CHAPTER FIVE
ENVIRONMENTAL OVERVIEW

The facility requirements presented in **Chapter Three** describe a 20-year development program designed to accommodate the forecasted aviation demand while simultaneously capitalizing on airfield strengths and addressing airfield weaknesses. The goal of the Environmental Overview chapter is to analyze the various environmental impact categories described in FAA Order 5050.4b *"Airport Environmental Handbook"* and FAA Order 1050.1E *"Environmental Impacts: Policies and Procedures"*. This is not intended to be a comprehensive environmental assessment of the potential impacts related to the proposed airport development, but rather an overview of the environmental considerations that should be accounted for when pursuing future airport improvements. Information and data available by inspection or already published in previous environmental and planning studies will be summarized and as such, no additional agency coordination was conducted. Special emphasis will be placed on identifying what additional environmental coordination (i.e., FAA Environmental Assessment) might be required for implementation of the recommended improvements as depicted on the Vision 2030 Airport Layout Plan.

5.1 NOISE

A Part 150 Noise study was completed in 2006 to provide a detailed update to the Noise Exposure Mapping (i.e. noise contour footprint) surrounding the airport. In an effort to promote compatible land uses, the noise environment at Burlington International Airport (BTV) was modeled in order to determine potential noise impacts on properties in the vicinity of the airport resulting from the existing and forecasted level of operations. This section provides a brief summary of the findings of this 2006 Part 150 study. Noise contours were generated for the years 2006 and 2011, using the Federal Aviation Administration (FAA) Integrated Noise Model (INM) Version 6.1. It should be noted that the 2006 Part 150 noise study remains relevant as operation levels at BTV have not increased due to the 2007-2010 economic recession.

The noise modeling uses the day-night average sound level (L_{dn} or DNL) noise metric as a descriptor of cumulative aircraft noise exposure. The DNL noise metric is a 24-hour logarithmic average of noise levels in A-weighted decibels, as recommended by the FAA for evaluating aircraft noise impacts. Since sound occurring during the night hours (defined as between 10:00 p.m. and 7:00 a.m.) is typically found more intrusive due to low levels of ambient noise, the DNL metric adds a 10-decibel penalty for any nighttime aircraft operation. The DNL generated does not delineate a strict demarcation between acceptable noise levels and unacceptable noise levels. Rather the DNL contour line attempts to describe the general outline of expected noise impacts. Further, the DNL represents average annual conditions rather than single-event noise occurrences. Noise exposure on any given day may be greater or less than the average day depending on environmental factors and aircraft performance. However, the noise

model does provide a useful and scientifically-based method for comparing various noise levels and provides a reasonable basis for performing airport noise compatibility planning for the affected community. As no major change to the runway geometry is proposed in the preferred development plan, the INM model only considered changes in operation levels and fleet mix of aircraft in determining future noise contours.

The noise model was modified (with FAA concurrence) to include impacts from ground noise associated with taxiway movements and other aircraft operations at the terminal gates, cargo area, ANG ramp and general aviation ramps. The projected activity levels used to estimate the potential extent of the noise impact areas were based on up to 125,000 annual operations. Current operations at the airport are substantially less than 100,000. Based on the updated activity forecasts documented by the MPU, these activity levels are not expected to be reached until after 2020.

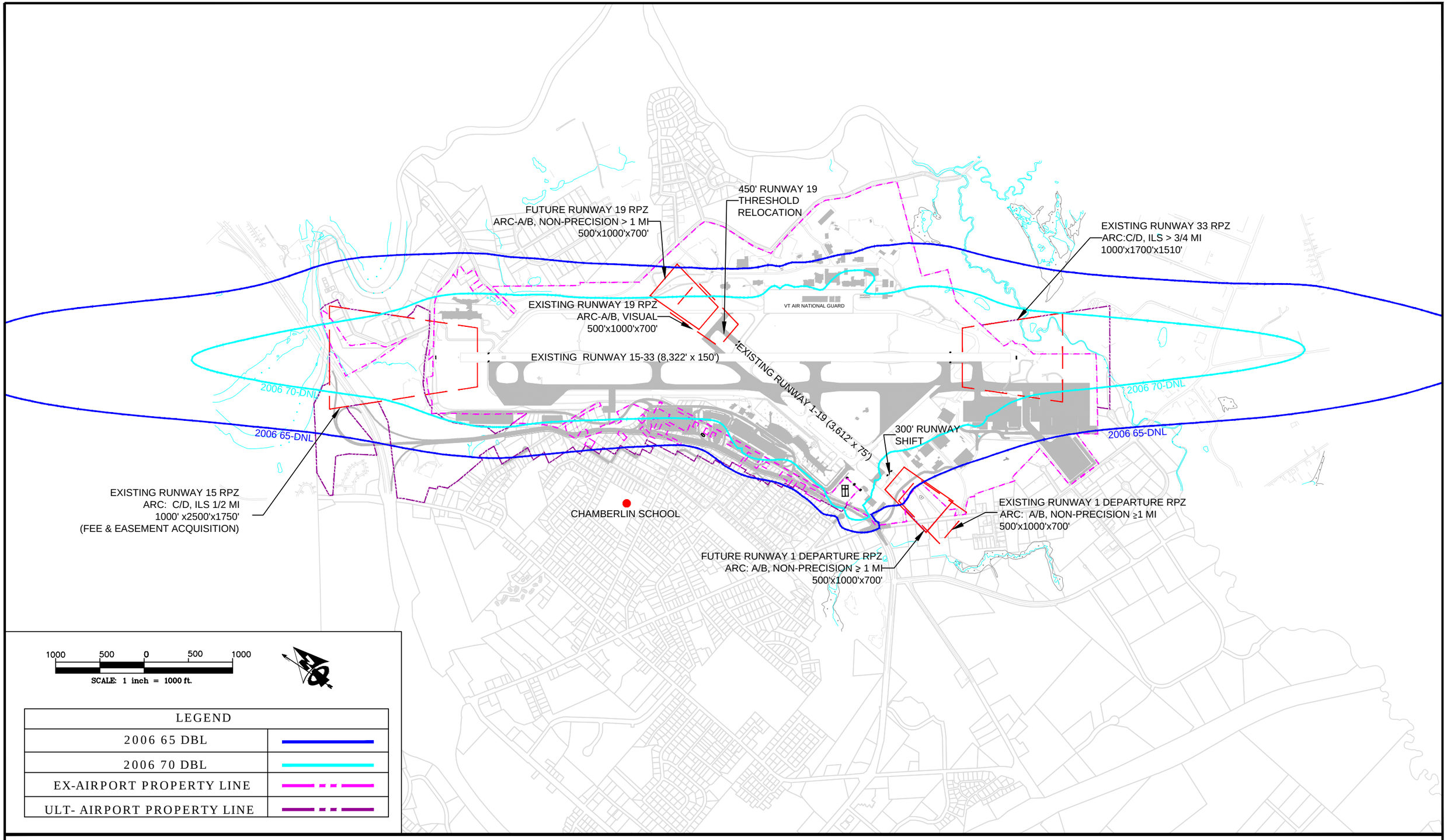

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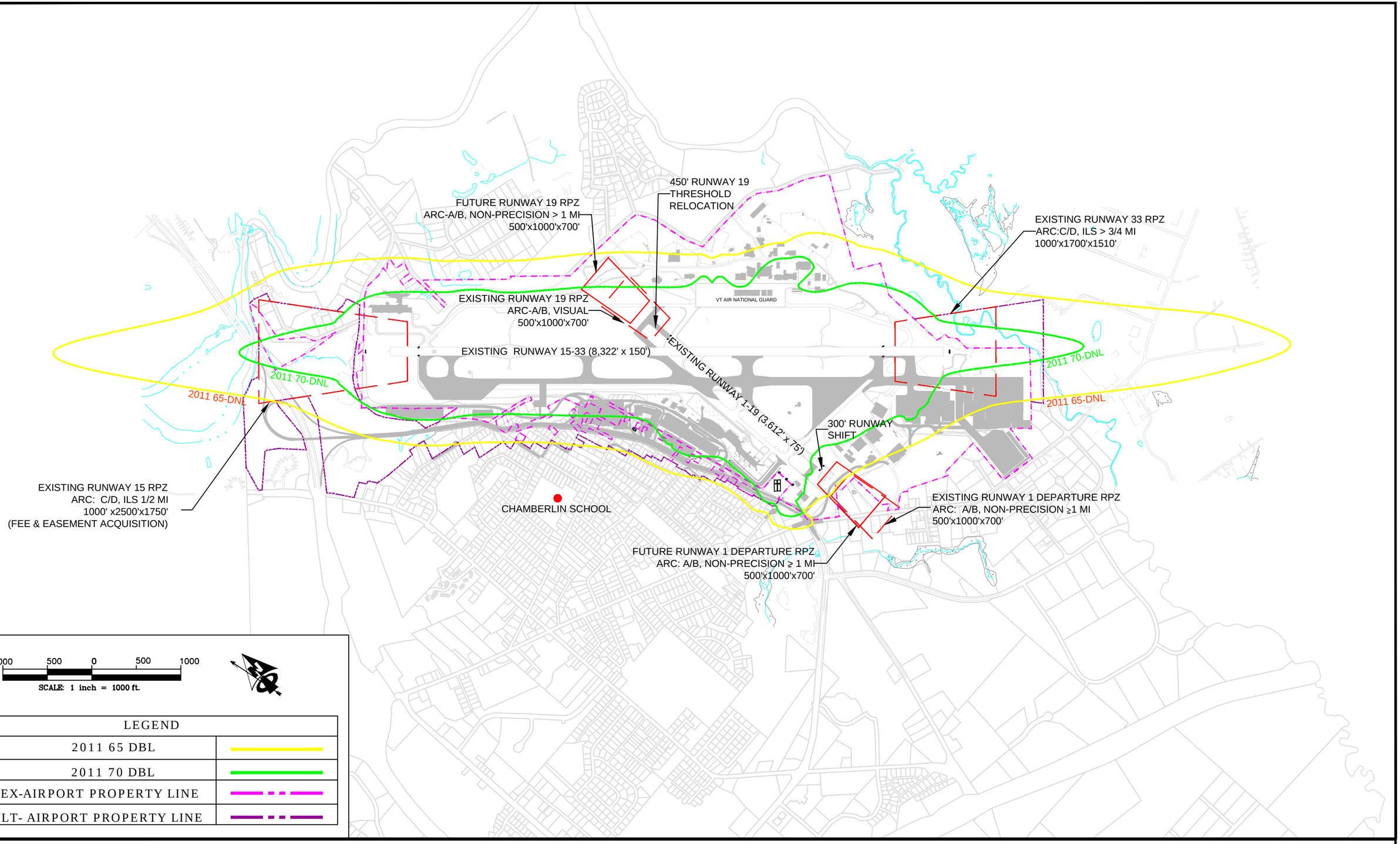
FIGURE 5.1

2006 Noise Contours



1000 500 0 500 1000

SCALE: 1 inch = 1000 ft.

LEGEND	
2011 65 DBL	
2011 70 DBL	
EX-AIRPORT PROPERTY LINE	
ULT- AIRPORT PROPERTY LINE	

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FIGURE 5.2

2011 Noise Contours

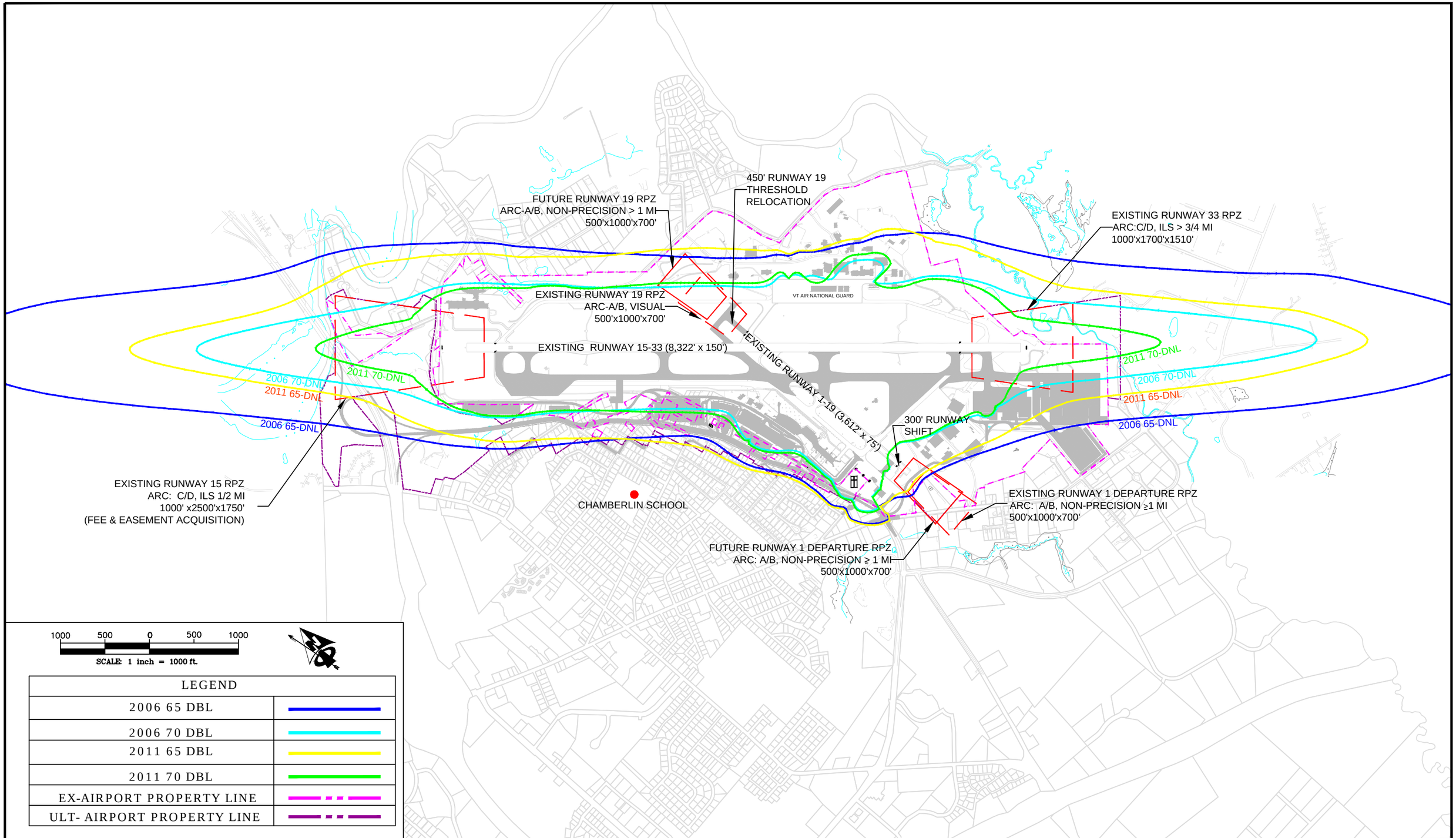

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FIGURE 5.3

2006 and 2011 Noise Contour Comparison

5.1.1 Noise Model Results

At the time that this Master Plan update was written (2010) the 65 DNL airport noise footprint was generally expected to decrease in size over the planning horizon primarily due to advancements in aircraft technology resulting in quieter engines. It was also anticipated that the Vermont Air National Guard (ANG) will upgrade to quieter engines in the F-16 military aircraft that currently operate at the airfield. It should be noted that the noise contours were generated with the assumption that Runway 1-19 will continue to be used by primarily general aviation and corporate-type aircraft.

The military operations assumption used in the development of the NEM anticipated a change in engine types but no change in the basic aircraft equipment type. Recent (2011) announcements regarding the potential deployment of F-35 aircraft indicate that these aircraft types would not be expected on the airfield until after 2015, if at all. If the ANG noise studies project an increase in the currently approved 65 DNL exposure areas, the airport's Part 150 studies may need to be updated and benefits eventually extended to the revised study limits. The updated Pat 150 studies would utilize the best available noise modeling techniques approved by the FAA. See **Appendix M** for further topic discussion.

Even though the analysis conducted for this MPU indicates that the 65 DNL contour is anticipated to shrink, a large portion of this contour will remain off airport-controlled property. The length of the 2006 65 DNL contour associated with Runway 15-33 operations extends approximately 8,000-feet northwest of Runway 15 towards Winooski and 9,500-feet to the southeast of the Runway 33 threshold past Kirby Corner. This contour is anticipated to shrink, based on 2001 forecast assumptions, so that both ends of the 65 DNL contour extend approximately 5,500-feet from both runway thresholds. For 2006 and 2011, the 65 DNL contour to the southwest of Runway 1 extends beyond airport property towards Route 2.

The land use types within the approach and departure paths to both runways are generally manufacturing and commercial land uses, which are compatible with airport operations; however, some residential land uses do exist within the 65 DNL contour. The majority of residential area impacted by 65 DNL is to the southwest of Runway 15-33 and its associated taxiways. In October 2008 the airport launched a voluntary land acquisition program to acquire residential properties that are within the 65DNL (see **Section 1.6**).

The airport sponsor as well as local, state and federal agencies should continue taking steps to prevent incompatible land uses within noise-sensitive areas, as well as the other airport safety and setback areas such as FAR Part 77 surfaces and Runway Protection Zones (RPZ). With the appropriate zoning controls and a continuation of the airport land acquisition program, incompatible land uses in the vicinity of the airport can be minimized. This effort will protect both the local community and airport operations and will allow the airport to better meet forecasted demands.

5.2 COMPATIBLE LAND USE

Three of the most significant factors to be considered in evaluating compatible land use are noise, Runway Protection Zones (RPZs) and surface transportation. The existing land-uses adjacent to the airfield primarily consist of a mixture of industrial, commercial, transportation-related, and undeveloped wetland/waterway uses. These uses are, for the most part, considered compatible to airport operations as they are less sensitive to aviation activity and noise. However these land uses must be monitored and controlled to prevent their operations, or vegetation/structures, from impacting the safety or utility of the airport. Commercial and office facilities within the RPZ must be closely monitored for consistency with FAA RPZ requirements, which discourage any land use which promotes the assembly of people (stores, office buildings, churches, etc).

There is a South Burlington residential neighborhood located immediately to the south and west of the airport property (along Airport Drive) and several residential properties to the north and east of the airport. These residential land uses are generally considered to be incompatible with airports. Noise and increased surface transportation to and around these neighborhoods can create a conflict between the airport and residential communities. As mentioned previously, the airport is taking efforts to promote compatible land use by undertaking a voluntary property acquisition program as opportunities arise, and by updating elements of its Part 150 noise program to determine the most realistic extent of potential noise impacts. Additionally, the ALP shows plans for a "living wall" to be constructed along the entire length of the residential neighborhood immediately to the south and west of airport property. The first section of the living wall was constructed in 2010 as a "test" to determine its effectiveness in reducing noise impacts on the properties immediately adjacent to it. The results of this "test" section will be sued to adjust design recommendations for any extension o the "living wall" along the neighborhood boundaries. Also, the ALP shows a recommended placement of a "sound enclosure" wall around the southern-most boundary of the south concourse ramp area. See **Appendix K** for the detailed discussion on Noise Impacts, Mitigation Measures and Land Use Considerations at BTV.

The Future Land Use Plan for the City of South Burlington identifies the areas to the north, east, and south to remain primarily commercial and industrial in nature. Excluding those homes acquired by the airport through its voluntary re-use program, the residential neighborhood to the south and west is also anticipated to remain (See **Figure 5.4**).

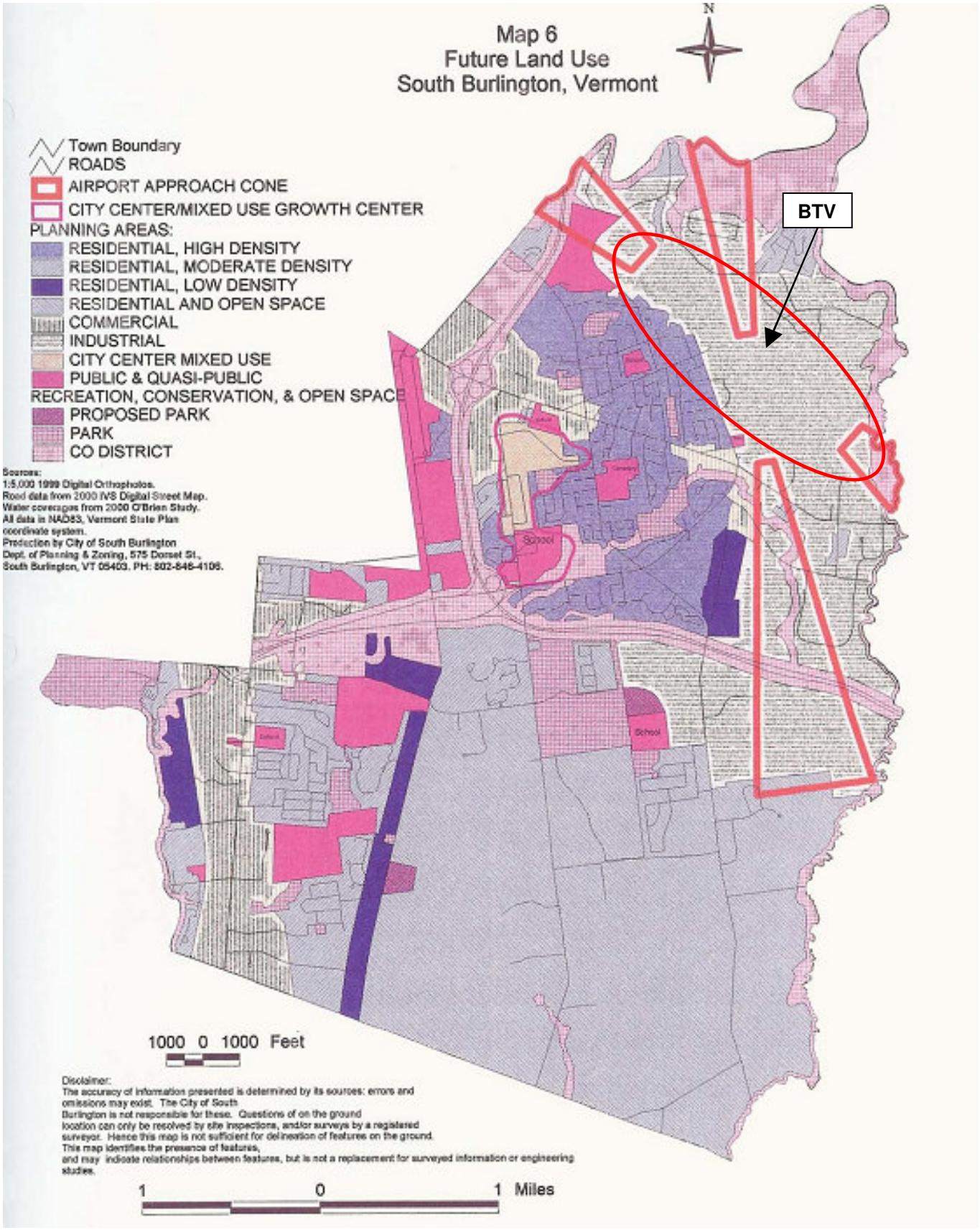
While the majority of new airside airport development will occur away from the established residential neighborhood, road access and parking improvements will directly affect these neighborhoods. The focus of the proposed road network is to separate airport traffic from the residential streets. As of 2009-2010 all airport traffic must enter the airport by accessing it through the neighborhood of along its border. The ALP shows a significant change in the road system to address this problem. The ALP provides a new Interstate 89 interchange, 14N, for airport users. The connection from the interchange to the terminal will be limited access and

no cut-through traffic will be permitted. This configuration will remove 47% of the airport traffic, which arrives from the north, from Route 2 and neighborhood streets. In addition, this limited access route also provides a direct connection to the SED, which will again relieve congestion on Route 2. Airport Drive would be realigned in order for the limited access road to be accommodated. Residential Streets that currently intersect with Airport Drive would become cul-de-sacs or be rerouted.

A minimum of a 70-foot wide buffer is proposed between the residential neighborhood and new Airport drive alignment in order to reduce noise and other effects from airport traffic. In addition, the living wall discussed previously should provide both a visual and noise screen from the road to the neighborhood.

The airport sponsor is currently and should continue working with the local governments to protect the future interests of all parties involved (airport, residential, commercial, industrial, and military).

Figure 5.4



Source: 2006 South Burlington Comprehensive Plan

5.3 SOCIAL IMPACTS

Effects on the human environment are classified under social impacts and encompass a wide range of activities. The principal social impacts considered with proposed airport actions include: relocation of residences and businesses; alteration of surface transportation patterns; disruption of established communities or planned developments; and significant changes in employment.

Off-airport social impacts will include obstruction removal, acquisition of property to provide positive control of RPZs and noise sensitive areas, and the change in traffic patterns to separate neighborhood and airport traffic. Approximately 110 residential parcels would be acquired to address noise compatibility road access. All land acquisition will follow federal guidelines. It should be noted that the development plan could result in increased employment in the region through the attraction and retention of aviation and non-aviation related businesses.

According to the 2002 Ground Access Study of the Burlington International Airport, the Chittenden County Metropolitan Planning Organization (CCMPO) has considered plans to improve the intersection of Williston Road and Valley Road, as this intersection currently meets state warrants for improvements. The Vermont Transportation Agency (VTRANS) is coordinating the traffic improvements in this area with the planned airport South End Development (SED). The planned improvements for the intersection are intended to accommodate the anticipated increase in surface transportation commensurate with the forecast increase in airport operations.

5.4 INDUCED SOCIO-ECONOMIC IMPACTS

Potential secondary or induced social impacts related to airport development typically include: shifts in patterns of population movement and growth; increased public service demands; and changes in business and economic activity. As stated in previous chapters of this report, as well as numerous airport and economic planning studies, two primary purposes of the proposed improvements at BTV are to support state-wide economic development initiatives and to allow the airport to expand to meet forecasted levels of demand. This has the ability to bring additional businesses to the region, as well as allow existing businesses to expand and operate in a more efficient manner. This in turn, will support the economic strength of the region and potentially spur positive business development for the municipalities surrounding the airport.

The proposed development plan for BTV is expected to increase employment opportunities in the region and support economic development initiatives by attracting new businesses as well as allowing existing businesses expand operations. One example of this effort is the early implementation of the new South End Development (SED) area facility recommendations. This development will not only serve the airport's corporate aviation and air cargo needs but will create jobs and economic opportunity from the new businesses in the region. See **Appendix M**

for a brief discussion of these and other public policy issues associated with the Master Plan process.

5.5 ENVIRONMENTAL JUSTICE

The primary purpose of Executive Order 12898 is to ensure that each Federal agency makes Environmental Justice a part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low income populations. As mentioned previously, the airport is in the process of promoting compatible land use through the Part 150 Noise Program (See **Section 1.6**). No adverse impacts are anticipated in the predominately commercial, industrial or undeveloped areas around the airport (i.e., air quality, water quality, surface transportation, light emissions). However, the residential neighborhood to the south and west of the airport is, as of 2010, impacted by the Part 150 noise program. The airport is in the process of purchasing houses through a voluntary program from residents that are located within the 65 DNL noise line as identified by the 2006 Part 150 noise study (See **Figure 5.3**). This neighborhood is within Census Tract 22 of Chittenden County with 5% of the population of the census tract being minority (non-white) population, according to 2005-2009 U.S. Census American Community Survey data. By comparison 6.3% of Chittenden County's population is classified as minority. As Census Tract 22 has a lower percentage of minorities within it, no adverse impacts are anticipated to occur to minority populations as a result of airport development. It should also be noted that the median household income for residents within this affected census tract, $54,127, is higher than the Vermont ($51,284) and National ($51,425) median household incomes. Due to the guidelines of the Uniform Relocation Assistance and Real Property Acquisition Policies Act, no adverse impacts to minority or low-income populations are anticipated.

5.6 AIR QUALITY

According to the U.S. Environmental Protection Agency, the City of South Burlington is in full attainment for the six air pollutants (ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, particulate matter and lead) included in the Clean Air Act Amendments (CAAA). Thus the improvement projects depicted on the Airport Layout Plan (ALP) are not anticipated to cause a violation of National Ambient Air Quality Standards (NAAQS), delay the attainment of National Ambient Air Quality Standards (NAAQS) or make worse an existing NAAQS violation.

Specific tenant activities (for example; aircraft painting, fueling, storage, etc.) may result in the need for a stationary source permit from the Vermont Air Pollution Control Division of the Agency of Natural Resources. This requirement appears to be a *project specific* issue that may require a permit once tenant requirements are firmly defined. Further coordination with the Environmental Board would be required, and appropriate permits obtained from the Vermont Agency of Natural Resources (ANR), prior to the construction of facilities.

5.7 WATER QUALITY

The element of proposed airport development that could have potential for adverse impacts to local water quality, due to increased surface runoff, is the proposed road projects. The South End development proposed for the airport and its associated impacts have already been evaluated through the Vermont Act 250 process and Federal Environmental Assessment (EA) process. Through these processes a hydrology study was performed and coordination occurred between the US Army Corps of Engineers (COE), US Fish and Wildlife, and ANR to minimize impacts to the Class II wetlands that are on the airport property and to ensure that the airports storm water treatment systems were meeting Vermont Water Quality Standards. These studies resulted in a Finding of No Significant Impact (FONSI) from the FAA and Section 401 and 404 wetland disturbance permits from the Corps of Engineers and ANR. The area of disturbance within South End Development area depicted on the ALP is consistent with those findings.

The proposed road construction will be subject to a Federal Environmental Assessment process and Vermont Act 250. As much of the proposed road network is on previously disturbed land no adverse impacts are anticipated. However, additional coordination on this element will be necessary.

5.8 SECTION 4(F) LANDS

Section 4(f) of the Department of Transportation (DOT) Act provides that the "Secretary shall not approve any program or project which requires the use of any publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance; or land of a historical site of national, state, or local significance as determined by the officials having jurisdiction thereof unless there is not feasible and prudent alternative to the use of such land, and such program or project includes all possible planning to minimize harm from the land use."

The proposed development plan for BTV, as depicted on the ALP, is not anticipated to adversely impact any publicly owned land.

5.9 HISTORIC, ARCHITECTURAL, ARCHEOLOGICAL AND CULTURAL RESOURCES

This impact category examines the potential impact of federally funded development on properties eligible for inclusion on the National Register of Historic Places. As of 2011, there are 838 items listed on the National Register of Historic Places website for Vermont, and 102 listed in Chittenden County. An evaluation of potential impacts to these resources would be needed during any future Environmental Assessment in order to satisfy the requirements of the National Historic Preservation Act of 1966. Consultation with the Vermont State Historic Preservation Office (SHPO) would need to be performed to identify, a) if any historic, architectural or archeological significant parcels are impacted and, 2) any appropriate mitigation measures or acceptance of adverse effects.

It should be noted that a Phase I Archeological study was conducted on the airport during the Environmental Assessment of the South End Development (which received a FONSI) and the ANR Conditional Use Determination permitting process. The study, conducted the by University of Vermont Consulting Archeology Program in April 2002, indicated that the planned South End Development project "will have no effect on archeological resources and no further archaeological work is necessary prior to project construction".

Projects occurring outside the South End Development (SED) area, such as the Terminal Building Improvements and the access road development, should be surveyed by archeological experts and coordinated with the SHPO as part of any future federal level environmental assessment to determine if any historic, architectural or archeological significant parcels are located within the relevant area of impact.

5.10 BIOTIC COMMUNITIES

Any proposed airport development or improvement must take into consideration potential impacts to both flora and fauna. Adherence with the Fish and Wildlife Coordination Act would also apply if the proposal would affect wetlands, groundwater recharge areas, or natural stream/river channels (i.e., the diversion, deepening, controlling, modifying, polluting, dredging, or filling of any stream or other body of water).

As part of the Environmental Assessment for the planned South End Development (SED), a Wildlife Corridor Study was completed in October 2002 to document the movement of wildlife within the impacted Class II wetlands. The Wildlife Corridor Study was recommended by the ANR to supplement the November 2000 Partial Findings of Fact and Conclusions of Law and Order issued by the Vermont Environmental Board. The Environmental Board concluded that the SED project "will not destroy or significantly imperil wildlife or endangered species habitat."

The 2002 Wildlife Corridor Study determined that while the wetland area does support some biotic activity, it is not a major source of wildlife activity. The Study stated that due to the built-up surroundings, the Class II wetland within the SED "is isolated from the other large habitats in the region and there are formidable barriers to wildlife migrating to the site". As such this land does not provide substantial wildlife habitat value. Furthermore, the existing and planned land-uses in the adopted local comprehensive plans show that the majority of areas surrounding the airport are planned for industrial and commercial uses. The study also concluded that if measures were taken to increase the wetlands' wildlife accessibility these measures would likely produce only limited results and would endanger the wildlife by exposing them to the traffic and land use hazards that surround the airport.

Though future project specific environmental evaluation may be required, based on the previous environmental studies and findings, it is doubtful that the proposed development plan would have any significant impacts to biotic communities.

5.11 ENDANGERED AND THREATENED SPECIES

For federally funded airport development projects, consideration of endangered and threatened species is required for under the Endangered Species Act as Amended. According to the United States Fish and Wildlife Threatened and Endangered Species System (TESS), there are approximately 26 endangered or threatened animals and 49 endangered or threatened plants in Vermont. Threatened animal species includes the Mona Boa, the Golden Coqui, the Guajon, the Mona Ground Iguana, the Piping Plover, the Green Sea Turtle, the Loggerhead Sea Turtle, the Roseate Turn and the Puerto Rican Crested Toad. Threatened plant species include the Palma de Manaca, the Pauciflora Gesneria, the Chumbo Higo, the Arenaria Schoepfia, and the Negra Cobana.

The airport was examined for the potential of endangered or threatened species habitats during the Environmental Assessment and Vermont Act 250 process for the South End Development (SED) area. Both the Corps of Engineers (COE) and the Vermont Agency of Natural Resources (ANR) processes evaluated the long-term impacts of the SED on the wildlife and biotic life when issuing their permits. As part of these evaluations, a rare plant species (*Trillium cernuum*) was identified on airport property. However, subsequent investigation identified that the only location of the *Trillium cernuum* was along the portion of the wetland near Aviation Avenue.

The 2002 Wildlife Corridor Study, previously discussed, also concluded that no endangered or threatened species habitats will be impacted by the SED project as shown on the ALP. Projects occurring outside the SED on undeveloped land may be required to be surveyed for endangered or threatened species.

5.12 WETLANDS

Wetland areas exist on and near the airport property. These wetlands are predominately associated with tributaries to the Winooski River. Any development project must be evaluated for potential wetland impacts and appropriately coordinated with the COE and ANR.

The planned and approved SED development as shown in the ALP will impact approximately 8.3 acres of a Class II wetland. As stated previously, this impact has received a Federal FONSI and Section 404/401 wetland disturbance permits. This impact will have to be taken into consideration as a "cumulative impact" in any future federal level environmental assessment processes.

The impacted wetland area is located between the Muddy Brook and Potash Brook watersheds and primarily consists of groundwater runoff from the higher terrain located to the north and south. This wetland area is isolated from the downstream habitats by the surrounding roads and land uses. A culvert of more than 700-feet beneath Williston Road does allow the wetland to drain towards Potash Brook. In addition, there is also a culvert under the airport that runs nearly 1,000-feet and allows this wetland area to drain towards Muddy Brook. This wetland

provides local habitat for some small mammals, waterfowl and amphibians; however, it is not considered to be a regional or critical habitat for wildlife as compared to some of the other wetlands in the area. To compensate for these 8.3 acres of unavoidable impact, BTV has purchased a 49-acre site in South Burlington, which will be developed as a mitigation site.

5.13 FLOODPLAINS

A review of FEMA Flood Insurance Rate Maps (FIRMs) #5001950006B and #5001950008B for the vicinity of BTV indicates that the proposed development for BTV will occur beyond the limits of the 100-year floodplain. Off-airport tree removal may occur within floodplain areas, but should be considered an insignificant impact as far as floodplain elevations and floodways are concerned.

5.14 COASTAL ZONE MANAGEMENT

The Environmental Assessment for the SED and its associated coordination with Vermont Act 250 and the Vermont Environmental Board concluded that the airport is not located on any shoreline as defined by 10 V.S.A. Section 6001 (17). As such the airport is not located near a Coastal Zone Management Area. Therefore, the proposed airport development program should be considered consistent with Vermont's coastal zone management programs.

5.15 COASTAL BARRIERS

The Coastal Barriers Resources Act of 1982, PL 97 348 (CBRA), prohibits federal financial assistance for development within the Coastal Barrier Resources System. This system consists of undeveloped coastal barriers along the Atlantic and Gulf coasts. As the airport is not located on the Atlantic Coast, the proposed development program will not impact the Coastal Barrier Resource System.

5.16 WILD AND SCENIC RIVERS

According to the Environmental Assessment for the SED, there are no rivers currently identified as being "under study" to be included in the Wild and Scenic River System near the airport site. According to the National Wild and Scenic Rivers website (http://rivers.gov/wildrivesrlist.html) there are no Designated Wild and Scenic Rivers in the state of Vermont. The proposed airport development program is not anticipated to have any impacts to any listed Wild and Scenic River.

5.17 FARMLAND

Soils that exhibit good drainage characteristics are typically considered by the U.S. Department of Agriculture Soil Conservation Service as prime farmland. The Farmland Protection Policy Act (FPPA) requires coordination with the local office of the Natural Resources Conservation Service (NRCS) if the proposed project entails irreversible conversion of prime farmland to non-agricultural uses. Farmland subject to this requirement does not have to be currently used for cropland; it can also be forestland or pastureland but not urban or built-up land. This requirement is intended to monitor the impact that Federal programs, or projects

that are federally funded, can have on the conversion of this resource. The majority of the development shown on the ALP is on already-developed land, which will therefore not impact any primary or secondary farmland soils.

5.18 ENERGY SUPPLY AND NATURAL RESOURCES

Energy consumption at an airport consists predominately of electricity and fuel for aircraft and ground vehicles. The proposed development of additional terminal facilities, taxiway lighting, ramp and street lighting will require additional energy but should be easily accommodated within the regional network. Any improvements to the airport's existing power distribution system and the use of new materials (i.e. fixtures, transformers and cables) will undoubtedly improve the efficiency and reduce overall energy requirements. It should be noted that the airport is committed to utilizing renewable energy sources when feasible on the airfield and is incorporating the use of solar photovoltaic panels into its 2010 Parking Deck expansion. The use of solar panels on existing and proposed structures will reduce the airport's impact on energy supplies.

The use of aviation fuels at BTV is anticipated to increase due to increased aircraft use of the facility. Additionally, during development of the proposed airport improvements, there will be a temporary increase in energy/fuel consumption to power the construction that will be irrevocably lost to those projects; however this should easily be accommodated by the local supplies. It should be noted that as part of the Act 250 application for the SED, Green Mountain Power and the Burlington Electric Department were contacted and both indicated that an adequate energy supply exists for the proposed SED project.

5.19 LIGHT EMISSIONS

Light emissions at an airport are typically associated with runway and taxiway edge lighting, rotating beacon, PAPIs, approach lighting systems and other visual navigational aides that help a pilot locate the airport and execute a safe landing. Additionally, ramp lighting on the commercial and cargo terminal aprons and street lighting on access roadways would be considered light emissions related to the airport. The majority of any new lighting, associated with the proposed airport development, would be on the currently developed portions of the airfield and would be designed so that light fixtures are shielded in a manner to direct emissions towards the ground and away from residential to the extent practicable.

5.20 SOLID WASTE IMPACTS

Solid waste impacts are normally associated with terminal area, hangar and business development and not with airfield development. As the development plan for BTV includes terminal area, hangar and fixed base operator (FBO), solid waste or refuse demands will likely increase. There will also be specific solid waste impacts associated with the initial construction of the recommended facilities. Since the construction of these facilities will occur over a period of years, the overall solid waste impact will be lessened. It is highly reasonable that these impacts will be easily accommodated within the regional systems.

5.21 CONSTRUCTION IMPACTS

As projects are conceived and designs are initiated, potential impacts associated with the construction of the facilities themselves will require evaluation and possible mitigation. Construction impacts, such as heavy truck traffic and noise, will be temporary and are anticipated to be minimal. Dust and temporary interruptions to airport activity will also require special consideration to minimize impacts to the airport and surrounding communities. Mitigation of dust caused by construction would be implemented through daily watering of construction haul routes. Potential water pollution will need to be addressed in a comprehensive, approved, Stormwater and Sediment and Erosion Control Plan. All of these potential impacts will be temporary, lasting only as long as the individual construction project.

5.22 HAZARDOUS SITES/MATERIALS

Airport tenant operations include the typical use of aviation fuels, lubricants and cleaners. The airport maintains a Spill Prevention, Containment and Countermeasures (SPCC) Plan to promote the strategies necessary to limit the chance of errant releases and actions to be followed in the event a release occurs. All properties identified for acquisition will have to be examined for hazardous waste contamination in respective Environmental Due Diligence Audits (EDDA). If contaminated areas are found, they will have to be brought to compliance through coordination with the controlling agencies.

5.23 CONCLUSION

Due to the nature and phased timeframe of the recommended development program, the FAA will require an EA to be performed for the short-term development recommendations. The projects that would likely need to be evaluated would be the relocation and extension of Taxiway Golf, land acquisition, Phase I Road projects, Terminal Improvements, and tree/obstruction removal. Such an EA would examine potential impacts to each of the resource categories in greater detail. Based on the previous environmental study efforts, it is anticipated that the proposed development plan will not result in any significant impacts and that any unavoidable impacts will be able to minimized and mitigated appropriately.