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VTrans Vermont Agency of Transportation

STATEWIDE AIRPORT BUSINESS PLANS

CALEDONIA COUNTY STATE AIRPORT

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1. INTRODUCTION

This business plan is intended to identify and recommend potential means of improving the financial performance of the Caledonia County State Airport (CDA). Recommendations were developed based upon knowledge of the mission, goals, and background of the Sponsor and the Airport as well as the opportunities and challenges that are currently facing and could face the Airport in the future. This analysis is geared toward positioning the Sponsor and the Airport to take the best advantage of its assets and strengths. This business plan was commissioned by the Vermont Agency of Transportation and has **not been endorsed by the Vermont Pilots Association**.

Vermont Agency of Transportation

The Caledonia County State Airport is owned and operated by the State of Vermont Agency of Transportation (VTrans). VTrans currently owns ten airports across the State. Of these ten airports, seven are operated by Fixed Base Operators (FBOs), acting as contracted Airport managers, while the remaining three are operated by State employees. While the specific mission of each VTrans owned airport varies, the mission of the Sponsor includes many of the overarching themes important at Caledonia County State Airport. VTrans' mission is as follows:

> "Vermont's airport system will be accessible, safe, and secure, meeting the needs of its business and recreational users, including implementing new technologies to support the future system. The airport system will be preserved and enhanced, while meeting Federal and State guidance and promoting responsible environmental stewardship and land use compatibility. Vermont's airports will be operated as business-oriented facilities focusing on creating opportunities for a return on the investment and will provide intermodal linkages to national transportation systems[1]."

The 2007 Vermont State Airport System and Policy Plan (VASPP) also included several goals for VTrans to achieve in the coming years. These system-wide goals include:

- Provide a system of airports that is accessible for people and goods from both the ground and the air throughout the State.
- Preserve and enhance Vermont's existing airport systems infrastructure investment through maintenance and rehabilitation to meet future growth and demand as well as providing new infrastructure to meet future needs in support of the national air transportation system when needed.
- Plan for future airport development and protect public investment in airports through promotion of compatible land use in the vicinity of airports.
- Provide a safe and secure system of airports that meets State and Federal guidelines, including routine inspections of airports such as the 5010 Program.
- Seek adequate and stable funding, including FAA assistance, and assure appropriate staffing to support the Agency's mission.

[1] Source: Executive Summary: Vermont Airport System and Policy Plan, February 2007.

- Make timely, sound infrastructure investments derived from airport master plans and based on priorities that are determined through coordination with Vermont's aviation stakeholders, including use of the Vermont Airport Capital Facilities Program.
- Strive to generate appropriate revenues from the operation of the State-owned airports in support of their continued operation and expansion utilizing a business-oriented approach.

Caledonia County State Airport

A formal mission statement has not been adopted for the Caledonia County State Airport. However, such a statement is often helpful in providing guidance and governance in the development and overall operation of the Airport. If a mission statement were to be adopted for the Airport, it could be stated as:

"The mission of the Caledonia County State Airport is to provide convenient and safe airport facilities to pilots and visitors of Caledonia County and the southern portions of Vermont's Northeast Kingdom."

Program goals to support this mission could include:

- Pursuit of funding to implement necessary capital improvement projects that improve the safety and utility of the Airport.
- Strive to manage expenditures and increase revenues at the Airport.
- Encourage private sector investment in the utilization and development of the Airport's facilities.

1.1 Desired End Products

Based upon the analysis presented in this study, the following end products are expected to include:

- An evaluation of current airport business operating practices.
- The identification and evaluation of needs, opportunities, and challenges facing the Airport.
- A five-year projection of revenues and expenses at the Airport for the baseline case and alternative scenarios.
- Strategic planning recommendations for the Airport.
- Graphic materials to support Airport facility development, including color brochures.
- An economic impact evaluation of the Airport, identifying jobs, income, and total output associated with the facility.

1.2 Report Outline

Several aspects of the Caledonia County State Airport will be considered as part of this project. These aspects include:

- The financial performance of the Airport.
- The presence and/or capability to attract corporate or business aviation.
- The size of the current facility
- The relationship between the Airport and the Caledonia County community; and
- The economic impact of the Airport on the community.

This report has been organized in the following sections to address the issues described above and to produce the desired end products:

Section 1 - Introduction
Section 2 - Background
Section 3 - Airport Characteristics
Section 4 - Airport Issues
Section 5 - Recommended Plan
Section 6 - Economic Impact Analysis
Appendix A - Development Incentive Programs
Appendix B - Lease Summaries
Appendix C – IMPLAN Results

2. BACKGROUND

2.1 Airport Location

Caledonia County State Airport is located in central Caledonia County in the Northeast Kingdom region of Vermont. The Airport is located in the Town of Lyndon approximately three miles to the northwest of the Village of Lyndonville. The Town of Lyndon had a 2007 population estimate of 5,713 residents while the Village of Lyndonville had a 2007 population estimate of 1,227 residents.

The Airport is 11 miles north of St. Johnsbury and is accessed via several Interstate highways and state and local roads. Access to the Lyndon area is provided from the north and south via Interstate 91 west of the airport. Interstate 91 stretches from the Canadian border in Derby, Vermont to its southern terminus in New Haven, Connecticut at Interstate 95. Access to the airport is off Interchange 24 of Interstate 91 located three miles to the southwest of the Airport. Additional access from the north and south is provided via Interstate 93, U.S. Route 5, and State Routes 5A and 122.

Access to the area from the east and west is mainly via U.S. Route 2 through St. Johnsbury. In addition, access from the east is also provided via State Route 114 through Lyndonville. Access to the Airport is gained via State Route 122 (Gilman Road) to Pudding Hill Road. The airport location is shown in Figure 1.

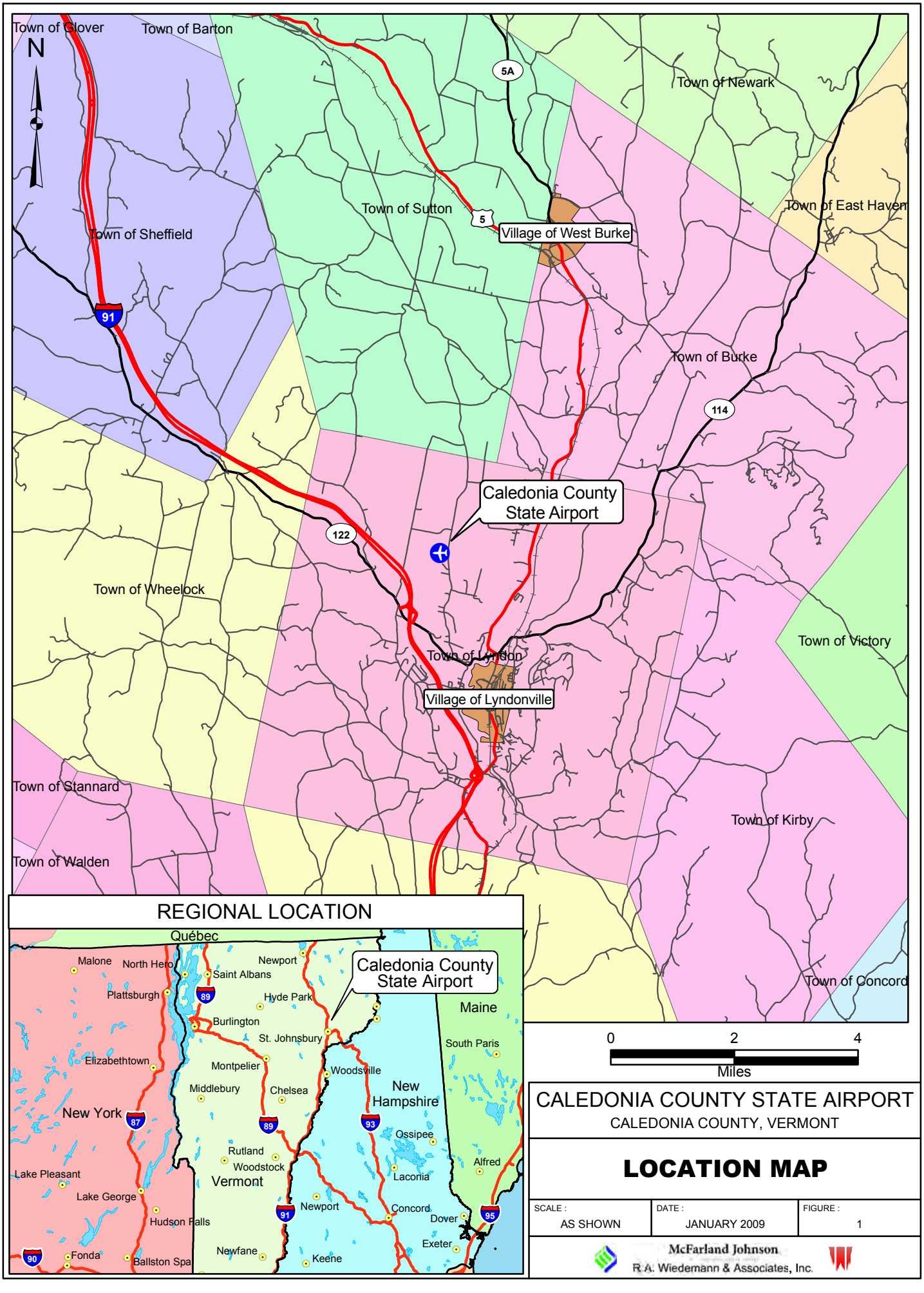
2.2 Regional Profile

The Town of Lyndon was founded in 1791 by settlers from Rhode Island. The town contains one incorporated village, Lyndonville. According to the 2008 *Lyndon Town Plan*, the village of Lyndonville is Vermont's only railroad-built community, as a massive fire in nearby St. Johnsbury destroyed the rail yard in 1866 and Lyndonville was chosen as a replacement. The Town of Lyndon and Caledonia County have seen growth in each of the censuses completed since 1960. Complete population characteristics and rates of growth can be found in Table 1.

Table 1: Population & Growth Rates

	1960	**1970**	**1980**	**1990**	**2000**	**2008***
Lyndon	3,425	3,705 (8%)	4,924 (33%)	5,371 (9%)	5,448 (1%)	5,679 (4%)
Lyndonville	N/A	N/A	1,401	1,255 (-10%)	1,227 (-2%)	1,215 (-1%)
Caledonia County	22,786	22,789 (0%)	25,818 (13%)	27,846 (8%)	29,702 (7%)	30,470 (3%)

*: 2008 Population Figures are Estimates provided by the Population Estimates Program (U.S. Census Bureau)
Source: United States Census, Lyndon Town Plan



CALEDONIA COUNTY STATE AIRPORT

CALEDONIA COUNTY, VERMONT

LOCATION MAP

SCALE :	DATE :	FIGURE :
AS SHOWN	JANUARY 2009	1

McFarland Johnson

R.A. Wiedemann & Associates, Inc.

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According to the United States Census, the population of Lyndon is above average in terms of high school educational attainment, where 82.2% of the population over the age of 25 in 2000 had graduated high school, compared to a nationwide average of 80.4%, and average in terms of college academic attainment, where only 24.3% of the population held a Bachelors Degree, just below the national average of 24.4%. For Caledonia County as a whole, the percent of population over age 25 with a high school diploma was slightly higher at 82.6%, however the percentage with a Bachelors Degree was lower at 22.5%. The high academic attainment for population in the community, when compared to other locations across the State, is likely due to the presence of students, faculty, and staff at Lyndon State College in Lyndonville. The population of Lyndon is older, with 23.1% of the population estimated below the age of 18 in 2000, which is below the national average of 25.7%. The population under the age of 18 in Caledonia County nearly meets the national average, as 25.3% of the population is under the age of 18. As with educational attainment, the higher percentage of population in Lyndon over the age of 18 is likely contributed to by the presence of the college, where most students attending are over the age of 18.

Housing in Lyndon also is likely influenced by the College. As of 2000, the *Lyndon Town Plan* indicates that there were 2,190 total housing units in Lyndon, 656 (30%) of which are buildings with greater then one unit. Nearly 63.5% of the housing units in Lyndon were owner occupied, and an additional 29% were renter occupied. Therefore, only 7.5% of the housing units in the town were vacant. In Caledonia County, the Census indicates that 80.4% of the 14,504 housing units in the County are occupied, well below the national average of 91%. However, those that are occupied are occupied by the owner 72.9% of the time, well above the national average of 66.2%. Nearly 20% of the housing units in Caledonia County are labeled as vacant. However, vacation or second homes are not counted by the Census and are considered vacant. The State of Vermont has one of the largest rates of second homeownership in the country. According to a study completed by the University of Vermont Extension, there are approximately 49,000 second homes in Vermont. New developments at the Burke Mountain Ski Resort in Caledonia County may have an impact on the number of second homes in the area, which, in turn, may account for some of the large percentage of vacant housing units in the county.

The regional economic center for Caledonia County is St. Johnsbury, the County's shire town, approximately 11 miles south of the Airport. Downtown St. Johnsbury is a bustling area with a variety of small shops, restaurants, and other services. St. Johnsbury is also home to the only National Historic Landmark in the Northeast Kingdom, the St. Johnsbury Athenaeum. Lodging and State government services are also available in St. Johnsbury.

2.3 Airport & Regional Business Climate

The business climate at the Airport and within the region was reviewed to highlight strengths and weaknesses prior to considering business plan alternatives. In order to recommend the proper course of action for the Airport, this business plan must be in harmony with the needs, both current and future, of its surrounding community.

Existing Tenants

As a small general aviation airport with no FBO, there are only a small number of tenants at the Airport. Nearly all of these tenants are recreational fliers; however several tenants also utilize their aircraft for business-related purposes. Summaries of Airport leases can be found in Appendix B. The Vermont Pilots Association (VPA) currently provides fuel services at the Airport and is in discussions with VTrans to expand their role at the Airport to provide FBO services. In addition to their administrative role at the Airport, the VPA is involved with Wright Flight, a program dedicated to motivating children through aviation to set goals and helping them learn to achieve them through hard work and dedication.

The Civil Air Patrol (CAP) utilizes space at the Caledonia County State Airport. Leased space includes a newly constructed hangar that is utilized for the storage of an aircraft and for meeting space. The CAP provides search and rescue capabilities out of the Airport as well as training operations. The CAP is also primarily responsible for emergency response in the event of aircraft incidents. In addition to meetings at the Airport, the CAP holds some programs for local youth in an effort to introduce them to flying.

Corporate/Business Aviation

The use of an airport by local businesses bringing supplies, clients, or executives to their facilities from across the county can increase profits for the airport as well as raise the profile of the airport to local residents. However, Airport management indicated that corporate use of Caledonia County State Airport is minimal, with occasional use by Radiantec, a local radiant heating systems supplier. Weidmann Electrical Technology Inc., a custom manufacturer of electrical insulation products, was previously a regular user of the Airport. Presently, Weidmann does not use the Airport regularly. Weidmann, Radiantec, and other local businesses would likely use the Airport if certain improvements were made. The lack of a standard airport lighting system is noted as an important deficiency and will be discussed in later sections of this report. According to the local economic development corporation and feedback from tenants of the Airport, there are many pilots that utilize the Airport for business use. The Vermont Pilots Association indicates that most of the aircraft based at the Airport are used occasionally for business purposes as most of the based aircraft owners also are business owners.

The 2003 Vermont Economic Impact Study, and the 2003 Airport Layout Plan Update (ALPU), indicated that UPS was interested in landing small cargo aircraft at the Airport, most likely a Cessna Caravan[2], to simplify the distribution process for parcels in the Northeast Kingdom. However, several upgrades to the Airport, including runway lighting and an airport beacon, would be necessary prior to UPS beginning service to the Airport[3]. According to Airport management, the lack of upgrades to the Airport caused UPS to decide not to serve the Airport.

[2] Airport Layout Plan Update, March 2003, page 3-4
[3] The Economic Impact of Vermont's Public-Use Airport, March 2003, pages 68-69.

Regional Economic Profile

The economy of Caledonia County and the State of Vermont has historically been based on manufacturing. However, education, health services, and other service industries have shown significant growth since 1990. Even with a decline in manufacturing, 15% of working residents in Caledonia County are in manufacturing-related positions. Government employment, including local and state governments, is also important in the region. Major employers in Caledonia County can be found in a variety of industries, as noted in Table 2.

Table 2: Major Employers in the Lyndonville/St. Johnsbury Area

Employer	Approximate Number of Employees
NSA Industries	300
Lydall Westex	294
Weidmann Electrical Technology Inc.	282
Kennametal	260
Lyndon State College	185
Vermont Aerospace	135
Fairbanks Scales	125
Lyndon Institute	111
Lyndon Town School	103

Source: 2008 Lyndon Town Plan, 2006 St. Johnsbury Town Plan, Weidmann Electrical Technology

A current breakdown of Caledonia County employment by economic sector shows that 17 percent of total employment is government (federal, state, and local), 19 percent is in the Education/Healthcare sector; 20 percent are in Trade, Transport, & Utilities; Manufacturing employs 15 percent; Retail employs 15 percent; and Agriculture employs one percent[4]. The remaining 13 percent is distributed throughout other sectors.

The tourism industry, as in many other areas of Vermont, is also important in Caledonia County and the Northeast Kingdom. Caledonia County is home to Burke Mountain Ski Resort, located in East Burke, approximately nine miles northeast of the Airport. Burke Mountain has grown in the previous several years and has plans for the addition of new condominiums. Hotels in the St. Johnsbury and Lyndonville areas also provide accommodations and packages for users of Jay Peak, located in western Orleans County, northwest of the Airport, as well as several other regional resorts.

Industrial Parks

One measure of a community's economic growth potential is the extent to which industrial and/or commercial space is available to accommodate business growth. In the vicinity of the Airport, a variety of individual retail, office, and commercial/industrial facilities are currently on the market for sale and/or lease. Such facilities can be found in downtown St. Johnsbury, downtown Lyndonville, Lyndon, and Hardwick. For businesses seeking vacant land for new construction, the Caledonia County area is home to the following industrial parks:

[4] Regional Plan for the Northeast Kingdom, Volume II: Regional Analysis, August 2006.

- ***St. Johnsbury/Lyndon Industrial Park:*** The St. Johnsbury/Lyndon Industrial Park comprises approximately 135 acres, and is situated east of Interstate 91 and west of U.S. 5 in Lyndon, north of St. Johnsbury and Lyndonville. Approximately 75 acres are available for development. Current tenants in the park include UPS, the Carter Business Resource Center, and a 24/7 childcare center. The Park is less than 6 miles from the Airport.

- ***Hardwick Industrial Park:*** The Hardwick Industrial Park is situated west of Lyndonville and St. Johnsbury and northeast of Montpelier and Barre, near State Route 15. The park is currently the site of Sugarman of Vermont, a liquid milk storage facility, Vermont Soy, and an organic meat distribution center. The Vermont Food Venture Center 2 is currently scheduled for construction in the park. The development includes a nearly 15,000 square foot facility that will serve as a shared use kitchen incubator for specialty food producers. A market and other retail establishments are located nearby to the park. There is space available in the park for development. The park is approximately 35 miles from the Airport.

There are also a wide range of individual commercial and/or industrial sites in the area, which range from small facilities of just 2,000 - 3,000 square feet, to medium-sized facilities of around 30,000 square feet.

Local and State Incentives & Programs

Review of the local business climate in Caledonia County benefits from consideration of local and State incentives and programs available to support the growth and expansion of businesses in the area. Such incentives and programs, in concert with available developable land, create an environment where businesses have the ability to expand and prosper. A listing of some local and State development incentives can be found in Appendix A.

3. AIRPORT CHARACTERISTICS

3.1 Existing Airside Facilities

Runway

The Airport has a single runway designated Runway 2-20 and is oriented in a north-south direction. Table 3 summarizes the characteristics of the runway. While the runway does have edge lighting, they are considered non-standard as the globes are clear, and are not FAA approved. Figure 2 shows the existing layout of the Airport and its facilities.

Table 3: Runway Characteristics

	Runway End	
	2	**20**
Airport Reference Code	B-I	
Length	3,300’	
Width	60’	
Pavement Condition	Fair	
NAVAIDS	REILs	None
Runway End Elevation	1,188’	1,178’
Marking	Non-Precision	
Lighting	Non-Standard (Clear Globes)	
Touchdown Point	Yes, No Lights	
Gross Weight Limitations	Single Wheel: 12,500 lbs	
AWOS/ASOS	AWOS	

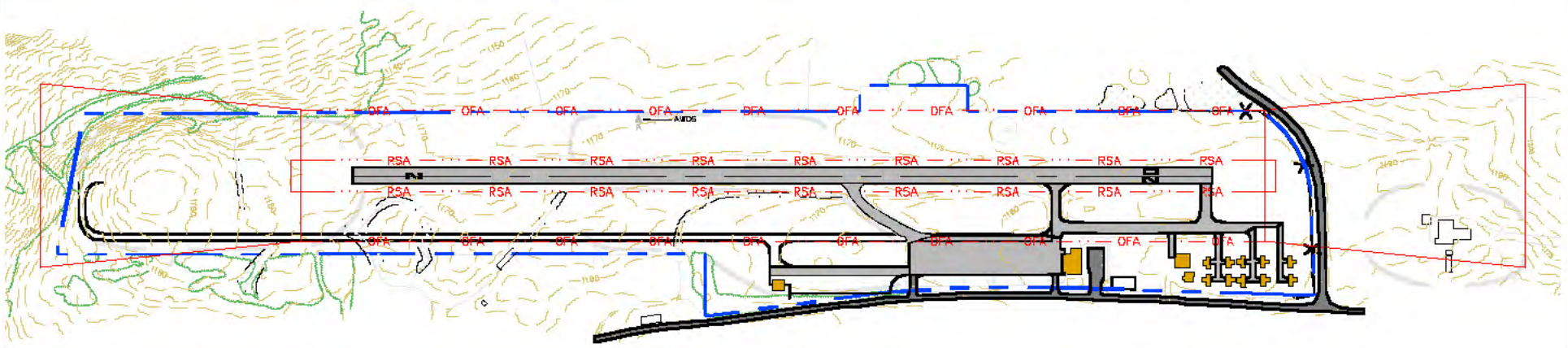
Source: AirNav, July 2008 (http://www.airnav.com/airport/CDA)
FAA Airport Master Record, as of February 2010

Taxiways

Caledonia County State Airport has three taxiways, Alpha, Bravo, and Charlie. Taxiway Alpha serves as a partial parallel taxiway that connects the aircraft parking apron to the Runway 20 end. Taxiways Bravo and Charlie are stub taxiways that provide direct access from the aircraft parking apron to the runway. There is no taxiway connection to the Runway 2 end.

Aircraft landing on Runway 20 are required to turn around on the runway and backtaxi to Taxiway Charlie to access the apron. Aircraft departing from Runway 2 are required to taxi down the active runway prior to turning around and completing the operation. Characteristics of each taxiway at Caledonia County are detailed in Table 4.

In addition to the three taxiways described above, a new taxilane has been constructed. This taxilane serves a recently constructed hangar adjacent to Pudding Hill Road, and will serve future hangars progressing south from the apron towards the Runway 2 end.



AIRPORT DATA	EXISTING
AIRPORT PROPERTY LINE	
CONTOURS	800
RUNWAY SAFETY AREA	RSA
RUNWAY OBJECT FREE AREA	DFA
RUNWAY PROTECTION ZONE	
TREELINE	
SECURITY FENCE	
AIRPORT BUILDINGS	

SCALE

0 600 1200

FEET

CALEDONIA COUNTY STATE AIRPORT

CALEDONIA COUNTY, VERMONT

EXISTING LAYOUT

SCALE: AS SHOWN	DATE: MARCH 2009	FIGURE: 2

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in association with
R.A. Wiedemann & Associates, Inc.

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Table 4: Taxiway Characteristics			
	Alpha	**Bravo**	**Charlie**
Length	925’	145’	300’
Width	40’	32’	30’
Pavement Condition	Fair	Fair	Fair
Lighting	None	None	None
Type	Partial Parallel	Stub	Stub
Location / Function	Access to Runway 20 end from North Side of the Aircraft Parking Apron	Access to the Runway from North Side of the Aircraft Parking Apron	Access to the Runway from the South Side of the Aircraft Parking Apron

Source: Airport Layout Plan Update, May 2003.

Airport Reference Code

An Airport Reference Code (ARC) is based on characteristics of the most demanding aircraft, or group of aircraft (generally referred to as the “design aircraft”) that regularly use the airport, with the term “regularly” defined as at least 250 takeoffs annually (500 annual operations). The ARC code is comprised of a capital letter (A-E) that defines the approach category and is based on the approach speed, or 1.3 times the stall speed of the design aircraft. The Roman numeral (I-VI), which indicates the design group, is based on the wingspan or the tail height of the design aircraft, whichever is more demanding (by way of example, if an airport’s design aircraft had a wingspan of 48 feet, but a tail height of 29 feet, it would be a design group II aircraft). Table 5 indicates the groupings used to determine the ARC.

According to the former Airport manager, the most common aircraft to utilize the Airport are the Cessna 172, Cessna 182, Piper Archer, and Piper 140, all designated as ARC A-I aircraft. According to the ALPU, the most frequent itinerant aircraft type at the Airport is the Mooney M20J, also designated as A-I. While operations by twin-engine and jet aircraft are possible at the Airport, they are rare. The largest itinerant aircraft to utilize the Airport, typically less then ten times a year, is the twin-engine Piper PA-31 Navajo, which has an ARC of B-I.[5]

According to the 2003 ALPU, the Airport was assigned an ARC of B-I. The ALPU indicated use of the Airport by aircraft in the B-I category was regular. The forecasts completed as part of the ALPU indicated that the largest aircraft to use the Airport in the future will likely be a member of the Cessna Citation or King Air families; however those operations would be minimal[6].

[5] Airport Layout Plan Update, March 2003, Page 2-5.
[6] Airport Layout Plan Update, March 2003, Page 3-4.

Table 5: Airport Reference Code (ARC)		
Aircraft Approach Category	**Approach Speed**	
A	Less than 91 knots	
B	91 knots or more but less than 121 knots	
C	121 knots or more but less than 141 knots	
D	141 knots or more but less than 166 knots	
E	166 knots or more	
Airplane Design Group	**Wingspan**	**Tail Height**
I	Up to but not including 49 feet	Up to but not including 20 feet
II	49 feet up to but not including 79 feet	20 feet up to but not including 30 feet
III	79 feet up to but not including 118 feet	30 feet up to but not including 45 feet
IV	118 feet up to but not including 171 feet	45 feet up to but not including 60 feet
V	171 feet up to but not including 214 feet	60 feet up to but not including 66 feet
VI	214 feet up to but not including 262 feet	66 feet up to but not including 80 feet

Source: FAA Advisory Circular 150/5300-13, Change 14.

Airport Design Standards

Although this is a business plan and will concentrate on business issues pertaining to the Airport, a general discussion of airport design standards is appropriate. Airport design standards comprise separation standards for runways, taxiways, and apron areas and airspace criteria intended to keep an airport's surrounding airspace free of obstructions. It is not unusual that airports have facilities or airspace that do not meet these criteria. Federal funding is provided to correct deficiencies as well as to build or rehabilitate existing facilities. The following section summarizes several of the deficiencies that exist at the Airport.

FAR Part 77 Imaginary Surfaces

The specification for airspace surrounding airports has been set forth in Federal Aviation Regulation (FAR) Part 77, Objects Affecting Navigable Airspace. This airspace is defined and delineated by a set of geometric surfaces referred to as "imaginary surfaces," which extend outward and upward from airport runways. Those imaginary surfaces identify the maximum acceptable height of objects beneath and within their boundaries. An object may be considered an obstruction to air navigation if it penetrates an imaginary surface.

The imaginary surfaces consist of five geometric surfaces that surround an airports runway. These surfaces are the primary, approach, transitional, horizontal, and the conical. If a surface is penetrated, the approach or departure minimums at that airport could be impacted.

Penetrations to the imaginary surfaces at Caledonia County State Airport are extensive, particularly in the Runway 20 Approach Surface. The 2003 ALPU indicates that numerous trees in the Approach Surface are obstructions. The ALPU notes that the VTrans has had informal negotiations about the purchase of property interests in fee-simple or through avigation easements; however the property owner has indicated in the past that he is not interested in the removal of the trees or the sale of the property. If the property were to become available in the future, VTrans has indicated that they would be willing to consider acquisition.

Runway Protection Zones (RPZ)

The Runway Protection Zone (RPZ) is a controlled area that is generally kept clear of concentrated activity and development. The FAA recommends property acquisition and/or lease easements within the RPZ to ensure necessary control over these areas. An RPZ is a trapezoidal area that begins 200 feet from each runway end that extends and diverges based on the type of aircraft that the facility expects to serve, and by the approach visibility minima for each runway end. Table 6 describes the RPZ requirements for the runway ends at the Airport.

Table 6: Runway Protection Zone Requirements

Runway End	Length (feet)	Inner Width (feet)	Outer Width (feet)	RPZ Acres
2	1,000	500	700	13.77
20	1,000	500	700	13.77

Source: Airport Layout Plan Update, March 2003, Sheet 2.

Caledonia County State Airport controls less then half of the land in its RPZs. According to the 2003 ALPU, only 12% of the Runway 20 RPZ (1.65 acres) is controlled by the Airport, while 77% of the Runway 2 RPZ (10.6 acres) is under Airport control[7]. In addition, a residential structure is currently located in the Runway 20 RPZ. However, due to the Airport's usage patterns, it may be possible to reduce the size of the RPZs and bring them into compliance. The 2003 ALPU utilizes the standard RPZ for an airport that maintains operations by aircraft with a maximum certified takeoff weight of 12,500 pounds. According to Airport management, the largest aircraft to utilize the Airport on a regular basis is a Piper PA-31 Navajo, with a maximum takeoff weight of 6,200 pounds[8]. Thus, a smaller RPZ may be applicable to this Airport. An update of the Airport Layout Plan showing a revised RPZ, predicated on utilization by the smaller aircraft, would remove the residential structure from the RPZ. Several agricultural buildings would remain in the RPZ, including a large barn. However, such uses are not places of public assembly or residential uses and thus do not fall into the category of restricted uses within an RPZ.

[7] Airport Layout Plan Update, March 2003, Sheets 2-3.
[8] FAA Advisory Circular 150/5300-13, Airport Design, Appendix 13, Page 264.

Runway Safety Areas

The Runway Safety Area (RSA), defined as the surface surrounding a runway, should be capable of reducing the risk of damage to aircraft and injuries to their occupants resulting from overshoots, undershoots, or excursions from the runway. At Caledonia County, the RSA width should be 120 feet wide, or 60 feet from the runway centerline in each direction. The RSA length should extend 240 feet beyond each runway end. At present, the Airport complies with RSA standards for both runway ends.

In summary, FAA participation in future projects at the Airport would be focused on correcting any design standard deficiencies before being used for other projects. Therefore, these issues should be addressed as part of any future development at the Airport.

3.2 Airport Classification

The VASPP divides all public-use airports in the State of Vermont into four categories: National Service, Regional Service, Local Service, and Specialty Service. Caledonia County State Airport was classified by the VASPP as a Local Service Airport. Such airports primarily cater to recreational and personal flying activities and are considered to have a significant level of importance to the community. These airports may serve some corporate/business aviation users, including jet activity, in addition to flight training, but primarily provide storage and facilities for piston-driven single and multi-engine aircraft[9]. The VASPP provides several objectives that a Local Service Airport should meet. Those objectives, their minimum standards, and the status of the standards, are noted in Table 7.

Table 7: Recommended Standards for Caledonia County as a Local Service Airport

Objective	Recommended Minimum	Minimum Standard Met	Minimum Standard Not Met
Airport Reference Code	B-I	X	
Runway Length	4,000’		X
Runway Width	75’		X
Runway Strength	12,500 lbs	X	
Taxiway Requirements	Connectors or Turnarounds, Partial Parallel Desired	X	
Approach	Non-Precision 1,000’/3 miles	X	
NAVAIDs	Rotating Beacon, Lighted Wind Indicator / Segmented Circle, VGSI, Appropriate Non-Precision Approach		X
Lighting	Medium Intensity Runway Lights		X
Weather Reporting	AWOS or ASOS	X	
Ground Communications	Public Phone, Ground Communication Outlets, or Remote Communication Outlets as needed	X	

[9] Vermont Airport System and Policy Plan, February 2007, Chapter 3, page 3.12.

Table 7: Recommended Standards for Caledonia County as a Local Service Airport			
Objective	**Recommended Minimum**	**Minimum Standard Met**	**Minimum Standard Not Met**
Hangar Space	17,100 sq. ft.		X
Apron Space	2,500 sq. ft.	X	
Terminal/Administration Building Space	1,500 sq. ft.	X	
Fence Coverage	Operations Area at Minimum		X
Automobile Parking	24 spaces		X
Fuel Service	Self-Serve AvGas, Jet A as needed	X	
FBO Requirements	Limited Service		X
Aircraft Maintenance	Limited Service		X
Ground Transportation	Loaner Car Available, Rental Car Desirable		X

Source: Vermont Airport System and Policy Plan, February 2007, Appendix D.

The Airport is also included in the *National Plan of Integrated Airport Systems* (NPIAS). The NPIAS is a national airport system plan for the development of public use airports in the United States prepared by the FAA. This plan identifies needed improvements in the national airport system for airports that are eligible for federal funding provided through the Airport Improvement Program (AIP). Expenditure of AIP funds is scheduled through the five-year Airport Capital Improvement Program (ACIP). The Airport's role in the NPIAS is that of a general aviation airport.

3.3 Existing Aviation Activity

The Airport Master Record, effective as of February 2010, indicated 18 single engine aircraft are based at the airport with 7,380 annual operations. Specific figures can be found in Table 8.

The 2010 Airport Master Record, the 2007 VASPP, the 2009 FAA Terminal Area Forecast (TAF), and the 2003 Airport Layout Plan (ALPU) each provide similar figures representing based aircraft, but varying figures in regards to annual operations at Caledonia County State Airport. Further details and forecasts are provided in Table 9.

In terms of operations, the numbers are significantly different. The VASPP and TAF indicated only 2,050 annual operations at the Airport, while the ALPU listed 6,400 in 2004, and a projected 6,900 in 2009. The reported figure in the 2010 Airport Master Record (with annual operations as of July 2009) was 4,690, just above the average of the VASPP and the ALPU figures. Forecasts for operations at the Airport can be found in Table 10.

Table 8: Airport Master Record	
Based Aircraft	
Ultralight	0
Single Engine	18
Multi-Engine	0
Jet	0
Helicopter	0
TOTAL	18
Annual Operations (as of July 2009)	
General Aviation	7,080
Commercial Operations	0
Air Taxi	0
Military Operations	300
TOTAL	7,380

Source: Airport Master Record, February 2010

Table 9: Based Aircraft Forecasts				
ALPU				
	Existing (2004)	**Short-Term (2009)**		**Long-Term (2019)**
Single-Engine	19	20		20
Multi-Engine	0	1		2
Turboprop	0	0		0
Turbofan	0	0		0
TOTAL	19	21		22
VASPP				
	Existing (2007)	**Short-Term (2010)**	**Intermediate (2015)**	**Long-Term (2025)**
Ultralight / Sport / Other	0	0	1	2
Single-Engine	19	20	20	21
Multi-Engine	0	0	0	0
Jet	0	0	0	0
Helicopter	0	0	0	0
TOTAL	19	20	21	23
TAF				
	Existing (2008)	**Short-Term (2010)**	**Intermediate (2015)**	**Long-Term (2025)**
TOTAL	18	18	18	18

Source: Airport Layout Plan Update, March 2003.
Vermont Airport System & Policy Plan, February 2007.
FAA Terminal Area Forecast, December 2009.

Table 10: Operations Forecasts				
ALPU				
	Existing (2004)	**Short-Term (2009)**	**Long-Term (2019)**	
Local Operations	3,100	3,300	3,800	
Itinerant Operations	3,300	3,600	4,100	
TOTAL	6,400	6,900	7,900	
VASPP				
	Existing (2007)	**Short-Term (2010)**	**Intermediate (2015)**	**Long-Term (2020)**
General Aviation	2,050	2,200	2,300	2,500
Commercial Operations	0	0	0	0
Military Operations	0	0	0	0
TOTAL	2,050	2,200	2,300	2,500
TAF				
	Existing (2007)	**Short-Term (2010)**	**Intermediate (2015)**	**Long-Term (2020)**
General Aviation	4,690	4,690	4,690	4,690
Commercial Operations	0	0	0	0
Military Operations	0	0	0	0
TOTAL	4,690	4,690	4,690	4,690

Source: Airport Layout Plan Update, March 2003.
Vermont Airport System & Policy Plan, February 2007.
FAA Terminal Area Forecast, December 2009.

The variations between the VASPP, the ALPU, and the Airport Master Record are significant. The former manager indicated in 2008 that between 10 and 50 operations occurred weekly at the Airport, most frequently on the lower end of that scale. This would indicate a range between 520 and 2,600 annual operations. According to VTrans, the acoustical counter installed on the runway counted approximately 1,000 operations at the Airport in 2008. The former Airport manager indicated that the use of the Airport was projected to remain steady or decrease in the future due to the lack of a Fixed Based Operator (FBO) at the facility to provide services that might attract transient pilots. However, with the expectation that the Vermont Pilots Association may begin formal FBO operations at Caledonia County, the projected number of operations should increase. Based on this information, the forecast provided in the 2003 ALPU, indicating an annual rate of growth in operations, is likely the most accurate.

3.4 Existing Landside and Aviation-Support Facilities

Landside and aviation-support facilities accommodate the many activities and services involved in storing and maintaining aircraft. Landside facilities at Caledonia County include aircraft hangars and aprons, an office/terminal, aviation fuel facilities, and automobile parking lots. Well-maintained and appropriately sized landside facilities are important to an airport's efficient operation and success.

Terminal

The terminal at Caledonia County State Airport serves several purposes. The building houses public space including a pilot's lounge, a briefing room, and a restroom. In addition, a public telephone is available at the terminal. The building, 60 feet wide by 80 feet long (4,800 square feet), also provides covered parking for up to six aircraft, lawn care equipment, and other vehicles. The terminal also houses office space for an Airport manager or FBO. According to the 2003 ALPU, the building was constructed in the 1930s.

Automobile Access and Parking

Motorists wishing to access Caledonia County State Airport utilize Pudding Hill Road (Town Highway 14) from State Route 122. State Route 122 is accessible from Interstate 91 to the west and U.S. Route 5 to the east. The Airport has one parking lot to the north of the terminal. The parking lot has space for thirteen vehicles, well below the 24 spaces recommended in the 2007 VASPP. According to the previous Airport manager, demand for parking at the Airport does not exceed capacity. In addition to the aforementioned parking lot, each hangar also has several spaces available for tenant use.

Apron

Caledonia County State Airport has one apron located to the south of the terminal. The 2003 ALPU indicates that the apron has 9,833 square yards of pavement, of which 5,545 is available for aircraft parking, while the remaining 4,288 square yards are reserved for taxilanes. The apron provides 12 paved tie-down spaces. Up to 18 aircraft can park on the apron at one time[10].

Hangars

There are four privately owned conventional hangars, including a recently constructed hangar south of the terminal, as well as eight single-unit T-hangars at the Airport. Hangar specifications and lease terms are detailed in Appendix B.

Fuel Farm

An above-ground fuel tank is located on the main aircraft parking apron, south of the terminal and adjacent to the security fence and Pudding Hill Road. The fuel tank stores 6,000 gallons of 100 Low Lead (100LL) aviation fuel and is available self-serve, 24 hours a day, with a credit card. VTrans constructed the system and continues to own the fuel farm[11]. Jet-A fuel is not available at Caledonia County State Airport. The Vermont Pilots Association has a lease on the fueling facilities and provides the fuel services at the Airport.

[10] Airport Layout Plan Update, March 2003, page 2-12.
[11] Airport Layout Plan Update, March 2003, page 2-13.

Security

According to the former Airport manager and the ALPU, the property of the Caledonia County State Airport currently has a partial perimeter fence, including fencing along Pudding Hill Road and security gates with keypad access. There have been minimal security problems reported at the Airport.

Aircraft Rescue & Firefighting

As a small airfield with no scheduled commercial cargo or passenger traffic, Caledonia County State Airport does not have Aircraft Rescue & Firefighting (ARFF) services on-airport. The Airport is served by the Lyndon and Lyndonville Fire Department, which responds in the event of an emergency at the Airport. The fire department is an all-volunteer fire department with a station approximately four miles from the Airport.

Airfield Maintenance

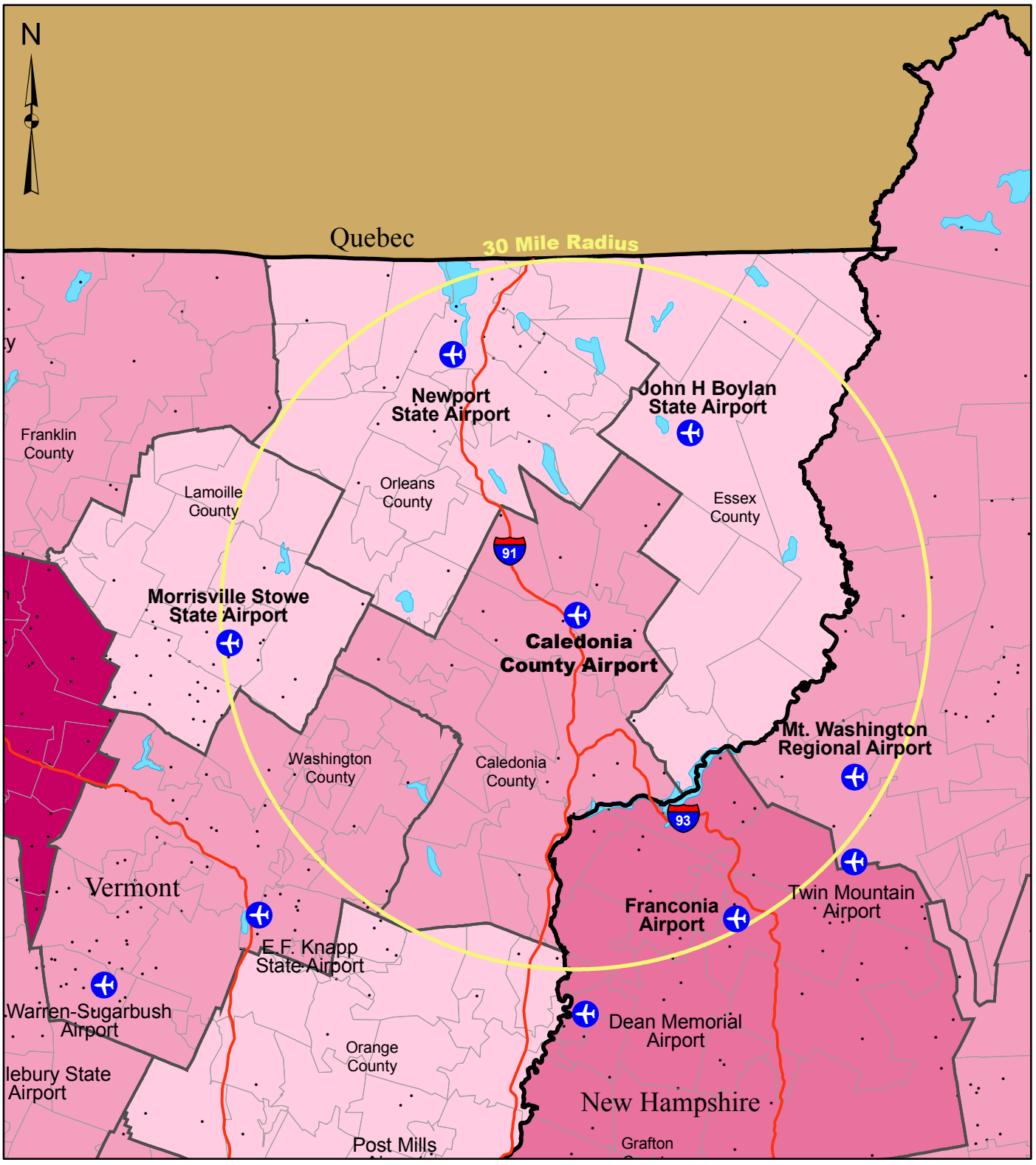
Maintenance of the facilities at Caledonia County is accomplished by the Vermont Agency of Transportation District 7. District 7 currently has its headquarters in St. Johnsbury and has a maintenance garage in Lyndon. District 7 is responsible for mowing the grass at the Airport during the summer months. The District retains a private contractor to perform snow removal at the Airport during the winter months.

3.5 Airport Service Area Analysis

Figure 3 illustrates the airport service area and other nearby public-use airports. A 30-nautical mile circle is assumed to enclose the facility's Airport Service Area (ASA). Table 11 provides details about the public-use airports in the Caledonia County ASA, as well as several comparable airports in the Northeast. In addition to the facilities mentioned in this section, there are a number of private airports that are not open to the public within the ASA. These are not considered in this analysis because their impact on Caledonia County State Airport is minimal.

Facilities

Table 12 provides a comparison of facilities at other airports within the Caledonia County State Airport ASA as well as at the other comparable airports. Four of the six airports in the ASA have paved asphalt runways while the remaining two have turf runways. Of these airports, Mount Washington Regional in New Hampshire has the longest runway at 4,001 feet, followed by Newport State Airport with a runway length of 4,000 feet. Only one airport in the ASA, Newport, has more than one paved runway. Mansfield Municipal, utilized as a comparable airport, maintains a short turf strip in addition to a paved runway. Two airports considered in this section, John Boylan State and Franconia only have visual approaches, while the remaining facilities also have instrument approaches available.



Population by County

- 0 - 30000
- 30001 - 60000
- 60001 - 90000
- 90001 - 120000
- 120001 +
- Data Unavailable

- Commercial Service
- General Avation
- Service Area
- Zip Code Boundaries
- Registered Aircraft

0 12 24
Miles

CALEDONIA COUNTY STATE AIRPORT

CALEDONIA COUNTY, VERMONT

SERVICE AREA

SCALE :	DATE :	FIGURE :
AS SHOWN	JUNE 2009	3

McFarland Johnson
R.A. Wiedemann & Associates, Inc.

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Table 11: Airport Service Area & Other Comparable Airports						
Airport	**City & State**	**Distance from Caledonia County**		**Primary Runway Length**	**NPIAS Designation**	**Ownership**
		Nautical Miles	**Driving Miles**			
Airport Service Area						
Caledonia County State	Lyndonville, VT	N/A		3,300’	General Aviation	Public (State)
John H. Boylan State	Island Pond, VT	18	29	2,650’	General Aviation	Public (State)
Newport State	Newport, VT	24	33	4,000’	General Aviation	Public (State)
Mount Washington Regional	Whitefield, NH	27	52	4,001’	General Aviation	Public (Municipal)
Morrisville-Stowe State	Morrisville, VT	30	52	3,701’	General Aviation	Public (State)
Franconia	Franconia, NH	29	47	2,305’	N/A	Private
Other Comparable Airports in the Northeast						
Bean Municipal	Rangeley, ME	73	112	3,200’	General Aviation	Public (Municipal)
Mansfield Municipal	Mansfield, MA	182	223	3,500’	General Aviation	Public (Municipal)
Tri-Cities	Endicott, NY	268	351	3,900’	General Aviation	Public (Municipal)

Source: Great Circle Mapper (http://www.gcmap.com), Google Maps (http://maps.google.com), AirNav (http://airnav.com)

Aviation Services

Table 13 presents the availability of various aviation services at each of the airports. None of the airports in the ASA provides a full range of general aviation services. Newport, Morrisville-Stowe, Mount Washington, Bean Municipal, and Mansfield airports provide a wide range of services including various frame and power repair options. Tri-Cities offers a variety of services, however no maintenance services are available. In addition, Morrisville-Stowe also provides aircraft sales. Minimal services are available at Franconia. 100LL fuel is available at Caledonia County State, and no services are available at John Boylan State.

Hangars and Tie-downs

Table 14 presents different aircraft storage space options available at the study airports At present, the charge for tie-down parking at Caledonia is well below average when compared to the other airports at $25 per month, followed by $30 per month at Morrisville-Stowe and Mt. Washington, and $35 per month at Newport. The cost for conventional hangar space at the Airport is also less than average at $100 per month when compared to Mt. Washington at $200

per month, Morrisville-Stowe, where the cost is $300 per month for a small single engine aircraft, and Newport where the FBO charges $150 per month for space. At Caledonia County, with no FBO or Airport management on site regularly, aircraft operators may need to move other aircraft in the hangar in order to utilize their own aircraft. No airports surveyed currently provide parking in T-hangars.

Fuel

All but one airport listed in Table 14, Franconia, offered 100LL fuel, and several also offer Jet-A.. As of April 1, 2010, 100LL fuel was priced at $4.30/gallon at Caledonia County State Airport, the median among the surveyed airports. Of the seven airports selling 100LL utilized in this study, Tri-Cities had the lowest selling price at $4.06/gallon, followed by Mount Washington at $4.19/gallon. The highest selling price of 100LL fuel was found at Morrisville-Stowe ($4.90/gallon). According to AirNav.com, the national average for 100LL fuel was $4.54 and the Vermont average was $4.81, both significantly above the price per gallon at Caledonia County.

Table 12: Facility Comparisons

Airport	Owned	Acres	ARC	Number Of Based Aircraft							Runway		NAVAIDs	Control Tower
				Jet	Multi	Single	Rotor	Ultra-light / Gliders	Military	**Total**	First L x W	Second L x W	Best Approach	
Caledonia County State, VT	Public (State)	78	B-I	0	0	18	0	0	0	**18**	3,300' x 60' (Asphalt)	N/A	Non-Precision (RNAV/GPS)	N
John H. Boylan State, VT	Public (State)	188	A-I	0	0	3	0	2	0	**5**	2,650' x 120' (Turf)	N/A	Visual	N
Newport State, VT	Public (State)	540	B-II	0	0	20	0	0	0	**20**	4,000' x 100' (Asphalt)	4,000' x 100' (Asphalt)	Non-Precision (GPS)	N
Morrisville-Stowe State, VT	Public (State)	112	B-II	1	3	25	0	8	0	**37**	3,701' x 75' (Asphalt)	N/A	Non-Precision (GPS)	N
Mount Washington Regional, NH	Public (Municipal)	375	B-I	0	3	25	0	2	0	**30**	4,001' x 75' (Asphalt)	N/A	Non-Precision (RNAV/GPS)	N
Franconia, NH	Private	18	A-I	0	0	1	0	11	0	**12**	2,305' x 150' (Turf)	N/A	Visual	N
TOTAL (ASA)				**1**	**6**	**92**	**0**	**23**	**0**	**122**				
Tri-Cities, NY	Public (Municipal)	230	B-II	0	3	45	0	4	0	**52**	3,900' x 75' (Asphalt)	N/A	Non-precision (GPS)	N
Bean Municipal, ME	Public	125	B-I	0	3	10	0	0	0	**13**	3,200' x 75' (Asphalt)	N/A	Non-precision (NDB/GPS)	No
Mansfield Municipal, MA	Public (Municipal)	230	N/A	0	3	111	1	0	0	**115**	3,500' x 75' (Asphalt)	2,200' x 100' (Turf)	Non-Precision (RNAV/GPS)	N

Sources:
Airport Master Records as published April 2010 (http://www.gcr1.com/5010web/)
Vermont Airport System and Policy Plan, Appendix D, Page D.2.
New Hampshire State Airport System Plan Update (http://www.nh.gov/dot/bureaus/aeronautics/sasp/documents/TR2Inventory.pdf)
Maine Aviation Systems Plan Update (http://mainegov-images.informe.org/mdot/aviation/pdf/maspu.pdf)
McFarland Johnson, Inc.

Table 13: Service Comparison

Airport	Frame Repairs	Power Repairs	Flight Instruction	Charter Service	Avionics	Aircraft Sales	Aircraft Rentals	Other
Caledonia County State, VT	N	N	N	N	N	N	N	
John H. Boylan State, VT	N	N	N	N	N	N	N	Ski Operations Only During Wintry Conditions
Newport State, VT	Major	Minor	Y	N	N	N	Y	Crosswind Runway Unavailable to Non-Ski Equipped Aircraft During Wintry Conditions
Morrisville-Stowe State, VT	Major	Major	Y	N	N	Y	Y	Glider Rides Available
Mount Washington Regional, NH	Major	Major	Y	N	N	N	N	
Franconia, NH	N	N	Y	N	N	N	Y	Seasonal Airfield
Tri-Cities, NY	None	None	Y	Y	N	Y	Y	Glider Rides Available
Bean Municipal, ME	Minor	Minor	Y	Y	N	N	Y	
Mansfield Municipal, MA	Major	Major	Y	N	N	Y	Y	

Source: Airport IQ 5010 Airport Master Records as Published April 2010 (http://www.gcr1.com/5010web/) N=No, Y=Yes

Table 14: Rates and Charges Comparison

Airport	Tie-Down		Conventional Hangars		T-Hangars		Lowest Fuel Price
	$/ month	Available	$/ month	Available	$/ month	Available	100ll ($/gallon)
Caledonia County State, VT	$25	Y	$100	N	N/A	N/A	$4.30 (s/s)
John H. Boylan State, VT	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Newport State, VT	$35	Y	$150	N	N/A	N/A	$4.35 (s/s)
Morrisville-Stowe State, VT	$30	Y	$300 (single) $400 (twin) $500 - $700 (jet)	N	N/A	N/A	$4.90 (s/s)
Mount Washington Regional, NH	$30	Y	$200	N	$200	N	$4.19 (s/s)
Franconia, NH	$15 / night $250 / season	Y	N/A	N/A	N/A	N/A	N/A
Tri-Cities, NY	$45	Y	$145 - $275	Y	$115 - $145	Y	$4.06 (s/s)
Bean Municipal, ME	$25	Y	Privately owned ($0.31/SF/Year)	N	Privately owned ($0.25/SF/Year)	N	$4.25 (s/s)
Mansfield Municipal, MA	$75 (paved) $70 (grass)	Y	N/A	N/A	N/A	N/A	$4.66 (f/s)

Source: McFarland Johnson, Inc. Telephone Survey; Fuel prices as of April 1, 2010, AirNav.com/100LL.com
Legend: N/C = No Charge, N/A = Not Available, N = No, Y = Yes, s/s = Self-Serve, f/s = Full-Serve

4. DEVELOPMENT CONSIDERATIONS

4.1 Current Financial Performance

Projecting the future financial performance of Vermont's airports is hampered by a number of factors. First and foremost, the State does not specifically account for performance at each airport, but rather compiles data for "airports" in general. Disaggregating these figures does not necessarily result in an accurate evaluation of financial performance of each individual facility. Secondly, financial records for both income and expenses are limited, thus providing a limited historical base from which to extrapolate future financial performance. Third, some of the most significant expenses faced by Vermont's airports, those for district labor and maintenance, are allocated expenses, or estimates based on total costs, not actual expenses. While it is not suggested that these allocations are purposefully inaccurate, by not tying direct and exact expenses to performance, it lessens the accuracy of performance evaluation. These factors must be considered both in evaluating past performance and projecting future financial achievement.

It should be noted that this section of the business plan does not include an analysis of capital expenses. While in many cases, the federal government covers 95% of capital expenses, because Vermont owns and operates its airports, it is responsible for both the 2.5% State share and the 2.5% local share of capital development projects. Therefore, when considering operating revenues and deficits, it should also be considered that, for any airport development projects that are undertaken, the State will also be responsible for paying for a 5% share of the total cost of the project. If an airport is incurring an operating loss, these development funds must come from somewhere other than airport-generated revenue.

4.2 Baseline Forecast of Revenues

At the onset of this study, information concerning historical revenues was available for three years, 2005, 2006, and 2007. This data gives an indication of the direction of growth of the revenue base. Table 14 shows the historical revenues from taxes on the fuel sold at Caledonia County State Airport, as well as from land leases. Fuel tax revenue collected on 100LL increased slightly between 2005 and 2006, before dropping by 32% in 2007. It is important to note that the price of fuel rose significantly in September 2005 and did not decrease to 2005 levels until late 2008. Between 2005 and 2006, it is likely that the increase in tax revenue collections is tied to the increase in fuel price, and therefore an increase in the amount of tax collected per gallon. Fuel sales, per gallon, likely decreased or remained steady. This was then followed by a precipitous decline in 2007.

With this historical background in mind, a baseline forecast of revenues may be prepared. Table 15 presents this forecast, which is a conservative view of Caledonia County State Airport's financial future if no recommended changes are undertaken. Lease fees are projected to remain steady over the project period. The loss of the Airport manager position could cause the departure of some tenants, or resistance to any potential increase in lease rates due to the lack of available services at the Airport. The recent volatility in fuel prices and its impact on airport use

and fuel sales will also have an impact on fuel tax revenues. Fluctuating prices and an extended economic recession are expected to dampen the use of recreational aircraft and, as a result, sales of aircraft fuel and since fuel taxes are collected on a per-gallon basis, revenues are expected to suffer. Projections for the value of 100LL fuel sold at the Airport are based on the projected future cost of fuel provided by the Energy Information Administration as of December of 2008. Due to the minimal use of 100LL fuel nationwide, projections were not available for the increase in price for 100LL fuel. Several other fuel types, including ethanol, jet fuel, and motor fuel was considered to determine an annual percent increase for 100LL fuel. Motor fuel had the median increase, and therefore was utilized as a proxy for 100LL. Projected operating revenues for the State of Vermont at Caledonia County State Airport are listed in Table 15.

Table 15 - Baseline Forecast of Airport Operating Revenues

	Actual Revenues			Forecast Revenues					
	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
Lease Fees	$9,700	$9,700	$9,700	$9,700	$9,700	$9,700	$9,700	$9,700	$9,700
Fuel Taxes – 100LL	$2,100	$2,200	$1,500	$1,584	$1,381	$1,462	$1,543	$1,543	$1,584
Total Operating Revenues	**$11,800**	**$11,900**	**$11,200**	**$11,284**	**$11,081**	**$11,162**	**$11,243**	**$11,243**	**$11,284**

As shown, the baseline forecast indicates that revenue will decrease from $11,800 in 2005 to $11,284 by the year 2013. Very little revenue growth can be expected over the forecast period, if no actions are taken at the Airport.

4.3 Baseline Forecast of Expenses

Three years of historical data were available representing past expenditures at the Caledonia County State Airport. Expenses at the Airport historically included the salary for the Airport manager, labor and materials expenses for maintenance completed by VTrans District 7, as well as insurance costs and fees for the WSI Weather Brief, a computer based weather information service provided by VTrans as a customer service. These expenses are shown in Table 16 for 2006 through 2008.

Utilizing the three years of expense data available, few trends are evident. The significant increase in District 7 expenses between 2007 and 2008 is abnormally high according to VTrans officials and is the result of a high snowfall year. Given this anomaly, straight line projections of expenses are likely not accurate. Therefore, the mean of the expenses for the years 2006 through 2008 was calculated and utilized as a base from which to project future expenses for labor and maintenance. It should be noted that, due to the use of the mean cost of expense items on an annual basis, these projections are likely to be somewhat inaccurate, but on an aggregate basis over a period of time, they are likely to represent what might happen at the Airport. Labor costs for employees of VTrans District 7 are projected to increase annually at two percent. Materials utilized in maintenance operations, including fuel costs for vehicles, as well the expenses for a

private contractor to perform snow removal services, were increased by four percent, the projected rate of inflation. Recently, the Airport manager position at Caledonia County State Airport was eliminated; therefore it is projected that there will be no costs associated with that position in the next five years. While insurance costs are increasing at most airports across the country, VTrans indicated that insurance rates at Vermont airports have remained steady; therefore these costs were held constant. The WSI Weather Brief and the AWOS inspection and maintenance lines were also held constant.

Table 16 - Baseline Forecast of Airport Operating Expenses

	Actual Expenses			Forecast Expenses				
	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
Airport Manager	$35,000	$35,000	$35,000	$0	$0	$0	$0	$0
District 7 Staff	$742	$1,673	$1,206	$1,231	$1,256	$1,281	$1,306	$1,333
District 7 Materials	$21,790	$26,610	$38,042	$29,967	$31,165	$32,412	$33,708	$35,057
WSI Weather Brief	$1,680	$1,680	$1,680	$1,680	$1,680	$1,680	$1,680	$1,680
Insurance ($100,000/ Occurrence Deductible)	$400	$400	$400	$400	$400	$400	$400	$400
AWOS Inspection & Maintenance	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000
Total Operating Expenses	$62,612	$68,363	$79,328	$36,278	$37,501	$38,773	$40,095	$41,469

Baseline operating expenses were predicted to decrease from $79,328 in 2008 to $41,469 by the year 2013, amounting to a 48 percent decrease as a result of the elimination of the Airport manager position. The VTrans Maintenance Division labor costs at Caledonia County State Airport are relatively low when compared to other airports in Vermont. According to VTrans, this is a result of the practice of most maintenance at the Airport (including plowing) being undertaken by a third-party contractor. As a result, VTrans labor costs are minimal and the costs associated with the contracts are included under the materials budget.

4.4 Baseline Net Operating Income/Deficit

When the baseline operational costs are compared with the baseline forecasts of operational revenues, the net operating income/deficit for the Airport can be predicted as follows in Table 17:

Table 17 - Baseline Net Operating Income/(Deficit)			
Year	Operating Expense	Operating Revenues	Net Operating Income/(Deficit)
2008	$79,328	$11,284	($68,044)
2009	$36,278	$11,081	($25,197)
2010	$37,501	$11,162	($26,339)
2011	$38,773	$11,243	($27,529)
2012	$40,095	$11,243	($28,851)
2013	$41,469	$11,284	($30,185)

As shown, the net operating deficit is anticipated to decrease from $68,044 in 2008 to $30,185 by the year 2013, due to the elimination of the Airport manager position. This is not necessarily an indication of improved performance by the Airport, as operating expenses beyond 2009 continue to increase on a regular basis. It is projected that losses will continue to increase annually throughout the forecast period. Hence, the results of the baseline forecast indicate that if no additional revenue generating measures are taken, the State will have to continue to fund an increasing shortfall in operating revenues plus any local share of capital development projects.

4.5 Constraints

There are a number of constraints to development at the Caledonia County State Airport that could hinder future development. Constraints that should be considered include the following:

- Fixed Based Operator (FBO)
- National Economy
- Community Opposition
- Developable Land
- Parallel Taxiway
- Zoning

Fixed Based Operator

Of the ten airports owned by the State of Vermont, Caledonia County State Airport is one of two that does not have an FBO. At seven of the eight airports in Vermont with FBOs, the owner or manager of the FBO also serves as the Airport manager and is paid a small stipend by the State. Up until August of 2008, a VTrans employee provided services to based and transient aircraft. The lack of an FBO can make an airport less attractive to some aircraft operators. VTrans is working with the Vermont Pilots Association and other private entities to establish an FBO presence at this airport. Once an FBO is established, airport users and visitors will be able to obtain basic services that are not presently available at Caledonia County.

National Economy

The recent downturn of the national economy has had significant negative impacts on aviation, particularly recreational general aviation. The past several years experienced never before seen fluctuations in the cost of fuel, with crude oil topping out at approximately $150 per barrel. This had a direct and significant dampening effect on general aviation flying, particularly recreational general aviation flying, due to the costs becoming too great to bear for a recreational activity. As a result, fuel sales at many airports decreased, significantly impacting operational revenue. The credit crisis also has resulted in both individuals and companies being less likely to invest in durable goods, including aircraft. The significant increase in unemployment due to layoffs and business closures, have led people to save their money rather than to fly for pleasure or to invest in aircraft.

Community Opposition

It is important for an airport to have support from neighbors and the local community. Such support can help to secure funding for airport improvements which may attract new businesses to the area that would utilize the airport. A lack of support may make it difficult for projects to be approved through the local permitting process. There is a high level of interest and support in the Airport from based aircraft operators and some local businesses, however, there are also several neighbors to the Airport and members of the community that are opposed to some development at the Airport, including the installation of a standard runway lighting system, the addition of an airport beacon, and an extension to Runway 2-20.

Developable Land

A lack of developable land presents a hindrance to future Airport development and growth. Uneven terrain, as well as narrow property boundaries, limits the amount of space available for development on existing Airport property. At the Airport, one section of land has been prepared for the construction of hangar facilities (either conventional or T-Hangars), and another area could fit a larger conventional hangar. The remainder of Airport property is not considered useable for new development. In addition, due to obstructions located in the RPZ, a runway threshold displacement has been proposed to the Runway 20 end in addition to an extension to the Runway 2 end. The extension to the Runway 2 end, which would take place over a very steep slope, would not permit for any new hangar development in the area, and the displacement of the Runway 20 end would bring the new RPZ onto a section of the Airport where several current hangars are located. The lack of available space at the Airport, as well as difficulties that would be posed by the proposed runway extension and the proposed runway threshold displacement, will affect future growth potential at the Airport.

Taxiway Availability

The taxiway network at Caledonia County State Airport could affect the use if the Airport. There are two stub taxiways and a partial parallel taxiway at the Airport, all located close to the Runway 20 end. At present, pilots landing on the Runway 20 end backtaxi after

landing to access the aprons. For departures, aircraft departing from the Runway 2 end must backtaxi down the active runway and turn around for departure. At a non-towered airport, pilots must communicate their intentions via the Unicom frequency in order to avoid potential conflicts between aircraft operating on the airport. Operating at non-towered airports may preclude potential operations as pilots may be uncomfortable operating at these types of airports or preclude flight training or low time pilots due to insurance requirements. The most recent ALPU does include planned construction of a complete parallel taxiway in the long term future (2011-2020).

Zoning

Located in the Town of Lyndon, future development at the Caledonia County State Airport is required to follow zoning regulations developed by the town. According to the 2003 *Town of Lyndon Zoning Bylaws*, the Airport is zoned as "*Commercial"* with surrounding properties zoned as Rural Residential. Permitted and conditional uses in a commercially-zoned area are listed in Table 18. It is noted that airport use is not mentioned as a permitted or conditional use.

Table 18: Uses in the Commercial District

Permitted Uses		**Conditional Uses**	
Single Family Dwelling	Two Family Dwelling	Multi Family Dwelling	Mobile Home Park
Retail Services	Public Building	Truck Terminal	Warehouse
Restaurant	Bank	Car Wash	Indoor Recreation
Bar	Indoor Theatre	Automotive Service Station	Motel
Retail Store	Municipal Use	Drive-In Restaurant	Day Care Center
Personal Service Establishments	Wholesale Distribution	Motor Vehicle Repairs	Telecommunications & Teleprocessing
Office	Bed & Breakfast	Funeral Home	Fuel Distribution
Convenience Store		Light Industry	Lumber Yard
Home Occupation	Guest Home	Medical Clinic	Private Club
		Extraction of Earth Resources	Personal Wireless Services Facilities

Source: Town of Lyndon Zoning Bylaws, April 2003.

4.6 Airport Layout Plan Update (ALPU) Recommendations

The ALPU for Caledonia County State Airport was completed in March 2003. The ALPU provides the most up to date mapping for the airside, landside, and aviation support facilities available at the Airport. The ALPU provides recommendations for further improvements at the Airport to meet the needs of current airport users as well as potential future users. The recommendations can be found in Table 19. Shaded recommendations in Table 19 have been completed.

Table 19 – Airport Layout Plan Update Improvement Recommendations		
Short Term (2000 – 2005)	**Intermediate Term (2006 – 2010)**	**Long Term (2011 – 2020)**
Study for Runway Extension	Study for Parallel Taxiway	Construct Runway Extension
AWOS Installation	Apron for T-Hangars & Site Work	Construct Parallel Taxiway
GCO Installation	Acquire Property for Runway Extension	Terminal / State Office Building
Airfield Lighting	Study / Install PAPI	Security Fencing
Runway 2-20 Rehabilitation		
Taxiway B Rehabilitation		
Obstruction Removal		
Easement Acquisition		
Security Fencing		
Airport Picnic Area		

Source: 2003 Airport Layout Plan Update

4.7 State Airport System & Policy Plan Recommendations

A number of additional improvements for the Caledonia County State Airport were proposed in the 2007 VASPP. A list of all improvements recommended by the VASPP to bring the Airport into compliance with FAA safety guidelines or to improve the utility of the facility can be found in Table 20.

Table 20 – VASPP Improvement Recommendations
Extend Runway 2 by 700 feet
Increase Runway Width by 15 feet
Environmental Assessment / Environmental Impact Statement
Install Rotating Beacon*
Install Lighted Wind Cone
Upgrade Lighting to Medium Intensity Runway Lights*
Construct 10,700 Square Feet of Covered Storage*
Fencing Around Operations Area
Addition of 14 Auto Parking Spaces
Airport Layout Plan Update (2010 and 2020)
Hazard Beacons / Obstruction Lights*
Partial Parallel Taxiway*
Runway Reconstruction*

Note: * = Also considered as part of the most recent Master Plan Update.
Source: Vermont Airport System & Policy Plan, February 2007.

4.8 Airport Capital Improvement Plan

As shown in Table 21, only one improvement for the Airport is listed in the 2009-2014 Airport Capital Improvement Plan (ACIP). The ACIP is a five-year planning document that indicates future work intended to be completed by the sponsor. The original lighting project included a rotating beacon, hazard beacons, obstruction lights and new runway lights. The Town would not permit a dusk to dawn rotating beacon. Therefore, that aspect of the project was eliminated. A modified project consisting of only hazard beacons and obstruction lights was in the Act 250 Review Process during the fall of 2008. Subsequent review by FAA has determined that additional obstruction lights will be necessary which changes the definition of the project. VTrans may decide to try and obtain town and Act 250 permits for this revised lighting project at some point in the future.

Table 21: Airport Capital Improvement Plan (ACIP)

Year	Project Description	FAA	State	Total
2011	Hazard Beacons / Obstruction Lights (Construction)	$450,000	$50,000	$500,000
TOTAL		$450,000	$50,000	$500,000

Source: Vermont Agency of Transportation

5. AIRPORT IMPROVEMENT AREAS

5.1 Airport Land Development Plan

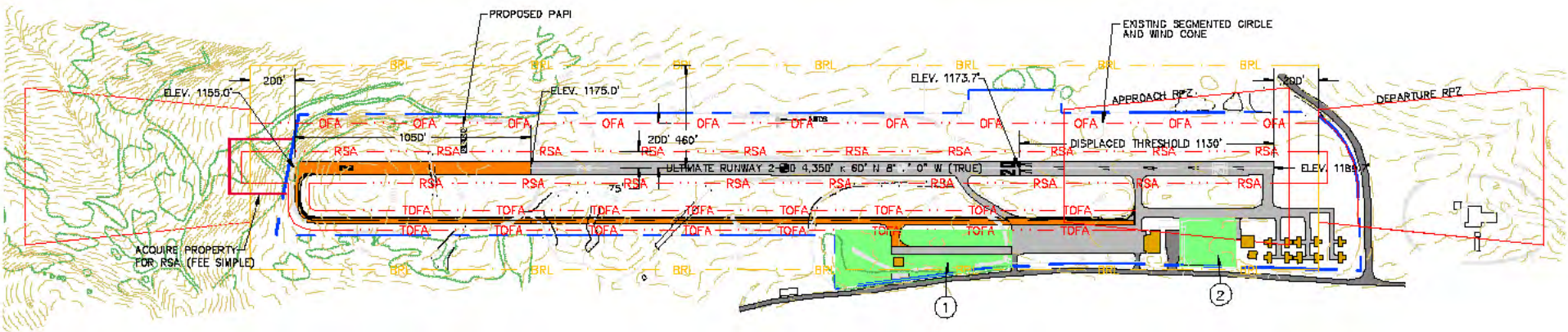
A land development plan for the Caledonia County State Airport has been created as part of this business plan. The land development plan details locations on the Airport that offer the best opportunities for future growth. The locations detailed are numbered in order of preference. The land development plan is detailed below and shown in Figure 4. As discussed in Section 4.4, there is little readily developable space available at the Airport due to constraints posed by property boundaries and terrain.

Area 1

This area is located south of the apron and the terminal along Pudding Hill Road. The area has been prepared for the future development of small conventional hangars or a large T-Hangar. In addition, a taxilane has been constructed in an effort to entice development of hangars in this area. Aircraft owners considering the construction of a hangar would be limited in the size of the hangar that they could construct. This site is the largest available site for hangar development at the Airport.

Area 2

This area is located north of the terminal and adjacent to the area currently occupied by the Civil Air Patrol. This area could house a large conventional hangar, potentially a corporate hangar, if the need develops. However, a large portion of this area would be affected by the RPZ if the runway end is displaced, which likely will discourage large scale development in the western portion of the area. Development in this area would be close to the terminal building as well as to the partial parallel taxiway, providing easy access to the Runway 20 end.



AIRPORT DATA	EXISTING	ULTIMATE
AIRPORT PROPERTY LINE		
AVIGATION EASEMENT		
CONTOURS		
BUILDING RESTRICTION LINE		
RUNWAY SAFETY AREA	RSA	RSA
RUNWAY OBJECT FREE AREA	OFA	OFA
RUNWAY PROTECTION ZONE		
TREELINE		
AIRPORT REFERENCE POINT		
R/W END IDENTIFIER LIGHTS (REILS)		
WETLANDS (TYP)		
AIRPORT BUILDINGS		

PROPOSED RUNWAY/TAXIWAY EXTENSION

AVIATION DEVELOPMENT

SCALE

0 700 1400

FEET

CALEDONIA COUNTY STATE AIRPORT

CALEDONIA COUNTY, VERMONT

AIRPORT LAYOUT PLAN

SCALE:	DATE:	FIGURE:
AS SHOWN	MARCH 2009	4

McFarland Johnson
in association with
R.A. Wiedemann & Associates, Inc.

K:\VTRANS\T-1689803 VT 8Plan 2\-3 Draw\Caledonia County\Caledonia_Ultimate_10-10-08\Ultimate Airport Layout Plan.dwg, 4/28/2010 9:05:29 AM

6. RECOMMENDED PLAN

There are a variety of alternatives that could be all or part of the future of Caledonia County State Airport. A worst-case scenario would involve no changes to the Airport, in which case there will likely be an increasing operating loss each year. VTrans may take certain steps which could positively impact the revenue picture of the facility. These steps fall under three separate focus areas: policy actions, revenue enhancement, and community partnership. The Airport does have some deficiencies and there is some limited community opposition to installing an FAA approved airport lighting system. If the use of the Airport declines in the future, the state has limited options to financially support the facility, and in a worst-case scenario, could consider closing this facility as an option. Therefore, the following recommendations are suggested that focus on enhancing the revenue potential of the airport.

6.1 Recommended Revenue Enhancement Actions

The following Recommended Revenue Enhancement Actions are intended to improve the nature of this facility for the flying public. Many of the actions proposed would likely produce revenue for VTrans outside of the planning period for this Business Plan.

- **Revenue Enhancement Action #1: VTrans should strongly pursue a Fixed Based Operator to locate at the Airport.**

The biggest difference between Caledonia County State Airport and the eight other State-owned airports with paved runways is that all of the other airports, including several airports with shorter runways, have Fixed Based Operators (FBO) located on the airfield. An FBO is an important cog in the Vermont State Airport System as FBOs usually serve as Airport managers at the airports where they are located. The FBO at the Airport will have the ability to provide an increased number of services, potentially including maintenance, avionics, flight training, aircraft rental, charter services, car rental, and aircraft sales. A State-employed Airport manager was located at Caledonia County State Airport until August 2008. Although the VTrans position was eliminated, VTrans is working with other private entities, including the Vermont Pilots Association, to provide FBO-related services at the Airport. An FBO would typically maintain longer hours than a State-employee with other duties within the airport system. Aircraft-owners basing aircraft in the State hangar at the Airport must move other aircraft in order to access their aircraft themselves, putting their aircraft, and the aircraft of others, at risk of damage. At present, total monthly rent charged for space in the hangar is below average due to the lack of attendance at the Airport.

The presence of an FBO would likely lead to an increase in the monthly rent for space in the hangar, to be collected by the new FBO under their contract. It is believed that the total amount remitted to the State would be approximately equal to the current amount collected by the State, as increased space rentals will offset the management fee that would have to be paid to the FBO. The lack of regular maintenance services at the Airport is considered to be a significant deterrent to increased usage of the Airport. It is anticipated that the presence of an FBO

providing new services at the Airport will lead to an increase in operations as well as an increase in based aircraft.

- **Revenue Enhancement Action #2: VTrans should implement the necessary safety improvements at the Airport in order to improve access to the Airport and create the potential for FAA funding for non-safety related projects.**

The 2003 ALPU completed for Caledonia County State Airport indicates potential land use inconsistencies and obstructions within the RPZs and obstructions to the FAR Part 77 Surfaces. Prior to the funding of any non-safety related projects, such as taxiway construction, hangar construction, or apron rehabilitation, these safety deficiencies would need to be corrected.

Regarding the RPZ issues, according to conversations with the former Airport manager, as well as information provided in the ALPU, a property owner off the Runway 20 end has indicated an unwillingness to sell his land or to provide avigation easements. According to FAA Advisory Circular (AC) 150/5300-13, "Land uses prohibited from the RPZ are residences and places of public assembly[12]." The property in the Runway 20 RPZ contains a residential structure as well as agricultural uses. With the landowners unwillingness to sell their property to VTrans, the 2003 ALPU recommended displacement of the runway end so that the entire landing RPZ would be under the control of the Airport sponsor (although the residential structure would remain in the departure RPZ). Displacing the runway would leave a useable runway length of 2,170' for aircraft landing on Runway 20, which would severely limit the types of aircraft that could use that runway end today or in the future.

To counter the reduction in landing length, the ALPU also recommended a runway extension coincide with the displacement of the Runway 20 end. However, with the limited funding available for airports in Vermont, combined with similar needs at other airports throughout the State, it is unlikely that a runway extension for Caledonia County State Airport is a priority in the near future. Other airports in Vermont, including Newport, Middlebury, and Rutland, are also awaiting necessary runway extensions. Therefore, prioritization of critical aviation system infrastructure needs will eventually have to be assessed.

Another option that VTrans could also investigate is changing the designation of the Runway 20 RPZ as discussed in the ALPU. The ALPU noted that the largest aircraft that utilizes the Airport is the Piper PA-31 Navajo, designated by the FAA as a small aircraft. As an airport that mainly receives operations from small aircraft, the required RPZ is significantly smaller then that of an airport that handles larger aircraft operations. A change in airport designation could remove the residential structure from the RPZ; however significant vegetative obstructions in the controlled surfaces off the Runway 20 end could still force the displacement of the runway end if the obstructions could not be mitigated. Therefore, consideration for removing the obstructions should be prioritized in the short term to ensure the approaches are maintained appropriately.

[12] Page 13.

- **Revenue Enhancement Action #3: VTrans should work with private developers to construct additional hangar space at the Airport.**

The State currently owns and operates one conventional hangar at the Airport. VTrans has shown a continued interest in providing low-cost land leases to interested parties to construct private hangars at State airports, including Caledonia County where space has been cleared and is prepared for the construction of new hangars south of the terminal. At present lease-rates, VTrans is earning money on the land, but not at an optimal rate. If this method is followed, the development of private hangars will continue to bring in a small amount of revenue to the State for the land lease and will add additional revenue from fuel sales to the aircraft.

6.2 Recommended Community Partnership Actions

- **Community Partnership Action #1: VTrans should work with the community to better understand their thoughts for the future of the Airport and to determine the level of resistance towards potential improvements.**

Although there is presently some community opposition to improvements at the Airport, VTrans should consider working with the community to better understand their thoughts for the future of the Airport. It is possible that in the future the attitude of people who live near the Airport may become more positive through continued communication. Presentations detailing the Vermont Pilots Association, Wright Flight, the Civil Air Patrol, and area businesses could lead to roundtable discussions with community members to educate the public on the Airport's value while also providing a forum to understand community concerns over the Airport. Such discussions could serve to make local residents more aware of how the Airport benefits their area.

6.3 Recommended Policy Actions

- **Policy Action #1: VTrans should reconsider the methods utilized when creating land leases for private hangar development at the Airport by utilizing a market-driven rate per square-foot and incorporating a reversion clause.**

Analysis of the current leases at the Airport shows a variety of lease rates per square foot for land leases at the Airport. This is acceptable, so long as the rate is based on current market conditions for the lease of similar space in the area and at competitive airports. Future land leases at the Airport should utilize a transparent market-driven rate per square foot. In addition, escalation factors should be included in these leases based on increases to the Consumer Price Index. The escalation should occur at the same time for every lease at the Airport (possibly July 1, which will give the index developers the chance to complete the previous year's index) and should not be dependent on lease renewal dates, for ease of administration. This will help revenues to keep pace with expenses.

Current land leases at the Airport do not include a clause on the ownership of the improvements constructed on state-owned property at the conclusion of the lease. At most

airports, leases contain "reversion clauses" that turn the title to improvements over to the land owner at lease end. Reversion clauses that provide the State with legal ownership of facilities constructed on State land at the completion of the initial lease term (and extensions), or if the owner defaults on his lease, should be included in all new leases. At the end of the initial lease term, the State can then lease the site out with the existing improvements (generating larger rental payments), or can use the land for another purpose without having to purchase the existing facilities from the former leaseholder.

6.4 Impact on Revenues

Revenue Impacts

Quantifying the levels of additional potential revenue that might result from implementing the strategies presented above is highly subjective. This is the case because the State and the Airport do not exist in a vacuum. There are a wide variety of complex external economic forces that will have some affect on revenues at the Airport and on the economic stability of the region, not the least of which is the rising cost of fuel and other goods. Therefore, in order to project the impact on revenues of the aforementioned actions, it is necessary that a number of assumptions for each strategy be made. From this point, reasonable projections can be made, and, if the assumptions fluctuate, some deviations from the predicted revenue levels would be understandable.

In order to attract an increased number of based and transient at the Airport, key improvements are necessary. With no airport beacon and non-standard runway lighting, operations during adverse weather conditions or after sunset could present a safety concern. An attempt to improve the lighting at the Airport was recently undertaken. However, community opposition prevented the upgrade from occurring. It is anticipated that community opposition will remain steadfast throughout the five-year planning period without further proactive discussions with the community.

Another key improvement that enhances safety is to add an extension to the runway. A runway extension is proposed as part of the 2003 ALPU. Based on the plan put forth in the ALPU, after the completion of a 1,049' runway extension, 3,220' of pavement would be available for landing on Runway 20, with 4,350 feet available from Runway 2. The departure RPZ would still include a tall agricultural structure for aircraft taking off from the Runway 2 end as well as (potentially) part of a residential structure. Due to the lack of funding available in Vermont, combined with several higher priority and community-supported runway extensions needed at other airports across the State, this extension is unlikely within the next five to ten years.

If an FBO were to locate at the Airport, there could be a revenue increase associated with the new tenant. FBO contracts in Vermont typically have a minimum annual guarantee of approximately $6,600 paid to VTrans as rent for facilities at the Airport. There are usually also separate contracts in place, paying the FBO a stipend of approximately $12,000 to serve as the Airport manager. Furthermore, the FBO will likely take over the responsibility for managing the

State Hangar. Revenues to the State that result from payment from State hangar tenants will likely be reduced or eliminated, depending on the nature of the contract between the State and the FBO. In this sense, VTrans could actually lose revenue if an FBO were attracted to the Airport. Balancing this out, the presence of an FBO could allow for an increase in hangar lease rates and fuel flowage. In addition, an FBO would also improve the attractiveness of the Airport for aircraft based on the apron as well as in privately constructed hangars. Transient use will also potentially increase with the availability of services at the Airport.

The construction of hangars at an airport is also generally considered a good method for increasing revenues. There is space at the Airport prepared for construction of several small conventional hangars or one large T-hangar. Construction of private hangars, as necessary, in this site could net the State approximately $1,000 per year when fully occupied. In addition, fuel sales will also increase as a result of this development. If an FBO does not locate at the Airport, the development of new hangars will likely not occur.

Other action items recommended, such as improving community relations will have positive impacts, but not impacts that can be directly related to increases in operations or based aircraft, and therefore, no estimate is made for the economic impact of such actions.

Table 22 presents an estimate of how the proposed enhancement strategies could impact revenue at Caledonia County State Airport, if the assumptions for this scenario are met.

Table 22 - Recommended Plan Operating Revenue

	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
Lease Fees	$9,700	$9,700	$9,950	$9,950	$10,200	$10,200
Fuel Taxes – 100LL	$1,584	$1,381	$1,462	$1,543	$1,543	$1,734
Total Operating Revenues	**$11,284**	**$11,081**	**$11,412**	**$11,493**	**$11,743**	**$11,934**

Table 22 indicates steady revenues throughout the planning period. It is expected that lease fees will increase by $250 in 2010 and again in 2012 after the construction of two small hangars on the Airport. Beyond that, significant facility improvements would be necessary for continued increasing revenues at the Airport.

Comparison of Expenses & Revenues

Table 23 illustrates one scenario of future operating revenues for Caledonia County State Airport. As with revenue and expense projections already mentioned, the net operating revenue/deficit estimate relies on meeting a number of assumptions mentioned in the preceding sections.

Table 23 - Recommended Plan Operating Revenue & Expense Comparison			
Year	Forecast Enhanced Revenues	Baseline Operating Expenses	Forecast Net Operating Costs
2008	$11,284	$79,328	($68,044)
2009	$11,081	$36,278	($25,197)
2010	$11,412	$37,501	($26,089)
2011	$11,493	$38,773	($27,279)
2012	$11,743	$40,095	($28,351)
2013	$11,934	$41,469	($29,535)

Table 23 indicates a continual operating loss through the five-year forecast period. It is important to note the significant decrease in the forecast net operating costs between 2008 and 2009. This is the result of VTrans decision to no longer employ an Airport manager for the facility. The removal of that salary line therefore reduces the operating expenses for the Airport.

6.5 Implementation of Business Plan Recommendations

A number of recommendations have been made as a part of this Business Plan. Each recommendation is intended to be an important addition to providing the best possible services at the airport.

Specific recommendations by timeframe, if the Airport is kept open, are as follows:

2010-2011

- ***1st Priority - Work to Provide an FBO Presence at the Airport***
- ***2nd Priority - Begin Remediation of Safety Hazards***
- ***3rd Priority - Update Land Leases for Private Hangar Development as they are Renewed***

2012-2013

- ***1st Priority - Continue Remediation of Safety Hazards***
- ***2nd Priority - Attract Hangar Development on Remaining Available Sites***

6.6 Airport Closure Option

It is possible that major airport improvements may be difficult to construct in the near future as there is some local opposition to the Airport which may make it difficult for future projects to be permitted at the state and local level. Without some infrastructure improvements, it may be difficult to attract new users to the Airport which could in turn cause the number of airport operations to decline below the existing figures. With state budget levels looking very tight for the foreseeable future, the legislature may need to look at reducing the number of state

airports. The closure of Caledonia County Airport is an option that may need to be looked at in the future depending on budget levels, and how the local community feels about the airport. This option, however, is not considered as a short-term alternative but as a long-term consideration after further analysis and review.

Potential Issues Involved with Closure of an Airport

There are a variety of issues that will need to be considered prior to making a determination on the future of Caledonia County State Airport. Cost impacts (both positive and negative) as well as community response and tenant response are all significant issues that could impact a final decision. Several of these impacts are discussed in this section.

The Federal Aviation Administration requires that Airports comply with Airport Grant Assurances when accepting funds for improvements through the Airport Improvement Program (AIP). Among the Grant Assurances is the requirement that the facility remain open and publicly available during the period of time during which the improvement can be amortized. According to FAA's New England Region, as of February 2009, there are two projects at Caledonia County State Airport that have been completed utilizing AIP funds that continue to compel adherence to the Grant Assurances. Both projects were funded by the FAA on a statewide basis, with portions of the funds being utilized at several airports. The first project occurred in 2005 when the FAA allocated $215,271 for perimeter fencing at four airports, including Caledonia County State Airport. This would equal an investment of approximately $53,818 per airport. The second allocation was scheduled to occur in 2008 and included $155,476 for the crack filling of nine runways across the State, or $17,275 per airport. An additional aeronautical survey project is on-going as of April 2010. This project would determine the potential for a Localizer Performance with Vertical Guidance (LPV) approach into both runway ends at Caledonia County State Airport. The actual level of investment made at Caledonia County State Airport on each of these projects may be more or less than the fractional part of the total allocation. The FAA offers a number of options for dealing with cases when such investments are not being utilized for their full useful life, including paying back the FAA and/or having the airport sponsor contribute the unamortized value for use on another AIP eligible project.

Another important consideration would be the loss of the Airport's annual entitlement from the FAA. Each year, Caledonia County State Airport is allocated $150,000 in entitlement funding from the FAA for airport improvements. This funding can be used solely for airport capital improvement projects and can not be used as part of the operating budget. As owner of the Airport, VTrans can reallocate funds dedicated to Caledonia County to other airports in the State. Similarly, VTrans can also allocate funds from other airports to projects at Caledonia County. If the Airport is closed, the State will receive $150,000 less in entitlement funding on an annual basis. The loss of this annual entitlement should be a consideration when determining the future of the Airport.

Another potential factor includes the costs associated with buying-out current lease-holders. Until a long-term strategy for the Airport is determined, VTrans should not issue any further land leases at Caledonia County State Airport. According to lease records provided by

VTrans, there are twelve land leases at the Airport. The final renewal period of seven of the twelve leases occurs during the planning period for this business plan (2010-2014). The longest lease at the Airport is assigned to the Civil Air Patrol, with an expiration of the initial term in 2025 followed by five, 5-year lessee-option renewal periods.

It is not anticipated that there would be significant opposition from neighbors to closure of the Airport. However, the Vermont Pilots Association has indicated that several aircraft owners based at Caledonia County State Airport, utilize their aircraft for business purposes. These pilots base at Caledonia County as a result of the proximity of the Airport to their homes and place of business, and many have chosen to reside in the region due to the presence of the Airport.

Potential Cost Savings

Based on current levels of expenditure, VTrans will save approximately $39,000 per year in maintenance costs at the Airport if the facility were to be closed. There are also several necessary upgrades to the facilities at the Airport that would not need to be undertaken, including:

- runway lighting (estimated in the 2003 ALPU at a cost of $650,000);
- runway rehabilitation ($450,000);
- obstruction removal ($100,000); and
- easement acquisition ($32,000).

The 2003 ALPU recommended the construction of a runway extension, which was estimated to cost over $1.5 million. Converted into 2009 dollars, these five projects would cost a minimum of $3 million, a cost estimate which does not account for the substantial increase in the cost of asphalt, metals, and other materials over when these estimates were first completed. Conversely, the $3 million investment at the Airport would hypothetically represent $2.85 million in Federal investment in the community.

There is also the potential for the re-use of some facilities currently at the Caledonia County State Airport. An Automated Weather Observation System (AWOS) recently installed at the Airport could be removed and installed at an airport such as Middlebury State Airport, which currently is operating without an on-airport weather reporting system. The perimeter fence could be removed and the materials utilized at other VTrans airports that do not currently have a full perimeter fence. An above-ground fuel storage tank currently located at the Airport could be moved to another VTrans facility, or sold if it is not needed within the State.

In addition to the potential savings noted above, there is also the potential for revenue associated with the sale or rental of the land currently occupied by the Airport. With agricultural and rural residential uses adjacent to the Airport, the potential exists for the property to convert to agricultural use due to the vast amount of level space available. In addition, the level space, combined with the favorable zoning of the parcel, could be conducive to new residential construction. The only structure on the current Airport property of significance is the historic

school house, which cannot be demolished. However, ownership of this facility could be transferred to a local government entity if the Airport were to be closed.

7. ECONOMIC IMPACT ASSESSMENT

THE PURPOSE OF THIS SECTION IS TO quantify the economic impact and contribution of Caledonia County State Airport to the local economy for both the existing situation and for the Recommended Plan. This analysis demonstrates the economic impacts of Airport and aviation use (however limited) within Caledonia County by tracing the movement of expenditures through the various economic sectors until the money is exported incrementally from the County through purchases of outside goods and services.

7.1 Goals and Methods of Analysis

The goal of this analysis was to quantify the following economic aspects of Caledonia County State Airport both for existing conditions and for the year 2013 Recommended Plan:

- ***Direct Spending:*** On-airport spending concerning employment, operations, and capital projects. Direct spending also includes off-airport spending by air travelers for rental cars, hotels, restaurants, etc. associated with the users and provision of airport services.
- ***Induced Benefits:*** Impacts created by the successive rounds of spending in the local economy until the original direct or indirect impact has been incrementally exported from the local area.
- ***Jobs and Income:*** Quantify the income generated by aviation and the number of jobs supported by the Airport.
- ***Total Output in Dollars:*** The combined impacts of direct, indirect, and induced spending.

To conduct the analysis, the study utilized the following simplified process and methodology:

- Collect baseline data from the existing statewide economic impact study[13]. These numbers were adjusted for inflation from the year 2003 to the year 2008 effectively increasing the original impacts by 17 percent.
- Apply regional multipliers to direct recommended plan capital costs and projected employment for 2013.
- Describe non-monetary impacts of Caledonia County State Airport and local aviation.
- Year 2013 add-on impacts were developed using the following inputs:
  - Assume capital development of one new hangar at $350,000. This translates into an average of $70,000 per year over the five year planning horizon.

[13] Source: Simat, Helliesen & Eichner, Inc. (SH&E, Inc.), **Economic Impact of Vermont's Public-Use Airports**, April, 2003

7.2 Results of Analysis

In 2003 VTrans completed an analysis of the economic impact of airports and published the Economic Impact of Vermont's Public-Use Airports. According to that study, Caledonia County State Airport was estimated to have $6,108,400 in economic impact in terms of business sales and public sector expenditures.

The economic impact methodology employed here first identified the direct spending and employment at Caledonia County State Airport (called direct impacts) for the year 2013 recommended plan. This spending was in the form of capital development for a new conventional hangar. Using this information, regional re-spending multipliers derived from IMPLAN software were applied to the data to determine the multiplied impacts of direct spending (called induced impacts). Table 24 presents a summary of Caledonia County State Airport's direct and induced economic impacts for both the baseline case and the year 2013.

Table 24 - Direct and Induced Economic Impacts

Item	Year 2003 Impacts	Year 2008 Impacts**	Recommended Plan Add-on Impacts	Total 2013 Impacts
Direct Impacts				
On-Airport Income*	$50,300	$58,900	$31,600	$90,500
On-Airport Expenditures	$109,500	$128,100	$70,000	$198,100
On-Airport Employment	2	2	1	3
Off-Airport Income*	$449,000	$525,300	N/A	$525,300
Off-Airport Expenditures	$3,703,900	$4,333,600	N/A	$4,333,600
Off-Airport Employment	21	21	N/A	21
Induced Impacts				
Induced Direct and Indirect	$2,295,000	$2,685,200	$32,000	$2,717,200
Total Induced Employment	22	22	0	22
Grand Total Monetary Impacts	$6,108,400	$7,146,900	$102,000	$7,248,900
Grand Total Income Impacts*	$393,500	$460,400	$41,700	$502,100
Grand Total Employment Impacts	45	45	1	46

* Includes indirect incomes from visitor spending and capital development. This is a subset of the total impacts and is already included in the output number.
** Inflated for CPI change - roughly 17 percent over the period. Employment not inflated.

7.3 Non-monetary Impacts

There are a number of non-monetary benefits of aviation that have not been mentioned in this analysis. Some of these benefits include:

- ***Transportation Benefits:*** Defined as the time saved and cost avoided by travelers who use airports rather than the next best alternative. Caledonia County State Airport provides access to the National Air Transportation System.
- ***Stimulation of Business:*** Airports have been shown in other studies to be an important factor in the attraction and siting of new businesses in a community. This is particularly true for businesses with more than 100 employees.
- ***Aeromedical Evacuation:*** Airports often serve as bases for aeromedical evacuation teams or flight services. This life-saving function has intrinsic value that often cannot be adequately quantified.
- ***Recreation:*** The Airport's location near Burke Mountain Ski Resort and Lyndon Outing Club Ski Area creates access for general aviation visitors.

All of the above factors point to a value of an airport that is not easily quantified. The impacts that were estimated within the body of this report are only one facet of the overall picture. Caledonia County State Airport enjoys a significance that is larger than these numbers can estimate. It is part of an increasing scarce system of general aviation facilities that needs support, protection, and appreciation from all the citizens that benefit from its operation, both directly and indirectly.

Appendix A:
Incentives & Programs

Local & State Incentives & Programs

A more complete listing of State incentives and programs available to businesses in Orleans County and the Northeast Kingdom include:

Local Incentives & Programs

- ***Intermediary Relending Program:*** The Northeast Vermont Development Association, in partnership with the USDA Rural Development Agency, has received an amount of funding that is set aside to help new business start-ups and expansions that will provide a continued source of employment and economic stability for the Northeast Kingdom. This program, consisting entirely of loans, is continuously available to new businesses and the continued funding is made possible by the repayment of loans and the distribution.
- ***Regional Revolving Loan Fund:*** The Northeast Vermont Development Association maintains this fund that is designed to provide small loans to clients whose business proposals do not meet the requirements for other loan programs.
- ***Economic Development Fund of Northern Vermont:*** The Economic Development Council of Northern Vermont (EDCNV) offers financial assistance to companies wishing to increase employment, improve wage scales, and to provide stability in cyclical industries. EDCNV works with several quasi-public and private lenders to loan the capital necessary for companies to complete the previous projects.
- ***Micro Business Loan Program:*** This microloan program was established by the EDCNV to assist small businesses with obtaining necessary funding. This program is intended to assist businesses with the financing of machinery, equipment, and working capital. Funding cannot be utilized for real estate purchase or existing debt. The lender also provides business planning, financial analysis, marketing, and advertising assistance to recipients, free of charge. A minimum of $500 to a maximum total financing package of $105,000 is available through the program.
- ***Micro Business Development Program:*** This program is operated by the Northeast Kingdom Community Action (NEKCA) and provides information and assistance to prospective and current business owners on how to start a business as well as with the creation of marketing and financial plans.
- ***Small Business Administration (SBA) Loans & Assistance:*** The Northern Community Investment Corporation provides loans, lines of credit, and an equipment-leasing program, among others, to businesses in the Newport area and throughout Northern Vermont.
- ***Business Plan Development:*** the Vermont Small Business Development Center provides no-cost assistance in the development of a business plan. A business specialist is housed at the Northeast Vermont Development Association in St. Johnsbury.

State Incentives & Programs

- ***Financial Services Companies Tax Credit:*** Vermont offers a tax credit up to 75 percent off the state income tax, based on a formula that combines the company's in-state payroll and out-of-state revenues.
- ***Sales Tax Exemption:*** Vermont offers a sales tax exemption on certain building materials in excess of $1 million.
- ***Fuel and Electricity Sales Tax Exemption:*** This exemption applies to sales of electricity, oil and other fuels used directly or indirectly in manufacturing tangible personal property for sales.
- ***Equipment Sales Tax Exemption:*** Machinery and equipment used directly or indirectly in manufacturing tangible personal property for sale.
- ***Industrial Fuels and Raw Materials Tax Exemption:*** Motor fuels, except for railroad and jet fuel; component parts for manufacturing, packaging, and shipping materials; and newspapers and tangible property used as ingredients in the manufacture of newspapers are exempt from sales taxation. An exemption from property taxation is provided for plants and shrubs in commercial nurseries or greenhouses.
- ***Pollution Control Equipment Tax Exemption:*** Real and personal property used to control air or water pollution is exempt from property taxation.
- ***Energy and Fuel Conservation Measures:*** Alternative energy sources used to generate electricity or energy not sold or exchanged may be exempted by municipalities from property taxation.
- ***Small Business Investment Tax Credit:*** The small business tax credit was retroactively amended (effective January 1, 1998) to allow a credit for the first dollar of investment, not only dollars expended over $150,000, provided the investment exceeds $150,000. A company may receive a credit in the amount equal to five to 10 percent of its investments within the state of Vermont in plants, facilities, and machinery and equipment. Requirements vary depending upon the number of employees in the business
- ***Payroll Tax Credit:*** It provides a credit against income tax liability equal to a percentage of increased payroll costs. A company with sales less than $10 million may receive equal to 10 percent of its increased costs of salaries and wages in the applicable tax year.
- ***Research and Development Tax Credit:*** It provides a 10 percent tax credit against income tax for qualified research and development expenditures. Qualified R&D expenditures are those included in the IRS code.
- ***Workforce Development Tax Credit:*** A corporation can receive an income tax credit of 10 percent of its qualified training, education and work force development expenditures.
- ***Export Tax Credit:*** This provision allows exporting businesses to claim credit against income tax liability. The credit is the difference between income tax calculated under the existing state apportionment formula and the proposed formula, which double weights the sales factor and disregards "throwback" provisions.

- ***Brownfields Property Tax Exemption:*** Statewide education property tax exemptions are provided for expenditures incurred by a business for the construction of new, expanded or renovated facilities on contaminated property.
- ***Vermont's Downtown Development Act:*** Incentives include assistance with rehabilitation of certified historic or older buildings, sprinkler system rebates, reallocation of sales tax on construction materials, downtown transportation, related capital improvement fund, planning grant for qualifying for designation, and others.
- ***Tax Increment Financing Districts (TIF):*** The Vermont Economic Progress Council can approve applications from municipalities that wish to use the taxes generated on the excess property valuation for interest and principal repayment on bonded debt or prefunding future tax increment financing district debt. The use of TIF districts reduces out of pocket costs for developers whose projects will increase property values. In many cases, project financing by private interests cannot or should not be burdened by poor public infrastructure, which could make a much-needed project unfeasible if private financing is all that is available.

Appendix B:
Lease Agreement Summaries

Lessee / Tenant Description	Physical Facilities	Amount	Additional Terms	Term Length	Begin/End Date	Renewal Options
Amendment No. 2 to Lease between the State of Vermont and a Private Hangar Owner	One parcel of land measuring 30 ft. x 60 ft. upon which tenant owns and occupies a currently constructed hangar for personal and private use.	$325.23 per year. The Consumer Price Index (CPI-U) is used for changes to rental fees.	Lessee may not sublease the premises without written consent of the Lessor.	10 years	8/5/2000 8/4/2010	No renewal periods remain.
Lease between the State of Vermont and a Private Hangar Owner	One parcel of land measuring 50 ft. x 40 ft upon which tenant is to own and occupy a 42 ft. x 31.5 ft hangar for personal and private use.	$325.00 per year. The Consumer Price Index (CPI-U) is used for changes to rental fees.	Lessee may not sublease the premises without written consent of the Lessor.	5 years	11/9/2000 11/8/2005	Three (3) renewals of five (5) year periods remain. Must give written notice six (6) months before the expiration of each existing term if Lessee desires to renew.
Amendment No. 2 to Lease between the State of Vermont and a Private Hangar Owner	One parcel of land measuring 30 ft. x 60 ft. upon which tenant owns and occupies a currently constructed hangar for personal and private use.	$325.23 per year. The Consumer Price Index (CPI-U) is used for changes to rental fees.	Lessee may not sublease the premises without written consent of the Lessor.	10 years	8/5/2000 8/4/2010	No renewal periods remain.
Lease between the State of Vermont and a Private Hangar Owner	One parcel of land measuring 50 ft in radius upon which tenant is to own and maintain an air navigation beacon known as a Non-Direction Beacon (NDB).	$5,000.00 per term. The Consumer Price Index (CPI-U) is used for changes to rental fees.	Lessee may not sublease the premises without written consent of the Lessor.	5 years	3/19/2006 3/18/2011	One (1) renewal of a five (5) year period remains. Must give written notice six (6) months before the expiration of each existing term if Lessee desires to renew.
Lease between the State of Vermont and a State-Owned Hangar Occupant	Space for one aircraft in the State-owned Hangar.	$960.00 per year The Consumer Price Index (CPI-U) is used for changes to rental fees.	None	1 year	1/1/2005 12/31/2005	Automatic renewals of one (1) year periods.

Lessee / Tenant Description	Physical Facilities	Amount	Additional Terms	Term Length	Begin/End Date	Renewal Options
Amendment No. 1 to Lease between the State of Vermont and a Private Hangar Owner	One parcel of land measuring 30 ft. x 60 ft. upon which tenant is to own and occupy a hangar for personal and private use.	$250.00 per year The Consumer Price Index (CPI-U) is used for changes to rental fees.	No option to purchase or right of first refusal. Lessee may not sublease the premises without written consent of the Lessor.	5 years	6/9/2001 6/8/2011	No renewal periods remain.
Lease between the State of Vermont and a State-Owned Hangar Occupant	Space for one aircraft in the State-owned Hangar.	$960.00 per year The Consumer Price Index (CPI-U) is used for changes to rental fees.	None	1 year	1/1/2005 12/31/2005	Automatic renewals of one (1) year periods.
Memorandum of Lease between the State of Vermont and the Civil Air Patrol	One parcel of land measuring 4,200 sq. ft. upon which tenant is to own and occupy a 50 ft. x 60 ft. hangar for public use.	No fees for the term of Lease due to public benefits resulting from Civil Air Patrol use and activities at the airport.	No option to purchase or right of first refusal. Lessee may not sublease the premises without written consent of the Lessor.	25 years	6/1/2000 5/31/2025	Five (5) renewals of five (5) year periods. Lessee may terminate lease with thirty (30) days notice prior to June 1 of each year.
Lease between the State of Vermont and a State-Owned Hangar Occupant	Space for one aircraft in the State-owned Hangar.	$960.00 per year The Consumer Price Index (CPI-U) is used for changes to rental fees.	None	1 year	1/1/2005 12/31/2005	Automatic renewals of one (1) year periods.
Lease between the State of Vermont and a Private Hangar Owner	One parcel of land measuring 50 ft. x 40 ft upon which tenant is to own and occupy a hangar for personal and private use.	$250.00 per year. The Consumer Price Index (CPI-U) is used for changes to rental fees.	Lessee may not sublease the premises without written consent of the Lessor.	5 years	10/14/1999 10/13/2004	Three (3) renewals of five (5) year periods remain. Must give written notice six (6) months before the expiration of each existing term if Lessee desires to renew.

Lessee / Tenant Description	Physical Facilities	Amount	Additional Terms	Term Length	Begin/End Date	Renewal Options
Amendment No. 1 to Lease between the State of Vermont and a Private Hangar Owner	One parcel of land measuring 50 ft. x 40 ft. upon which tenant is to own and occupy a hangar for personal and private use.	$280.30 per year The Consumer Price Index (CPI-U) is used for changes to rental fees.	No option to purchase or right of first refusal. Lessee may not sublease the premises without written consent of the Lessor.	5 years	6/10/1998 6/9/2003	One (1) renewal of a five (5) year period remains. Must give written notice six (6) months before the expiration of each existing term if Lessee desires to renew.
Amendment No. 1 to Lease between the State of Vermont and a Private Hangar Owner	One parcel of land measuring 30 ft. x 60 ft. upon which tenant is to own and occupy a hangar for personal and private use.	$250.00 per year The Consumer Price Index (CPI-U) is used for changes to rental fees.	No option to purchase or right of first refusal. Lessee may not sublease the premises without written consent of the Lessor.	10 years	11/19/1990 11/19/2000	One (1) renewal of a ten (10) year period remains. Must give written notice six (6) months before the expiration of each existing term if Lessee desires to renew.
Amendment No. 3 to Lease between the State of Vermont and a Private Hangar Owner	One parcel of land measuring 40 ft. x 50 ft. upon which tenant is to own and occupy a 30 ft. x 40 ft. hangar for personal and private use.	$330.27 per year The Consumer Price Index (CPI-U) is used for changes to rental fees.	No option to purchase or right of first refusal. Lessee may not sublease the premises without written consent of the Lessor.	5 years	9/28/1999 9/27/2004	One (1) renewal of a five (5) year period remains. Must give written notice six (6) months before the expiration of each existing term if Lessee desires to renew.
Lease between the State of Vermont and a State-Owned Hangar Occupant	Space for one aircraft in the State-owned Hangar.	$960.00 per year The Consumer Price Index (CPI-U) is used for changes to rental fees.	None	1 year	1/1/2005 12/31/2005	Automatic renewals of one (1) year periods.

Lessee / Tenant Description	Physical Facilities	Amount	Additional Terms	Term Length	Begin/End Date	Renewal Options
Lease between the State of Vermont and a State-Owned Hangar Occupant	Space for one aircraft in the State-owned Hangar.	$960.00 per year The Consumer Price Index (CPI-U) is used for changes to rental fees.	None	1 year	1/1/2005 12/31/2005	Automatic renewals of one (1) year periods.
Amendment No. 1 to Lease between the State of Vermont and a Private Hangar Owner	One parcel of land measuring 55 ft. x 45 ft. upon which tenant is to own and occupy a hangar for personal and private use.	$282.00 per year The Consumer Price Index (CPI-U) is used for changes to rental fees.	No option to purchase or right of first refusal. Lessee may not sublease the premises without written consent of the Lessor.	5 years	8/14/2003 8/13/2008	One (1) renewal of a five (5) year period remains. Must give written notice six (6) months before the expiration of each existing term if Lessee desires to renew.
Amendment No. 1 to Lease between the State of Vermont and a Private Hangar Owner	One parcel of land measuring 50 ft. x 40 ft. upon which tenant is to own and occupy a hangar for personal and private use.	$283.00 per year The Consumer Price Index (CPI-U) is used for changes to rental fees.	No option to purchase or right of first refusal. Lessee may not sublease the premises without written consent of the Lessor.	5 years	9/20/2004 9/19/2009	Two (2) renewals of five (5) year periods remain. Must give written notice six (6) months before the expiration of each existing term if Lessee desires to renew.
Lease between the State of Vermont and a State-Owned Hangar Occupant	Space for one aircraft in the State-owned Hangar.	$960.00 per year The Consumer Price Index (CPI-U) is used for changes to rental fees.	None	1 year	1/1/2005 12/31/2005	Automatic renewals of one (1) year periods.

Lessee / Tenant Description	Physical Facilities	Amount	Additional Terms	Term Length	Begin/End Date	Renewal Options
Lease between the State of Vermont and the Vermont Pilots Association	Lessee will provide 100LL aviation fuel for sale to the public utilizing the Lessors fuel storage and pumping facilities, currently constructed at the airport.	Unavailable	Operator will make fuel sales available to the public for approximately 6 hours/day, 6 days/week. Lessee agrees to charge competitive rates for fuel and to conspicuously post the rate charged at their place of business on the airport.	Unavailable	Unavailable	Unavailable

Appendix C:
IMPLAN Results

Caledonia County, VT

Employment

	Sector Description	Direct	Indirect	Induced	TOTAL
1	11 Ag, Forestry, Fish & Hunting	0.0	0.0	0.0	0.0
19	21 Mining	0.0	0.0	0.0	0.0
30	22 Utilities	0.0	0.0	0.0	0.0
33	23 Construction	4.8	0.0	0.0	4.8
46	31-33 Manufacturing	0.0	0.0	0.0	0.1
390	42 Wholesale Trade	0.0	0.0	0.0	0.1
391	48-49 Transportation & Warehousing	0.0	0.1	0.0	0.1
401	44-45 Retail trade	0.0	0.1	0.3	0.3
413	51 Information	0.0	0.0	0.0	0.0
425	52 Finance & insurance	0.0	0.0	0.0	0.0
431	53 Real estate & rental	0.0	0.0	0.0	0.1
437	54 Professional- scientific & tech sv	0.0	0.2	0.0	0.2
451	55 Management of companies	0.0	0.0	0.0	0.0
452	56 Administrative & waste services	0.0	0.0	0.0	0.1
461	61 Educational svcs	0.0	0.0	0.0	0.0
464	62 Health & social services	0.0	0.0	0.3	0.3
475	71 Arts- entertainment & recreation	0.0	0.0	0.0	0.0
479	72 Accommodation & food services	0.0	0.0	0.1	0.2
482	81 Other services	0.0	0.0	0.1	0.1
495	92 Government & non NAICs	0.0	0.0	0.0	0.0
	Total	**4.8**	**0.6**	**1.1**	**6.5**

Multiplier: 1.35

Income ($)

	Sector Description	Direct	Indirect	Induced	TOTAL
1	11 Ag, Forestry, Fish & Hunting	$0	$271	$452	$723
19	21 Mining	$0	$1	$1	$3
30	22 Utilities	$0	$109	$351	$461
33	23 Construction	$158,115	$211	$233	$158,558
46	31-33 Manufacturing	$0	$2,168	$699	$2,867
390	42 Wholesale Trade	$0	$2,078	$1,520	$3,598
391	48-49 Transportation & Warehousing	$0	$1,835	$1,029	$2,864
401	44-45 Retail trade	$0	$1,472	$6,132	$7,604
413	51 Information	$0	$567	$686	$1,253
425	52 Finance & insurance	$0	$647	$949	$1,595
431	53 Real estate & rental	$0	$414	$614	$1,029
437	54 Professional- scientific & tech sv	$0	$7,343	$1,347	$8,691
451	55 Management of companies	$0	$0	$0	$0
452	56 Administrative & waste services	$0	$644	$436	$1,080
461	61 Educational svcs	$0	$8	$713	$721
464	62 Health & social services	$0	$1	$11,001	$11,001
475	71 Arts- entertainment & recreation	$0	$35	$467	$502
479	72 Accommodation & food services	$0	$421	$2,040	$2,461
482	81 Other services	$0	$430	$1,607	$2,037
495	92 Government & non NAICs	$0	$325	$948	$1,274
	Total	**$158,115**	**$18,983**	**$31,224**	**$208,322**

Multiplier: 1.32

Output ($)

	Sector Description	Direct	Indirect	Induced	TOTAL
1	11 Ag, Forestry, Fish & Hunting	$0	$512	$784	$1,297
19	21 Mining	$0	$11	$14	$24
30	22 Utilities	$0	$494	$1,585	$2,079
33	23 Construction	$350,000	$641	$660	$351,301
46	31-33 Manufacturing	$0	$9,785	$5,606	$15,392
390	42 Wholesale Trade	$0	$5,504	$4,025	$9,529
391	48-49 Transportation & Warehousing	$0	$5,233	$2,596	$7,830
401	44-45 Retail trade	$0	$3,743	$15,494	$19,237
413	51 Information	$0	$2,937	$4,428	$7,366
425	52 Finance & insurance	$0	$2,192	$3,442	$5,634
431	53 Real estate & rental	$0	$2,686	$3,589	$6,275
437	54 Professional- scientific & tech sv	$0	$17,720	$3,140	$20,861
451	55 Management of companies	$0	$0	$0	$0
452	56 Administrative & waste services	$0	$2,127	$1,496	$3,623
461	61 Educational svcs	$0	$19	$1,294	$1,313
464	62 Health & social services	$0	$3	$20,889	$20,892
475	71 Arts- entertainment & recreation	$0	$149	$1,604	$1,753
479	72 Accommodation & food services	$0	$1,272	$6,626	$7,898
482	81 Other services	$0	$1,282	$3,536	$4,819
495	92 Government & non NAICs	$0	$1,547	$21,562	$23,108
	Total	**$350,000**	**$57,858**	**$102,371**	**$510,229**

Multiplier: 1.46