



qathet Regional District

Texada/Gillies Bay Airport

FINAL

Master Development Plan

December 20th, 2019



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Executive Summary

The Texada/Gillies Bay Airport (the Airport) is owned and operated by the qathet Regional District (qRD) through the Electoral Area D service “Texada Airport”. The Airport is a registered aerodrome, regulated by Transport Canada. The Airport has received the status of Aerodrome Authorization to operate a commercial airline to offer regularly scheduled passenger service. That authorization was revoked with the demise of the airline providing the service and is currently looking for another airline to work with to gain the authorization status and return passenger airline service to Texada Island. Obtaining scheduled service is a critical goal for the Airport, as it would provide a vital mobility and economic link for the residents of Texada Island and the surrounding region. Texada Island residents have very clearly expressed their desire for establishing reliable scheduled air service again.

The Texada Airport Master Development Plan (the Plan) provides a long-term vision for the Airport. It includes plans for future growth, identifies new revenue sources, and considers other funding sources that will support the Airport for the long term.

Future land-use considerations are how the Airport can provide additional services such as increasing the amount of hangar lots and tie-down parking, camping sites, freight depot, and potentially a terminal building expansion.

The Plan also looks at how the Airport can contribute to improved emergency services for the island.



This Plan recognizes the responsibilities of the qRD and the role of the Airport users in the continued support of this important community facility. In addition, the Plan considers how the Airport will continue as an important, and the only, General Aviation Airport in the Gulf Islands.



1 Introduction

Dillon Consulting Limited (Dillon) was retained by the qathet Regional District (qRD) to develop a comprehensive Texada/Gillies bay Airport Master Development Plan (the Plan) that would guide the Regional Board in economic and socio-economic decision-making into the future. From the course of August 2019 to December 2019, Dillon undertook several actions in the preparation of the Plan, including:

- Interviews with qRD staff;
- Conducting a situational analysis;
- Reviewing governance and management models;
- Airport lands analysis;
- Stakeholder engagement;
- SWOT Analysis;
- Developing a conceptual land-use plan; and
- Prepare an implementation strategy.

The information provided herein this document summarizes the analyses conducted and the recommendations for the Texada/Gillies Bay Airport (the Airport).

1.1 History of the Airport

The Airport was originally known as the Gillies Bay Airport and was built and operated by Texada Iron Mines Ltd. After changing ownership several times, the Powell River Regional District purchased the land in 1979 and assumed the operations of the land improvements and facilities under the newly formed regional service for “the Airport”. The Airport service is solely funded by tax requisitions from residents in Electoral Area D.

Through grant funding and local volunteer labour, the runway was extended in 1982 to its current length of 3,000ft and then paved in 1985. Today the Airport has a part-time Airport Manager and a part-time caretaker and follows Day, Visual Flight Rules (VFR) airport.

Over the years, a number of small airlines have provided scheduled passenger air service with KD Air Corporation being the most recent airline provider. When KD Air Corporation folded in February 2019, the Airport Aerodrome Authorization was lost. Passenger movement statistics vary over the history of the Airport with the most recent stats relating to KD Air showing a steady decline as the business progressively failed.



1.2 Planning Framework

The Airport is owned and operated by the qathet Regional District through the Electoral Area D service “Texada Airport”. The Airport operations and assets are managed by the qRD Regional Board and its Strategic Plans through the input of qRD staff. Transport Canada regulations and guidelines provide regulatory requirements for the operations of the Airport.

The Regional District prepared a Strategic Plan 2019-2022 with the vision:

Working collaboratively for the common good to support a thriving, inclusive and sustainable community.

The Regional Board Strategic Priorities include several goals related to the continued operation of the Airport, including:

- Economic Development for qRD;
- Develop an Economic Development Strategy;
- Implement the Regional Trails Plan;
- Improve Rural Transportation Access; and
- Regional Emergency Preparedness.

The Airport can contribute to the economy of the Island and would fit into an economic development strategy including: increasing tourism, generating revenue, supporting industry, facilitating emergency evacuation and adding to the regional trails plan.

The Official Community Plan for the qRD for Area D addresses the Airport in minimal fashion. The Airport is identified as part of the transportation links as a valuable asset to the community. The Airport is also identified as a permitted land use in the “Cranby Lake Community Watershed”. Section A.1.g identifies Airport and accessory uses (excluding fuel storage or sales) and low impact recreation. This supports the Airport and the accessory camping area. Finally, Section C.9.e “endorses, in the vicinity of the Gillies Bay Airport...land uses which are compatible with aviation activity, particularly those which will enhance “air tourism”, providing such uses are consistent with the Plan’s community watershed policies”.

The Zoning Bylaw does not specifically address the Airport or the appropriate uses at the Airport. It is important for the qRD to identify the uses that are supported at the Airport. This not only provide clarify for the administration of the Airport, but can provide a form of marketing plan for the growth and development at the Airport.



2 Projections

The development of projections provides an indication of the future activity at the Airport. However, accuracy for such a small population, such as Texada Island, and the Airport is limited.

2.1 Population

The Arlington Group was engaged by the qRD to complete population projections for the region. The analysis indicated a projected 19% population increase in the regional district from 2016 to 2041. This is significantly lower than the anticipated provincial forecast of 30 per cent over the same time span. The Arlington report stated that the gradual population growth in the electoral areas will be a stabilizing force. The report went on to identify significant trends in the Region¹. While these are not specific to Texada Island, Dillon Consulting feels that the following trends will be evident on Texada Island:

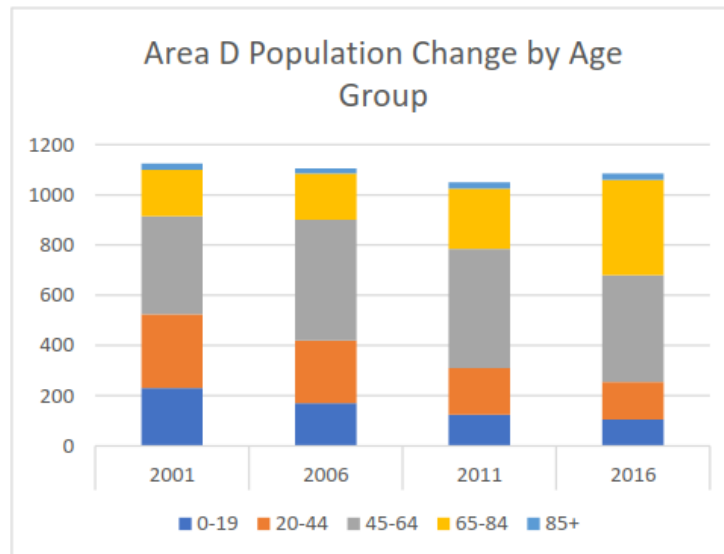
- The older workforce and seniors will be the dominant demographic;
- Schools will continue to be based in Powell River, except Texada Elementary, which faces declining enrolment, and Kelly Creek Community School, with busing to serve the population base under the age of 20 in the electoral areas;
- Home-based business will increase in importance as many older than 65 will continue to maintain an attachment to the workforce; and
- The importance of health-based services located in the regional district and commercial services in general will increase as the median age of the population increases.

The Arlington report also indicated a trend that Population diversity will continue, electoral areas will not become exclusive retirement areas. Dillon Consulting feels that this trend on Texada Island will be the most difficult to overcome due to lack of employment and housing options and the perceived isolation of Texada Island. The Arlington report provides the following chart of age category breakdown for Texada Island over the past 16 years. This shows a decrease in the 0 to 19 and the 20 to 44 years of age cohorts.

¹ The Arlington Group, July 2019, qathet Regional District – Electoral Areas A, B, C and D: Population Analysis and Projections 2016 – 2041.



Figure 4 - Population Change in Electoral Area D 2001 – 2016 by Age Groupings



However, for the purpose of the Airport Development Master Plan, the population projections have been assumed to increase from the 2016 population of 1,080 to 1,285 in the year 2041, using the regional average growth as a guide.

2.2 Flights

The Airport has tracked information on scheduled flights over the past several years. qRD may choose to disclose this information to the interested airline to provide a sense of the air travel demand. However, logging of itinerant flights is voluntary and not considered accurate.



3 Consultation

In preparation of the Plan, three separate in-person stakeholder engagement sessions were held on October 30th, 2019 on Texada Island Community Hall to obtain a range of stakeholder feedback. Additionally, one-on-one interviews were conducted with identified key stakeholders to solicit detailed feedback. Information received during the consultation process was evaluated and considered in the preparation of the Plan.

The stakeholder engagement sessions were conducted between three groups – industry, the Texada Airport Advisory Committee (TAAC), and the general public. The sessions began with an overview of what the intended purpose of the Plan was and the existing situation and limitations of Airport. This was followed by an open ended discussion that allowed stakeholders to contribute what the Airport meant to them and how it could best serve the community.

A synopsis of the three engagement sessions are presented in the below subsections.

3.1 Industry Stakeholders

The key points discussed in the engagement session with industry included:

- The Airport runway length is sufficient. There is no need for extension of the runway.
- Freight service at the Airport would be an excellent service provision.
- The community values the Airport for its economic contribution to businesses on Texada Island. Scheduled flights are critical for the businesses, telecommuters, and tourists alike.
- The Chamber of Commerce is largely supportive of commercial flights on Texada Island.
- The general aviation pilots on Texada Island have minimal requirements. Their needs are far less than a commercial airline and Transport Canada's requirements for the Aerodrome Authorization. And while they do not feel that they should "pay" for these upgrades through lease increases etc., there is acknowledgement that the capital upgrades are necessary for the broader public on Texada Island.
- There is an airline interested in flying into Texada Island. The airline reps have indicated that they would serve the community with an 8-passenger capacity airplane (Navajo Chieftain). They would want the support of industry and the community, in order to provide scheduled flights. Early discussions indicate that potentially 2-3 flights a week would likely be considered at first, followed by further review to evaluate the service based on the passenger and cargo loads. The potential flight route would likely form a triangle route from Vancouver, Qualicum Beach, and Texada Island. Cargo opportunities will supplement passengers.
- Ground transportation between the Airport and Gillies Bay is inadequate.
- There are two key services residents want for the Airport – the ability to provide for Medevac services and scheduled flights.



- It is challenging for Lafarge’s business to not have scheduled flights. They fly freights to and from Powell River from Vancouver on a daily basis and currently charter in specialized technicians from Vancouver and Vancouver Island. Having scheduled flights would be easy for them to arrange their flights. While they cannot guarantee regular passenger demand, they do have a high amount of freight that needs to be delivered. There will be demand for a “cargo shed” where parcels can be dropped off and picked up.
- The Chamber of Commerce and the community have had discussions on making Texada Island a destination village that will induce more tourism. The airline carrier would collaborate with the Chamber of Commerce for joint promotion.

3.2 Texada Airport Advisory Committee (TAAC)

The TAAC has been involved in the Airport for many years and have donated hundreds of hours of volunteer time. They have a significant vested interest in the continuing operation of the Airport. The following summarizes the comments from the TAAC members:

- Scheduled flights should be the top priority, before consideration of airport and capital improvements. The second priority should be supporting local hangar users, as they are the Texada Island airport community.
- Scheduled flights would service the residents on Texada Island first. It would not serve the tourists as much, as there are no car rental services or ground transportation on Texada Island.
- Hangar owners are getting a decent deal with the existing lease rates. However, qRD has not contributed to the development of the hangars. Should additional hangars be provided, the northeastern portion of the Airport would be a good place to develop additional hangars.
- TAAC encourages landing and passenger fees.
- There needs to be a unified vision for the Airport must be realistic but must include having a scheduled flight. The vision cannot solely rely on providing general aviation. Many people have moved to Texada Island because there was commercial air service. There are also indirect benefits of having the Airport, such as increasing and maintaining the value of real estate.
- TAAC has identified the provision of hydro as one of them most critical services for growth.



- Itinerant parking and lack of hangars is a serious issue. Especially during the winter, there is no parking available.
- It was suggested that rather than filling in hangar lots or bring the elevations up, raising the hangar construction with, sonotubes and plywood foundation may be a better alternative than backfilling the entire area.
- Fuel is not required on Texada Island. However, if fuel is provided, it should be provided towards the NW of the Airport, as the area drains outside of the Cranby Lake watershed.

3.3 Community Engagement

The key points discussed in the engagement session with the general public included:

- The Airport is an asset and it is infrastructure like a highway that needs to be maintained. It is not a money making operation. Texada Island is the only island on the Gulf Islands with an asphalt runway.
- Runway lights are required for landing at night and also for emergency evacuation.
- The Airport is not just for private use, but it is used by the public for emergency services. Hangars could be used for safety reasons during wildfire or earthquakes. The Airport is a great muster point for the Island and is also critical for emergency response via helicopter. Having air service for emergency services is very important. The alternative method out of the Island is through ferry, which will take hours.
- The current septic system is very limited and does not have capacity to service hangars.
- The scheduled flights are really important to the public. Scheduled flights to Vancouver saves 6 to 8 hours of travel each way. Being able to get off the island by air reduces travel time significantly.
- The public wants the Regional District to cooperate with an airline carrier. There are business owners and interest groups that run events and air service is important to their operations. Tourists are also coming from Powell River and beyond.
- Snowstorms in the past have shut down the Airport, due to a lack of snow removal budget;
- There is a possibility of having off-grid electricity through solar power. However, solar panels are intermittent in nature and would not be solely reliable for power. A back-up power system would be required.
- Anecdotal stories about tourists coming to Texada Island and finding nowhere to stay and no transportation. There is a lack of seamless infrastructure and services for tourism on the Island.



3.4 One-on-One Interviews

A total of eight key stakeholders were identified for a one-on-one phone interview to obtain detailed feedback, of which, six obliged to do the interview. A detailed interview questionnaire was provided ahead of time for stakeholders to formulate their thoughts. The key stakeholders interviewed included:

- The Chamber of Commerce;
- Elected Official for Electoral Area D;
- Island Express;
- KD Air;
- the Airport; and
- Selkirk Mountain Forest Limited (Selkirk Forest) & Texada Island Forest Reserve.

Feedback received from the interviews was considered in the development of this report.



4 Vision and Goals

The Plan for the Airport outlines a vision and goals to be achieved which will guide all decisions by the qRD for the growth and development of the Airport as well as future partnerships and revenue generation.

The vision of the Texada/Gillies Bay Airport is to be a safe, resilient community aerodrome with scheduled passenger service that supports local residents, tourism and businesses.

This document outlines the goals to be achieved to attain the vision. It should be noted that the first priority for any Airport in the ongoing safe operation of the aerodrome to protect the public. All other goals then achieve the economic and social success of the Airport.

The goals for the Texada/Gillies Bay Airport that will achieve the vision are:

- To be a safe and well-maintained airport that meets Transport Canada regulations;
- To provide commercial passenger air service;
- To generate revenue to cover all operating costs for the Airport;
- To provide community benefit through the ability to provide medical and emergency services; and
- To function as an economic generator to attract more businesses and tourism.



5 Situational Analysis

Texada Island is the largest of the Gulf Islands and sits off the coast of British Columbia near the City of Powell River. The Airport serves local itinerant pilots and in the past, and hopefully into the future, regularly scheduled commercial passenger flights.

The community, through the engagement conducted during this planning process, have indicated the importance of the passenger flights with the primary destination being Vancouver. A Vancouver destination allows Texada Island residents to do regular business and recreation in the lower mainland as well as connecting to flights for national and international travel.

One of Texada Island's attractions is its relative isolation. However, one of Texada Island's largest drawbacks is its relative isolation. The time to get from Texada Island to Vancouver by car and ferry is 6 to 8 hours in total. Currently, the ferry from Texada Island to Powell River is a 35-40 minute ride (not including arriving at the ferry early to ensure boarding) and \$32.60 fare (driver and vehicle) and a 4 hour drive to Langdale for another 40 minute ferry ride with \$59.60 fare (driver and vehicle) and limited access due to times of the ferries. A direct flight from Texada Island to South Terminal YVR would save a minimum of 4 hours of travel each way. While the flights could currently only operate during daylight hours, there is still the potential for a day trip.

5.1 Risk Assessment

The qathet Regional District is the owner and operator of the Airport and as such is totally responsible for any and all activities and development on the Airport. This puts a very high level of risk on the qRD. During the preparation of this plan, a number of risks were identified as outlined below:

Table 1: Risk Assessment for the Airport

| Risk | Impact | Resolution |
|----------------------------|---|---|
| Deer | The lack of wildlife fencing at the Airport makes the Airport accessible to all forms of wildlife. Specifically deer are a risk. Deer/aircraft interaction is not desirable. There have been near misses at the Airport involving deer. Commercial airlines consider this a very high risk for scheduled service. | Wildlife fencing would reduce potential conflicts. |
| Access to the Beach | The beach is located to the west of the Airport and people walk across the runway to access the beach. | Unauthorized personnel should never be airside on an Airport. |
| Water Well on Site | There is a water well on the Airport land that was drilled by a hangar owner. The qRD is responsible | qRD should claim the water well and control the use of the water. |



11 | Situational Analysis

| Risk | Impact | Resolution |
|--|---|---|
| | because it is on their land but they have no information or control over the well. | |
| Pumphouse | The pumphouse on the Airport was constructed by a hangar owner on the Airport lands. | qRD should take control of the pumphouse. |
| Hydro | Hydro is currently provided through industry. There is limited capacity and there is no formal agreement to continue to supply the power. The risk is that industry could terminate the supply of the power to the Airport. | qRD must get their own direct source of hydro to the Airport, and immediately negotiate a formal agreement with industry for the continued provision of the power until another solution is provided. |
| Control of Airside Uses | Current bylaws and leases are ambiguous on the development and uses allowed on the hangar lots. | Clarify the uses allowed on hangar lots, rewrite the leases, and ensure that the qRD can enforce any and all bylaws regarding uses at the Airport. |
| Volunteers | The Airport has had significant contribution from volunteers and hangar owners. This has led to a feeling of “ownership” and unauthorized work being completed at the Airport. | The qRD has to take control of all activities at the Airport and engage the volunteers in directed planned activities. |
| Leases | The current leases are short term, unclear on the uses and development that can occur on the hangar lots, unclear on the enforcement of regulations and are based on extremely low rates. | qRD should rewrite the leases, increase the charge rates, include an escalator clause, ensure enforcement power and extend the terms of the leases. |
| Apron Space | The apron is adequate for the current uses however, tie downs adjacent to the apron limit space, a commercial airline will need clear access, and can accommodate the helicopter landings if lighting were provided. | The apron should be lighted when the lighting for the runway is installed and it should accommodate the helicopter. Future runway expansion should be planned. |
| Tie Down Areas | There are limited tie down areas. | Better markings for tie downs will increase the number of spots and future tie down areas are identified in the land use plan that should be constructed and signed when areas become available. |
| Cranby Lake Community Watershed | The protection of the water shed is critical for the wellbeing of the drinking water supply for the community. | Restrict uses in the watershed catchment area and ensure that any new development incorporates environmental features to mitigate any spills or contaminants. Fuel services not be allowed in the catchment area. |



6 Economic Climate

Texada Island encompasses Area D of the qathet Region District. The Island has been fortunate to have several industries that provide employment, pay taxes and support the community. With a low population and low but steady growth, the economic climate has opportunities but generally will see slow growth. The population is aging. This will demand different services from a younger population. Emphasis will be on travel, health and recreation.

The Chamber of Commerce represents the businesses on the island and sees opportunities in tourism and recreation. In addition, there has been an increase in working remotely. Many professionals and IT businesses allow the employee or business owner to work anywhere there is good broadband service with period trips to major cities. The Chamber sees this as a trend that will benefit Texada Island.

The potential for reinstatement of commercial airline service will serve the corporate sector of the local economy by providing air access to Vancouver. It will also serve industry by providing a courier/freight services as well as passenger service. An Airline will also serve the older demographic for vacation and visiting family. Finally, an airline service will encourage tourism and visitors to come to Texada Island to enjoy the natural environment.

Increases in tourism and business will trigger increased demand for support services such as a taxi, vehicle rental/car to go, overnight accommodation, food and beverage establishments and will encourage these businesses to be year round.

In addition, Texada Island with an Airport with commercial passenger service will attract people who are looking to retire to a rural area, but maintain good connections to major airports. This will increase demand for other services such as health and medical services.

Overall, Texada Island is a classic example of how the Airport can be an economic engine for the community.



7 Airports “101”

Airports are unique planning entities. They are regulated federally and often operated locally.

The truth of airports is that they are not-for-profit operations and while they may, and should generate sufficient revenue to operate in the black, the capital costs generally far outweigh the ability of small airports to pay for themselves. A strong business plan with supporting land use regulations can assist the Airport to encourage revenue generating development to assist with the sustainability of the Airport. As a registered aerodrome, the existing Airport is not eligible for federal grants through the federal ACAP² funding unless they regain a commercial airline that provides regular scheduled passenger flights. This would then regain the Aerodrome Authorization status and allow the qRD to apply for ACAP funding. In addition, the Airport would be eligible for provincial grants through the BCAAP³, which are matching grants. This still means that the qRD must provide up to 50% of the project. This can be provided through the capital reserve fund.

The Plan was to review the demand for air transport now and into the future, and determine how the Airport can become sustainable over time. This has looked at how much associated industrial/commercial land would be required to support the Airport and how much is actually on Airport property now. The study has considered the “critical aircraft” to operate a commercial airline and what it will take to maintain the Airport for that use. Currently the planning documents (Official Community Plan and the Zoning Bylaw) do not provide specific direction for the Airport and could be improved to provide more guidance and support development initiatives.

It is important to understand that while the Airport is owned by the qRD, the critical regulations that apply to the operation of airports are the federal regulations such as TP1247 Land Use in the Vicinity of Airports and TP312 Aerodromes Standards and Recommended Practices 5th Edition. There are other restrictions such as municipal utilities and landowner input that all combine to determine the true sustainability of the Airport. The key is to ensure that there is sufficient revenue to operate the Airport and to contribute to an airport reserve fund.

With a population of less than 1,000 people on Texada Island, and no threshold area to serve the Airport, options are limited. The need for the scheduled passenger flights has been demonstrated. The value to the residents is significant in time savings (time for two ferries and the drive to Vancouver takes over six hours). Texada Island is in a situation where tourism and business have the opportunity to grow if there was improved access.

² Airport Capital Assistance Program

³ British Columbia Air Access Program



Most small municipal airports function as general aviation aerodromes used by flying clubs, industry, and itinerant pilots. Increased use by corporate employees, just in time delivery, small package courier and tourism, would benefit the revenue generation for the Airport and take off some of the financial burden from the Electoral District D taxpayers.

Airports are generally divided into three categories: airside, groundside and operational reserve. These areas are further regulated by the takeoff and approach surfaces, transitional surfaces and the obstruction zone.

Airside uses are generally those that are aviation related and require direct access to runways, taxiways, and aprons to operate their business (for example airlines, couriers, agricultural operators such as crop dusters, and charter air operations). Groundside uses can be aviation related, but do not have to be aviation related and do not require direct access to the runways, taxiways, or aprons. Examples of aviation uses that do not require direct airside access could include avionics, upholstery, and catering. Groundside uses often seen at Airports include light industrial, warehousing, storage, and specialty recreation (such as indoor climbing walls and gymnastics). Operational uses are those uses that the Airport requires to maintain a functional Airport including the runways, taxiways, aprons, terminal building, control tower, weather stations, lighting, maintenance sheds etc.



Figure 1 shows the obstruction limitations for Airports as identified by Transport Canada⁴. The obstruction limitation surface establishes the limit to which objects may project into the airspace associated with an aerodrome. This is primarily a height restriction parallel to the runway, at the ends of the runway and a 4 circle above the runway, 45 metres high, into which structures should not penetrate. This Outer Surface generally extends beyond the Airport property and out of the jurisdiction or control

⁴ Transport Canada, Land Use in the Vicinity of Airports, TP1247.



of the Airport owner/operator. This area generally requires interjurisdictional cooperation and collaboration to ensure that the municipality regulating development does not approve something that may jeopardize the safe and continued operation of the Airport.

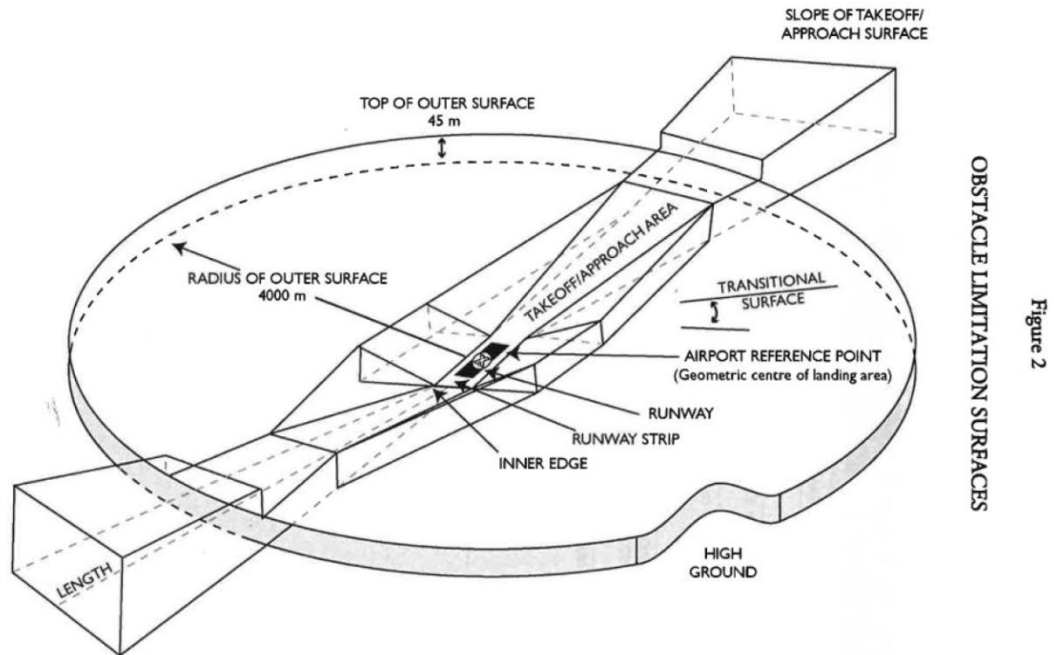


Figure 1: Obstruction Limitations



8 Current Airport Operations

8.1 qRD Operations

The maintenance of the Airport is primarily completed by the qRD public works department, with the exception of grass cutting and crack sealing being performed by contractors. The Airport Manager is a part time position with an experienced pilot monitoring the operations of the Airport. There is also a part time caretaker at the Airport for terminal building maintenance and landscaping. Snow removal is not a budgeted item.

Regular pavement management, including crack filling and line painting are completed.

The qRD had a Pavement Condition Report completed in June 2018. This report demonstrates that the pavement is in very good condition and the life of the pavement can be extended 10 or more years with regular maintenance. The 2018 report put the value of the infrastructure at \$7.2 million. The report states clearly that the present funding of the Airport is insufficient to continue to provide the existing level of service. Three primary risks were identified: asphalt deterioration, wildlife encounters and insufficient water supply. The report also indicates that the future of the Airport lies in the population growth, the demand for emergency response services and the stringent regulatory requirements by Transport Canada. The report goes on to say that the estimated available funding for the 10 year period is \$2.14 million (based on operations, maintenance, renewal, and upgrading of existing assets). This is based on the continued and increased tax allocation from Area D and the minimal revenue generated by the Airport.

Dillon Consulting Limited believes this to be a very low estimate. If the tax burden is to be lessened, revenues must be increased significantly. The operations plus the capital costs for runway lighting, wildlife fencing and runway upgrades far exceed the \$2.14 million over 10 years. Capital reserves need to be increased to provide the matching component for grants.

8.2 Finances

Currently the bulk of the revenue for the Airport comes from the Area D tax allocation. A minimal revenue is generated from taxes, lease payments, and grants. The expenditures include salaries, operational costs and regular maintenance. The graph below shows that no grants or other revenue sources have contributed to the Airport in 2019.



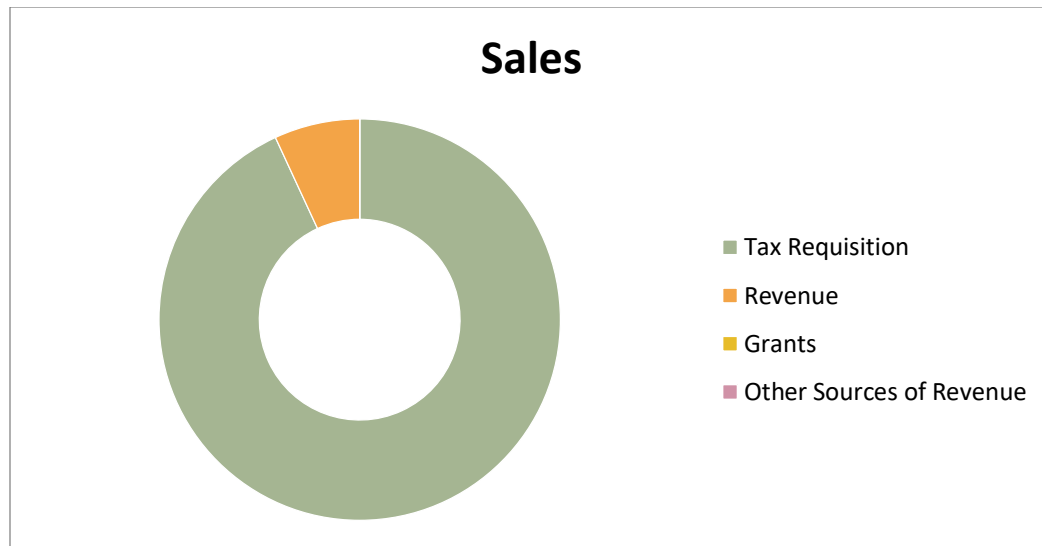


Figure 2: Revenue Sources for the Airport 2019

8.3 Leases

The current leases vary depending on when the lease was signed. The term of the leases are generally 10 years. The lease rates are very low when compared to other general aviation airports in British Columbia and Alberta. The rates at Texada Island vary depending on when the leases were signed. However, an average of \$350 per year hardly compares with rates such as the Duncan Airport at \$1,500 per year with the same level of service and a much shorter runway with much shorter leases. It is understood that many of the current hangar owners have donated time and effort to the well-being and operation of the Airport. This gives them a sense of ownership or entitlement. Their contributions are greatly appreciated by all who are involved in the Airport. However, Airports need to generate sufficient revenue to continue operations. All of the volunteer efforts will be for naught if the Airport has to close because it is not financially viable.

Hangar leases and taxes are a major source of revenue for the Airport and the qRD. Longer terms encourage greater expenditure on the hangar development itself due to the confidence in the longevity of the term. In addition, banks generally consider 25 to 49 years as mortgagable terms for leases. These leases should have an escalation clause based on the BC cost of living increases. A hangar owner and lease holder would not be required to pay any other fees at the Airport that might be introduced (which could include access fees, landing fees etc.).

It appears there may be demand for T-hangars or cube hangars for individual plane owners. Should an individual lease a hangar lot with the purpose of constructing some form of multiple hangar



development, their lease should be drafted to allow the sublease the units. However, all airside buildings should be exclusively for aviation purposes. This would not allow for recreational vehicles including boats, or any other non-aviation storage.

It is strongly recommended that the lease rates are increased significantly for the hangars at the Airport. It is understood that the increases should be incremental but that all hangars should be paying a market value for the hangar lots within five years.

8.4 Governance

The Airport is currently owned and operated by the Regional District. However, there are options for ownership and operation. This section provides a summary of the options.

One overriding recommendation is that the Airport owner never sell land at the Airport. Because it is the Airport owner that dictates the land use, regardless of municipal bylaws and regulations, it would not be appropriate for the Regional District to sell land to hangar owners. The most effective way of encouraging economic development at airports is to ensure a long term lease (25 to 49 years) and a land use zone that allows airport/airside uses as permitted uses and maintains control in the hands of the Regional District.

Table 2: Summary of Airport Governance Options

| Governance Option | Pros | Cons |
|------------------------------------|---|---|
| Public Own Public Operate | <ul style="list-style-type: none"> • All revenue goes to the municipality (taxes and leases); • All land use control in the hands of the municipality; • Maintenance and operation can be integrated into public works; and • More options for grant application. | <ul style="list-style-type: none"> • Capital and operational costs can put a burden on the taxpayer; and • Requires knowledgeable staff. |
| Public Own Private Operate | <ul style="list-style-type: none"> • Specialty knowledge and marketing of airport; • Business approach; • Incentive to increase revenue; • Taxes go to the municipality; and • Municipality controls land use. | <ul style="list-style-type: none"> • Operator gets revenue from the Airport; • Less accountability; • Money leaves the community; and • Can still be a drain on the taxpayer. |
| Private Own Private Operate | <ul style="list-style-type: none"> • Municipality collects taxes. | <ul style="list-style-type: none"> • Owner/operator controls land use (not subdivision); • Revenue goes to owner/operator; and • No accountability to tax payer. |



9 Opportunity Development

Airports are divided into three land use categories: Airside, Groundside and Operational Reserve. This section addresses the land and uses that would be appropriate for the Airport.

9.1 Airside

Airside development is the primary function of an airport. This land provides direct access to the runway, which is critical for aviation uses. This predominantly refers to hangar line development. However, there are other airside uses that can benefit an airport, camping, tie down areas, helipads and fuel services. It has been determined that there



is not significant demand for fuel at the Airport and that the potential threat to the Fixed wing and rotary wing aircraft should be physically separated if there is any gravel or loose surface. Helicopters do not require a runway but do require an obstacle free area for take-off and landing.

In 2018, a study was conducted by a consultant, Ken Glaze of VeriFlight International, to identify a location for a helipad. The recommendation was to locate it on the north side of the apron. However, in the development of the land use concept, it has been determined that the land north of the apron would be extremely valuable for hangar and aircraft tie down. In discussion with the consultant, it has come to light that this location was primarily selected due to the proximity of the apron, separation from fixed wing hangars and would not impact the traffic on the apron.

Additional conversations with the consultant have indicated that the helicopters could land on the apron. This would be particularly suited if lighting was installed on the runway and apron. While this could cause congestion on the runway and cause delays for a commercial passenger flight, it would be temporary and infrequent. As part of the engagement for this Airport Development Master Plan, Mr. Glaze communicated with the planning team and has indicated that the intent of the helipad site was to provide permanent lighting for VFR. With one of the priority goals to provide runway and apron lighting to make the entire Airport day and night operations, this would negate the need for specific helipad lighting. Therefore, it is recommended that helicopters could use the Apron but it is recommended that



20 | Opportunity Development

a 35 m diameter safety buffer zone be identified where no objects can be placed in the area that would create rotorwash conflicts.

Additional hangar line development is then proposed for the lands north of the apron and west of the existing southern hangar line. It is understood that this will require fill to raise up the lands to an appropriate elevation and that surface drainage will have to be designed to ensure that water is directed away from the hangars and runway and that water quality is monitored to ensure no impacts on the Canby Lake Community Watershed catchment area.



The increase in hangars would be designed for a variety of individual hangars and attached hangar development such as T-hangars and cube hangars to accommodate more aircraft.

Another airside use for the Airport is a camping area. The Airport has provided a few camping sites with picnic tables for itinerant pilots to stay overnight with their planes. Unfortunately there is very limited transportation from the Airport to any other location on the island. A system of rental bikes has been instituted at the Airport. The land use concept identifies areas where there would be short term camping formalized. In addition, the land use concept identifies additional camping parallel to the runway that will provide additional camping for special events. There is an opportunity to develop a communal BBQ patio area outside of the small electrical shed.

9.2 Groundside

Groundside development is land at an airport that does not provide direct airside access. There is very little land owned by the qRD on the Airport lands that would be appropriate for groundside development. There is a small area of parking near the terminal building and a plan for long term parking along the road right of way. All other lands are considered airside or operational reserve.

Additionally, bicycles have been donated to the Airport, allowing for active transportation options between the Airport and other areas on Texada Island.



9.3 Operational Reserve

Operational reserve includes the apron, the runway, the taxiway, the terminal building, the lands used for navigational and weather features, maintenance buildings and setbacks.

The runway is a 3,000 foot asphalt construction. The community and the potential airline both indicated that the current length of the runway is adequate to continue operations. The General Aviation users have indicated that the runway meets their needs.

The pavement condition report indicates the runway is in good condition and that regular maintenance will extend the life of the pavement. The apron is also in good condition. The windsock will require relocation when the north hangar line is developed. A taxiway will be required to access the north hangar line.

In the long term, an apron expansion may be warranted if the commercial airline generates more business and the community continues to grow.

The Terminal building is adequate for the proposed 8 passenger commercial flights. While some minor renovations and clean up would be required. Potential expansion of the building could accommodate the cargo/courier pick up and drop off. If the caretaker residence was to be converted, it could function as a washroom and facility for campers. This would utilize the current septic field with little requirement for expansion.

9.4 Support Services

There are very few support services at the Airport. There is currently no telephone service, but there is WiFi available along with a public washroom. The support services that were identified by the community as appropriate for the Airport include some form of ground transportation, future food and beverage establishment (even in the form of a food truck), expanded camping, improved washroom and installation of showers. It is understood that the provision of services and the business at the Airport should be developed in tandem.

Hydro is one of the biggest concerns for the Airport. It is currently being provided from Lafarge with an informal agreement. The capacity of the power line is not sufficient to support new development.



9.5 Off Airport Uses

Because the Airport has virtually no groundside land for development, additional future development could take place on lands adjacent to the Airport. It is understood that the adjacent land owners are not interested in selling land but might be interested in developing land and leasing the property. Options for adjacent land uses and development include:

- **Residential Airpark** – this development could be developed on the west side of the runway. The land there provides ocean views and there could be a taxiway to provide access to the runway. The landowners would gain lease payments, the qRD would get taxes and the Airport would get access fees. This land is outside of the Cranby Lake Community Watershed. The landowner and the qRD could work together to facilitate the rezoning and subdivision of the lands. The lots would be leased and the tenant would construct the house and accessory hangar. The Airport would construct the taxi way and security gate for the airpark pilots to use the Airport.
- **Industrial Park** – lands adjacent to the Airport could be developed as a light industrial park. While the Airport would not gain any direct revenue, the qRD would gain taxes and the park would generate employment. The costs of developing the industrial park would be totally the responsibility of the landowner. The lots could be leased rather than sold. The qRD could expedite the planning process and waive fees to assist in the development of this economic driver.
- **Campground** – there is the opportunity to develop a campground and long term parking on the east side of Airport Road. This land would be leased from the owner. The Airport would gain revenue for the camping fees and would see increased activity at the Airport for the improved services. This land could be leased and the cost of developing the campground could either be the tenant/operator, or the qRD.

It is also noted that there is a hangar developed off airport land but accessing the taxiway and runway. Should this structure be allowed to access the Airport, a new access agreement must be developed to charge a market value for access to the Airport. If an agreement cannot be reached, once the Airport constructs wildlife fencing, this property will not have access.



10 Funding Sources

There are four applicable funding sources that can be utilized for the sustained operations of the Airport. The four sources include:

1. Grants;
2. Fees & Charges;
3. Partnerships with external organizations; and
4. Taxation of the residents in Electoral Area “D”.

It should be noted that increased taxation of the residents in Electoral Area “D” should be minimized or removed. Therefore, the first three sources listed should be the priority in securing funding first.

10.1 Grants

Grant opportunities at the provincial and federal level primarily consist of the BC Air Access Program (BCAAP) and Airports Capital Assistance Program (ACAP), respectively. However, the Federal grant requires that the proposed aerodrome be registered or certified. Currently, the Airport does not have its Aerodrome Authorization and as such, is ineligible for ACAP. In addition, both of these grants require local funding, often matching funds. This requires the Airport (qRD) to have a capital reserve fund to provide that matching funding.

Given that the vision for the Airport is to provide scheduled flight service again, the Airport would need to regain their Aerodrome Authorization status.

The Airport is currently eligible for BCAAP funding. BCAAP contributes a portion of an identified project’s total cost and does not cover the full project cost. Given the inadequacy of current budget reserves to support the implementation of capital projects (e.g., safety and infrastructure), it will be crucial for qRD to both adequately budget for the capital infrastructure upgrades and apply for BCAAP funding for the recommendations listed in **Section 12.2**.

The Community Emergency Preparedness Fund, which is administered by the Union of BC Municipalities, is also available for the Airport. It should be noted that the funding would primarily support the purchase of equipment, supplies, and/or training required to maintain or improve emergency operations centres. The funding would not contribute to capital improvements of the Airport. This could potentially contribute to the runway and apron lighting for helicopter landing for emergencies.



The New Building Canada Fund would also be a potential grant to utilize for the expansion of the existing terminal building to provide a better passenger experience, along with showers for the proposed campground. There may also be provincial tourism and economic development grants that could support the development of the camping area.

10.2 Fees & Charges

The Airport can generate revenue through groundside and airside fees and charges. At the moment, all revenue comes from the airside (i.e., no vehicle parking fees are collected). In comparison to Schedule C of Bylaw No. 419.6, 2015, the Texada Island Airport Fees and Charges have been summarized in **Table 3** and compared to other Airports in Canada.



Table 3: Comparison of Airport Fees & Rates

| Description | Texada Island Annual Rate | Pemberton Regional Airport | Okotoks Air Ranch Annual Rate | Nanaimo Airport | Langley Regional Airport | Campbell River Airport |
|--|---------------------------|--|---|-----------------|---|--|
| Light Aircraft Tie-Down Fee (annual) | \$250.00 | \$10/day; \$15/night; \$80/month; \$280/year. | \$1,476 - \$2,076 | \$414 | \$900/year for grassed parking. | \$7.50/day; \$60.00/month; \$480/year. |
| Heavy Aircraft Tie-Down Fee | \$250.00 | \$15/day; \$20/night; \$90/month; \$340/year. | N/A | \$828 | N/A | \$12.50/day; \$262/month. Gradually increases the heavier the aircraft. |
| Special Use Permit Fee: Non-Profit/Commercial | No Charge | N/A | N/A | N/A | N/A | N/A |
| Vehicle Parking Fee | No Charge | N/A | 3 hrs = Free Day parking = \$5 Overnight parking = \$9.52 | \$11/day | N/A | 1 st hour = Free; Day = \$5.00; Night = \$8.00; Weekly = \$40.00; Monthly = \$100.00; Yearly = \$600.00. |
| Hangar Site Lease: Non-Profit | \$350.00 | \$0.188 per sq.m 10-year lease with 4 x 5-year extensions (30-year maximum) | \$0.90 per square meter | N/A | \$0.2649/sq.ft for recreational; \$0.3885/sq.ft for commercial (20-year lease); \$0.4158/sq.ft for commercial (30-year lease) All lots are unserviced. | \$0.183/sq.ft 25-year lease |
| Pax Fee Per Movement | No Charge | N/A | N/A | \$6.00 | N/A | \$7.50 |
| Landing Fees | N/A | Starts at \$25.00/landing for commercial and goes down as more flights are taken. Or \$600/year. | N/A | \$10.00 | No landing fees | \$5.00 |

While the table above includes Airports that were deemed similar in nature to Texada/Gillies Bay Airport by Dillon, there are, of course, subjective differences between each and every single airport in terms of the level of service that is provided. The table above is meant to give a sense of what other fees and charges are enforced. The appropriate fees and charges an airport should enforce will vary based on the specific conditions of the airport. For example, while Powell River Airport may provide a higher level of service (e.g., runway lighting) and charge no landing fees, it also benefits from having a significantly higher tax base (compared to Texada Island) and also benefits from having groundside revenue generation (e.g., Budget Car Rental). In contrast, Texada Island has a very low tax base, a senior age cohort in the demographic profile, no groundside revenue generation, and no runway lighting. However, the Airport should consider implementing landing fees, and passenger fees when a scheduled airline restarts, as there are limited opportunities to generate revenue to sustain the operations of the Airport. It is recognized that these fees cannot be punitive and reduce the competitive advantage of the Airport. If considering applying fees and charges for the Airport, qRD should carefully consider the level of service that is provided at the Airport and the unique challenges and opportunities the Airport faces in comparison to other airports in the region. It should be recognized that increases in fees and charges may reduce traffic at the Airport and thus, a balance should be obtained that will ultimately lead to the sustained operations of the Airport.

In general, the fees and rates charged by Texada Island are significantly lower than other airports. As the current operations of the Airport cannot be sustained with current revenue generation, it is recommended that the fees and rates be increased to a level that correlates to the services that the Airport provides to its users and will better allow the Airport to operate more sustainably. Rate increases should be phased in, so as not to create dramatic price increases to the Airports users. Furthermore, hangar rates should be adjusted on a yearly basis, based on the BC Consumer Price Index. A full fees and charges review should be conducted every five to seven years.

Hangar leases vary significantly depending on the Airport, the year the lease was signed, the services provided at the lot (piped water and sewer, power, or no services). Some airports also charge other fees and charges not listed in **Table 3** including passenger facility fee or airport improvement fee (in addition to the passenger fee), a commission on ground transportation services (e.g., taxi, shuttle bus, airside courier), camping rates, and emergency response fees. The qRD should consider the implementation of additional fees and charges not mentioned within their current bylaw.

At a minimum, it is recommended that the Airport charge for long term (over 24 hours) vehicle parking, overnight itinerant parking, and camping charges. The existing fee collection process is based on an honour system; should the Airport want to enforce the collection of fees, the caretaker should go and collect the fees every evening for itinerant parking and camping.



10.3 Partnerships

During the engagement sessions listed in **Section 3**, partnership opportunities became evident as stakeholders discussed their needs. Given the limited resources of the Airport, partnerships are critical to allow for the sustained operations of the Airport, as they present an important opportunity to lower both operational and capital infrastructure costs, while improving the overall experience for the residents and tourists of Texada Island. The potential partnership opportunities are summarized in **Table 4** below.



Table 4: Potential Partnerships

| Partnering Organizations | Purpose |
|--|---|
| qRD & Selkirk Forest & Texada Island Recreation Commission (TIRC) | <p>In developing the wildlife perimeter fencing around the Airport, a partnership between qRD, Selkirk Forest, and TIRC should be considered for the purposes of providing an enjoyable walking trail along the perimeter fencing.</p> <p>Additionally, Selkirk Forest could consider developing lands adjacent to the Airport (detailed below). The company has indicated they may be open to developing land, provided it is not sold. A residential airpark could be possible. This would create an aviation community at the Airport and the walking trail would provide an amenity to the community.</p> |
| qRD & Selkirk Forest | <p>During the engagement sessions, it was expressed that there could be development potential around the Airport to improve the sustainability of both Texada Island, as well as the Airport itself. Residential developments appeared to be more favorable than commercial or industrial developments, especially given the lack of small, manageable senior's or affordable housing on the island. Rental housing for temporary workers is also largely unavailable on the island.</p> <p>The Airport has very limited land available for development and most of that should be maintained for airside uses. Adjacent lands could be developed for a variety of light industrial and residential uses. This would have to consider the Cranby Lake Watershed area as well as current planning documents to ensure that the development was appropriate for the area. The land surrounding the Airport is entirely owned by Selkirk Forest, and a potential partnership could form between qRD and Selkirk Forest to develop areas around the Airport. Specifically, the area to the northwest of the Airport would be a preferred development location, as it is located out of the Cranby Lake Watershed, has road access, and also possesses dramatic oceanfront views. This potential development area would primarily consist of residential uses and would form a residential airpark at the Airport. This would improve the aviation community on Texada Island, foster more use at the Airport and potential fee payment, would generate tax revenue for the qRD and through access fees would generate revenue at the Airport.</p> |
| qRD & Hangar Owners | <p>The existing hangar owners at the Airport have historically provided volunteer services towards the development of the Airport. There is potential to continue to work with the hangar owners to develop the Airport, support the ongoing safe use of the Airport.</p> |
| qRD & Airline | <p>In order to establish a commercial airline at the Airport and provided long-term sustained scheduled flights, it will be important that a partnership form between qRD and the airline to work to obtain the Aerodrome Authorization status.</p> |



| | |
|--|---|
| qRD & Airline & Lafarge | <p>Providing scheduled flights to the residents of Texada Island can be challenging, due to the low population and relatively low demand for flights. Therefore, it will be critical that the airline partners with businesses, such as Lafarge, to allow for sustained revenue for the airline to continue providing scheduled flights.</p> <p>Lafarge expressed challenges with not having scheduled flights, as their personnel require flights out of Texada Island frequently. Furthermore, Lafarge ships equipment regularly which is currently being provided by chartered flights. For a successful airline to operate sustainably on the island, it should prioritize providing both freight shipping and passenger flights to Lafarge via an established partnership, while providing passenger flights to residents and tourists. To promote this partnership, qRD could supply a storage facility for Lafarge’s equipment.</p> <p>To accommodate the freight shipping, a structure will be required to store the equipment and packages being shipped. This could be as simple as a Seacan. It may be that one of the local industries as a Seacan that can be moved and installed at the airport.</p> <p>Furthermore, in developing the hangar lines, it will important to access Lafarge’s fill material.</p> |
| Airline & Chamber of Commerce | <p>There appears to be a direct correlation between the provision of scheduled flights and improvements to the local economy on Texada Island. By providing scheduled flights, tourism and access to other markets in the region are improved, which in turn generates more demand for scheduled flights.</p> <p>Therefore, for a successful airline to operate, there should be a partnership formed between the airline and the Chamber of Commerce to promote Texada Island as a destination. Special consideration of what improvements can be taken to improve the tourist experience on the island should be undertaken (e.g., ground transportation from the Airport to Gillies Bay).</p> |



10.4 Taxes

Currently, the operations of the Airport are primarily financed through taxation on the residents of Electoral Area “D”. Increased taxation on the residents is not sustainable, and should be considered a “last resort” option. Instead, revenue generation should be prioritized on grants, fees & charges, and partnerships first to allow the Airport to break-even in terms of its operations and year-over-year capital infrastructure implementation.



11 Future Land Use Plan

A future land use concept has been developed for the Airport lands and has been attached in **Appendix A**. Note that the map is conceptual and therefore, is not detailed, surveyed or ready for construction. It outlines the general location for new hangars, new taxiway, terminal building expansion, camping, and parking. This plan only applies to the Airport land owned by the qRD and does not apply to any lands off Airport.

During the engagement sessions, it became clear that the chief objective of the Airport is to provide scheduled service and the upgrades to ensure the safe operation of the Airport. Following that, it was identified that the Airport should be improved to enhance the experience of the pilots, residents, and hangar owners. As a result, the phasing strategy has been developed with these chief objectives in mind, along with maximizing the rentable/leaseable space and increasing the number of hangars at the Airport. This will generate revenue, taxes and increased activity at the Airport.

The implementation of the conceptual land-use can be broken down into three distinct phases, which have been further elaborated in the subsequent sections. Note that the phasing scheme presented covers key points of the Airport's land development. A detailed Airport Development Action Plan can be seen in **Table 5**, which covers non-land-use upgrades.

11.1 Phase 1 – Scheduled Air Service

The requirements to regain scheduled air service include the airline and the qRD working together to prepare the documentation and demonstration the safe operation of the Airport. Transport Canada has indicated that this is a three month review process on their end and that, assuming all documentation is in order and Transport Canada provide the Aerodrome Authorization certification by the end of May, scheduled flights could start in June 2020.

The other actions that are directly related to improving the safety for the scheduled flights are the ongoing runway crack filling and repairs, tree topping and the major projects of installing lighting for the runway and apron and constructing wildlife fencing around the perimeter of the Airport.

It is recommended that the wildlife fencing and walking trail be constructed before the runway lighting. The challenge with constructing runway lighting prior to the wildlife fencing is that wildlife (most notably deer) will be attracted to the runway lights, creating a serious safety hazard for pilots.



11.2 Phase 2 – General Aviation Improvements

Along with providing scheduled air service, the lack of itinerant parking and hangar spaces has been identified as a critical issue at the Airport. The options were to continue to develop the land south of the terminal building adjacent to the existing hangars, or to open up the land north of the terminal building for new hangars. After considering the existing infrastructure in the south (taxiway, power and existing hangars), it is recommended that the expansion of the south hangar and development of new itinerant parking south of the Terminal building should be constructed first. There are several benefits to developing the south hangar line first, including cost and timing; however, the key benefit in developing the south hangar line first is that the taxi way already exists. This makes it easy to develop additional itinerant parking. In contrast, if construction north of the terminal building were prioritized, all itinerant parking spaces currently available at the Airport would be removed to construct the taxiway and the new hangar lots, increasing the pressure for parking on the apron, and exacerbating the shortage of itinerant parking already.

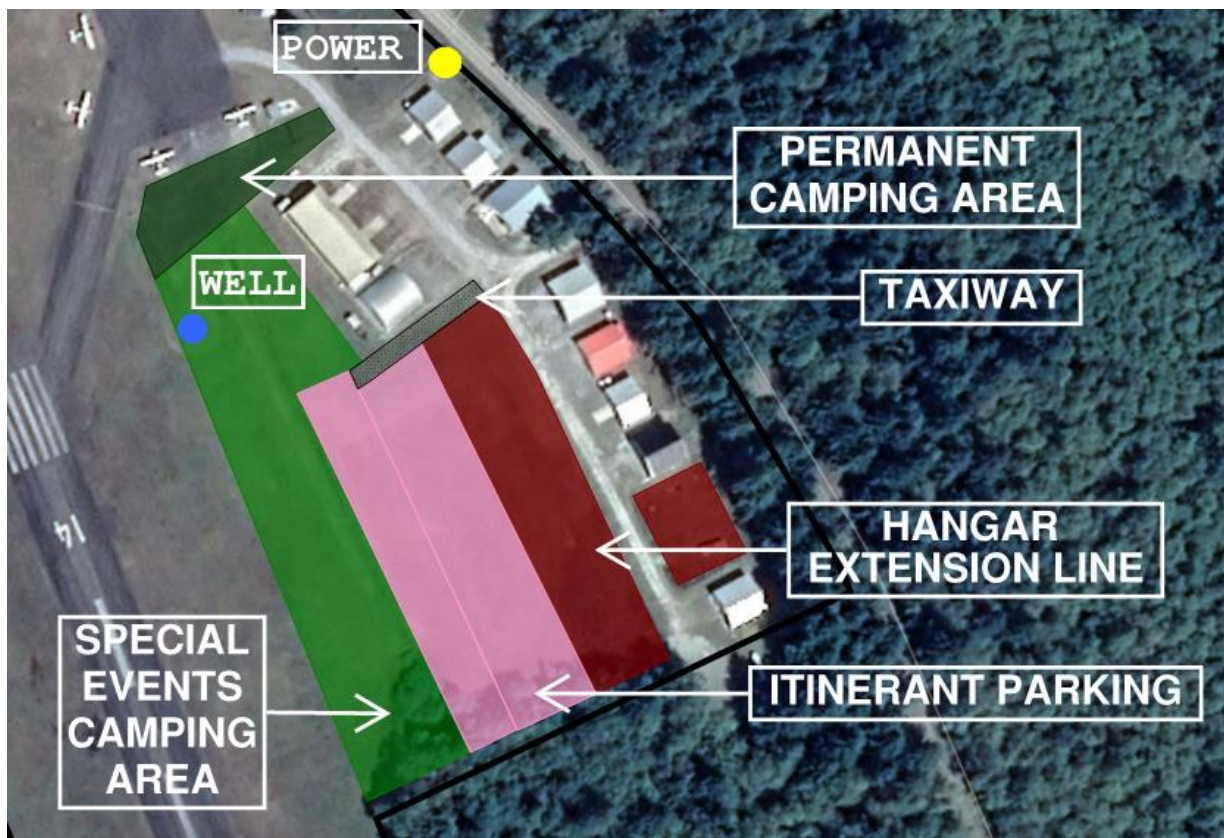


Figure 3: Phase 2 - Initial Development



The construction of a grassed and sloped taxiway to access the south itinerant parking, as identified in **Figure 3** should be completed first. This would be low in cost and provide an immediate supply of itinerant parking in the rear of the southwest hangar line. Based on site reconnaissance, it appeared that this area became progressively more swamp-like near the south boundary of the Airport. As a result, the itinerant parking area could be progressively developed over a period of time to allow for more parking areas.

While the construction of the south hangar line is a costly investment to be made by qRD, it is less expensive than the north hangar line. The cost of the fill can be recovered from the new tenants as site preparation. As a result, the qRD may want to secure hangar leases and financing agreements from prospective hangar owners before development of the south hangar line. The fill costs and any associated investigations required (e.g., survey, environmental, stormwater, and geotechnical) should be passed from qRD to the prospective hangar owner. It is recommended that during the hangar lease negotiations, a non-refundable payment should be collected from the prospective hangar owner to recover potential lost legal, administrative, survey, and advertisement costs, in the case that the hangar owner decide to decline the lease after prolonged negotiations. Hydro should be established in this area first, before being established towards the north of the Airport. This will aid in the cost-phasing of the Airport's development, as infrastructure in the south (e.g., taxiway, hangars) is already constructed.

Previous studies have been completed which have identified the suitability of the Lafarge's aggregate as fill material. It is understood that a Synthetic Leaching Precipitation Procedure (SPLP) test and a testing of aggregate material of the quarry has already been assessed, as per the Texada Airport (YGB) Assessment for Hangar Expansion Project (Enterprise Geoscience Services Ltd., 2016). The study confirmed that the aggregate products are considered suitable as structural fill for the hangar expansion project and would not detrimentally impact water quality in Cranby Lake, provided that there are adequate sediment and erosion controls in place. In addition, before any new development can occur, if it is required a Phase I and/or II Environmental Site Assessment of the fill materials should also be completed to identify any environmental liabilities.



It should be noted that by using fill material in the south hangar line, a retaining wall or progressive slope will be required to connect the higher elevation hangar lots with the adjacent lower elevation itinerant parking area.

Lastly, very little development or upgrade will be required for the special events camping area and the permanent campground. The permanent campground could be gradually developed over time, including moving the existing campground area to the location indicated in **Figure 3**, and slowly providing sleeper cabins and additional camping resources over time.



Figure 4: Example Sleeper Cabin

11.3 Phase 3 – North End Improvements

By the time Phase 1 is completed, the partnered Airline would be established at the Airport and Phase 3 of the Airport's development would focus on increasing hangar lines and revenue and other improvements that would benefit the scheduled flights and passenger experience through the improvement of parking, expansion of the apron and upgrade of the existing terminal building.

The need for the terminal building expansion is dependent on whether or not the existing living quarters of the terminal building can be converted into a campground facility with showers and an expanded waiting room. If not, the terminal building may need to be expanded to provide better passenger and camper experience at the Airport.



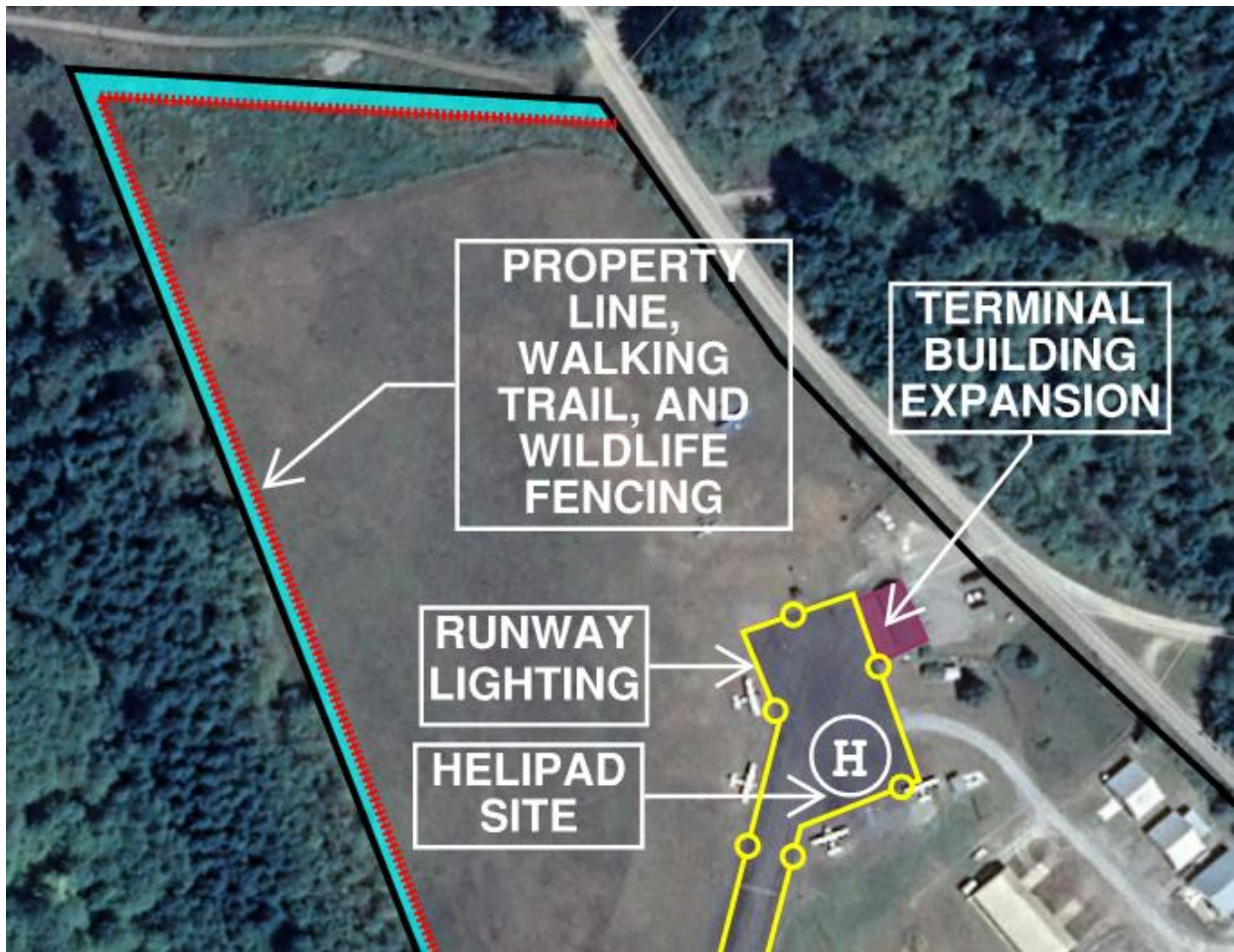


Figure 5: Phase 3 - Airport Improvements

If the existing residence is converted to the camping facility, the existing shower can be accommodated by the current septic field. However, if additional showers are provided, the capacity of the septic infrastructure may require upgrades. However, if the gray water from the showers could be utilized for on-site irrigation and does not add additional capacity to the septic system (e.g., irrigation), septic upgrades may not be required.

The long-term parking should be implemented first along Airport Road, which will require tree cutting within qRD property. Should additional parking be required, an additional space might be resourced outside of qRD land, across the existing parking lot. This would need to be agreed upon with Selkirk Forest.



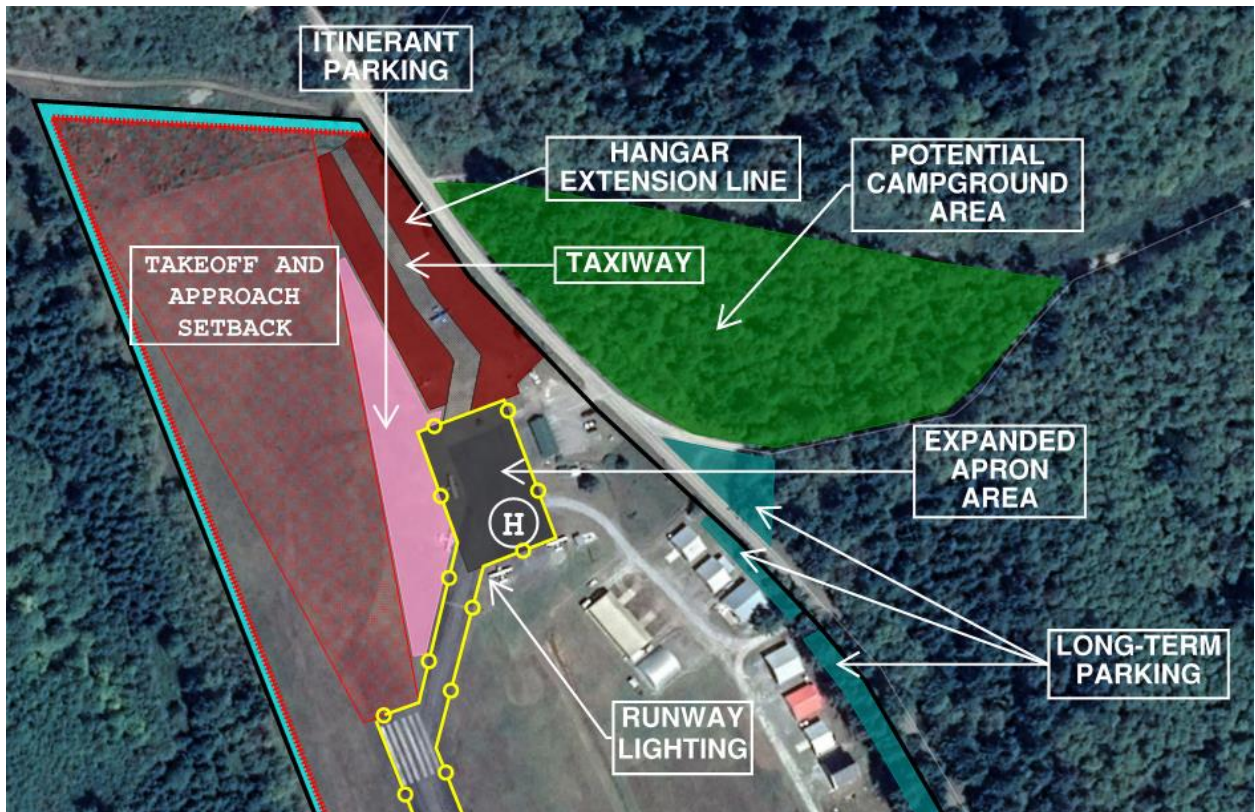


Figure 6: Phase 3 - Long-term Improvements

Given that the north hangar line is situated at a lower elevation and the “itinerant parking” area is situated at a higher elevation, there may be an opportunity to use fill material from the itinerant parking area at the proposed hangar line. Otherwise, the north hangar line would require appropriate fill material from Lafarge, and the fill material in the itinerant parking area would need to be relocated elsewhere. A geotechnical investigation would be required to evaluate whether or not the fill materials are suitable for hangar development.

Lastly, if the Airport desires to have an expanded apron area (along with associated runway lighting upgrades) and a campground area, this could be included at the end of Phase 3.



12 Recommendations and Conclusions

A summary of the current risks was completed which feeds into the recommendations and timing for the upgrades at the Airport. The following action plan outlines the key and actions that were identified during the consultation and attempts to prioritize the actions and demonstrate what needs to happen sequentially to allow the actions to occur in a logical manner

12.1 Action Plan

This action plan identifies all of the items noted during the consultation, conversations with the qRD and Airport Manager and understanding of what will be required to bring a commercial airline back to Texada Island. The actions have been separated into Immediate, Short Term, Medium Term and Long Term actions. Cost estimates are not available for all actions and can be collected and filled in as the plan is implemented. Some of the actions require partnering with other groups and some require successful grant applications.

All of the actions work towards a sustainable, financially viable airport. The Airport should operate in the black with significant funds set aside for the capital reserve fund. And while airports are public infrastructure, they need to be managed as a business. Promotion, revenue and customer service are critical to the success of the Airport.

Estimated costs have been provided but must be verified by quotes from the relative professionals at the time the action is proposed. If the action is primarily administrative on the part of the Regional District, it is identified as NC or no cost (meaning no capital cost associated).



Table 5: Airport Master Development Plan Actions

| Priority | Action | Estimated Costs |
|-----------------------------------|---|--------------------|
| Immediate 2020 | Initiate partnership with Airline and obtain Aerodrome Authorization. | NC |
| | Restart commercial passenger service. | NC |
| | Update OCP and Zoning Bylaw and ensure the policies and land uses support the Airport. | NC |
| | Formalize hydro provision from Lafarge and initiate discussions with BC Hydro for improved permanent services. | NC |
| | Clean and maintain the Terminal Building to modern standards. | NC |
| | Provision of storage space for Lafarge and Airline (e.g., 20 ft. sea can). | \$2,000 |
| | Rewrite the lease to increase the control by the qRD, increase the lease rates and build in a cost of living increase (with Legal Review). | NC |
| | Service and repair all loaner bicycles and provide a pump for tires. | \$200 |
| | Chamber of Commerce and local businesses are welcome to put their brochures in the “stand” in the terminal building. Additional information materials may be provided through joint efforts between the Chamber of Commerce and local businesses (potentially apply for a tourism grant). | NC. |
| | Update fees and charges bylaw and complete full review and update every five to seven years afterwards. | NC |
| | Modernize fee collection system – starting with an improved sign and collection box. | NC |
| | Move existing camping facilities (picnic tables and fire rings) to new designated camping location and identify the camping sites for regulation and collection of camping fees. | NC |
| | Identify location for “sleeper cabins” for itinerant pilots. | NC |
| | Work with Chamber of Commerce and Airline to prepare improved marketing materials, update the qRD webpage and allow businesses to add a link to their websites. | NC |
| Short Term 2021 - 2025 | Evaluate adequacy of ground transportation between the Airport and Gillies Bay. Ensure that the Taxi phone number is posted in the Terminal Building and recommend the Taxi service and a commercial airliner coordinate flights and passenger trips. | \$0 - \$30,000 |
| | Pave or hard surface the parking area north of terminal building and identify parking stalls by paint or curb stops. | \$2,000 - \$10,000 |
| | Convert terminal building to a full amenity facility (e.g., utilizing existing shower in building for campers). Additional showers may be constructed provided that the water and septic capacity is sufficient. | \$2,000 - \$5,000 |



| Priority | Action | Estimated Costs |
|------------------------------------|---|----------------------|
| | Review current water and wastewater supply and capacity to determine if improvements and associated budgeting efforts are required. | Unknown at this time |
| | Construct three “sleeper cabins”. | \$15,000 |
| | Complete a review of the Emergency Evacuation plan, update it regularly to maintain current contact names and numbers and establish the Airport as the muster point and evacuation point. | NC |
| | Annual tree topping and crack filling. | \$10,000 |
| | Complete a geotechnical assessment of future development area and final elevations and drainage plan. | \$20,000 |
| | Negotiate with Lafarge for fill materials. If required, conduct a Phase I and/or II Environmental Site Assessment to determine suitability of fill materials.. | \$8,000 |
| | Apply for BCAA funds for Airport fencing, runway and apron lighting, based on the safety for the commercial flights and emergency services. Costs reflect the designs and cost estimates from engineers or suppliers. | \$10,000 |
| | Develop permanent parking sites along Airport Road. | \$15,000 |
| | Establish BC Hydro connection to Airport. | Unknown at this time |
| | Construct wildlife fencing ⁵ . | \$250,000 |
| | Construct Regional pathway. | \$50,000 |
| | Install runway/apron lighting. | \$600,000 |
| | Install solar panels for terminal building. | \$3,500 |
| | Identify helipad location on the apron. When the runway lighting is installed, this will include the Apron, making it suitable for emergency helicopter use. | \$4,000 |
| | Install fill with compaction for the hangar/itinerant parking lands on the south hangar line. | \$100,000 |
| | Survey and lease southwest hangar line (southwest hangar line is priority because the taxiway exists). | \$6,000 |
| Medium Term 2026 - 2030 | Residential airpark constructed off Airport lands and construct gravel surfaced taxi way and security gate. | \$80,000 |

⁵ It has been assumed that grant funding will be available for the three large projects of runway lighting, wildlife fencing and construction of the regional path.



| Priority | Action | Estimated Costs |
|----------------------------------|---|-----------------|
| | Construct/pave long term parking along Airport Road with a payment system. | \$15,000 |
| | Install fill with compaction for the hangar/itinerant parking lands north of the apron. | \$400,000 |
| | Move Windsock. | \$1,000 |
| | Install hydro to the north hangar line. | \$80,000 |
| | Construct taxi for north hangar line. | \$80,000 |
| | Survey and lease north hangar line. | \$6,000 |
| Long Term 2031 - 2035 | Develop a GPS approach for the Airport. | \$60,000 |
| | Resurface the runway and apron and repaint. | \$2,300,000 |
| | Apron expansion and associated apron lighting upgrades. | \$600,000 |
| | Expand Terminal Building. | \$80,000 |

12.2 Summary

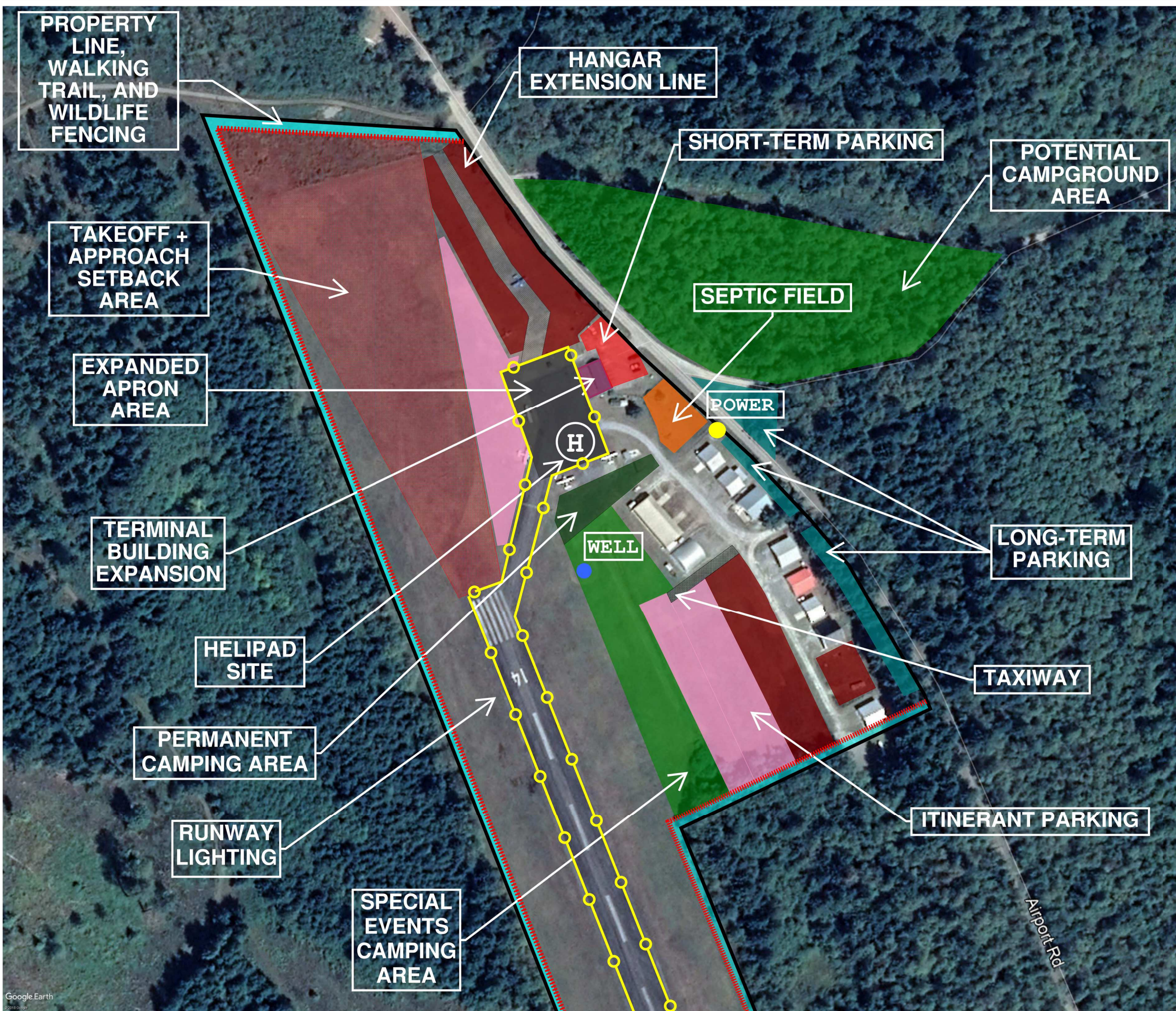
It is evident from the cost estimates for all of the activities that the full build out of the Airport will be expensive. Development must be phased, grants must be applied for and revenue must be expanded to support the operational costs and contribute to the capital reserve fund.



Appendix A

Conceptual Land-Use Map





MAP DRAWING INFORMATION:
ESRI Basemaps, DATA BC, Dillon Consulting Limited, Lafarge Canada

MAP CREATED BY: RBB
MAP CHECKED BY: RD, PM
MAP PROJECTION: NAD 1983 UTM Zone 10N



PROJECT: 19-1350
STATUS: FINAL
DATE: 2019-08-19