

COMPREHENSIVE PLAN

2014

Adopted August 26, 2014

Village of Essex Junction Comprehensive Plan – 2014

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Chapter I

General Planning Background

1. What is a Comprehensive Plan?

A comprehensive plan is an official public document adopted by the local government as a policy to guide decisions about the physical development or redevelopment of the community. The comprehensive plan outlines how the Village wishes to develop in the next five years. Policies in the plan will guide the community in decision making deliberations.

A plan should be comprehensive, general, and long range. “Comprehensive” means it includes all geographic areas of the community and all issues in the community which might affect growth-issues such as transportation, storm drainage, signs, landscaping, safety and conservation. “General” means the plan summarizes policies and proposals, and establishes goals for the community’s future. Although a plan will contain some specific proposals, emphasis is placed upon general policies which should lead to development of specific projects, plans or ordinances. “Long Range” means the plan looks beyond current issues to the problems and opportunities 20 years in the future.

In recent years, comprehensive plans have shifted from more general guides on community policies to a more specific strategic document that focuses on implementation and action as well as specific policies. The benefit of this type of comprehensive plan is that it is more results oriented and provides much more detail on how the goals and objectives will be reached. For these reasons the 2014 comprehensive plan update will focus on implementation in addition to general policies.

2. Why Develop a Comprehensive Plan?

A Comprehensive Plan (“Plan”) helps to manage or control growth, and should represent a community’s goals and aspirations for the future. There are three general justifications for development of a Plan.

1. To accomplish things the community wants to happen, and
2. to avoid or prevent things the community does not want to happen, and
3. to accommodate things the community expects to happen.

Therefore, a Plan is a community’s best opportunity to direct positive change, to minimize negative change, and to manage expected change. A good Comprehensive Plan, with wide-spread public support, is the best mechanism available to manage change. A Comprehensive Plan is not a regulation but is a “guide” and a source of information for local officials, citizens and developers. It documents the historic development of the Village as well as the future aspirations of the community.

3. The Planning Process

The Planning Process typically involves six distinct and identifiable steps:

1. Generalized Goals – Broad statements regarding future development of the Village. Identification of those general topics which should be analyzed during the Planning Process. This 2014 Plan update benefitted from the previous Heart & Soul community conversation project which identified six community values which have laid the groundwork for the future.
2. Inventory – Identification of existing physical, social and economic characteristics of the Village.
3. Analysis – As a result of the inventory and the community’s statements of goals, an analysis of the community’s resources and opportunities was completed.

4. Implementation – Mechanisms to implement the plan were developed and include such items as zoning and subdivision ordinances, capital planning and budgeting, special projects and studies, and partnerships with community and regional organizations, etc.
5. Monitoring – Upon completion this Plan should be periodically monitored and updated to meet changing conditions or changing policies.

4. Statutory Authority

The Vermont Planning and Development Act, Title 24 of the Vermont Statutes Annotated, Chapter 117, authorizes the Village to prepare and adopt a Comprehensive Plan. The identified purpose of the Act is to “encourage the appropriate development of all lands...in a manner which will promote the public health, safety, morals, prosperity, comfort, convenience, efficiency, economy and general welfare; and to provide a means and methods for the municipalities and regions of this State to Plan...and to implement those plans...” In 1988, the Vermont Legislature adopted Act 200, which further refines the State’s planning statute. In 1990, the Legislature further refined this legislation by revising the goals and policies of the Act.

5. Consistency with Adjoining Town and Regional Plans

The Village borders Essex Town to the north and South Burlington and Williston to the south and east. In general, the adjoining town plans have compatible land uses on joint borders. As this Plan is implemented, adjacent municipalities should be invited to comment on projects which may affect them. For example, this Plan includes goals aimed at improving the Village as a safe, walkable and vibrant Village area – including appropriately managing the traffic in the Village.

This Plan is generally consistent with the 2013 Chittenden County Regional Plan (entitled the ECOS Plan), which designates Essex Junction as an area planned for growth – including Center, Metro, Suburban and Enterprise planning areas. The Village Plan’s emphasis on the Village Center District is consistent with the regional plan’s growth center concept.

6. Plan Format

The Village of Essex Junction used the standard planning process, as identified in Chapter I. The Plan is divided into chapters. Chapter II defines the goals for the remainder of the Plan. Chapter III describes the history of the Village and current demographic trends with an eye toward the future.

The main body of the Plan is set forth in Chapter IV which is divided into major Plan elements such as Transportation, Land Use, Housing, etc. Therefore, someone interested only in Transportation should look to that element of the Plan. Each Plan element includes: 1) Background information and research materials as necessary; 2) Discussion of major issues; and 3) Specific Goals and Objectives.

Chapter V discusses general implementation strategies. More specific information may be included in the individual Plan Elements. Also included in this chapter is a discussion of Plan Monitoring and Review Policies.

Finally, the Appendices include data not included in previous chapters: Appendix A includes a list of historic resources, Appendix B includes Underground Storage Tanks, and Appendix C includes the maps.

Chapter II

Community Vision and Strategies for Essex Junction: 2014-2019

1. Community Values, Vision and General Goals

An important stage of any Planning Process is the identification of community values. The values are used in establishing a vision for the future and general community goals. Together they are used to identify what the community is striving to become or maintain as well as the challenges and opportunities it faces. They define the Plan and provide focus to the Planning Process. More specific goals and actions are identified in the chapters that follow.

In 2012 and 2013 both the Town of Essex and Village of Essex Junction engaged in an in depth community conversation called Heart & Soul of Essex. Through Heart & Soul of Essex, the community was engaged in multiple ways to learn what the shared values are, and a better understanding of the community's collective hopes for the future was gained. Six values were established through 43 neighborhood conversations (involving almost 350 people who live or work in the community) and a survey completed by 540 people (including 352 people who had not previously participated in a Heart & Soul activity). The six **values** are listed below and each is followed by the General Goals and Vision for the Village:



Education - Essex invests time, energy, and resources to ensure that our highly respected schools meet the needs of everyone in the community. We are proud to support learning that extends beyond the traditional classroom and includes the arts, athletics, and vocational instruction. Community programs, and libraries offer diverse and affordable opportunities that prepare residents of all ages for lifelong learning and for work in an evolving economy.

Essex Junction's Vision and General Goal: To continue to provide Village residents with a DIVERSITY of vocational and educational opportunities, and cultural and recreational amenities to ensure lifelong learning for all.

Local Economy - Our residents contribute to a vibrant economy by working for and patronizing a diverse mix of businesses, from small, locally-owned enterprises to international corporations. We are committed to fostering an environment that produces a world class workforce and a strong economy for years to come.

Essex Junction's Vision and General Goal: To recognize and enhance the role of Essex Junction's existing business and industrial base for both the local ECONOMY and the Chittenden County REGION as a major employment and transportation center.

Thoughtful Growth - We value wide-open spaces and tight-knit neighborhoods, rural roads and vibrant downtown streets. Essex is a place where we can enjoy a beautiful view, walk in the woods and go out to eat without ever leaving town. We support a diverse housing mix, opportunities for business development and a transportation system with a variety of options including a connected network of walking and biking routes.

Essex Junction's Vision and General Goal: To ensure a well-balanced and desirable COMMUNITY with a DIVERSITY of options to live, work and play. With a healthy and vibrant Village Center (aka DOWNTOWN) as the focal point including a full range of services and activities, surrounded by the Junction's highly valuable NEIGHBORHOODS and connected with a network of walking and biking routes. This vision can only be reached by encouraging new development in commercial, industrial and multi-family districts within the Village while managing this new GROWTH with high standards to both protect and improve the IDENTITY of the Village's historic character, and to minimize LAND USE conflicts that may occur from

infill and redevelopment of underutilized properties. Additional General Goals include: Cultivate public and private investment options for community improvements. Cooperate with adjoining communities to ensure quality development; and to protect the Village from negative impact of adjoining development. Minimize the total economic cost of providing housing, utilities, transportation and public facilities and services (aka COST EFFICIENCY).

Health & Recreation - We value public places for outdoor and indoor recreation for all ages and abilities. We treasure Indian Brook reservoir, neighborhood parks and the chance to connect by bicycle or on foot. Community institutions provide education and programs to support healthy lifestyles.

Essex Junction's Vision and General Goal: Maintain an aesthetically attractive urban ENVIRONMENT that is sensitive to the natural ENVIRONMENT.

Community Connections - Our deep connections with each other make Essex special. Neighbors help each other during good times and bad. We value diversity and welcome everyone. We build our sense of community at local events such as the Memorial Day Parade, Five Corners Farmers Market, Annual Block Party and Winter Carnival. Our local newspapers and online forums give us plenty of ways to stay in touch. Residents participate in local government and volunteer.

Essex Junction's Vision and General Goal: Encourage strong public PARTICIPATION in all public decisions affecting the development or redevelopment of the urban area.

Safety - Essex is a safe place where neighbors watch out for one another. We value an active, visible police force and strong fire and rescue services. Upgrades to our physical infrastructure will allow us to move about our community with comfort and security.

Essex Junction's Vision and General Goal: Establish a network of walking and biking routes.

2. Accomplished Objectives

The following is a list of planning accomplishments from 2008 - 2014:

- Worked to gain funding for the Crescent Connector Road, through the CIRC Alternatives process, which will ease congestion at the Five Corners.
- Construction of the Lincoln Street Sidewalk was completed in 2013.
- Visioning for Train Station – studied potential aesthetic improvements.
- Five Corners Farmers' Market began in 2010.
- North Street to Railroad Station Multi-Use Path – construction grant received in 2013.
- The Town and the Village engaged in an in-depth community conversation called Heart & Soul of Essex. Six shared community values were identified.
- The Village received a Bronze Walk Friendly Community Designation due to its sidewalk coverage, Safe Routes to School Program, excellent pedestrian plan, and regional coordination.
- Strengthened Design Review in Village Center through amendments to the Land Development Code in March 2011 including increased historic review and level of design review.

- Expanded the boundary of the State Designated Village Center in 2011 to increase the potential for development in the Village core.
- Secured funding (CIRC Alternatives project) for Pearl Street Road Improvements including road widening, bike lanes and lighting.
- Completed traffic calming improvements and bike lanes on Pearl Street from West Street Extension to Champlain Valley Expo.
- In 2012, a comprehensive wastewater treatment plant facility refurbishment was contracted. Work completion is expected in the Fall of 2014.
- The Old Colchester Road pump station (AKA High School pump station) was replaced in 2012 with a completely new pump station.
- The Village approved a 300,000 sq.ft. light industrial master plan for the IBM campus on Maple Street to allow for more diversity in uses.
- Construction on the new police station broke ground in November 2013.
- The Tree Farm was acquired for recreation. This was a joint land acquisition project between the Village and the Town.
- The West Street Dog Park was opened and the Community Gardens were expanded in 2012.
- The BMX & skateboard park were added to the Maple Street Park in 2012.
- The Vermont Land Trust, with funding assistance from the Village, purchased development rights on 271 acres of the Whitcomb Farm in March 2014. Additional development rights are planned for purchase on approximately 143 acres, pending funding in 2015.
- A Certificate of Public Good was issued for a 2,200 kW solar farm project on the Whitcomb Farm in December, 2013 and was supported by the Village Trustees. Construction is anticipated to begin in the summer of 2014.

The Planning Challenge: Toward 2019 and Beyond

Essex Junction is a dynamic and largely developed community with a good mix of residential, commercial and industrial development. It has desirable neighborhoods, accessible parks and open space areas, and established downtown and commercial centers. Portions of its commercial areas can be classified as mature urban with underutilized properties that present opportunities for redevelopment and renewed investment. Therefore, the planning challenge for Essex Junction is to manage growth, encourage reinvestment in the existing urban environment, protect existing neighborhoods and ensure that redevelopment or new development enhances the vitality and "Village" character of Essex Junction.

Land use goals that the Village has set for itself will be detailed in the chapters that follow. However, the most important issues that are being grappled with today will define the priorities for Essex Junction for the coming five years.

Goal 1: Assist and work with existing businesses to stay and grow in Essex Junction.

Encourage and assist new businesses and clean industries to invest in Essex Junction.

- Objective 1.1: Maintain a favorable business climate in Essex Junction.
- Objective 1.2: Engage in policies to make progress on the transit specific strategies in the Town's Economic Development and Vision Plan including #4 (regional multi-modal improvements), #10 (freight rail service expansion), and #12 (transit oriented development).
- Objective 1.3: Continue efforts to revitalize the Village center and attract business through public investment in infrastructure.

Goal 2: Promote thoughtful growth.

- Objective 2.1: Ensure that new development and rehabilitation efforts enhance and reinforce the existing architecture, design and layout along major arterials and historic neighborhoods.
- Objective 2.2: Encourage mixed-income infill housing within existing developed areas in the commercial and multi-family districts.
- Objective 2.3: Promote the redevelopment of underutilized properties in the Transit Oriented Development (TOD) and Village Center District.
- Objective 2.4: Continue improvements in the public realm for a high quality pedestrian experience.
- Objective 2.5: Continue efforts to preserve and rehabilitate existing historic structures through state and federal funding programs and incentives; and encourage private investment for the same.
- Objective 2.6: Hold an enhanced community discussion and design charrette to develop design standards for the Downtown.

Goal 3: Continue improving access to and safety of bicycle and pedestrian facilities, and public transit. Support the work of the Bike-Walk Advisory Committee.

Goal 4: Implement projects that will move traffic more efficiently while making the Village a more welcoming place for all modes of travel.

- Objective 4.1: Implement the Connector Road project.
- Objective 4.2: Consider pedestrianization of Main Street.
- Objective 4.3: Consider alternatives for vehicular traffic through Five Corners, such as redirecting Route 15.

Goal 5: Establish policies and manage the Village budget and assets to enhance and ensure the continuation of the high quality of life Village residents, businesses and visitors value.

- Objective 5.1: Increase the ratio of light industrial/commercial uses to residential uses.
- Objective 5.2: Investigate additional sources of revenue.
- Objective 5.3: Keep budget increases within the rate of inflation.
- Objective 5.4: Continue to investigate and implement, when appropriate, shared services between Village and Town governments.
- Objective 5.5: Think strategically about Village owned assets to maximize the benefit to the public.
- Objective 5.6: Consider reinstating funding to the land acquisition fund.

Chapter III

History with an Eye Toward the Future

Prior to development of specific recommendations for the future, it is important to examine the trends of the past. This Chapter reviews the historic development patterns within the Village and identifies recent current statistical trends. Historic development patterns and current trends largely dictate future growth patterns. Many of the Goals and Objectives within this Plan are influenced by these trends.

1. Historic Development Patterns

Early growth in Essex Junction was focused in the vicinity of Hubbell's Falls of the Winooski River, with some agricultural settlement occurring north of the mills. A few structures remain which represent this early growth. A brick house built by Ezra Slater, Sr. at the corner of Park and South Streets is representative of this early settlement. Lincoln Hall, constructed about 1820 as a tavern, is another example of early Village growth.

Probably the single most important influence on growth patterns in Essex Junction was the arrival of the railroad in December, 1849. At that time, the crossroads in Essex Township was named Painesville, in honor of the Vermont Central Railway President, Charles Paine. Concurrently, the Vermont and Canada Railroad was being constructed and a railroad junction was formed. Burlington passengers were forced to switch trains at the Junction. Thus, the name Essex Junction began to appear, and in the early 1890's the name was officially changed. The nucleus of the Village Center began to form around the railroad junction. Early buildings included additions to the Stevens Tavern, the Central House Hotel at Central and Depot Streets. The first church was erected by the Methodists and Congregationalists in 1866.

Another major influence on development patterns within the Village was the early street pattern. The basic network of streets was formed by 1869. Thus, at this early date the "Five Corners" of Main, Maple, Park, Pearl and Lincoln Streets was already established.

By 1880, Essex Junction had displaced Essex Center as the principal Village in the Township. Numerous shops and stores were in existence. In 1892, The Village obtained a Charter from the Vermont Legislature as the Incorporated Village of Essex Junction. In 1890, Essex Junction had a population of 1,141, surpassing the 1,062 residents in the remainder of Essex Township.

During the late 1880's and first half of the 1900's, development continued to occur within the Village. Of note was the arrival of the automobile, and the beginning of traffic conflict at the "Five Corners".

The third major event to greatly influence the development of Essex Junction was the arrival of IBM in 1957. The Village population rose from 2,741 in 1950 to 5,304 by 1960. Corresponding with the population and employment growth was the demand for public and commercial services. Businesses began to expand along Pearl Street while residential development proceeded at a rapid pace.

These historic trends had a significant effect on current growth patterns. The railroads still limit the efficiency of the street network. The five major streets intersecting at "Five Corners" create heavy traffic congestion. Some relief from traffic congestion occurred after the first section of the Circumferential Highway opened in 1993; however, traffic levels have since reached pre-circumferential numbers. Traffic associated with Village Schools appears to have a significant impact on congestion in the morning as more parents seem to be driving their kids to school. Reasons for the increase in school related traffic could be the breakdown of the neighborhood school system, the

lack of busing or safety concerns. Thus, historic growth patterns limit and direct the planning effects within the Village today.

1.1 Historical Resources

In addition to the specific buildings identified above, there are other important historical resources within the Village. The following inventories of historic sites exist within Vermont:

- The state's Division for Historic Preservation has been inventorying historic buildings since the 1970's and the information is found in the Vermont Historic Sites and Structures Survey. The statewide survey identifies and documents historic properties and sites yielding or likely to yield archeological and anthropological information. The Essex Junction inventory is dated 1984. The inventory includes concentrated developments in groups, identified as districts – where additional information about a district's overall character and development is provided. There are 12 districts, and 2 complexes (Whitcomb Farm and the Champlain Valley Fair) in Essex Junction. There are 205 buildings identified in total within the 12 districts and the Whitcomb Farm complex. The inventory then lists 71 buildings – some of these buildings are the same as those within the districts and others are outside of those districts. Altogether there are a total of 244 historic sites on this survey. These resources are listed in Appendix A and mapped on Map 2.
- There is also a State Register of Historic Places, a designation given after review by the Vermont Advisory Council on Historic Preservation. This designation is largely honorary only – though, under Act 250 review, listed sites are presumed to meet the definition of "historic site" under Criterion 8 for review of development applications and are thus considered in the decision of whether to issue a permit. While the State works to digitize the resources on the registry there appears to be some discrepancy in data on what sites in Essex Junction are actually listed.
- The Division for Historic Preservation also administers the National Register of Historic Places in Vermont. The national register is the nation's list of historic and archeological properties worthy of preservation. The criteria for inclusion are the same for the National and State registers. National register designation makes properties eligible for federal and state tax credits and offers some protection from federally funded, licensed, or permitted projects that would harm them. However, it does not restrict what an owner may do to his property, including tearing it down. Sites listed on the National Register are automatically listed on the State Register. While the State & National Parks work to digitize the resources on the registry there appears to be some discrepancy in data on what sites in Essex Junction are actually listed.

Appendix A provides an overview of these three inventories, the criteria for inclusion, the protections provided, the benefits received and the sites within Essex Junction. As the Village prepares for the future, these historic resources will be analyzed and prioritized to determine which structures should be preserved.

2. Recent Trends

Sound, reliable background data is a prerequisite for any long-range planning. It provides necessary background information and provides insight for the future. However, the comprehensive plan should be more about shaping the future to meet community objectives than trying to respond to social, demographic and economic trends, which are difficult to predict. This section provides some general statistical data to establish any major trends. In many cases, additional information is provided in the individual Plan elements.

2.1 Population Growth & Demographics

Historical growth rates for Essex Junction, Chittenden County and Vermont are provided on Table 1. As indicated by the Table, substantial growth occurred during the 1950's and 1960's, concurrent with growth at IBM. Since 1970 the growth rate has slowed. Within Essex Junction, the slowing of the growth rate can be attributed to several causes.

- 1) Employment at IBM has been reduced.
- 2) There is limited vacant land available for new residential development.
- 3) Family sizes have been declining locally, following a national trend to smaller families. In addition, there are an increasing number of older households.

However, in the last ten years the rate of population growth in Essex Junction has increased. The most recent population count (2010) indicated 9,271 people living in Essex Junction. This is a 7.92% increase from 2000. Essex Junction grew more quickly from 2000 to 2010 than it did from 1990 to 2000, however this is still lower than previous decades. The estimated population for the Village in 2012 was 9,498 persons, which represents a 2.45% percent increase over this two year time period. It is not anticipated that this rate of growth will adversely impact the provision of services to the local community.

**Table 1
Population Growth 1900 – 2010**

	Village of Essex Junction	% of Change	Chittenden County	State of Vermont
1900	1,141		39,600	343,641
1910	1,245	9.11	42,447	355,956
1920	1,410	13.25	43,708	352,428
1930	1,621	14.96	47,471	359,611
1940	1,901	17.27	52,098	359,231
1950	2,741	44.18	62,570	377,747
1960	5,350	94.81	74,425	389,981
1970	6,511	21.92	99,131	444,732
1980	7,033	8.01	115,534	537,361
1990	8,396	19.38	131,761	562,758
2000	8,591	2.32	146,571	608,827
2010	9,271	7.92	156,545	626,011

Sources: U.S. Census; Vermont 2000, Vermont Dept. of Health, January 2002

Over the last 20 years, the average household size in Essex Junction has been declining. It has gone from 2.57 people in 1990 to 2.48 people in 2000 and most recently to 2.39 people in 2010. Additionally, the number of households with individuals under 18 has decreased and continues to do so. In 1990, 52.3% of the households had children under 18, while in 2000, 30.9% of the households had children under 18.

It is also helpful to have an understanding of the demographics of Village residents prior to development of specific recommendations for the future. The data below includes the age (Table 2) and race (Table 3) of Village residents in 2010. Additional information can be found throughout the chapters in this Plan, the U.S. Census website, and at housingdata.org.

Table 2
2010 Percentage of Population by Age

Total population	9,271	100
Under 5 years	565	6.1
5 to 9 years	591	6.4
10 to 14 years	610	6.6
15 to 19 years	585	6.3
20 to 29 years	1218	13.1
30 to 39 years	1239	13.4
40 to 49 years	1490	16.1
50 to 59 years	1507	16.3
60 to 69 years	742	8.0
70 to 79 years	466	5.0
80 to 84 years	157	1.7
85 years and over	101	1.1
Median age (years)	38.9	(X)

Table 3
2010 Percentage of Population by Race

White	91.50%
Black or African American	1.70%
American Indian	0.40%
Asian	3.90%
Indian	1.20%
Chinese	1%
Filipino	0.20%
Japanese	0.10%

Source (for both tables): U.S. Census

2.2 Population Projections

Looking further out - the VT Agency of Commerce and Community Development, developed population projections from 2010 to 2030 in August, 2013. These projections use US Census data as the basis for calculations; and mortality, birth rate and migration rate data from 1990 to 2010 as factors. It is important to note that projections are not predictions – “projections assume that conditions that occurred in the past will continue into the future”. Therefore, projections can be a helpful planning tool, but with the understanding that they may not be accurate. The projections include two scenarios based on different migration assumptions – Scenario A is based on migration rates during the 1990s, and Scenario B is based on migration rates during the 2000s. The projection report states:

“In Vermont, there is a relationship between the national economy and the direction and magnitude of migration. During the 1990s (Scenario A), the national economy was generally healthier than during the 2000s (Scenario B) and Vermont saw greater rates of net in-migration. As a result, Scenario A using 1990s migration rates generally, show higher populations than Scenario B using the migration rates of the 2000s.”

While the projections were not calculated for Essex Junction, they were calculated for Essex and can be found in Table 4.

Table 4
Population Projections 2010 - 2030

	2010 Census	Scenario A			Scenario B				
		2020	% change from 2010	2030	% change from 2010	2020	% change from 2010	2030	% change from 2010
Essex	19,587	20,556	4.90%	21,138	7.90%	20,074	2.50%	20,057	2.40%
Chittenden County	156,545	165,690	5.80%	171,718	9.70%	161,812	3.40%	162,967	4.10%

Source: *Vermont Population Projections – 2010 – 2030*, August, 2013. Ken Jones, Ph.D., Economic Research Analyst, Vermont Agency of Commerce and Community Development and Lilly Schwarz, Community Based Learning Intern, Montpelier High School. Developed with the assistance of a Population Project Review Committee.

Chapter IV

Comprehensive Plan Elements

Introduction

If this Comprehensive Plan is to accurately address the goals and aspirations of the Village, formal and specific guidelines for growth must be developed. These guidelines must be general enough to encourage innovative solutions to problems but be specific enough to focus the actions of the Village in a consistent, workable planning approach.

Another key ingredient of a successful Comprehensive Plan is a clear, concise physical development plan. This Plan will direct and manage the future physical growth and redevelopment of the Village. It encourages orderly, planned growth and represents the community's vision for the future. While it is not possible to identify all issues or satisfy all concerns, the plan is intended to strive for a reasonable balance between competing interests.

The Plan Elements as presented in this Chapter are, therefore, the most important sections of this Plan. They are the engine that will drive the future of Essex Junction. Although each element is presented in a format to be used individually, it should be recognized that they are interdependent. The goals, objectives and maps in each functional element should be adhered to if the overall plan is to remain viable.

The remaining sections of this Chapter are divided into separate Plan elements. Each individual Plan Element contains the official, adopted policies of the Village of Essex Junction.

1. Energy

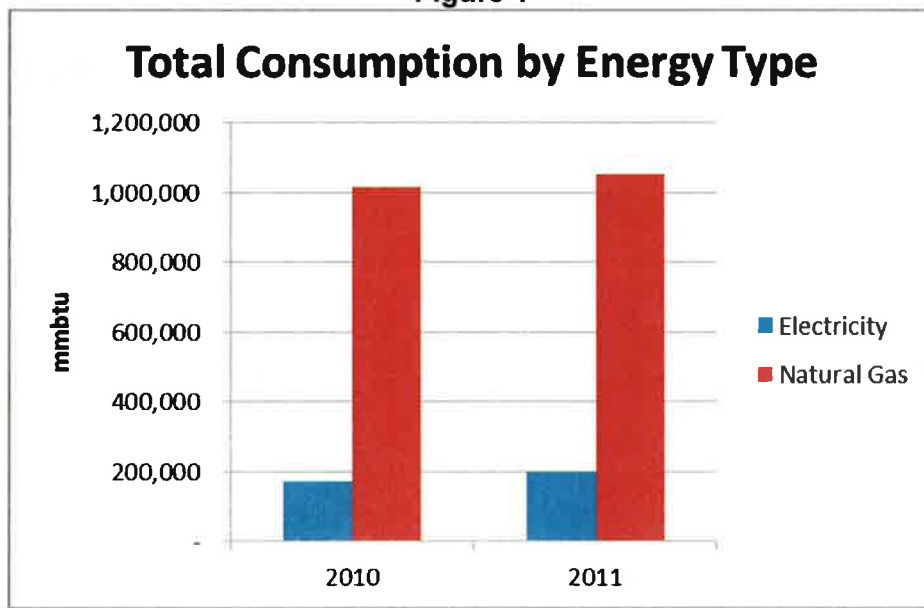
Energy is a core component of community success. The Village of Essex Junction is a jurisdiction where energy production and use are of vital concern which impact overall quality of life in the community. Exterior lighting control is also critical from an energy, safety and biological perspective. The State Comprehensive Energy Plan designates the current Vermont State standards, code and goals for energy use and production as the minimum standard within Essex Junction. Cooperation with State Officials, utilities and energy suppliers is required to ensure the availability of adequate supplies of energy, for a reasonable cost and with minimal impact on the environment.

1.1 Energy Profile

For residential and commercial/industrial buildings this section describes energy consumption in the Village in terms of what energy sources are used, what they are used for, and how much is used. The data can also serve as a baseline for tracking progress the Village makes on implementing energy conservation actions. In addition the profile describes the two largest municipal electricity consumers; and the role of land use and transportation in energy consumption. Understanding the Village's energy profile will also help target specific strategies available to the Village for reducing energy consumption and its greenhouse gas emissions.

Figure 1 below identifies how much energy is consumed in total for the Village of Essex Junction. This includes homes, businesses, municipal operations, and other sectors. The purpose of this graph is to inventory the type of energy being used within the Village to begin understanding how energy consumption is changing from year to year and to be a starting point to inform policies and implementation programs that promote efficiency and the use of renewable energy resources. Although data over the last 10 years is not available, total consumption between 2010 and 2011 did increase for both electricity and natural gas indicating that efficiency measures at all levels of consumption should be prioritized.

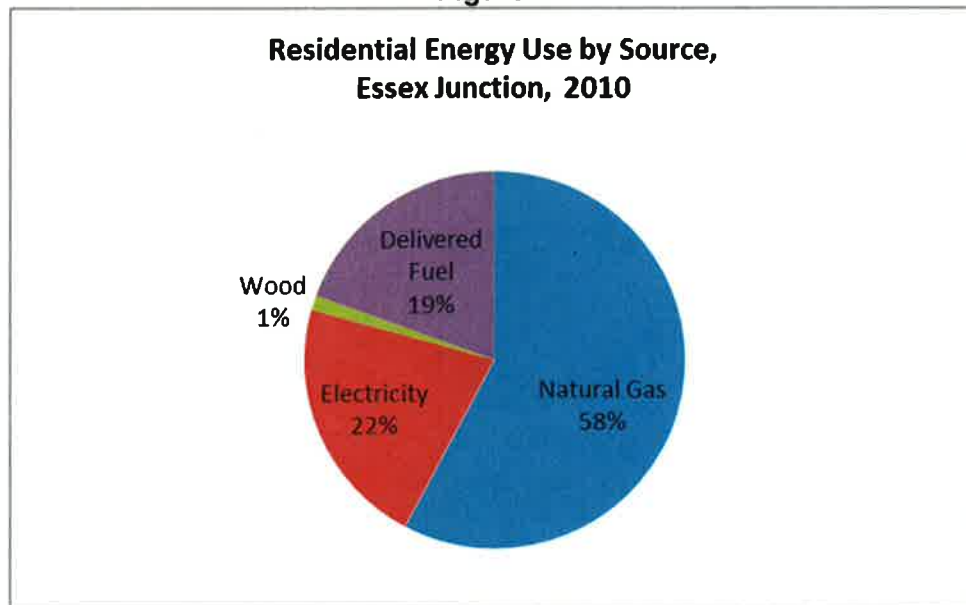
Figure 1



Source: VT Gas, Efficiency VT

Residential:

Figure 2 below shows the proportion of energy used in homes in the Village by source. Natural gas accounts for 58% of the energy used in the Village's homes – and is primarily used for space heating, hot water, cooking, and drying clothes. Electricity accounts for the second largest source of energy in the Village at 22% and is used for appliances, lighting, home electronics, and in some cases electric vehicle charging. The least used type of energy in Village homes is wood and delivered fuels (oil and propane) – primarily used for space heating.

Figure 2

Source: Chittenden County Regional Planning Commission, VT Gas, Efficiency VT, EIA

Strategies for how to lower residential energy use include:

- ✓ Provide financial incentives for renewable energy applications, thermal efficiency improvements, and electricity efficiency

Home weatherization is the most cost effective way of modifying a building to reduce natural gas consumption and greenhouse gas (ghg) emissions (see section 1.2 below for more information on ghg). Weatherization includes air sealing, insulation, and upgrading heating system and can dramatically reduce a home's heating bills. However, the initial upfront capital to make weatherization improvements on a home can be difficult for some households and businesses. The Property Assessed Clean Energy (PACE) Program is a way for municipalities to make a commitment to helping residents finance weatherization projects for existing homes. PACE financing options can also be used to install renewable energy systems like solar hot water systems or solar panels, which would reduce electricity consumed from the grid and provide a clean source of power. The Essex Energy Committee looked into PACE as an option for Essex, but found at the time, that homeowner's could get a better rate on home equity loans. If home equity rates change in the future PACE may be a more viable option.

- ✓ Meet or exceed state energy efficiency building standards for new construction and major renovations

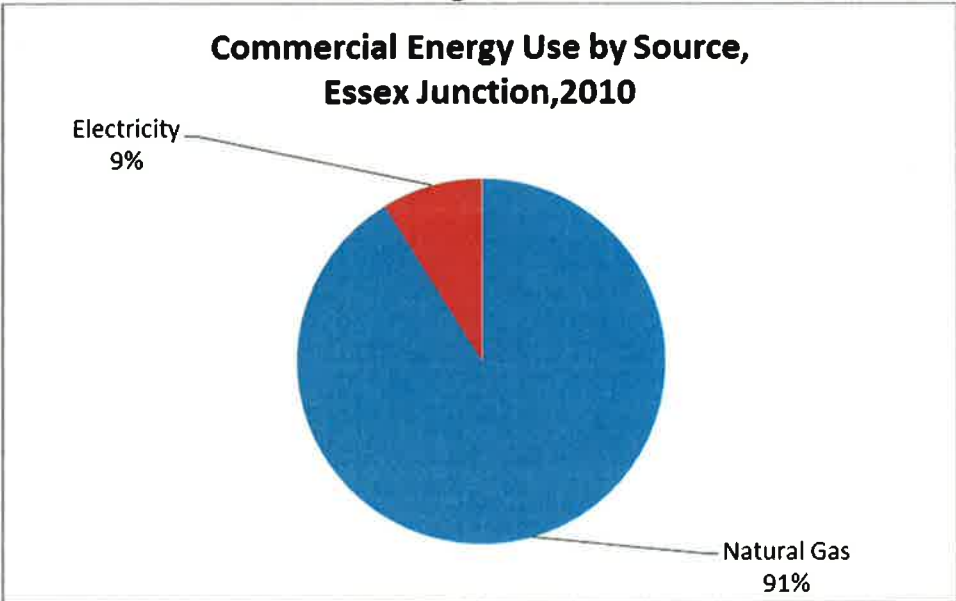
For new construction and building renovations, the State of Vermont has an energy building code, the VT Residential and Commercial Building Energy Standard. Compliance with the energy code is necessary to ensure that new development and alterations to existing buildings are using all types of energy efficiently. To meet the code, the zoning administrator is responsible for providing the energy code to land use permit applicants and must see a completed energy certificate that certifies that the applicant has complied with the code before issuing a certificate of occupancy. Even though a certificate of occupancy may not be needed for all types of buildings, all buildings must comply with the State energy code. Additionally, the Village should consider incorporating language into zoning ordinances requiring new homes and commercial buildings to be built to code (or higher levels of efficiency) to help educate the development community on the code. An example includes the new proposed Town and Village Police Facility: A photovoltaic solar array on the facility’s roof will provide the building’s energy needs and produce energy savings in an amount exceeding the projected bill for natural gas. Energy savings (the facility is capable of earning LEED Gold certification) equal savings in operational costs.

To improve the thermal efficiency of commercial and residential buildings, a municipality could implement a time of sale energy retrofit ordinance for rental housing. Time of sale retrofits target older buildings, particularly multi-family housing, that aren't being reached by voluntary incentive programs. Building energy retrofits offer multiple benefits that include saving money on utility bills, improved safety and maintenance, and comfort. Additionally, the money saved from doing energy improvements gets recirculated into the community instead of being exported out of the region. As an example, the City of Burlington has a time of sale energy retrofit ordinance.

Commercial/Industrial:

Figure 3 below shows the energy picture of commercial/industrial businesses within the Village. Most of the energy used in businesses is in the form of electricity for lighting, computers, appliances, and for operating industrial processes.

Figure 3



Source: Chittenden County Regional Planning Commission, VT Gas, Efficiency VT

Specific strategies to reduce a business's electric load include converting to renewable sources for electricity, automating controls, switching to LED bulbs, upgrading HVAC equipment; reducing plug loads for office equipment, and monitoring efficiency of other business processes. Weatherizing existing commercial space will also reduce natural gas usage for space heating. New commercial buildings are also subject to the same state energy code to improve the thermal envelope and ensure that lighting, HVAC, and other loads are efficient.

Municipal Lighting & Energy Use:

By far the largest component of municipal electricity usage is for street lighting. The second highest energy usage is the Waste Water Treatment Plant. The Waste Water Treatment Plant has initiated two major energy management efforts:

The typical home uses 9,000 kWh/per year of electricity. The Essex Junction Wastewater facility Co-Generation system produces enough power annually to supply 50 homes. By using this electricity generated directly on site, the installation maximizes the energy efficiency and the cost benefit to the community. The Co-Generation system produces 40% of the electricity used in the wastewater treatment process.

Streetlights in the Village are currently mercury vapor. High-pressure sodium lights are not allowed according to the Land Development Code. Existing street lights in the Village should be upgraded to the most efficient technology available as practicable. The use of architectural or period style lighting is encouraged.

Current Village policy requires compliance with the Regional Planning Outdoor Lighting Manual for Vermont Municipalities. There has been some concern that there is more light than necessary on Pearl Street. The Village should assess the situation and develop a more appropriate standard for streetscape lighting.

Land Use & Transportation:

The relationship between transportation, land use and energy consumption is extremely important and is an area in which the community can have a large impact through development regulations and infrastructure. According to the Vermont Total Energy Study, "more than one third of the state's energy consumption, and nearly half of its greenhouse gas emissions, are tied to the transportation sector." Therefore, a reduction in vehicle miles traveled by passenger vehicles can have a big impact on energy consumption.

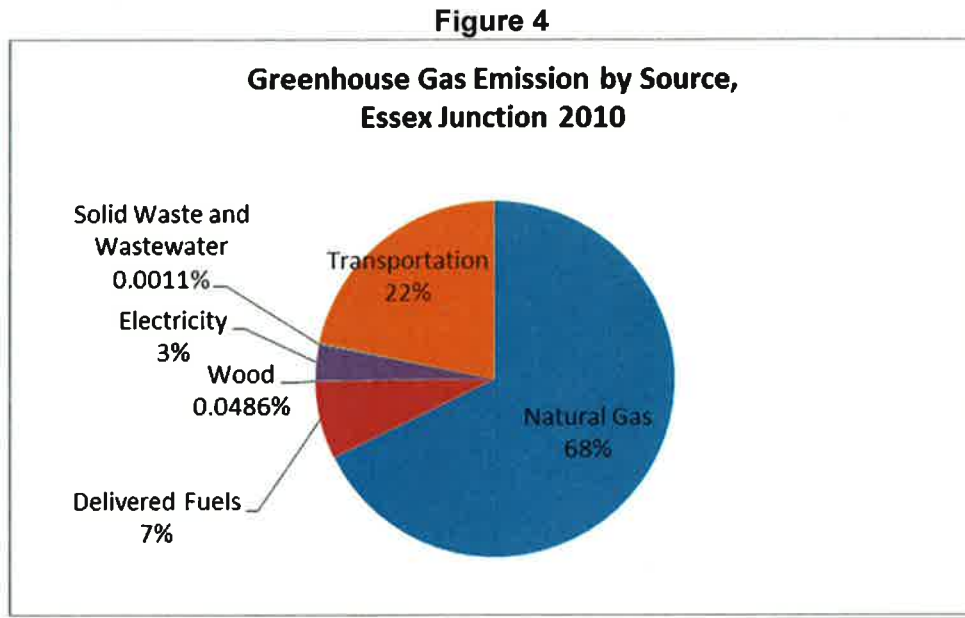
In recent years communities are realizing the important connection between transportation and land use, which impacts energy use. Certain land use patterns can reduce dependency on the automobile by providing greater transportation options through compact mixed use developments where people can choose to walk, bike, use public transportation or drive an automobile.

Essex Junction has a relatively unique opportunity within the county to support greater transportation choice and reduce automobile dependency since it is a relatively compact community with an extensive sidewalk network where local services are within walking distance to residences. Essex Junction is also served by public transportation and rail. Essex Junction residents have more transportation choices than many neighboring communities that have a more suburban/rural land use pattern. Further support of higher density infill and redevelopment in core areas of the Village may reduce demand on energy.

1.2 Greenhouse Gas Emissions

The use of different types of energy causes varying amounts of greenhouse gas (ghg) emissions to be released into the earth’s atmosphere and is known to be a contributor to the changing of our climate. The State of Vermont established a goal of a 50% reduction in ghg emission by 2028. Given that Essex Junction is part of the State and contributes to the statewide emissions, it is helpful to understand the source of the Village’s ghg emissions.

Figure 4 below provides an overview of the primary contributors of ghg emissions by sector/source within Essex Junction.



Source: Chittenden County Regional Planning Commission

Within Essex Junction, ghg emissions total 86,140 metric tons of carbon dioxide equivalent or about 1% of the emissions generated in the State and 7% of emissions in Chittenden County. Emissions from natural gas account for the largest share of ghg emissions in the Village, 68%. Transportation emissions from on-road gas consumption are second at 22%. Delivered fuel consumption is the third greatest source of emissions. Electricity consumption accounts for 3% of emissions. A small amount of emissions are generated from solid waste decomposition and wastewater treatment. The Essex Junction Wastewater treatment plant captures the methane gas (a potent ghg) to power the treatment plant equipment.

1.3 Reduce Energy Consumption, Decrease Greenhouse Gas Emissions & Increase Renewable Energy Generation

The Village has already employed many energy strategies including methane capture at the wastewater treatment plant; construction, operation and maintenance of facilities that support pedestrians and bicyclists; and encouraging higher density development that reduces ghg emissions and increases energy conservation through the Land Development Code. In addition, the Whitcombs are intending to install a solar array farm on their property. The following list includes a variety of additional measures that can be taken to reduce energy consumption, decrease greenhouse gas emissions and increase renewable energy generation.

Given the highest contributor of ghg emissions is from natural gas used for space heating, the Village should prioritize implementation of actions that improve the thermal efficiency of its buildings.

✓ Promote Energy Efficient Programs and Emissions Reductions Campaigns

Community campaigns educate and motivate people and organizations to take action. Approaches such as community contests among residents and challenges with other towns can be effective. Other effective programs are door-to-door campaigns, phone-a-thons, and energy parties. Efficiency Vermont, CarShare, Drive Electric Vermont, and Vermontivate all offer challenges to reduce energy use at home, at work and in transportation.

✓ Become an Electric Vehicle (EV) Ready Town

Projections for EV adoption state that by 2023 approximately 5,800 EVs will be registered in Vermont, requiring 70 charging stations in Chittenden County. Communities should begin to plan for the deployment of electric vehicles and the necessary supporting infrastructure of charging stations. A variety of tools are available for EV-ready planning. These include zoning, parking ordinances, permitting and inspection, and partnership and procurement.

✓ Promote and provide transportation alternatives to driving alone to work for municipal employees and other village employees

Encourage employees to share rides to work and provide reserved parking for car and van pools. Go Vermont and Go Chittenden County can help with ride matching services. Go Vermont can help van pools obtain a van, insurance, vehicle maintenance and fare collections. Encourage employees to use public transit to get to work by offering transit discounts or passes, providing a guaranteed ride home and working with CCTA to provide a convenient bus stop and shelter. Encourage employees to walk or bicycle to work. Providing shower facilities and covered bicycle parking can make this a more attractive option. Implement municipal fleet policies to reduce energy consumption, costs and greenhouse gas emissions.

✓ Bring car-share programs to Essex Junction

CarShare Vermont is implementing a neighborhood-based social marketing program and assessing the viability of expansion into new communities. Car-sharing programs require a critical mass of users, and are therefore more viable in urban rather than rural areas.

✓ Improve the safety and efficiency of existing roadway networks to optimize traffic flow

Optimizing traffic flow allows traffic to move more efficiently along roadways and through intersections, decreasing time spent idling or accelerating and thus reducing emissions from vehicles. Projects that improve safety and efficiency for bicycles and pedestrians remove barriers to bike/ped transportation. Projects that prioritize signals for transit or provide real-time information on bus location improve the efficiency and competitiveness of transit. Projects that improve efficiency can preclude (or postpone) capacity expansion projects.

✓ Locate and develop Park and Ride facilities to promote transit use and ridesharing

Park and ride facilities reduce highway traffic congestion and worksite parking demand. Park and ride facilities can help support transit service. Park and ride facilities should be appropriately sized or phased, based on location, potential for transit, and potential future usage.

- ✓ Promote renewable energy development that works in harmony with community goals for land use, including implementation of on-site renewable energy in municipal buildings and inclusion of solar standards in the Land Development Code for new development.

Although emissions from electricity are about 3%, electricity does account for about half of the energy used in the Village. Additionally, the State of Vermont is working toward a goal of 90% of its energy from renewable sources by 2050. Renewable energy is energy that comes from resources that are replenished and do not produce ghg emissions when converted to energy. Renewable energy typically comes from sunlight, wind, and geothermal heat. Encouraging the installation of solar panels on rooftops (especially on municipal buildings) within the Village will support the State in meeting this goal and make the Village more resilient, independent, and less vulnerable to power outages during storm events.

There are many ways to further development of renewable energy generation in the Village, including addressing solar in the Land Development Code. Addressing solar in the Land Development Code will eliminate uncertainty around where solar systems may or may not be allowed, ensure that installations are placed in appropriate locations, and mitigate any potential negative impacts.

1.4 Low Income Energy Assistance

Any Village-initiated communications program should alert low-income residents about these valuable government programs. Programs available in Vermont to assist low-income individuals and families with heating bills include: the Vermont Department of Children and Families (DCF), Fuel Assistance Program, and Champlain Valley Office of Economic Opportunities (CVOEO) WARMTH program and Weatherization Program. DCF's Fuel Assistance Program can help pay a part of your home heating bills if your gross household income is equal to or less than 185% of the federal poverty level, based on household size. The WARMTH program funds are available only in emergency situations; that is, when the household has exhausted their supply of fuel or faces disconnection of utility services. Each household is entitled to three assists during the heating season, and up to \$75 for each time they receive fuel assistance. The Weatherization Program provides services to income-qualified households at no charge. The services include: an energy audit; check-up of heating systems to ensure safety, efficiency and effectiveness; free lighting and appliance upgrades (where applicable) through a partnership with Efficiency Vermont; and renovation construction.

1.5 Underground Storage Tanks

Directly associated with the use of energy is the safe storage of fuels. Although regulated by the State of Vermont, it is important for emergency planning purposes to be aware of the location of the storage facilities. Within Essex Junction, the State of Vermont reports that 50 UST's located on 14 separate sites are registered and regulated. The average UST in the Village is 6,390 gallons and is 22.6 years old. Almost all of the tanks are made of steel, none have double liners, and only 10% report an electronic monitoring system. The Village owns two tanks for diesel fuel at the Public Works facility. A list of underground storage tanks is included in Appendix B.

1.6 Energy Goals

Goal 1: Work with the Essex Energy Committee to prioritize this list of energy goals. A cost benefit analysis could help focus efforts on the most effective and efficient strategies.

- Goal 2:** Cooperate with State Officials and energy suppliers to ensure the availability of adequate supplies of energy for business and residents at reasonable prices and with minimal impact on the environment.
- Goal 3:** Encourage the development of renewable energy resources to contribute to the State's goal of 90% renewable energy by 2050.
- Goal 4:** Construction of new buildings and rehab of existing residential and commercial/industrial buildings shall comply with the current edition of Vermont Residential Building Energy Standards and Vermont Commercial Building Energy Standards.
- Goal 5:** Ensure that municipal equipment meet all required stationary and non-stationary equipment requirements where applicable (i.e. Vermont State, OSHA, EPA, ANSI Standard B71.1 or B71.4).
- Goal 6:** Participate in green pricing programs, when available, to promote the use of renewable energy.
- Goal 7:** Ensure that new and replacement street lamps utilize the most current and efficient energy technology.
- Objective 7.1: Continue to require energy efficient street lamps in new developments.
 - Objective 7.2: Use energy efficient street lamps when replacing existing lamps.
 - Objective 7.3: Meet or exceed the current adopted version of the Regional Planning Outdoor Lighting Manual for Vermont Municipalities.
- Goal 8:** Support a variety of transportation options including walking, biking, public transit that reduces reliance on the automobile.
- Goal 9:** Continue reducing local energy demand by providing further expansion of sidewalks, bike paths, park & rides and public transportation.
- Goal 10:** Display and distribute information to residents and businesses that will help them save energy.
- Goal 11:** Encourage the Brownell Library to expand and update energy publications and publicize this source to the general public.
- Goal 12:** Continue recycling programs at all Village buildings and facilities.
- Goal 13:** Conduct energy audits for all Village Buildings.
- Goal 14:** Continually examine the cost effectiveness to expand use of methane generated at the Waste Water Treatment Plant as a renewable energy resource.
- Goal 15:** Consider fuel efficiency when purchasing new vehicles. Consider the use of alternative fuels for new vehicles.
- Goal 16:** Provide residents with information on heating assistance programs on an annual basis to make those in need, aware of the programs.

2. Agriculture & Community Forestry

Agriculture is alive and strong in Essex Junction as evidenced by conservation of the Whitcomb Farm, the thriving Five Corners Farmers' Market, a waitlist for community garden plots, restaurant participation in the Vermont Fresh Network, and Farm to School. Refer to Map 1 for reference to prime agricultural soil.

The Whitcomb Farm provides many valuable resources to the Village, including productive agricultural land. The Whitcomb Farm also promotes agriculture education, open space, recreation and wildlife habitat. The Whitcombs and the Village also benefit from the farm's utilization of treated biosolids from the Waste Water Treatment Plant as fertilizer. In the future the Whitcomb Farm hopes to provide a location for the production of renewable energy.

The Village Trustees provided the Whitcomb Farm with a three year tax break in 2011, securing public recreation on the property and supporting the Whitcomb's efforts to conserve the land. In addition, the Village voted to use \$20,000 of the land acquisition fund toward the Vermont Land Trust's purchase of development rights from the Whitcomb Farm. The purchase of development rights is planned in two phases – Phase 1 for 271 acres closed in March 2014; and Phase 2 is for approx. 143 acres and funding is not yet secured but the plan is to close in 2015. This will effectively protect the Whitcomb Farm from development and keep it as a working farm in perpetuity.

In addition to the Whitcomb Farm, the importance of local agriculture to the residents of the Village is evidenced by:

- the thriving Five Corners Farmers' Market - the Market is open on Friday afternoon/evenings from June through October, and occasionally in the winter. Thirty-five vendors participated in the 2013 market;
- restaurants have joined the movement by participation in the Vermont Fresh Network;
- the Village Recreation and Parks Department also run a Community Garden Program with approximately 150 garden plots at the West Street Garden and the Meadow Terrace Garden (and there are waitlists for use of these plots). The Department also hosts gardening classes;
- the Village adopted a chicken ordinance to allow homeowners to have chickens in their backyard. As of December, 2013 approximately 3 to 4 chicken permits have been issued; and;
- CCSU, which serves the Essex Junction, Westford, and U46 school districts established a Farm to School Team in May of 2012. They received a Farm to School planning grant from the Vermont Department of Agriculture that started in February of 2013. The Team is made up of 20 members from the schools, community, and a farmer from Waterville who is a regular vendor at the Five Corners Farmers Market. The overall goals of the program at CCSU are to expand the amount and variety of local products in school meals, increase the opportunity for students to learn about the nutritional, economic, and environmental benefits of local products and healthy eating habits, and increase student understanding and appreciation of farming and food services.

Just as agriculture is important to the residents of the Village, so is community forestry. The benefits of a healthy and robust community tree canopy are extensive. The International Society of Arboriculture, names the following (plus many more) benefits:

- Environmental benefits include climate control by moderating the effects of sun, wind and rain; improve air quality by removing carbon from the atmosphere and storing it in biomass and soils (a process called carbon sequestration); conserving water by intercepting water, storing some of it, and reducing stormwater runoff and the possibility of flooding; and providing wildlife habitat and food.
- Social benefits include providing privacy, emphasizing views, or screening out objectionable views.
- Economic benefits include energy cost savings as trees can provide shade thereby lowering summer air conditioning bills, and trees can protect structures from wind thereby lowering winter heat bills; increase property values; and can help encourage patronage to downtown retailers.

Helpful Resource:
 The Vermont Urban & Community Forestry Program has developed a [Vermont Tree Selection Guide](#) to help select the appropriate tree based on the purpose of the planting, site conditions, type of maintenance needed and best tree species for long term success. The guide includes a tree selection worksheet and a tree list to help select the appropriate tree – there is a printed version as well as a searchable online database that can be found here:
www.vtcommunitytrees.org.

Essex Junction received a 2013 Tree Steward Award from the Vermont Urban & Community Forestry Council for taking tremendous strides to improve the condition and quality of trees in the Village. This includes the completion of a tree inventory, passing a tree policy, and planting 22 trees in the Village Center in a two year period prior to the award. The award recognizes the collaborative effort among multiple Village departments and volunteers. In addition, the Village Trustees established a Tree Advisory Committee in 2013 that works with the Village Tree Warden to promote the improvement and preservation of a healthy environment as it relates to public trees. The committee provides a mechanism for the planting, maintenance, protection and removal of trees on public streets, parks and Village-owned properties.

This Comprehensive Plan is required to meet the State planning goals established under Title 24 §4302(c). These goals include “to encourage and strengthen agricultural and forest industries.” It is clear that the Village is meeting this goal for their agriculture industry. While, there is not much of a traditional forestry industry within the Village to encourage and strengthen, the Village continues to encourage awareness and good forestry practices for its urban trees and community forest.

2.1 Agriculture & Community Forestry Goals

Goal 1: Continue to support the Whitcomb Farm in their conservation efforts.

Goal 2: Support the Farmers Market and other local value-added agricultural businesses.

Objective 2.1: Ensure that any land use, transportation or capital plans for the Five Corners accommodate the Farmers Market, unless an alternative site is established.

Objective 2.2: Work with Five Corners Farmers’ Market to assist in finding a permanent winter location.

Objective 2.3: Hold farm-to-table community events to benefit local organizations.

Goal 3: Continue support of the Community Garden Program, home gardening and micro-farming.

Objective 3.1: Offer incentives for developments that include community gardens and/or allow residents to have home gardens on common land.

Objective 3.2: Strengthen language in zoning regulations to protect topsoil during construction so that yards are more suitable for gardening.

Objective 3.3: Encourage backyard composting or participation in the compost program through the solid waste district.

Objective 3.4: Develop a method to donate excess food from community gardens.

Objective 3.5: Encourage the practice of edible landscaping.

Objective 3.6: Inventory and designate additional public space for community gardens (including roof tops and wall gardens).

Goal 4: Establish a Tree Management Plan to improve and maintain the community tree canopy within public parks and rights-of-way.

Objective 4.1: Increase the Village tree canopy with thoughtful planning, planting and maintaining of trees on public spaces or intruding into/onto public spaces.

Objective 4.2: Educate residents on the value of the urban forest.

Objective 4.3: Establish a process for the Village Tree Advisory Committee to work with the Planning Commission to review and provide advice on development projects that include tree planting in public spaces.

3. Business/Economic Development

Essex Junction continues to be a strong employment center for large and small, service oriented, retail, and manufacturing enterprises. As the host community for IBM Microelectronics, the Village has a proven track record of developing business partnerships that last. The following strengths combine to make Essex Junction a great place to locate and/or invest in a business:

- The Village is strategically located within the region and has the infrastructure to support new businesses and business expansion. The Village is a transportation hub, with close access to Interstate 89 and Vermont Routes 15, 2A, and 117, and Burlington International Airport. In addition, the Village is working towards the construction of the Crescent Connector - a Circ alternatives project that will help to mitigate traffic at Five Corners and open up areas of underutilized land in the designated Village Center to development. The downtown transportation terminal is a major stop for Amtrak and for the Chittenden County Transportation Authority: which provides county-wide public transportation.
- The Village has a variety of old and new, large and small business properties. The historic Village Center and Pearl Street commercial corridor have had multimillion dollar, federally funded restorations and redevelopment.
- In addition to IBM Microelectronics, the Village is home to the Center for Technology, Essex, which is Vermont's largest secondary technical education facility and the Champlain Valley Exposition, Vermont's largest indoor and outdoor exposition center.
- There are more than 200 small businesses in Essex Junction.
- Agriculture is an important industry in Essex Junction as evidenced by conservation of the Whitcomb Farm, the thriving Five Corners Farmers' Market, a waitlist for community garden plots, restaurant participation in the Vermont Fresh Network, and the Farm to School program. More information can be found in the Agriculture & Community Forestry chapter.
- The Village maintains an inventory of existing businesses and available properties to help connect new or expanding businesses with local resources and building space. The inventory of businesses can be found on the Village of Essex Junction website (<http://www.essexjunction.org/business/list/>).
- The Village has adequate sewer capacity for new development.
- The Village has a Commercial Tax Stabilization Policy intended to encourage economic development, diversify the tax base, enhance the street scape and provide long-term growth in the Grand List and help maintain the vitality of the Village of Essex Junction's commercial business district. Any for-profit or non-profit corporation, partnership, cooperative, or proprietorship that is existing, locating or expanding in a commercial zone in the Village of Essex Junction may be eligible for tax stabilization.
- Essex Junction has a State designated Village Center District which provides tax credits for a variety of building repairs and improvements.
- A downtown revitalization group has been formed - Railroad Avenue Recess. Village staff also works with the Essex Town Economic Development Commission to address Town wide economic development needs and services.
- The Village maintains a fair and balanced permitting process that supports local businesses and new investment.
- Numerous housing units have been added to the Village downtown making Essex Junction a great place to live in close proximity to employment.
- Village residents live in comfortable, friendly neighborhoods all within walking distance of the Village downtown. The Village continues to increase the number of sidewalks and other facilities to support bike and pedestrian travel, making it easier for residents to visit downtown businesses.

- The schools are consistently ranked among the best in the state.
- In addition to IBM, many Essex Junction residents are employed by Fletcher Allen Health Care, the University of Vermont, Saint Michael's College, General Dynamics, and the State of Vermont.
- Heart & Soul participants identified the Local Economy as a community value – the residents' value working at and patronizing the diversity of businesses in the community, and are committed to fostering an environment that produces a world-class workforce and a strong economy for years to come.
- In addition, the Village Center and the Pearl Street commercial corridor have been designated as a Center Planning Area in the 2013 Chittenden County ECOS Plan, which is intended to be a regional center or traditional downtown that serves the County and beyond and contains a mix of jobs, housing, and community facilities.

Essex Junction does face business and economic development related challenges. One important challenge is ensuring the provision of adequate municipal services while minimizing tax increases. Also, Essex Junction's retail sector faces competition from growth in outlying surrounding communities, as well as online retailers. To this end, it is important to support existing business, encourage new light industrial and commercial development and investigate additional sources of revenue.

While the location of Essex Junction at the confluence of three major highways, Five Corners, is a strength of its economic profile, managing the traffic associated from both local and regional commuters is also a challenge. The ability to maintain and grow the economic base is balanced with the need to plan for commuter and local traffic, maintenance, safety and law enforcement. Other direct impacts are felt within residential neighborhoods as commuters use residential streets to avoid Five Corners. The Village has been proactive at providing multi-modal facilities in the downtown to provide alternatives to commuting via single occupancy vehicles. In addition, the Crescent Connector will help mitigate traffic at Five Corners.

3.1 Employment

As indicated on Table 5, there are a variety of businesses within Essex Junction. This variety is a significant factor in attracting people to the Junction and maintaining the economic vitality of the area.

The largest private employers in Essex Junction include IBM, Flex-A-Seal, ASK-int TAG; and niche businesses include Champlain Valley Expo, Harley Davidson and CVAA (the Area Agency on Aging for Addison, Chittenden, Franklin, and Grand Isle Counties). Information about large employers can be found in the Essex Town Plan along with specific information from the Essex Economic Development Vision and Plan, 2010.

While the number of employees is not included in the Essex Junction Business

Business Classification	Estimated Total Businesses
Auto Repair	12
Bank	6
Construction Services	4
Fitness	4
Government	4
Industrial	6
Medical	26
Misc. Services	15
Non-Profit	10
Personal Services	19
Professional Services	31
Restaurant	29
Retail Store	52
Total	218

Source: Essex Junction Business List, dated 2/7/2014 – information gathered from Zoning Permits and therefore not a complete inventory of the existing businesses.

List, the Essex Economic Development Commission has access to the VT Business Magazine's Business Directory. That is also not a complete dataset as the information is self-reported by businesses that choose to provide the information, however that database does include full time employees if provided by the business.

**Table 6
Employment in Essex as Reported in the VT Business Magazine's Business Directory**

	# of Businesses	# of Fulltime Employees
Essex (both Town and Village)	168	8,165
Village	67	5,440
Source: Essex Economic Development Commission & the VT Business Magazine's Business Directory		
Notes:		
1. This is not a complete census of the businesses, this is only data compiled from businesses who have chosen to provide the VT Business Magazine with their information.		
2. 16 out of the 67 Village businesses; and 27 out of the 101 Town businesses in the Directory did not report the number of fulltime employees.		
3. The fulltime employment numbers assume IBM has 5,000 employees.		

3.2 Income Characteristics & Labor Force

An important factor in the economic health of any community is the local household income level. The income level within any community directly affects a community's health in the following areas:

- 1) Tax base to support the provision of needed community services such as streets, sewer and water facilities, libraries, etc.;
- 2) Type and cost of housing, particularly the availability of affordable housing;
- 3) Types and number of businesses and services available; and
- 4) Ability to attract and maintain a solid commercial and industrial economic base.

Table 7 compares financial characteristics of Essex Junction residents to those of the county. The Median Income in Essex Junction is higher than Chittenden County, indicating the relative prosperity of Essex Junction and the surrounding communities.

**Table 7
Financial Characteristics, 2007-2011**

	Essex Junction	Town of Essex (w/o Village)	Chittenden County
Median Household Income	\$64,013	\$73,855	\$62,260
Per Capita Income	\$33,061	\$34,307	\$32,533

Source: U.S. Census, American Community Survey 2007-2011

The 2012 total Labor Force – the population, aged 16 and over, which is employed or unemployed, including those in active military duty - for the Town of Essex is estimated at 11,990. The 2012 annual unemployment rate for the Town of Essex (Essex Junction data is not available) was 3.7% - slightly lower than the County's rate of 4.0%, and the State's rate of 5.0% (Source: Annual Unemployment Rate, Not Seasonally Adjusted from the Local Area Unemployment Statistics program produced by the VT Department of Labor, Economic & Labor Market Information). While Vermont still holds one of the lowest unemployment rates in the country, we are vulnerable to a lack

of market diversification – as seen by the challenges faced when IBM has layoffs. This further supports the goals of this plan to support, grow and diversify Essex Junction’s local economy.

3.3 Village Center and Park Street Areas

The Village Center and Park Street area is the community’s traditional business center and home to numerous local businesses and retail shops. The Village is striving to capitalize on this business center, and encourage development that will enhance the environment. Specifically, the Village is encouraging the development of market rate residential development, encouraging the diversification of the mix of non residential land use, attracting new business, marketing vacant retail properties, and working to redevelop underutilized properties. The creation of the Crescent Connector is an example of this vision, as it will revitalize underused property and enhance the Village environment. The continuing viability of the Village Center as a community focal point is an important consideration in this Plan.

Public improvement projects have been a central focus of the economic development efforts in the Village Center over the past five years. The planned development of the Crescent Connector is the largest of these projects; however there have also been numerous smaller projects, such as the construction of additional sidewalk on Lincoln Street and the proposed development of a multi-use path along the rail tracks. The Village has continued to use the gas lamp style lighting to maintain a consistent feel to the Village Center. Another 1.5 million dollar streetscape project was completed in 2008, which included new mast arms and traffic signals at the Five Corners, pedestrian lighting, on-street parking, sidewalks and landscaping. Plans to widen Pearl Street to accommodate cyclists and the potential to pedestrianize a short section of Main Street will stimulate economic activity while accommodating more efficient vehicle movements.

3.4 Pearl Street Business

The Pearl Street business corridor is an important part of Essex Junction’s business and retail sector. There are significant differences in the types of businesses located at the Village Center and those along Pearl Street. The Pearl Street corridor contains a variety of local retail and service oriented businesses, including two shopping centers, the Champlain Valley Exposition (CVE), fast food restaurants, numerous other businesses and residential uses. New higher density housing has been introduced which will help sustain the adjacent local businesses.

Reports reveal that Essex Junction businesses serve primarily the local market and are facing competition from recent retail and office developments in surrounding communities. The Village plans for an economic strategy that capitalizes on the economic impact of CVE fair and non-fair related events, and works with property owners to develop underutilized sites for residential and mixed-use development.

In 2005 the Village worked with the CVE and Saratoga Associates on the Pearl Street Enhancement Plan. The major focus of the plan included upgrades to the Pearl Street frontage of the CVE and recommended zoning changes to improve and promote higher density mixed-use development and improved design standards. The CVE frontage was upgraded in 2011.

3.5 Champlain Valley Exposition Fairgrounds

CVE is a major year round events venue. CVE is strategically located close to the Village Center and on a main road, which creates opportunities for local business to capitalize on the influx of people to the Village for CVE events. Public Village representatives should participate in the

planning of any changes to the present use, or to the present master plan, as this will affect both the surrounding residents and the entrance into Essex Junction. Any new Master Plan or changes to the existing Master Plan should emphasize mixed use with a base of light industry and commercial uses. In addition, the Village should carefully consider and encourage businesses that support the events at CVE such as hotels and restaurants.

3.6 IBM

Essex Junction has maintained a strong employment base since IBM located within the Village in 1957. IBM is Vermont's second largest private employer and has a major economic impact on the local, regional, and state economies. While IBM has decreased in size, they remain the employment "anchor" in Essex Junction, as well as within the surrounding communities. The demand for commercial and professional services is largely the result of IBM.

In recent years the IBM site has become a Technology Park which is attracting smaller businesses to the site. A joint Village and IBM initiative is developing 300,000 square feet of Light Industrial space on Maple Street which will attract more employers. Diversification on this site will help the Village, Region and State be prepared if there are any additional significant changes at IBM in the future. As one of the State's top employers it would be beneficial to have a plan in place for potential changes (either expansion or contraction) at IBM. Present uncertainties regarding the growth of IBM's local site require intensification of such efforts. The results of this planning should be included in the next update of the Village's Plan and the County's Comprehensive Economic Development Strategy, with involvement of Essex Junction. The Village should support development and infrastructure policies and investments that meet the needs of IBM or their successors, but also minimize impacts on the local residents.

3.7 Implementation Strategies from the Town's Economic Development and Vision Plan

The Village Planning Commission endorses the implementation strategies and should engage in policies to make progress on the strategies as opportunity arises. The Village is particularly interested in maximizing success in the transit specific strategies as identified in #4 (regional multi-modal improvements), #10 (freight rail service expansion), and #12 (transit oriented development). The following is excerpted from the Town's Town Plan: The Essex Selectboard asked the Economic Development Committee (EDC) to prioritize the 13 implementation strategies that were identified in the Economic Development and Vision Plan: Essex, Vermont prepared by BBP and Associates. Many of the strategy recommendations are resource expansive and intertwined, and as a result, were prioritized by the EDC with the goal of maximizing the potential effectiveness of strategies within the human and fiscal resources available. The following list shows the strategies ranked in priority order, from highest to lowest, as summarized and/or amended by the EDC:

1. **Major Roadway Improvements** – The Town is encouraged to engage actively in infrastructure improvement projects, such as completion of the Circ Highway, VT Route 15 corridor improvements, and VT Route 117 improvements, along with the Crescent Connector, (in the Village).
2. **Strategic Industrial Park Evaluation** – The evaluation, with regards to the Town's two industrial parks, should enable a better understanding of what is working, what is not, and what is next.
3. **Government Service Retention and Expansion** – The focus would be on the retention of current government services and the attraction and expansion of Federal and State government services, along with the development and submittal of projects that may not be feasible without appropriations from other governmental sources.
4. **Regional Multi-Modal Improvements** – Multi-modal projects can improve both the economic climate and the quality of life in Essex, with a focus on local projects.

5. **Marketing Program** – A marketing program should define an Essex brand, modes to present that brand, and identify niches the Town seeks to occupy (such as outdoor recreation, “green businesses,” food commerce, and technology).
6. **IBM Site Initiative** – Communications should be established and maintained with IBM that better enable local government and the community to understand site opportunities and future plans and challenges.
7. **Infill Development** – Infill should be facilitated where appropriate, with care taken to preserve the character of neighborhoods and surrounding areas.
8. **Business Visit/Assistance Team** – A pilot program should be established to test the value of reaching out to existing Town businesses on a regular basis.
9. **Business Development Data Center** – Collecting and updating data on business status and infrastructure is resource intensive, with the costs outweighing potential benefits.
10. **Freight Rail Service Expansion** – Further investments in freight rail infrastructure can have a positive effect the Town’s ability to attract business, as well as providing opportunities for expanded passenger rail access and service.
11. **Local Education Resource Promotion** – Promoting the high caliber local school system should be incorporated into a marketing program.
12. **Transit-Oriented Development (TOD)** – The Town should remain vigilant in its search for TOD opportunities and flexible in its response.
13. **Green Entrepreneurial Center** – A low priority, given the estimated price (\$5.3 million) to build a green incubator space.

The EDC believes housing, particularly affordable housing, is a critical component of an economic development strategy, though it was not included in or attached to any of the 13 implementation strategies.

3.8 Business/Economic Development Goals

Goal 1: Assist and work with existing businesses to stay and expand within Essex Junction. Assist and work with new businesses to invest in Essex Junction.

- Objective 1.1: Maintain a favorable business climate in Essex Junction.
- Objective 1.2: Encourage the development of a diverse array of residential units in the Village Center and Pearl St. Districts.
- Objective 1.3: Consider performing market studies or other effort to identify and attract businesses to the Village to enhance Village life.
- Objective 1.4: Work with officials at IBM, as well as the other businesses located at the IBM campus, to meet their future development needs.
- Objective 1.5: Develop a plan for diversifying the IBM property.
- Objective 1.6: Encourage opportunities for bandwidth improvements.
- Objective 1.7: Support efforts to create a culture and environment that encourages entrepreneurs and their start-ups (i.e. co-working spaces, technology training, maker & hacker spaces).
- Objective 1.8: Work with Essex Economic Development Committee to help identify underutilized structures in the Village and assist in matching the landowners with business prospects.

Goal 2: To increase the Village’s relationship with the local business community.

- Objective 2.1: Look for strategic opportunities to work with business and property owners on economic development.

- Objective 2.2: Work closely with regional businesses through active membership in such organizations as the Greater Burlington Industrial Corporation.
- Objective 2.3: Encourage Village membership on key and regional committees involved with business expansion and economic development. Continue to work with the Essex Economic Development Commission, and the Chittenden County Regional Planning Commission.
- Objective 2.4: Promote the Village as a destination for shopping, services, and tourism.
- Objective 2.5: Provide mechanisms for increased communication between the business community and Village Officials.
- Objective 2.6: Continue work with the Town and Essex Economic Development Commission on the implementation strategies from the Economic Development and Vision Plan: Essex.

Goal 3: To provide mechanisms for efficient and timely review of development applications.

- Objective 3.1: While maintaining environmental standards, ensure that the local codes do not inhibit/prohibit local development.
- Objective 3.2: Provide application checklist of all requirements for each stage of review.

Goal 4: To preserve and enhance the appearance and historical character of the Village of Essex Junction.

- Objective 4.1: Maintain Design Review in the Village Center.
- Objective 4.2: Design publicly financed improvements to preserve the character of the Village Center.
- Objective 4.3: Establish local historic districts or other mechanisms to preserve existing residential structures of significant historic village character along major arterials and in historic neighborhoods.
- Objective 4.4: Create a list of noted historic sites and buildings to supplement Map 2.
- Objective 4.5: Continue streetscape and landscaping efforts to attract private sector investment.

4. Open Space – Recreation & Natural Resources

Open Space bolsters local economies, preserves significant natural resources, provides recreational opportunities and guides growth into appropriate areas. Through the Heart & Soul project residents put great value in their public places for outdoor and indoor recreation for all ages and abilities. Residents treasure Indian Brook reservoir, neighborhood parks and the chance to connect by bicycle or on foot. This chapter describes the protection and management of these valued open spaces as follows: local parks, schools and recreational facilities that provide extensive active recreational opportunities; urban amenities such as sidewalks and plazas; and natural environmental resources.

This chapter also includes a section on flood hazards and flood emergency preparedness and resiliency.

4.1 Local Parks, Schools and Recreational Facilities

The provision of parks and open space for active and passive recreation is an essential and treasured urban function. The 2007 Essex Junction Recreation and Park Master Plan identified all park lands within the Village and determined that there is sufficient parkland to serve Essex Junction's residents. The plan also noted significant natural areas in close proximity to the Village including the Indian Brook Reservoir in the Town of Essex.

Within Essex Junction, the management of the parks, recreation programs and facilities are the responsibility of the school system under the direction of the Prudential Committee. These include the management of all three of Essex Junction's formal parks along with all of the school properties that contain the majority of active recreation facilities within the village. A full-time Recreation Director administers the program. A Recreation and Park Master Plan for 2007-2016 sets the vision, goals and implementation of future recreation projects and park maintenance.

Essex Junctions existing parks and open space include the following (See Map 3):

- A. Stevens' Park:** 8.2 acre neighborhood park designed for passive, nature oriented activities. Designed walking/jogging trail system (also used by bikers). Low-level activity area with established play equipment.
- B. Cascade Park:** 10-acre neighborhood park designed for active recreation use. Youth baseball field; three (3) tennis courts; one (1) basketball court; one (1) mini-basketball court; one (1) established play equipment area; one (1) picnic pavilion; parking lot for 18 vehicles.
- C. Maple St. Park:** 38 acre Community Park, designed for active recreation use. Facilities include one (1) lighted baseball field, two (2) lighted tennis courts; one (1) lighted basketball court; three (3) picnic pavilions; two (2) outdoor swimming pools with bath house;; two (2) multi-purpose fields; two (2) Little League baseball fields; a trail system; one (1) skatepark; one (1) bikepark; low level playground activity with established play equipment; parking lot for 128 vehicles.
- D. Essex Community Educational Center:** 93 acre site housing high school complex. Outdoor facilities include: multi-use stadium; all weather running track; one (1) baseball diamond; one (1) football field; four (4) lighted tennis courts; 400 meter track; parking lot for 370 vehicles.

- E. **Albert D. Lawton Intermediate School:** 33.5 acre site housing middle school building. Outdoor facilities include: One (1) baseball field, one (1) soft ball field, four (4) multi-purpose field areas, parking lot for 110 vehicles.
- F. **Fleming School:** 5.44 acre site that houses elementary school complex. Outdoor facilities include: one (1) basketball court; high intensity playground area; one (1) youth baseball field, multi-purpose play area; parking lot for 301 vehicles.
- G. **Hiawatha School:** 15.65 acre site that houses elementary school complex. Outdoor facilities include: one (1) youth baseball field; two (2) multi-purpose fields; low level playground activity area.
- H. **Summit Street School:** 3.7 acre site that houses elementary school complex. Outdoors facilities include: high intensity playground area; large open space area.
- I. **Park Street School:** 1.29 acre site that houses alternative school building. Outdoors facilities include: low-level playground activity area.
- J. **“Parizo Farm” Property:** 7.73 acres owned by the Essex Junction School District adjacent to the Hiawatha School.
- K. **Fairview Farms:** 10 acres owned by the village; currently natural area open space
- L. **Whitcomb Heights:** 9 acres designated natural area open space.
- M. **State Property at 111 West Street:** 30 acres of open green space, including 98 community garden plots and the Essex Dog Park, both managed by Essex Junction Recreation & Parks.
- N. **Tree Farm Recreational Facility:** 99.1 acres of green space including 13+ soccer fields which are home to a variety of soccer tournaments and the space is available to community members for dog walking, kite flying, and bike riding.
- O. **Meadow Terrace Community Gardens:** 24 organic community garden plots administered through Essex Junction Recreation & Parks.
- P. **Other Available sites:** There are several facilities owned by other agencies which provide recreation opportunities to Village Residents:
 - 1. Indian Brook Park: 577 acres, Town of Essex – Natural Park. Outdoor activities
 - 2. Winooski Valley Overlook Park: 4 acres, Winooski Valley Park District – Natural area
 - 3. Sixty-eight Acre Park: 58 acres, Town of Essex – natural area.
 - 4. Pearl Street Park: 14 Acres, Town of Essex – Active, athletic Park
 - 5. Champlain Valley Exposition Fairgrounds: North of Pearl Street

At Essex Junction Recreation & Parks (EJRP), significant improvements have taken place over the past several years to accomplish master plan goals and meet community needs. A Head of Grounds and Facilities Maintenance was hired to oversee the maintenance and operations of the parks and facilities, a maintenance plan is in place for the athletic fields and playgrounds, several fields at Maple Street park have been irrigated, a court resurfacing schedule has been established, there is new signage at each of the three Village parks, a Bike/Walk Advisory Committee was established by the Village Trustees, the skate park at Maple Street Park was constructed, the Essex Dog Park was

built at 111 West Street, the Bike Park at Maple Street Park was constructed, 32 new garden plots were added at the Community Gardens at 111 West Street.

The only pieces of the recreation master plan related to facilities that are not yet implemented include building two sand volleyball courts at Maple Street Park, and further investigating the need for more indoor recreation space, including an indoor swimming pool. Sand volleyball courts are currently in the FY17 capital plan, though Maple Street Park has some space constraints as much of the property is already used. The Recreation Advisory Council is beginning discussions this year about future space needs. In addition, the Summit Street Natural Playground Group is working to change the traditional playground into a “natural playground” as a community resource.

In 2009, the vote for a previously established one cent (\$.01) tax on the municipal grand list to support the Recreation and Parks Capital Replacement Reserve Fund failed. In a subsequent vote, \$75K was approved by tax payers to support the fund. Since 2009, the annual vote continues to be on the question of \$75K and has been approved. The difference between the one cent (\$.01) on the grand list vs. the \$75K results in \$25K less investment each year. With increasing demands on programs, parks, and facilities, more capital funding will be required to maintain and enhance parks and facilities, especially as the building and pools both age.

4.2 Other Urban Amenities

Essex Junction also puts great value in its downtown public streetscape, comprehensive sidewalk network, off-road bike-paths, and several quiet residential neighborhoods where biking and walking are a common form of recreation. Heart & Soul participants identified these resources as vital to Health, Safety, Thoughtful Growth and Community Connections.

Essex Junction has invested significant resources towards the revitalization of its historic downtown in the Five Corners over the last five years. A major piece of that effort has been public streetscape and open space improvements. A thriving Farmers Market has been accommodated on Lincoln Place. The annual Village Block Party has been a huge success, but requires the closing of Railroad Avenue. Noticeably absent in the downtown is a village green, a symbol of the New England Village. The development of a green in the Village Center would require demolition and redevelopment.

The Transit Oriented Development Zoning District along Pearl Street encourages the provision of passive outdoor spaces such as a plaza or green in redevelopment projects.

Sidewalks and urban street trees are critical components of open space in an urban area. They help to connect residents with the larger open spaces, and help to create a walkable, vibrant downtown. In the more urban areas of the Village, such as the Village Center and Transit Oriented Development District, wider sidewalks will be required on new streets along with benches and pedestrian amenities. The Village has widened sidewalks as part of the Main Street and Railroad Avenue Streetscape Projects, and Park Street as part of the Essex Junction Redevelopment Project.

Bike paths are also critical components of urban open space. The Bike/Walk Committee is working to map all routes and linkages in the village and identify gaps, and is working on developing this into a future bike and pedestrian official map. The Committee has also developed a list for use in review of development projects. In addition the particular type of connection should be flexible as the best solutions are site specific.

Paths that are currently being considered include:

- a dedicated multi-use path from Essex Junction to Richmond;

- pedestrian link connecting the state property on West Street to Pearl Street by Harley Davison Motorcycles;
- changes to Park Street due to the crescent connector road which will include a pedestrian sidewalk, bike lane, and allow travel from Park Street to Route 15 even when the chip train is traveling through the village (construction may be complete by summer 2015);
- path through CVE property connecting Route 2A to Route 15;
- path connection to the tree farm off Old Colchester Road from Autumn Pond apartments and the high school. There will be a complete loop around the tree farm and the developer of Autumn Pond will maintain the path connection; and
- encourage links with surrounding communities.

In addition, the Village tree planting program to replenish and maintain trees in the Village right-of-way is an essential component of the urban open space infrastructure. This work of the Village Tree Advisory Committee is discussed further in the Agriculture & Forestry chapter.

4.3 Natural Environmental Resources

The natural resources base within, and adjacent to a community, are important factors to consider for several reasons. First, they may limit, or direct the type of development which will occur. Second, they contribute to the quality of life within the community. Third, they provide opportunities to preserve important environmental areas. Finally, they provide important recreational opportunities for residents. The safe, attractive and efficient utilization of land is largely dependent upon these important natural resources. These resources all contribute to the identity of the Village as a desirable place to live and work. Residents value these resources as reflected in the Heart and Soul values, particularly Health & Recreation and Thoughtful Growth.

Map 1 identifies several important natural resources within the Village, briefly described below. Protection of these resources are listed here and in several other chapters throughout the Plan.

Watersheds and Rivers – It is useful to start a natural resources discussion with watersheds, as an integrated watershed approach to the protection of land and water resources is key to ensuring fresh, clean water, habitats and healthy natural resources. There are two basin level watersheds in Essex Junction – the Winooski River, and direct discharges to Lake Champlain (Indian Brook – discharges in Malletts Bay). The two waterways passing through the Village - Indian Brook and Sunderland Brook - feed these larger basins. These rivers serve as habitat for fish and wildlife, as natural flood control features, and as an attractive environment in which to live. Erosion control and stormwater management are important measures to restore and protect these resources. The Utility section of this plan describes the measures that the Village is taking on this front. In addition, the following Flood Plain and Fluvial Erosion Hazard Areas contain further detail.

Flood Plains – Floodplains are those areas that are under water during periods of high flow. For regulatory purposes the floodplain consists of the Special Flood Hazard Area and the Floodway – as identified by the Federal Emergency Management Administration (FEMA). The Special Flood Hazard Area is the area subject to a 1% or greater chance of flooding in any year. Thus, while on average such lands flood once every 100 years, floods can and do occur more frequently. The Floodway means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot at any point. The floodway is the area where the fastest moving and most destructive floodwaters will flow during the 100 year flood. Thus, while all land within the floodplain will be wet during a 100 year flood, the most damage to property and loss of life will occur in the floodway.

Essex Junction protects its flood plain through flood hazard zoning regulations which limits the amount of damage by limiting the amount of development and fill in flood plains. These development regulations also present opportunities to maintain natural open spaces and develop needed recreation facilities. The largest designated Flood Plain lies adjacent to the Winooski River. The second area is located in the northern section, along Indian Brook, from the northeast corner of the Fairgrounds across Lincoln and Main Streets to the easterly boundary of the Countryside subdivision.

Fluvial Erosion Hazard Areas – While some flood losses are caused by inundation (i.e. waters rise, fill, and damage low-lying structures), most flood losses in Vermont are caused by “fluvial erosion”. Fluvial erosion is caused by rivers and streams, and can range from gradual stream bank erosion to catastrophic channel enlargement, bank failure, and change in course, due to naturally occurring stream channel adjustments. The areas most subject to this type of erosion are called “Fluvial Erosion Hazard Areas (FEH)” and these areas have been identified and mapped in accordance with accepted state fluvial geomorphic assessment and mapping protocols. These are depicted on Map 1.

A FEH area includes the stream and the land adjacent to the stream. It identifies the area where stream processes can occur to enable the river to re-establish and maintain stable conditions over time. The area boundaries also attempt to capture the lands most vulnerable to fluvial erosion in the near term, as well as the area needed by a river to maintain equilibrium. The map also provides a valuable insight into the location and nature of fluvial erosion hazards, and can be used to support many effective mitigation options. As can be seen on Map 1, most of the fluvial erosion hazard areas are located within the floodplain which is protected from new development. However, there is an area south of Cascade Street that is not currently regulated by the flood plain regulations. This area should be monitored to determine if additional protections are needed. Also, because fluvial erosion is not only caused by

How Fluvial Erosion Occurs:

Every river has a probable form, reflecting its complex interaction of many factors, including inputs from its watershed (water, sediment, ice, woody debris) as well as the physiographic setting (geology, soils, vegetation, valley type). Figure 1 illustrates the balance between watershed inputs (water and sediment), channel characteristics (slope and boundary conditions) and the physical response of a channel either by aggradation (sediment deposition), or degradation (scouring of sediment).

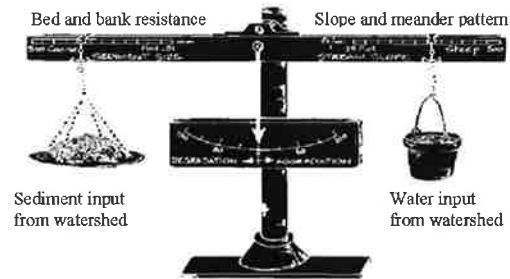


Figure 1. The channel balance (Lane, 1955)

Illustration credit: Lane, E.W. 1955. *The Importance of Fluvial Morphology in Hydraulic Engineering*. In *Proceedings of the American Society of Civil Engineers* 81(745): 1-17. Reproduced by permission of the American Society of Civil Engineers.

When all the elements are in balance, a river is said to be in “dynamic equilibrium.” A river in equilibrium can carry its load of water, sediment, and debris, even during high flows, without dramatic changes in the width, depth, or length (slope). A dramatic change in any of these elements will tilt the balance and lead to changes (or adjustment) as a river attempts to move back toward an equilibrium condition. This adjustment is often expressed as fluvial erosion, or major changes in channel dimension and location, as a river attempts to regain equilibrium.

One common mode of channel adjustment seen throughout Vermont is the response of a river to straightening. When a river is straightened, the slope of the channel is increased. As a result, the river has more power, and a greater ability to carry sediment, and begins to incise, eroding the stream bed. The incision leads to a situation where the river becomes disconnected from its floodplain. Without floodplain access, which serves the essential purposes of slowing floodwaters and storing sediment, stream banks are subjected to the full power of flood flows, leading to extensive fluvial erosion. If left alone, the river will eventually erode its banks enough that it can lengthen its channel, regain a more stable slope, and develop a new floodplain at a lower elevation.

new development, all of the fluvial erosion areas should be monitored to see how best to accommodate fluvial equilibrium and natural erosion processes while minimizing undue damage to property.

Wetlands – The development on or near wetlands is strictly regulated. In addition, wetlands provide a natural habitat for animals and preserve natural areas (described in more detail in the following section). They also serve important ecological functions including storm water runoff purification and ground water recharge. The wetland areas identified by the Vermont Significant Wetlands Inventory are indicated on Map 1. It should be noted that there may be additional wetlands that are not currently mapped.

Significant Wildlife Habitat – Just as the southern portion of Essex is described in the *Essex Open Space Plan 2008* and the 2011 Essex Town Plan, the Essex Junction landscape is mostly a developed urban core which, for wildlife, presents highly fragmented and isolated backyard, woodlot, wetland and streamside environments marked by a strong human presence. This type of habitat is home to wildlife species that can live where roads, houses, industry, people and their pets can be found. Habitats of particular significance, and mapped on Map 1, include:

- The *Essex Open Space Plan 2008* identifies a portion of the Winooski River riparian area in both Essex and Essex Village as a **Contiguous Habitat Unit** – defined as a larger, relatively continuous wildlife habitat area that has been defined and mapped based on the presence of wetlands and riparian habitat. This area is also considered to be a Natural Community, defined below. The particular significance of this area is described in the sidebar – especially the intact floodplain forest in the Winooski Valley Park District’s Woodside Natural Area.
- **Natural Communities** are identified at a larger scale than species specific habitats, and they consist of an interacting assemblage of plants and animals, their physical environment, and the natural processes that affect them. These communities are assigned a state rank that describes the rarity of the community type in Vermont. The rank of the communities found in Essex Junction can be found on the State’s BioFinder at biofinder.vt.gov/. These communities include wetlands, surface waters and riparian areas, and particular types of upland communities.
- **Rare, Threatened & Endangered Species** – A rare species only has a few populations left in Vermont and faces threats from development of their habitat, harassment, collection, and suppression of natural processes (such as fire). The VT Fish and Wildlife Department uses a ranking scheme to describe rarity in Vermont (S1 is very rare, and S5 is common and widespread) – this information can be found on the State’s BioFinder. Endangered and Threatened species are generally described as “species whose continued existence as a viable component of the state’s wild fauna or flora is in jeopardy” and are protected by State and Federal law (*Conserving Vermont’s Natural Heritage*, Vermont Fish and Wildlife Department and Agency of Natural Resources).

“A variety of diverse wetland communities are found in Essex. Of special note are floodplain forest communities along the Winooski River (e.g., the Winooski Oxbow Wetlands and the 68 Acres Site) that are uncommon in Vermont because most have been cleared for agriculture. These natural communities are one of the most highly functioning because of their location along the river – they filter excessive nutrients during flood events and provide critical riparian habitat. They are also one of the most degraded – in many places all that remains of these floodplain forests is a thin strip of trees along the riverbank.”
Essex Open Space Plan 2008

As Map 1 shows there are a number of these habitat locations – most, but not all, are associated with the Winooski River, Indian Brook, Sunderland Brook and the tributaries that feed them. Efforts to protect these habitats and species are critical to protecting and preserving Vermont’s heritage and

can include conservation, restoration, and management plans. In summary, Significant Wildlife Habitat includes those natural features that contribute to the survival and/or reproduction of the native wildlife of Essex Junction. These areas include, but are not limited to: contiguous habitat units; habitat for rare, threatened, and endangered species (state or federally listed); riparian areas and surface waters; and wetlands.

Scenic Views - Although there are many outstanding view sheds within the Village, three areas have been particularly identified. First, in the northeasterly section of the Village, between Upper Main Street and the Countryside development, is the highest point within the Village. Spectacular views of Mount Mansfield and the Adirondack Mountains are visible from this location. Second, the river crossing on Park Street provides views of the Winooski River and serves as a scenic entrance to the Village. Third, along the westerly end of Pearl Street there are spectacular views of the Winooski River Valley.

Forested Areas – Much of the land that was forested has been developed within the Village. The State of Vermont abandoned its tree nursery operation on Old Colchester Road and has sold the property to the Village and Town for recreational use. Other heavily forested areas are located on the Whitcomb Farm. Maintaining the forested areas on the Whitcomb Farm along the Winooski River is particularly critical for wildlife habitat and flood protection.

Agricultural Areas – The Village is fortunate to have one active farm still in existence. The Whitcomb Farm in the southwest sector of the Village has been actively farmed by the Whitcombs since 1879. The Vermont Land Trust, with funding assistance from the Village, purchased development rights on 271 acres of the Whitcomb Farm in March 2014. Additional development rights are planned for purchase on approximately 143 acres, pending funding in 2015. . See the Agriculture chapter for more details.

Prime-Ag Soils - Soil classifications are another important natural characteristic within the Village, particularly as they pertain to prime-ag soils, whose development potential may be limited, or mitigation required, by the State of Vermont under Act 250. The prime-ag soils in the Village are identified on Map 1.

Sand & Gravel – There are no sand and gravel operations or resources in the Village.

Thrust Faults - As noted in the 2011 Essex Town Plan there are two thrust faults running southeast to northwest through the southwest quadrant of the Town (and therefore in the Village). These are described in the 2011 Essex Town Plan as follows: “There is no recorded mention of movement along these faults so seismic danger is minimal. Below the fault, however, is a deep layer of very porous carbonate which allows ready movement of water and facilitates the aquifer recharge process. At present, this porous layer of carbonate is protected by the upper impervious plate and/or a substantial layer of surficial material.” Analysis of these areas should be considered in order to determine how properties along the thrust faults should be managed.

4.4 Other Natural Resource Considerations

Air Quality – Outdoor air pollution in significant concentrations can raise aesthetic and nuisance issues such as impairment of scenic visibility; unpleasant smoke or odors; and can also pose human health problems, especially for more sensitive populations like children, asthma sufferers, and the elderly. While Chittenden County’s air quality meets current National Ambient Air Quality Standards (NAAQS), we are close to the limits for ground-level ozone and fine particulates. We are also subject to pollution from the mid-west that we cannot control. If the NAAQS are revised to be more stringent

- or air pollutant levels increase - so that we exceed the NAAQS, additional and costly environmental regulations will apply to our region (Source: *2013 Chittenden County ECOS Plan* and <http://www.anr.state.vt.us/air/>).

Climate Change - Temperature and precipitation records for the latter half of the 20th century show that Chittenden County's climate has changed: winters became warmer and summers became hotter. Lake Champlain freezes over later and less frequently and the growing season lasts longer. While it is unknown exactly how future climate trends will specifically affect Chittenden County, precipitation throughout the northeast is projected to increase as much as 10 percent over the century. Climate model forecasts for the Northeast US predict that during this century temperatures will continue to increase, as will extreme heat days and heat waves. Scientists overwhelmingly agree that changes in climate worldwide are a result of human activities, mainly the burning of fossil fuels. Current and predicted changes in climate will have broad implications for environmental quality, natural communities, public health, built environment, and local economy. The regional greenhouse gas emissions inventory determined that 1,193,000 metric tons of carbon dioxide equivalents were generated in Chittenden County in 2010. This amount is approximately 16% of the state's 2011 greenhouse gas emissions. Transportation accounts for 48% of county emissions; heating fuels account for 38%.

Climate change mitigation and adaptation measures are varied and include many strategies the Village is already undertaking for other reasons – for example, the Village's efforts to increase sidewalks and bikepaths will provide residents with an alternative mode of transportation that does not produce greenhouse gas emissions. The Chittenden County Regional Planning Commission's *Creating a Climate for Resilience: Chittenden County Regional Climate Action Guide* identifies priority regional strategies and actions, and provides guidance on actions for interested municipalities, employers, and individuals. The Guide includes actions for both reducing the ways we contribute to climate change (climate mitigation) and to adapt in ways that make us more resilient to a changing climate (climate adaptation).

Genetically Engineered Trees – Just as we've seen in agriculture, genetic engineering is being introduced in the forestry industry as well. There are many reasons why geneticists have been working on this, including pest resistant trees, and the reduction of lignin which complicates the paper making process. The effects of these new genes are unknown, though interference with the natural environment is certain considering pollen drifts.

4.5 Flood Resiliency

As of July 1, 2014 municipal plans are required to include a flood resiliency goal and element. The requirements include identification of flood hazard and fluvial erosion hazard areas; designates those areas to be protected, including floodplains, river corridors, land adjacent to streams, wetlands, and upland forests, to reduce the risk of flood damage to infrastructure and improved property; and recommends policies and strategies to protect these areas and mitigate risks. This Plan calls for avoiding new development in these areas and eliminates exacerbation of flooding and fluvial erosion, encourages protection and restoration of these areas, and plans for flood emergency preparedness and response.

Identification of the flood and fluvial erosion hazard areas, and the areas to be protected were described in this chapter above, and are mapped on Map 1, and Map 11. The Village and Town joint All Hazards Mitigation Plan (AHMP) developed in conjunction with the Chittenden County Regional Planning Commission (adopted in 2011, planned for update in 2016) also identifies the most significant hazards for Essex and Essex Junction:

Severe winter storm	Power loss	Telecommunications failure
Major transportation incident	Key employer loss	Hazardous materials incident
Multi-structure urban fire	Flooding	Water service loss

While the AHMP includes much more detail on these hazards, particular issues identified regarding flood risk include:

- “Parts of Essex Town and Essex Junction lie downstream of the Essex Dam #19, which is the only high-hazard dam located in Chittenden County. Green Mountain Power, which owns the dam, has mapped the area that would be inundated in the unlikely event of a dam failure. Inundation maps are routinely reviewed and updated to identify new developments that might be affected by inundation. The emergency action plan for the dam is updated annually and provided to appropriate first-responder organizations.”
- The AHMP identifies two critical facilities (The Center for Disaster Management and Humanitarian Assistance defines critical facilities as: “Those structures critical to the operation of a community and the key installations of the economic sector.”) associated with Green Mountain Power in the floodplain in Essex Junction. However, as Map 11 shows there are actually three critical facilities in the floodplain, including Essex Rescue.
- As of 2009, there are 5 residences and three commercial/industrial structures, including Essex Rescue, located within the 100-year floodplain in Essex Junction.
- Map 11 (and updated version of Map 3.1 in the AHMP) maps all structures, including bridges and culverts, in the floodplain.
- The AHMP finds that while existing structures in the floodplain are at risk, the Village zoning restricts new development in the designated flood hazard areas. The capabilities of the Departments of Public Works to mitigate flood impacts on municipal roads are considered adequate, with the exception of the Indian Brook Reservoir Dam.

The AHMP also identifies a number of actions the Village is taking to address these concerns. For example, the Village has an Emergency Operations Plan that provides directive for emergency preparedness and response planning; the Village maintains a culvert inventory and works to upgrade and maintain these culverts through the Capital Improvement program; and the Land Development Code protects these areas through the following mechanisms:

- Floodplain regulations in accordance with the National Flood Insurance Program;
- Low Impact Development (LID) is required of all developments. Applicants must demonstrate why LID is not possible before being granted access to the Village stormwater system.
- Review of all development within 200’ of any waterway, floodplain or wetland. A 15 foot or more undisturbed buffer must be maintained adjacent to streams – this may be increased based on flood plain profile, slope of the land or other conditions. A 50 setback is considered above the high water mark of the floodplain for stream meandering, flooding or other natural processes. It is the objective of these standards to promote the establishment and protection of heavily vegetated areas of native vegetation and trees along waterways in order to reduce the impact of stormwater runoff, prevent soil erosion, protect wildlife and fish habitat and maintain water quality.

Goal 6 below calls for maintaining and expanding on these flood resiliency efforts.

4.6 Open Space/Recreation/Environmental Goals

Goal 1: Support the Essex Junction Recreation Department in providing a wide range of recreation and leisure opportunities for all residents of the Village.

- Objective 1.1: Continue regulations which require the dedication of usable park lands and open spaces as a requirement of major development approval.
- Objective 1.2: Support the implementation of the 2007 Essex Junction Recreation and Park Master Plan.
- Objective 1.3: Encourage increasing the annual funding of the Recreation Capital Replacement Reserve Fund to one cent (.01) of the municipal grand list.
- Objective 1.4: Encourage implementation of a recreation impact fee to create a fund to support future community park and facility needs.

Goal 2: Create urban open spaces.

- Objective 2.1: Encourage the provision of plazas and other urban outdoor areas in major redevelopment projects in the Village Center and Transit Oriented Development Districts.
- Objective 2.2: Require pedestrian and bicycle amenities in the creation of new public streets in the Village Center and Transit Oriented Development Districts.
- Objective 2.3: Consider the development of a village green within the Village Center District.
- Objective 2.4: Encourage or require the preservation of open space in new residential developments. Allow for innovative design in the preservation of open space through clustering and design techniques.

Goal 3: Preserve the natural beauty indigenous to Vermont within the Village of Essex Junction.

- Objective 3.1: Maintain regulations which encourage the preservation of trees in new development.
- Objective 3.2: Implement a program of selective planting of trees on private property adjacent to existing road right-of-ways.
- Objective 3.3: Promote and actively participate in an annual tree planting program.
- Objective 3.4: Consider protection of the outstanding view sheds identified in this Plan through amendments to the Land Development Code.

Goal 4: Continue protection of existing natural resources identified in this chapter.

- Objective 4.1: Continue to enforce stormwater treatment standards in the Land Development Code to improve water quality in impaired waters and to minimize non-point source water pollution from new development.
- Objective 4.2: Require retention of vegetation or effective re-vegetation of areas vulnerable to erosion.
- Objective 4.3: Work with the Center for Technology Essex to develop a nursery to raise street trees for the Village and Town.
- Objective 4.4: Continue incentivizing growth in the areas planned for growth, so that development pressures on natural resources and open spaces are lessened.
- Objective 4.5: Ensure protection of the Village's significant wildlife habitat resources by inventorying the resources, determining their current level of protection, and if

necessary define them and establish standards for protection of them in the Land Development Code.

Objective 4.6: Coordinate with the Town, Region and State on efforts to establish air quality goals/objectives and encourage methods of air quality improvement.

Objective 4.7: Analyze the thrust faults to determine how properties in these areas should be managed for protection of aquifer recharge and minimizing undue property damage.

Goal 5: Reduce greenhouse gas emissions contributing to climate change and adapt to become more resilient to a changing climate.

Objective 5.1: Engage in climate mitigation strategies to reduce the region's contribution of greenhouse gases. For example, continue to implement policies that promote investment in transportation options that reduce emissions – such as sidewalks and bike lanes; and implement programs to increase urban forest canopy.

Objective 5.2: Engage in climate adaptation strategies to help individuals, businesses and communities be able to withstand and bounce back from – or even take advantage of – the impacts of climate change. For example, prepare and maintain plans for emergency operations, emergency response, business continuity and business recovery.

Goal 6: Avoid new development in floodplains, fluvial erosion hazard areas, and land adjacent to streams, wetlands, and upland forests; eliminate the exacerbation of flooding and fluvial erosion; encourage protection and restoration of these areas; and plan for flood emergency preparedness and response.

Objective 6.1: Continue to enforce the flood plain regulations to protect flood prone areas and minimize fluvial erosion.

Objective 6.2: Monitor the fluvial erosion hazard area south of Cascade Street that is not currently regulated by the flood plain regulations to determine if additional protections are needed.

Objective 6.3: Monitor all of the fluvial erosion areas to see how best to accommodate fluvial equilibrium and natural erosion processes while minimizing undue damage to property.

Objective 6.4: Plan culvert replacements for any undersized culverts in conjunction with roadway improvements.

Objective 6.5: Review the Hazard Mitigation Plan on a regular basis and follow-up on action steps.

Objective 6.6: Continue annual certification of the Emergency Operations Plan.

5. Education and Child Care

The Village of Essex Junction is centrally located and has ready access to numerous colleges and universities including the University of Vermont, Champlain College, St. Michael’s College and Burlington College. These facilities provide varied opportunities for residents of the Village.

The public school system in the Village of Essex Junction is administered by the Essex Junction School District, an incorporated district which was chartered by the State in 1892, and the Union School District #46, established by the voters in the Village of Essex Junction and Town of Essex in 1995. The Essex Junction School District encompasses three elementary schools and one intermediate school. The school district is also responsible for the operations of the Essex Junction Recreation and Parks department. The Union School District #46 encompasses one high school and one regional vocational-technical center serving the communities of Bolton, Charlotte, Essex Junction, Essex Town, Fairfax, Grand Isle, Hinesburg, Huntington, Jericho, North Hero, Richmond, St. George, Shelburne, South Hero, Underhill, Westford, Williston, Winooski, and the Champlain Valley and Mount Mansfield Union High Schools.

Table 8 identifies existing school sites and acreage. Anticipated future school populations are listed in Table 9.

**Table 8
School Property Inventory**

Ed Center	93.0	acres
A.D. Lawton	33.5	acres
Hiawatha	15.65	acres
Summit	3.7	acres
Fleming	5.44	acres
Park Street	1.29	acres
51 Park Street (SU Office)	0.56	acres

Management, including planning, of the Essex Junction School District is by a five member “Prudential Committee” whose members are elected from the public at large. Management, including planning, of the Union School District #46 is by a six member School Board, three of whose members are elected by the Village, and three of whose members are elected by the Town of Essex (outside of the Village). The Prudential Committee’s and Union School Board’s functions include fiscal responsibility and the setting of school policies and standards. The Prudential Committee and Union School Board are responsible for planning for the local school systems. Specific education plans are available at the School District Offices.

**Table 9:
Estimated Future Population in Essex Junction Schools**

Year	Births	K	1	2	3	4	5	6	7	8	K - 5	6-8	K - 8
1990	239	93	132	116	114	95	107	110	108	94	657	312	969
1991	250	118	104	136	118	111	98	116	104	108	685	328	1013
1992	233	121	123	103	134	112	107	103	125	103	700	331	1031
1993	215	94	125	125	107	129	114	111	105	130	694	346	1040
1994	205	128	108	127	129	116	127	120	115	99	735	334	1069
1995	202	122	135	104	130	133	118	144	125	119	742	388	1130
1996	212	87	124	139	110	126	130	131	138	135	716	404	1120
1997	210	117	96	122	138	107	128	134	132	142	708	408	1116
1998	212	119	131	97	128	137	116	132	134	132	728	398	1126
1999	233	90	123	125	105	123	133	118	132	148	699	398	1097
2000	221	104	97	123	126	101	132	135	123	128	683	386	1069
2001	199	101	114	88	129	118	99	130	135	126	649	391	1040
2002	207	99	111	119	90	130	118	110	131	136	667	377	1044
2003	231	98	106	105	123	87	130	125	104	131	649	360	1009
2004	228	104	107	104	107	127	88	128	129	105	637	362	999
2005	227	114	96	102	103	111	123	92	128	136	649	356	1005
2006	204	96	115	99	107	107	106	131	99	122	630	352	982
2007	224	101	99	119	103	106	109	105	140	103	637	348	985
2008	261	119	100	103	113	106	106	113	105	141	647	359	1006
2009	205	111	109	98	107	112	113	110	116	110	650	336	986
2010	189	116	113	117	103	111	112	109	111	113	672	333	1005
2011	207	106	114	120	115	107	111	117	109	112	673	338	1011
2012	211	102	110	117	120	114	103	112	123	113	666	348	1014
2013	214	112	111	113	124	117	113	112	117	124	690	353	1043
2014	215	113	112	114	116	124	118	116	114	119	697	349	1046
2015	216	96	113	115	117	116	125	122	119	116	682	357	1039
2016	217	96	96	116	118	117	117	129	125	121	660	375	1035
2017	217	101	96	98	119	118	118	121	132	127	650	380	1030
2018	218	103	101	98	100	119	119	122	124	134	640	380	1020
2019	219	104	103	104	100	100	120	123	125	126	631	374	1005
2020	220	105	104	106	107	100	101	124	126	127	623	377	1000
2021	219	105	105	107	109	107	101	104	127	128	634	359	993
2022	218	105	105	108	110	109	108	104	106	129	645	339	984
2023	217	105	105	108	111	110	110	111	106	107	649	324	973
2024	216	106	105	108	111	111	111	113	113	107	652	333	985
2025	215	106	106	108	111	111	112	114	115	115	654	344	998
2026	213	106	106	109	111	111	112	115	117	117	655	349	1004
2027	211	106	106	109	112	111	112	115	118	119	656	352	1008
2028	209	105	106	109	112	112	112	115	118	120	656	353	1009
2029	207	105	105	109	112	112	113	115	118	120	656	353	1009
2030	205	105	105	108	112	112	113	116	118	120	655	354	1009

As can be seen from the above table, school populations are anticipated to remain fairly level for the next five years, then drop slightly to about 1,000 for the foreseeable future. The school district has no plans for new schools. However, the Union #46 District completed a \$12.5 million renovation of several spaces within the Educational Center (high school, tech center, and rink) in 2008 and several renovations have occurred in recent years to improve each Essex Junction school. Single Family housing development, which tends to have the biggest impact on school enrollment populations, is

occurring at a very low rate due to the scarcity of vacant land. The increase in multi-family development in the Village is not likely to have a major impact on school enrollments.

5.1 Childcare

The availability of adequate childcare facilities for working parents is widely considered a critical ingredient of a healthy community. Not only is childcare an essential part of a community's social infrastructure, support for such facilities is increasingly considered an important economic development strategy.

The Essex Junction School District is a dedicated partner with the community in providing young children with high quality preschool and early care learning experiences. The Essex Junction School District provides high quality in-house preschool instruction to approximately 30 students. Through their agreements with high quality private preschool providers, that number increases to approximately 90 students total. The Essex Junction Recreation and Parks department is one of the private preschool partners and services about 18 students (most of which are Village residents). The department also provides after school childcare for nearly 200 children through its Village Kids program which operates out of Fleming, Hiawatha, and Summit Street schools during the school year. In addition, the department provides childcare for nearly 100 children during the summer through its Camp Maple Street program which serves about 90 children for nine weeks.

Childcare facilities are regulated by the Vermont Department for Children and Families. Providers operating out of private homes who care for not more than six pre-school children from two or more families, in addition to not more than four school age children for four or fewer hours each day, must be registered with the state.

According to the 2010 U.S. Census, 565 Village residents are under the age of 5 (6.1%), 591 residents are 5 to 9 years old (6.4%), and 610 residents are 10 to 14 years old (6.6%). While there is no way to determine how many families need childcare for those children, we can report the capacity and vacancy for the current childcare providers. As of February 2014, the VT Dept. for Children and Families Bright Futures Child Care Information System reports there were 16 licensed programs (including school programs) and 10 registered homes providing care for children in Essex Junction. These facilities have a combined capacity to serve 70 infants, 49 toddlers, 205 pre-school children and 393 school age children for a total of 694. At the time of this count there were the following vacancies: 16 infant, 9 toddler, 28 pre-school, and 16 school age for a total of 69. It appears that the licensed programs are licensed to serve additional students than they report for capacity so they may apply for a greater number than they are currently prepared to serve. It is important to note that the Child Care Information System reports data as provided to them by the programs – they do not do a census count. While there appears to be some capacity available in the existing programs, the Village appears to be adequately served by the existing childcare facilities. In addition, there are ample opportunities for new facilities as childcare facilities and home daycare facilities are allowed in most areas of the village. Map 5 identifies the locations of publically funded childcare facilities in the village.

5.2 Education Goals

Goal 1: Provide opportunities for access to quality education for all segments of the population and promote full use of all facilities.

Objective 1.1: Coordinate with the School District to minimize any negative impact to school resources which results from major new residential development.

Objective 1.2: Encourage the use of Village and school facilities during evening and weekend hours for adult education, educational workshops and career development programs.

Goal 2: Cooperate and coordinate with the School District in providing enrollment projections within the Village.

Goal 3: Encourage alternative access to all educational facilities through the use of sidewalks, bike paths and mass transportation as appropriate.

Goal 4: Maximize use of all public facilities, Village and School, by utilizing the facilities for community and service organizations during off-peak hours.

Goal 5: Promote an elementary school safety program to increase awareness of bicycle and pedestrian safety issues. Continue participation in Vermont's Safe Routes to School Program.

Goal 6: Continue to allow childcare facilities and home daycares in all zoning districts that permit schools as well as all residential zoning districts.

6. Utilities/Facilities

Community facilities and utilities are provided by the Village, Town or other quasi-public entities for the health, benefit, safety, and enjoyment of the general public. They include wastewater disposal systems, public water supply, stormwater management, solid waste disposal, utilities, library services, fire protection, police and rescue services. Careful planning is essential for community facilities and services if they are to meet local goals for future growth and sustainability. While, these utilities and facilities are necessary for helping the Village maintain all of the Heart & Soul values, they are particularly important to the Safety value. Other infrastructure like roads and sidewalks are discussed in more detail in the Transportation chapter.

6.1 Water Distribution System

The Village of Essex Junction receives its water from the Champlain Water District (CWD). CWD is a water wholesale company that maintains a network of distribution pipes and meters throughout the communities that they service. Water enters into the Village through three main master meters controlled by CWD. Water leaves the Village through one meter. With IBM as a major water user, water into the Village is over 5.5 MGD (Million Gallons per Day). Village users consume 0.75 MGD the balance of the water passes through the system with bulk water billing managed by CWD and water to IBM managed by the Village.

The high volume of water that passes through the community makes the Essex Junction water system one of the largest in the state by hydraulic volume. This high volume of water is good for water quality. With large volumes of water and meters out of the Village of Essex Junction direct control, accurate wholesale billing and acute monitoring of the distribution system for leakage is very important for rate stability.

The Water Department purchased a leak detection system for constant monitoring of the water system for leaks. Twice annually, unaccounted for water or water loss is calculated as part of the residential billing cycle. The Village continues to maintain water loss at low level, well below industry norms.

The residential section water distribution system in the Village of Essex Junction consists of a high pressure system and a low pressure sections. The majority of the Village is serviced off the low pressure system. The high pressure system services a section located in the northeast corner of the Village, this area consists of all Countryside Development, Corduroy Road, Vale Drive, Mason Drive, Kiln Road, the west end of Brickyard Road, Acorn Circle, the west end of Briar Lane and the west end of Woods End Drive. The high pressure system also provides water to the Town of Essex at two locations in this area. As noted earlier, water is obtained through the Champlain Water District. Village residents are eligible to vote on measures to expand the District services.

Presently, most of the water main transmission lines are sufficient with some exceptions. There are areas within the Village where looping the mains would result in improved fire protection and circulation. Other sections of the Village contain water mains that are under sized by today's public water supply and fire protection standards. The Water System capital plan prioritizes the identified system deficiencies. All capital plans are working documents subject to modification due to changing priorities and opportunities to modify schedule to combine projects.

The Village has sufficient major transmission lines available to serve future development (Map 8). Extension of these mains to serve new development will be the responsibility of developers and must be done to the municipal standards. The Village Water Distribution Map is updated annually and is

available at the Village Office, Public Works, Wastewater Treatment Facility. The maps are now in GIS format.

6.2 Stormwater Drainage System

The Village of Essex Junction is a regulated Municipal Separate Storm Sewer System (MS4) under the EPA and State of Vermont Phase 2 stormwater permit process. The Village is regulated as the population density exceeds 1,000 persons per square mile. The Village began participation in this program at its inception in 2002. As required by law, the community is required to comply with six program areas.

1. Public Education and Outreach on stormwater
2. Public participation/involvement in stormwater management and decision making
3. Illicit discharge detection and elimination
4. Control of construction site stormwater runoff
5. Control of post construction runoff
6. Municipal pollution prevention and good housekeeping

The Village has implemented all required permits related to stormwater. There remain several expired permits which will be addressed under the 2012 permit renewal when the stormwater management plan is approved by the State. All systems are inspected at minimum, once annually after snow melt, twice a year as specific permit conditions apply.

The Village of Essex Junction has two waterways passing through the community. Both of these streams are impaired due to stormwater flow contributions. The streams are Indian Brook and Sunderland Brook. TMDL's (Total Maximum Daily Load) establish the allowable flow capacity for all contributing sources at a level necessary to attain the applicable water quality standards. TMDLs have been established for both Indian and Sunderland Brooks. The Winooski River abuts the Village of Essex Junction to the south.

A Municipal Separate Storm Sewer (MS4) Phase 2 General Permit (3-9014) was issued to the Village of Essex Junction in 2013. This permit requires the Village to improve the water quality of its stormwater impaired watersheds (Indian and Sunderland Brooks) which we share with the Town of Essex. As a result, the two communities formed the Joint Stormwater Committee (JSWC) to coordinate efforts needed to meet permit requirements. The JSWC is also working to address stream flow restoration planning requirements aimed at reducing the flow and restoring it closer to attainment or predevelopment flows (the TMDLs will be incorporated into this work).

The Village of Essex Junction has historically maintained its stormwater infrastructure to a higher standard than most communities. This ongoing maintenance and management of these stormwater assets will further insure water quality at a value price for the community.

6.3 Wastewater Collection System

The Village of Essex Junction continues to maintain and improve its sewage collection system. These improvements included replacement of the High School Pump Station as well as ongoing sewer line and manhole sealing. The goal of our work is to preserve hydraulic capacity and to ensure the sanitary sewer system continues to provide this essential service for the protection of public health. The community continues to process improvements within capital plan updates.

Presently, the sewer transmission mains within the Village are adequate for the present flows. The gravity sewer system in the Village consists of many different types of pipe used for transmission mains (concrete, vitrified clay, asbestos cement, PVC, cast iron and HDPE).

There are over 16,000 feet of concrete sewer main in the Village (Map 7). Some of this pipe has been in use for more than 60 years and is beginning to show signs of deterioration where the soil conditions are poor. Major improvement in the condition of pipe was accomplished using federal stimulus funds and eliminating the significant need to rehabilitate substantial sections of sewage collection infrastructure. This concrete pipe will eventually need rehabilitation over the next 20 years. High priorities for evaluation continue to be the major transmission lines as well as lines under main roadways. Assessment uses a standardized pipeline assessment protocol. Recent infiltration and inflow field work will aid in prioritizing where future improvements should be focused. The entire system is in good standing.

Sewer mains are readily accessible to all areas of the Village. Detailed Wastewater Collection System Maps are updated annually and are available at the Village Offices, Public Works and the Wastewater Treatment Facility. Extensions of lines are the responsibility of the developer. The use of septic systems for future development is not necessary. There is adequate capacity to accommodate the few remaining septic systems still within the Village today. A comprehensive listing of on-site septic systems is found in Section 7 of the Village of Essex Junction policies and procedures.

6.4 Wastewater Treatment Capacity

The wastewater facility was upgraded to advanced secondary treatment in 1985. Since then the Wastewater Treatment Facility has completed two upgrades for the Towns of Williston and Essex. The current facility capacity is rated at 3.3 Million Gallons per day. In 2012, a comprehensive facility refurbishment was contracted. Work completion is expected in the Fall of 2014.

Rated capacity for the three communities served by the Essex Junction Wastewater Facility are:

Essex Junction	1.17 MGD (Million Gallons per Day)
Essex Town	1.10 MGD
Williston	1.03 MGD

Based on actual flows observed from the Village, there is excess treatment capacity of 0.45 million gallons per day more or less. There is sufficient hydraulic capacity for the Village beyond the year 2015. Additional capacity will be gained by wastewater collection system work noted above. Capital maintenance work reduces the incidence of water infiltrating into the system from the groundwater table. Additional capacity will be recovered by rescission of unused capacity allocations assigned to development projects that have not been constructed.

Total flow from the three communities serviced is at an average daily volume of 1.9 million gallons per day. Wastewater flows will vary based on weather conditions. Long term flow profiles relate to development patters in the communities served. Capital planning with long term rate stability planning will maintain the viability of the infrastructure long beyond its design life.

6.4.1 Pump Stations

Within the Village, there are seven sewage pump stations. Sewage flows by gravity in lower lying areas to a central collection point. There it is collected in a wet well (storage tank) then pumped under pressure to the Wastewater Treatment Facility. The Old Colchester Road

pump station (AKA High School pump station) was replaced in 2012 with a completely new pump station.

6.4.2 Sludge

The generation of Biosolids (or sludge) is a natural by-product of Wastewater treatment. Biosolids quality and production have always been a priority in Wastewater Facility operations. Increased regulation and scrutiny by State and citizens point out the need for education and outreach. The management of Biosolids is accomplished by a cooperative effort with the Chittenden Solid Waste District. This consortium effort uses a subcontractor under contractual agreement with CSWD for management of this organic byproduct of the wastewater process.

Dry weight basis is a parameter used as a standard in the industry for measuring and tracking the efficiency of various processes. We currently produce 350 dry tons of solids per year. Where the solids generated are in a liquid slurry form, the facility uses gravity thickening and high solids dewatering by centrifuge to maximize process efficiency. A thickened feed Biosolids at 5% solids is dewatered to greater than 28% solids. Where sludge management costs are on a wet ton basis, the more water squeezed out of the Biosolids, the more efficient the disposal cost. Dryer Biosolids results in more solids removal per ton from the dewatering operation. Liquid and dewatered solid recycling of biosolids is also performed on permitted local farms when it can be accomplished in coordination with weather and crop management objectives of the participating farmers.

Staff and CSWD continue to evaluate the most environmental and cost effective method of recycling or beneficial re-uses of the treatment by-product; Biosolids. The management of Biosolids residuals accounts for over 25% of the annual operational budget. Planning involves a long term evaluation of flexibility, high solids production and long term viability of any process selected. Presently, the use of subcontractor services accomplished this objective for the facility without capital improvement.

6.5 Solid Waste Disposal

The Town of Essex formerly operated a municipal landfill off VT Route 2A. By law, the landfill was closed. The closed landfill remains on the list of active Comprehensive Environmental Response Compensation and Liability Information System (CERCIS) sites (EPA Superfund sites) with a low rank priority relative to its potential to be a risk to the general public. The site – which operates under an Administrative Closure Order issued in November, 1992, and in effect until 2013 – is tested twice yearly and will be monitored for the foreseeable future. The Village is a member of the Chittenden Solid Waste District (CSWD) which handles disposal of the County's. The former Town landfill is now serving as a transfer station for the district with drop-off and storage facilities. CSWD also has identified the need for and is in the process of developing a regional landfill site. The Essex Town Plan indicates that the Town firmly believes that the RPD-I District and the abutting I-1 District are inappropriate locations for a regional landfill. The Town is unalterably opposed to a landfill in these districts.

CSWD has established a range of programs and facilities to manage waste through reduction, diversion, and proper disposal. The tons of refuse disposed in Chittenden County have been declining over the last 5 years, while the amount of recycled materials has increased. While those trends are positive, there is room for improvement. It is estimated that 27% of the municipal solid

waste sent to the landfill is comprised of recyclable materials and 32% is comprised of organic materials that could be composted (Source: CSWD Estimate of the Components of Solid Waste Disposed for FY 2012). A State law passed in 2012 (Act 148) bans disposal of certain recyclables (effective July 1, 2015), yard debris and clean wood (effective July 1, 2016), and food scraps (phased in over time) from disposal. Residents and businesses in CSWD have been required to separate yard debris and recyclables from waste destined for disposal since 1993. The additional bans on food scraps and clean wood will have a significant impact on waste diversion in Chittenden County.

6.6 Utilities

Communications

Essex Junction is generally well served by modern communications services and facilities. Cellular phone service, internet and telephone service is available throughout the Village through several providers. Broadband technology is widely available throughout Chittenden County: as of December 2011, approximately 99% of Chittenden County residents and 99.5% of non-residential structures (analysis included commercial, industrial, municipal structures) have access to Broadband. The federal definition of broadband is 768 kbps download/200 kbps upload speeds. It will be important to ensure that the County and the Village remain on par with other urban areas in the realm of number of service providers, service tiers, and affordability as the technology is constantly improving and we must keep up. Specifically, the defined broadband speeds are quite slow and will need to improve.

Vermont Gas Systems

Natural gas service is provided upon request. Expansion follows development. The following areas currently are not yet served: Whitcomb Farm area on the Westerly portion of South Street

Green Mountain Power

Supplies electricity to the Village by means of the hydroelectric plant on the Winooski River. Adequate power is available to serve new growth within the Village.

The provision of all public utilities is regulated by the State and Federal governments. Service to Essex Junction is adequate at present, and for the foreseeable future. However, the Village should continue to monitor these services and participate in public hearings on all projects which may have an impact within the Village.

Public Buildings/Offices

Local, state and federal governments are acknowledging the benefits of having public buildings located in historic downtowns and village centers. Public buildings increase the daytime population in an area through its employees and those visiting the offices. The increase in daytime employment and activity from public offices helps keep the downtown vibrant and businesses healthy. In addition, public buildings in downtowns give opportunities for the reuse of important historic buildings and give employees and visitors access to increase transportation choice by being located in a pedestrian friendly area that is accessible by public transportation. For the reasons described above, the state and federal government both have policies requiring them to give priority consideration to locating public buildings in downtowns and village centers.

The Village Center has several public buildings including the Essex Junction Municipal Offices, the Brownell Library, the Fire Department and the Winston-Prouty Federal Building. The Essex Town Municipal offices are located within a half mile from the Village Center.

6.7 Brownell Library

The Brownell Library building was built in 1926. A historical assessment will be undertaken to determine needed repairs and a plan for implementing those repairs. Both the assessment and the plan for repairs will take into consideration the necessity of avoiding jeopardizing the historical nature of the building. The Brownell Library has developed a Strategic Plan for 2014-2019. The following is a very brief summary of the development of this Plan – for further information please refer to the *Brownell Library Strategic Plan: 2014-2019* which can be found here: <http://www.brownelllibrary.org/>. The Strategic Plan provides background information on the library and a needs assessment (including information from two surveys conducted in 2012 to assess patron opinion about library collections and services, and to gauge areas where the library should grow in the future). The Plan identifies the following 4 strategic areas, also known as Service Responses, in which to concentrate the work of the library for the next five years. It is important to note that these Service Responses match some of the Community Values that were identified by Heart and Soul of Essex - the Library Planning Committee felt strongly that providing consistency and articulating congruence between organizations would strengthen all of our efforts.

1. *Education*

Create opportunities for lifelong learning and exploration, and respond to societal changes with information to help people manage and improve their lives.

- a. Offer diverse programming opportunities incorporating a variety and range of literacy skills.
- b. Collaborate with local schools to support and extend educational offerings in the community.
- c. Train and sustain a friendly, creative and knowledgeable staff to engage with library users in all manner of activities throughout the library and beyond.
- d. Help patrons with evolving technologies in a welcoming environment.
- e. Develop and maintain a collection reflecting community interests and needs that includes ongoing points of view and responds to changing interests and demographics.

2. *Community Connections*

Nurture community spirit in a safe, collaborative and comfortable space.

- a. Improve existing space to meet patrons' needs.
- b. Engage community members in the development and implementation of programming.
- c. Increase publicity and awareness of library services and programming.
- d. Increase outreach efforts to reach underserved populations.
- e. Collaborate with other libraries in all areas of library services, with emphasis on the Essex Free Library.

3. *Health and Recreation*

Support healthy minds and bodies and stimulate imagination.

- a. Partner with local initiatives and organizations to enrich community involvement in health and recreation.
- b. Expand our presence and access outside the building.
- c. Provide services and materials to promote healthy minds and bodies.
- d. Help patrons access health and recreation resources.

4. Local Economy

Support the efforts of individuals and groups dedicated to improving the economic vitality of Essex Junction and its residents.

- a. Collaborate with organizations groups and individuals working to improve the community's economic climate.
- b. Develop spaces, resources and trainings to support small businesses and start-ups.
- c. Support financial literacy for all ages.
- d. Provide resources concerning job opportunities and career changes.
- e. Pursue funding opportunities for special projects and initiatives.

6.8 Senior Center

The Senior Center is located at Five Corners in the white annex of the Village Office Building. It is the mission of the Essex Junction Senior Center to be a friendly gathering place for people 50 years of age and older. Programs are provided to promote physical, intellectual and social well-being and enhance dignity, self-worth and independence. Programs include exercise, games, activities and volunteer opportunities. The center also handles reservations for the Senior Van.

6.9 Fire Department

The Essex Junction Volunteer Fire Department surveys and reviews all development proposals within the protection area and plans for fire protection equipment needs appropriately.

Currently, the Fire Department operates two pumpers and one pumper/ladder: one pumper is a heavy rescue unit, and one is a utility truck. The ladder truck is new as of 2014 and is 43.5' to accommodate taller buildings in the Village. If the Village were to develop all of the existing property within the Department's protection area, based on the 1998 survey and subsequent development proposal reviews, the current level of equipment would be sufficient.

In addition to equipment and building needs, a major issue to be reviewed is the role of the Fire Department in Fire Prevention. The lack of any full-time personnel limits the department's capability to aggressively promote Fire Protection programs. Also, the ability to inspect structures and access fire exposure is limited by lack of personnel. Consideration should be given to creating a limited full-time Department as a first response team and for initiating fire exposure and fire prevention programs. The adoption of a Building Code for single-family dwellings should also be analyzed as a part of an overall fire exposure and fire prevention program.

The Fire Department recommends consideration of a new fire station in the near future. Demographics in fire service point to a change in the length of service individuals provide and retention of volunteers has been challenging. To fill positions individuals may need to be recruited from outside Village limits. To do that, the Fire Department would want to model a program similar to Essex Rescue, where you have duty shifts available and individuals can be housed on-site. The current station lacks dorm facilities and showers, needed to accommodate shift work. The goal is to have a fire station in place in 5 – 7 years.

6.10 Police

The Town of Essex Police Department was formed in 1980 to serve both the Town of Essex and the Village of Essex Junction. The Department is overseen by the Police Chief who is appointed by the Town Manager. In 2013, the department had 26.2 full-time officers, five (5) part-time officers, four (4)

full-time dispatchers, two (2) other full-time civilian employees, a part-time secretary and one (1) part-time dispatcher. The officer to population ratio in Essex is 1.3 officers per 1,000 residents. The national average is 2.1 officers per 1,000 residents. Neighboring communities of Burlington (2.1), Colchester (1.6), South Burlington (2.1), Williston (1.9) and Winooski (2.2) presently average 2.0 officers per 1,000 residents.

A major thrust is being made to provide a proactive approach to deter crime by forming partnerships within the community. Programs such as Neighborhood Watch, robbery seminars, neighborhood meetings and Project Northland (youth drug & alcohol education program), have served to establish these partnerships.

In addition, the Essex Community Justice Center (CJC) has been growing in its capacity to address low-level crime and conflict since its inception in 2003. The CJC is a community organization where citizens can work together to prevent crime, resolve conflicts, and render justice in areas that are most important to them. It is a means for the community to take responsibility for its quality of life by collaboratively using the principles of restorative justice.

The demand for police services including patrol, motor vehicle enforcement, bicycle safety training, investigation, crime prevention and court preparation has stretched the department's resources to the limit. The police facility at 81 Main Street was found to be inadequate and in 2012, voters approved the purchase of a 5.8 acre parcel on Maple Street in the Village for the construction of a new 18,000 square foot facility. The facility is expected to be complete by September 2014.

The following issues regarding the Police Department need to be addressed within the next five years:

1. Decrease the amount of time vacancies remain open.
2. Increased staffing to address the crime rate and the increase in traffic.
3. Greater community participation in crime prevention efforts.

Source: Section 6.10 was taken directly from the 2011 Essex Town Plan and updated.

6.11 Rescue

"Essex Rescue, Inc. was organized in 1971 as a professionally trained, volunteer ambulance service. Service is provided by approximately 50 volunteers to individuals requiring emergency medical treatment and transportation from Essex, Westford, Jericho, and Underhill. With a goal of providing emergency services 24 hours a day for 365 days a year, Essex Rescue has hired one full time and one part-time employee to assist the otherwise all volunteer staff.

Approximately 10 percent of Essex Rescue's operating funds are donated by the towns it serves with the rest coming from fund drives and private donations. A Subscription Plan allows a family to pay an annual fee to avoid a bill for services.

Essex Rescue, Inc. operates out of a facility near the Essex Community Educational Center. The building is owned by Essex Rescue Inc., with no outstanding notes at this time, and is on leased land with a 99-year lease, which expires in 2070. Recently expanded, the members see no need for a new building for the foreseeable future."

Source: Section 6.11 was taken directly from the 2011 Essex Town Plan.

6.12 Utilities/Facilities Goals

Goal 1: Provide a Village infrastructure system that adequately ensures the availability of potable water, disbursts storm and ground water runoff and disposes of sanitary wastes in a manner which ensures community health and is environmentally sound.

- Objective 1.1: Maintain Public Works Specifications utilizing prudent and reasonable technology to ensure adequate infrastructure systems. Include adequate designs to allow for peak usage and control peak flows.
- Objective 1.2: Implement Asset management plans through capital projects that upgrade existing water, stormwater and sanitary sewer systems to insure long term rate stability.
- Objective 1.3: Utilize the available sewer capacity in a manner which will provide the most benefit to the Village of Essex Junction.
- Objective 1.4: Continue to provide improvements or extensions to existing infrastructure systems without undue financial burden to the Village.
- Objective 1.5: Maintain the existing infrastructure systems for maximum life and use.
- Objective 1.6: Ensure new developments have adequate services.
- Objective 1.7: Continue to identify existing areas where deficiencies in the systems occur and could potentially have a detrimental effect on safety, health, or the environment.
- Objective 1.8: Consider leasing on a more permanent basis basic sewer capacity in excess of potential development in the Village.
- Objective 1.9: Implement stormwater discharge standards to be included in the Land Development Code revisions.

Goal 2: Participate in Public Service board hearings and to encourage the continued provision of a high quality of public utility services to the Village.

- Objective 2.1: Encourage utility companies to provide high quality services to all areas of the Village as new development occurs.
- Objective 2.2: Require public utilities to maintain their corridors, to remove all existing poles as part of pole replacement projects in a timely manner, and to fix damage to Village infrastructure resulting from utilities construction projects.

Goal 3: Provide the community with the best possible sidewalks for the purpose of pedestrian travel at the most reasonable cost.

- Objective 3.1: Establish a prioritized capital improvement plan for upgrading sidewalks.
- Objective 3.2: Continue to maintain assessments and inventory on all sidewalks including handicapped accessibility, length, width and deficiencies (heaving, drainage).

Goal 4: Continue to provide all Village segments with the best fire protection.

- Objective 4.1: Actively recruit volunteers for the Fire Department, and consider the need for a new fire station to assist in recruitment and retention efforts.
- Objective 4.2: Consider establishing a limited full-time Fire Department.
- Objective 4.3: Consider adopting building and life/safety codes.

Goal 5: Provide a high level of Library Services to Village residents for their enjoyment and information, with particular emphasis on education, community connections, health and recreation, and the local economy.

- Objective 5.1: Create opportunities for lifelong learning and exploration, and respond to societal changes with information to help people manage and improve their lives.
- Objective 5.2: Nurture community spirit in a safe, collaborative and comfortable space.
- Objective 5.3: Support healthy minds and bodies and stimulate imagination.
- Objective 5.4: Support the efforts of individuals and groups dedicated to improving the economic vitality of Essex Junction and its residents.
- Objective 5.5: Historic assessment of the Brownell Library structure will be done in the next five years.

Goal 6: Maintain existing public buildings and municipal functions in the Village Center unless their function warrants an alternative location. To encourage other public entities to give priority consideration to the Village Center for their public building(s) unless the function warrants an alternative location such as the wastewater treatment plant or public works garage.

Goal 7: Continue to provide the Village with the best police protection.

- Objective 7.1: Decrease the amount of time vacancies remain open.
- Objective 7.2: Increased staffing to address the crime rate and the increase in traffic.
- Objective 7.3: Greater community participation in crime prevention efforts.

Goal 8: Continue to explore funding options for burying power lines in core commercial districts and ensure that all new developments site utilities underground.

7. Housing

The availability and quality of housing are important determinants of a community's quality of life. One of the six community values determined in the 2013 Heart & Soul project was Thoughtful Growth. Participants of the project described Thoughtful Growth in a variety of ways; two are relevant to housing: A balance of housing, business, and the preservation and maintenance of a variety of open spaces, including forests, trails, parks and recreation fields; and A variety of housing options including affordable housing. A major component of this Plan is to ensure that these aspects of Thoughtful Growth are met through maintenance of existing housing and development of new housing.

7.1 Housing Supply

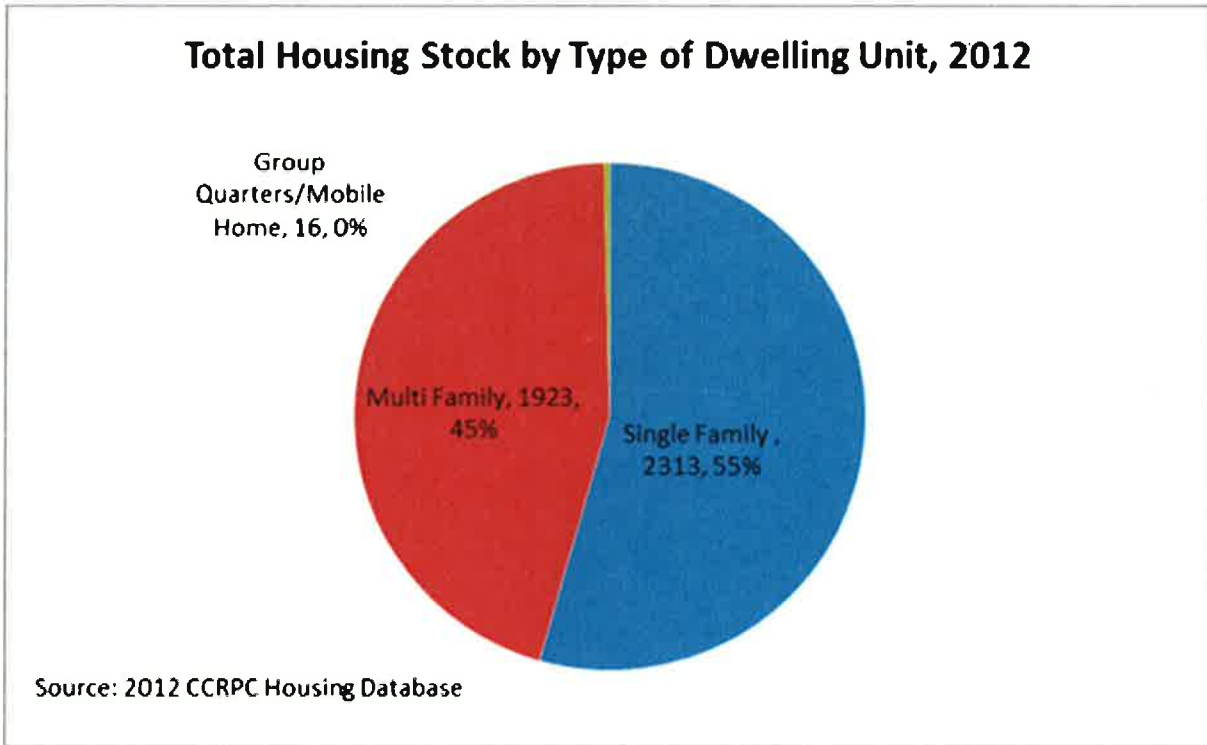
Table 10 provides a historical perspective on the housing supply in Essex Junction and comparisons to the County. While the housing unit data from the Census is not entirely accurate it is helpful to provide trend data.

Table 10. COMPARISON OF TOTAL HOUSING UNITS: 1960-2010							
	YEAR						Average Household Units Per Year 2000 - 2010
	1960	1970	1980	1990	2000	2010	
Essex Jct. Village	-	-	2,544	3,375	3,501	4,009	50.8
Essex Town	-	-	2,279	2,935	3,669	4,137	46.8
Both Village & Town	1,944	3,053	4,826	6,310	7,170	8,146	97.6
Colchester	652	3,088	4,566	5,922	6,727	7,104	37.7
So. Burlington	273	2,879	3,972	5,437	6,498	8,429	193.1
Williston	400	908	1,284	1,874	3,036	3,652	61.6
Chittenden Co.	22,464	30,664	41,339	52,095	58,864	65,722	685.8
Vermont	136,307	165,063	223,198	271,214	294,382	322,539	2815.7
PERCENT OF CHITTENDEN COUNTY							
Essex Jct. Village	-	-	6.15	6.48	5.95	6.10	-
Both Essex Village & Town	8.65	9.96	11.67	12.11	12.18	12.39	-
Colchester	2.90	10.07	11.05	11.37	11.43	10.81	-
So. Burlington	1.22	9.39	9.61	10.44	11.04	12.83	-
Williston	1.78	2.96	3.11	3.60	5.16	5.56	-
Source: 2010 U.S. Census Bureau							

The existing housing stock in Essex Junction is mixed. As seen in Figure 5, single family detached dwellings are the single largest housing category. However other types of housing do exist and are increasing. Between 2010 and 2012, the Village saw more multi-family residential development than single family development. According to Figure 6, 66% of the housing units were built in the form of 3-unit or more projects. The data for Figures 5 & 6 is from the CCRPC Housing database which is

gathered from e-911, assessor and zoning permit information – therefore the number of dwelling units are not the same as reported by the Census.

Figure 5



7.2 Characteristics of Residents

The average household size in 2010 was 2.39 persons per household. This number has gone down over the last 30 years, but now seems to be stabilizing or even on the rise. In 2010, there were 3,875 households, and 4,009 housing units; therefore, 134 units were vacant. The make-up of these 3,875 households was:

**Table 11
Households in Essex Junction, 2010**

Households with 2+ people:	375
Number of families:	2,436
Number of people living alone:	1,064
Source: U.S. Census, 2010.	

7.3 Building Activity

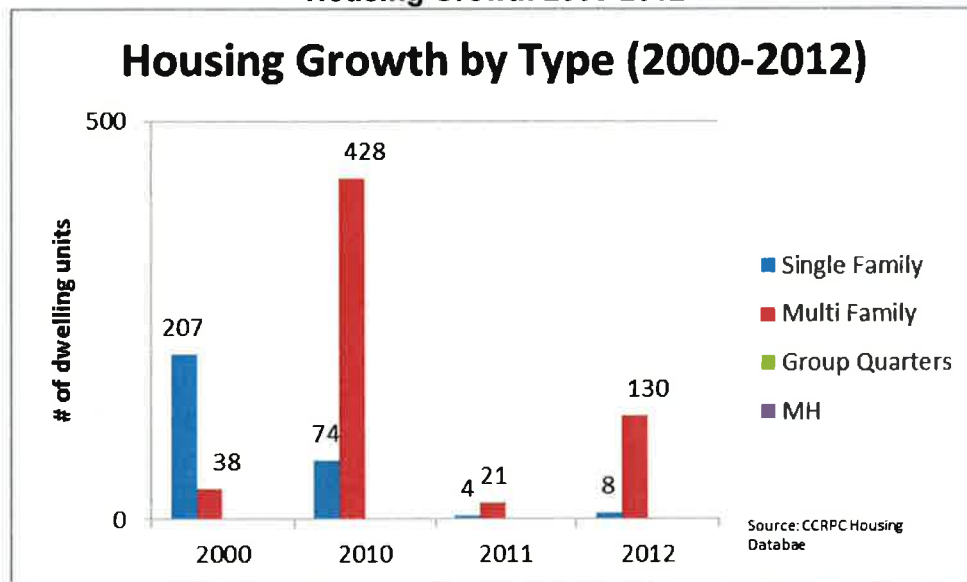
The Village has seen a decline in the development of single-family detached housing over the last twelve years which could be linked to a diminished land base, and since 2008, financing constraints brought on by the recession. The increase in higher density multi-family housing was made possible by zoning changes put in place in 2000.

The intent of those zoning changes was and still is relevant. The region had, and still has a housing shortage, which is especially acute for affordable rental housing. The 2001 Chittenden County Regional Plan indicated a county wide housing shortage of 1,970 units (unmet need, excluding future needs). The current Chittenden County Regional Plan (entitled the 2013 Chittenden County ECOS Plan) also indicates an unmet need explaining a 2.6% rental housing vacancy rate in the suburban areas of the County (a healthy target may be closer to 3 to 5% for Chittenden County). Going forward, the market is demanding more rental housing and smaller units.

Adding housing units in areas planned for growth is the most efficient way of meeting the unmet need – rather than continuing to sprawl and spread our infrastructure costs across a greater geographic area. Therefore the current level of density allowed in the areas planned for growth is effective, however changes may be needed to ensure the scale, quality and design of the higher density and infill structures is what the community would consider “thoughtful growth”. In addition, it is important to note that the State Land Use planning goal includes the following: “Intensive residential development should be encouraged primarily in areas related to community centers, and strip development along highways should be discouraged.”

In light of these needs the Village is working to encourage a diverse range of housing including single family housing and to a greater degree in the last few years, multi-family housing as reflected in Figure 6. This is discussed in more detail in Section 7.4.

**Figure 6
Housing Growth 2000-2012**



7.4 Housing Cost and Affordability

Housing growth is important not only as a mechanism to provide housing that is affordable to all segments of the population, but also important for economic stability and business retention and growth. Essex Junction businesses rely primarily on local residents to support their businesses. An increase in the number of housing units and density will increase the market potential for local businesses.

A survey of Chittenden County employers in 2012 found that the cost of housing was regarded as a serious problem by 74% of employers for rental housing and 62% of employers for owner housing. In fact, 83% of employers said that the cost and availability of housing was an obstacle to economic development.

Employee turnover (i.e., the cost of lost productivity, advertising, and the time and expense of interviewing and training candidates) costs on average, \$13,754 per employee. In the past three years, employers lost an average of 2.46 recruits due to housing costs, availability, or other limitations. Employers commented that they have lost recruits and have had to spend greater sums of money in sign-on bonuses and relocation expense reimbursement or temporary housing because there are such limited rental homes and affordable housing relative to the options candidates observed in other parts of the country.

The median value of an owner-occupied housing unit in Essex Junction in 2007 to 2011 was \$260,000¹. The median household income was \$64,013². Assuming that households should not spend more than 30% of their gross income on housing costs and 5% cash is given as a down payment, a household would need to earn \$76,429 annually to afford a median value house in Essex Junction. Therefore, the median home price in Essex Junction is slightly out of reach for households earning the median income. A home that would be more affordable for the median income would be approximately \$217,000 assuming approximately \$18,000 cash for closing.

The median rents in Chittenden County have risen an average of 5.3% annually in the past decade, well outstripping inflation.³ As can be seen in the table below, most occupations in the area do not pay a median wage that is high enough to afford even a studio apartment. Having more than one income will help affordability; we know that in Vermont most households have only one, or less than one full time worker.⁴

	<i>0 bedroom</i>	<i>1 bedroom</i>	<i>2 bedroom</i>	<i>3 bedroom</i>	<i>4 bedroom</i>
Median rent	\$969	\$1,053	\$1,375	\$1,721	\$2,021
Annual income needed to afford median rent	\$38,760	\$42,120	\$55,000	\$68,840	\$80,840
Hourly wage needed to afford median rent if working full time	\$18.63	\$20.25	\$26.44	\$33.10	\$38.87
% of workers whose occupation's median wage is less than the hourly wage needed	56%	61%	75%	86%	89%

The Village has proactively addressed the need for affordable housing through zoning amendments and State incentive programs. The following projects are a snapshot in time and reflect a number of these efforts. The following projects have been built using public funding which would require the housing to be affordable:

- 10 out of the 24 units at Village Haven at Roscoe Court (currently under construction);
- 30 units at Monarch Apartments at 203 Pearl Street (built in 2004);

¹ VHFA's Analysis of Property Transfer Tax Data

² American Community Survey 2007-2011

³ Vermont Housing Data, Fair Market Rents 2003-2013.

⁴ US Census Bureau.

- 19 units of elderly housing at 136 West Street (built in 2005); and
- 65 units of elderly housing at 128 West Street (built in 1979).

The Roscoe Court project was approved in 2009 as a Vermont Neighborhood – the first of its kind in the State. The Vermont Neighborhood program provides financial and permit incentives to stimulate new housing development in appropriate areas in and around designated downtowns, village centers, new town centers, and growth centers. The benefits of the program include an exemption from Act 250 regulations for “mixed income” projects, reduced State wastewater permit fees, exemption from the land gains tax, and the conditional use permit by the local government determining that a project meets the “character of the area” criteria may not be appealed to the Environmental Court. The Roscoe Court “mixed-income” project includes twenty-four 3 bedroom units - eighteen are detached single family homes, and 6 are duplexes for sale. The “mixed-income” requirements include: 1. Rental Housing: 20% of the units must be allocated to people earning no more than 60% of the area median income for 30 years after construction; and 2. Owner Occupied Housing: 20% of units must be sold at a price less than 90 percent of the VHFA purchase price limits or 15 percent of owner occupied units must be sold at a price less than 85% percent of the VHFA purchase price limits (\$275,000 in Chittenden County). The income limits are as follows: \$70,500 for 2 or fewer persons and \$81,000 for 3 or more persons. Participation in this program has successfully secured affordable housing in the Village.

Vermont Neighborhood Development Program:

While the Vermont Neighborhood program is no longer offered by the State – a new and improved program titled “Neighborhood Development Area program” is available and it “encourages municipalities and/or developers to plan for new and infill housing in the area within walking distance of its designated downtown, village center, new town center, or within its designated growth center and incentivizes needed housing, further supporting the commercial establishments in the designated centers.” Areas surrounding the Village Center are likely to be eligible for this program, which includes Act 250 benefits among others. For more information visit:

http://accd.vermont.gov/strong_communities/opportunities/revitalization/vermont_neighborhoods

All of the other housing units constructed in the Village since 2000 have no requirements to remain affordable and are subject to fluctuations in the housing market. For example, the Riverside in the Village project was originally intended for a mix of market rate apartments, condominiums, student housing and senior housing units. However, the project is now all market value rental apartments. The condominiums and student housing units were converted to market rate rental, and the senior housing units will not be built.

It appears the Village’s decision to increase densities in 2000 and additional zoning amendments in 2011, have certainly had a positive impact on housing growth; however continued efforts for affordable housing is needed.

Essex Junction is not prepared to adopt an inclusionary zoning ordinance at this time, but will instead focus on issues within our control that affect the affordability of housing including housing densities, permitting, and redevelopment. Through these efforts the Village will work to ensure that this growth is done in a thoughtful manner so that the existing neighborhood fabric will remain. For example, the Village will consider zoning incentives for pocket parks and other open space amenities in housing and mixed-use projects; and the Village will work to ensure that housing is located in areas with existing and planned support services.

7.5 Other Housing Issues

In addition to concerns regarding the balancing of the demand for housing versus regulating the impacts of new housing development, there are a variety of other housing issues within the community including:

- 1) Building/fire codes
- 2) Multi-family conversions
- 3) Special needs housing
- 4) Historic preservation
- 5) Energy conservation
- 6) Housing Affordability
- 7) Preservation of neighborhood character.

All of these issues are important considerations within this Plan. Many of these issues are included in other Plan elements. Some areas require added studies to determine feasibility. Specific strategies are included in the Goals section of this element.

7.6 Housing Goals

Goal 1: Provide a variety of housing opportunities for all present and future residents of the Village of Essex Junction while creating and preserving quality residential environments and existing neighborhood characteristics.

- Objective 1.1: Permit innovative development strategies including commercial/residential developments, zero-lot lines, and transfer of development rights where appropriate and after special review.
- Objective 1.2: Study the feasibility of adopting and enforcing uniform building and fire codes for housing.
- Objective 1.3: Promote adherence to state energy standards and consider energy conservation standards and alternate energy resources in all future codes.
- Objective 1.4: Encourage development in established growth areas.
- Objective 1.5: Consider zoning changes to preserve existing structures of historic village character along sections of major arterials and in historic neighborhoods.
- Objective 1.6: Provide a mechanism within the Land Development Code to encourage the creation of new affordable housing.
- Objective 1.7: Maintain allowance for density bonuses in the Planned Residential District for the construction of affordable housing.
- Objective 1.8: Allow high density housing in major commercial areas and maintain the R-2 small lot single family zoning designation to allow for affordable housing.
- Objective 1.9: Compile rental registry and rental inspection program if funding is available.
- Objective 1.10: Consider zoning changes to encourage pocket parks and other public urban open space amenities.

Goal 2: Cooperate with surrounding communities, private developers and nonprofit developers to jointly create affordable housing and senior housing.

Goal 3: Continue to provide adequate sites in residential areas or areas of residential character for special needs housing.

Goal 4: Encourage private and public property owners of historically significant structures to maintain the historical integrity of the structures.

8. Transportation

Transportation is an important issue to the Village of Essex Junction. The “Five Corners” intersection presents one of the difficult traffic management problems. The location of the railroad tracks adds to the complexity of the problem. In addition to factors within the Village, growth in adjacent communities results in traffic increases throughout the Village.

The Village street network is essentially a grid of interconnected streets, dead end streets make up only a small portion of local streets. The state highways of Route 15, Route 2A and Route 117 provide the only vehicular connections into and out of the Village. Therefore, they carry significant amounts of non-destination and local traffic. The interconnected street system allows for alternate routes to the same destination, thereby giving users of the network options for getting from point A to B. The interconnected local street system reduces congestion on major arterials, but increases the negative impact on local residential neighborhoods and should be discouraged. Continuing to maintain the interconnected street network and connect streets in new developments is a central transportation policy within the Village.

The complexities of the transportation network described above require a coordinated transportation planning effort within the Village. There are no single, simple solutions available. It is necessary to develop a multi-stage, multi-modal approach to transportation planning. Included is the street network, bicycle lanes, shared use paths, sidewalks, the potential to pedestrianize a short section of Main Street, the redirecting of Route 15 around the Village Center, public transit, and the possibility of rail transit. In addition, public safety is an important consideration in any potential improvements. Such a multi-modal approach can lead to an improved, cost-effective and energy-efficient transportation network.

8.1 Streets

With the exception of the Crescent Connector, the primary roadway network within the Village has already developed. As new development occurs, the extension of the existing local street network will be constructed by developers.

The primary issue, therefore, is increased traffic management, particularly for non-destination traffic.

The influence of the first phase of the Circumferential Highway, completed in 1993, was clearly seen in reduced traffic volumes and accidents for 1995. However, it is also clear that this reduction was temporary. Traffic volumes at the Five Corners are increasing to levels that are higher than pre-Circumferential Highway levels. Five Corners Traffic levels through the Five Corners are considerable as the table below reveals. The table shows the average annual daily traffic (AADT) for state highways that intersect there. Many of these trips do not start or end in the Village and are considered non-destination traffic. New developments in adjacent communities such as in Taft Corners in Williston contribute to the higher volumes.

Table 13. Five Corners Roadway AADT

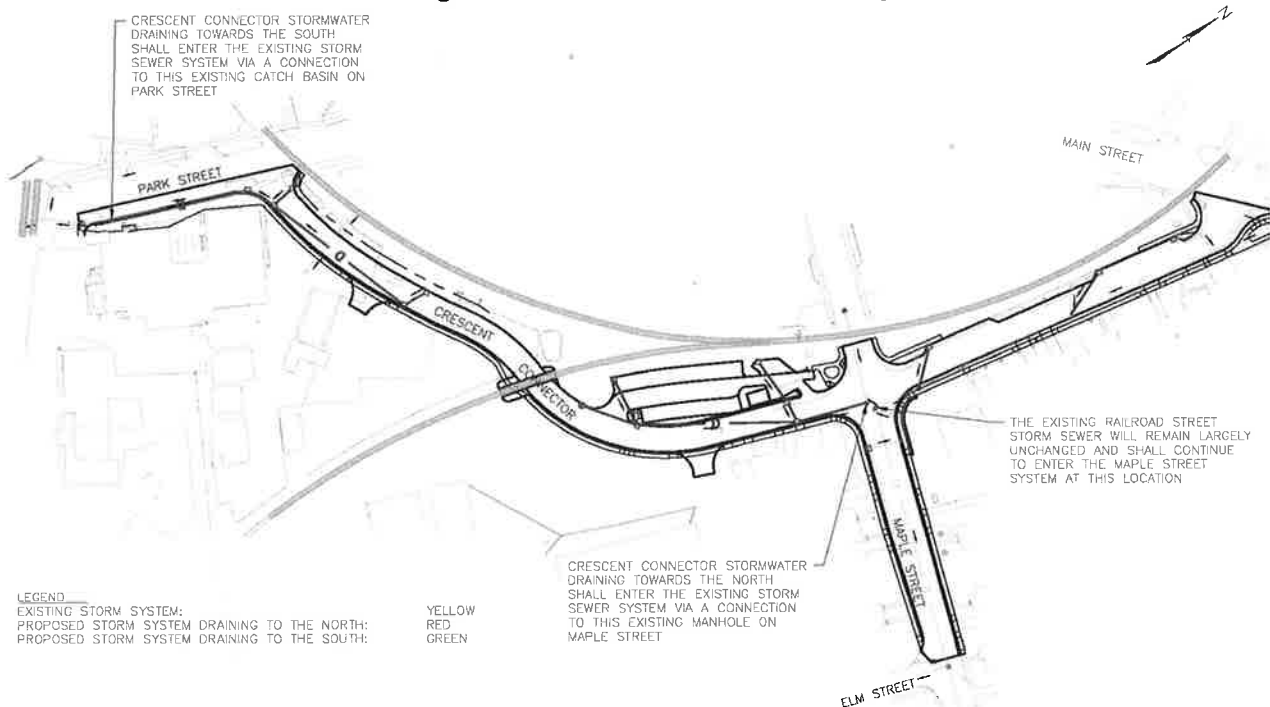
Route	AADT (2010)
VT117 (Maple St)	8,000
VT15 (Main St.)	11,600
VT2A (Park St.)	16,300

Due to the growth in non-destination traffic, the Village supports alternative routes between adjacent communities along with an additional crossing over the Winooski River. Non-destination traffic is a threat to the vitality of the Village Center where the emphasis needs to be on local access, pedestrian mobility and safety, and aesthetics. Increased vehicular capacity is in direct conflict with these Village Goals and therefore is not supported to the extent it would involve additional vehicle lanes and road widening.

Safety is another major concern. The state highways of Route 15, Route 2A and Route 117 all carry significant amounts of non-destination traffic through Essex Junction. The high number of curb cuts along with the size and location of curb cuts contributes to safety issues, particularly on roads with more than two lanes such as portions of Park Street near the Five Corners. Access management is therefore an important consideration of this plan. While the Five Corners is not a High Crash Location (HCL) as identified by VTrans’ analysis, four of the five approaches are considered high crash road segments. Only Maple Street comes in under the VTrans crash safety threshold. See Map 4 for these high crash locations.

An important new roadway development impacting the Five Corners is currently in design and is slated for construction in 2015. Called the Crescent Connector, it will link VT RT 2A south of the Five Corners northwest to Maple Street (VT RT 117) and continue across on a reconstructed Railroad Street connecting to VT RT 15. This new facility will improve traffic flow, provide additional parking and provide for safe walking and biking through the area. See the sketch below for the alignment of the Crescent Connector (DuBois & King, Inc. Stormwater Plan from the Revised Environmental Assessment for the Crescent Connector Project).

Figure 7: Crescent Connector Project



An additional CIRC Alternatives project in Essex Junction includes Pearl Street improvements from the Post Office Square intersection to the Five Corners intersection. Essex Junction has made numerous improvements to Pearl Street over the past several years including completing a “road diet” project that created three travel lanes and bike lanes. These bike lanes extend from West Street to the Champlain Valley Exposition. Improvements considered in this study would complement those other improvements and further advance Pearl Street as a multimodal corridor.

8.2 Sidewalks/Bike Paths

The provision of sidewalks and bicycle lanes and shared use paths within the Village are important transportation goals. Essex Junction currently has 35.3 miles of sidewalk and 1.5 miles of shared use paths to maintain. Cost and the efficient expenditure of tax dollars on sidewalks was a major consideration in the preparation of the Sidewalk Plan and Policy in 2005 to address the existing and future sidewalk network. The Bike-Walk Advisory Committee is also in the process of working on a bike-walk master plan which will help prepare for future facilities. The Bike-Walk Advisory Committee has adopted the following vision statement: “Essex Junction strives to be recognized as a friendly village of connected neighborhoods and destinations in which convenient and safe bicycle and pedestrian facilities are integrated into a seamless and accessible year-round transportation system. This system will promote the enjoyment and health of all citizens, a more vibrant local economy, and a cleaner environment.”

The policy for the number of sidewalks varies depending on the road function and density. Sidewalks will be constructed and maintained in the future in accordance with the following standards:

Table 14: Sidewalk Policy

Arterial Streets	Both Sides
Collectors	Both Sides
Residential Streets with a density greater than 4 units per acre	Both Sides
Residential Streets with a density between 1 and 4 units per acre	One Side
Residential Streets with a density of less than 1 unit per acre	None

The Village will not actively remove sidewalks, but would do so in association with a street or sidewalk reconstruction project. Several areas of the Village in low density neighborhoods would see the eventual removal of sidewalks on one side of the street if the existing walk is no longer serviceable. On some major arterials, sidewalks would be added. The emphasis of the sidewalk plan and policy is to maximize resources while improving connections.

Bicycle facilities are another important consideration of the transportation plan. The Transportation Map identifies all sidewalks, shared use paths and bike lanes within the village. The types of bike facilities include:

- 1) Shared Use path – Independent facility on separate right-of-way or easement, designated for the exclusive use of non-motorized vehicles and pedestrians.
- 2) Cycle Track – Physically separated bicycle facility immediately adjacent to roadways. Can be one or two way and buffered from vehicle parking or travel way.
- 3) On Road – Bicycles share space with motor vehicles, either through shared lane markings or a shoulder bike lane.

Due to the built-out nature of Essex Junction it is difficult to construct a completely new shared use path. Some combination of all three facilities, plus sidewalks, is necessary. On major arterial roads such as Pearl Street the high number of curb cuts makes a shared use path less desirable and does

not adequately address the need for local access if the path is not immediately adjacent to the street. On-street bicycle facilities should be considered in these areas and supported at the regional level. In addition, new recreational opportunities will be made available to Village residents as a result. On low density residential streets bicyclists use the road shoulder, or share the lane with vehicles, with minimal conflicts. The need for bicycle facilities is highest on major arterials where options are extremely limited for safe bicycle access.

8.3 Parking

The Village provides public parking in the Village Center District via on-street parking and off-street lots. On-street parking is available throughout the Main Street and Railroad Avenue area of the Village Center along with two off-street parking lots on Ivy Lane and behind the Brownell Library. Off-street parking was added near the Park Street School and will be added adjacent to the Crescent Connector.

With the exception of the area around the train and bus station, parking within the Village Center appears adequate at this time. Existing public parking in the Village Center should be preserved to the greatest extent possible.

The provision of park and ride lots should be considered in the future based on regional needs.

8.4 Public Transportation

The Village of Essex Junction is served by the only Amtrak terminal in Chittenden County. This intercity rail service consists of Amtrak’s Vermonter Train, with Vermont stops in Essex Junction, Brattleboro, White River Junction, Montpelier, Waterbury, and St Albans. This service was established in April 1995 as a reconfiguration of the discontinued Montrealer train from Montreal to Washington, D.C. The Vermonter provides one inbound and one outbound trip daily. Southbound service to New York and Washington, D.C. originates at St. Albans in the morning, returning later in the evening. The following table provides the most recent history of ridership on this service which is experiencing rising popularity.

Table 15. AMTRAK Vermonter Ridership, FY2005 - 2012

YEAR	2005	2006	2007	2008	2009	2010	2011	2012
RIDERS	45,207	47,307	63,299	72,655	74,016	86,245	77,783	82,086

Source: Amtrak Monthlies

The State of Vermont has been pursuing a project known as the “Albany-Bennington-Rutland-Burlington-Essex,” or “ABRBE” passenger rail project. Reinstating passenger rail service connecting Rutland to Burlington was cited as the State’s number two rail priority in the 2006 VTrans Rail Policy Plan (behind maintaining the existing two Amtrak services). However, no timetable for implementing actual Amtrak service to Burlington from the south has been set. More recently, restarting the passenger rail service to Montreal, suspended in 1995, has become a top VTrans priority.

Bus service is provided by the Chittenden County Transportation Authority (CCTA) on three routes. The Essex Junction route (#2) runs from approximately 6:00 am to 10:00 PM with 15 minute peak hour service to Burlington from Monday to Friday, and additional service on Saturday. This is CCTA’s highest ridership route with 1,872 average riders/weekday. The Essex Center route (#4) runs Monday through Friday with 30-minute headways. This route has 94 average riders/weekday.

The Williston-Essex route (#1E) runs Monday through Friday with 30-minute peak hour headways. This route has 105 average riders/weekday. CCTA's Transit Development Plan calls for a number of improvements including:

- More evening and Sunday service
- Elements of Bus Rapid Transit on VT 15 (and US 2) including 10-minute peak service, 15 minute midday service; enhanced shelters; transit signal priority; queue jumpers; and passenger information
- Focus on land use coordination and Transit Oriented Development/Pedestrian Oriented Design efforts
- Upgrade service to Essex Way
- Connect Susie Wilson area with Essex Junction

The implementation of new services or enhancements to existing services is dependent on several factors, including available funding, community support, and projected service productivity and cost-effectiveness. The CCTA Board of Commissioners considers all these factors when deciding which services to advance. Because there is a local match funding requirement for all services, local community support is a key component without which it would be very difficult to implement even the most productive of services. From a pure productivity and cost-effectiveness standpoint, investing resources in areas with highest density and greatest mobility needs are likely to produce the best returns in terms of ridership and revenue. For example, when service was increased to 15-minute peak headway on the Essex Junction route, there was a 30% increase in ridership. Expansion of service hours is likely to be the next most cost effective improvement, over extensions to new locations.

Support of the existing public transportation system and additional improvements to the public transportation system are important to accomplishing other community goals. Public transit access to places of employment and to major shopping centers may help to alleviate traffic congestion and can contribute economic development efforts. New construction and reconstruction should consider public transit access early in the design process. To maximize the public resources already devoted to the existing public transportation system, consideration should be given to locating new facilities along or in close proximity to current public transportation routes. CCTA's Transit Development Plan (TDP) calls for coordination with municipalities on focused development along transit corridors with pedestrian-oriented design. Other important issues include the consideration of bus stops and passenger shelters when developing new facilities or re-developing properties. CCTA's TDP helps support Essex Junction's land use plan, just as Essex Junction's land use plan helps support improvements to the CCTA service through higher density and mixed uses in the Village. The Village should continue to work with local representatives to encourage the CCTA Board to pursue these issues. The CCTA is managed by a Board of Commissioners with one representative from the Town of Essex.

8.5 Air Pollution/Energy Conservation

Air pollution, energy conservation and land use are important transportation issues. Increased use of public transit and bikeways will reduce pollution and save energy. Therefore, these benefits should be considered when any improvements to the transportation network and land use changes are considered. The elimination of cars is not possible, but the elimination of unnecessary trips and increasing transportation options are an important first step. Reducing wait time and thus vehicle idling at congested locations' such as the Five Corners through design improvements such as pedestrianizing a short section of Main Street while enabling vehicles to move more efficiently through the Village Center is an important component of any policy that aims to reduce air pollution and increase energy conservation.

8.6 Transportation Goals

Goal 1: Support the completion of the Circumferential Highway.

- Objective 1.1: Provide alternate routes for non-destination traffic.
- Objective 1.2: Do not support capacity increases on state highways in the Village that involve additional vehicle lanes.
- Objective 1.3: Emphasize local access, public transit, bicycle facilities, pedestrian safety and access, and aesthetics in future streetscape projects.
- Objective 1.4: Reduce idling at the Five Corners by considering pedestrianization of a short section of Main Street to create a crossroads intersection.
- Objective 1.5: Redirect Route 15 to Susie Wilson Road and Route 289 to reduce non-destination traffic in the Village.

Goal 2: Monitor, evaluate and implement traffic management practices on a continuing basis.

- Objective 2.1: Monitor annual traffic counts and accident data.
- Objective 2.2: Review all development proposals to minimize traffic and pedestrian safety concerns.
- Objective 2.3: Where feasible, reduce the number and size of non-conforming curb cuts during development review
- Objective 2.4: Encourage the use of joint access driveways and shared parking lots when physically possible.
- Objective 2.5: Monitor the timing and sequence of all traffic lights to optimize traffic and pedestrian safety.
- Objective 2.6: Cooperate with adjoining communities to develop strategies to minimize traffic increase within the Village resulting from development beyond the Village limits.
- Objective 2.7: When possible, avoid dead end streets. Connect new streets into the existing street network from at least two points.
- Objective 2.8: Request that neighboring communities require major development proposals to include traffic impact analysis at the Five Corners and that traffic analysis be submitted to the Village for review.
- Objective 2.9: Study and consider options for managing traffic at the high crash locations near the Five Corners indicated on the Transportation Map.
- Objective 2.10: Implement the Village Sidewalk Plan and Policy

Goal 3: Facilitate the use of sidewalks as a viable transportation alternative.

- Objective 3.1: Review all development proposals for the efficient use of sidewalks.
- Objective 3.2: Consider alternative standards for sidewalks based upon location and potential usage.
- Objective 3.3: Encourage school age children to walk or ride a bike to school to reduce traffic congestion. Encourage enrollment in the Vermont Safe Routes to School Program.
- Objective 3.4: Utilize all traffic calming techniques and strategies available.

Goal 4: Review and implement parking strategies consistent with other planning purposes.

- Objective 4.1: Encourage quality site design and landscaping for all new parking lots.
- Objective 4.2: Encourage bus and pedestrian access to all parking facilities.
- Objective 4.3: Develop long-term strategies for parking demand within the Village Center.
- Objective 4.4: Review all parking requirements and develop revised parking requirements which may include off-site parking, or other alternatives.
- Objective 4.5: Cooperate with adjacent communities to locate commuter facilities in or in close proximity to the Village.
- Objective 4.6: Consider policies to require or encourage the installation of bicycle parking racks at major activity centers such as shopping centers.

Goal 5: Promote and implement strategies to encourage the use of bicycles as alternate transportation modes.

- Objective 5.1: Consider bicycle access in the review of all development proposals.
- Objective 5.2: Consider the construction or signage of bicycle lanes on all future street construction projects.
- Objective 5.3: Pursue the use of Federal and State funding for construction of shared use paths and bicycle lanes.
- Objective 5.4: Include shared use paths as a component of the Capital Budgeting process.
- Objective 5.5: Utilize Bike-Walk Advisory Committee to recommend projects, pursue funding sources and conduct bike/ped education to encourage safety and visibility.
- Objective 5.6: Encourage the donation of land, labor and monies for the implementation of the shared use paths.

Goal 6: Encourage increased usage of the public transportation system.

- Objective 6.1: Cooperate with CCTA to increase access to bus routes including higher frequencies during peak hours.
- Objective 6.2: Encourage the use of bus turn-offs and shelters on major streets.
- Objective 6.3: Encourage the State of Vermont to develop tax measures which support alternative transportation and reduce pressure on the local property tax.
- Objective 6.4: Cooperate with the CCTA to encourage education programs on the benefits of using public transportation.
- Objective 6.5: Continue to support elders and disabled transportation programs.

Goal 7: Cooperate with the State of Vermont to locate air quality monitors at the Five Corners.

- Objective 7.1: Require applicants with potential emissions to obtain necessary state or federal permits prior to any local approvals.
- Objective 7.2: Work with state and regional officials to ensure the uniform enforcement of all air Pollution Standards.

Goal 8: Cooperate with state and regional entities pursuing efforts to establish potential commuter rail service and an international passenger rail connection to Montreal that will go through Essex Junction.

- Objective 8.1: Appropriate upgrades to the existing station and the surrounding areas to meet future needs.

9. Land Use

The livability and viability of any urban area are largely dependent on the pattern of land uses within the community. Transportation efficiency (and safety), the accessibility of various activities (i.e. shopping, entertainment, etc.) and the quality of residential neighborhoods are determined in many cases by land use patterns. The land use element is thus a “vision” for future development or redevelopment within the community. The vision was refined in this Plan update to reflect the Heart & Soul values identified by the residents – with particular emphasis on Thoughtful Growth. This Plan supports the Thoughtful Growth value by calling for continued accommodation of tight-knit neighborhoods, a vibrant downtown, diverse housing options, and a transportation system that includes a path network for pedestrians and bicyclists.

This Plan supports other Heart & Soul values, as well. The Local Economy will be supported by a healthy infrastructure and locations for existing and future businesses. The emphasis on tight-knit neighborhoods will foster Community Connections. Well-marked bike and pedestrian lanes will encourage Safety by allowing residents to comfortably and securely navigate the community. Parks and trails will help provide a basis for Health and Recreation, in addition to the community’s largest open spaces in the Town.

In addition, this Plan helps support the larger regional land use goals by concentrating new growth in areas already developed, and thereby helping to minimize sprawl and protect the more rural areas of the County for working lands and environmental resources. Specifically, the *Chittenden County ECOS Plan* includes the following strategy: Strategy 2: Strive for 80% of new development in areas planned for growth, which amounts to 15% of our land area. The *ECOS Plan* takes a high level view of the land area in the County and therefore considers Essex Junction in its entirety to be a growth area. However, the concept is similar at a smaller scale within Essex Junction where the Village Center, surrounding mixed use, commercial and industrial districts are areas planned for growth; the surrounding residential areas are intended to remain at similar densities; and the Whitcomb Farm and public parks are protected (or in the process of protection) from future development. This Plan also identifies several steps to ensure that new growth is done in a manner that will create safe and inviting streetscapes, vibrant commercial and residential opportunities, and respect of the Junction’s historic fabric. For example, the Plan calls for an enhanced community discussion and design charrette to develop design standards for the Village Center and surrounding areas.

This chapter first describes the existing characteristics throughout the Junction, and then describes the future land use goals and the specific regulations in place to achieve those goals. The goals also describe changes to the existing regulations where needed.

9.1 Existing Land Use

The existing generalized land use pattern within the Village is indicated on Map 9. This existing land use pattern will, to a large degree, direct the future land use pattern. An analysis of the existing land use pattern leads to the identification of several areas with distinct characteristics. Chapter III also provides a detailed summary of historic development patterns within the village. These generalized areas are discussed individually below:

- 1) **Village Center** – While Lincoln Hall dates from the early nineteenth century (it was originally built as an inn), most of the buildings in the commercial center of the Village date from the late nineteenth and very early twentieth centuries. In the commercial core of the area, the buildings are typical turn-of-the-century commercial types. They are built to the front sidewalk lines and cover a very high percentage of their sites. Frequently, they share common walls

with their neighbors. On the front facades their first floors contain glazed storefronts which add to the pedestrian sense of the area.

The buildings are predominantly two story structures with a pronounced horizontal frieze below the cornices. The cornices tend to be heavily decorated with brackets, dentils, etc. In addition, the larger buildings (which tend to be brick) have a strong horizontal band at the second floor level. Visually, this gives the buildings a horizontal orientation which adds a sense of scale to the area.

The wood frame buildings (such as those on the east side of Main Street) do not, or no longer, have this decorative treatment, and have vertical orientation and a somewhat different scale. This is partially mitigated by the fact that the lower floors have glazed store fronts and the tops of the store windows form a horizontal visual element.

In summary, the principal architectural features which create this area's sense of scale and identity are as follows:

1. Zero front yard setback and high site coverage.
2. Glazed storefronts on the first floor.
3. Flat roofs with a strong horizontal frieze below cornices.
4. Strong horizontal band at second floor level.

Moving out slightly beyond the commercial core of the area, the architecture changes significantly. Most buildings in this area were constructed as residences during the same period as the commercial structures, but the prevailing residential styles at the time were variations on Victorian. Thus, the residential buildings tend to be two-and-one-half story structures with gabled roofs, frequently with ells and other protrusions forming complex roof forms. Where still present, roof shingling patterns are quite decorative. Many of the buildings are oriented with gable ends towards the street. The facades of these residential structures reflect considerable decoration, with porches, decorative arches and supports, cutaway bay windows with brackets, eave brackets and cornices. Finally, the buildings tend to be set back with lawns between them and the street, and have lawns separating them from their neighbors. Some of these structures have been converted to non-residential use while retaining their original architectural appearance.

In summary, the architectural features which make this area unique in the center of the Village are as follows:

1. Modest lawn separating the buildings from the street and from each other.
2. Complex facades with porches, projecting windows, ells and ornamentation.
3. Complex roof forms with steep pitches, gables and dormers.

Even though the commercial and residential buildings date from roughly the same era, the different architectural treatments created a distinct delineation between what was the original commercial portion of the Village and the residential area surrounding it. While many of the old residences are now used for commercial activities, their areas remain qualitatively different from the commercial core of the Village.

In most cases there is no parking between the buildings and the street, and this adds considerably to the intimacy and pedestrian orientation of the Village Center.

The Junction also benefits from a Village Center Designation – the boundary is included on Maps 9 and 10. With the Village Center Designation building owners, lessees and the municipality are eligible for the following benefits: historic tax credits; façade improvement tax credits; code improvement tax credits; priority consideration for HUD, CDBG, and Municipal Planning Grants; priority site consideration by State Building and General Services when leasing or constructing buildings; and the option to create a special assessment district to raise funds for both operating and capital expenses to support specific projects in the designation. This designation provides the Village and building owners with assistance in maintaining and restoring historic structures, thereby preserving the historic fabric of the Village – a goal identified in numerous chapters of this Comprehensive Plan.

The designated Village Center District credits are best suited if used as part of a holistic ‘package’ approach of both private and public investment. The Village Center has seen very little private investment in the last 20 or 30 years as there has been no ‘package’ to attract investment.

During times of economic constriction investment in public infrastructure attracts private investment. Up to now the Five Corners traffic has been a disincentive to private investment – people avoided the area rather than sought it out. The potential to make the Village Center more pedestrian friendly via a short pedestrian section, along with the Connector Road, will alleviate private investment concerns. With the energy that is evident in the Village Center, current and future property owners have expressed interest in the tax credits made available through this designation.

The designated Village Center is a critical component of the Village’s new proactive urban design approach to land use and transportation management. Urban regeneration without the designated Village Center benefits will be extremely unlikely. The historic Village Center has many buildings that need Code updates if they are to be developed including new sprinkler systems, emergency access, façade improvements, etc.

The recent rebuilding and upgrade of 8 Railroad Avenue is an example of an improvement that would not have happened without the designation credits. Many of the other buildings in the Center are under long term ownership and only now are investors looking at properties with an eye to sustainable development, both environmentally and fiscally. The recent purchase of the Peoples United Bank at Five Corners is a sign of investment and residency coming back into the center. These 51 apartments and street level stores will be the beginning of a regeneration of the Center that will enable the Center to become vibrant once again. Given the foregoing the Designation can be used to energize the whole of the Village Center in a holistic approach that can be a model for Vermont.

In the future, there may be some benefit in extending the Village Center Designation down the Pearl Street District. In addition, the Junction could build upon the Village Center Designation with a Growth Center Designation which would provide the landowners and municipality with additional benefits to support growth within the Village, and possibly the IBM campus.

- 2) **Summit Street to Five Corners** – This area has maintained a residential character. Although some residential structures have been altered for business purposes, much of the original structural detail remains. Commercial conversions are limited to low traffic volume professional offices. The northerly side of Pearl Street along this section of Pearl Street contains single family homes of traditional and historic value. These structures are worth

protecting against conversion to office or apartment uses. This section of Pearl Street should be rezoned to R-2 District.

- 3) **Pearl Street from Summit to Willeys Court** – This area is typified by intense commercial development with multiple curb cuts. There is a mixture of building types, colors, materials, and signs. The more recent construction is dominated by increased landscaping and more efficient site design which stands in marked contrast to the older structures. The only area of significant historic value is the Champlain Valley Exposition Fairgrounds which is dominated by open space and significantly different types of structures.
- 4) **Susie Wilson Road to Willeys Court** – This area is dominated by conversions to small businesses, professional offices and apartments. This area was recently re-zoned from HC to MF/MU-1 in recognition of its transition from single family uses to apartments and less intense business uses, and as an extension of the Pearl Street Corridor.
- 3) **Indian Acres Area** – This area is dominated by well maintained single family dwellings on small lots. Several properties have been converted to duplexes or dwellings with accessory apartments.
- 4) **Warner Avenue Area** – This neighborhood has maintained a single family residential character. No multi-family conversions have been located.
- 5) **Prospect Street Area** – This neighborhood has a mix of structures, some of historical significance. Some multi-family units and duplexes have been established. Several large residences help establish a unique character to the neighborhood.
- 6) **Village Center Neighborhood** – The areas adjacent to the Village Center have been in transition. There is a mix of single family, duplex and apartment dwellings. Many lots are large enough to be subdivided. The type of development which has occurred in this area may lead to pressure for further single family conversions. Consider zoning changes to distinguish these residential and low intensity commercial areas from the core commercial areas in the Village Center District.
- 7) **Brickyard Area** – This area is dominated by multi-family and condominium development. There is no vacant land available for future development.
- 8) **Countryside and Rivendell** – Both of these areas are dominated by newer residential structures on large lots. Virtually no multi-family conversions have occurred.
- 9) **Park Street Corridor** – This area has been in a state of transition. Properties nearest the Five Corners have been converted to multi-family and commercial development. Property south and west of South Street has maintained a single family residential character with the presence of several large older homes. The east side of the corridor has seen substantial conversion to multi-family and two-family dwellings.
- 10) **Maple Street Corridor** – Properties from the Five Corners to Mansfield Avenue have been in transition with several conversions to duplexes. From Mansfield Avenue to the Village limits, and single-family residential character has been maintained. To preserve the single family character of this corridor, it should be rezoned from RO to R-2 from Mansfield Avenue to Elm Street. Accordingly, further conversions of single family to multi-family in this area should not be allowed.

- 11) **Main Street Corridor** – Lower Main Street to the Village Center has largely converted to multi-family and two-family dwellings. Some dwellings are commercial or are used for home occupations. The upper portion of Main Street, particularly the westerly section, is primarily residential, and should remain as such because a primary goal of the plan is direct growth to the Village Center and commercial and multi-family areas.
- 12) **Lincoln Street Corridor** – This area has several large lots, a mix of uses including residential, commercial, offices and public/quasi structures.
- 13) **Fairview Farms** – A relatively new residential area, with 99 lots and 10 acres open space.
- 14) **Whitcomb Heights** –276 residential units have been built on the original Whitcomb Farm. The Vermont Land Trust, with funding assistance from the Village, purchased development rights on 271 acres of the Whitcomb Farm in March 2014. Additional development rights are planned for purchase on approximately 143 acres, pending funding in 2015. Construction is anticipated to begin in the summer of 2014 on a solar energy project.

9.2 Future Land Use

Essex Junction faces the challenging task of planning in a mostly developed community. The issues that face the community today are complex, and have been detailed throughout this Plan. The Future Land Use Map (Map 10) is the fundamental element of the overall Comprehensive Plan. It represents the proposed distribution of land uses within the Village. While there are several changes, the Future Land Use Map generally follows existing patterns of development, but may allow for greater densities and building heights in certain core mixed-use zoning districts. The Plan calls for proper design so that the increase in density and height does not feel out of character with the existing fabric of the Village.

Equally important as the Land Use Map are the individual Plan elements. These establish guidance and details necessary to achieve desired changes. The interdependence of these elements cannot be over-emphasized in that all must be consistently adhered to if the overall Plan is to remain viable. Thus, the Land Use Map is not just a physical depiction of desired land use, but is the culmination of detailed analysis of all factors related to the future growth and development of Essex Junction.

This Plan Element encompasses three major sections:

- 1) **Land Use Goals** – The Land Use Goals provide general guidance to the development of future land use categories. They establish the context in which future land use categories and the Future Land Use Map are developed.
- 2) **Land Use Categories** – The Land Use Categories provide specific guidance to interpreting the Future Land Use Map. They establish the intent of the various mapped area, and describe the general range of uses and provide guidance for development of implementation measures.
- 3) **Future Land Use Map** – The Future Land Use Map represents future land use patterns for the Village. It is the key document necessary for the creation of Zoning District Boundaries.

9.3 Land Use Goals

Goal 1: Provide sufficient locations within the Village to accommodate a variety of land uses including public, quasi-public, residential, retail, commercial and industrial uses.

Objective 1.1: Consider redefining zoning district boundaries of the Village Center to address differences in land development patterns between the core commercial areas and the residential neighborhoods.

Objective 1.2: Encourage the development of a variety of residential units in the Village Center and Pearl Street Districts.

Objective 1.3: Study the purchase of key properties in and around the Village Center for public use.

Goal 2: Promote responsible residential growth and encourage the growth and maintenance of quality residential areas.

Objective 2.1: Conserve open space/agricultural land for future generations.

Goal 3: Mitigate negative impacts of contiguous but different land uses.

Goal 4: Ensure that quality land planning and structural design occur in all commercial and industrial areas in a manner compatible with surrounding architecture.

Goal 5: Coordinate land use decisions with associated public infrastructure needs including streets, sidewalks, bicycle paths, drainage, water, sewer, schools, recreation and other public needs.

Goal 6: Provide mechanisms which encourage innovative development while maintaining the existing urban character of the Village.

Objective 6.1: Consider overlay districts and development agreements, and enact design review as a means to achieve innovative development.

Objective 6.2: Consider the inclusion of visuals within the Land Development Code to make the design standards clear for developers and residents. Engage the public in development of these visuals to gain consensus on design standards for the Village.

Objective 6.3: Promote use of the Village Center Designation benefits.

Goal 7: Coordinate development with adjoining communities.

Objective 7.1: Initiate communication with surrounding communities to discuss development impacts on land use and planned compatibility.

Goal 8: Coordinate needed public improvements with the development review process.

Goal 9: Prevent development of land which is environmentally unsuitable for construction.

Goal 10: Design new street layouts to minimize both overall street length and the quantity of site grading required. When possible connect new streets through to existing streets to increase connectivity.

Goal 11: Place a high priority in development review on pedestrian and vehicle access and safety.

Goal 12: Protect and enhance sensitive and important areas.

Objective 12.1: Consider design review criteria for main corridors upon approach to the Village Center (such as Pearl St. from CVE to 5 Corners).

Objective 12.2: Analyze and prioritize historic resources to determine which sites and structures should be preserved.

Objective 12.3: Consider zoning changes or historic district overlay to preserve existing residential structures of significant historic character along major arterials and in historic neighborhoods.

9.4 Land Use Categories

9.4.1 RESIDENTIAL 1

Intent: To provide areas for large lot single family residential dwellings and accessory residential uses.

Density: 15,000 sq. ft. lots exclusive of right-of-way.

Range of Potential Uses:

Single family dwellings, accessory apartments, parks, non-commercial recreation facilities, public and quasi-public uses, planned residential development. Existing public school facilities may be converted to elderly housing upon Site Plan Review. Emphasis shall be placed upon maintaining existing open space and recreation facilities. No more than ten percent of existing school buildings may be converted to school offices or administrative facilities. Other public uses may be approved upon Special Review.

Other Information:

Density bonuses may be given for Planned Residential Developments with unique design proposals. Zero lot-line houses, clustering, and townhouses may be permitted upon special review with a planned residential application. No more than 30% of residential uses may be other than single-family, detached dwellings. Planned Developments shall include developed recreation facilities, bike and pedestrian paths. Projects which provide affordable housing shall be entitled to a density bonus, if long term affordability is guaranteed.

9.4.2 RESIDENTIAL 2

Intent: To provide areas for high-density single family dwellings and accessory residential uses.

Density: 7,500 sq. ft., exclusive of right-of-way.

Range of Potential Uses:

Single family dwellings, accessory apartments, parks, non-commercial recreation facilities, public and quasi-public uses, planned residential development. Existing public school facilities may be converted to elderly housing upon Site Plan Review. Emphasis shall be placed upon maintaining existing open space and recreation facilities. No more than ten percent of existing school buildings may be converted to school offices or administrative facilities. Other public uses may be approved upon Special Review.

Other Information:

Density bonuses may be given for Planned Residential Developments with unique design proposals. Zero lot-line houses, clustering, and townhouses may be permitted upon special review with a planned residential application. No more than 30% of residential uses may be other than single-family, detached dwellings. Planned Developments shall include developed recreation facilities, bike and pedestrian paths. Projects which provide affordable housing shall be entitled to a density bonus, if long term affordability is guaranteed.

9.4.3 PLANNED COMMERCIAL DEVELOPMENT

Intent: To provide a mechanism to review major commercial developments and encourage innovative approaches to commercial development.

Density: Applications may be made in any commercial zone which has development limitations including, but not limited to, narrow lots, limited access, and drainage problems. Any proposed development, or re-development, which exceeds 2,500 sq. ft. of commercial space shall require application for a Planned Commercial Development. Waivers to this requirement may be granted by the Planning Commission.

Range of Potential Uses:
All uses permitted within the applicable zoning district. A mix of residential, retail and office uses is encouraged.

Other Information:
Planned Commercial Developments shall emphasize innovative design. Zoning District provisions, including setbacks, parking and lot coverage may be waived by the Planning Commission. Waivers may be granted only upon review of building design, lot layout, landscaping, setbacks, and amenities. Joint access, landscaping and compatible design are of particular importance. A determination must be made that these improvements mitigate waiver of any District standards.

Application requires a Conceptual Site Plan Hearing. The Planning Commission will determine the merits of the application during Conceptual Review. Upon approval, a Final Site Plan is required which must be in substantial compliance with conceptual approval.

9.4.4 MULTI-FAMILY RESIDENTIAL 1

Intent: To provide areas for multi-family residential (townhouses, condominium and apartments with 4 or more units) and accessory residential uses.

Density: 7,500 square feet for the first unit and 5,000 square feet for each additional unit in the same structure

Range of Potential Uses:
Single family dwellings, accessory apartments, parks, non-commercial recreation facilities, public and quasi-public uses, planned residential development. Existing public school facilities may be converted to elderly housing upon Site Plan Review. Emphasis shall be placed upon maintaining existing open space and recreation facilities. No more than ten percent of existing school buildings may be converted to school offices or administrative facilities. Other public uses may be approved upon Special Review.

Other Information:
No new multi-family 1 areas will be established. Current facilities may be repaired, remodeled or replaced, but there can be no increase in number of units.

9.4.5 MULTI-FAMILY RESIDENTIAL 2

Intent: To provide areas for construction of new multi-family residential dwellings and accessory residential uses.

Density: One unit for the first 7,500 sq. ft. and one unit for each additional 1,500 sq. ft.

Range of Potential Uses:

Single family dwellings, accessory apartments, parks, non-commercial recreation facilities, public and quasi-public uses, planned residential development. Existing public school facilities may be converted to elderly housing upon Site Plan Review. Emphasis shall be placed upon maintaining existing open space and recreation facilities. No more than ten percent of existing school buildings may be converted to school offices or administrative facilities. Other public uses may be approved upon Special Review.

Other Information:

Five or more units may require Special Review. Screening, landscaping and parking shall be designed to minimize impact on adjacent properties. Projects which provide affordable housing shall be entitled to a density bonus if long-term affordability is guaranteed.

9.4.6 MULTI FAMILY RESIDENTIAL 3

Intent: To provide areas for low-density multi-family dwellings.

Density: One unit for the first 7,500 sq. ft. and one unit for each additional 1,000 sq. ft. to a maximum of 4 units.

Range of Potential Uses:

Single family dwellings, accessory apartments, parks, non-commercial recreation facilities, public and quasi-public uses, planned residential development. Existing public school facilities may be converted to elderly housing upon Site Plan Review. Emphasis shall be placed upon maintaining existing open space and recreation facilities. No more than ten percent of existing school buildings may be converted to school offices or administrative facilities. Other public uses may be approved upon Special Review.

Other Information:

Single family dwellings and accessory apartments are permitted uses. Duplexes, triplexes and quadraplexes may require Special Review. Screening, landscaping and parking shall be designed to minimize impact on adjacent properties. Projects which provide affordable housing shall be entitled to a density bonus, if long-term affordability is guaranteed.

9.4.7 TRANSIT ORIENTED DEVELOPMENT

Intent: The purpose of the Transit Oriented Development District (TOD) is to encourage development that supports a variety of transportation options including public transit (bus, rail), walking, biking and the automobile.

In order to achieve the desired goal of providing greater transportation options, development within the district shall embody the characteristics of compact urban development and pedestrian oriented design. Mixed use buildings with first floor retail, wide sidewalks, interconnected streets, on-street parking, high density residential development, pedestrian amenities, transit stations and stops, open spaces, and public or shared parking are strongly encouraged and in many cases required as a part of the standards within the TOD District.

The area within the TOD District is currently served by public bus transportation. In addition, the TOD District is adjacent to an active rail corridor, which may be used for light rail service in the future. A bike path is also planned for the rail corridor. Therefore, the TOD District is in an ideal location to provide greater transportation options.

The specific objectives of the TOD District are:

- Create an environment that is conducive to using public transit, walking and riding a bike
- Accommodate a mix of uses in a form that attracts pedestrians
- Integrate commercial, institutional and residential development into a compact development pattern arranged around a street grid
- Provide pedestrian amenities and open spaces to create a comfortable and attractive environment
- Provide public, shared parking, and/or park and rides to accommodate automobiles, but will not detract from the pedestrian environment
- High Density Residential Development
- First Floor Retail
- Encourage the use of Tax Increment Financing to support public improvements in the district.

Density: No density limit. Density will be based on ability to provide parking and meet other district requirements including lot coverage and building height.

Range of Potential Uses:
Multi-Family, Office, Retail, Banks, Restaurants, Cultural Facilities, Personal Services.

Other Information:
Development and redevelopment in the TOD District is intended to be more urban than most of the existing development patterns within the district. The TOD District is intended to support development patterns that are similar to those found in the Village Center District.

9.4.8 MULTI-FAMILY/MIXED-USE-1

Intent: The Multi-Family/Mixed-Use-1 District is intended to allow high density multi-family development along low intensity commercial uses along major transportation and public transit corridors. High Density, Mixed Use developments and affordable housing with parking below grade or on the first floor of the building are encouraged. Development in the MF/MU District should support alternative modes of transportation, while accommodating the automobile. Developments within this district

should be designed in such a way as to build upon the village character found in the core areas of the Village.

Density: No density limit. Density will be based on the ability to provide parking and meet other district requirements including lot coverage and building height

Range of Potential Uses:

Multi-Family, Office, Retail, Banks, Restaurants, Personal Services

Other Information:

Mixed use redevelopment including multi-family housing is encouraged. Commercial uses should be on a neighborhood scale and support the local residents.

9.4.9 MULTI-FAMILY/MIXED-USE-2

Intent: The Multi-Family/Mixed-Use-2 District is intended to allow high density multi-family development along low intensity commercial uses along major transportation and public transit corridors. High Density, Mixed Use developments and affordable housing with parking below grade or on the first floor of the building are encouraged. Development in the MF/MU-2 District should support alternative modes of transportation, while accommodating the automobile. Developments within this district should be designed in such a way as to build upon the village character found in the core areas of the Village.

Density: 15 units per acre

Range of Potential Uses:

Multi-Family, Office, Retail, Banks, Restaurants, Personal Services

Other Information:

Mixed use redevelopment including multi-family housing is encouraged. Commercial uses should be on a neighborhood scale and support the local residents.

9.4.10 PLANNED RESIDENTIAL (where applicable)

Intent: The objective of planned residential developments is not simply to allow exceptions to otherwise applicable regulations. It is instead to encourage a higher level of design and amenity than it is possible to achieve under the usual land development requirements. In addition, density bonuses may be granted if the development proposal preserves natural resources, preserves solar access, renewable energy generation, preservation or donation of open space, provides recreation facilities, constructs bike path connections, innovative design, and affordable housing in perpetuity.

Density: Density is established by the underlying zoning district but may be increased based upon specific criteria to be developed.

Range of Potential Uses:

Single family dwellings, accessory apartments, parks, non-commercial recreation facilities, public and quasi-public uses, planned residential development. Existing public school facilities may be converted to elderly housing upon Site Plan Review.

Emphasis shall be placed upon maintaining existing open space and recreation facilities. No more than ten percent of existing school buildings may be converted to school offices or administrative facilities. Other public uses may be approved upon Special Review.

Other Information:

Any proposed commercial or business uses must meet neighborhood commercial criteria. Multi-family uses shall not exceed 30% of the total residential uses and must be specifically approved on a case by case basis. Zero-lot lines, cluster development and other innovative housing techniques are encouraged and must be approved on a case by case basis. Density bonuses not to exceed thirty percent may be granted for affordable housing or elderly housing projects. Certain street, highway and lot size requirements may be waived if alternatives are equal or superior to standard requirements. All proposals shall consider pedestrian and bike path usage. Recreational facilities, dedication of usable open space and park development may be required. All development proposals must be reviewed and approved as a Conceptual Plan.

9.4.11 VILLAGE CENTER

Intent: To provide a compact commercial center with a mix of commercial and residential uses which is compatible with existing architectural and design standards. It is not anticipated any building greater than four stories in height would be built in the Village Center.

Density: Minimum lot size is 5,000 sq. ft. Some intensive commercial uses may require larger lot sizes.

Range of Potential Uses: Hotel, offices, retail uses, restaurants, personal services, single family, multi-family dwellings, public and quasi-public services and amenities. Mixed use of structure is encouraged.

Other Information: Creation or preservation of affordable housing within this area is encouraged. Emphasis is placed upon pedestrian and bicycle access to the commercial center. Design criteria may be developed to encourage construction similar to existing structures. Setbacks, parking and other requirements will be drafted to encourage development similar to existing development. Special Review may be required within the designated Village Center area. Site plan and design considerations are an important aspect of our historic Village Center District. Safety and the ability to walk and cycle in the area are increasingly important. The ability to efficiently move traffic while creating safe pedestrian routes, vibrant commercial and residential opportunities, and appropriate parks and green space will create an environment that is welcoming to residents and visitors alike in an area currently dominated by traffic. Additional density/waivers may be available for proposals that incorporate public space as part of a Village Center District development application. The public space may take the form of a discrete area, or preferably form part of a chain of public spaces that will be created over time.

9.4.12 RESIDENTIAL-OFFICE

Intent: Provide areas for small office conversions of existing residential structures while maintaining residential type architecture.

Range of Potential Uses:

Professional offices with associated retail uses, photography shop, copy shop, frame shop, single family, art studio, residential, multi-family residential, etc.

Density: Minimum lot size is 7,500 sq. ft. for the first residential or office unit and 500 sq. ft. for each additional residential unit. However, lot must meet lot coverage, parking, setback and building location criteria.

Other Information:

Single family and multi-family not to exceed 4 units are encouraged and are permitted uses. Multi-family must meet parking, landscaping, screening requirements and must preserve residential integrity. Projects which preserve affordable housing, or provide joint access and joint parking with adjoining lots may qualify for development bonuses. Existing residential structures may be removed upon Special Review if proposed new structures are designed and constructed to maintain residential character and scale. Conditions may be placed upon any Special Review approval.

9.4.13 LIGHT INDUSTRIAL

Intent: To provide areas for manufacturing, warehousing, research and development. Implementation of approved Master Plan subject to site plan review.

Density: Minimum lot size is 10,000 sq. ft.

Range of Potential Uses:

Research and testing laboratories, warehouses, light manufacturing, offices.

Other Information:

Businesses within this category shall be located and designed so as to minimize impact on adjacent properties. Performance standards may be adopted for review purposes. Special Review may be required for some uses within this category.

9.4.14 HIGHWAY-ARTERIAL

Intent: To provide areas for retail, wholesale, commercial, service and professional businesses while minimizing negative impacts due to increased traffic.

Density: Minimum lot size is 10,000 sq. ft. Lot must meet lot coverage, parking, setback and building location criteria. Commercial space which exceeds 2,500 sq. ft. shall require application for a Planned Commercial Development.

Range of Potential Uses:

Multi-family, retail stores, wholesale distribution, restaurants, commercial, recreation facilities, offices, vehicle repair facilities, gas stations. Mixed use of structures is encouraged.

Other Information:

The intensity of this category requires special standards to mitigate the impact of Heavy Commercial development. Landscaping, building appearance, building location, and access are of prime importance. Traffic safety, parking facilities and vehicular access is of concern. Consideration of pedestrian and bicycle access is required.

9.4.15 COMMERCIAL MIXED USE

Intent: To provide areas for mixed use development in locations that have adequate public infrastructure and compatible surrounding land uses. A mix of residential, retail and office use is encouraged. Light industrial uses area allowed as a conditional use. Commercial and light industrial space greater than 2,500 sq. ft. shall require application for a Planned Commercial Development.

Density: Minimum lot size of 15,000 sq. ft. Lot must meet lot coverage, parking, setback and building criteria.

Range of Potential Uses:

Retail stores, restaurants, office complexes, multi-family, light industrial, schools, warehouses, and manufacturing.

9.4.16 PLANNED EXPOSITION

Intent: To provide an area for special events and exposition facilities while minimizing adverse traffic, noise and visual impact. Implementation of approved Master Plan subject to site plan review.

Density: Minimum 120 acres.

Range of Potential Uses:

Agricultural shows and sales, educational workshops, concerts, antique shows and sales, temporary accessory sales, group sales, special events and festivals, picnics, reunions, carnivals, circuses, recreation facilities, pedestrian and bike paths.

Other Information:

If a new plan differs from the approved Master Plan, the Planned Exposition land use category will require review and approval of a Conceptual Plan at a Public Hearing. The Conceptual Plan identifies locations and types of uses. Emphasis is to be placed on landscaping, parking, traffic circulation and noise mitigation efforts. A Final Development Plan will identify location or relocation of any structures or physical improvements. Change in location of uses or substantial changes in types of uses, will require a new Conceptual Plan. A new Final Development Plan or Master Plan may be required if changes in physical improvements are proposed.

Uses within the Planned Exposition Land Use Category are divided into four types of reviews:

- 1) Permitted Use – No Special Review required unless projected attendance, noise or other factors exceed performance standards as developed. Examples of

permitted uses may include agriculture exhibitions, educational workshops and reunions. Prior notification of all events may be required.

- 2) Temporary Uses – Special administrative review is required to determine if Special Review is necessary. Temporary use permits are to be issued by staff within a specified time period. Staff review is limited to type of event, location of event, and performance standards as developed. Examples of uses may include temporary sales (accessory to a permitted event), antique sales and shows, dog shows, car shows, boat shows and temporary group sales (i.e. retail associations, car dealerships, clearance sales, etc.). Temporary use permits may be granted on an annual basis based upon a submitted schedule. Events not included shall be reviewed on an individual application basis.
- 3) Major Uses – Special Review is required for major uses and may include public meeting. Major uses are those uses which may generate substantial levels of traffic, noise or other adverse impacts. Examples may include major concerts, events which last 5 or more days and other uses denied by staff as Permitted Uses or Temporary Uses. Staff shall make the initial determination on a major use application within a specified period of time. If staff determines there may be substantial traffic, noise, odor, or other impacts, further Special Review shall be required and the applicant shall be immediately notified.
- 4) Champlain Valley Exposition Annual Fair – The Planning Commission may choose to review the Fair on an annual basis. The Planning Commission shall notify the Champlain Valley Exposition in writing by November 30th of the year before the Fair that they wish to review. The Champlain Valley Exposition shall then submit a permit application for review by January 31st of the following year. Review shall be conducted at a public hearing.
 - A) Permitted Uses – Daily shows (other than grandstand concerts), education workshops, product demonstrations, food services, booths, carnivals, and any activities within enclosed structures are not reviewed on an individual basis and are uses by right.
 - B) Cumulative Uses – The cumulative effect of all fair activities may be reviewed in cooperation with the Fair Board to develop traffic control, parking and noise plans.
 - C) Special Events – Special events including, but not limited to, concerts, demolition derbies, tractor pulls and other similar events may be reviewed for compliance with noise standards, dust control, parking and traffic flow. Consideration should be given to timing of all special events to minimize traffic conflicts, noise or other impacts. Special Review of these events or waivers may be required. Staff may not grant waivers to adopted standards, but will determine if additional Special Review or waivers are necessary.

9.4.17 PLANNED AGRICULTURAL

Intent: To provide areas for active agricultural uses and provide mechanisms to ensure the long term viability of agricultural uses. Prime agricultural land shall be preserved whenever possible through transfer of development rights to agriculturally

unproductive areas. Property used for agricultural purposes shall be deemed the predominant use and shall be protected from adverse urban development.

The entire area shall be subject to a Master Plan. No changes that involve any new development or change of use shall be permitted until a Master Plan for the entire Planned Agricultural district has been approved by the Planning Commission. Such a Master Plan shall ensure adequate infrastructure, roads and public amenities before additional development is approved.

Density: Standards for density may be developed or may be part of a Master Plan approval provided, however, that no development may be approved on lots of less than 15,000 sq. ft. without Planned Development approval utilizing the techniques specified in this land use category.

Range of Potential Uses: Farms, and all related activities including involvement in the local food movement (i.e. farm to school initiative), farm structures, farm housing, single family dwellings, multi-family dwelling, public and quasi-public uses, recreation, and solar renewable energy systems.

Other Information: The Planned Agricultural land use shall be designated only on active farm land and land held in farm ownership. Uses other than agricultural may be approved only as a part of a Master Plan for the entire parcel or specific application for one or more phases or parcels within sections of this District which clearly meet the intent of this land use category and utilizes techniques to save agricultural land. Transfer of development rights, land trust, purchase/lease-back and other innovative approaches to save prime agricultural lands and open lands are strongly encouraged.

9.4.18 FLOOD PLAIN

Intent: To promote the public health, safety and general welfare, to prevent increases in flooding and to minimize losses due to floods.

Minimum Lot Size: Not applicable. All areas designated by the Federal Emergency Management Administration shall be designated Flood Plain.

Range of Potential Uses: Agriculture, conservation areas, recreation facilities.

Other Information: All uses within this category require Special Review. Certain uses, or waiver requests may require Public Hearings and submittal of detailed hydrologic and engineering data.

Chapter VI

Implementation

In order to connect the vision, goals and objectives of this plan with reality, it must be implemented. Action is required and funding is necessary. Therefore, a detailed implementation plan is a key component of the comprehensive planning process.

Implementation will occur through a mix of policy adoption, planning studies, regulatory changes, public/private partnerships, education and capital projects. In many cases funding sources will be identified.

This chapter first describes an overview of finances for the Village; and then Table 14 lists the goals and objectives of the plan, the department that is primarily responsible for implementation, a timeline for implementation and potential funding sources. The timeline will be identified as follows:

Short Term – 1-2 Years

Mid Term – 2-3 Years

Long Term – 4-5+ Years

Ongoing – No definitive timeframe; may be ongoing policy

1. Government Finance

Local government is primarily financed through property tax revenue. Thus, consideration of the local tax effort is an important issue. It gives some indication of economic growth within the community as well as an indication of the community's ability to pay for improvements which may be required in the future. In addition, it is an important indicator of a community's ability to manage basic services while minimizing tax increases. Figure 7 tracks the Village Grand List increase from 2007-2013. Figure 8 provides more detail on the taxes generated, the distribution of taxes within the Village, and other sources of revenue. Figure 9 illustrates the distribution of the revenue collected to the services provided by the Village to its residents and businesses through the General Fund.

The Village has invested much time and effort to address issues of responsible financial management. A reappraisal was completed in 2007. Essex Junction's elected officials and voters are conscious of the need for responsible financial management and have successfully kept Village budgets to an average increase of 3.7% since 2007. However, while conservative budgeting keeps tax increases at a minimum, it does not allow capacity for new programs or significant investment in Village infrastructure and business development. Therefore, any goals and objectives established in this plan should be weighed against the resources needed to accomplish the goal. For every goal and objective, the village should ask itself, "at what cost?" and whether or not the initiative will be supported by adequate resources.

It is important to note that the data included herein are for the Village of Essex Junction taxes only. Residents are also required to pay school taxes and Town of Essex taxes. Both the school system and Town are totally independent taxing agencies over which the Village has no control. Residents should contact the Town of Essex and the School District for information regarding their tax rates.

FY2014 is the final year of an agreement with IBM to gradually eliminate a subsidy that replaced the taxes on IBM's machinery and equipment. The agreement started in 2001 and the last year the Village received the subsidy was FY2013. The Village is pursuing ways to reduce its budget by sharing services with the Town. The 1st step in the process was contracting with the Town to share the Town Manager position. Studies and efforts to share other services are under way.

Figure 8
Grand List 2007 - 2013

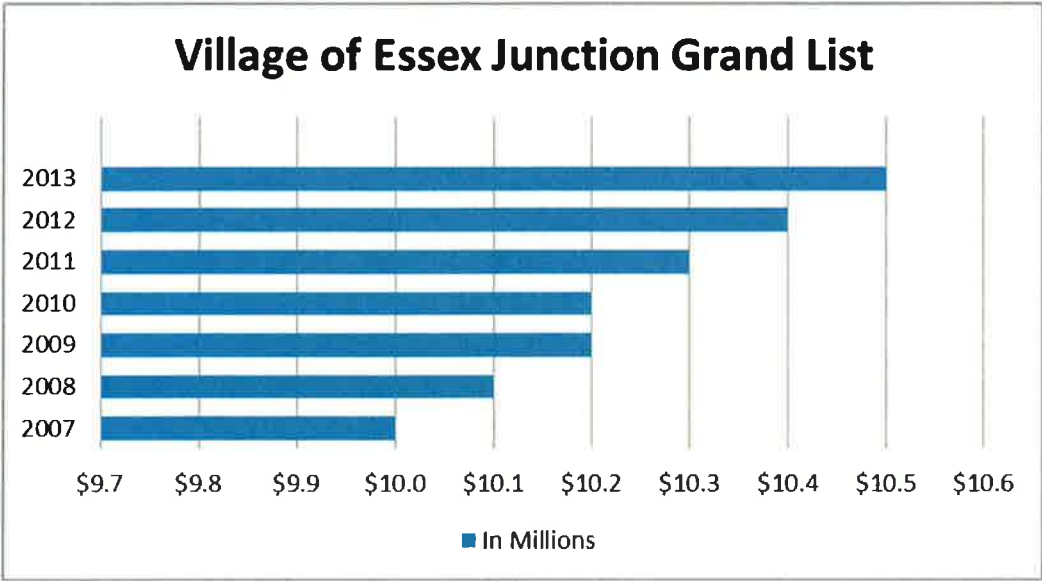


Figure 9
FY14 Budgeted Revenues

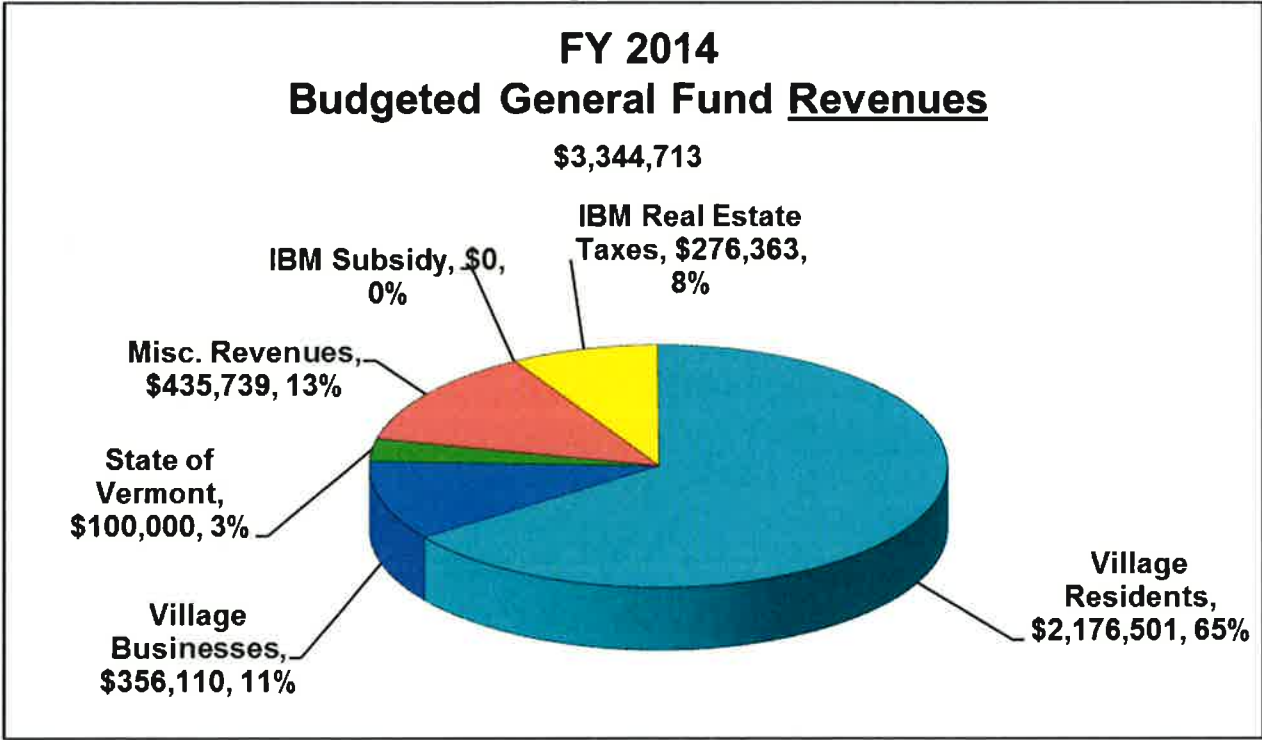
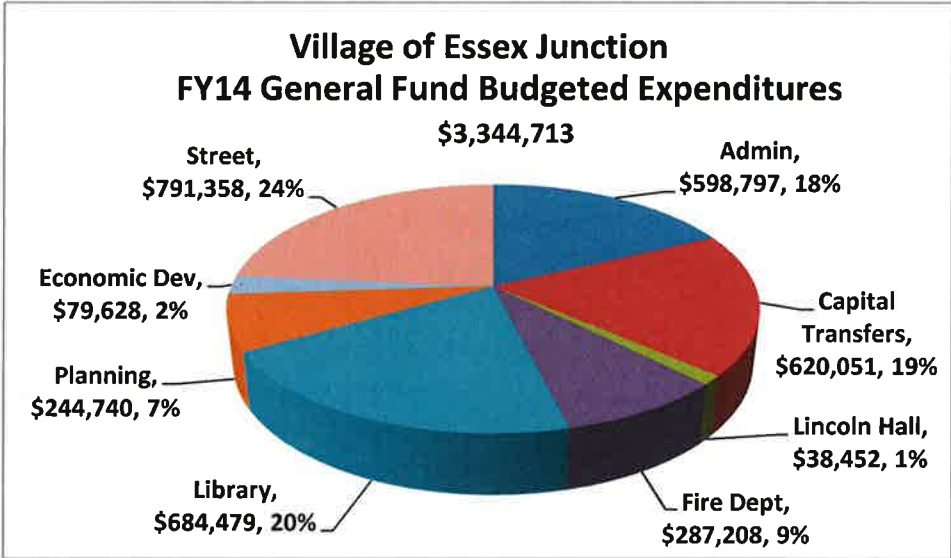


Figure 10
FY 14 Budgeted Expenditures



2. **Funding Sources**

Local Funding:

For current fund balances for the following programs please refer to the Annual Reports.

Planning Department Budget - Other Professional Services: These funds are used for general planning activities including matching grant funds, planning studies, and design assistance.

Capital Fund: The Village Capital Fund is used for public works projects including road and sidewalk reconstruction, village buildings, and streetscape projects.

Economic Development: The Village has an annual economic development budget which is used for the annual block party, and general economic development activities including market studies, marketing, business retention and other activities to support a thriving business community. The economic development component has been expanding to encourage private investment in the Village through outreach and education.

Public Works Streetscape Budget: The Public Works Department has an annual budget for streetscape improvements and maintenance. The money can be used for streetscape plantings as well as landscaping installation and maintenance, and includes funds allocated to the Tree Advisory Committee.

Land Acquisition Fund: The Village has a land acquisition fund. The fund was set up to purchase village properties for public use or economic development.

Water and Wastewater Revenue Funds: Funding may be available from the Water, Wastewater and Sanitation capital funds for capital projects involving sewer and water infrastructure.

Village Owned Assets: Think strategically about Village owned assets to maximize the benefit to the public.

Regional/State/Federal Funding:

All grant funds are listed as of 2014.

Municipal Planning Grants: The Vermont Department of Housing and Community Development provides an annual planning grant program for municipalities to promote community planning, revitalization and development activities that maintain Vermont's land use goal of compact settlements separated by rural lands. In FY14 the maximum grant amount was \$20k with a cash match required. Projects requesting \$8,000 or less do not require a match.

Vermont Agency of Transportation – Transportation Alternatives: This program replaced the former Enhancement Grants Program. This annual grant program provides funding for scoping studies or construction of local transportation improvements. Applicants may apply for up to \$300k with a required match of 20% for construction projects, and 50% for scoping studies.

Chittenden County Regional Planning Commission (CCRPC): The CCRPC annual work program (aka Unified Planning Work Program - UPWP) is the mechanism to achieve the vision, mission and goals for the region as outlined in the ECOS Plan (www.ecosproject.com) and also helps municipalities fulfill their local plans. The UPWP provides funding assistance for a range of project types including transportation and land use, transportation services, GIS and Data Development, and other non-transportation planning (emergency management, brownfields planning, technology planning). In addition, CCRPC manages the Transportation Improvement Program (TIP) which is a prioritized, fiscally-constrained, and multi-year list of federally-funded, multimodal projects in the region. This includes dedicated funds for the sidewalk grant program for preliminary engineering and sidewalk construction (\$300,000 available in the FY15 program).

Historic Preservation: There are three State historic preservation grant programs: Historic Preservation Grants for repair and maintenance of a historic building owned by a municipality or non-profit; Historic Preservation Barn Grants for repair and maintenance of historic agriculture buildings; and Certified Local Government grants to help municipalities integrate historic preservation concerns with local planning decisions. For more information visit:
http://accd.vermont.gov/strong_communities/preservation/grants

There are also Federal and State tax credit programs. For more information visit:
http://accd.vermont.gov/strong_communities/opportunities/funding/downtown_village_tax_credit. The specific credits available are listed here:

Buildings listed on the National Register of Historic Places are eligible for a 30% tax credit for qualifying rehabilitation projects (20% federal, 10% state). The funds may be used to improve accessibility, life safety or interior or exterior renovations.

A 25% building façade tax credit, which is not available for buildings eligible for the 30% tax credit above. The credit is available for buildings in the designated village center district. Maximum award of \$25k per building.

A 50% code improvement tax credit to assist in bringing buildings up to state code, to abate hazardous materials or contamination. It includes a maximum award of \$12,000 for a platform lift, \$50,000 for sprinkler systems, \$50,000 for elevators, and \$25,000 for the combined costs of all other

Table 16: Implementation Schedule

Goal/Objective	Dept.	Timeline	Funding	Heart & Soul Values						ECOS Strategies							
				1. Local Economy	2. Health & Recreation	3. Community Connections	4. Education	5. Thoughtful Growth	6. Safety	1. Improve Economy	2. Concentrate Development & Infrastructure	3. Improve Water Quality and Safety	4. Protect Working Landscapes and Habitats	5. Increase Health and Personal Safety	6. Educate our Residents	7. Improve Efficiency of Financing and Governance	8. Ensure Equity
				①	②	③	④	⑤	⑥	①	②	③	④	⑤	⑥	⑦	⑧
Priority Goals for Next 5 Years																	
Goal 1: Assist and work with existing businesses to stay and grow in Essex Junction. Encourage and assist new businesses and clean industries to invest in Essex Junction.				①		③		⑤		①	②						
Objective 1.1: Maintain a favorable business climate in Essex Junction.	ALL	Ongoing	N/A	①		③		⑤		①	②						
Objective 1.2: Engage in policies to make progress on the transit specific strategies in the Town's Economic Development and Vision Plan including #4 (regional multi-modal improvements), #10 (freight rail service expansion), and #12 (transit oriented development).	P&Z, PW	Ongoing	State Funding, Capital Budget	①				⑤		①	②						
Objective 1.3: Continue efforts to revitalize the Village Center and attract business through public investment in infrastructure.	P&Z, PW	Ongoing	State Funding, Capital Budget	①				⑤		①	②						
Goal 2: Promote thoughtful growth.								⑤			②						

Departments: AD - Administration; PZ Planning Zoning; CL - Clerk; PW - Public Works; WQ - Water Quality; LB - Library; FN - Finance; RC - Recreation; SC - Schools; ALL - All Departments

Table 14: Implementation Schedule

Objective 2.1: Ensure that new development and rehabilitation efforts enhance and reinforce the existing architecture, design and layout along major arterials and historic neighborhoods.	P&Z	Ongoing	N/A	①					⑤										
Objective 2.2: Encourage mixed-income infill housing within existing developed areas in the commercial and multi-family districts.	P&Z	Ongoing	N/A	①					⑤										
Objective 2.3: Promote the redevelopment of underutilized properties in the Transit Oriented Development (TOD) and Village Center District.	P&Z	Ongoing	N/A	①					⑤										
Objective 2.4: Continue improvements in the public realm for a high quality pedestrian experience.	P&Z, PW	Ongoing	State Funding, Capital Budget						⑤	⑥									
Objective 2.5: Continue efforts to preserve and rehabilitate existing historic structures through state and federal funding programs and incentives; and encourage private investment for the same.	P&Z	Ongoing	N/A						⑤										
Objective 2.6: Hold an enhanced community discussion and design charrette to develop design standards for the Downtown.	AD, P&Z	Short Term	General Fund																
Goal 3: Continue improving access to and safety of bicycle and pedestrian facilities, and public transit. Support the work of the Bike-Walk Advisory Committee.																			
Goal 4: Implement projects that will move traffic more efficiently while making the Village a more welcoming place for all modes of travel.	P&Z, PW	Ongoing	State Funding, Capital Budget						②										
Objective 4.1: Implement the Connector Road project.	AD, PW, P&Z	Short Term	State Funding, Capital Budget						②										
Objective 4.2: Consider pedestrianization of Main Street.	AD, PW, P&Z	Long Term	State Funding, Capital Budget						②										
Objective 4.3: Consider alternatives for vehicular traffic through Five Corners, such as redirecting Route 15.	AD, PW, P&Z	Long Term	State Funding, Capital Budget						②										

Goal 5: Establish policies and manage the Village budget and assets to enhance and ensure the continuation of the high quality of life Village residents, businesses and visitors value.	ALL	Ongoing	N/A							⑤							②										⑦											
Objective 5.1: Increase the ratio of light industrial/commercial uses to residential uses.	PZ	Ongoing	N/A							①																			⑦									
Objective 5.2: Investigate additional sources of revenue.	ALL	Ongoing	N/A																											⑦								
Objective 5.3: Keep budget increases within the rate of inflation.	FN	Ongoing	N/A																												⑦							
Objective 5.4: Continue to investigate and implement, when appropriate, shared services between Village and Town governments.	ALL	Ongoing	N/A																													⑦						
Objective 5.5: Think strategically about Village owned assets to maximize the benefit to the public.	ALL	Ongoing	N/A																														⑦					
Objective 5.6: Consider reinstating funding to the land acquisition fund.	FN	Midterm	N/A																															⑦				
Energy																																						
Goal 1: Work with the Essex Energy Committee to prioritize energy goals based on cost benefit analysis	PW	Ongoing	N/A																																	⑦		
Goal 2: Cooperate with State Officials and energy suppliers to ensure the availability of adequate supplies of energy	P&Z	Ongoing	N/A																																			
Goal 3: Encourage the development of renewable energy resources to contribute to the State's goal of 90% renewable energy by 2050.	PW	Ongoing	N/A																																			
Goal 4: Ensure new construction and rehab complies with Vermont Residential & Commercial Building Energy Standards.	P&Z, LB, PW	Ongoing	N/A																																			
Goal 5: Ensure that municipal equipment meet all required equipment requirements	ALL, PW	Ongoing	N/A																																			
Goal 6: Participate in green pricing programs, when available, to promote the use of renewable energy.	PW	Midterm	Grant funding/public works budget																																			

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Table 14: Implementation Schedule

Goal 7: Ensure that new and replacement street lamps utilize the most current and efficient energy technology.	WQ	Ongoing	Wastewater Revenue Fund/Revenue Bond													2
Objective 7.1: Continue to require energy efficient street lamps in new developments.	P&Z	Ongoing	N/A													2
Objective 7.2: Use energy efficient street lamps when replacing existing lamps.	PW	Ongoing	Public Works Budget													2
Objective 7.3: Meet or exceed the current adopted version of the Regional Planning Outdoor Lighting Manual for Vermont Municipalities.	P&Z	Ongoing	N/A													2
Goal 8: Support a variety of non-automobile transportation options	PW, WQ, FD	Ongoing	Public Works Budget						5							2
Goal 9: Continue reducing local energy demand by providing further expansion of sidewalks, bike paths, park & rides and public transportation.	PW, P&Z	Ongoing	N/A										5			2
Goal 10: Display and distribute information to residents and businesses that will help them save energy.	AD	Ongoing	N/A				3	4								2
Goal 11: Encourage the Brownell Library to expand, and update regularly, energy publications and publicize this source to the general public.	LB	Ongoing	Library Budget				3	4								2
Goal 12: Continue recycling programs at all village buildings and facilities.	AD, PW	Ongoing	Public Works Budget										5			2
Goal 13: Conduct energy audits for all Village Buildings.	AD, PW	Ongoing	Public Works Budget													2
Goal 14: Continually examine cost effectiveness to expand use of methane generated at the Waste Water Treatment Plant.	AD, PW	Ongoing	Public Works Budget													2
Goal 15: Consider fuel efficiency when purchasing new vehicles, including alternative fuels	AD, PW	Ongoing	Public Works Budget													2
Goal 16: Provide residents with information on heating assistance programs	AD	Ongoing	N/A				3									6
Agriculture																5
																8

Goal 1: Continue to support the Whitcomb Farm in their conservation efforts.	P&Z	Ongoing	N/A	①	②						①		③	④				
Goal 2: Support the Farmers Market and other local value-added agricultural businesses.	AD, P&Z	Ongoing	N/A	①							①							
Objective 2.1: Ensure accommodation at Five Corners for the Farmers Market, unless an alternative site is established.	AD, P&Z	Ongoing	N/A	①							①							
Objective 2.2: Work with Five Corners Farmers' Market to assist in finding a permanent winter location.	AD, P&Z	Ongoing	N/A	①							①							
Objective 2.3: Hold farm-to-table community events	RC	Ongoing	N/A											④				
Goal 3: Continue support of the Community Garden Program, home gardening and micro-farming.	RC	Ongoing	N/A											④				
Objective 3.1: Offer incentives for developments that include community gardens and/or allow home gardens on common land.	P&Z	Midterm	N/A							⑤				④				
Objective 3.2: Strengthen language in zoning regulations to protect topsoil during construction so that yards are more suitable for gardening.	P&Z	Midterm	N/A							⑤				④				
Objective 3.3: Encourage composting	RC	Ongoing	N/A										③	④				
Objective 3.4: Develop a method to donate excess food from community gardens.	RC	Midterm	N/A															⑧
Objective 3.5: Encourage the practice of edible landscaping.	RC, P&Z	Ongoing	N/A		②													⑤
Objective 3.6: Inventory and designate additional public space for community gardens	P&Z	Long Term	N/A								③		②	④				
Goal 4: Establish a Tree Management Plan	P&Z	Short Term	N/A						⑤			②		④				
Objective 4.1: Increase the Village tree canopy	P&Z	Ongoing	N/A						⑤			②		④		⑤		
Objective 4.2: Educate residents on value of the urban forest.	P&Z	Ongoing	N/A								③		②	④				

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Table 14: Implementation Schedule

Objective 4.3: Establish a process for the Village Tree Advisory Committee to work with the Planning Commission to review and provide advice on development projects that include tree planting in public spaces.	P&Z	Midterm	N/A										⑤				②		④					
Business/Economic Development																								
Goal 1: Assist and work with existing and new business development in Essex Junction.	AD, P&Z	Ongoing	N/A														①							
Objective 1.1: Maintain a favorable business climate in Essex Junction.	AD, P&Z	Ongoing	Economic Development	①																				
Objective 1.2: Encourage the development of a diverse array of residential units in the Village Center and Pearl St. Districts.	AD, P&Z, PW	Ongoing	N/A	①																				
Objective 1.3: Consider performing market studies to attract businesses	AD, P&Z	Ongoing	Economic Development	①																				
Objective 1.4: Work with officials at IBM, and other IBM campus businesses to meet their future development needs.	AD	Ongoing	N/A	①																				
Objective 1.5: Develop a plan for diversifying the IBM property	AD, P&Z	Ongoing	N/A	①																				
Objective 1.6: Encourage opportunities for bandwidth improvements.	AD, P&Z, PW	Ongoing	N/A	①																				
Objective 1.7: Encourage entrepreneurs and start-ups	AD, P&Z	Ongoing	Economic Development	①																				
Objective 1.8: Help identify underutilized structures in the Village and assist in matching the landowners with business prospects.	AD, P&Z	Ongoing	Economic Development	①																				
Goal 2: Increase the Village's relationship with the local business community.	AD	Ongoing	N/A	①																				
Objective 2.1: Look for strategic opportunities to work with business and property owners on economic development.	AD, P&Z	Ongoing	N/A	①																				
Objective 2.2: Work closely with regional business organizations	AD, P&Z	Ongoing	N/A	①																				
Objective 2.3: Encourage Village membership on key local and regional committees involved with business expansion and economic development.	AD	Ongoing	N/A	①																				

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 Table 14: Implementation Schedule

Objective 2.4: Promote the Village as a destination for shopping, services, and tourism.	AD, P&Z	Ongoing	Economic Development	①							①						
Objective 2.5: Provide mechanisms for increased communication between the business community and Village Officials.	AD, P&Z	Ongoing	N/A	①		③					①						
Objective 2.6: Continue work with the Town and Essex Economic Development Commission on the implementation strategies from the Economic Development and Vision Plan: Essex.	P&Z	Midterm	Municipal Planning Grant/Planning Budget	①		③					①						
Goal 3: Provide mechanisms for efficient and timely review of development applications.	AD, P&Z, PW	Ongoing	Public Works Streetscape	①				⑤			①	②					
Objective 3.1: While maintaining environmental standards, ensure that the local codes do not inhibit/prohibit local development.	P&Z	Ongoing	N/A	①							①			③			
Objective 3.2: Provide application checklist of all requirements for each stage of review.	P&Z	Ongoing	N/A	①				⑤			①	②					
Goal 4: Preserve and enhance the appearance and historical character of the Village of Essex Junction.	P&Z	Ongoing	Grants, Capital Fund	①				⑤			①	②					
Objective 4.1: Maintain Design Review in the Village Center.	P&Z	Ongoing	N/A	①				⑤			①	②					
Objective 4.2: Design publicly financed improvements to preserve the character of the Village Center.	P&Z, PW	Ongoing	Public Works Streetscape	①				⑤			①	②					⑦
Objective 4.3: Establish local historic districts or other mechanisms along major arterials and in historic neighborhoods.	P&Z	Midterm	Municipal Planning Grant/Planning Budget	①				⑤			①	②					
Objective 4.4: Create a list of noted historic sites and buildings to supplement Map 2.	P&Z	Midterm	Municipal Planning Grant/Planning Budget	①				⑤			①	②					
Objective 4.5: Continue streetscape and landscaping efforts to attract private sector investment.	P&Z, PW	Ongoing	Public Works Streetscape	①				⑤			①	②					
Open Space – Recreation & Natural Resources																	

Goal 1: Support the Essex Junction Recreation Department in providing a wide range of recreation and leisure opportunities for all residents of the Village.					②	③		⑤	⑥		②			⑤			
Objective 1.1: Continue regulations which require the dedication of usable park lands and open spaces as a requirement of major development approval.	P&Z	Ongoing	N/A		②	③		⑤	⑥		②			⑤			
Objective 1.2: Support the implementation of the 2007 Essex Junction Recreation and Park Master Plan.	RC, ALL	Ongoing	N/A		②	③		⑤	⑥		②			⑤			
Objective 1.3: Encourage increasing the annual funding of the Recreation Capital Replacement Reserve Fund to one cent (.01) of the municipal grand list.	AD, RC	Ongoing	Capital Budget		②	③		⑤	⑥		②			⑤		⑦	
Objective 1.4: Encourage implementation of a recreation impact fee to create a fund to support future community park and facility needs.	AD, RC	Ongoing	Capital Budget		②	③		⑤	⑥		②			⑤		⑦	
Goal 2: Create urban open spaces.				①	②	③		⑤			②						
Objective 2.1: Encourage the provision of plazas and other urban outdoor areas in major redevelopment projects in the Village Center and Transit Oriented Development Districts.	P&Z	Ongoing	N/A	①	②	③		⑤			②						
Objective 2.2: Require pedestrian and bicycle amenities in the creation of new public streets in the Village Center and Transit Oriented Development Districts.	P&Z	Ongoing	N/A	①	②	③		⑤			②			⑤			
Objective 2.3: Consider the development of a village green within the Village Center District.	ALL	Ongoing	Grants, Capital Budget	①	②	③		⑤			②						
Objective 2.4: Encourage or require the preservation of open space in new residential developments. Allow for innovative design in the preservation of open space through clustering and design techniques.	P&Z	Ongoing	N/A		②	③		⑤			②			④			

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Table 14: Implementation Schedule

Goal 3: Preserve the natural beauty indigenous to Vermont within the Village of Essex Junction.					②			⑤			②			④				
Objective 3.1: Maintain regulations which encourage the preservation of trees in new development.	P&Z	Ongoing	N/A		②			⑤			②			④				
Objective 3.2: Implement a program of selective planting of trees on private property adjacent to existing road right-of-ways.	AD, PW	Midterm	N/A		②			⑤			②			④				
Objective 3.3: Promote and actively participate in an annual tree planting program.	AD, PW	Ongoing	N/A		②			⑤			②			④				
Objective 3.4: Consider protection of the outstanding view sheds identified in this Plan through amendments to the Land Development Code.	P&Z	Ongoing	N/A		②			⑤			②			④				
Goal 4: Continue protection of existing natural resources identified in this chapter.					②			⑤			②	③		④				
Objective 4.1: Continue to enforce stormwater treatment standards in the Land Development Code to improve water quality in impaired waters and to minimize non-point source water pollution from new development.	P&Z, WQ	Ongoing	N/A		②			⑤	⑥		②	③					⑤	
Objective 4.2: Require retention of vegetation or effective re-vegetation of areas vulnerable to erosion.	P&Z	Ongoing	N/A		②			⑤	⑥		②	③					⑤	
Objective 4.3: Work with the Center for Technology Essex to develop a nursery to raise street trees for the Village and Town.	AD, PW	Ongoing	N/A		②			⑤	⑥		②						⑤	
Objective 4.4: Continue incentivizing growth in the areas planned for growth, so that development pressures on natural resources and open spaces are lessened.	P&Z	Ongoing	N/A		②			⑤	⑥		②	③					⑤	

Objective 4.5: Ensure protection of the Village's significant wildlife habitat resources by inventorying the resources, determining their current level of protection, and if necessary define them and establish standards for protection of them in the Land Development Code.	P&Z	Ongoing	N/A		②			⑤	⑥		②		④	⑤			
Objective 4.6: Coordinate with the Town, Region and State on efforts to establish air quality goals/objectives and encourage methods of air quality improvement.	AD, P&Z, PW	Ongoing	N/A		②			⑤	⑥		②		④	⑤			
Objective 4.7: Analyze the thrust faults to determine how properties in these areas should be managed for protection of aquifer recharge and minimizing undue property damage.	P&Z	Long Term	Grants		②			⑤	⑥		②	③	④	⑤			
Goal 5: Reduce greenhouse gas emissions contributing to climate change and adapt to become more resilient to a changing climate.					②			⑤	⑥		②			⑤			
Objective 5.1: Engage in climate mitigation strategies to reduce the region's contribution of greenhouse gases. For example, continue to implement policies that promote investment in transportation options that reduce emissions – such as sidewalks and bike lanes; and implement programs to increase urban forest canopy.	ALL	Ongoing	PW, Capital Budget		②			⑤	⑥		②	③	④	⑤			
Objective 5.2: Engage in climate adaptation strategies to help individuals, businesses and communities be able to withstand and bounce back from – or even take advantage of – the impacts of climate change. For example, prepare and maintain plans for emergency operations, emergency response, business continuity and business recovery.	ALL	Ongoing	PW, Capital Budget		②			⑤	⑥		②			⑤			

Goal 6: Avoid new development in floodplains, fluvial erosion hazard areas, and land adjacent to streams, wetlands, and upland forests; eliminate the exacerbation of flooding and fluvial erosion; encourage protection and restoration of these areas; and plan for flood emergency preparedness and response.					②		⑤	⑥		②	③	④	⑤			
Objective 6.1: Continue to enforce the flood plain regulations to protect flood prone areas and minimize fluvial erosion.	P&Z	Ongoing	N/A		②		⑤	⑥		②	③	④	⑤			
Objective 6.2: Monitor the fluvial erosion hazard area south of Cascade Street that is not currently regulated by the flood plain regulations to determine if additional protections are needed.	PW, WQ	Ongoing	N/A		②		⑤	⑥		②	③	④	⑤			
Objective 6.3: Monitor all of the fluvial erosion areas to see how best to accommodate fluvial equilibrium and natural erosion processes while minimizing undue damage to property.	PW, WQ	Ongoing	N/A		②		⑤	⑥		②	③	④	⑤			
Objective 6.4: Plan culvert replacements for any undersized culverts in conjunction with roadway improvements.	PW, WQ	Ongoing	N/A		②			⑥			③		⑤			
Objective 6.5: Review the Hazard Mitigation Plan on a regular basis and follow-up on action steps.	ALL	Ongoing	N/A		②			⑥			③		⑤			
Objective 6.6: Continue annual certification of the Emergency Operations Plan.	AD	Ongoing	N/A		②			⑥			③		⑤			
Education and Childcare																
Goal 1: Provide opportunities for access to quality education for all segments of the population and promote full use of all facilities.							④									⑥
Objective 1.1: Coordinate new development with schools to minimize impacts	P&Z	Ongoing	N/A				④	⑤								⑥
Objective 1.2: Encourage the use of village facilities for adult education, workshops and career development	RD, AD, PW, LB, SC	Ongoing	N/A	①			④									⑥

Goal 2: Coordinate school population projections	P&Z, SC	Ongoing	N/A			④	⑤								⑥	
Goal 3: Encourage alternative access to education facilities	P&Z, PW, SC	Long Term	Capital Budget, School Budget, Safe Routes to School, TIP, Enhancement Grants				④								⑥	
Goal 4: Maximize use of all public facilities							④								⑥	
Goal 5: Improve bicycle and pedestrian safety for school children including continued participation in Safe Routes to School.	P&Z, PW, SC	Ongoing	Capital Budget, School Budget, Safe Routes to School, TIP, Enhancement Grants		②		④	⑥		②					⑥	
Goal 6: Continue to allow childcare services in most areas of the village	P&Z	Ongoing	N/A	①			④								⑥	⑧
Utilities/Facilities																
Goal 1: Provide a Village infrastructure system that adequately ensures the availability of potable water, disburses storm and ground water runoff and disposes of sanitary wastes in a manner which ensures community health and is environmentally sound.											⑤		②		③	
Objective 1.1: Maintain public works standards that utilize reasonable technology to ensure adequate infrastructure	PW, WQ	Ongoing	N/A								⑤		②		③	
Objective 1.2: Implement Asset Management to insure long term rate stability	PW, WQ	Midterm	Public works budget, CCRPC/CCMPO Assistance				⑤						②			⑦
Objective 1.3: Manage sewer capacity for village benefit	AD, PW, WQ, P&Z	Ongoing	N/A	①			⑤						②			
Objective 1.4: Improve infrastructure with minimal financial burden on taxpayers	PW, WQ	Ongoing	Capital Funds/Water-Wastewater Funds								⑤			②		⑦

Objective 4.2: Consider a limited full time fire department	AD, PD	Ongoing	General Fund						⑥					⑤			
Objective 4.3: Consider life safety/building codes	AD, FD, PW, P&Z	Midterm	Building Code permit fees		②				⑥		②			⑤			⑧
Goal 5: To provide a high level of Library Services to Village residents for their enjoyment and information, with particular emphasis on education, community connections, health and recreation, and the local economy.					①	②	③	④		①				⑤	⑥		⑧
Objective 5.1: Create opportunities for lifelong learning and exploration	LB	Ongoing	Library Budget				④								⑥		
Objective 5.2: Nurture community spirit in a safe, collaborative and comfortable space.	LB	Ongoing	N/A			③											⑧
Objective 5.3: Support healthy minds and bodies and stimulate imagination.	LB	Ongoing	N/A			②								⑤			
Objective 5.4: Support efforts to improve economic vitality	LB	Ongoing	Library Budget	①						①							
Objective 5.5: Historic assessment of Brownell Library structure will be done in the next five years	LB	Ongoing	Library Budget			③			⑥		②						
Goal 6: Maintain public buildings and municipal functions in/near village center, encourage new public buildings in village center	AD, P&Z, LB, SD	Ongoing	N/A	①					⑤		②						⑦
Goal 7: To continue to provide the Village with the best police protection.									⑥					⑤			
Objective 7.1. Decrease the amount of time vacancies remain open.	AD	Ongoing	N/A			③			⑥					⑤			
Objective 7.2. Increased staffing to address the crime rate and the increase in traffic.	AD	Ongoing	General Fund						⑥					⑤			
Objective 7.3. Greater community participation in crime prevention efforts.	AD	Ongoing	N/A						⑥					⑤			⑧
Goal 8: Continue to explore options to bury power lines in core commercial districts and require new developments to site utilities underground.	P&Z, PW	Ongoing	Capital Budget					⑤			②						
Housing						③											

Goal 1: Provide a variety of housing opportunities while creating and preserving quality residential environments and existing neighborhood characteristics.										⑤		②					
Objective 1.1: Permit innovative development strategies	P&Z	Ongoing	N/A							⑤		②					
Objective 1.2: Study and consider building codes and fire codes	P&Z, FD, PW, AD	Midterm	Planning Budget, Municipal Planning Grant							⑤	⑥	②					
Objective 1.3: Promote adherence to state energy standards and consider energy conservation and alternative energy requirements for new development	P&Z, AD	Ongoing	Planning Budget, Municipal Planning Grant							⑤		②					
Objective 1.4: Encourage development in established growth areas	P&Z, AD	Ongoing	N/A	①						⑤		②					
Objective 1.5: Consider zoning changes to preserve historic buildings and neighborhoods	P&Z, AD	Midterm	Planning Budget, Municipal Planning Grant							⑤		②					
Objective 1.6: Provide a mechanism in the code to encourage affordable housing	P&Z, AD	Midterm	Planning Budget, Municipal Planning Grant							⑤		②					
Objective 1.7: Maintain allowance of affordable housing density in the Planned Residential District	P&Z, AD	Midterm	N/A							⑤		②					
Objective 1.8: Allow high density in major commercial areas and maintain the R-2 small lot single family zoning for affordable housing	P&Z	Ongoing	N/A							⑤		②					
Objective 1.9: Compile rental registry and inspection program	P&Z	Long Term	N/A		②					⑤	⑥	②			⑤		
Objective 1.10: Consider zoning changes to encourage pocket parks and other public urban open space amenities.	P&Z	Short Term	N/A							⑤		②					
Goal 2: Work with housing organizations to jointly create affordable housing and senior housing.	P&Z, AD	Ongoing	Planning Budget							⑤		②					
Goal 3: Continue to provide areas for special needs housing	P&Z	Ongoing	N/A							⑤		②		⑤			⑧
Goal 4: Encourage property owners to retain the historic integrity of buildings	P&Z	Ongoing	N/A							⑤		②					

Transportation																	
Goal 1: To support the completion of the Circumferential Highway.																	
Objective 1.1: Provide alternate routes for non-destination traffic	AD, PW, P&Z	Ongoing	State Funding, Capital Budget														
Objective 1.2: Do not support capacity increases on state highways in the Village that involve additional vehicle lanes	AD, PW, P&Z	Ongoing	N/A														
Objective 1.3: Emphasize local access, public transit, bicycle facilities, pedestrian safety and access, and aesthetics in future streetscape projects	AD, PW, P&Z	Ongoing	N/A														
Objective 1.4: Reduce idling at the Five Corners by considering pedestrianization of a short section of Main Street to create a crossroads intersection	AD, PW, P&Z	Long Term	State Funding, Capital Budget														
Objective 1.5: Redirect Route 15 to Susie Wilson Road and Route 289 to reduce non-destination traffic in the Village.	AD, PW, P&Z	Long Term	State Funding, Capital Budget														
Goal 2: Monitor, evaluate and implement traffic management practices	P&Z, PW	Ongoing	N/A														
Objective 2.1: Monitor annual traffic counts and accident data	P&Z, PW	Ongoing	N/A														
Objective 2.2: Review all development proposals to minimize traffic and pedestrian safety concerns	P&Z, PW	Ongoing	N/A														
Objective 2.3: Reduce the size and number of non-conforming curb cuts during development review	P&Z, PW	Ongoing	N/A														
Objective 2.4: Encourage the use of shared parking lots and joint access	P&Z, PW	Ongoing	N/A														
Objective 2.5: Monitor the timing and sequencing of all traffic lights to optimize traffic and pedestrian safety	PW	Ongoing	Public Works budget, CCMPO														
Objective 2.6: Cooperate with adjoining communities to minimize traffic increase within the Village resulting from development beyond the Village limits.	AD, P&Z, PW	Ongoing	N/A														

Objective 2.7: Avoid dead-end streets; connect new streets into the existing street network from at least two points	P&Z, PW	Ongoing	N/A						(5)		(2)								
Objective 2.8: Request that neighboring communities require major development proposals to include traffic impact analysis at the Five Corners and that traffic analysis be submitted to the Village for review.	P&Z, PW	Ongoing	N/A						(5)		(2)								
Objective 2.9: Study and improve safety at high crash locations	P&Z, PW	Midterm	Planning Budget, Municipal Planning Grant, CCMPO		(2)	(3)			(5)	(6)	(2)								
Objective 2.10: Implement Village Sidewalk Plan and Policy	P&Z, PW	Ongoing	Capital Budget, TIP, Enhancement grants		(2)				(5)		(2)								
Goal 3: To facilitate the use of sidewalks as a viable transportation alternative.					(2)				(5)		(2)								
Objective 3.1: Review development proposals for sidewalk efficiency	P&Z, PW	Ongoing	N/A		(2)				(5)		(2)								
Objective 3.2: Consider alternative sidewalk standards based on location/usage	PW, P&Z	Ongoing	N/A		(2)				(5)		(2)								
Objective 3.3: Encourage children to walk to school/enrollment in SR2S program	SC, PW	Ongoing	N/A		(2)				(5)		(2)								
Objective 3.4: Utilize all traffic calming techniques and strategies available.	P&Z, PW	Ongoing	N/A						(5)	(6)	(2)								
Goal 4: Review and implement parking strategies consistent with other planning purposes.									(5)		(2)								
Objective 4.1: Encourage quality site design and landscaping for parking lots	P&Z, PW	Ongoing	N/A						(5)		(2)								
Objective 4.2: Encourage bus and pedestrian access to all parking lots	P&Z, PW	Ongoing	N/A						(5)		(2)								
Objective 4.3: Develop long term parking strategies for the Village Center	PW, P&Z	Long Term	Planning Budget, Municipal Planning Grant, CCMPO, Capital Budget	(1)					(5)		(2)								
Objective 4.4: Review parking requirements to allow for alternatives to on-site parking	P&Z, PW	Ongoing	N/A						(5)		(2)								

Departments: AD - Administration; PZ Planning Zoning; CL - Clerk; PW - Public Works; WQ - Water Quality; LB - Library; FN - Finance; RC - Recreation; SC - Schools; ALL - All Departments

Table 14: Implementation Schedule

Objective 4.5: Cooperate with surrounding communities to create commuter facilities	AD, PW	Ongoing	N/A		②		⑤			②							
Objective 4.6: Encourage or require bicycle facilities at major activity centers	P&Z	Ongoing	N/A		②		⑤			②							
Goal 5: Promote and implement strategies to encourage the use of bicycles as alternate transportation modes.					②		⑤			②							
Objective 5.1: Consider bicycle access in new developments	P&Z, PW	Ongoing	N/A		②		⑤			②							
Objective 5.2: Consider the construction or signage of bicycle lanes in street projects	AD, P&Z, PW	Ongoing	N/A		②		⑤	⑥		②							
Objective 5.3: Pursue state and local funding for shared use paths and bicycle lanes	AD, PW, P&Z	Ongoing	Enhancement grants, TIP, federal earmarks		②		⑤			②							
Objective 5.4: Include shared use paths in capital budget	AD, PW	Ongoing	Capital Budget		②		⑤			②							
Objective 5.5: Utilize Bike-Walk Advisory Committee to recommend projects, pursue funding sources and conduct bike/ped education to encourage safety and visibility.	AD	Long Term	N/A		②		⑤			②							
Objective 5.6: Encourage donations for implementation of shared use paths	AD, P&Z	Ongoing	N/A				⑤			②							
Goal 6: To encourage increased usage of the public transportation system.							④	⑤		②							
Objective 6.1: Cooperate with CCTA to increase access to bus routes including higher frequencies during peak hours	AD	Ongoing	N/A				⑤			②							
Objective 6.2: Encourage the use of bus turn offs and shelters on major streets	P&Z, AD, PW	Ongoing	N/A				⑤			②							
Objective 6.3: Encourage alternatives to the property tax for funding public transportation	AD	Ongoing	N/A				⑤			②							⑦
Objective 6.4: Cooperate with CCTA to provide education on the benefits of public transportation	P&Z	Ongoing	Planning Budget, CCTA				④	⑤		②							
Objective 6.5: Continue to support elders and disabled transportation programs	AD	Ongoing	N/A		②		⑤			②							⑧
Goal 7: Cooperate with the State of Vermont to locate air quality monitors at the Five Corners.							⑤			②							

Departments: AD - Administration; PZ Planning Zoning; CL - Clerk; PW - Public Works; WQ - Water Quality; LB - Library; FN - Finance; RC - Recreation; SC - Schools; ALL - All Departments

Table 14: Implementation Schedule

Objective 7.1: Require state/federal air quality permits as prerequisite to local permits	AD, P&Z	Ongoing	N/A							(5)			(2)				
Objective 7.2: Ensure uniform enforcement air quality standards	AD, P&Z, PW	Ongoing	N/A							(5)			(2)				
Goal 8: Cooperate with state and and regional to develop commuter and international passenger rail				(1)						(5)			(2)				
Objective 8.1: Appropriate upgrades to the existing station and the surrounding areas to meet future needs.	AD, P&Z, PW	Ongoing	N/A														
Land Use																	
Goal 1: Provide sufficient locations within the Village to accommodate a variety of land uses										(5)			(2)				
Objective 1.1: Redefine zoning district boundaries in Village Center to address differences in land use patterns	P&Z	Ongoing	N/A							(5)			(2)				
Objective 1.2: Encourage the development of a variety of residential units in the Village Center and Pearl Street Districts.	P&Z	Ongoing	N/A	(1)						(5)			(2)				
Objective 1.3: Study the purchase of key properties in the Village Center for public use	AD, P&Z	Long Term	Planning Budget, Land Acquisition Fund, Economic Development Fund							(5)			(2)				
Goal 2: Promote responsible residential growth and encourage the growth and maintenance of quality residential areas.				(1)	(2)					(5)			(2)				
Objective 2.1: Preserve open space/agricultural land	AD, P&Z	Long Term	Land Acquisition Fund												(4)		
Goal 3: Mitigate negative impacts of contiguous but different land uses	P&Z	Ongoing	N/A							(5)			(2)				
Goal 4: Ensure quality land planning and site design in new commercial/industrial development in a manner compatible with surrounding architecture.	P&Z	Ongoing	N/A							(5)			(2)				
Goal 5: Coordinate land use decisions with public infrastructure needs	P&Z	Ongoing	N/A							(5)			(2)				

Goal 6: Encourage innovative development while maintaining the existing urban character of the Village.								⑤			②						
Objective 6.1: Consider overlay districts, design review and development agreements as a means to achieve innovative development	P&Z	Ongoing	Planning Budget, Municipal Planning Grant, TIF District					⑤			②					⑦	
Objective 6.2: Include visuals within the LDC to make standards clear for developers and residents. Engage the public in development of these visuals to gain consensus on design standards.	P&Z, AD	Midterm	Municipal Planning Grant/Planning Budget						④	⑤	②						
Objective 6.3: Promote use of the Village Center Designation benefits	P&Z	Ongoing	N/A					⑤			②						
Goal 7: Coordinate development review with adjoining communities	P&Z	Ongoing	N/A			③		⑤			②						
Objective 7.1: Initiate communication with surrounding communities to discuss development impacts on land use and planned compatibility.	P&Z	Ongoing	N/A					⑤			②						
Goal 8: Coordinate needed public improvements with development review	P&Z, PW	Ongoing	N/A					⑤			②						
Goal 9: Prevent development on lands that are environmentally unsuitable	P&Z, WQ	Ongoing	N/A					⑤			②	③	④				
Goal 10: Design new streets to limit the length and site grading; when possible connect new streets through to existing streets to develop a grid pattern.	P&Z, PW	Ongoing	N/A					⑤			②						
Goal 11: Place a high priority in development review on pedestrian and vehicular access and safety	P&Z, PW	Ongoing	N/A					⑤	⑥		②						
Goal 12: Protect and enhance sensitive and important areas.	P&Z, PW	Ongoing	N/A					⑤			②	③	④				
Objective 12.1: Consider design review on main corridors upon approach to the Village Center	P&Z	Midterm	Planning Budget, Municipal Planning Grant					⑤			②						
Objective 12.2: Analyze and prioritize historic resources to determine which sites and structures should be preserved	P&Z	Midterm	Planning Budget, Municipal Planning Grant					⑤			②						

Objective 12.3: Consider zoning changes to preserve historic structures	P&Z	Midterm	Planning Budget, Municipal Planning Grant															
										⑤								

Heart & Soul Values:

- Local Economy:* Our residents contribute to a vibrant economy by working for and
- Health & Recreation:* We value public places for outdoor and indoor recreation for all ages
- Community Connections:* Our deep connections with each other make Essex special. Neighbors help each other during good times and hard.
- Education:* Essex invests time, energy, and resources to ensure that our highly respected schools meet the needs of everyone in the community. We are proud to support learning spaces and tight-knit neighborhoods, rural roads and vibrant downtown streets. Essex is a
- Safety:* Essex is a safe place where neighbors watch out for one another. We value an active, visible police force and strong fire and rescue services. Upgrades to our physical infrastructure will allow us to move about our community with comfort and security.

ECOS Strategies:

- Strategy 1:* Improve and strengthen the economic systems of our region to increase opportunities for Vermont employers and employees.
- Strategy 2:* Strive for 80% of new development in areas planned for growth, which amounts to 15% of our land area.
- Strategy 3:* Improve the safety, water quality, and habitat of our rivers, streams, wetlands and lakes in each watershed.
- Strategy 4:* Increase investment in and decrease subdivision of working lands and significant habitats, and support local food systems.
- Strategy 5:* Increase opportunity for every person in our community to achieve optimal health and personal safety.
- Strategy 6:* Equip our residents with the education and skills that they need to thrive.
- Strategy 7:* Develop financing and governance systems to make the most efficient use of taxpayer dollars and reduce costs.

Strategy 8: Ensure that the projects and actions in all ECOS strategies assess equity impacts, and that the design and development of programs are inclusive of all and engage underrepresented populations.

qualified code improvements, as well as costs for hazardous material abatement and contaminated sites redevelopment.

Community Development Block Grants: Grants are available for planning or implementation, but they must meet a national/state objective to serve persons of low or moderate income, address slums and blight or meet and urgent need. See www.dhca.state.vt.us/VCDP for more information.

Safe Routes to School Program: The Safe Routes to School Program provides funding and education to make it safer for children to walk to school. See: <http://saferoutes.vermont.gov/> for more information.

Community Foundations: There are a number of community foundations and other private grant funds that are available to municipalities. The Orton Foundation, who funded the Heart & Soul project, is an example.

Table 16: Implementation Schedule - see *the next page*

Appendix A - Historic Resources

Historic Inventories	Criteria for Inclusion	Protections	Benefits	Sites in Essex Junction*
Vermont Historic Sites and Structures Survey	Identifies and documents historic properties and sites yielding or likely to yield archeological and anthropological information	None	If in a State Village Center designation owners renovating historic buildings are eligible for tax benefits.	The 1984 inventory includes 12 districts, and 2 complexes (Whitcomb Farm and the Champlain Valley Fair) - and 205 buildings within them. The inventory then lists 71 buildings (some within the group of 205), for a total of 244 (or 243) historic sites.
State Register of Historic Places	The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and: a. That are associated with events that have made a significant contribution to the broad patterns of our history; or b. That are associated with the lives of persons significant in our past; or c. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or d. That have yielded, or may be likely to yield, information important in prehistory or history.	Being listed does not, in itself, impose any obligation on the property owner, or restrict the owner's basic right to use and dispose of the property as he or she sees fit. Though, under Act 250 review, listed sites are presumed to meet the definition of "historic site" under Criterion 8 for review of development applications and are thus considered in the decision of whether to issue a permit.	If in a State Village Center designation owners renovating historic buildings are eligible for tax benefits.	Downtown Essex Junction Commercial Historic District. More research is needed to determine if there are more districts listed.
National Register of Historic Places		Being listed does not, in itself, impose any obligation on the property owner, or restrict the owner's basic right to use and dispose of the property as he or she sees fit. Though the designation offers some protection from federally funded, licensed, or permitted projects that would harm them. However, it does not restrict what an owner may do to his property, including tearing it down.	Properties eligible for federal and state tax credits	Downtown Essex Junction Commercial Historic District. More research is needed to determine if there are more districts listed.
Vermont Archeological Inventory	Preliminary information about the potential locations of prehistoric Native American archeological sites.	Development projects that are subject to Act 250 or recipients of federal funding are required to address the developmen project's impact on archeological resources.		More research is needed to determine where these sites are located.

* While the State and National Registries are being digitized and brought on line there is some discrepancy in the data regarding what sites/structures are listed.

Local Historic Preservation Programs that provide for benefits and authorize local protection of historic buildings:

1. Local Historic Preservation Commissions: Can encourage preservation activities through education, advice and/or regulation. One type is a Local Certified Government which is set up as a partnership with the state's Division for Historic
2. Design Control District: A zoning overlay district that creates planning and design criteria to protect historic or other valued resources in a designated area.
3. Local Historic District (or Design Review District): an ordinance that specifies certain design review criteria and a commission to review projects.

Source of Information: *Vermont Land Use Planning and Implementation Manual*, April 2007. Topic Paper 11: Historic Preservation. Vermont Land Use Education & Training Collaborative

Other information:

http://accd.vermont.gov/strong_communities/preservation/resources/state_register

http://accd.vermont.gov/strong_communities/preservation/resources/national_register

http://accd.vermont.gov/strong_communities/preservation/resources/state_register/criteria

Map 2 Vermont Historic Sites and Structures Survey - Cross Reference Information:		
Districts	Vermont Historic Sites and Structures Survey Site #	Building Numbers within Each District (Map #)
School Street-Park Terrace Historic District	0405-39	68, 81, 86, 94, 97, 95, 88, 84, 72, 78, 83, 74
Pearl Street Historic District	0405-40	171, 163, 155, 151, 142, 132, 128, 122, 98, 101, 102, 109, 116, 120, 129
School Street Historic District	0405-41	140, 152, 164, 167, 176
Lincoln Street Historic District	0405-42	106, 144, 150, 154, 161, 169, 177, 200, 206, 212, 216, 222, 228, 219, 201, 187, 182
Commercial Center Historic District	0405-43	162, 159, 156, 148, 139, 126, 114, 108, 119
Central Street Historic District	0405-44	191, 185, 188, 192, 195, 199, 203, 184, 194, 186, 196, 202
Main Street Neighborhood Historic District	0405-45	178, 190, 193, 197, 205, 208, 204, 198, 189, 183, 179, 172, 165, 158, 146, 138

Pleasant Street Historic District	0405-46	181, 175, 166, 157, 170, 149, 143, 137, 125, 107, 100, 90, 89, 124, 133, 113, 118, 130, 134, 141, 147, 153, 168, 174	
Church Street Historic District	0405-47	145, 135, 131, 123, 117, 115, 112, 103, 93, 87, 82, 73, 79, 85, 91, 104, 111, 121, 136	
Oak Street Historic District	0405-48	59, 65, 71, 75, 63, 58, 52	
Maple Street Historic District	0405-49	77, 76, 70, 69, 67, 64, 62, 57, 53, 49, 45, 41, 37, 33, 32, 31, 28, 26, 22, 27, 34, 38, 43, 44, 47, 50, 54, 60	
Park Street Historic District	0405-50	1, 3, 4, 5, 6, 2	
Whitcomb Farm Complex	0405-51	29, 48, 56, 61, 51	
Champlain Valley Fair Grounds Complex	0405-52	242	
Other Buildings	Vermont Historic Sites and Structures Survey Site #	Map Reference #	Notes made on the survey over the years
Magee House, 86 Pearl St	0405-53	224	
88 Pearl St	0405-54	227	
5 Roscoe Ct	0405-55	210	
7 Roscoe Ct	0405-56	207	
Wilson House, 12 Hillcrest Road	0405-57	226	
Morris House, 3 Prospect St	0405-58	217	
Johnson House, 5 Prospect St	0405-59	218	
6-8 Prospect St	0405-60	211	
10-12 Prospect St	0405-61	214	
O'Grady House, 16 Prospect St	0405-62	221	
Jenkins House, 22 Prospect St	0405-63	230	
Essex Junction Graded School, Prospect St	0405-64	234	
17 Grove St	0405-65	213	
19 Grove St	0405-66	215	
29 Grove St	0405-67	220	
McGinnis House, 30 Grove St	0405-68	225	
Farley House, 37 Grove St	0405-69	236	
10 North St	0405-70	223	
Wayne-Blanchard House, 11 North St	0405-71	229	
Remington House, 15 North St	0405-72	233	
Culver-Newell House, 16 North St	0405-73	231	
Villamil House, 18 North St	0405-74	232	
Blanchette House, 28 North St	0405-75	237	
38-40 North St	0405-76	239	
43 Central St	0405-77	209	
Lincoln Hall, 1 Pearl St	0405-78	110	
Kolvord, Olson, Wilson Law Offices, 3 Main St	0405-79	96	demolished
H.K. Drury House, 88 Main St	0405-80	238	
Williamson House, 116 Main St	0405-81	241	
Gregory House, 121 Main St	0405-82	240	
140 Main St	0405-83	243	
The Brickyard Offices, 15 Brickyard Rd	0405-84	235	
Accent Travel Agency, 2-4 Railroad St	0405-85	127	
12 Railroad St	0405-86	105	
14 Railroad St	0405-87	99	

Guilfoy Medical Office, 16 Railroad St	0405-88	92		
Park Street School, 21 Park St	0405-89	55		
Bartlett House, 40 Park St	0405-90	21		
50 Park St	0405-91	15		
Discovery Museum, 51 Park St	0405-92	18		
Prabhu House, 52 Park St	0405-93	14		
57 Park St	0405-94	13		
56-58 Park St	0405-95	11		
59 Park St	0405-96	12		
67 Park St	0405-97	8		
Johnson House, 2 South St	0405-98	7		
Driscoll House, 9 South St	0405-99	9		
Menior House, 11 South St	0405-100	10		
Trombley House, 60 South St	0405-101	16		
Whitcomb Property, 77 Cascade St	0405-102	244		
Stevens House, 3 Elm St	0405-103	46		
Blanchette House, 6-8 Elm St	0405-104	39		
Warehouse, 11 Maple St	0405-105	40		Set way back from Maple
Vermont Maple Orchards, Inc. 1 Jackson St	0405-106	24		Flexible Seal
Railroad Warehouse	0405-107			Bldg is gone, not mapped
Emery House, 22 Jackson St	0405-108	23		
Bechtel House, 27 Jackson St	0405-109	19		
Sourdiffe House, 33 Jackson St	0405-110	17		
LeClair House, 3 Grant St	0405-111	30		
Bosic House, 4 Grant St	0405-112	25		
Lawrence House, 10 Grant St	0405-113	20		
Corbin House, 2 Arlington St	0405-114	180		
4 Arlington St	0405-115	173		
5 Arlington St	0405-116	160		
6 Mansfield Ave	0405-117	36		
Mason House, 8 Mansfield Ave	0405-118	42		
O'Brien House, 15 Mansfield Ave	0405-119	35		
McGuire House, 29 Mansfield Ave	0405-120	66		
5 Waverly St	0405-121	80		

Appendix B

Underground Storage Tanks in Essex Junction

<u>Facility ID#</u>	<u>Hazardous Sites</u>	<u>Facility Name</u>	<u>Facility Address</u>
102		Abrams' Sunoco	142 Pearl Street
222	900593	Fairgrounds Beverage	99 Pearl Street
384		Robinson's Inc.	Park Street
385		Sunoco Gasoline Station	16 Maple Street
411	931476	Agway/McEwing Fuels	134 Main Street
565		Champlain Farms Gulf	56 Pearl Street
856		Stannard Residence	5 Warner Avenue
922	900573	Essex Junction Public Works Garage	11 Jackson Street
1166	770012	IBM Corporation	1000 River Street
1122		Keenan Residence	1 Maplewood Lane
1223		Dietzel Office	6 Hillcrest Road
1226		Reed Residence	11 Maplewood Lane
1228		Triangle Auto Body	7 River Street
1233		Hamel Residence	4 Warner Avenue
1249		Dietrich Residence	2 Upland Road
1258		Seiple Residence	15 Upland Road
1301		McIntyre Residence	6 Woods End Drive
1760		VT State Tree Nursery	111 West Street
1905	961961	Simon's Five Corner Store	2 Park Street
1996		Essex Community Education Center	2 Educational Drive
2687		Winston Prouty Federal Building	11 Lincoln Street
8783536		Sunoco Gasoline Station	30 Main Street
8784309		Dave Whitcomb's Service Center	45 Lincoln Street
8785745		First Congregational Church	39 Main Street
8799559		Corner Gas Store	141 Pearl Street

Source: Underground Storage Tank Program
Waste Management Division
Vermont Department of Environmental Conservation

Appendix C

Maps

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- Map 9: Existing Lane Use
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Appendix C

Maps

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