The intent of the Land Use Plan is to identify and maximize the use of airport lands. The purpose of the Land use plan is to:

- ✈ Provide sufficient land to meet the long-term requirements of all essential aviation activities at the airport;
- ✈ Ensure that land is developed for uses that are compatible with the safe and efficient operation of aircraft at the Baker Lake Airport;
- ✈ Ensure that land is developed in such a way as to be compatible with adjacent Community land uses;
- ✈ Guide the development of the airport in a logical and orderly manner ; and
- ✈ Protect the interests of all tenants within boundaries of Airport property.

The Plan also provides a rational and comprehensive framework for the development and use of airport lands, permitting the balanced fulfilment of future needs. The order of priority used in the systematic land assignment for airport facilities as well as a definition of each use, are as follows:

- ✈ **Airfield** – fixed and rotary wing manoeuvring areas, taxiways, aprons and navigational aids at the airport.
- ✈ **Air Terminal & Operations** – air terminal building, maintenance garage, security, fuel facilities, utilities, public facilities, terminal road system and public parking.
- ✈ **Airside Commercial** – general aviation facilities and aviation support functions on land requiring airside access, including air cargo and helicopter facilities.
- ✈ **Groundside Commercial** – public or private concerns not requiring direct airside access.
- ✈ **Airport Reserve** – lands for which it is not practical to designate more specific uses at this time. The lands are held in reserve in order to meet unforeseen or possible contingency requirements within and beyond the planning horizon.

## 7.2 Recommended Plan

The Recommended Land Use Plan for the Airport is presented as Figure 7-1.



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Client

**SOUTH RIVER  
SUNDRIDGE  
DISTRICT AIRPORT  
(AERODROME)**

Figure

**RECOMMENDED  
LAND  
USE  
PLAN**

Notes

1. Preliminary
2. All dimensions

- Current Property Boundary
- Easement Boundary
- Additional Property Requirement

Figure No. 7-1

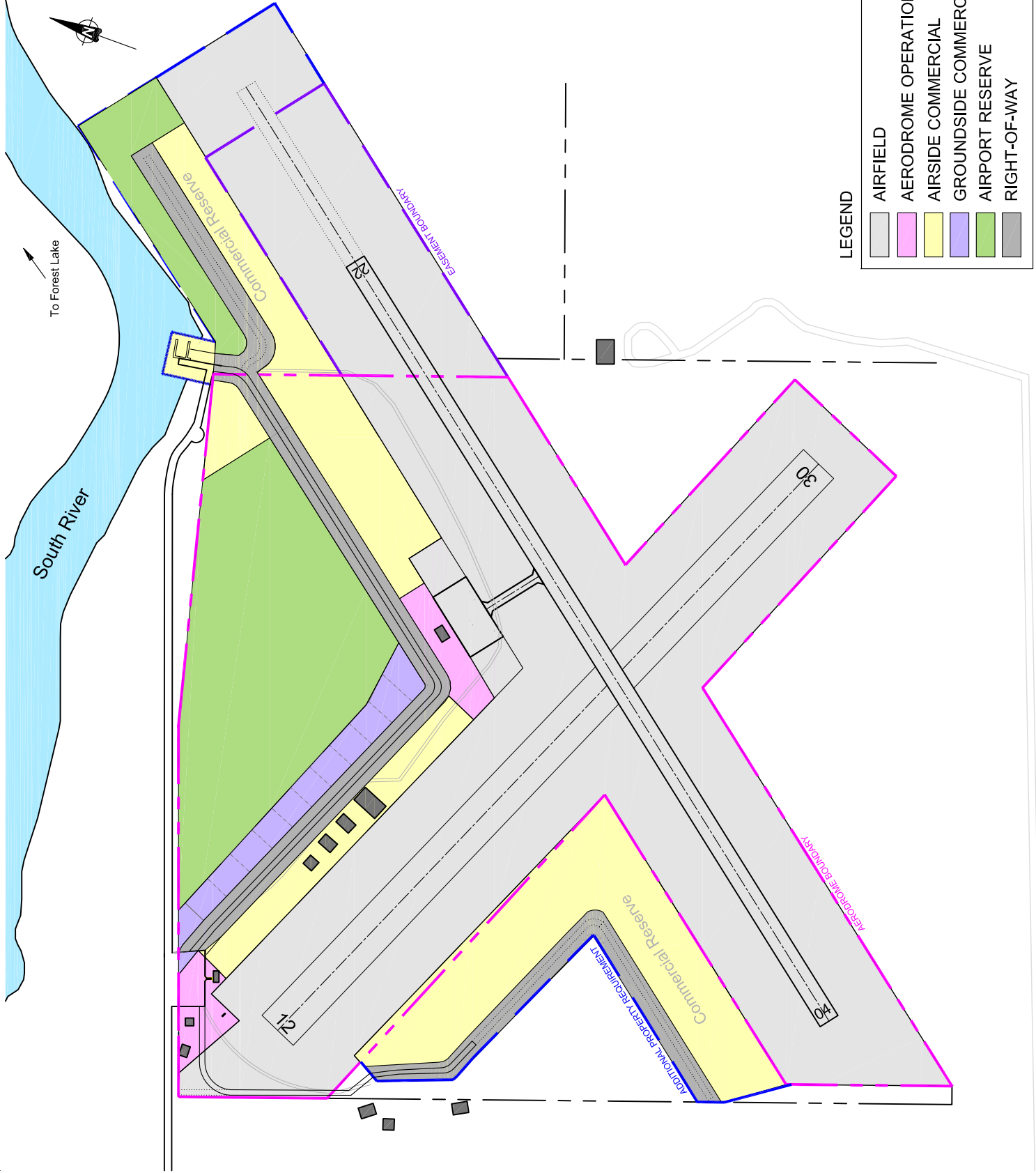
Drawn By EDH

Approved By RAM

Date MARCH 2011

Scale NTS

Filename LPS SRS DEV V6.dwg



**LEGEND**

- AIRFIELD
- AERODROME OPERATIONS
- AIRSIDE COMMERCIAL
- GROUNDSIDE COMMERCIAL
- AIRPORT RESERVE
- RIGHT-OF-WAY

## Appendix A – Summary of Potential Economic Impacts

	Scenario									
	-4	-3	-2	-1	0	1	2	3	4	5
Itinerant Movements	404	808	1,212	1,617	2,021	2,425	2,829	3,233	3,637	4,042
Local Movements	1,174	1,843	2,512	3,180	3,849	4,518	5,187	5,856	6,525	7,193
<b>Direct Impacts</b>										
Employees	4.47	8.74	11.01	14.28	19.55	21.82	27.10	31.37	36.64	39.91
Output	\$369,798	\$695,527	\$933,723	\$1,229,010	\$1,590,848	\$1,829,044	\$2,149,773	\$2,498,241	\$2,868,130	\$3,136,768
GDP	\$162,808	\$313,380	\$435,225	\$575,807	\$738,229	\$860,074	\$1,009,005	\$1,167,040	\$1,332,104	\$1,463,940
<b>Taxes</b>										
Fed. Pers. Income Tax	\$20,788	\$38,144	\$48,596	\$63,497	\$83,923	\$94,376	\$111,732	\$131,080	\$153,499	\$166,407
Fed. Corp. Income Tax	\$26,863	\$51,708	\$71,812	\$95,008	\$121,808	\$141,912	\$166,486	\$192,562	\$219,797	\$241,550
Prov. Pers. Income Tax	\$11,935	\$21,901	\$27,902	\$36,457	\$48,185	\$54,187	\$64,152	\$75,260	\$88,132	\$95,544
Prov. Corp. Income Tax	\$16,281	\$31,338	\$43,522	\$57,581	\$73,823	\$86,007	\$100,901	\$116,704	\$133,210	\$146,394
GST	\$9,739	\$17,869	\$22,766	\$29,747	\$39,316	\$44,213	\$52,344	\$61,408	\$71,910	\$77,958
HST	\$15,582	\$28,591	\$36,426	\$47,595	\$62,906	\$70,740	\$83,750	\$98,252	\$115,057	\$124,732
Property Taxes	\$5,058	\$9,281	\$11,824	\$15,450	\$20,420	\$22,963	\$27,186	\$31,894	\$37,349	\$40,489
Total	\$106,246	\$198,832	\$262,849	\$345,333	\$450,381	\$514,398	\$606,550	\$707,160	\$818,955	\$893,074
<b>Indirect Impacts</b>										
Employees	2.79	4.73	8.29	11.09	12.20	15.75	16.67	18.71	19.85	22.54
Output	\$218,432	\$387,286	\$518,441	\$674,185	\$858,591	\$989,746	\$1,156,447	\$1,335,095	\$1,522,968	\$1,667,234
GDP	\$119,187	\$198,326	\$261,193	\$334,673	\$420,523	\$483,391	\$561,600	\$644,965	\$732,312	\$800,838

	Scenario									
	-4	-3	-2	-1	0	1	2	3	4	5
<b>Induced Impacts</b>										
Employees	1.46	2.86	3.60	4.67	6.40	7.14	8.87	10.27	11.99	13.06
Output	\$104,006	\$195,617	\$262,610	\$345,659	\$447,426	\$514,419	\$604,624	\$702,630	\$806,662	\$882,216
GDP	\$58,611	\$112,817	\$156,681	\$207,290	\$265,762	\$309,627	\$363,242	\$420,134	\$479,558	\$527,018
<b>Total Impacts</b>										
Employees	8.72	16.33	22.90	30.05	38.15	44.72	52.63	60.35	68.48	75.51
Output	\$692,235	\$1,278,430	\$1,714,774	\$2,248,854	\$2,896,865	\$3,333,209	\$3,910,844	\$4,535,966	\$5,197,760	\$5,686,218
GDP	\$340,605	\$624,522	\$853,099	\$1,117,770	\$1,424,514	\$1,653,092	\$1,933,847	\$2,232,139	\$2,543,974	\$2,791,796



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