

2016 *Essex* Town Plan



March 1, 2016



2016 Essex Town Plan

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**The above individuals held their positions in the period during which the Town Plan was revised. A current list of Town appointees and staff can be found at www.essex.org.*

Cover photos (clockwise from top right): Bixby Hill foliage (photo by Sheri Larsen); Memorial Day Parade through Five Corners (Greg Duggan); Indian Brook Reservoir (Anne Pius); Fort Ethan Allen (Sharon Kelley); Essex High School track meet (Karen Furland); Camel's Hump, as seen from the Circumferential Highway (Sheri Larsen).

Back cover: Image by Kathryn Jarvis.

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Girl Scouts clean up trash during Green Up Day 2015.
Photo by Sheri Larsen.

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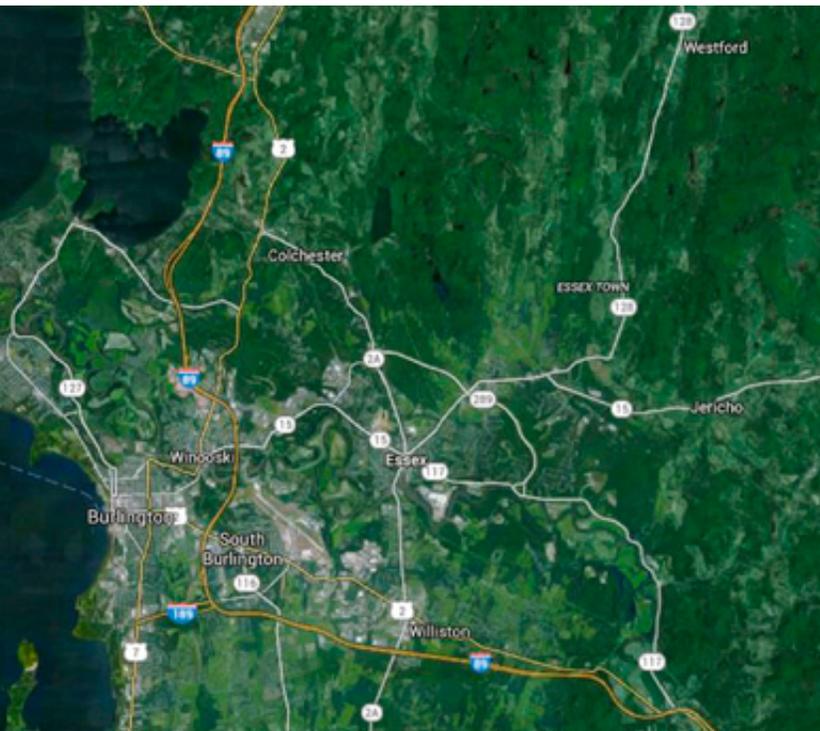
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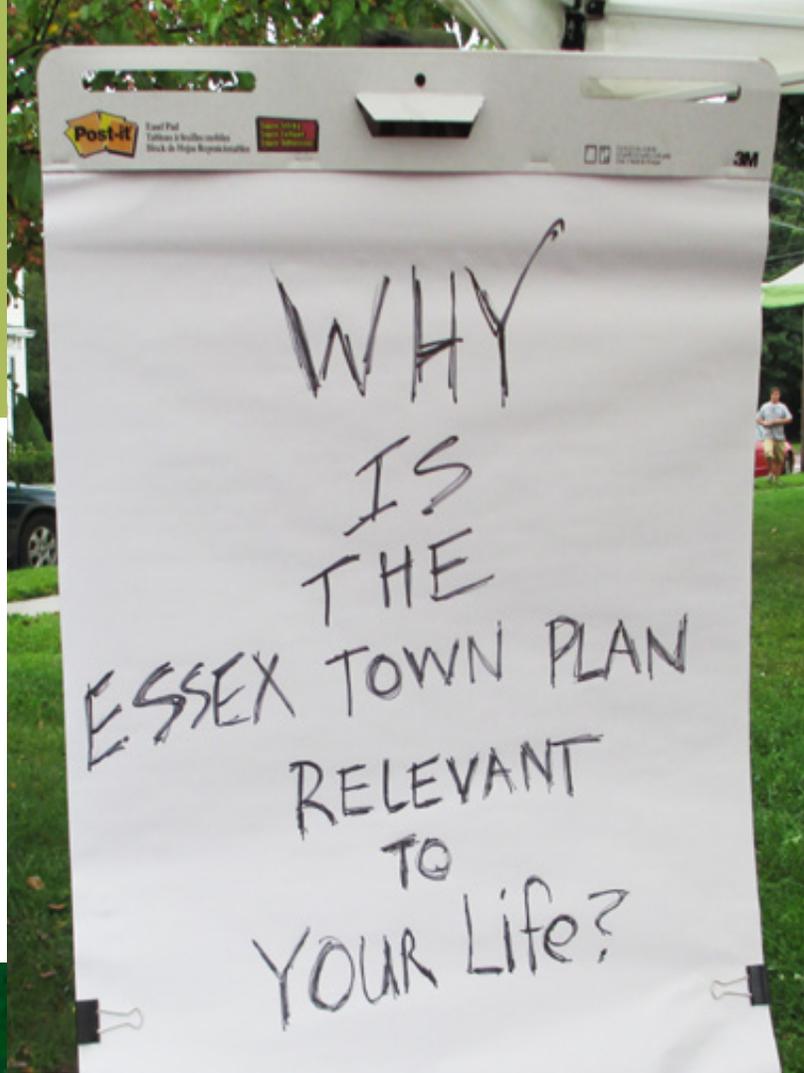
Introduction

The Town of Essex is located in northwestern Vermont in the geographic center of Chittenden County, the state's most populous county. A thriving regional employment center, Essex has opportunities for commercial, industrial, and residential development. The community also has a strong desire to retain its rural character in the areas not designated for growth.

Essex lies within easy access of the social, recreational and cultural amenities of Burlington and the Champlain Valley as well as the spectacular wilderness and recreational opportunities offered by the Green Mountains.



Essex is located in northwestern Vermont, and is bordered by Colchester, Jericho, South Burlington, Westford, and Williston. Image courtesy of Google Maps.



As the 2016 Town Plan update process began in 2014, Essex Community Development staff set up a booth at the Five Corners Farmers' Market to tell people why the Town Plan matters. Photo by Dana Hanley.

A thriving regional employment center, Essex has opportunities for commercial, industrial, and residential development.



Essex Free Library has a collection of more than 35,000 items.
Photo by Sharon Kelley.

Purpose of a Town Plan

Town plans express a shared community vision vivid enough to guide public and private initiatives and investment related to future growth, development, and land preservation. A plan should clearly express how the community intends to accomplish priority objectives related to transportation, infrastructure, conservation, education, energy use, resiliency, and fiscal management.

“The art of a town plan is to balance varying community interests in such a way that a great place is made,” said Essex Community Development Director Dana Hanley.

A community’s authority to create a town plan, which can also be referred to as a comprehensive plan, comes from the [Vermont Planning and Development Act](#), Vermont Statutes Annotated (VSA) Title 24, Chapter 117. The state instituted the Planning and Development Act in 1968. If implemented, comprehensive plans provide a template for civic health by accomplishing several objectives:

- Identifying relevant historical and current conditions;
- Providing a source of information for investors, local boards and commissions, residents and businesses, and the regional planning commission;
- Recommending further studies to address specific goals;
- Providing a standard of review for [Act 250](#), [Act 248](#), and other state regulatory processes;

“The art of a town plan is to balance varying community interests in such a way that a great place is made.”

~Dana Hanley, Essex Community
Development Director



Planning Commissioners, residents, and Community Development staff share pizza in Essex Free Library while discussing the vision for the 2016 Town Plan. Photo by Sharon Kelley.

- Helping to guide the development of inter-municipal, regional, and state agency plans and programs; and
- Serving as a guide for the planning commission and other municipal commissions and committees when they review development proposals.

Town plans are implemented through zoning regulations and capital improvements, as well as through the initiatives of individual town departments, committees and commissions. Per state law, municipalities must have comprehensive plans to adopt zoning regulations, institute a capital improvement program, and collect impact fees. Plans also make municipalities eligible for various state grant programs.

Planning History in Essex

The Town of Essex's planning history dates back to 1965, when the Town – including the Village of Essex Junction – hired professional planning consultants to create a plan for the community. Voters adopted the resulting comprehensive plan in 1967. Ensuing decades brought various amendments and updates, including updates every five years since 1996.

Town plans often lead to specific planning projects. Essex and partnering communities have completed the following studies in recent years:

- [Essex Open Space Plan](#) (2008)
- [Route 15 Corridor Study](#) (2008)
- [Transportation Management Plan](#) (2009)
- [Economic Development Vision and Plan](#) (2010)
- [Town of Essex and Village of Essex Junction, Vermont Flood Hazard Mitigation Plan](#) (2011)
- [Views to the Mountains: A Scenic Protection Plan](#) (2011)
- [Bicycle and Pedestrian Plan for the Town of Essex and Village of Essex Junction](#) (2014)

Process for the 2016 Town Plan

The 2016 *Town Plan* does not include major changes to the vision of the Town as expressed in the 2011 *Town Plan*. Revisions involved statistical updates, a reduction of outdated content, and a graphic redesign to make the document more readable and visually appealing. A flood resilience element was added, as required by statute. The 2016 *Town Plan* also added standards for siting of commercial scale renewable energy projects.

The extensive community outreach efforts done by **Heart & Soul of Essex** from 2012 to 2014 were incorporated into the 2016 *Town Plan*. The Town of Essex and Village of Essex Junction received a \$100,000 grant from the **Orton Family Foundation** to organize Heart & Soul, a project that engaged Essex residents and identified a shared set of values and a vision for the future of the community. Nearly 350 people participated in 43 neighborhood conversations in living rooms, libraries, and businesses. Another 540 people completed a survey about the community's most important values. Participants represented broad, diverse sections of the community, including students, young parents, the business community, new Americans, and LGBTQ residents. In total, approximately 1,000 people participated in the effort.

Heart & Soul identified six core **values** for Essex: **Community Connections, Education, Health and Recreation, Local Economy, Safety, and Thoughtful Growth**. Thoughtful Growth emerged as the most pressing issue in the community.

The six values reinforced the vision and goals of the 2011 *Town Plan*, allowing the Planning Commission to focus the 2016 amendment on statistical updates and format.

For community outreach efforts related to the 2016 *Town Plan* update, Community Development staff set up a table at the Five Corners Farmers' Market in 2014, and

staff and commissioners hosted an evening event with food and beverages at the Essex Free Library in the fall of 2014. An informational table was set up at the 2015 Town Meeting. Residents who signed up for an email list received regular updates about progress, and Town staff used Front Porch Forum to announce work sessions and public hearings. The entire draft of the 2016 Town Plan remained on the Town's webpage as a work-in-progress and was updated regularly. The Planning Commission and Selectboard held numerous work sessions and public hearings prior to the 2016 Town Meeting.

Consistency with Adjoining Town Plans

The Town of Essex is bordered by Westford to the north, Colchester to the west, Jericho to the east, and the Village of Essex Junction, South Burlington, and Williston to the south. These communities have comprehensive plans that are generally consistent with the Essex Town Plan.

Colchester - The Colchester-Essex border has a variety of planning areas. The Colchester side of the border has Commercial/Industrial, Rural, Suburban Residential, and Village districts. Similarly, Essex has Agricultural, Conservation, Industrial, and Open Recreation planning areas. The undeveloped park areas of Indian Brook Reservoir and the nearby Colchester Pond Natural Area are surrounded by Low Density Residential areas. The Parade Grounds in Fort Ethan Allen span both towns, and the uses in Fort Ethan Allen are compatible between the two towns.

Essex Junction - Planning areas along the border between the Village of Essex Junction and the Town of Essex are consistent, although the Town side contains more business activities in the planning areas, including small portions of Industrial and larger portions of Mixed Use.

Jericho - The border that Essex shares with Jericho is largely characterized by agricultural and conservation districts, along with low-density residential development. Along VT Route 15, Jericho's Village district begins at the border between the towns. One portion of Essex's



Industrial planning area extends to the Jericho border. Jericho does not permit access to this area from Skunk Hollow Road.

South Burlington - The short border that Essex shares with South Burlington is Floodplain on both sides.

Westford - In Westford, the border with Essex is characterized by Agricultural, Floodplain, Forestry, and Low Density Residential planning areas. Land in Essex contains Agricultural, Conservation, Floodplain, and Low Density Residential planning areas.

Williston - The Winooski River Floodplain serves as the immediate border between Essex and Williston. In Essex, areas just beyond the floodplain feature a combination of Agricultural, Industrial, and Low and Medium Density Residential planning areas. Williston has largely the same planning areas just past the floodplain, with no significant inconsistencies.

Consistency with the 2013 *Chittenden County ECOS Plan*

The 2013 *Chittenden County ECOS Plan* designates Essex as an area primed for growth in Metro, Suburban, and Enterprise planning areas – areas that have higher density, mixed use development. The Town’s emphasis on concentrating development in the Town Center, Saxon Hill industrial areas, and the Susie Wilson Road Corridor is consistent with the *ECOS Plan’s* land use goal to “encourage future growth in the Center, Metro, Enterprise, Suburban and Village Planning Areas to maintain Vermont’s historic settlement pattern and respect working and natural landscapes.”

ECOS stands for Environment, Community, Opportunity, Sustainability. The 2016 *Essex Town Plan* is also consistent with the *ECOS Plan’s* goals for transportation, water quality, education, social community, and economic development.



Community Development Director Dana Hanley (left) and Town Planner Greg Duggan (second from left) chat with residents about the Town Plan. Photo by Sharon Kelley.

The Chittenden County ECOS Plan designates Essex as an area primed for growth in Metro, Suburban, and Enterprise planning areas. The 2016 Essex Town Plan is also consistent with the ECOS Plan’s goals for transportation, water quality, education, social community, and economic development.

Regulatory Use of the *Town Plan*

Act 250

Act 250 is a Vermont law that was passed in 1970 to give the state a measure of control over larger development projects. The **Vermont Natural Resources Board** oversees Act 250. As the NRB website says, “The Act 250 program provides a public, quasi-judicial process for reviewing and managing the environmental, social and fiscal consequences of major subdivisions and developments in Vermont.”

Development projects that require Act 250 review in Essex must obtain a land use permit from the NRB’s District #4 Environmental Commission. As part of the review process, projects need to meet the 10 criteria defined under **10 V.S.A. § 6086**. Act 250’s Criterion 10 requires proposed projects to be “in conformance with any duly adopted local or regional plan or capital program.”

Provisions of a town plan apply if they evince a specific policy that pertains to the area of town in which the project is proposed. Mandatory and specific town plan provisions guide the District Environmental Commission’s decision. For example, use of the word “shall” is mandatory, whereas “should” is advisory. If the language in a town plan is ambiguous, case law instructs District Environmental Commissions to examine the relevant zoning regulations in an effort to resolve the ambiguity (*In re Molgano*, 163 Vt. 25 (1994)).

The 2016 *Essex Town Plan* is a big picture document that is not complete without the incorporation, by reference, of a number of other plans and studies. These plans and studies are recognized in the appropriate chapters.

For Act 250 jurisdictional purposes, the Town has zoning and subdivision bylaws and is therefore considered a “ten acre town,” meaning jurisdiction for commercial projects is triggered only on more than 10 acres of land. Jurisdiction can also be triggered by a number of other factors, including subdivisions with 10 or more lots.



The tower in Fort Ethan Allen stands as one of Essex’s historic landmarks. Photo courtesy of the Town of Essex.

Section 248

Certain utility facilities, including electric transmission facilities, electric generation facilities, and some gas pipelines, are required to obtain a Certificate of Public Good from the **Vermont Public Service Board**. The Certificate of Public Good has to establish that the facility will meet criteria defined under **30 V.S.A. § 248**, including that the proposed facility will not interfere with the orderly development of the region with due consideration having been given to the recommendations of the municipal and regional planning commissions, as well as to those of the Selectboard and in the Town Plan.

Utility facilities are statutorily exempt from local regulation. Therefore, unlike Act 250, the Vermont Public Service Board does not consider zoning regulations when interpreting town plan provisions. The Public Service Board does, however, give due consideration to the recommendations of local planning commissions. The exemption also applies to wireless telecommunications facilities reviewed under 30 V.S.A. § 248a.

The Vermont Public Service Board often deems town plan provisions to be too vague to apply to a specific project or parcel of land. Accordingly, municipalities have worked to include clear, written community standards in their town plans to assist the Vermont Public Service Board in its review. A community standard with respect to commercial scale (500 kilowatts or more), ground-mounted solar electric generation facilities is located in Chapter 3 under the *Aesthetic Resources* section.

The Action Plan

Introduction

The Action Plan that appears in this chapter identifies the Town's priority action items for the next five to 10 years, so that residents, landowners, staff, developers, Selectboard members, Planning Commissioners, and investors can easily grasp the Town's direction during this period. Implementation tasks appear as part of the Action Plan.

Essex has designated certain parts of town for growth and other areas for lower levels of development or the protection of open space. Those areas are specified on the Future Land Use Map on pages 9 and 91.

Chapters 2, 3 and 4 of the *Town Plan* provide the data and basis for the Action Plan. References to supportive resources are included within the chapters; the digital version of the *Town Plan* includes hyperlinks to many of these resources.

Vision Statement

Essex is a thriving community with ongoing economic and residential growth. As noted in the Introduction, in 2012 the **Orton Family Foundation** awarded Essex, including the Village of Essex Junction, a planning grant to engage the community in a conversation about the future of the town. A non-profit organization, **Heart & Soul of Essex**, was formed to carry out the project. The group's 2014 final report contains an executive summary of the effort, and the process resulted in a vision statement for the entire community (at right).



Vision Statement

"We learned that despite a wide variety of opinions and ideas, there are a few key things that matter most. We value our connections with each other. Our neighborly traditions keep us safe, sustain us during challenging times and bring us together for celebration and fun. We see ourselves as a community that values education and learning. We want to be a welcoming place and aspire to become more culturally aware as our community becomes more diverse. We take pride in many community assets, including our highly regarded schools, libraries and recreation departments. We want to see these institutions continue to improve.

"We value the urban and rural mix that make up Essex. We want to see balanced future growth, which includes a diverse mix of housing options, economic development, and conservation of open space. We hope for improved infrastructure that will ease traffic, increase our safety and connect all parts of the community together. We are especially passionate about the prospect of a well-connected system of sidewalks and bike paths throughout all of Essex."

~Heart & Soul of Essex

Format

Each section of the *Town Plan's* Action Plan leads with one or more goals, followed by a general policy. Actions, which represent the priority items to be accomplished within the next five to 10 years, appear under the policies.

Goals are long-range aspirations that serve to establish the Town's future direction. Each goal describes the end condition sought by the Town.

Policies are courses of action adopted and followed by a government, institution, body, or individual to attain the desired objectives.

Actions are short-, medium-, and long-term steps toward achieving the goals to be taken by the appropriate boards, commissions, committees, staff members, and community volunteers.

Implementation

State statute, 24 V.S.A. § 4382(a)(7), requires "a recommended program for the implementation of the development plan." The program should identify the action, the entity responsible for carrying out the action, the potential manner of funding, and the time frame.

For purposes of the *Town Plan*, **short term** is one to three years, **medium term** is four to five years, and long term is five to 10 years. **Ongoing** means that a continuing action does not have a particular timeframe for completion.

Important Caveat

The priority Action Items were generated from several sources: residents participating in Town Plan work sessions and hearings; individual Town departments; and Town boards, commissions, and advisory committees. Implementation may take several forms:

- Planning initiatives and studies;
- Land use regulation amendments;
- Changes in sewer allocation policies;
- Capital expenditures for Town facilities, and/or use of personnel;
- Changes in Town tax policy;

- Communication, including encouragement of various actions, coordination with other public and private entities, and education.

Town plans are meant to be aspirational, visionary documents. Not all of the proposed Action Items may be accomplished within the next five to 10 years. Some of the Action Items may prove to be politically or financially infeasible. When an Action Item identifies the Operating Budget, Capital Fund, or bond authorization as a potential funding source, it does not mean the item has been vetted by the Selectboard or approved by voters. In forwarding the 2016 *Town Plan* to the voters for approval, the Selectboard did not necessarily agree to fund any of the Action Items.

Funding of planning initiatives with an asterisk (*) indicates that they are particularly well-suited for application to the State of Vermont's Municipal Planning Grant (MPG) program.

Funding for items under the Education section would come out of the school budget, not the municipal budget.

The Action Items identify a particular party as having the "lead responsibility," but the responsibility may shift with changes in staffing, finances, politics, or partnering conditions.

Despite the above-mentioned caveats, the Action Plan does provide a roadmap to be used by Town government for the purposes of community planning.

The Action Plan

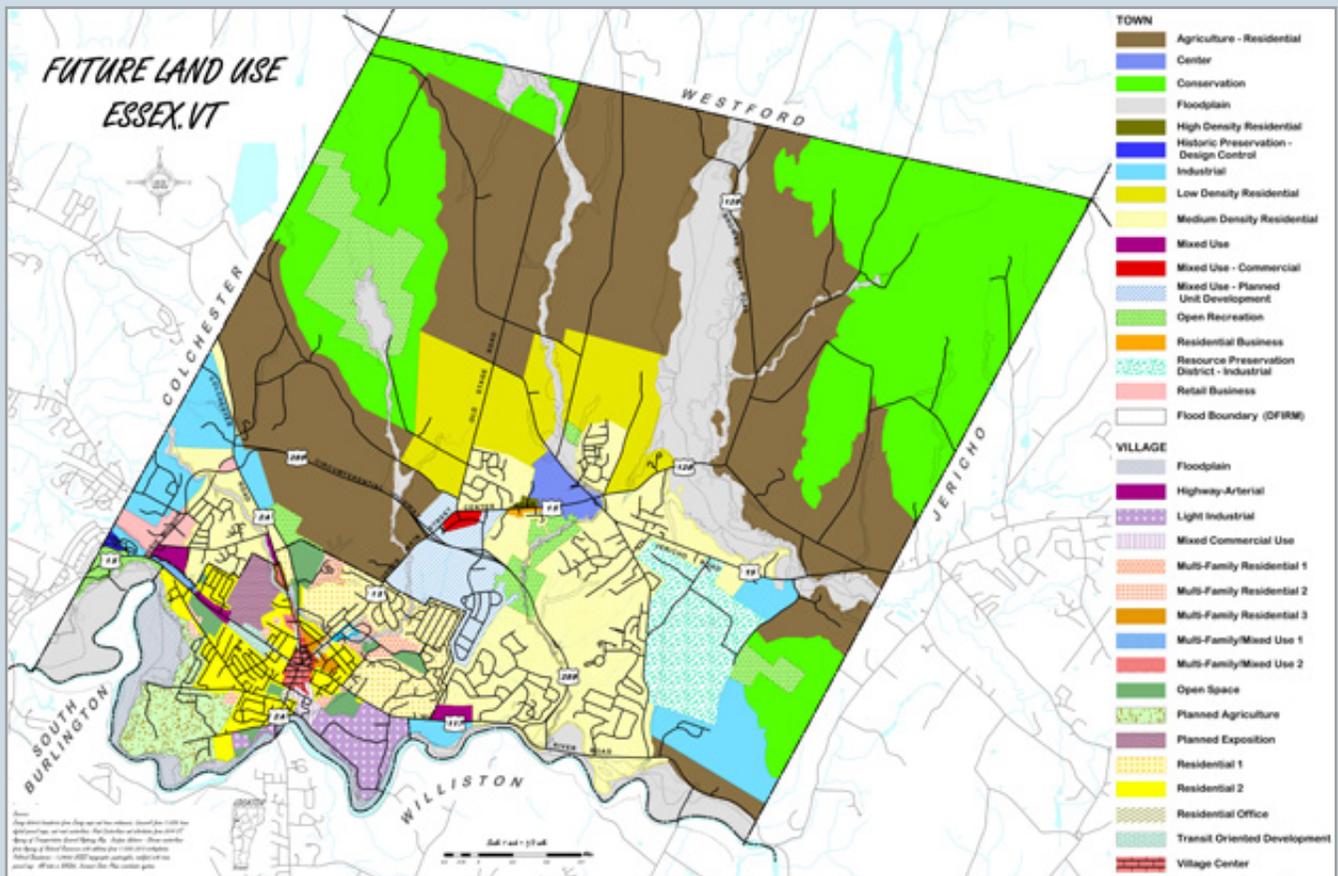
1. Land Use and Development

Goals

1a. Essex West is developed as a sub-regional growth center that provides employment opportunities, a diversity of housing opportunities, and retail and personal services.

1b. The historic, cultural, and visual qualities of Fort Ethan Allen are preserved.

1c. The Town Center is a focus of concentrated growth and community life.



Map 1: Future Land Use Map, including the Village of Essex Junction.

1d. A human scale of development that fosters a sense of community in the Neighborhood Growth Centers.

1e. The Town's natural resources, water quality and scenic views are protected.

1f. Economic development is carried out in the Saxon Hill Industrial Park with consideration and respect for the natural surroundings.

General Policy

1: Development shall occur in areas suitable for growth in a compact manner as opposed to scattered development throughout Town.

Actions

Developed by the Planning Commission and the Community Development Department

- **Action 1.1:** Update the 1991 Town Center Master Plan; amend zoning and subdivision regulations, as needed, following the update.

Lead responsibility: Community Development Department, Planning Commission

Potential funding: Operating Budget, grants*

Time frame: Short term to medium term

- **Action 1.2:** Re-examine the draft Conservation Subdivision Regulations

Lead responsibility: Community Development Department, Planning Commission

Potential funding: Operating Budget

Time frame: Short term to medium term

- **Action 1.3:** Create renewable energy siting standards

Lead responsibility: Community Development Department, Planning Commission

Potential funding: Operating Budget, grants*

Time frame: Medium term

- **Action 1.4:** Update the regulations in the Business Design Control Overlay Districts

Lead responsibility: Community Development Department, Planning Commission



The Working Group for Thoughtful Growth In Action discusses possible ways to change planning governance in Essex. The group met through the fall of 2015 to consider whether Essex and Essex Junction should move away from the longstanding structures of separate planning commissions and zoning boards of adjustment in each municipality. Photo by Greg Duggan.

Potential funding: Operating Budget, grants*

Time frame: Medium term

2. Economic Development

Goals

2a. The Essex tax base is increased and diversified by an economic development climate that is friendly to a large variety of businesses, including start-ups.

2b. A culture of innovation and job creation is fostered.

2c. Infrastructure, in the form of roads, bridges, trails, and sewer and water lines, is maintained and improved.

2d. The attraction and retention of employers, and employees, is supported by increasing the availability of affordable housing.

General Policy

2: Economic growth shall be diversified, with development occurring in and around the Town Center, the Susie Wilson Road Corridor, and the Saxon Hill/ Resource Preservation District – Industrial (RPD-I) zoning district.

Actions

Developed by the Economic Development Commission in conjunction with the Selectboard and Community Development Department

- **Action 2.1:** Expand economic development staffing

Lead responsibility: Selectboard, Economic Development Commission

Potential funding: Operating budget

Time frame: Short term

- **Action 2.2:** Improve land use regulations to prevent impediments to economic development

Lead responsibility: Community Development Department, Economic Development Commission, Planning Commission

Potential funding: Operating Budget, grants*

Time frame: Short term

- **Action 2.3:** Advocate for upgrades to VT Route 117

Lead responsibility: Economic Development Commission, Chittenden County Regional Planning Commission

Potential funding: Capital budget, State of Vermont

Time frame: Medium term

- **Action 2.4:** Encourage entrepreneurship in Essex by promoting innovation, maker spaces, and partnerships with neighboring communities

Lead responsibility: Economic Development Commission

Funding: N/A

Time frame: Short term

- **Action 2.5:** Consider the creation of a Development Review Board, depending on the outcome of the Thoughtful Growth in Action (TGIA) initiative

Lead responsibility: Selectboard, Community Development Department, Economic Development Commission

Potential funding: N/A

Time frame: Short term

- **Action 2.6:** Develop and market the “Essex Brand”

Lead responsibility: Economic Development Commission, Community Development Department

Potential funding: Operating Budget

Time frame: Medium term

- **Action 2.7:** Assess current and potential uses at Fort Ethan Allen and consider changes to the zoning regulations

Lead responsibility: Community Development Department, Economic Development Commission

Potential funding: Operating Budget, grants

Time frame: Medium term

- **Action 2.8:** Support advanced manufacturing and technology education by connecting annually with educators at the Essex Center for Technology (CTE) and Essex High School (EHS) to explore ways the Town can help promote the importance of and need for educational programs related to advanced manufacturing, technology and entrepreneurship, and the local need for graduates of these programs.

Lead responsibility: Economic Development Commission, Center for Technology, Essex High School

Potential funding: Operating budget

Time frame: Short term

- **Action 2.9:** Identify and respond to emerging opportunities for business start-ups, growth, and improvement, and provide a personal face on behalf of the Essex community.

Lead responsibility: Business Liaison Group, Economic Development Commission

Potential funding: Operating Budget

Time frame: Short term

3. Transportation

Goals

3a. A transportation system that provides the quick, energy-efficient, and safe movement of people, goods and services within Essex and between neighboring towns.

3b. Transportation system improvements that favor and strengthen the community and support regional economic opportunities for Vermont employers and employees.

3c. A community that is served by varied modes of transportation with automobile use balanced by increased availability of public transit, sidewalks and multi-use trails.

General Policy

3: Transportation systems shall be integrated with land use policy in such a way that improvements are compatible with the overarching settlement pattern of compact settlement surrounded by rural countryside.

Actions

Developed by the Public Works Department

- **Action 3.1:** Determine the cost effectiveness and feasibility of consolidating the Town Public Works and Village Public Works departments into a single entity.

Lead responsibility: Town Public Works Department, Village Public Works Department, Municipal Manager, Town Selectboard, Village Trustees

Potential funding: Operating Budget

Time frame: Short term

- **Action 3.2:** Design and construct pedestrian/bike paths on VT Route 2A, Pinecrest Drive, and Towers Road

Lead responsibility: Public Works Department and Community Development Department

Potential funding: State/federal grants and Capital Budget

Time frame: Short to medium term



Essex Town Center contains a variety of housing options, including apartments above restaurants and retail space. Photo by Greg Duggan.

- **Action 3.3:** Design and construct a new signalized intersection at Sand Hill Road and VT Route 15
Lead responsibility: VTRANS and Public Works Department
Potential funding: VTRANS and federal funds
Time frame: Medium term
- **Action 3.4:** Design and construct improved access at VT Route 2A/Susie Wilson Bypass and the Circumferential Highway off-ramp
Lead responsibility: VTRANS, Public Works Department
Potential funding: VTRANS and federal funds
Time frame: Short term
- **Action 3.5:** Develop new Public Works Specifications
Lead responsibility: Public Works Department, consulting engineers
Potential funding: Operating Budget
Time frame: Short term
- **Action 3.6:** Construct a new multi-use path from Susie Wilson Road to the City of Winooski
Lead responsibility: VTRANS and affected communities
Potential funding: VTRANS and federal funds
Time frame: Long term

4. Housing

Goals

- 4a.** The housing needs of Essex's projected resident population are met, particularly for low- and moderate-income residents.
- 4b.** A diversity of housing types, including microhousing and choices between rental and ownership, is provided.
- 4c.** Housing is located in areas convenient to employment, shopping, schools, and public transportation.

General Policy

- 4:** Diverse housing opportunities shall be sought with a large majority of them being located in the areas in Town identified as appropriate for growth: the Town Center, the Susie Wilson Road Corridor, and a portion of Essex Center.

Actions

Developed by the Planning Commission and the Community Development Department

- **Action 4.1:** Undertake a comprehensive housing study, including recommendations for regulatory and non-regulatory methods of increasing the stock of affordable housing. Encourage school administrators to participate

Lead responsibility: Planning Commission, Economic Development Commission, Community Development Department

Potential funding: Operating Budget, grants*

Time frame: Short term

- **Action 4.2:** Develop regulations to promote affordable housing and/or remove barriers to it, if this initiative is recommended in the comprehensive housing study

Lead responsibility: Planning Commission, Community Development Department

Potential funding: Operating Budget, grants*

Time frame: Medium term

- **Action 4.3:** Create an Affordable Housing Trust Fund

Lead responsibility: Community Development Department, Selectboard

Potential funding: Operating Budget

Time frame: Medium term

- **Action 4.4:** Form affordable housing alliances with Green Mountain Habitat for Humanity, Cathedral Square, and the Champlain Housing Trust

Lead responsibility: Community Development Department

Potential funding: N/A

Time frame: Short term to medium term

5. Energy

Goal

5a. Actions are taken and policy is developed in accordance with the State of Vermont 2011 Comprehensive Energy Plan, or as amended, in the commercial, residential and transportation sectors.

General Policy

5: Energy conservation, energy efficiency, and renewable energy generation shall be taken into consideration during development review and the creation of Town policies and initiatives.



The parking lot at the Essex Police Station includes an electric vehicle charging station. Photo by Sharon Kelley.

Actions

Developed by the Energy Committee

- **Action 5.1:** Fund an Energy Coordinator position to develop energy implementation plans, coordinate efforts with other governmental agencies, and encourage residential and commercial energy conservation

Lead responsibility: Selectboard, Energy Committee

Potential funding: Operating Budget

Time frame: Short term

- **Action 5.2:** Continue to explore energy efficiency and renewable energy options for all Town-owned and Town-sponsored facilities, from buildings to street lighting. Findings and recommendations should be based on an

audit of all Town-owned and Town-sponsored facilities and a subsequent cost-benefit analysis for upgrading or replacing those facilities

Lead responsibility: Selectboard, Energy Committee, Finance Department

Potential funding: Operating Budget

Time frame: Short term

- **Action 5.3:** Revise the zoning regulations to incent and/or require residential and commercial energy standards that exceed Vermont energy building codes

Lead responsibility: Planning Commission, Community Development Department, Energy Committee and other partners

Potential funding: Operating Budget, grants

Time frame: Medium term

- **Action 5.4:** Develop education programs and participate in Efficiency Vermont programs to encourage energy efficiency in existing residential and commercial buildings

Lead responsibility: Energy Committee and other partners

Potential funding: Operating Budget, grants

Time frame: Medium term

- **Action 5.5:** Promote community solar net metering and evaluate the former Town landfill for use as a potential future site

Lead responsibility: Energy Committee, Selectboard

Potential funding: Operating Budget, grants

Time frame: Long term

- **Action 5.6:** Develop and implement strategies to become an “Electric Vehicle-Ready Town”

Lead responsibility: Energy Committee, Community Development Department

Potential funding: N/A

Time frame: Short term

6. Flood Resilience

Goals

6a. New development in floodplains, fluvial erosion hazard areas, and land adjacent to streams, wetlands, and upland forests is avoided.

6b. Flood damage and fluvial erosion are reduced by protecting and restoring vulnerable areas.

6c. Flood emergency preparedness and response is achieved.

General Policy

6: Land shall be conserved, and development avoided, in particularly vulnerable areas, such as floodplains and river corridors.

Actions

Developed by the Community Development Department and the Public Works Department, in conjunction with the Chittenden County Regional Planning Commission

- **Action 6.1:** Adopt updated Public Works Specifications

Lead responsibility: Town Public Works Director/Engineer

Potential funding: Operating Budget

Time frame: Short term

- **Action 6.2:** Construct flow restoration improvements within the watersheds of Indian Brook and Sunderland Brook, which have impaired water quality

Lead responsibility: Town Public Works Director/Town Engineer, Stormwater Coordinator

Potential funding: Capital Plan, state and federal grants

Time frame: Medium term to long term

- **Action 6.3:** Reduce erosion from existing road and development sources in the Alder Brook watershed between VT Route 15 and VT Route 117

Lead responsibility: Town Public Works Director/Engineer, Stormwater Coordinator

Potential funding: Operating Budget

Time frame: Short term to long term

- **Action 6.4:** Evaluate standards in planning and zoning documents for steep slopes, wetlands, and highly erodible areas

Lead responsibility: Public Works Department, Community Development Department

Potential funding: Operating Budget

Time frame: Medium term

- **Action 6.5:** Stabilize stream banks, cultivate plants in buffers, and protect channels and road ditches in critical fluvial areas

Lead responsibility: Public Works Department, Conservation Committee



Members of the Thoughtful Growth in Action Working Group consider the future of planning and zoning in Essex. Photo by Greg Duggan.

Potential funding: Operating Budget, Capital Plan, state and federal grants

Time frame: Short term to long term

- **Action 6.6:** Re-evaluate elements of the draft Conservation Subdivision Regulations
Lead responsibility: Planning Commission, Community Development Department, Public Works Department
Potential funding: Operating Budget
Time frame: Short term

7. Resource Protection: Natural, Scenic, Historic and Archeological

Goal

7a. The Town's significant natural, scenic, historic and archeological resources are protected from development.

General Policy

7: Standards for resource protection may be more relaxed inside the sewer service area, where higher concentrations of development are desirable, and may be more restrictive outside the sewer service area, where lower concentrations of development are appropriate.

Actions

Developed by the Conservation Committee and the Community Development Department

- **Action 7.1:** Start a Conservation Fund
Lead responsibility: Conservation Committee, Selectboard
Potential funding: Operating Budget, donations, special fund
Time frame: Short term
- **Action 7.2:** Start an invasive species management program
Lead responsibility: Conservation Committee
Potential funding: Operating Budget
Time frame: Short term
- **Action 7.3:** Update the Street Tree Survey
Lead responsibility: Conservation Committee/ Essex Junction Tree Advisory Committee
Potential funding: Volunteers
Time frame: Short term



Indian Brook Reservoir makes a great spot for canoeing. Photo by Rylee Wrenner.

- **Action 7.4:** Public education and outreach
Lead responsibility: Conservation Committee
Potential funding: Volunteers
Time frame: Ongoing
- **Action 7.5:** Continue to improve stormwater quality in accordance with mandated state and federal permits
Lead responsibility: Public Works Department and other partners
Potential funding: Operating Budget, grants*, bond authorization
Time frame: Ongoing
- **Action 7.6:** Implement a Scenic Highway Overlay District in the zoning regulations
Lead responsibility: Planning Commission, Community Development Department
Potential funding: Operating Budget, grants*
Time frame: Short term

8. Agriculture & Forestry

Goal

8a. Important agricultural and forest lands are protected from development.

General Policy

8: To support large contiguous blocks and connectivity for wildlife, agricultural and forest lands shall be protected from fragmentation by subdivisions.

Actions

Developed by the Conservation Committee and the Community Development Department

- **Action 8.1:** Develop forest management plans for Indian Brook Park and Mathieu Town Forest
Lead responsibility: Parks and Recreation Department, Community Development Department

Potential funding: Operating Budget, grants

Time frame: Short term to medium term

- **Action 8.2:** Remain enrolled in Vermont's Use Value Appraisal Program

Lead responsibility: Assessor, Selectboard

Potential funding: N/A

Time frame: Ongoing

9. Local Government Services

Goals

9a. Town and Village municipal services are consolidated when appropriate and when efficiencies result.

9b. A quality level of municipal services and facilities is maintained without levying an undue tax burden.

9c. Good working relationships are maintained between municipal administrators, elected and appointed officials, and residents and business owners.

9d. Technology is used, when practicable, to save money and time, as well as to improve the flow of communication.

General Policy

9: Day-to-day administrative tasks shall be carried out with attention to providing excellent customer service for the Town's residents, businesses and visitors.

Town Clerk's Office

Actions

Developed by the Town Clerk

- **Action 9.1:** Scan daily land records and Property Transfer Tax Returns

Lead responsibility: Town Clerk's Office

Funding: Operating Budget

Time frame: Ongoing

- **Action 9.2:** Scan and index old land records Volumes 1-495. Index Volumes 496-862

Lead responsibility: Town Clerk's Office

Funding: Records Preservation Funds

Time frame: Long term



The Town Clerk's Office plans to scan and index old volumes of the land records. Photo by Greg Duggan.

- **Action 9.3:** Scan and Index Property Transfer Tax Returns

Lead responsibility: Town Clerk's Office

Funding: Operating Budget

Time frame: Long term

- **Action 9.4:** Index old court attachment documents

Lead responsibility: Town Clerk's Office

Funding: Operating Budget

Time frame: Long Term

Essex Free Library

Actions

Developed by the Town Librarian

- **Action 9.5:** Build partnerships with the Essex Community Historical Society, the Essex Parks and Recreation Department, and the Brownell Library in order to promote Essex Center as a cultural hub

Lead responsibility: Essex Free Library, Essex Community Historical Society

Potential funding: Operating Budget

Time frame: Ongoing

- **Action 9.6:** Spark patrons' passions for reading, personal growth, and learning by providing crucial early learning experiences

Lead responsibility: Essex Free Library

Potential funding: Operating Budget, grants

Time frame: Short term



Essex Free Library provides residents with a lifelong learning experience, with options ranging from books to computers. Photo by Sharon Kelley.

- **Action 9.7:** Develop intergenerational programming
Lead responsibility: Essex Free Library
Potential funding: Operating Budget, grants
Time frame: Short term

- **Action 9.8:** Create a life-long learning space
Lead responsibility: Essex Free Library
Potential funding: Operating Budget, grants
Time frame: Short term

- **Action 9.9:** Ensure that teachers and school administrators are aware of the offerings of the Essex Free Library
Lead responsibility: Essex Free Library
Potential funding: Operating Budget, grants
Time frame: Short term

- **Action 9.10:** Create a conference area
Lead responsibility: Essex Free Library
Potential funding: Capital Expenditure, fundraising
Time frame: Long Term

Police

Actions

Developed by the Police Department

- **Action 9.11:** Increase electronic capability to manage records and enhance emergency communications
Lead responsibility: Police Chief, IT Manager
Potential funding: Operating Budget, grants
Time frame: Medium term

- **Action 9.12:** Increase resources to address the crime rate and the increase in traffic volume and violations
Lead responsibility: Police Chief
Potential funding: Operating Budget
Time frame: Long term

- **Action 9.13:** Increase community participation in problem solving to reduce crime and its consequences
Lead responsibility: Police Department
Potential funding: Operating Budget
Time frame: Short term

- **Action 9.14:** Increase community awareness of the impact of illicit drugs in the region and of the need to formulate a multi-faceted approach to addressing the problem
Lead responsibility: Police Department
Potential funding: Operating Budget
Time frame: Short term

Fire

Actions

Developed by the Fire Department

- **Action 9.15:** Increase roster of paid on-call firefighters
Lead responsibility: Fire Chief
Potential funding: Operating Budget
Time frame: Short term

- **Action 9.16:** Add paid staff for weekday coverage and meetings
Lead responsibility: Fire Chief
Potential funding: Operating Budget
Time frame: Short term

- **Action 9.17:** Replace tanker trucks with larger capacity pumper/tanker
Lead responsibility: Fire Department
Potential funding: Capital Budget
Time frame: Short term

- **Action 9.18:** Replace AWD Reel Truck with AWD Engine for rural residences
Lead responsibility: Fire Department
Potential funding: Capital Budget
Time frame: Short term

- **Action 9.19:** Add aerial truck to fleet to meet needs of the community
Lead responsibility: Fire Department
Potential funding: Capital Budget
Time frame: Short term

- **Action 9.20:** Integrate both fire budgets into one Town-wide operating budget
Lead responsibility: Fire Chief
Potential funding: Operating Budget
Time frame: Medium term

- **Action 9.21:** Update ISO review for Town
Lead responsibility: Fire Department
Potential funding: Operating Budget
Time frame: Medium term

- **Action 9.22:** Renovate Fire Station to current National Fire Protection Association standards
Lead responsibility: Fire Department
Potential funding: Bond authorization
Time frame: Medium term

Community Development Department

Actions

Developed by the Community Development Department

- **Action 9.23:** Finish creating a GIS database of all Town-owned land, easements, and rights-of-way
Lead responsibility: Community Development Department
Potential funding: Operating Budget
Time frame: Short term to medium term

- **Action 9.24:** Finish scanning all permits/approvals in to the NEMRC program
Lead responsibility: Community Development Department
Potential funding: Operating Budget
Time frame: Medium term

- **Action 9.25:** Revise all application forms
Lead responsibility: Community Development Department
Potential funding: N/A
Time frame: Medium term to long term

Parks & Recreation

Actions

Developed by the Parks and Recreation Department and the Trails Committee

- **Action 9.26:** Re-establish overall, enhanced trail maintenance (specifically Indian Brook Reservoir and Mathieu Town Forest)
Lead responsibility: Parks and Recreation Department, Trails Committee and other partners
Potential funding: Capital Fund and Operating Budget
Time frame: Ongoing

- **Action 9.27:** Re-design and update Trail Map pamphlet
Lead responsibility: Parks and Recreation Department
Potential funding: Capital Fund and Operating Budget
Time frame: Short term

- **Action 9.28:** Complete a Carrying Capacity Study for Indian Brook Reservoir
Lead responsibility: Parks and Recreation Department, University of Vermont
Potential funding: Capital Fund
Time frame: Short term

- **Action 9.29:** Develop adult athletic leagues/pick-up games in the seasonal program line-up
Lead responsibility: Parks and Recreation Department
Potential funding: Program Fund
Time frame: Short term

- **Action 9.30:** Undertake a Recreation Impact Fee Study
Lead responsibility: Parks and Recreation Department
Potential funding: Operating Budget
Time frame: Short term



Volunteers install a new bridge on a trail at Indian Brook Park. Photo by Karen Furland.

- **Action 9.31:** Conduct a Community/Aquatics Center Feasibility Study

Lead responsibility: Parks and Recreation Department, consultant

Potential funding: Capital Fund and Operating Budget

Time frame: Medium term

- **Action 9.32:** Discuss new options for Pioneer Park with the neighborhood

Lead responsibility: Parks and Recreation Department

Potential funding: Operating Budget

Time frame: Medium term

- **Action 9.33:** Update Recreation Needs Assessment

Lead responsibility: Parks and Recreation Department

Potential funding: Capital Fund

Time frame: Long term

- **Action 9.34:** Develop and improve trails off Freeman Woods Road and west of VT Route 289

Lead responsibility: Trails Committee & other partners

Potential funding: Volunteers

Time frame: Medium term

- **Action 9.35:** Document and enhance trails at Saxon Hill (school parcel)

Lead responsibility: Trails Committee and other partners

Potential funding: Volunteers

Time frame: Medium term

- **Action 9.36:** Expand Volunteer Trail Keepers program

Lead responsibility: Trails Committee and other partners

Potential funding: Volunteers

Time frame: Medium term

- **Action 9.37:** Improve public engagement in trail use, benefits and education

Lead responsibility: Trails Committee and other partners

Potential funding: Volunteers

Time frame: Short term

- **Action 9.38:** Collaborate with nearby trails committees

Lead responsibility: Trails Committee

Potential funding: Volunteers

Time frame: Short term

Municipal Utilities

Sewage Disposal and Water Supply

Actions

Developed by the Public Works Department

- **Action 9.39:** Update water flow and pressure model for the High Service area – VT Route 117 to VT Route 15 east of the Village

Lead responsibility: Public Works Director/Engineer, consultants

Potential funding: Water/Sewer Budget

Time frame: Short term

- **Action 9.40:** Prepare final design plans and specifications and fund water line improvements in the Susie Wilson Road Corridor and Fort Ethan Allen area to increase fire flow and pressure

Lead responsibility: Public Works Director/ Town Engineer, consultants

Potential funding: Capital Fund, state and federal grants, bond authorization

Time frame: Medium term to long term

- **Action 9.41:** Complete system-wide installation of new water meters

Lead responsibility: Public Works Director/Town Engineer, consultants

Potential funding: Water/Sewer Budget

Time frame: Short term to medium term

- **Action 9.42:** Prepare final design plans and specifications and fund water line improvements in the High Service area to reduce pressure in the VT Route 117 area

Lead responsibility: Public Works Director/ Town Engineer, consultants

Potential funding: Capital Budget, state and federal grants, bond authorization

Time frame: Medium term to long term

- **Action 9.43:** Monitor wastewater flows to the Lang Farm Pump Station for potential future capacity increase

Lead responsibility: Town Engineer/ Utilities Director

Potential funding: Wastewater Funds/System Initiation fees

Time frame: Medium term to long term

Stormwater

Actions

Developed by the Public Works Department

- **Action 9.44:** Implement Impaired Streams Flow Restoration Plans involving construction of new stormwater treatment facilities

Lead responsibility: Town/Village Stormwater Coordinating Committee, Public Works Department, Selectboard, Village Trustees

Potential funding: Capital funds, bond authorization

Time frame: Medium term

- **Action 9.45:** Resolution of all expired stormwater permits in the Town's impaired watersheds

Lead responsibility: Public Works Department, Selectboard

Potential funding: Operating Budget

Time frame: Short term

10. Education

Goals

10a. A world class curriculum provides authentic, student-centered learning opportunities as a means to college and career-readiness and citizenship.

10b. Investments are made in school building projects that promote safety, learning, community usage and energy efficiency.

10c. An inclusive model of education directs resources to families and students who are at a higher risk of not reaching their full potential due to cultural, financial and learning barriers.

10d. A universally-accessible school nutrition program for students, families and community members is developed with a focus on the use of locally-grown foods, culturally diverse menus, student choice, economic sustainability, ingredient disclosure, and student wellness.

General Policy

10: Consistent provision of educational services shall be facilitated by avoiding rapid change in student population.

Actions

Developed by the Essex Community Educational Center

- **Action 10.1:** Move toward use of the Common Core State Standards and Next Generation Science Standards
Lead responsibility: Principal, Superintendent
Potential funding: Operating Budget
Time frame: Medium term to long term
- **Action 10.2:** Replace roof at the Educational Center
Lead responsibility: U #46 School Board, CCSU administration
Potential funding: Bond authorization
Time frame: Medium term
- **Action 10.3:** Develop Personalized Learning Plans for students based on the grade
Lead responsibility: Principal, Superintendent
Potential funding: Operating Budget
Time frame: Short term
- **Action 10.4:** Educational Center/Center for Technology building renovations
Lead responsibility: U #46 School Board, CCSU administration
Potential funding: Bond authorization
Time frame: Long term

Developed by the Essex Town School District (ETSD)

Actions

- **Action 10.5:** Develop an effective school governance model based on policies created by the Essex-Westford Unified School District Board of Directors
Lead responsibility: ETSD School Board, Superintendent
Potential funding: General Operating Budget
Time frame: Short term to medium term
- **Action 10.6:** Invest in ongoing procurement and utilization of world class technology
Lead responsibility: ETSD School Board, Superintendent, ETSD Leadership Team
Potential funding: General Operating Budget
Time frame: Medium term

- **Action 10.7:** Continue to develop an inclusive model of education that directs resources to students who are at a higher risk of not reaching their full potential
Lead responsibility: Superintendent, ETSD Leadership Team, ETSD educators, Parent Advisory Group, grants.
Potential funding: General Operating Budget
Time frame: Ongoing

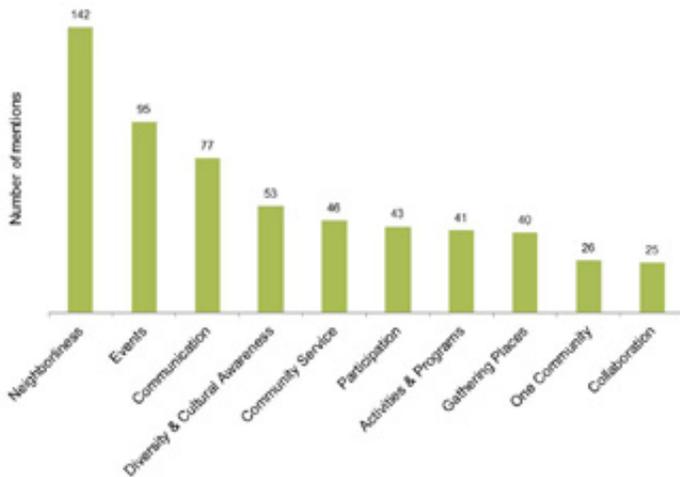
- **Action 10.8:** Work with local and state leaders to help influence and shape educational policies that advance Vermont's World Class Education Agenda
Lead responsibility: Vermont Superintendent Association, Legislative partners, ETSD School Board, Superintendent, Parent Advisory Group
Potential funding: General Operating Budget
Time frame: Ongoing

- **Action 10.9:** Develop a universally accessible school nutrition program
Lead responsibility: Superintendent, ETSD Leadership Team, Child Nutrition Team, Parent Advisory Group
Potential funding: General Operating Budget
Time frame: Short term to medium term

- **Action 10.10:** Invest in school building projects that promote student safety and learning, community usage, and energy efficiency
Lead responsibility: ETSD School Board, Superintendent, ETSD Leadership Team, Parent Advisory Group
Potential funding: Capital Reserve fund, bond authorization, energy efficiency grants, General Operating Budget
Time frame: Ongoing

Essex's Sense of Community

Essex derives its community identity from its various neighborhoods, its strong schools, its blend of businesses, its network of streets and trails, and – most of all – its people. As **Heart & Soul of Essex** describes in its **Community Connections** value, “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, 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 also protects its identity by finding ways to insulate against future energy costs and by preparing for future disasters such as flooding.



SOURCE: Heart & Soul of Essex

Figure 1. What **COMMUNITY CONNECTIONS** mean to Heart & Soul participants.



Girl Scouts enhance the community by removing trash during Green Up Day 2015. Photo by Sheri Larsen.

“Our deep connections with each other make Essex special. Neighbors help each other during good times and bad. We value diversity and welcome everyone.”

~Heart & Soul of Essex

Heart & Soul Describes Community Connections

Heart & Soul participants described the Community Connections value in the following ways:

- Neighbors and community members treating each other with kindness and respect, helping each other through good times and bad;
- Formal and informal opportunities to be together at community gatherings and events;
- Communications and engagement through Front Porch Forum, local newspaper, community directories, maps, and community conversations;
- Acceptance, inclusion, and respect for all people across race, ethnicity, gender, and age, and increased knowledge of and responsiveness to volunteer and engage in community;
- Participation in many facets of the community's life including Town Meeting, committees, community discussions, faith community, and events;
- The presence of gathering places, such as a coffee shop or community center; and
- Shared services and unified planning between Town and Village governments and collaboration among government, education, business and residents.

While Essex has a strong sense of community within its borders, the town also serves as a transportation hub and an important sub-regional retail and service center for the more rural communities in Chittenden County. Surrounding towns use the Essex Community Educational Center, as well as recreational facilities including the **Champlain Valley Exposition**, the Educational Center's indoor skating rink, Saxon Hill trails, and the Winooski River and Browns River.

Historic Background

Essex was established by charter on June 7, 1763, as part of the New Hampshire grants, by authority of King George III of England. Essex is one of the few Vermont towns whose boundaries have never changed.

The first steps toward modern-day settlement began in 1773, when several men, including Ira and Ethan Allen, formed the Onion River Company to survey, purchase and promote settlement. Permanent settlement began in 1783, when six settlers located their homes on Browns River Road between Weed Road and Westford. Residents held the first Town Meeting in 1786, levying taxes for the maintenance of roads.

Until 1820 the hub of town activities centered on Page's Corners, which was located at the junction of Colonel Page Road and Old Stage Road. At the time, Old Stage Road was the main route north to St. Albans. In its prime, Page's Corners consisted of four taverns, two stores, a post office, a potash factory, a sawmill on Alder Brook, an iron works on Colonel Page Road, and a wheelwright shop.

Essex was established by charter on June 7, 1763, as part of the New Hampshire grants, by authority of King George III of England.



*Five Corners Farmers' Market draws vendors from throughout the region and gives Essex residents a place to gather.
Photo by Sheri Larsen.*

Even when growth takes a community like Essex beyond a small town size, thoughtful neighborhood and village planning can retain the fraternity of small town life. The concept of community is linked to social cohesiveness, and the essence of a town the size of Essex lies in neighbors knowing one another, as well as their teachers, local shop owners, and community leaders. American sociologist Lewis Mumford has praised New England communities for refusing “to grow beyond the possibility of socializing and assimilating its members.” Planning experts contend that populations of 8,000 to 10,000 need to be served by village centers providing a diversity of services. Within Essex, the Village, the Susie Wilson corridor, and the Town Center provide the diversity of services necessary to maintain the town’s strong community bonds as the population increases.

Steady population growth will continue to bring residential development. The existing sense of community derives, in part, from Essex’s balance of rural and urban areas. Although the Town outside the Village has largely retained its rural character, incremental

residential development in the countryside threatens the town’s open space. Chapter 3 will take a closer look at development patterns and goals, but Essex can protect its rural-urban balance by continuing to concentrate development in growth areas loosely centered around the Susie Wilson Road corridor, the Town Center at Butler’s Corners, and the industrial portions of the Saxon Hill area.

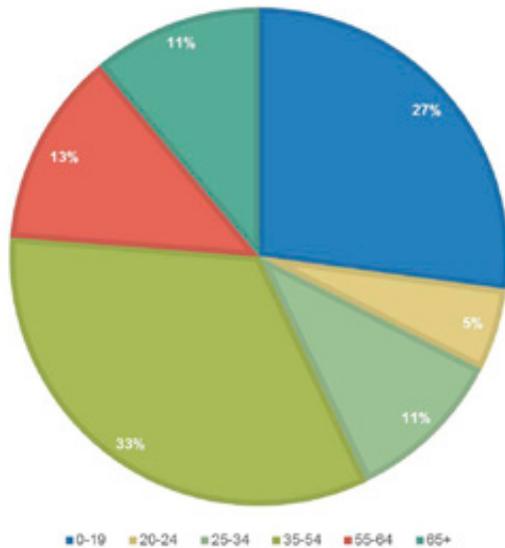
The Town outside of the Village manages population growth through the use of a residential phasing policy, which allows development to occur in accordance with the Town’s ability to provide services and facilities. The first residential phasing policy was adopted in 1986. All new residential projects were phased to ensure that the annual increase in population did not exceed 226 persons per year, a rate of 3 percent of the 1985 population of 7,537. The phasing policy proved effective, with population rising from 7,537 persons in 1985 to 10,035 persons in 2000. The overall increase of 2.2 percent, or 167 persons per year, was well below the growth ceiling of 226 persons per year.

The Town adopted a new residential phasing policy in 2008 to maintain a population growth rate between 184 and 226 persons per year, with a targeted annual rate of 205 persons per year.

Looking beyond sheer volume and digging deeper into population data can reveal more about how Essex is growing. Age distribution, for example, provides insight for economic development and housing purposes.

“Employers are generally more interested in areas with growth in residents in their working years – typically 20 to 55,” the 2010 **Economic Development Vision and Plan** says. “However, growth of non-working residents (children and teenagers, retirees and seniors) may be important to service and retail businesses that cater to specific demographics (such as health care providers).”

A third of Essex’s population is between the ages of 35 and 54, according to estimates from the American Community Survey. Residents 19 and younger made up the second largest segment of the local population, at 27 percent. Overall, however, the population in Essex is aging. The aging trend is consistent with the rest of Vermont, and presents issues for how the labor force will be sustained in the future and how residents will age in place.



SOURCE: American Community Survey, 3-Year Estimates, 2011-2013

Figure 3. Essex population by age group.

Economic Development

Essex has long had a diverse economy, albeit one dominated by the presence of IBM since the late 1950s. The 2014 announcement that IBM would transfer ownership of its Essex plant to the semiconductor manufacturer GLOBALFOUNDRIES Inc. therefore marked a significant change for the local economy.

“It’s excellent news that GLOBALFOUNDRIES intends to keep the plant open,” Village President George Tyler said at a press conference on October 20, 2014. “Nevertheless, it is a seismic shift for our community. We have been an IBM community for half a century. ... Although it is sad to see IBM leave, we look forward to the opportunity being presented to us by GLOBALFOUNDRIES.”

Most IBM employees began working for GLOBALFOUNDRIES with the transfer in ownership in 2015, although GLOBALFOUNDRIES announced plans in September 2015 to reduce staff because of a downturn in the global market for microchips. While Essex remains optimistic that GLOBALFOUNDRIES will become a long-term presence in the community, the Town will continue to support a growing number of other businesses. The commitment to a more diversified economy gained traction in the early 2000s, when employment levels began to fall at IBM’s semiconductor manufacturing plant.

IBM opened its doors with 500 employees in 1957. The company grew to an employment peak of 8,500 in 2001, but gradually reduced its workforce over the next decade.

Employment across all of Essex also peaked in 2001, with 16,100 workers. Employment levels in the town have fluctuated in recent decades, from 10,719 in 1980 to 13,295 in 1990. After the 2001 peak, employment dropped to 13,269 in 2003. By 2013, 728 establishments in Essex employed 11,944 workers, according to the Vermont Department of Labor. In 2014 approximately half of the employees – 6,011 – worked at 12 companies. The federal government and local schools also account for a large number of employees.

Specific Economic Development Policies

2(S).1: Infill development within existing industrial and commercial zoning districts shall be promoted.

2(S).2: The retention and expansion of businesses at existing industrial and commercial sites shall be supported, specifically the Champlain Valley Technology and Innovation Park (CVTIP), the North 60 at CVTIP, Saxon Hill Industrial Park, Gauthier Industrial Park, and others.

2(S).3: Upgrades to the major arteries in and out of Essex shall be encouraged, specifically VT Route 15 and VT Route 117.

2(S).4: State and regional efforts to develop transportation links in and out of Essex shall be supported, including rail service, alternative transit systems, and regional multi-modal transportation options.

2(S).5: The development of affordable housing and high quality day care in Essex shall be supported through regulatory and non-regulatory options.

2(S).6: An entrepreneurial environment in Essex shall be fostered by encouraging co-working spaces, maker spaces, and partnerships with neighboring communities.

2(S).7: Economic development shall occur in balance with environmental standards.

Top Essex employers (2014)		Employees (full-time)
1.	IBM*	4,000
2.	Keurig Green Mountain	800
3.	USCIS – Dept. Homeland Security	700
4.	Essex schools	672
5.	Autumn Harp	199
6.	Revision Military	170
7.	Food Science Corporation	155
8.	Lowe's Home Improvement	140
9.	Reinhart Food Service	110
10.	The Essex Resort & Spa	100
11.	Flex-a-Seal	87
12.	Catamount Color	85
13.	Vermont Systems Inc.	85
14.	Harmony Information Systems	80

**IBM was acquired by GLOBALFOUNDRIES in 2015*

SOURCES: Chittenden County Regional Planning Commission Employment Database, Essex Economic Development Commission, Vermont Business Magazine

In addition to its large employers, Essex has seen an influx of smaller, entrepreneurial ventures. Trends in the growth of establishments and employment speak to the transformation of the local economy. Establishments in Essex grew by an average of 8 percent between 2010 and 2013, from 671 businesses in 2010 to 728 in 2013. The rate was slightly higher than Chittenden County's 6 percent and much faster than the 1 percent across all of Vermont.

Employment increased over the same time period, although by a lower rate of 4 percent. Chittenden County and Vermont saw employment rates increase by 6 percent and 3 percent, respectively.

Though seemingly counterintuitive, the trends make sense when seen in light of the shift in Essex from an economy with a few large employers to one with more businesses that employ fewer people per firm. This



*Corporate Drive in Essex is home to a number of businesses, including light manufacturing, offices, and recreation facilities.
Photo by Greg Duggan.*

latter type of economy is more characteristic of the “new economy” often cited as the next frontier in economic development – an economy that relies more on small entrepreneurial activity than large employers.

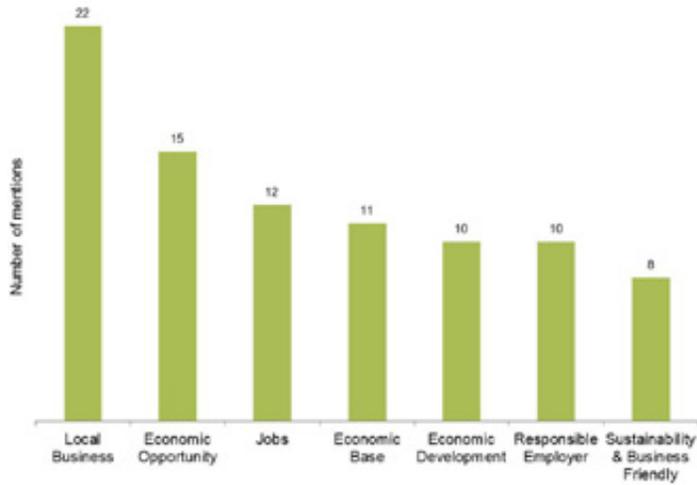
Employers in Essex now include a mix of large manufacturers and smaller firms in a variety of industries. The top manufacturers in Essex in 2014 were involved in everything from electronic equipment to industrial machinery to defense equipment.

Although employment numbers have fluctuated in town, the unemployment rate among Essex residents has remained relatively steady over the past 10 years. Unemployment ranged from a low of 2.8 percent in 2005 to a high of 5.2 percent in 2009. As of 2015, the unemployment rate was 3.1 percent, compared to 3.1 percent in Chittenden County and 4.1 percent in Vermont.

A Plan for a Diverse Economy

With the 2006 *Town Plan*, Essex acknowledged that local employment had long been dominated by a few select industries. In response, the Town sought an economic plan that would envision a more diversified economy and lead to sustainable, balanced economic development and job creation for the entire community.

“The Town boasts an excellent school system, a highly-educated population, a high quality of life, and an economy that includes both large well-known employers and thriving smaller businesses,” the 2010 *Economic Development Vision and Plan* notes. “Although Essex has begun to diversify its employment base, it remains heavily reliant on selected large employers. Given the ... uncertainty regarding the future of such employers, it is critically important to investigate how Essex may further diversify its local economy.”



SOURCE: Heart & Soul of Essex

Figure 4. What **LOCAL ECONOMY** means to Heart & Soul participants.

Heart & Soul Describes Local Economy

Heart & Soul participants described the Local Economy value in the following ways:

- The presence of a variety of small, local, “family” businesses;
- Economic opportunity that is supported by local government as well as a strong, skilled, well-educated workforce;
- Diverse, high quality jobs at a range of businesses, from small, locally-owned companies to large businesses such as IBM;
- Support for creative businesses and incubator space; and
- Employers who are responsible to their employees and engage with the community.

The *Economic Development and Vision Plan* considered input from local businesses, governments, developers, and realtors. A community visioning workshop attracted 75 residents and business people, and an online survey solicited additional input. Concern for economic development remains strong well after the release of the *Economic Development and Vision Plan*, as demonstrated when Heart & Soul named **Local Economy** one of the community’s six core values.

“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,” Heart & Soul noted. “We are committed to fostering an environment that produces a world-class workforce and a strong economy for years to come.”

A healthy business environment does more than just provide jobs. It can reduce the municipal property tax burden for residents. Government financing will be covered in Chapter 4, but suffice it to say that property taxes pay for services provided by the municipal government. Residential properties make up approximately 80 percent of the Town’s real estate value. By welcoming new businesses to town, Essex can diversify its grand list and lessen the proportion of municipal taxes paid by residents. School taxes, which comprise approximately 75 percent of the annual tax bill, are influenced in large part by a statewide education funding system.

The *Economic Development and Vision Plan* used community input and research done by consultants, BBP & Associates, LLC and VHB Pioneer, to identify target industries for Essex. The industries fell into four mega-clusters: specialty manufacturers; high value-added professional services; tourism, cultural heritage, agriculture and leisure; and community-related services. Industries in each mega-cluster were ranked as primary or secondary targets. More information about the industry targets appears in the *Economic Development Vision and Plan*.

Specialty manufacturers include a variety of light manufacturers that span many fields, from niche consumer goods to those for business and for defense. Green enterprise and wood-product manufacturing are included in this category.

High value-added professional services include services that cater to a customer base beyond Essex and Chittenden County, and therefore bring money into the town and region. This category includes many knowledge-based and design-oriented fields.

Tourism, cultural heritage, agriculture and leisure encompass industries that could draw travelers to the community, including agricultural resources, retailers and restaurants, and arts/entertainment/recreational amenities.

Community-related services support the local population and add to the area's overall livability. These industries may not necessarily attract the same money to the region as high value-added professional services, but they provide services that enhance the quality of life in Essex. They also overlap in some cases with tourism and professional service industries, with a distinction that some businesses within an industry serve more local customers and clients – and therefore community-related services – while others serve clients and customers from outside Essex.

Essex has a combination of strengths to attract and retain its targeted industries, although challenges also exist. With a high **quality of life**, Essex is a desirable place to live, particularly for families. The Town boasts an excellent school system, including a county-wide vocational/technical center. Recreational opportunities abound. The community is socio-economically diverse and civic-minded.

Human capital also stands out as a top asset. Essex residents are generally more educated than other residents in Chittenden County, Vermont and the nation. More than half of Essex residents hold a bachelor's degree or higher, based on estimates from the American Community Survey.

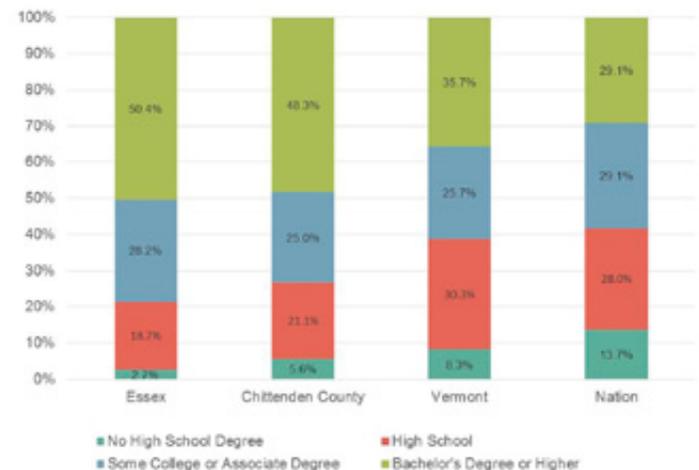
The Town also hosts employers with wide **name recognition**. The presence of companies such as IBM, GLOBALFOUNDRIES, and Keurig Green Mountain, Inc. reinforces the perception that Essex can be home to other major employers. It also hints at the tremendous human capital available in Essex in terms of educated and innovative residents. Essex also features thriving smaller businesses, particularly in the growth areas along VT Route 15 and Susie Wilson Road.

Compared to surrounding communities, Essex has a significant **capacity of sewer and water systems and available commercial space**. These advantages will become more apparent as other communities approach build-out limits.

In terms of economic challenges, Essex's **transportation network** puts the Town at a disadvantage to neighboring communities that have quicker and easier access to major highways such as Interstate 89. The Circumferential Highway, which was partially constructed but never completed, would have improved access to Interstate 89 from Essex. Gov. Peter Shumlin announced in 2011 that the Circ would never be finished as originally conceived. In response, Essex, Essex Junction, Colchester and Williston have worked with the Chittenden County Regional Planning Commission and the Vermont Agency of Transportation to develop **Circ Alternatives**, a series of transportation upgrades intended to improve transportation networks in the three towns.

Like other Chittenden County towns, Essex has an over-reliance on **property taxes** and experiences relatively high state business taxes and power costs. Unlike some nearby towns, however, Essex did not levy a local option tax as of 2015.

An **aging population** has many residents approaching retirement age. The replacement of workers to sustain the local labor force could be cause for concern for prospective employers.



SOURCE: American Community Survey, 3-year estimates, 2011-2013

Figure 5. Educational attainment - Population 25 and Older.

Working for Economic Development

The 2010 *Economic Development and Vision Plan* noted that the Essex community – including key stakeholders in government, the private sector, and nonprofits – will ultimately be responsible for facilitating economic development. Essex has several entities working on economic development issues affecting the community, including the following:

- **Essex** and **Essex Junction** municipal staffs and legislative bodies
- **Essex Business Liaison Group**
- **Essex Economic Development Commission**
- **Essex Energy Committee**
- **Champlain Valley Exposition Board of Directors**
- **Community Capital of Vermont's Partnership Fund**
- **Greater Burlington Industrial Corporation**
- **Lake Champlain Regional Chamber of Commerce**
- **Tree Farm Management Group**
- **Vermont Convention Bureau**

Lastly, Essex has historically had **limited economic development organization and resources**. The Town's **Economic Development Commission** has taken a more active role in recent years, and in 2015 the Town formed a **Business Liaison Group** to identify and respond to emerging opportunities for business start-ups, growth, and improvement. Despite those steps, the state lacks financial resources and incentive programs, and Chittenden County has not been unified in local efforts for economic development.

Essex should also continue to strive to make **permitting and zoning** as efficient as possible.

Attracting the Target Industries

By recognizing the inherent strengths and weaknesses of the community, Essex can take steps to encourage economic development. The *Economic Development Vision and Plan* laid out a set of high-priority strategies meant to support the development, growth, and retention of the target industries. The strategies were grouped into four categories: Business Retention, Expansion and Attraction; Land Use and Regulations; Sites and Buildings for Economic Development; and Transportation Investments. Specific details about success measures and benchmarks, milestones and deadlines, costs of implementation, potential funding sources, and implementing entities can be found in the *Economic Development Vision and Plan*.

The Economic Development Commission has further refined priorities for the Essex economy. The EDC organized economic development priorities under four goals: increase and diversify the tax base, improve and invest in infrastructure, foster enterprises that create jobs, and expand communications and outreach.

- **Increase and diversify the tax base**

- o **Industrial and commercial zoning:** Promoting and supporting development within existing industrial and commercial zoning areas will reduce the percentage of municipal taxes paid by residential taxpayers and provide adequate income to maintain the current level of municipal services.

- o **Commercial and industrial facilities:** The Town should establish and maintain policies and resources to support the retention, expansion and attraction of businesses using or seeking to use land designated for commercial and industrial uses. A focus should be given to the Champlain Valley Technology & Park (CVTIP), the North 60 at CVTIP, Saxon Hill Industrial Park, Gauthier Industrial Park, and others.

- o **Infill development:** Establishing flexible policies and administrative processes to encourage infill commercial development within designated commercial and industrial areas will diversify or add to the Town's tax base.

- **Improve and invest in infrastructure**

- o **Improvements to major roadways:** Supporting upgrades to VT Route 15, VT Route 117 and other major arteries will ensure that routes into and out of Essex are adequate to attract and retain new businesses and residents. Particular attention should be focused on major upgrades to VT Route 117 between Essex Junction and Interstate 89 in Richmond.

- o **Other transportation issues:** Participating in state and regional efforts to develop transportation links into and out of Essex, including upgrades to rail service, alternative transit systems, and regional multi-modal transportation options, will improve transportation options for residents, business, and industry. Essex should also support efforts to establish international connections to Quebec and Montreal.

- o **Other infrastructure issues:** A better public understanding of infrastructure needs, including water, waste water, broadband, and permitting, will improve support for projects approved by the Planning Commission and the Community Development Department.

- **Foster enterprises that create jobs**

- o **Entrepreneurship in Essex:** The Town should establish and maintain resources and programs to encourage entrepreneurs to live and work in Essex.

- o **Public and private sector employers:** To operate in a healthy local business environment, public and private sector employers need to recruit and retain talented workforces. The Town can help in that effort by working with other Vermont agencies, such as the [Vermont Agency of Commerce & Community Development](#),

[Vermont Department of Labor](#), the Vermont Congressional Delegation, and the [Center for Technology – Essex](#).

- **Expand communications and outreach**

- o **Develop and market the Essex brand:** Essex is a desirable place to live and work, particularly with regard to opportunities for growth for business and light industry. Refining and promoting the Essex “brand” will attract new residents and businesses.

- o **Business Development:** The local government should establish, maintain, and review resources for business development in Essex, including outreach efforts to current and prospective employers. Boosting public knowledge and awareness of the business community’s value to Essex and the tax base will build support for economic development and should support the expansion and/or retention of local businesses.

Knowing Where to Grow

Essex is primed to accommodate an increase in industrial and commercial properties, with millions of square feet of potential space approved and some of the last remaining undeveloped industrial land in Chittenden County. The Chittenden County Regional Planning Commission has recognized the importance of the undeveloped industrial land, saying in its *ECOS Plan*, “‘shovel-ready’ sites with good access, full utilities and proper zoning will be necessary if the County is to be competitive in attracting larger projects or retaining local businesses seeking to expand.”

More than 1.5 million square feet of commercial and industrial space in Essex had received master

“‘Shovel-ready’ sites with good access, full utilities and proper zoning will be necessary if the County is to be competitive in attracting larger projects or retaining local businesses seeking to expand.”

~Chittenden County Regional Planning Commission

plan approval or permits by 2015, including the following sites:

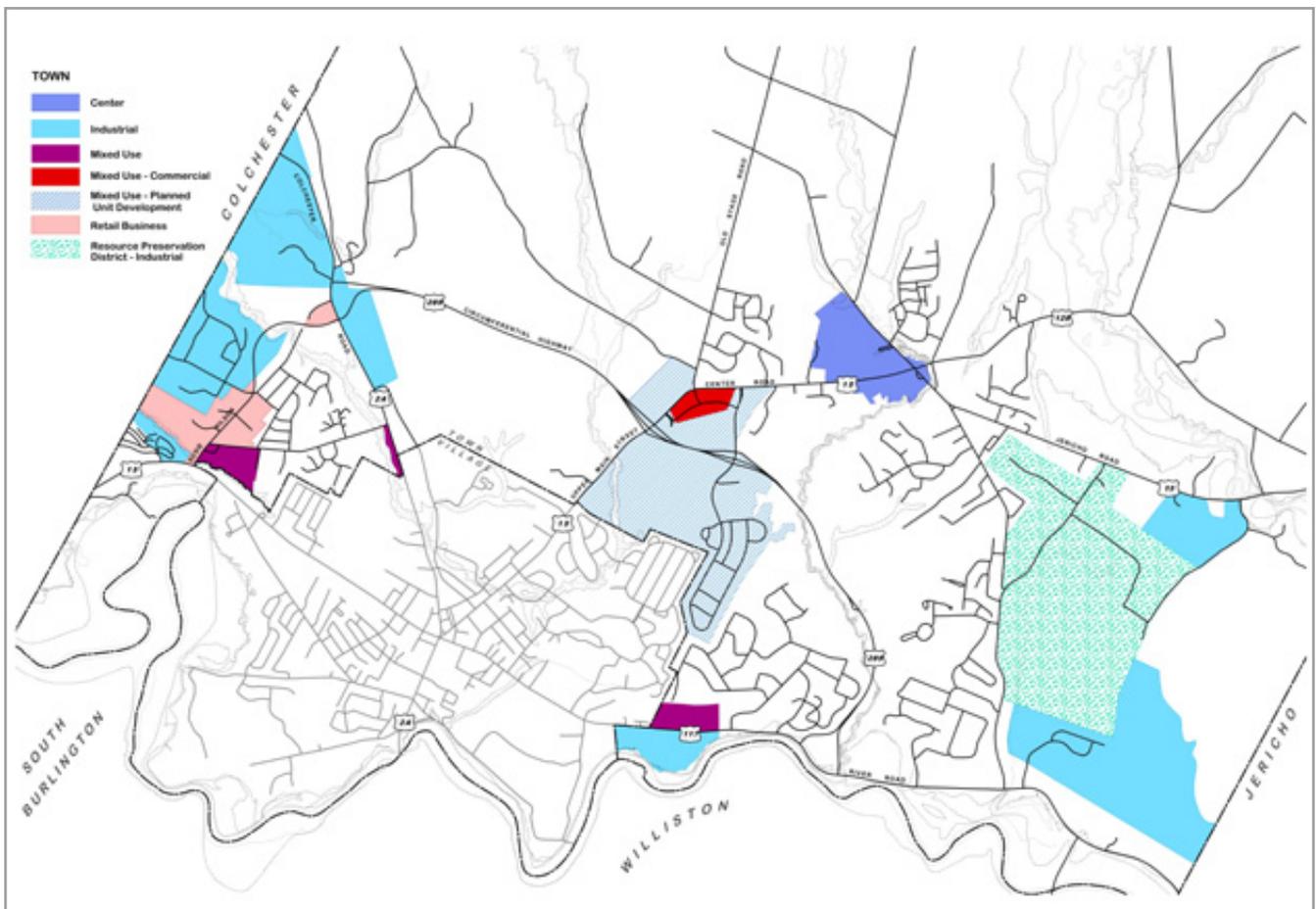
- **The North 60**, part of the Champlain Valley Innovation & Technology Park at the IBM site off Maple Street in Essex Junction, has 300,000 square feet available.
- **30 & 42 Allen Martin Drive** is being developed by REM Development Co., LLC. The site is approved for three buildings and a total of 420,000 square feet, including a 180,000-square-foot building that was constructed in 2014.
- **Saxon Hill Industrial Park** has more than 750,000 square feet.

Beyond the permitted industrial space, Essex has hundreds of acres of undeveloped industrial land. Much of the land is located in the Saxon Hill area

between VT Route 15 and VT Route 117, and on the west side of town near the Susie Wilson corridor and along VT Route 2A.

The bulk of the town's economic activity occurs in zoning districts designated for business, mixed use, and industrial development.

Not all economic activity, however, is restricted to commercial and industrial enterprises. The more rural parts of Essex can and do support farming and forestry operations. Vermont is also seeing a rise in the recreation economy, a trend on which Essex can capitalize. The Winooski River provides fishing and paddling opportunities. Trails at Indian Brook Park, Matthieu Town Forest, and Saxon Hill support hiking, mountain biking, cross country skiing, and horseback riding. VAST trails traverse the Town and allow for winter recreation opportunities.



Map 2: Commercial and Industrial Zoning Districts.



VT Route 289, better known as the Circumferential Highway, serves regional as well as local traffic. Photo by Greg Duggan.

Transportation

The efficient and safe movement of people, goods, and services is essential for maintaining the vitality of the community and ensuring continued community and regional economic prosperity. Essex has historically been a hub of transportation, as a Native American trail, a post road, a terminal freight point, and a ferry crossing along the Winooski River. Presently, the town has five state highways, rail lines, bus service, and access to Interstate 89. One of the state highways, VT Route 15, is designated as federally significant because it provides a critical transportation route linking New York to Eastern Canada and Maine.

The five state highways – VT Routes 2A, 15, 117, 128, and 289 – serve regional traffic that crosses through the community. Commuters create a significant amount

Specific Transportation Policies

- **2(S).8:** Multiple modes of transportation that connect residents to schools, work places, shopping centers and recreational areas shall be supported.
- **2(S).9:** New road construction shall comply with the Lake Champlain Total Maximum Daily Load (TMDL) Plan.
- **2(S).10:** Existing transportation systems shall be appropriately maintained and managed.
- **2(S).11:** Combined use of the Chittenden County Transportation Authority (CCTA) network, the Senior Van, school buses, and other transit services shall be supported as part of an accessible and integrated transportation system.
- **2(S).12:** New parcels shall be permitted only on existing public roads or on new roads that are compatible with the Town's land use objectives for the rural areas.

of traffic as they travel through Essex to Burlington, Colchester, South Burlington, Williston, and Winooski. Essex's services and places of employment also make the town a destination for people living in more rural communities such as Cambridge, Jericho, Underhill, and Westford.

Regional Transportation Facilities

Essex residents can easily access regional transportation options, including planes, trains, ferries, and buses. As of 2015, the following entities offered regional transportation:

- **Burlington International Airport** is 5 miles from Essex. The airport is a U.S. Customs Port of Entry for airplanes entering the country from abroad and is also an approved foreign trade zone.
- A train station is located in the Village of Essex Junction. Daily freight and passenger service is provided by **New England Central Railroad, Vermont Railway, and Amtrak**. Amtrak's "Vermont," which has service from St. Albans to New York City, stops twice a day in Essex Junction.
- Four ports on nearby Lake Champlain offer **ferry services** that carry autos and passengers between Vermont and New York.
- **Greyhound, Megabus, and Vermont Translines** operate bus lines that connect Burlington to Massachusetts, New Hampshire, New York, and Canada.

Primary Challenges Related to Transportation

As Essex seeks to improve transportation options available to residents, it can expect to face the following challenges:

- Adequately funding the maintenance of existing roads, paths and trails;
- Reducing roadway and intersection congestion caused, to a significant degree, by the conflict between local access to and from public roadways and commercial driveways, and the impact of regional through traffic;
- Increasing the availability of alternative transportation modes such as paths, sidewalks, trails, and public transportation;
- Providing transportation system improvements that favor and strengthen the community and regional economic opportunities for Vermont employers and employees;
- Developing fair road and pathway impact fees for new development;
- Providing easily accessible transportation information in real time to drivers on the major congested corridors as to the availability of alternative transportation modes.

For the foreseeable future, Essex's public roads will continue to be the primary infrastructure element serving the widest variety of transportation modes – cars, trucks, bicycles, and public transit. Yet the Town can expect to see increased use of and desire for paths, sidewalks, and trails as the population of the community ages, as

more development is concentrated in areas designated for growth, and as new generations use alternative forms of transportation.

Existing Conditions

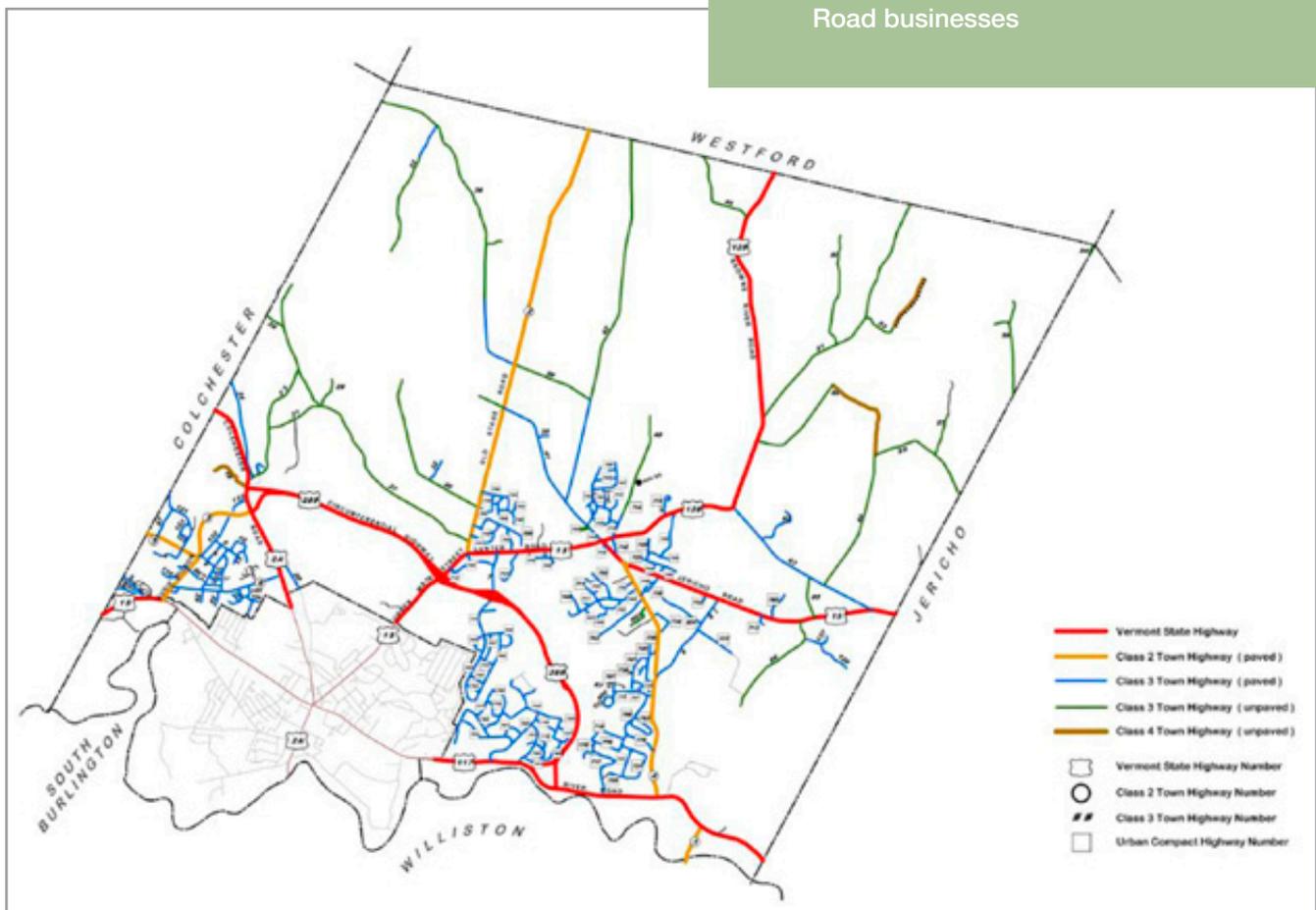
Traffic in Essex has increased incrementally. To help schedule road improvements, the Town implemented a revised *Highway Transportation Management Plan* in 2014. The plan includes a description of the function of each road in town, an inventory of road conditions, intersection issues, and recommended improvements. Improvements are made when funding allows, although it can be difficult to allocate costs because no single development or source has a major impact on the overall transportation system.

The Town and Village began to jointly plan for alternative transportation options in 2014 by adopting the *Bicycle and Pedestrian Plan for the Town of Essex and*

Major Traffic Generators

Essex has several locations that generate large amounts of traffic:

- IBM/GLOBALFOUNDRIES
- Saxon Hill Industrial Park
- Town Center and Eurowest developments/ Outlets
- Essex Community Educational Center
- Essex Town School District schools
- Village Central Business District
- Keurig Green Mountain, Inc. and other businesses and industries in the Susie Wilson Road area
- Essex Square Shopping Center and Center Road businesses



Map 3: Transportation by Classification.

Village of Essex Junction. The plan identifies existing bicycle paths and sidewalks, highlights locations for future bicycle and pedestrian infrastructure, and provides options for encouraging walkers and bicyclists.

When deciding how to improve roads, the Town can better allocate scarce resources and provide improved road transportation services by developing and using a functional road classification system. Each road in Essex has a dual designation – a functional class for planning and design purposes, and a state aid class for funding. The *Highway Transportation Management Plan* contains detailed descriptions of the functional classifications and roads within those classifications.

Definitions of Road Classes

Arterial: A major street that has a primary function of moving vehicles and a secondary function of accessing land. Arterials are characterized by higher operating speeds of 40 to 45 mph during off-peak hours, and 30 to 35 mph during peak hours.

Collector road: The primary function of a collector road is to distribute traffic between arterials and minor (local) streets. A secondary function is land access, and a tertiary function is to handle inter-neighborhood traffic.

Local street: A minor street that primarily provides access to neighboring properties, and does not support through traffic. Speed limits are usually 25 mph or less.

Conflicts and congestion occur when roads and intersections designed for one function, such as residential traffic, are used for another function, such as commercial truck traffic. Future land use and development decisions should consider the functions of nearby roads to minimize traffic problems. Conflicts within or between functional classes of roads tend to fall under one of five categories:

- 1. An arterial being used to provide direct access to residences via driveways, numerous residential streets, or curb cuts (aka driveways) for business.** This conflict occurs along most of the Town's arterials. The exceptions are Allen Martin Drive and Essex Way, the town's most recently constructed arterials. As an example, residences and businesses along VT Route 15 in Essex Center have driveways every 75 to 100 feet. Residents and businesses have made numerous complaints about street access and the amount of traffic along VT Route 15.
- 2. A collector road or local street being used by through traffic.** This conflict occurs along Brigham Hill Road, Pinecrest Drive, and Weed Road. Vehicles often use Pinecrest Drive, for instance, to avoid congestion at the Five Corners.
- 3. Structurally inadequate roads being used to meet a higher functional requirement (for instance, gravel roads acting as collectors).** Local examples of streets that see more traffic than they can structurally handle include Brigham Hill, Discovery, Indian Brook, Lamore, Lost Nation, Osgood Hill, and Sand Hill roads.
- 4. Existing roads that were not designed to meet functional requirements but have evolved from older routes of travel.** These roads often have sharp curves and poor sight distances. This type of problem occurs on Lamore, Lost Nation, and Old Stage roads.
- 5. Intersections that have become choke points because of inadequate designs to accommodate the movement needs mandated by the functional classes of intersecting roads.** A number of intersections in Essex fail to meet movement needs of vehicles and pedestrians. Earlier transportation management plans have made progress in resolving intersection problems, but many intersections still need fixes to improve local access and more quickly move

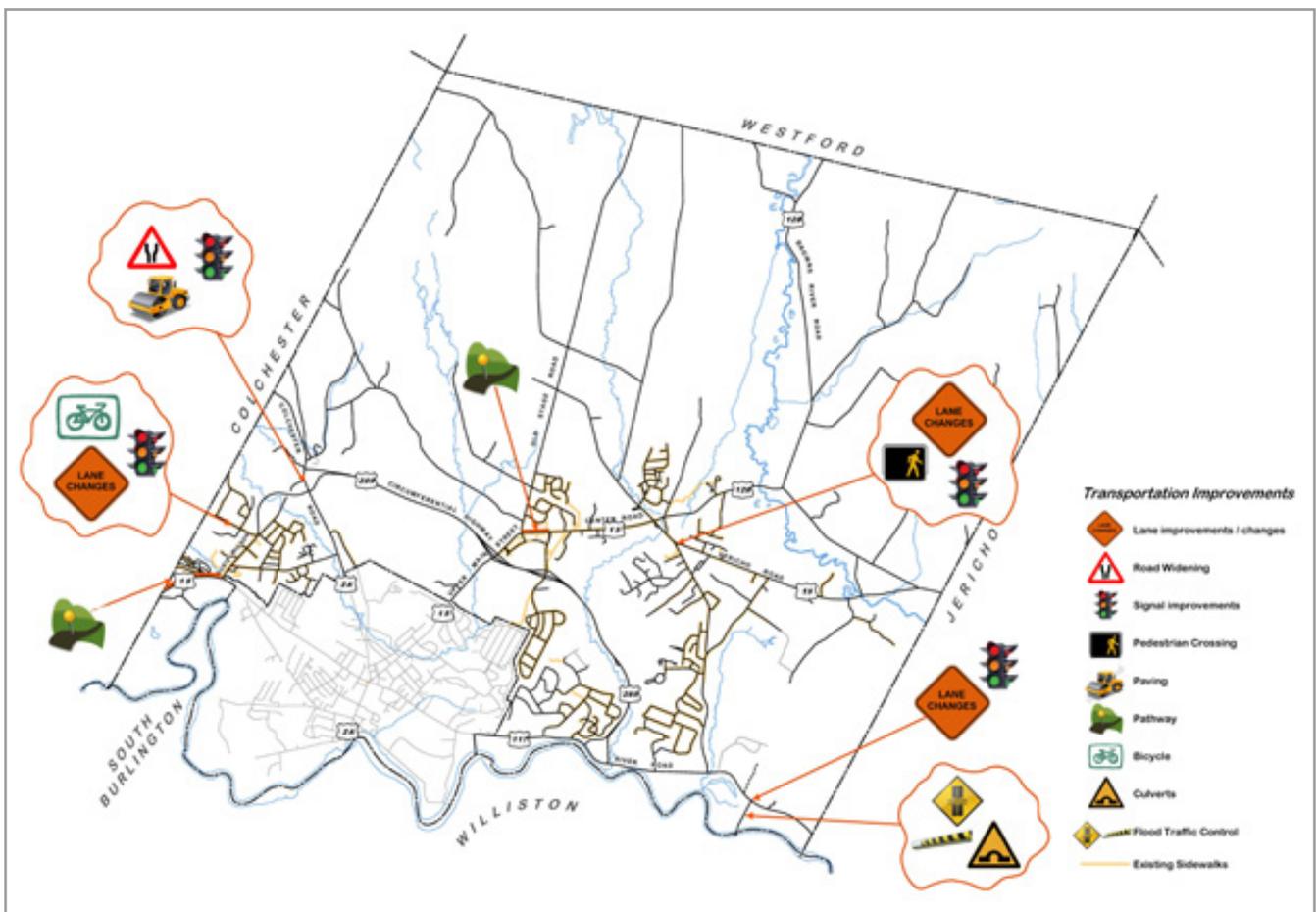
regional traffic through busy corridors during rush hours. Several of the problem intersections are being redesigned, including the following:

- *VT Route 15/Sand Hill Road* - Under design by VTRANS (2019 construction)
- *VT Route 2A/Circumferential Highway* - Under design by VTRANS (2016 construction)
- *VT Route 15/Susie Wilson Road and the Susie Wilson/Kellogg Road corridor* - VTRANS plans to begin design in 2018
- *North Williston Road/VT Route 2A* - VTRANS plans to begin design in 2019

Implementing Solutions to Traffic Problems

Traffic solutions are identified and developed in scoping studies when federal or state grant funding is available. The high cost of important transportation projects almost always prevents the community from paying for improvements without state or federal assistance. The adjoining map shows improvements identified by recent transportation studies. Even though the Town knows how to resolve certain problems, solutions will not be implemented for at least 2 to 8 years. Road network conditions will continue to worsen during that time.

Traffic improvements for Essex fall under several categories: Circumferential Highway Alternative Projects, Town Center roads, Development Connector roads, and Village Connector roads.



Map 4: Transportation Improvements.

The **Circumferential Highway Alternative Projects** came about after the State of Vermont decided not to complete the Circumferential Highway. A regional task force spent two years evaluating and recommending projects to reduce traffic in Colchester, Essex, and Williston. All of the improvements will be paid for entirely with state funds, federal funds, or both. Implementation will occur over two to eight years. The following list summarizes the projects approved for future construction in the Town of Essex outside the Village of Essex Junction (the **2014 Village Comprehensive Plan** identifies the Circ Alternative Projects within the Village of Essex Junction):

- **VT Route 2A/Circumferential Highway/Susie Wilson Road Bypass:** Signal upgrades, road widening and repaving
- **Intersection of VT Route 15 and Sand Hill Road:** Reconfiguration, signal installation, pedestrian crossing, signal integration with other signals within the corridor
- **VT Route 15/Susie Wilson Road/Kellogg Road:** Corridor and intersection improvements to include improved bicycle access, added lanes, improved signals
- **Intersection of VT Route 117 and North Williston Road:** Lane configuration changes and signalization
- **VT Route 117/North Williston Road hazard mitigation:** Signage, culvert changes, better gate control for flooding, advance warning devices
- **VT Route 15/Susie Wilson Road:** Shared-use path to Winooski, separated from the road
- **VT Route 15/Old Stage Road to Essex Way:** Shared-use path on the north side of VT Route 15

A plan for **Town Center roads** was detailed in the 1991 *Town Center Master Plan*. The proposed street network covered three areas: Butlers Corners and Lang Farm; historic Essex Center; and an area bound on three sides by Old Stage Road, Towers Road and VT Route 15. Eventually, an interconnected network of streets, sidewalks and trails will link the Town Center properties and connect to adjacent streets and walks.

Within neighborhoods and subdivisions, **Development Connector roads** epitomize the concept of transportation alternatives. Multiple accesses to and between subdivisions can improve traffic efficiency in a subdivision layout as well as the major road networks. Connected roads also allow provide better access for emergency vehicles. The **Official Subdivision Regulations** require two access points for subdivisions with 50 or more residences, and the Planning Commission encourages multiple access points for all residential developments. When appropriate, the Planning Commission encourages developers to dedicate rights-of-way for future road connections to adjoining parcels. The town discourages dead-end roads and cul-de-sacs because of high maintenance costs and inefficient traffic movements.

Better road connections between the Village and the Town outside the Village would relieve congestion on major arterials by providing alternative routes. Improvements to **Village Connector roads** would also improve traffic mobility, emergency vehicle response time, and maintenance efficiency. The Town and Village should work to connect their road systems where possible and where it is determined to be in the best interests of both communities. Some potential connections can also serve as Development Connector roads. Linking Countryside in the Village with the Lang Farm developments outside the Village, for instance, would increase ridership on the Chittenden County Transportation Authority's bus route to Essex Center. The route had low ridership numbers in 2015 because of the lack of population along VT Route 15.

Public Transit

The primary public transportation service in Essex is bus transit provided by the **Chittenden County Transportation Authority** (CCTA). The regional transit authority extends coverage to Chittenden, Franklin, Grand Isle, Lamoille, and Washington counties. As a CCTA member community, the Town of Essex has one seat on the CCTA Board of Commissioners.

CCTA Routes & Schedules

The Chittenden County Transportation Authority maintains up-to-date route, schedule and fare information on its website, www.cctaride.org.

CCTA operated four routes in Essex in 2015: the Essex Junction route, the Essex Center route, the Williston-Essex route, and the Jeffersonville Commuter. As of 2015, all of CCTA's 70 buses were wheelchair accessible and equipped with bicycle racks. Essex also receives ADA paratransit service, as a CCTA program operated by the [Special Services Transportation Agency \(SSTA\)](#).

The Town operates the Senior Bus as a second means of public transportation. Funded through the Parks and Recreation Department budget, the Senior Bus provides free transportation to senior citizens. Essex acquired its first Senior Bus in 1984, and a second van went into service in 2005. Total ridership in fiscal year 2014 was 4,926. As a popular and successful service, the Senior Bus should continue to receive support from the Town.

Sidewalks, Trails and Paths

Sidewalks and multi-use paths give residents a safe way to walk to and from shopping centers, jobs, parks, and bus stops. Sidewalks provide safety for children as they play near their homes and as they walk to and from school bus stops and neighborhood parks. Five-foot-wide sidewalks are appropriate for pedestrian use, whereas 8- or 10-foot wide multi-use paths accommodate bicyclists as well as pedestrians.

Essex has two key resources that provide guidance for where the Town should install sidewalks, trails, and paths. The 2014 [Bicycle and Pedestrian Plan for the Town and the Village of Essex Junction](#) contains detailed information on the existing paths, trails, and sidewalks, and identifies where the community needs new pedestrian and bicycle facilities. The Town needs to prioritize which projects in the Bicycle and Pedestrian Plan should be funded and built. Road and sidewalk

Transit-oriented & Pedestrian-oriented Development

Public transportation works best when origins and destinations are focused in linear corridors and in city and town centers rather than being spread out in suburban-style subdivisions and office parks. As municipalities and developers consider new construction of homes and commercial space within CCTA's member communities, communication and cooperation with CCTA and other regional organizations are essential to promote a sustainable economy.

CCTA has identified the VT Route 15 corridor between Burlington and Essex Center as a priority for transit-oriented and pedestrian-oriented development. To make best use of CCTA resources and promote future improvements in service, and thus attract more riders, future development and enhancements of the pedestrian environment should be focused along the VT Route 15 corridor – particularly in the Town Center.

construction can be incredibly expensive – a 1,550-foot-long sidewalk being installed along a portion of Pinecrest Road, for example, is expected to cost nearly \$360,000 – and the Town and Village will need to decide how to best spend limited money on paths.

The Town Plan serves as the second key resource. The adjoining maps show where the Town would like to expand a public network of footpath, horseback, snowmobile, bicycle, and cross country ski trails.

Developers need to install sidewalks in most new developments. To facilitate the construction of paths in appropriate locations, the Planning Commission



Multi-use paths, such as the one near the new Town Center, give residents a safe way to walk and bike to and from shopping centers, jobs, parks, and bus stops. Photo by Sharon Kelley.

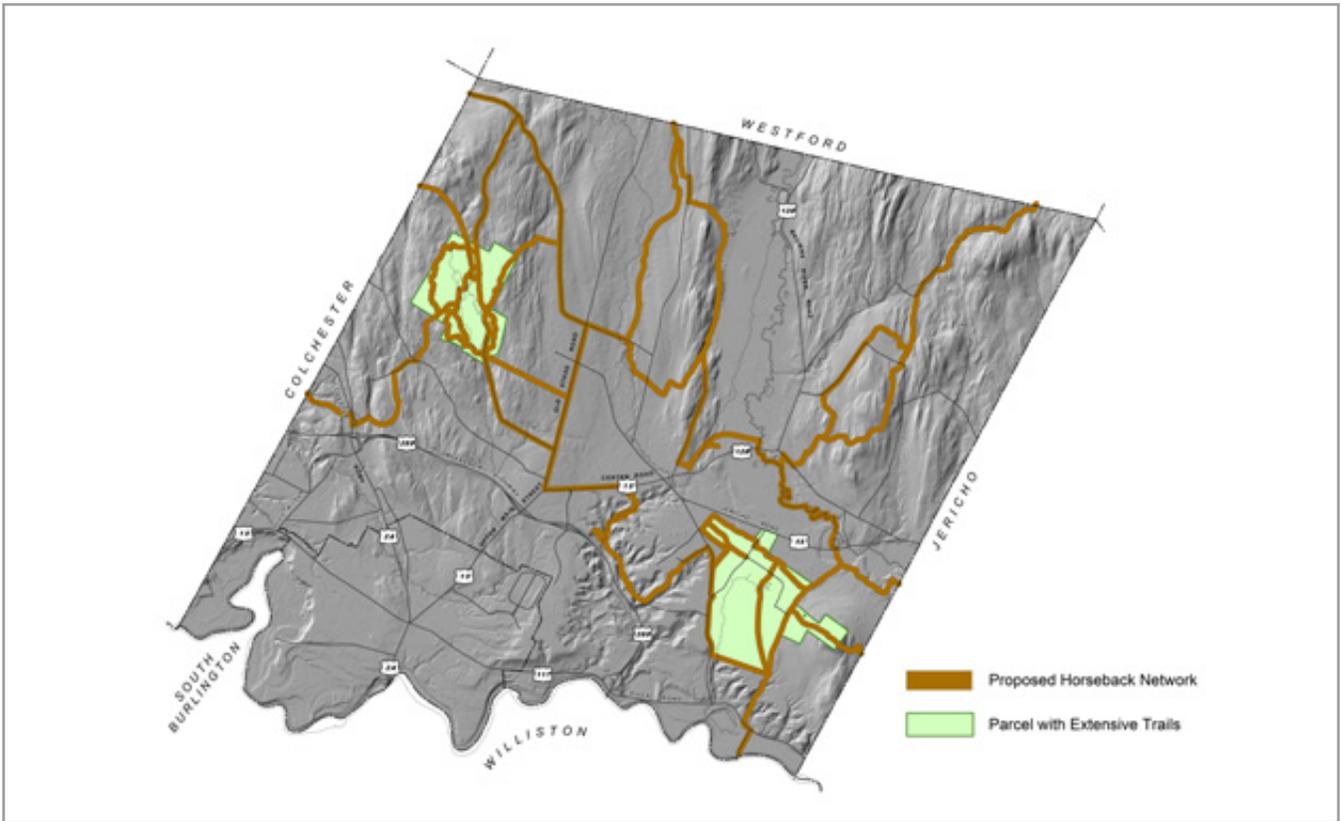
should require that a 20-foot right-of-way along property frontages be deeded to the Town as part of the subdivision and site plan approval process.

If a property contains a proposed trail from the Town Plan, the Planning Commission can and should require landowners to provide trail easements when they develop or subdivide their property. Many of these easements come in the less populated areas of Essex, where the Town envisions future trail development.

Because construction costs for sidewalks and trails can be so high, most projects require state or federal grants.

In such instances, the Town typically uses money from its capital budget to cover a portion of the project cost. Impact fees also need to be developed and implemented to help pay for the expansion of bicycle and pedestrian infrastructure.

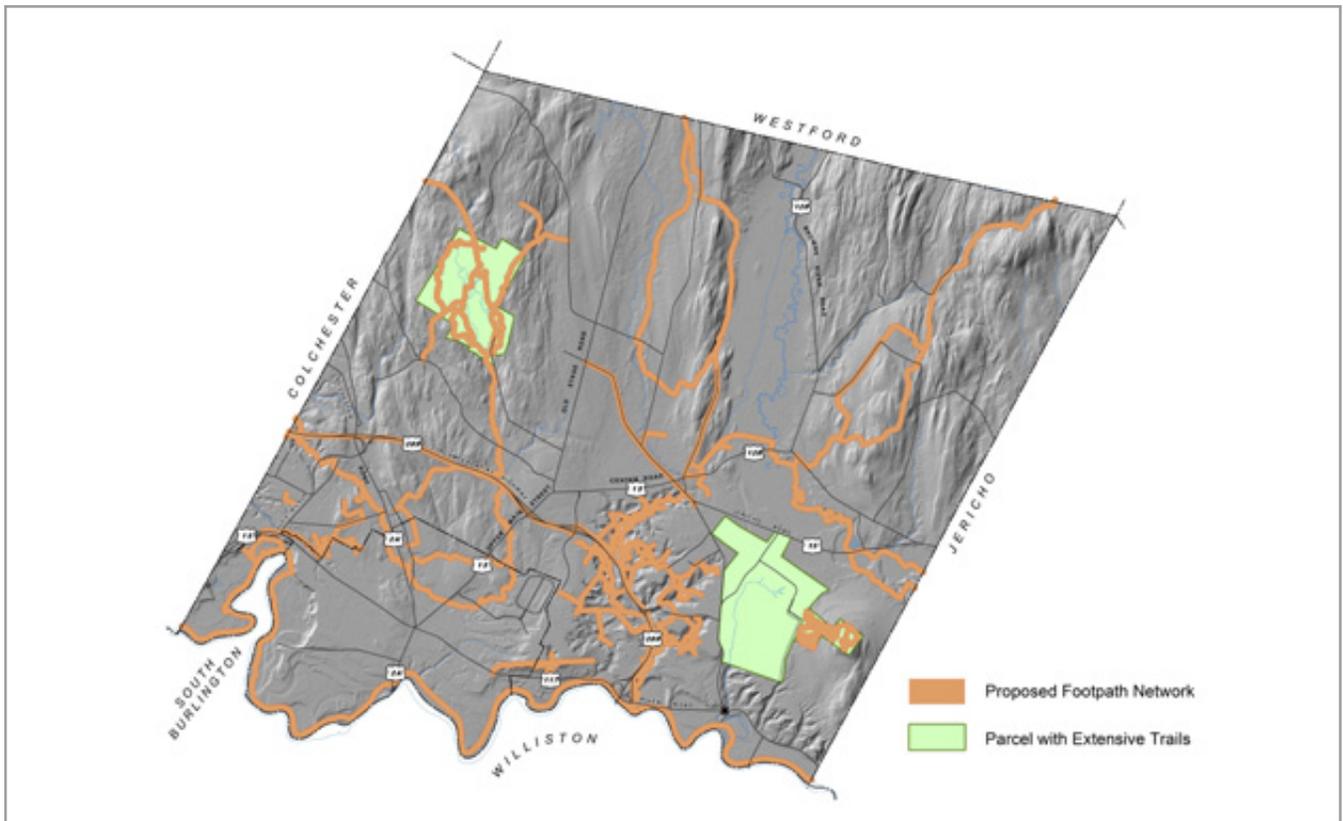
Several path projects received state grants for design and construction in recent years, including a paved, 10-foot-wide path along VT Route 2A between Pinecrest Drive and Old Colchester Road; a 5-foot-wide sidewalk on Pinecrest Drive between Suffolk Lane and VT Route 2A; and a 5-foot-wide sidewalk on Towers Road between Clover Drive and VT Route 15.



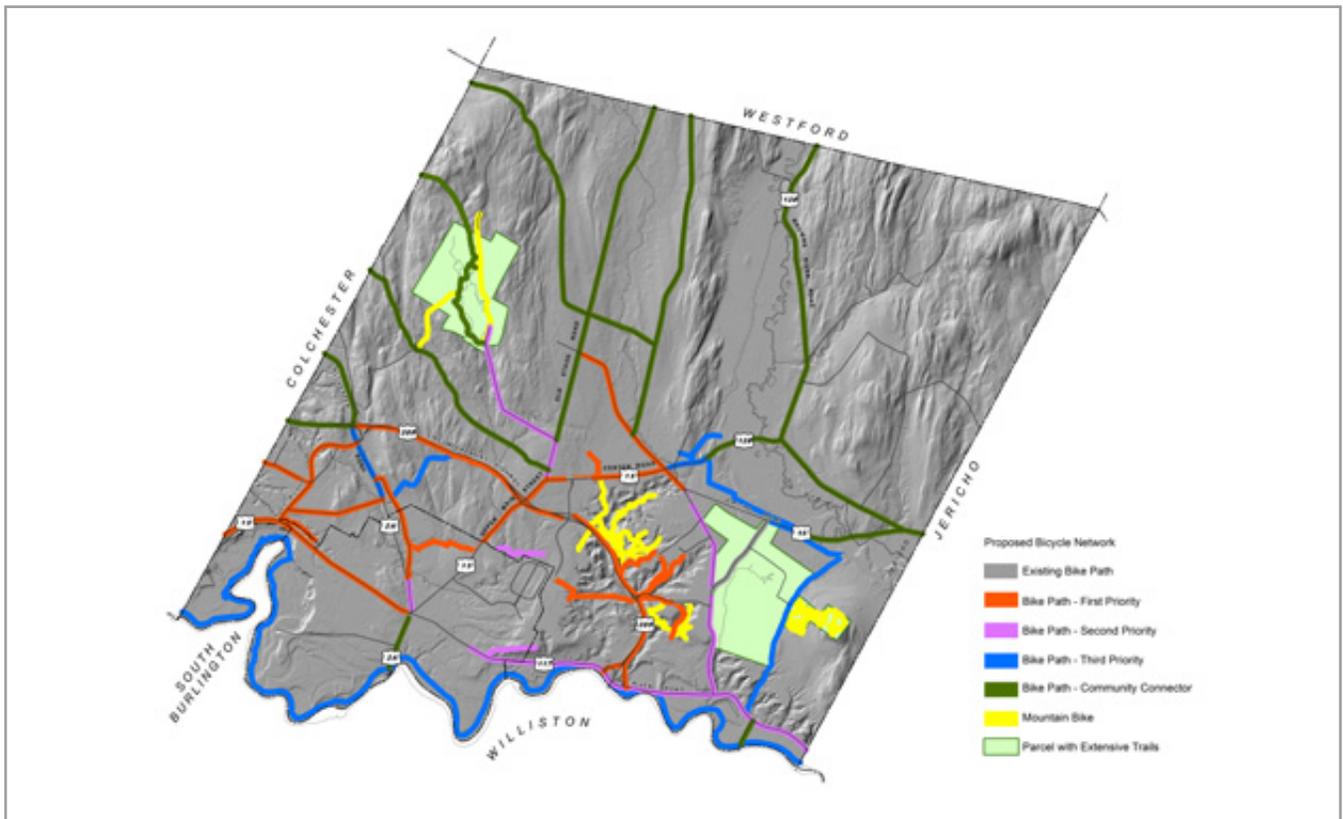
Map 5: Proposed Horseback Network.



Map 6: Proposed Cross Country Ski Network.



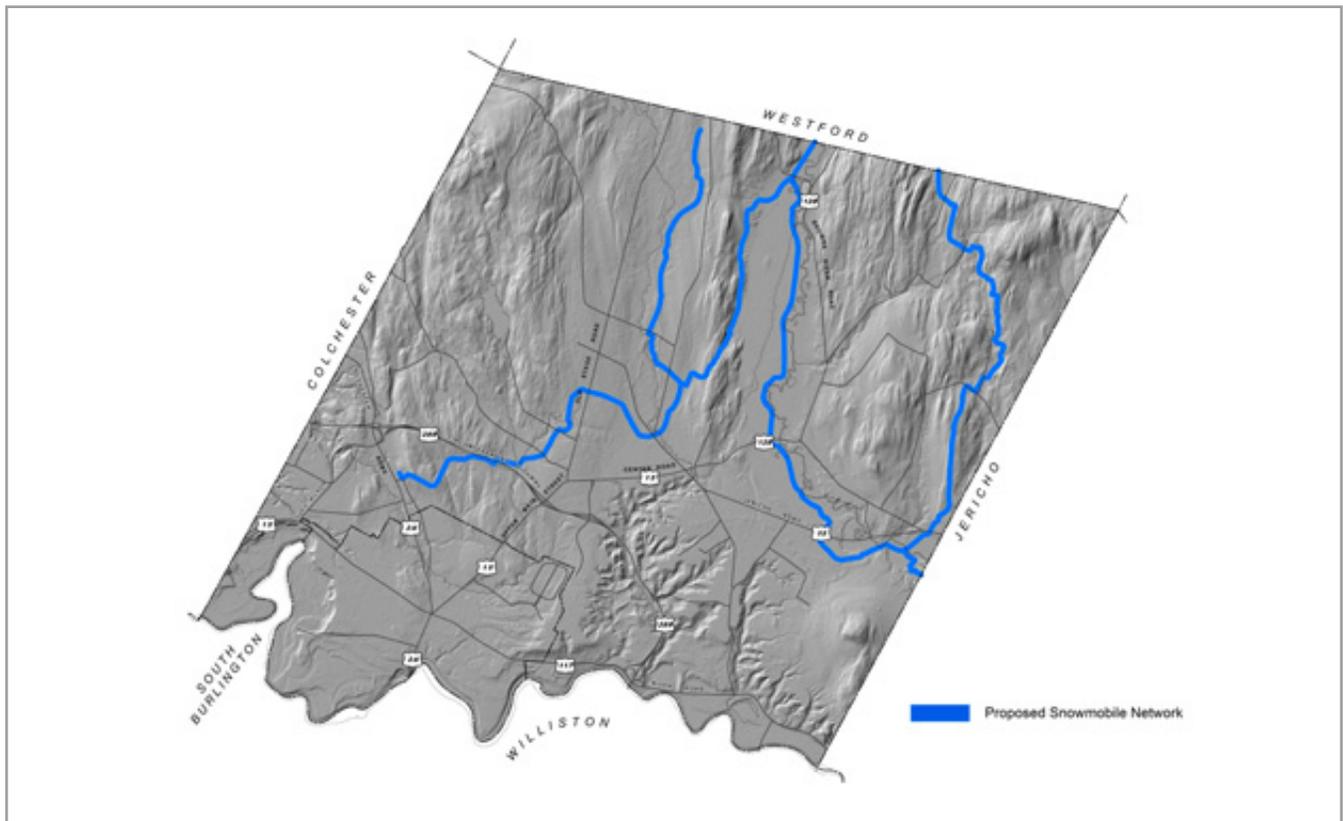
Map 7: Proposed Footpath Network.



Map 8: Proposed Bicycle Network.



Essex skiers take to Bolton Valley for some winter fun. Photo courtesy of Essex Parks and Recreation.

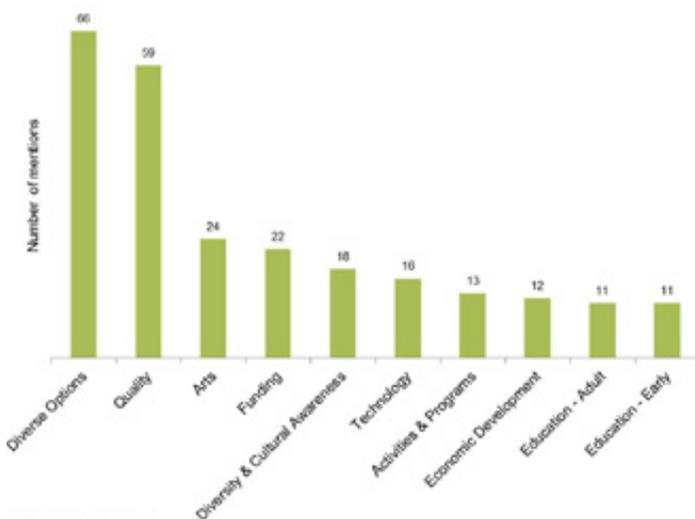


Map 9: Proposed Snowmobile Network.

Education

Essex takes pride in its strong school system and other educational offerings. Heart & Soul identified **Education** as one of the community's top six values.

“Essex invests time, energy, and resources to ensure that our highly respected schools meet the needs of everyone in the community,” Heart & Soul reported. “We are proud to support learning that extends beyond the traditional classroom and includes the arts, athletics, and vocational institutions. 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.”



SOURCE: Heart & Soul of Essex

Figure 6. What **EDUCATION** means to Heart & Soul participants.

Essex is fortunate to be located within easy commuting distance to numerous colleges, including **Burlington College, Champlain College, Community College of Vermont, St. Michael's College, the University of Vermont, and Vermont Technical College**. Area high schools and other private entities also offer numerous and varied opportunities for adult education.

The school system in Essex was poised to undergo a major reorganization following a November 2015 vote by residents of the Town of Essex, Village of Essex Junction, and Westford to combine school districts. The

Heart & Soul Describes Education

Heart & Soul participants described the Education value in the following ways:

- Diverse educational experiences for people of all ages that recognize different learning styles and includes academics, arts, culture, sports, life skills, language, and more;
- High quality public education, which features high standards and recognition and support of excellent educators;
- Community supported budgets that provide robust funding for schools, teachers and materials, and maintain property values;
- Curricula that increase awareness and knowledge of other cultures and foreign languages;
- Access to current information, media and resources: libraries, internet, technology, e-books; and
- Cooperation with the business community to foster internships and business skills development.

vote in support of a Regional Education District echoed the recommendation of the **Essex-Westford Regional Education District Study** (the RED Report), released in August 2015 by a group of 20 residents representing the Town, the Village, and Westford.

Essex Town School District

Essex Town School District (ETSD) serves students in kindergarten through eighth grade in the Town of Essex outside the Village. ETSD also provides an Early Essential Education preschool program. An elected **school board** composed of five members establishes policies to govern ETSD operations, prepares the annual budget, represents community interests, and maintains quality educational services. The ETSD budget is voted on annually by Australian ballot on the second Tuesday of April.

ETSD had nearly 240 full-time employees in 2014, 133 of which were certified regular and specialized teachers. Many staff members have published in nationally-distributed periodicals, been sought as consultants by other schools, and been called upon to give presentations at state, regional and national conventions. Many staff members also serve on state and national commissions.

ETSD has three school buildings: **Essex Elementary School** (grades K-2), **Founders Memorial School** (grades 3-5), and **Essex Middle School** (grades 6-8).

Essex Community Education Center

Most Essex high school students attend the Essex Community Education Center (Union District #46). The Community Education Center, which contains **Essex High School** and the **Center for Technology, Essex**, draws students from inside and outside the Village, as well as from nearby towns. In the 2014-15 school year, Essex students living outside the Village comprised approximately 46 percent of the enrollment at the Community Education Center; out-of-town tuition students made up slightly more than 15 percent of the enrollment. Tuition students provide greater opportunities for an expanded curriculum than might otherwise be possible with a smaller student body.

Paying for Education

School funding comes primarily through property taxes, although tuition students are generally considered to have a positive impact on school funding. A separate grade 9-12 tax rate is calculated for Essex Town and

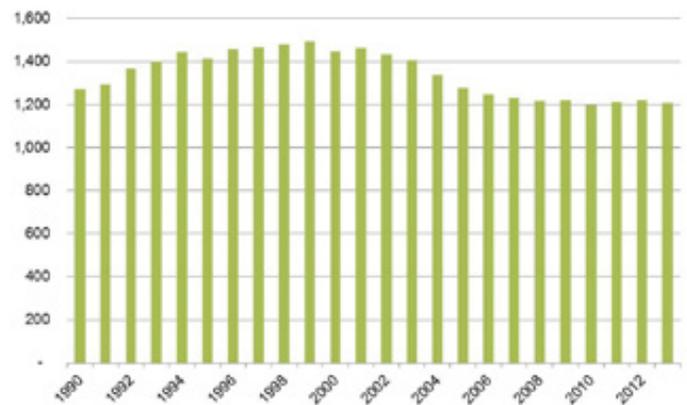
added to the Essex Town pre-K-8 tax rate. Vermont has a statewide education funding system, Act 60, which impacts local tax rates for schools.

In the 2014-2015 school year, education spending per equalized pupil was \$15,365 for all K-12 students in the Town; the state average was \$14,029.

Planning for Education

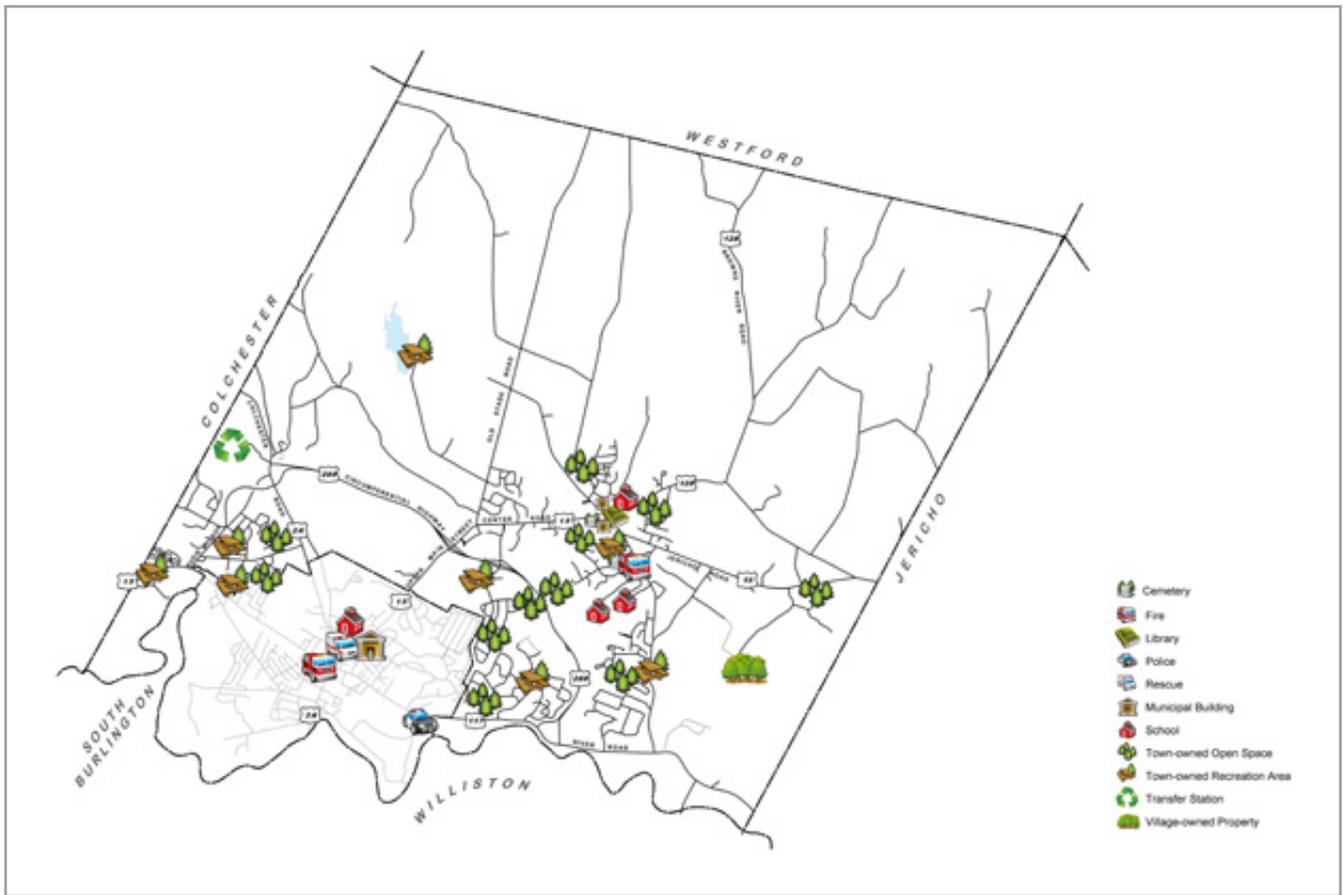
Planning decisions on the location, type, and amount of future growth can have significant implications for educational services. Because education represents a large portion of local expenditures – school taxes tend to account for 76 percent of property tax bills each year – the Community Development Department and Planning Commission shall continue to coordinate planning decisions with the school districts to avoid adverse fiscal impacts on the Town.

Across all grades, 1,870 Essex Town students were attending Essex schools as of October 2013. School populations should remain relatively stable during the second half of the 2010s, due to two competing factors: declining numbers of women of child-bearing age will lower fertility rates and the resulting number of children born in Essex; in contrast, in-migration will continue to cause the number of children entering school in kindergarten and beyond to be greater than the number of Essex births.

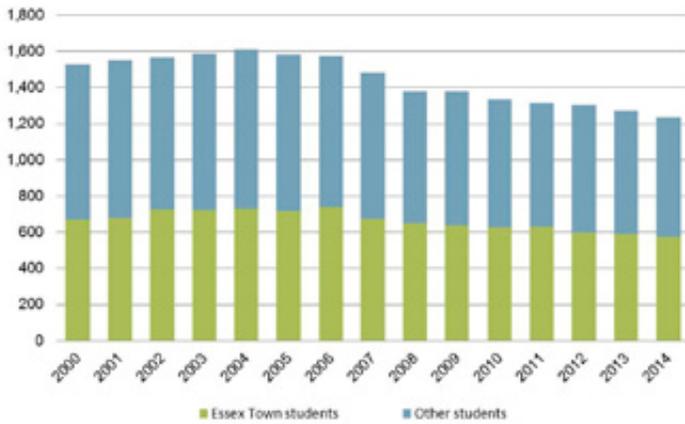


SOURCE: Agency of Education

Figure 7. Essex Town School District Enrollment.



Map 10: Community Facilities.



SOURCE: Chittenden Central Supervisory Union

Figure 8. Essex High School Enrollment.

The Town and the school districts should continue their cooperative relationship of monitoring and mitigating the impacts of growth on the school system. Ongoing efforts include the following:

- The adoption of a residential phasing policy to control the rate of growth in accordance with what the schools can accommodate.
- Cooperation in the annual updates of an enrollment and population growth projection model.
- The reconsideration of school impact fees to assist in the renovation of aging school facilities or construction of new school facilities. Such fees were phased out in 2010 because of the decline in school enrollment.

Other planning considerations pertaining to schools include transportation, availability and location of recreational activities, and future school sites.

Educational Facilities

A school's capacity is determined by a number of interrelated and frequently changing variables, including federal and state program mandates, teachers' union contract provisions and the School Board's own philosophy about issues such as student/teacher ratios. Based on enrollment projections as of October 2013, the Essex Town School District does not anticipate the need for additional classroom space. The need to provide more specialized and therapeutic teaching has required that all available program and classroom space in each building be used extensively throughout the school day.

Essex Elementary School – Located on Bixby Hill Road, this 58,300-square-foot building has 30 classrooms, a gym, a cafeteria and kitchen, a learning center, and two large common rooms that can be used for larger assemblies. The facility housed 488 students (pre-K – second grade) and 78 full-time staff as of October 2013. Essex Elementary School sits on 13 acres. The original building, known as the Essex Classical Institute, was torn down in 1971 because it was structurally unsound. The Institute still owns a 10-acre site on the south side of Browns River Road but allows the Town School District to use the property.

Founders Memorial School – This 68,200-square-foot building on Founders Road was originally built in 1979, and expanded in 1990. The building has 27 classrooms, a computer lab, a gym, a cafeteria and kitchen, and a learning center. Several energy

efficiency upgrades have been completed since 2009, including the installation of a new roof in 2012. As of October 2013, there were 382 students (grades 3-5) and 71 full-time staff members.

Essex Middle School – This 82,700-square-foot facility was built in 1970 off Founders Road on a 100-acre site shared with the Founders Memorial School. The middle school has 31 classrooms, one computer lab, a gym, a cafeteria and kitchen, a family consumer science lab, an industrial arts lab, and a learning center. In 1999, Essex residents approved additions, upgrades and renovations to the building. Several energy efficiency upgrades have been completed since 2009, including the installation of an 18-kilowatt solar array on the school's roof and a 150-kilowatt solar array behind the building. The middle school had 426 students (grades 6-8) and 76 full time staff as of October 2013.

Essex Community Educational Center – This complex, located on Educational Drive in the Village of Essex Junction, is home to Essex High School and the Center for Technology, Essex. The 89.2-acre site includes a 308,300-square-foot building. The original 245,000-square-foot building was constructed in 1970; an addition in 2000 brought another 24,500 square feet, a lighted track, a football field, tennis courts, an indoor ice skating rink, a gymnasium, a 715-seat auditorium and several meeting rooms. A renovation in 2007 added 28,500 to fit up the first floor of the library and renovate the skating facility to include additional instructional space.

Housing

Existing housing in Essex ranges from large, single-family homes to condos to large apartment buildings. The number of households has approximated the population increase, although since the mid-1900s Essex has seen a gradual decline in the number of people living in those homes. In 1960, an average of 3.65 people lived in a household; in 2010, the average Essex home had 2.48 people.

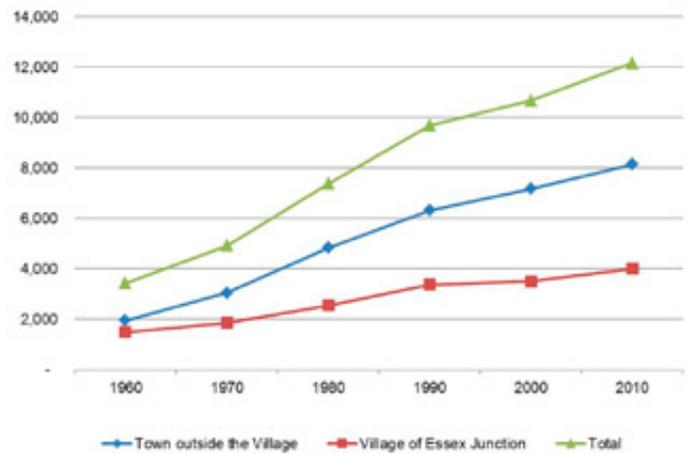
Specific Housing Policies

- **2(S).13:** In adherence to the federal Fair Housing Act, the Town shall not have housing policies or regulations that result in the unfair treatment of protected categories of people.
- **2(S).14:** The provision of new housing in the community shall be balanced with impacts on the environment and on public facilities and services.
- **2(S).15:** New housing shall be directed to areas identified as suitable for growth, specifically the Town Center and the Susie Wilson Road corridor.
- **2(S).16:** The housing stock shall serve residents of all income levels, ages, and special needs.

The trend reflects a shift in the types of housing being built in Essex. In 1967, single-family homes comprised 91 percent of all the dwellings built in town. Recent construction, however, has brought an influx of multifamily housing, including condominiums, townhouses, and congregate facilities. Of the 170

building permits issued from 2009 through 2014 for new homes in the Town outside the Village, 56 percent were for condominiums and townhouses.

The trend toward multi-family housing will likely continue. Through its Official Subdivision Regulations and residential phasing policy, the Town directs 80 percent of its housing growth to land within the sewer core (generally speaking, the areas around the Susie Wilson Road corridor and between VT Route 15 and VT Route 117). With a limited amount of land within the sewer core, the Town can expect to see a greater number of multi-family housing buildings. Taller buildings and greater densities will help achieve a pattern of compact



SOURCE: U.S. Census

Figure 9. Trend in Dwelling Units: 1960-2010.

development within the sewer core. The more rural parts of Essex outside the sewer core can expect to see a greater proportion of single-family homes.

The expected development patterns have played out in recent housing trends. The Planning Commission gave preliminary or final residential phasing approval to 46 subdivisions between 2008 and 2014. Of the 20 projects inside the sewer core, all but five featured multi-family or congregate housing. Outside the sewer core, only one of 26 projects included multi-family dwellings; the rest of the subdivisions were for single-family homes.

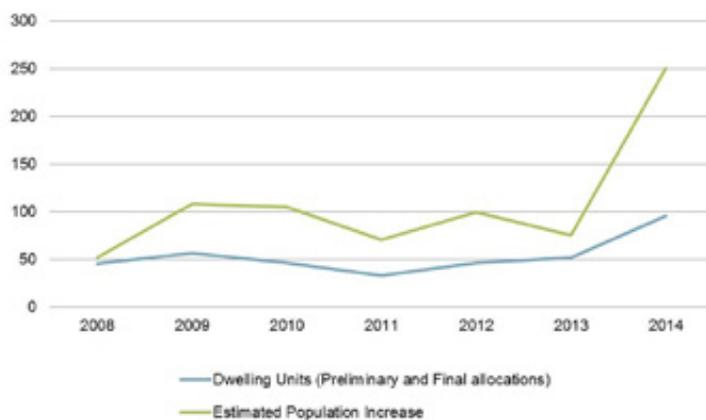


SOURCE: Essex Community Development Department

Figure 10. Residential Phasing Allocation - 1986-2007.

The total number of housing units in Essex increased from 7,170 in 2000 to 8,146 in 2010, according to the U.S. Census Bureau. The average annual growth rate of 1.28 percent lagged behind Chittenden County (1.53 percent) and the rest of the state (2.97 percent). The annual rate of housing increases exceeded annual local, county, and state population increases of 0.5 percent, 0.66 percent, and 0.5 percent, respectively, for the same time period.

Regionally, housing in the Town outside the Village has increased from 8.7 percent of the county stock in 1960 to 12.4 percent in 2010. The ratio has hovered at approximately 12 percent since 1980. Including the Village, Essex had 18.5 percent of the housing stock in Chittenden County in 2010.



SOURCE: Essex Community Development Department

Figure 11. Residential Phasing - 2008-2014.

To ensure that population growth does not strain Town services and schools, Essex has a residential phasing policy that caps the number of homes that can be built each year. The limit is based on population estimates associated with new development – essentially, every new bedroom is expected to result in one new person. Since it was updated in 2008, the phasing policy has had a target of 205 people per year, with a target range of 184 to 226. Prior to 2008, the Town sought to control development by targeting 88 dwellings per year, rather than by population.

Housing affordability

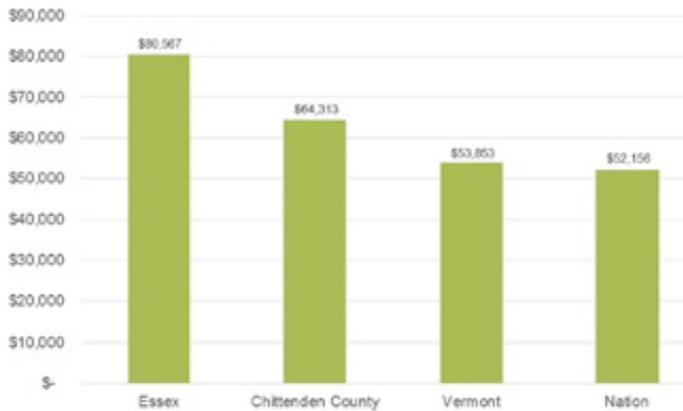
The Town wants to ensure that residents can afford to live in Essex. In recent years, the Planning Commission has heard from residents and nonprofit organizations advocating for better support for housing issues including affordable housing and micro-housing, a catch-all term for tiny houses, micro-apartments, and micro-units.

“Affordable housing developments help to revitalize neighborhoods and strengthen communities, reduce blight, and mitigate environmental hazards,” the [Vermont Housing & Conservation Board](#) wrote in its [2014 Annual Report to the General Assembly](#). “Construction and renovation of affordable housing creates jobs and stimulates the economy. Decent rental or owner occupied housing provides a secure place to raise a family or retire in old age. Transitional housing is a key component of a second chance for people leaving institutions.”

As a general rule, a household should spend no more than 30 percent of its income on housing costs. The median household income in Essex in 2013, as estimated by the American Community Survey, was \$80,567 – more than the median earnings in the county, state, and nation. The average assessed home value in Essex was \$251,000 in 2013. The [Vermont Housing Data’s Home Mortgage Calculator](#) indicates that a household earning the annual median income of \$80,567 can afford a home costing \$247,500, which makes a home valued at the average assessed amount just slightly more than 30 percent of a median income household’s income. The ratio of home value to income in Essex was lower than those of the county, state, and nation, which were 3.98, 3.71, and 3.42, respectively.

While Essex has a higher median income than the rest of the county and state, the town is not immune to poverty. The [American Community Survey](#) estimated that from 2009 to 2013, 5.2 percent of Essex individuals and 3.9 percent of Essex families had 12-month incomes below poverty levels. Comparatively, Chittenden County had poverty rates of 11.2 percent and 6.1 percent for individuals and families, respectively. Vermont had poverty rates of 11.8 percent and 7.6 percent for individuals and families.

Project-based affordable housing, offered through a specific government-subsidized housing program, is based on a variety of standards but is usually related to the Area Median Income (AMI). Depending on the project, eligible households may be limited to those earning just 30 percent of the AMI, 50 percent of the AMI, or up to 80 percent of the AMI. Moderate income housing is affordable to households having between 80 percent and 120 percent of AMI.



SOURCE: 2011-2013 American Community Survey 3-Year Estimates, Table S1901

Figure 12. Household Income in the Past 12 Months (in 2013 inflation-adjusted dollars).

The Town outside the Village had 171 “affordable” rental units across four different housing facilities in 2015, according to the [Vermont Housing Finance Agency](#). The Village had another 114 units in three facilities.

Essex has incentives in its [Official Zoning Regulations](#) to encourage more affordable housing – developers are allowed to build more homes on a property if some of the units are considered “affordable” – but

developers have rarely used the density bonuses. Most of the affordable units built in recent years have been incentivized through federal subsidy programs. The affordable housing incentives in the [Official Zoning Regulations](#) were last updated in 2008. Essex has not closely studied affordable housing since 1990, when an Affordable Housing Task Force released findings and recommendations in the *Report of the Essex/Essex Junction Affordable Housing Task Force, March 1990*. The Task Force is no longer active, and the report has not been updated in 25 years, despite its conclusion:

“Affordable housing does not occur by itself. If it did there would be no need for this report... First it is critical that there be some strong local vehicle in the community with the express purpose of facilitating the construction of new affordable housing. Secondly, new affordable housing will only be created through cooperative efforts on the part of the municipalities and the developers and the builders who create the housing. The second is unlikely to occur without the first.”

The Town should either appoint a new ad-hoc housing task force or commission a study, or do both, to fully assess the housing needs of the community for all ages and income levels, including affordable housing. The study shall compare Essex to similar communities and determine how the town fits in the regional scope of housing. If the housing assessment shows a need for more affordable housing, the task force or study shall provide options to better incentivize or regulate more affordable housing. Before a housing study is complete, the Town should consider zoning changes to increase housing availability. As Essex explores ways to expand affordable housing options, it should consider all types of alternative housing styles.

The Town should also seek out grant opportunities to support affordable housing, and should partner with organizations that specialize in affordable housing, such as [Green Mountain Habitat for Humanity](#), [Cathedral Square](#), and [Champlain Housing Trust](#).

Specific Childcare Policy

2(S).17: The Town shall continue to allow childcare facilities and home daycares in all zoning districts that permit schools, as well as in residential zoning districts.

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, but support for such facilities is also increasingly considered an important economic development strategy.

Essex has 3,830 children who are 14 and younger and could potentially need childcare, according to the 2013 American Community Survey. Including the Village, 6 percent of Essex's 2010 population was younger than 5, 6.6 percent was between the ages of 5 and 9, and 7 percent of the population was between the ages of 10 and 14.

Childcare options in Essex include preschools, summer camps, and care for infants and toddlers. Childcare facilities are regulated by the **Vermont Department for Children and Families** (DCF). Providers must register with the state, whether they operate out of a private home or run a commercial child center.

The **DCF Bright Futures Child Care Information System** reported that six licensed programs (including school programs) and five registered homes outside the Village were providing childcare as of May 2015. The facilities had a total capacity for 364 children. Another 21 licensed programs (including school programs) and 11 registered homes offered child care inside the Village, with a combined capacity for 729 children.

The existing childcare programs seem to have some capacity available, indicating that Essex is adequately served by existing childcare facilities. Programs are

often licensed to serve more students than they report the capacity for, meaning the programs may be able to accommodate a greater capacity in the future.

Most zoning areas in Essex – inside and outside the Village – allow childcare facilities and home daycare facilities. The **Official Zoning Regulations** contain a full list of zoning districts that allow childcare facilities in the Town outside the Village.

Local school districts are dedicated community partners in providing young children with preschool and early care learning experiences, as well as educational after-school care options for young students. **Essex Town School District** partners with the **Greater Burlington YMCA** to provide after-school care through an Extended School Program at Essex Elementary School and Founders Memorial School. Essex Elementary School also hosts a branch of Champlain Valley Head Start, providing preschool education to children from low-income families.

The **Essex Parks and Recreation Department** offers a number of half-day and full-day summer camp options for elementary and middle-school aged students.

The **2014 Village of Essex Junction Comprehensive Plan** contains more specific childcare information for the Village.



Summer camps offered by the Essex Parks and Recreation Department are just some of the childcare options available in town. Photo courtesy of Essex Parks and Recreation.



Specific Energy Policies

2(S).18: Whenever possible, the Town shall encourage construction standards for new buildings that exceed Vermont's Residential Building Standards and Commercial Building Standards.

2(S).19: The Town shall support regulatory and non-regulatory initiatives that result in decreased greenhouse gas emissions, reduced energy consumption, and increased renewable energy generation.

*A solar array on Weed Road produces renewable energy.
Photo by Greg Duggan.*

Energy

Since releasing a [Comprehensive Energy Plan](#) in 2011, Vermont has been working toward a goal of obtaining 90 percent of its energy from renewable resources by 2050. When the [Comprehensive Energy Plan](#) was released, 23 percent of Vermont's energy came from renewables.

Led by its [Energy Committee](#), Essex is striving to match the state's 90 percent goal. The Essex Energy Committee has taken the position that, "For Essex Town to achieve the 90 percent renewables level of success for the overall betterment of our community, we must develop and implement plans, which aggressively change the way in which we view energy from the standpoint of cost, use and conservation."

Energy use in Vermont falls into three categories: transportation, commercial and industrial, and residential. Transportation accounted for 38 percent of energy use in the state in 2012, the year with the most recently available data from the U.S. Energy Information Administration. Commercial and industrial operations accounted for 32 percent of energy use and residential energy use made up the remaining 30 percent.

With the 2014 closure of the Vermont Yankee nuclear power plant, which accounted for 70 percent of the electric power generated within the state, Vermont may grow to depend on energy sources produced in other states.

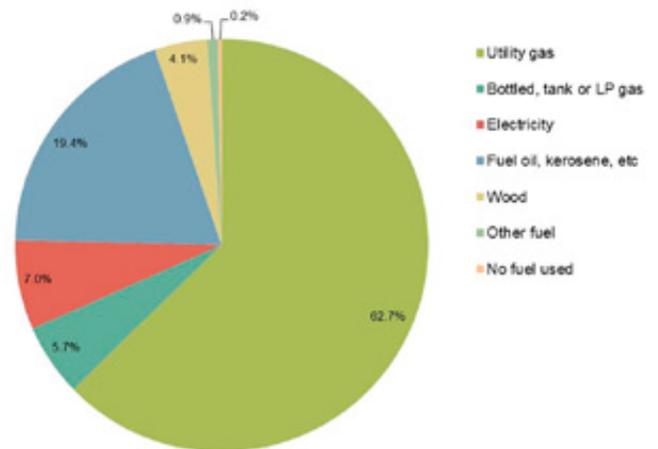
The state's Comprehensive Energy Plan makes many policy recommendations to move toward the goal of 90 percent renewables. The recommendations aim to foster economic security and independence, safeguard environmental legacy, drive in-state innovation and job creation, and increase community involvement and investment. The plan prioritizes improvements in energy conservation and efficiency and the development of sustainable, local sources of energy.

Essex will take a similar approach. The Town has yet to develop its own comprehensive energy plan, but the Energy Committee has identified four areas that have the most influence over energy use: buildings, community, transportation, and government. The Energy Committee has recommended multiple projects in each area. Completing the projects will lead to energy savings and an improved quality of life for all residents of Essex through financial savings and less pollution.

Buildings

The building inventory in Essex includes government buildings, residences, and commercial structures. Town-owned structures range from the new, energy efficient Essex Police Facility to historic, inefficient buildings such as Memorial Hall. With a goal of saving tax dollars by improving energy efficiency of Town-owned structures, the Town should conduct an overall energy assessment and retrofit plan for all municipally-owned properties.

Residential energy costs are often overlooked due to the current low cost of natural gas and the stable cost of electricity. Residential incentives, improvements in zoning regulations, and energy education should be at the forefront of residential energy planning in Essex. Through regulations and incentives, the Town should also encourage commercial property owners to invest in energy conservation measures, rather than letting heating, cooling, and lighting costs fall to tenants. The state has [Residential Building Energy Standards](#) and [Commercial Building Energy Standards](#) that establish a minimum level of energy efficiency in new and renovated buildings. The Town should investigate incentives to encourage builders to exceed the basic energy standards.



SOURCE: US Census Bureau, 2000 Census, B25040 HOUSE HEATING FUEL
 Universe: Occupied housing units more information
 2011-2013 American Community Survey 3-Year Estimates

Figure 13. Heating Fuel Used in Essex Homes.

Community

Essex residents can improve energy use and improve the community by taking steps to reduce dependence on fossil fuels, supporting the Localvore farm-to-table movement, and installing forest management plans for relevant properties. Additionally, Essex should revisit the concept of a community net metering solar array by conducting an engineering study for the former town landfill located near the intersection of VT Route 2A and VT Route 289.



The Circumferential Highway, or VT Route 289, is one of five state highways in Essex. Photo by Karen Furland.

Transportation

As noted in the Transportation section of the Town Plan, Essex has been and continues to be a transportation hub. The town has the only Amtrak station in Chittenden County, an active bus terminal, and five state highways. Promoting compact development, providing more options for walking, biking, and public transit, and encouraging more effective use of automobiles can reduce energy use in the transportation sector. Essex should also explore regulatory changes to facilitate the installation of electric vehicle charging stations as part of development review. [Drive Electric Vermont](#) has information on the use of electric cars.

Government

As the primary source of regulation and enforcement in Essex, as well as a source of guidance for the community, the Town government can champion energy reform and efficiency.

Essex needs to prepare for energy-related issues beyond its control. As the Town and state take steps to improve efficiency, reduce consumption, and incorporate more renewable energy into the mix, large-scale renewable energy sites such as solar farms may wish to locate in Essex. Though the community could take pride in

locally-produced, renewable energy, other Vermont towns can attest to the controversy that can arise when wind turbines are placed atop ridgelines or solar arrays fill previously undeveloped fields.

The **Vermont Public Service Board**, rather than the Town of Essex, issues permits for electric transmission and electric generation facilities. As a result, energy projects can easily bypass local regulations. The Town must work to identify areas where it wants large-scale energy projects to locate, as well as the areas that should be off-limits to such projects. Some siting standards appear in the Aesthetic Resources section of Chapter 3; the Town should work to incorporate more comprehensive siting standards into the next version of the Town Plan, as the Public Service Board and Act 250 will look to comprehensive plans for some guidance.

Flood Resilience

Essex and the rest of Vermont have learned in recent years just how much devastation floods can cause. When Tropical Storm Irene hit in 2011, massive amounts of rain inundated the state's rivers and streams, flooding downtowns and washing out roads and bridges. Fortunately for Essex, the storm had minimal impact in the town. Subsequent storms, however, showed that Essex is not immune to flooding. Rainstorms in May 2013, for instance, washed out parts of VT Route 15 and Weed Road. With several significant rivers and brooks and numerous smaller streams flowing through town, Essex needs to be ready for future floods.

To reduce the risk of flood damage to infrastructure and improved property, Essex needs to avoid new development in floodplains, river corridors, land adjacent to streams, wetlands, and upland forests, all of which can absorb storm water and reduce flood damage. Those areas need to be protected and, when necessary, restored. Wherever new development does occur, it cannot exacerbate flooding or fluvial erosion. Flood and fluvial erosion hazard areas, as well as areas to be protected, appear on the adjoining maps.

Specific Flood Resilience Policies

2(S).20: Development shall be avoided, and land conserved, in particularly vulnerable areas such as floodplains and river corridors.

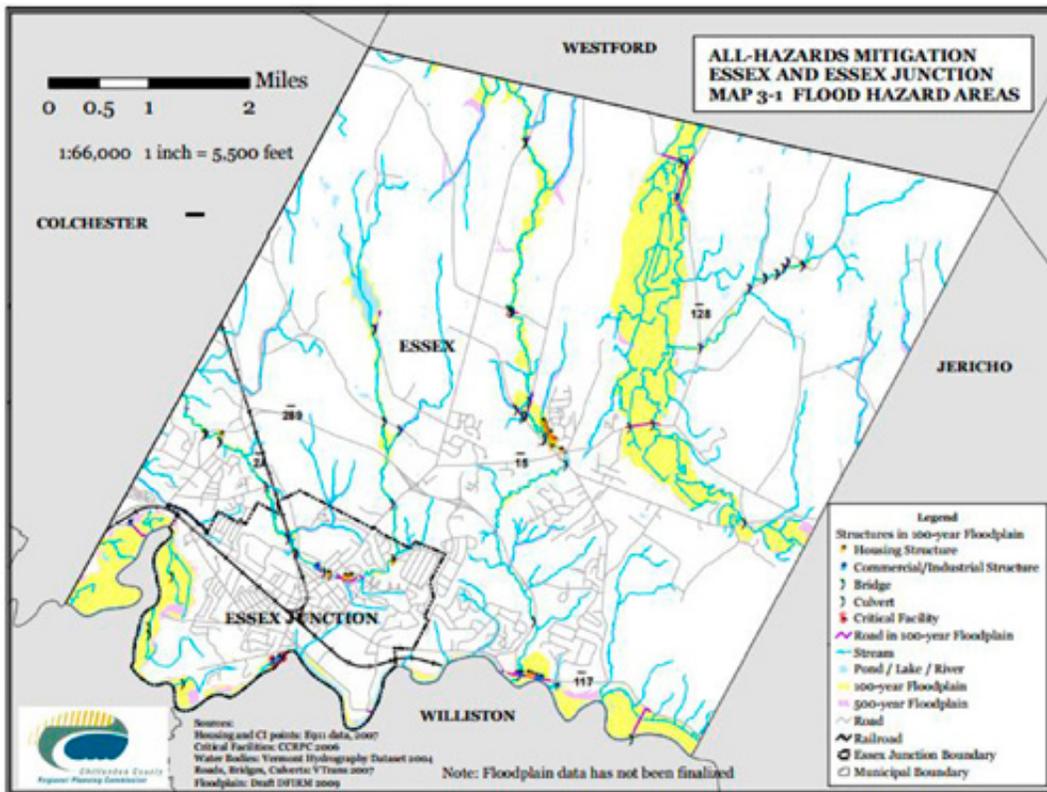
2(S).21: Where development already exists in vulnerable areas, measures shall be taken to protect people, buildings and facilities to reduce future flooding risk.

2(S).22: New development shall be planned for and encouraged in areas that are less vulnerable to future flooding events.

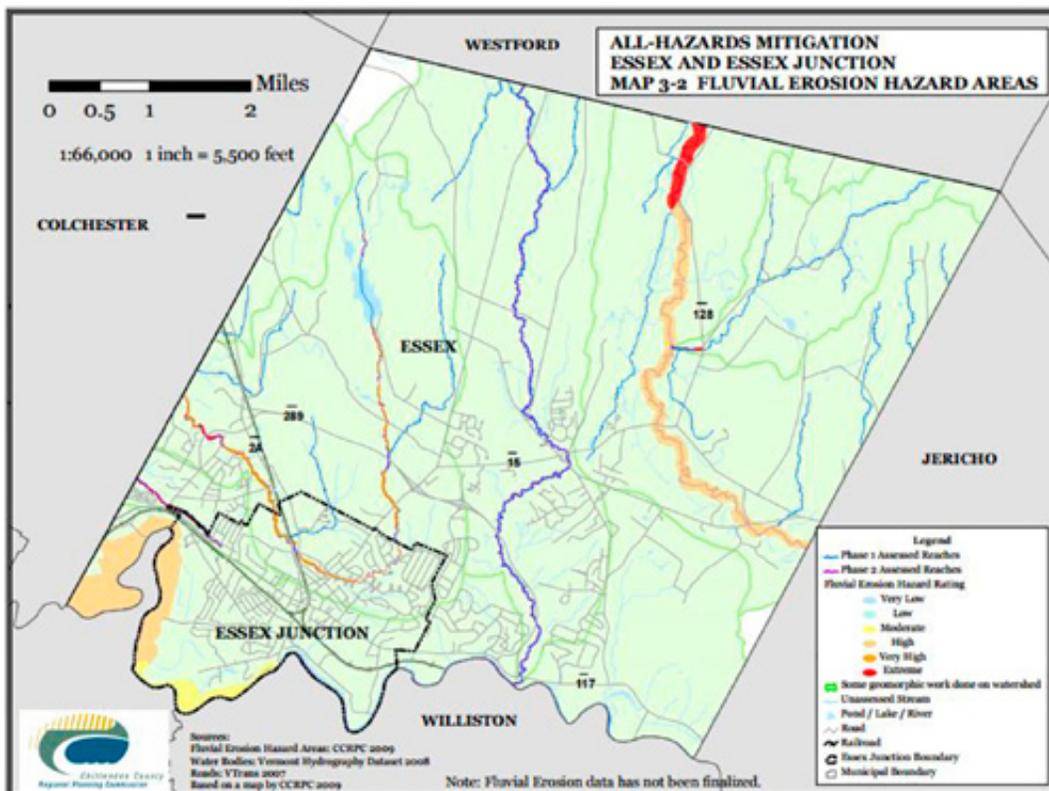
2(S).23: Stormwater management techniques shall be used to slow, spread and sink floodwater.



Weed Road washed out during heavy rains in May 2013, highlighting the potential for flood damage. Photo by Annie Costandi.



Map 11: Flood Hazard Areas. Source: All Hazards Mitigation Plan, 2011.



Map 12: Fluvial Erosion Hazard Areas. Source: All Hazards Mitigation Plan, 2011.

All Hazards Mitigation Plan

To respond to flooding and other potential disasters, the Town and Village worked with the Chittenden County Regional Planning Commission to adopt an *All Hazards Mitigation Plan* in 2011. An update is planned for 2016. The plan identifies flooding as one of the nine most significant hazards for Essex, including Essex Junction.

The *All Hazards Mitigation Plan* identifies and maps floodplains and other areas at risk. As of 2009, 17 residences and six commercial or industrial structures were located within the 100-year floodplain in Essex outside of the Village. *The Mitigation Plan* also notes the presence of Essex Dam #19 at Indian Brook Reservoir, “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. The emergency action plan for the dam is updated annually and provided to appropriate first-responder organizations.”

The *Mitigation Plan* identifies three critical facilities in the floodplain in the Village of Essex Junction, downstream of Essex Dam #19. 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.” Two of the critical facilities are associated with Green Mountain Power. The third is Essex Rescue, which may want to consider moving out of the floodplain.

Bridges and culverts can help control the flow of water during floods, and the *Mitigation Plan* calls for continued monitoring of vulnerable infrastructure at locations with erosion and scouring concerns. The *Mitigation Plan* also calls for erosion monitoring or landslide mitigation projects on portions of Lamore Road and Osgood Hill Road that regularly incur damage from adjacent rivers and streams.

Essex is already taking some actions to address flooding concerns. For example, the Town has an Emergency Operations Plan that provides directives for emergency preparedness and response planning. The Town also maintains a culvert inventory and has identified and replaced many of the deficient culverts. Furthermore, the *Official Zoning Regulations* protect vulnerable areas



Browns River is surrounded by floodplains, where minimal, if any, development should occur. Photo by Sharon Kelley.

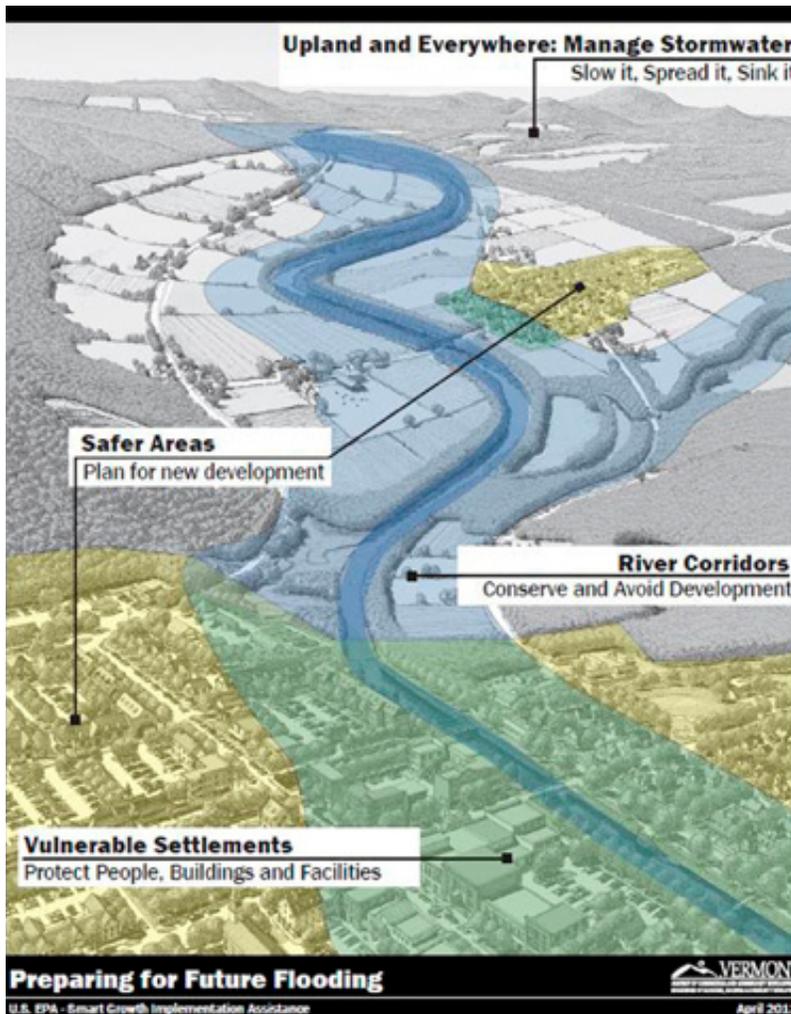
by heavily restricting development in floodplains and on slopes greater than 20 percent, and by requiring buffers next to wetlands and streams.

Disaster Recovery and Long-Term Resilience

Following Tropical Storm Irene, the **U.S. Environmental Protection Agency** (EPA) Office of Sustainable Communities and the **Federal Emergency Management Agency** (FEMA) partnered to provide the State of Vermont with requested flood planning and preparation assistance. The resulting document, *Disaster Recovery and Long-Term Resilience Planning in Vermont, August 2013*, recommends improving flood resiliency in four areas: River Corridors, Safer Areas, Vulnerable Settlements, and Upland and Everywhere.

Within **River Corridors**, Essex should conserve land and avoid development, particularly in vulnerable areas such as floodplains. The Town uses its *Official Zoning Regulations* to heavily restrict new development in its river corridors and floodplains. The *Indian Brook Departure Analysis and Project Identification Summary* and the *Browns River Corridor Plan* identify improvement projects within those river corridors.

Based on recommendations from the EPA guide, the Town can acquire or protect land in flood-prone locations and remove vulnerable structures in those



Policy options can enhance flood resiliency in four areas: River Corridors, Safer Areas, Vulnerable Settlements, and Upland and Everywhere. Image courtesy of State of Vermont.

areas. Landowners can implement pre-disaster mitigation measures. The Town can also continue to work on stricter zoning and subdivision standards in open spaces.

Inside **Vulnerable Settlements**, Essex should protect people, buildings and facilities to reduce future flooding risk for existing development. The *All Hazards Mitigation Plan* includes much more detail on these hazards. Essex has a capital improvement program for buyouts or relocation of damaged structures, and FEMA may have after-the-fact funds available for buyouts if an emergency is declared. The Town's *Official Zoning Regulations* protect rebuilt structures but do not allow new construction in floodplains.

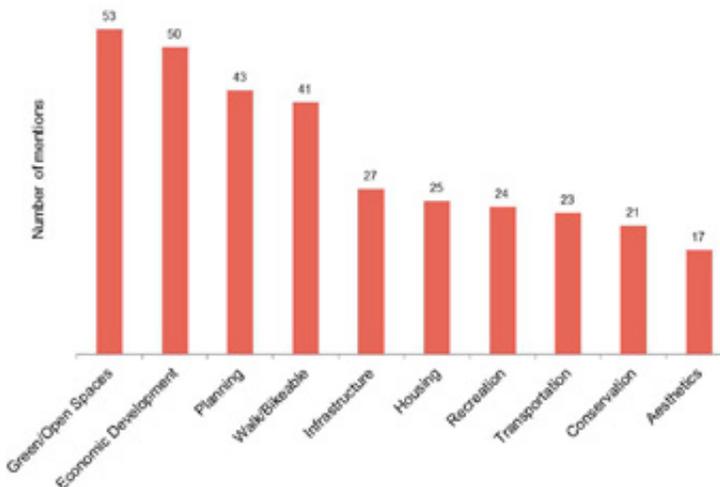
Safer Areas exist to accommodate new development in locations that are less vulnerable to flooding. Essex plans for and encourages new development in Safer Areas through its Future Land Use Map and Zoning District Map, which direct growth away from areas prone to floods.

In **Upland and Everywhere** areas, the EPA guide calls for the implementation of stormwater management techniques to slow, spread and sink floodwater. Essex has proactively managed stormwater for a number of years through the **Municipal Separate Storm Sewer System (MS4)** permit program, which requires stormwater management efforts locally and throughout watersheds. Other ongoing efforts in the town include the management and regulation of roads, driveways and parking lots through the *Official Zoning Regulations* and *Public Works Specifications*. The Town can explore watershed-wide stormwater management efforts, many of which are identified in the Indian Brook and Browns River studies. The Village requires Low Impact Development techniques, and the Town can expand its own green infrastructure requirements. The Town can also adopt tree canopy protection measures, vegetated buffer requirements, and tighter restrictions on development on steep slopes.

Essex's Sense of Place

As Vermont's second largest community, Essex provides various amenities associated with development: restaurants, quality schools, shops and retail outlets, and a vibrant business community. At the same time, the town has numerous parks, undeveloped natural areas, and agricultural properties.

Heart & Soul discovered the pride residents take in the community's blend of developed and natural areas. In identifying Thoughtful Growth as one of the community's top six values, Heart & Soul found, "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."



SOURCE: Heart & Soul of Essex

Figure 14. What **THOUGHTFUL GROWTH** means to Heart & Soul participants.

Heart & Soul Describes Thoughtful Growth

Heart & Soul participants described the Thoughtful Growth value in the following ways:

- A balance of housing, business, and the preservation and maintenance of a variety of open spaces, including forests, trails, parks, and recreation fields;
- Economic development that provides government and community support for a diverse mix of start-ups and local businesses as well as the development of green businesses;
- Balanced and thoughtful planning and zoning with citizen input;
- A variety of housing options including affordable housing;
- A connected, coordinated transportation system that increases efficient traffic flow, and adds public transportation, walking, and biking options;
- Conservation of open spaces through a land trust or land acquisition fund; and
- A focus on aesthetics including landscaping, flowers, and trees.



Camel's Hump and the Green Mountains are visible from many points in Essex. Photo by Sheri Larsen.

By recognizing and understanding the presence and importance of the Town's natural, aesthetic, and cultural resources, it becomes possible to understand past development patterns and plan for future growth and conservation.

Natural Setting

Generally speaking, Essex can be divided into a northern, more rural section and a southern, more developed section. The northern half of town is marked by three hilly areas that run in a north-south direction, each separated by river valleys. The hills on the west extend into Colchester, Milton and Westford. Indian Brook Reservoir, a 60-acre reservoir, sits among the western hills. On the eastern side of town, hills extend to Westford and Underhill. A narrower ridgeline sits in the middle of town. Forests cover much of the hillsides, providing large blocks of habitat.

In the valleys between the hills, Alder Brook and the Browns River flow through land that has been mostly dedicated to agriculture and residences. Other significant waterways in Essex include Abbey Brook, which flows out of the northeastern hills into Browns River, and Indian Brook and Sunderland Brook, both of which flow through the western side of Essex into Colchester.

The southern half of town is flatter and contains the bulk of Essex's neighborhoods and commercial and industrial areas.

*“We value wide-open spaces
and tight-knit neighborhoods,
rural roads and vibrant
downtown streets.”*

~Heart & Soul of Essex

Specific Natural Resources Policies

- **3(S).1** While increasing access to and public enjoyment of the Town's natural resources, the rights and concerns of private property owners shall be respected.
- **3(S).2** Development within water supply protection areas shall be carefully designed to prevent adverse impacts to groundwater resources.
- **3(S).3** Development shall be designed to prevent the destruction of important natural resources, including wetlands, floodplains, unique geological features, primary agricultural soils, and slopes exceeding 15 percent.
- **3(S).4** Critical wildlife habitat, including but not limited to deer wintering areas, rare and/or endangered species habitat, local fisheries, and identified travel corridors, shall be protected from inappropriate development and land management activities.

Natural Resources

A description of a community's natural resources is a fundamental element of a comprehensive plan. By recognizing its natural features – topography, slope, geology, soils, water resources, agricultural and forest lands – a town can protect those resources and ensure a high quality of life for its residents.

Essex's 23,316 acres feature a diverse natural setting complete with river valleys, large forests, and many hills. The presence and locations of those natural resources have guided development throughout the history of Essex, and will continue to do so well into the future.

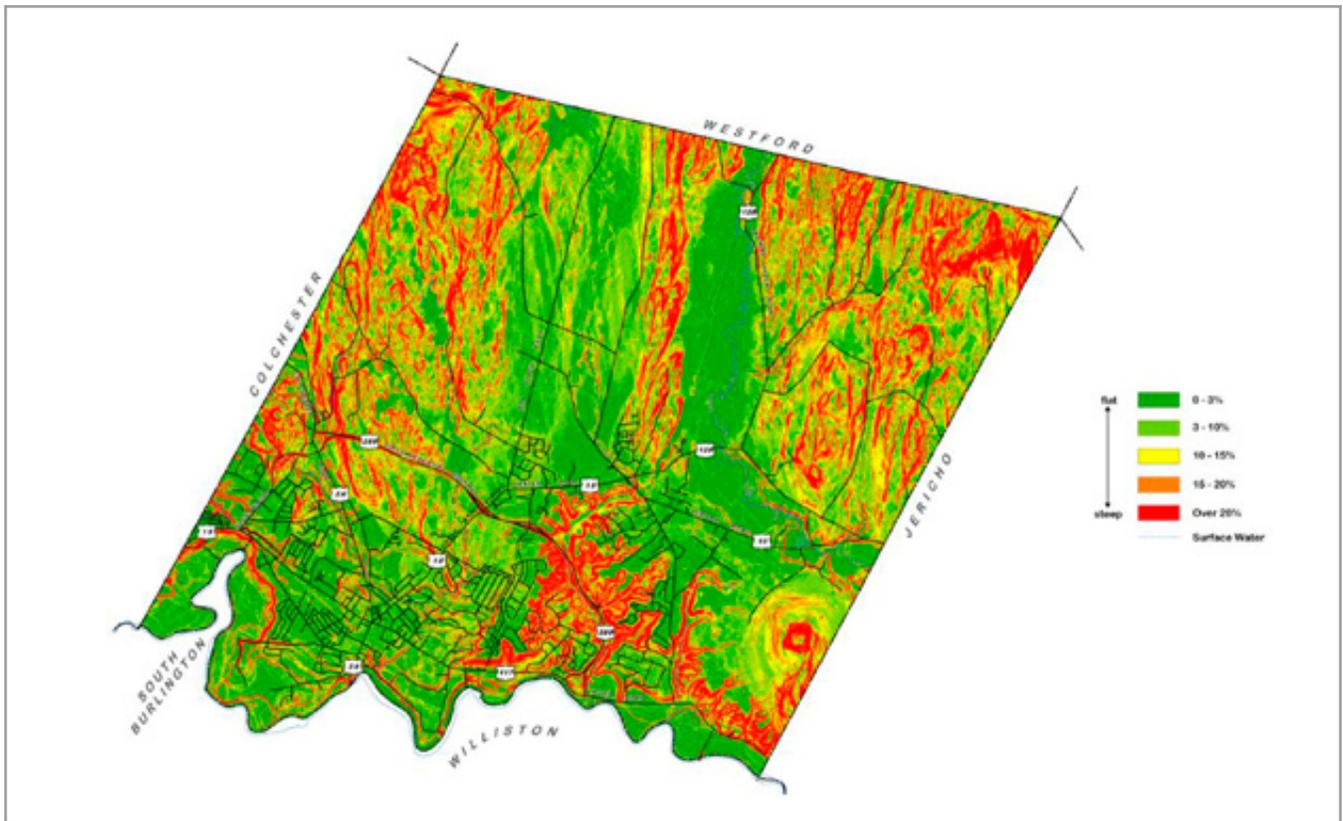
Geology: Topography, Bedrock, Soil

Essex's landscape – its topography and soils – was shaped by glaciers that traversed the area and the ancient lakes and seas that covered low-lying parts of town. Combined, topography and soil determine the suitability of land for development.

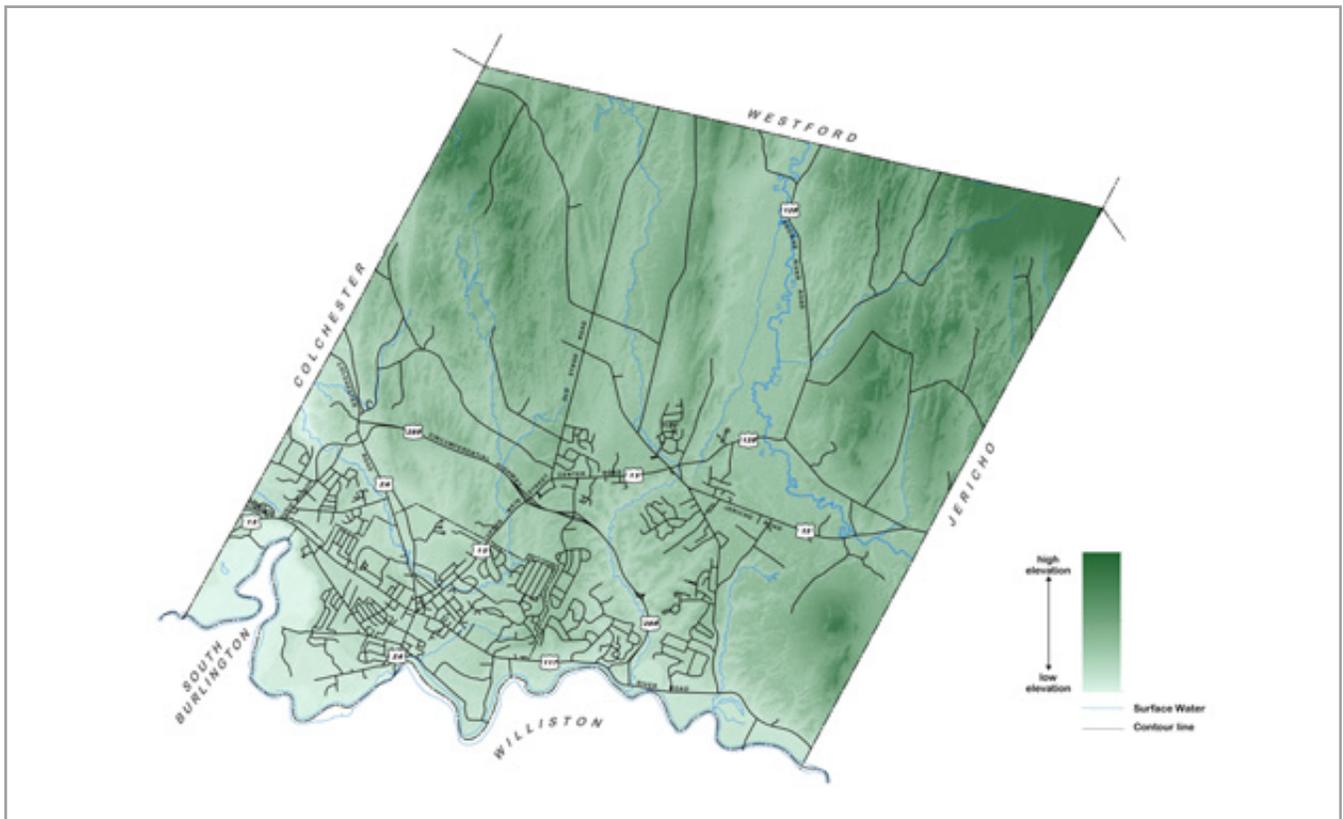
Essex ranges from a low elevation of 170 feet in the southwestern part of town to a high point of 1,330 feet in the northwest corner of town. The floodplains of the Winooski River, Browns River, and Alder Brook represent the flat areas of town, although steep ravines surround Alder Brook as it flows into the Winooski River.

Suitability of Slopes for Construction

- **0 - 3%:** Suitable for almost all types of construction but may require drainage improvements
- **3 - 10%:** Most desirable for construction due to minimal restrictions
- **10 - 15%:** Suitable for low density housing on large lots with some consideration for erosion control and stormwater runoff.
- **15 - 20%:** Construction becomes expensive and erosion and runoff problems are likely; slopes are unsuitable for most septic systems. Construction is discouraged.
- **20% and steeper:** Construction shall be avoided due to the likelihood of environmental damage.



Map 13: Slope.



Map 14: Hillshade.

The Brigham Hill area in northwest Essex and the high rolling hills in northeast Essex also contain areas with steep slopes. Ideally, development should occur on land with slopes of 10 percent or less, which creates minimal restrictions for construction and septic systems.

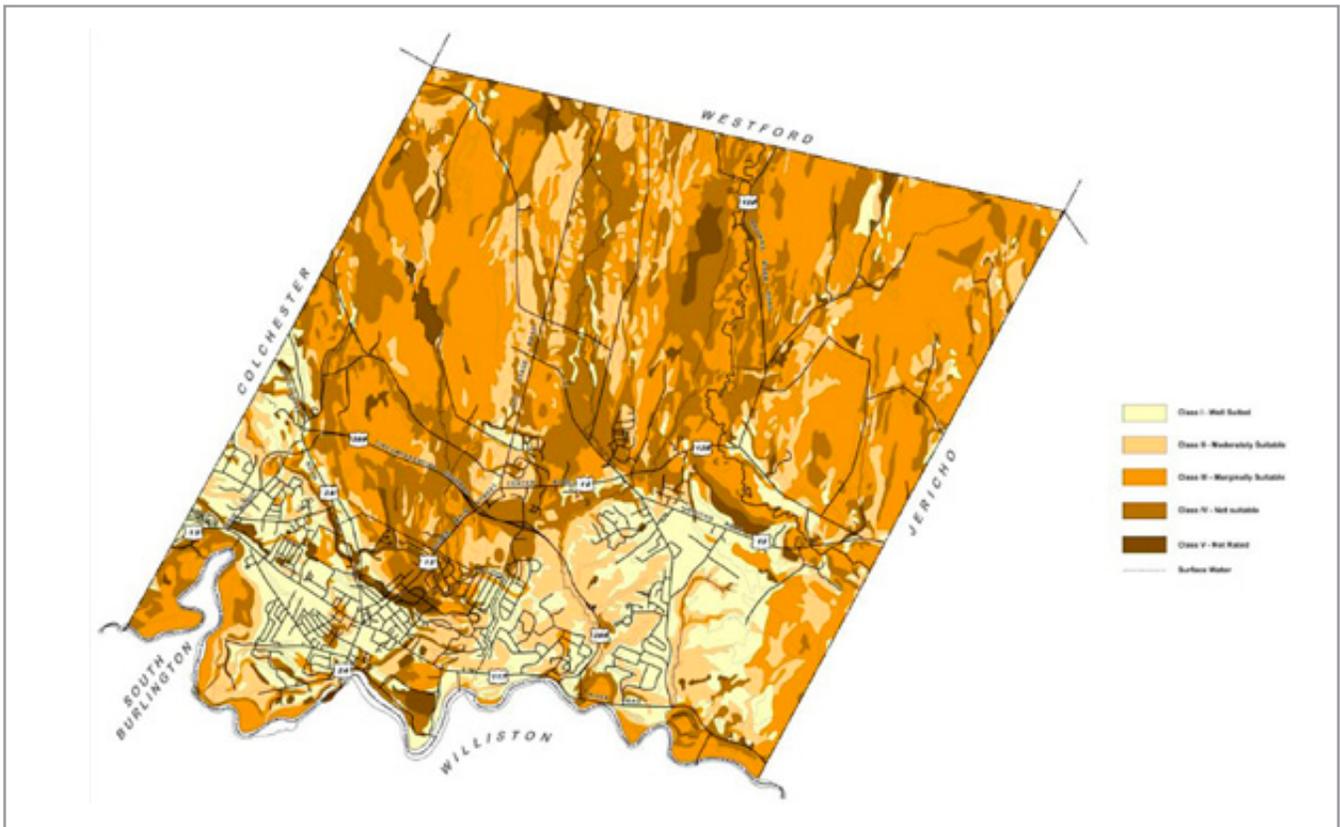
In addition to slope, soil types influence the suitability of land for development and its ability to support septic systems. Much of the soil in Essex is related to the Ice Age glacier. In the town's uplands – areas at least 500 feet above sea level – glacial till predominates. Lower elevations contain extensive areas of sand and gravel that remain from ancient lakes. In many areas, clay, till or both lie beneath the sand and gravel.

Deep soils that drain well are generally well-suited for septic systems, and can handle more development. Soils unfavorable for development are typically on steep slopes, are wet, erode easily, have a shallow depth to the underlying bedrock, or have some combination of those characteristics. The unfavorable properties limit the amount of septic effluent that soil can absorb. The

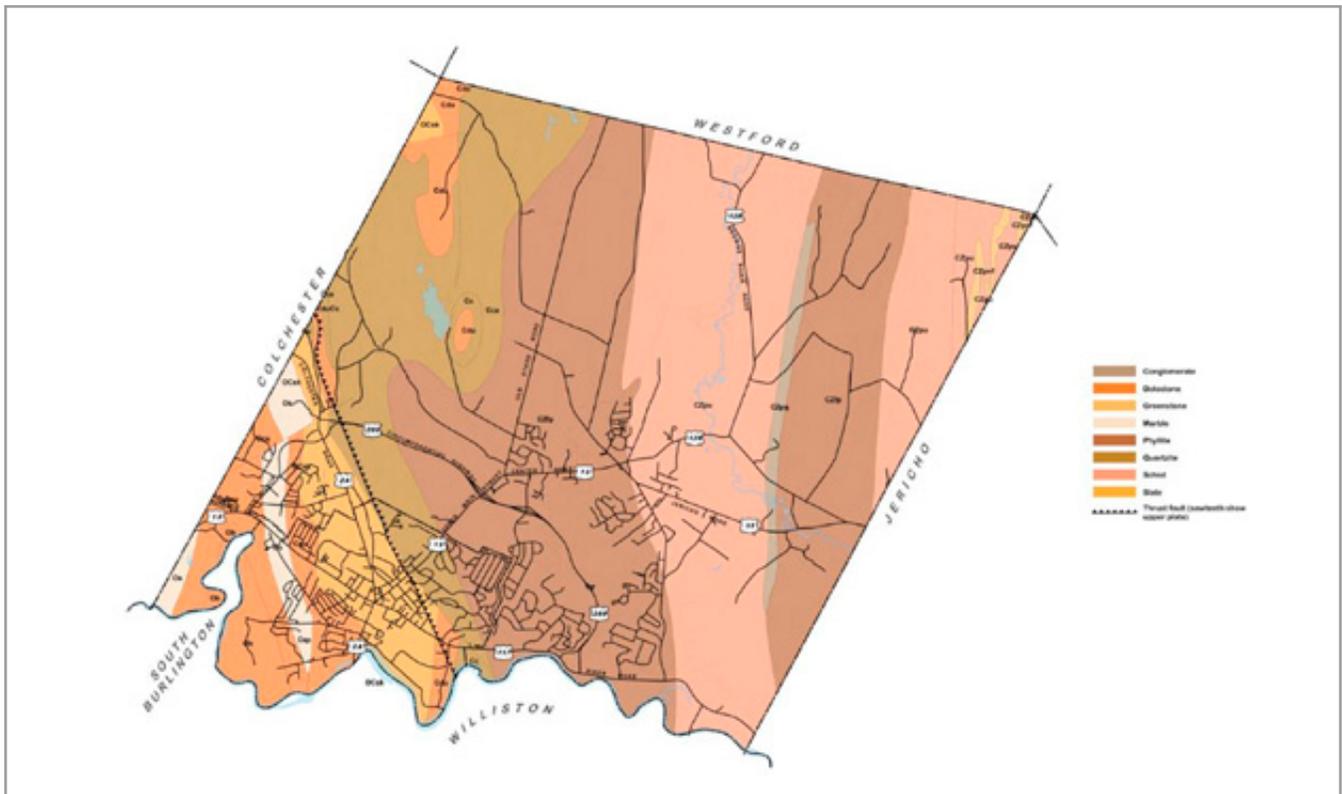
U.S. Department of Agriculture [Natural Resources Conservation Service](#) has mapped and typed all soils in Essex. The adjoining map shows the general soil patterns for the town and indicates areas that are suitable or unsuitable for septic systems. More detailed information is available from the soil survey maps and interpretations from the Natural Resources Conservation Service report.

Predictably, most development in Essex has occurred in the flatter parts of Town. Municipal sewer serves many of these areas, although some neighborhoods within the sewer core still rely on septic systems.

Beneath the soil, the bedrock in Essex is dominated by a mixture of lightly metamorphosed rocks that were originally sedimentary in nature. Metamorphic rock tends to be hard and stable. The bedrock in the western third of Essex – roughly west of VT Route 2A – consists of dolomite and limestone. The eastern two-thirds of the town have primarily schist and slate rocks, which are part of the Underhill Formation.



Map 15: Soils.



Map 16: Bedrock Geology.

Noteworthy Sand and Gravel Deposits

1. Northern part of Osgood Hill Road
2. Weed Road and Sleepy Hollow Road
3. Intersection of Brigham Hill Road and Brigham Hill Lane
4. Northern part of Alder Brook
5. Intersection of Lamore and Lost Nation Roads
6. VT Route 2A corridor south
7. Southeastern quadrant of the Town of Essex

Some of the deposits are located in environmentally sensitive areas.

Source: Vermont Department of Highways, 1961

Two thrust faults run southeast to northwest through the southwestern quadrant of Essex, near Lost Nation Road and VT Route 2A. No record of movement along the faults exists, so seismic danger seems minimal. A deep layer of porous carbonate sits beneath the fault, allowing ready movement of water and facilitating the aquifer recharge process.

Rock, sand and gravel are available to be mined and quarried. The Saxon Hill area has undergone sand extraction, and in 2014 and 2015 the Planning Commission approved a project to quarry ledge on Old Colchester Road. According to the Vermont State Geological Survey, Essex does not have any known mineral deposits, but the Town should plan for and be better prepared to regulate future mining and quarrying operations for rock, sand, and gravel.



A Red Eft, a juvenile Eastern Newt, wanders through Indian Brook Park. Photo by Greg Duggan.

Water Resources

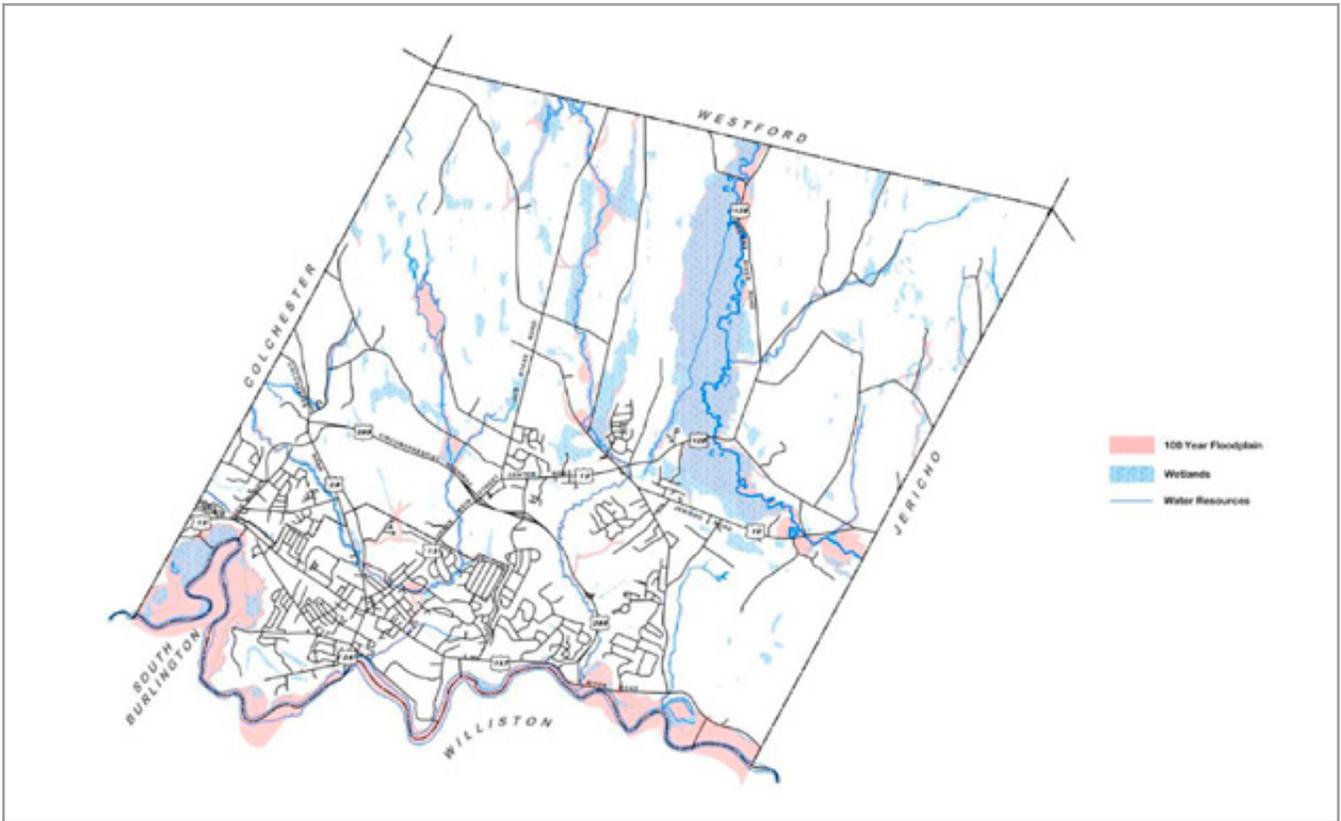
Water resources in Essex are classified as groundwater or surface water. Groundwater sits below the earth's surface and comes from precipitation that infiltrates into the soil and bedrock instead of evaporating or running off into ponds, streams and rivers. Information about the quality and supply of groundwater is important for evaluating sites for development. Groundwater information in Essex is limited, and the Town should undertake efforts to map areas with high groundwater potential. The Town also needs to monitor the quality and supply of groundwater to protect against contamination and depletion.

Surface water refers to any aboveground water body: rivers and brooks, lakes and ponds, wetlands, and areas subject to flooding. The surface waters scattered throughout Essex contribute to public health and safety, recreation, wildlife diversity, aesthetics, and environmental quality.

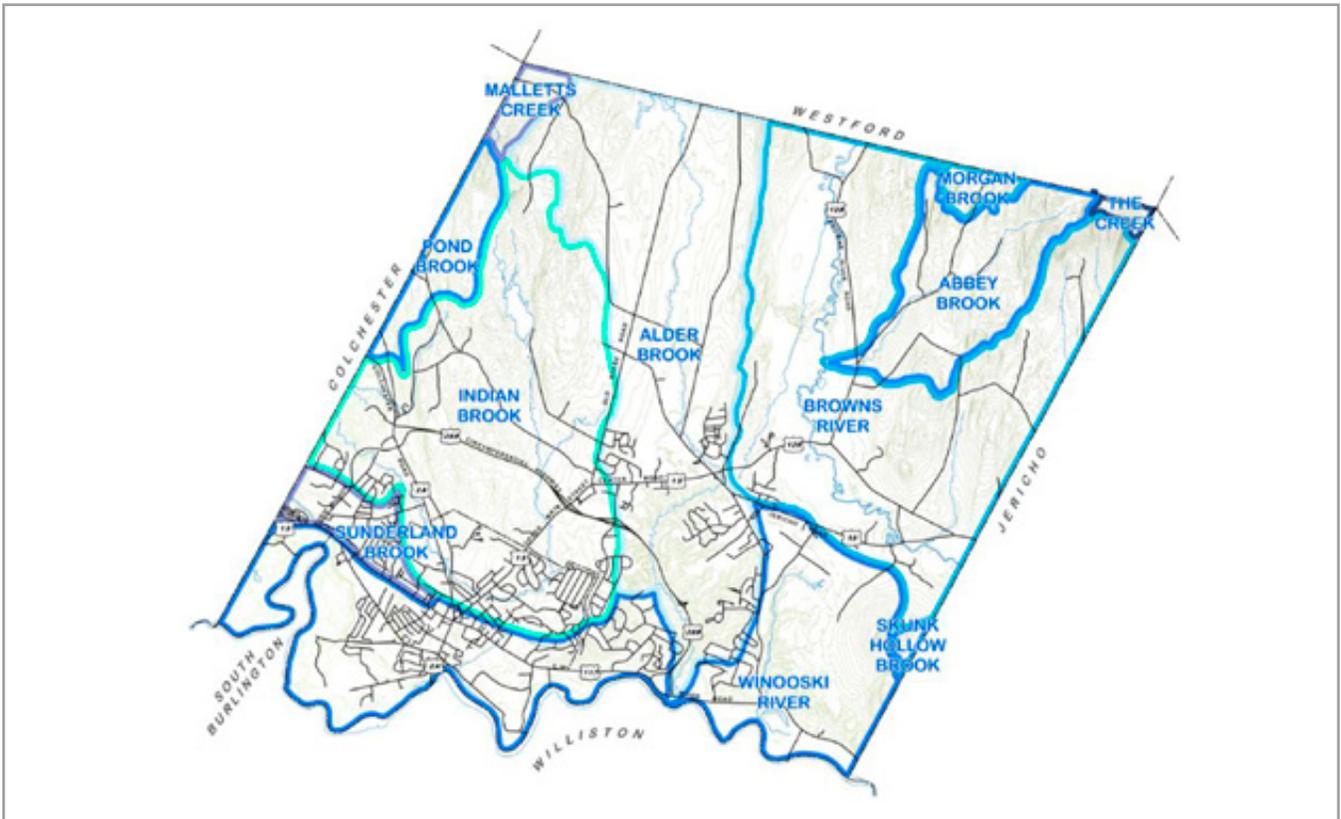
By state statute, Vermont's water quality should be maintained and improved according to the policies and actions developed in the basin plans established under 10 V.S.A § 1253. The Browns River and Abbey Brook watersheds are part of the Lamoille Basin, the Alder Brook and Sunderland Brook watersheds are part of the Winooski Basin, and the Indian Brook watershed is part of the northern Lake Champlain Basin. The State of Vermont's Watershed Management Division has developed strategies for [Tactical Basin Planning](#).

Based on a water quality classification system from the Vermont Agency of Natural Resources, virtually all waterways in Essex have been classified as Class B, meaning the water is suitable for drinking with filtration and disinfection, for irrigation and other agricultural uses, and for swimming and recreation.

Despite the Class B assessment, Essex has room to improve water quality. Indian Brook and Sunderland Brook are classified by the state as stormwater impaired



Map 17: Water Resources.



Map 18: Watersheds.

waterways. When development occurs, particularly in the Indian Brook and Sunderland Brook watersheds, every effort shall be made to treat stormwater on-site – in other words, allowing precipitation to infiltrate into the ground. Stormwater allowed to run off into nearby streams or other surface waters can cause flooding or carry pollutants or sediment.

Development occurring near surface waters and wetlands must adhere to buffer requirements established in [Official Zoning Regulations](#). Buffers retain and protect the vegetated areas of native species that border streams, lakes, ponds and wetlands. The vegetated buffers reduce impacts from flooding and stormwater

runoff, prevent soil erosion, maintain water quality, and protect wildlife, fish habitat and ecological diversity.

Areas around several of Essex's rivers and streams serve as flood hazard areas and floodways. A flood hazard area, also known as a 100-year floodplain, has a 1 percent probability of flooding in any given year. A floodway is the channel of a river or other watercourse and the adjacent land area that must be reserved to discharge the 100-year floods without accumulatively increasing the water surface elevation more than 1 foot; floodways are the most hazardous sections in a flood hazard area. Flood hazard areas and floodways were identified on Flood Insurance Rate Maps prepared by the



Although water levels are often low during the fall, the Winooski River occasionally overflows its banks in spring, flooding the adjacent farm fields on North Williston Road. Photo by Greg Duggan.



Indian Brook Reservoir sits at the head of Indian Brook, sections of which are susceptible to fluvial erosion. Photo by Dave Landers.

Federal Insurance Administration and approved in 2010. The Town's [Official Zoning Regulations](#) were updated in 2010 to reflect FEMA requirements in the flood hazard areas of the Winooski River, Alder Brook, Browns River, and Indian Brook. The Town also established floodplain zones – C2 zoning districts – along all Essex waterways not included in the federal maps. Development is heavily restricted in C2 zones.

In the aftermath of 2011's Tropical Storm Irene, the state required municipalities to include a flood resiliency section in their municipal plans. While Essex escaped the devastation Irene wrought on many other parts of the state, the town has suffered from its share of flooding events. In May 2013, heavy rainfall led to washouts on VT Route 15 and Weed Road.

Some flood damage is caused by inundation when waters rise, fill, and damage low-lying structures, but most flood losses in Vermont are caused by fluvial erosion. Fluvial erosion can range from gradual erosion along river and stream banks to catastrophic channel enlargement, bank failure, and changes in a river's course.

Fluvial Erosion Hazard (FEH) areas – the locations most susceptible to fluvial erosion – include a stream or river and the adjacent land, where stream processes can occur and enable a waterway to re-establish and maintain stable conditions over time. The boundaries of an FEH area attempt to include the lands most vulnerable to fluvial erosion in the near term, as well as the area needed by a river to maintain equilibrium. FEH

areas have been identified and mapped in accordance with accepted state fluvial geomorphic assessment and mapping protocols.

Sections along Indian Brook and the Browns and Winooski rivers have been identified as having high fluvial erosion hazard. Most of the fluvial erosion hazard areas are located within the floodplain, which is protected from new development. Fluvial erosion is not, however, only caused by new development. Therefore, all fluvial erosion areas should be monitored to see how to best accommodate fluvial equilibrium and natural erosion processes while minimizing undue damage to property. More information on flood resiliency, as well as a map of the FEH areas, appears in Chapter 2 of the Town Plan.

Wetlands

One way to limit the impacts of flooding is to preserve wetlands, which capture flood waters before they cause damage in developed areas. Wetlands are areas inundated by surface or ground water often enough to support significant vegetation or aquatic life that relies on the saturated or seasonally saturated soils to grow and reproduce. In addition to capturing stormwater, wetlands serve as valuable habitat.

Based on analyses by the U.S. Department of the Interior and Arrowwood Environmental, Essex has at least 430 wetlands totaling 3,081 acres. Thirty-four of the wetlands in Essex were considered to have state or local significance for either functions and values, or natural communities or both. The *Natural Heritage Element Inventory and Assessment* recommends management objectives for each of the town's significant wetland communities, which Essex should incorporate into its zoning and subdivision regulations.

Although the Arrowwood Environmental assessment and the state wetlands inventory provide valuable information for identifying the town's wetlands, the assessment and inventory are not comprehensive. As part of Planning Commission development reviews, all wetlands on individual properties shall be mapped on site plans, with delineations being supplemented by site visits as necessary. The Town shall enforce the wetlands buffer requirements established in the *Official Zoning Regulations*. Many of the town's wetlands are shown in the Water Resources map.

Vernal Pools

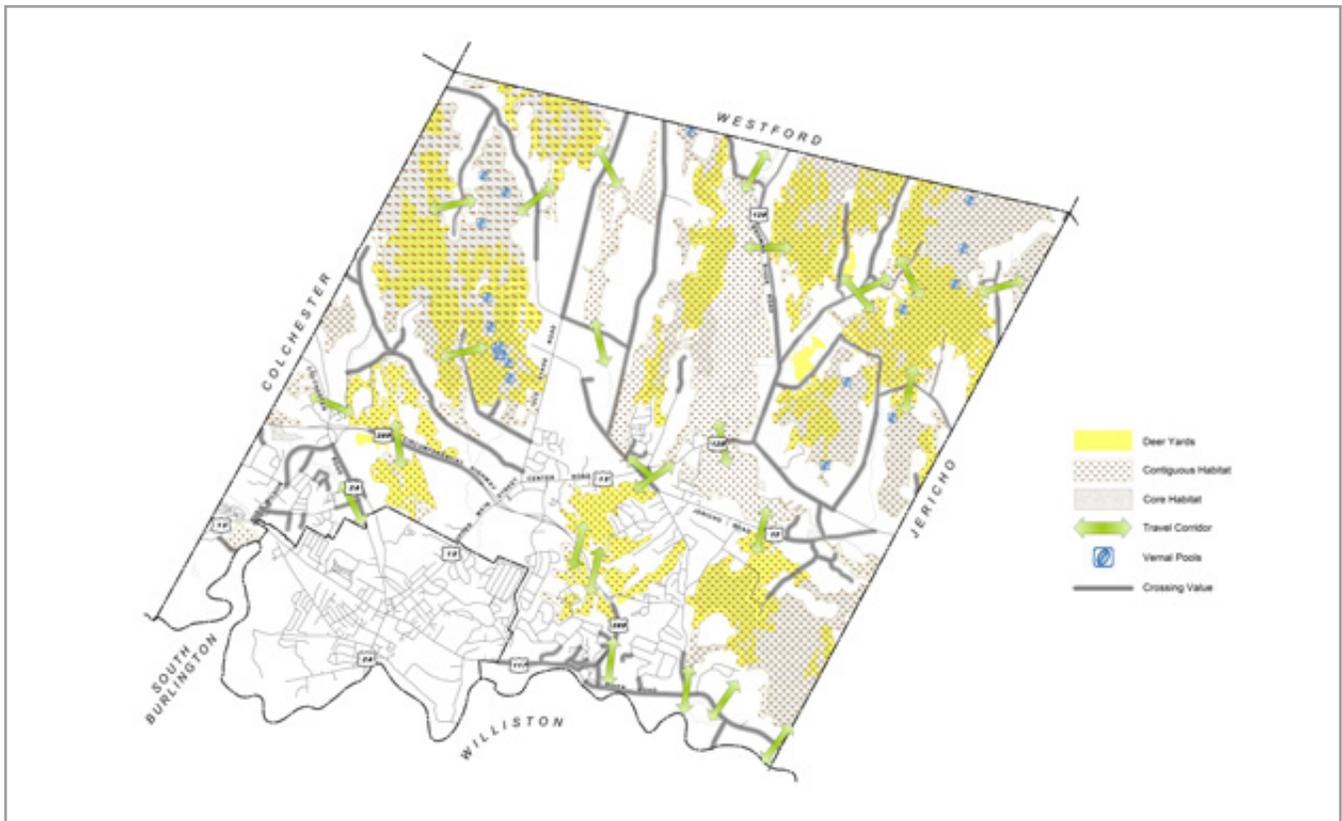
The Arrowwood Environmental assessment also identified 19 vernal pools, seasonal wetlands that typically contain water during the spring but dry out as summer progresses. These isolated wetlands typically occur under a forest canopy, lack fish, and provide habitat for a wide variety of wildlife. Most of the vernal pools in Essex are located east of Indian Brook or scattered throughout the forests in the northeast corner of town.

Arrowwood Environmental suggested specific buffer zones and management recommendations for the vernal pools mapped in the fields. The Town should update its zoning regulations to specify that wetlands buffers also apply to vernal pools.

Thirty-four of the wetlands in Essex were considered locally or state significant for either functions and values, natural communities, or both.



Wetlands help capture floodwaters and provide habitat for many animals and insects. Photo by Sharon Kelley.



Map 19: Significant Features.

Forest Lands

Essex's forests provide large habitat blocks for animals and offer economic potential through timber harvests. Forest trails open to hiking, mountain biking, horseback riding, cross-country skiing and snowmobiling improve quality of life and can support a recreation-based sector of the economy. Nearly 13,000 acres in Essex are forested, yet forest fragmentation from development is a major problem in Vermont, including Essex.

The largest forests in Essex stretch north from the northeastern and northwestern parts of town into Colchester, Milton, Westford, and Underhill. The largely unbroken woodlands serve as prime habitat – the Vermont Agency of Natural Resources scores both forests as 9 out of 10. When development must occur in those habitat blocks, every effort shall be taken to minimize the intrusion on the forests through the use of siting standards. The Town should also continue to seek adoption of conservation subdivision regulations that will help preserve Essex's rural countryside.

The 1989 *Essex Open Lands Study* prioritized and identified significant forestland as contiguous tracts of wooded land having the potential for forest management due to the productivity of the soils, the species mix, the size of the overall tract, and presence of large (50-plus acre) properties and managed wood lots.

Approximately 8,300 acres in Essex – more than a third of the town's total area – were identified in the Open Lands Study as prime forestland. The areas were considered for commercial harvesting potential and for environmental and recreational uses. The Open Lands

Nearly 13,000 acres in Essex are forested, yet forest fragmentation from development is a major problem in Vermont, including Essex.

Natural and Fragile Areas

Natural and fragile areas are defined as “areas of land or water that are unusual and/or have significant plant or animal species or geological or similar features of scientific, ecological, or educational interest,” according to the Natural Areas component of the 1988 *Vermont Recreation Plan*. Essex has several features meeting this definition, including unique forest cover types, wildlife habitats, rare plant communities, and an esker, a long winding ridge of sand and gravel. Sources for this information include inventories maintained by the state, the 1973 Quality Environment Plan, the 1989 *Open Lands Study*, the 1989 Natural Resources Inventory, the 1986 Municipal Development Plan, the 2007 *Natural Heritage Element Inventory and Assessment*, and the 2008 *Essex Open Space Plan*.



At a property on Pettingill Road, Chittenden County Forester Keith Thompson (center) explains how a landowner can participate in the State of Vermont's Use Value Appraisal program. Also known as current use, use value appraisal provides property tax breaks for landowners who follow forest management plans or engage in agriculture. The Essex Conservation Committee helped organize the site visit, held in June 2015. Photo by Greg Duggan.

Upland Natural Communities

The Vermont Non-Game and Natural Heritage Program tracks two significant upland natural communities in Essex: Sunderland Headwater Woods and the Vermont Sandplain site. The Sunderland Headwater Woods is a seven-acre, dry sandplain forest near the headwaters of the Sunderland Brook which has seen little disturbance. The Vermont Sandplain, comprised of pitch pine and white pine trees mixed with black and red oak, has shrunk from five acres, due to development.

The 2007 *Natural Heritage Element Inventory Analysis* suggested management recommendations for the two communities, and the recommendations should be incorporated into the zoning regulations.

Study should be updated to assess the number of designated acres which no longer meet the definition of prime forestland set forth in 1989.

The *State of Vermont's Use Value Appraisal* forestry program – also known as current use – helps protect forestland by providing tax breaks for properties that actively maintain forest management plans (UVA programs also exist for agricultural properties). Thirty-six parcels in Essex outside the Village participated in the state's Use Value Appraisal forestry program in 2014, with a total of 1,997 acres enrolled.

Agricultural Lands

Farm activity – particularly dairy farming – in Essex and Chittenden County has declined over time. Yet farming activities remain visible in Essex, and the variety of activities has likely increased. Undeveloped land dedicated to agriculture provides numerous economic, environmental, and aesthetic benefits to Essex and the greater region. Active farms serve as a crucial component of Vermont's working landscape, ensuring views of the Green Mountains and contributing to the local economy. Furthermore, unpaved land can soak up much larger amounts of stormwater, reducing the likelihood and extent of flooding during major storms.

In the early 1990s the Town's grand list included 26 farm parcels. By 2014 only seven parcels, including one in the Village, were listed as "farm" parcels.

The 1989 *Essex Open Lands Study* found a similar decline in agricultural parcels. The study conducted a Land Evaluation and Site Assessment (LESA) of 53 farm parcels on the basis of the productivity of their soils and such attributes as size, character, location, and current use. Although direct comparisons are difficult because of boundary and ownership changes, at least 24 of the 53 parcels identified have since been subdivided. Of the 53 parcels evaluated in 1989, 20 were identified as "prime" farmland, comprising around 2,000 acres – 70 percent of which were in floodplains. As then anticipated, farmland was taken out of production for the construction of the Circumferential Highway (VT Route 289) and for two large residential subdivisions.

Farmland conversion reflects, in part, ongoing changes in the local farm economy – many of which were identified in the 1989 study. By 2014, only two dairy farms remained in town. On the other hand, USDA Agricultural Census data suggests that there are a growing number of smaller, more diverse farming operations in the area – such as Mazza's Vegetable Farms and Chapin Orchard – that market and sell their products locally through direct sales, farm stands, farmers' markets, and community supported agriculture (CSA).



A fall display at Chapin Orchards highlights a handful of the available products. Photo by Sheri Larsen.

Although the number of farms in Essex has dwindled, the number of parcels enrolled in the Town's Farm and Open Land Stabilization Program increased from five in 1989 to 13 in 2014 (not all parcels are farms).

Other agricultural parcels not included under the Essex Farm Contract are enrolled in the Vermont UVA program. Twenty-five parcels had at least some farm acreage enrolled in UVA (some parcels have land enrolled in forestry and agriculture programs) in 2014, with seven parcels enrolled solely in agriculture. The 25 parcels had 930 acres enrolled in agriculture.

Much of the farmland remaining in Essex coincides with floodplains, particularly in the Browns River Valley and along the Winooski River. Continued zoning restrictions on development in the floodplain can help preserve existing agricultural land.

Residents have pushed in recent years to allow parts of the agricultural lifestyle in more urban and suburban parts of town. The Village allows residents to have up to four chickens on a lot, and residents outside the Village have approached the Town of Essex Planning Commission about amending zoning regulations to allow chickens in areas where the animals are prohibited. The Town supports the production of locally grown foods.

Wildlife Habitat

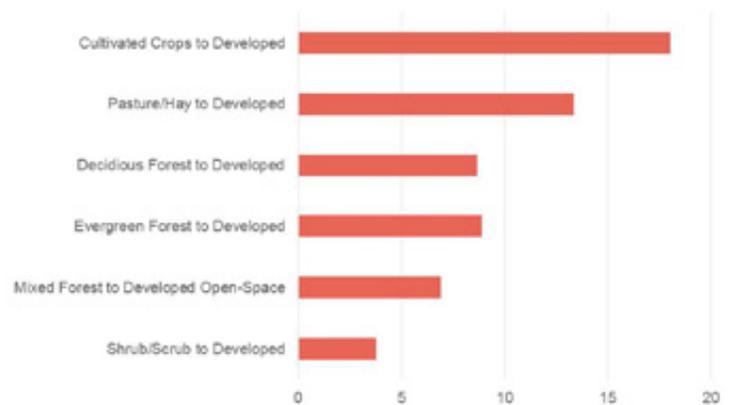
Wildlife habitat in Essex is an ever-changing mosaic, as humans and wildlife continually adjust and readjust to each other's presence. The landscape constantly changes as active agricultural lands go fallow and as humans increasingly settle in Essex.

The Essex urban core is largely concentrated in the southern portion of Essex; for wildlife, the human settlement pattern presents a highly fragmented environment characterized by isolated backyards, woodlots, wetlands and streamsides. Wildlife must coexist with roads, houses, industries, people and pets. Animals living in southern Essex include white-tailed deer, red foxes, skunks and raccoons.

The less developed northern parts of Essex have landscapes dominated by forests with broad-leaved deciduous and needle-leaved evergreen trees. The forests provide habitat for a rich diversity of wildlife including waterfowl, herons, hawks, and mammals such as coyotes, fox, mink, moose, and muskrat.



Essex has the habitat to support numerous creatures, including herons. Photo by Dave Landers.



SOURCE: National Land Cover Data, 2006-2011

Figure 14. Acreage of Natural and Agricultural land Converted to Development, 2006 - 2011 (Town Outside the Village).

While zoning and subdivision regulations can limit the impacts of development on forest fragmentation and agricultural land, the current regulations do little to guarantee the preservation of open space. Heart & Soul participants described Thoughtful Growth, in part, as “conservation of open spaces through a land trust or land acquisition fund.” The Town should explore ways to ensure the preservation of important undeveloped parcels, whether through the stricter regulations, a conservation or land acquisition fund, partnerships with the [Vermont Land Trust](#) or [The Nature Conservancy](#), or other means. The Town should undertake a study to identify parcels important to wildlife, natural resources, water protection, recreation, and the working landscape.

Invasive Species

Invasive species threaten many of Essex’s natural areas. [Vermont Invasives](#), an online resource, defines the non-native species as, “Nonindigenous plants, animals, algae, fungi or pathogens – disease-causing organisms like viruses and bacteria – that threaten the diversity and survival of native species or the ecological stability of infested ecosystems, or commercial, agricultural or recreational activities dependent on these natural resources.

“They are opportunists not historically known to our region. Most come without the natural checks and balances – predators, pests, parasites and pathogens – that keep species’ reproduction and survival well balanced in their native regions. Many have the advantage of thriving in a wide variety of conditions. Native species find it hard to compete with such invaders.”

Invasive species fall into three categories: tree pests, plants, and aquatic.

Regarding trees pests, Vermont Invasives warns, “Two exotic invasive pests, emerald ash borer and Asian longhorned beetle, that have devastated forests in the mid-west and mid-Atlantic, have been found close to Vermont borders. Another exotic invasive insect, hemlock woolly adelgid, has been found in several communities in Windham County. These pests, along with others we are watching out for will (undoubtedly) change Vermont’s forests.”

While it would be nearly impossible to prevent an invasive outbreak in large tracts of forest such as Indian Brook or Saxon Hill, the Town can and should plan for the impact of tree pests on the many street trees in Essex. The 2002 [Street Tree Inventory](#) should be updated to identify the streets and neighborhoods most susceptible to invasive insects, and then the Town should develop a management plan to protect or replace susceptible trees.

Invasive plants also present a threat to local forests. As Vermont Invasives says, “Non-native, invasive terrestrial plants are one of the greatest threats to the health of Northeastern forests. They negatively impact the environment, are costly to manage, and can be harmful to human health.” Responding to and controlling invasive plants will require a multitude of approaches, from private land management to careful roadside maintenance.

Indian Brook Reservoir has had to deal with aquatic invasives. Eurasian Watermilfoil was identified in the reservoir in 2001. The Vermont Department of Environmental Conservation describes milfoil as “a rooted, submerged perennial plant that grows rapidly, producing dense stands. It aggressively competes with native plant communities reducing biodiversity. Dense mats clog propellers, impair swimming, restrict boating and fishing accesses, and affect water quality.” Populations of the invasive have fluctuated in the

“Non-native, invasive terrestrial plants are one of the greatest threats to the health of Northeastern forests. They negatively impact the environment, are costly to manage, and can be harmful to human health.”

~Vermont Invasives



Mount Mansfield, visible from Saxon Hill Road, provides a dramatic backdrop to Essex. Photo by Sheri Larsen.



Map 20: Scenic Resource Areas.

Specific Aesthetic Resources Policies

- 3(S).5 Site plan and subdivision review shall follow the recommendations in [Views to the Mountain: A Scenic Protection Manual \(2011\)](#).
- 3(S).6 The Town supports the responsible development of commercial scale (500KW and greater) ground-mounted solar electric generation facilities in only the commercial/industrial zoned areas of Town. Such facilities, as well as wind electric generation facilities, shall not be located outside of commercial/industrial zoning districts and shall have zero impact on views identified as “Most Scenic” in Appendix 6, Segment Maps, [Views to the Mountain: a Scenic Protection Manual \(2011\)](#), which is incorporated into this Town Plan by reference.

subsequent years, and the Town has used herbicides as well as non-chemical methods to try to control and remove the plant.

In addition to protecting street trees against invasive insects and continuing milfoil removal efforts at Indian Brook Reservoir, Essex needs to continue educating residents about the problems caused by invasive species.

Aesthetic Resources

The visual character of a community helps define its identity and sense of place. Scenic views and roads, as well as historic buildings and neighborhoods, reflect the cultural development and character of a town. Scenic resources can include natural features or a mixture of natural features and human elements such as houses, roads, and farms.

Essex has had several inventories prepared on its more significant scenic resources, which include many of the landscapes representative of Vermont. Roads radiating from the Town Center provide views of farms, rolling hills, forests, mountains, historic buildings, rivers, and streams.

The *Essex Natural Resource Inventory*, conducted by the University of Vermont in 1988, first offered a descriptive inventory of Essex’s scenic views. The Scenic Resources map, which identifies areas of the town with a high priority for conservation, includes most of the scenic areas identified in the Natural Resource Inventory:

- Parallel north-south ridgelines running the length of Essex, divided by roads, form the backdrop for views from lower areas and provide high elevations for viewing distant ridges and mid-ground expanses of farmland divided by hedgerows.
- Distant views of Mount Mansfield, Camel’s Hump, the Bolton range, and the Adirondacks.
- Large, relatively flat terrain along the Winooski River Valley provides views of mountains in both directions; the long-distance views are not often available in the hillier areas of Vermont.
- Dirt roads through forested hills and steep slopes provide for appealing foreground views.
- Several streambeds and floodplain areas create interesting foreground and mid-ground views, especially when close to farmland.
- Historic buildings and homesteads in rural settings or compact settlements.
- A sense of separation of the developed central part of Essex from surrounding lands and towns. This is especially evident on VT Route 15 leading to Jericho, on VT Route 117/River Road leading to Jericho, Williston and Richmond, and roads heading north toward Westford. These gateways to Essex are visually appealing due to minimal development.

- Flat terrain in the vicinity of Chapin Road, Colonel Page Road, Old Stage Road, and Towers Road is comprised of low density development, farmland, pasture, and open space surrounded by wooded ridges and hills.

In 2008, the Selectboard adopted the *Essex Open Space Plan*, which contains a number of observations and recommendations to protect Essex’s aesthetic resources. The Community Development Department subsequently initiated a Scenic Roadside Protection Project in conjunction with the Town of Jericho, Smart Growth Vermont, the Chittenden County Regional Planning Commission, and the Metropolitan Planning Organization. Citizen volunteers spent the summer and fall of 2009 performing a photo inventory and assessment along the roads identified as scenic in the Scenic Resources map. The results of the inventory and viewscape rankings were converted to GIS-based maps and included in *Views to the Mountain: A Scenic Protection Manual*.

The Scenic Protection Manual contains protection methods to be incorporated into the zoning and subdivision regulations and used by the Planning Commission during development review. Siting standards have yet to be written into the zoning and subdivision regulations, but the Planning Commission should adopt a scenic resource overlay district and implement siting standards in the *Official Zoning Regulations*. In the interim, site plan and subdivision reviews shall continue to use the recommendations of the Scenic Protection Manual when projects are proposed within the town’s Scenic Resource Areas.

The town’s aesthetic qualities are not limited to designated scenic resources. Residents have also called for better landscaping along roads and on individual properties: one of the main suggestions emerging from the Thoughtful Growth value of Heart & Soul was “a focus on aesthetics including landscaping, flowers, and trees.” Increased street tree planting between the Town Center and Essex Center along Route 15 has specifically been mentioned. The *Official Zoning Regulations* and *Official Subdivision Regulations* contain requirements for landscaping and street trees. Ongoing maintenance of trees and landscaping – as well as the preservation of mature trees whenever feasible – will enhance the overall scenic qualities of the town.

Particular care should be given to landscaping and building aesthetics when development occurs at the gateways to Essex: VT Route 15 in front of Fort Ethan Allen and near the Jericho border, VT Route 2A at the Colchester border, VT Route 117 at the Jericho border, and VT Route 128 at the Westford border.

Creating stricter siting standards for the location of renewable energy generation facilities in Essex is a priority Action Item in Chapter 1. Until such standards are in place, 500 KW or greater ground-mounted solar electric generation facilities shall have zero impact on views identified as “Most Scenic” in Appendix 6, Segment Maps, *Views to the Mountain: a Scenic Protection Manual* (2011).

Cultural/Historic and Archeological Resources

Essex has grown and changed since its inception, but the town has retained many of its historical structures. The *Vermont Division for Historic Preservation* lists 107 individual historic sites in Essex, including the Village of Essex Junction. A significant portion of the historic sites are located in what the Division considered the Essex Center Historic District. Fort Ethan Allen contains the town’s other concentration of historic structures. All but a few of the Fort’s buildings are included in Vermont Division for Historic Preservation’s *inventory for Essex*, and the entire Fort has been established as being of national significance.

Fort Ethan Allen was built as a permanent army post in 1893, on land taken from Colchester and Essex. Command of Fort Ethan Allen transferred to the Air Force in 1952, and it became Ethan Allen Air Force Base until 1961. Between 1962 and 1965, after the Air Force officially relinquished the base, private individuals and the University of Vermont acquired various properties in the Fort. Currently, the Fort is used by St. Michael’s College, the University of Vermont, the Vermont Agency of Transportation, educational and private television stations, and various private businesses and residents.

The *Vermont Planning and Development Act* allows the enabling authority to create a Design Control District for “any area containing structures of historical,



Map 21: Historic Sites.

architectural or cultural merit.” Unless a design control district is established for a specific area, neither the Planning Commission nor the Zoning Board of Adjustment has any jurisdiction over ensuring that the design and scale of a building is harmonious with its surroundings. To maintain and enhance the cultural heritage of Essex’s historic neighborhoods, and to eliminate or minimize substantial character alteration of existing buildings, the Town enforces design control guidelines in Essex Center and Fort Ethan Allen. The two areas were established as design control districts in 1987. *Historic Preservation and Design Control Standards for Essex Center and Fort Ethan Allen*, a report prepared as part of the 1991 Town Plan, shall be consulted in the design or review of any project within the historic areas. The Town should also update the design control regulations.

Essex has many other historic structures and few tools to protect them from demolition or damage to their architectural integrity. Buildings at Butlers Corners are at risk. The Molloy-Delano House, for example, has been razed. Residents and members of the **Essex**

Essex has grown and changed since its inception, but the town has retained many of its historical structures.

Specific Cultural & Historic Policies

- 3(S).7 A sense of community shall be fortified by the expansion of arts and other cultural opportunities.
- 3(S).8 The adaptive reuse of historic structures shall be encouraged.

Community Historical Society have urged the Town to adopt comprehensive measures to protect such structures, and the protection measures should be taken into consideration.

In addition to the built environment, Essex has a strong cultural community. The town is the home of the **Essex Art League**, one of the largest local art groups in the state. The league’s membership is open to any interested Vermonter. Memorial Hall, an historic structure, hosts the **Essex Community Players** theater group.

Specific Land Use Policies

3(S).9 Development shall be consistent with Essex's role as a sub-regional growth center, with the scale of development supportable by a market derived from Essex and surrounding communities.

3(S).10 Strip development along roadsides, instead of compact development, shall be discouraged.

3(S).11 Essex shall continue to implement a residential phasing policy that establishes a rate of growth that can be accommodated by the Town.

3(S).12 The land ratio of 60 percent conservation and 40 percent developable in the Resource Preservation District – Industrial (RPD-I) zoning district shall be maintained.

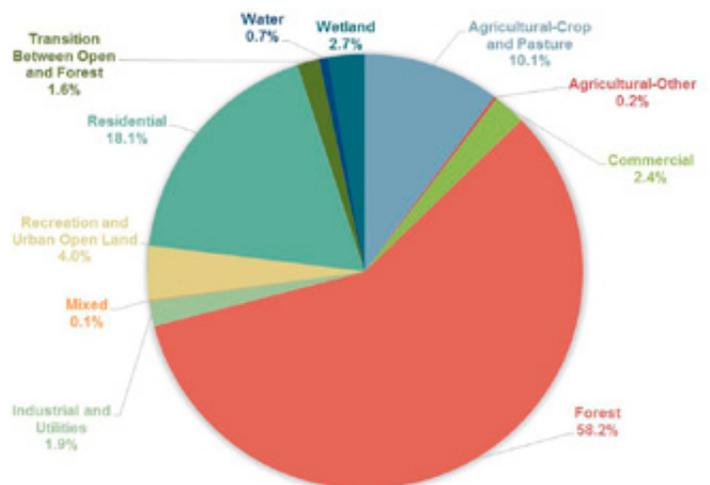
3(S).13 The 200-foot buffer requirement in the RPD-I district between residential areas and along VT Route 15 and Sand Hill Road shall be maintained.

3(S).14 Residential uses shall not occur in the RPD-I district.

3(S).15 When reviewing relevant development proposals, the Planning Commission shall consider access to and along the Winooski River corridor.

Land Use and Development

Essex is comprised of several dense areas surrounded by more rural areas of forests, farmland, and floodplains. Development in Essex has, in recent decades, concentrated in three of the denser areas: Five Corners in the Village of Essex Junction; the Town Center (particularly the new Town Center at Butlers Corners); and the Susie Wilson Road corridor. Industrial and commercial development has also picked up in the Saxon Hill area, which has some of the last remaining undeveloped industrial land in Chittenden County. The new Town Center, Susie Wilson Road corridor, and Saxon Hill industrial lands lie in the Town's sewer core area, which serves as a de facto boundary for growth; water and sewer infrastructure can handle denser development than wells and septic systems. Essex also has a residential phasing policy that allows for more annual development to occur inside the sewer core.



SOURCE: Existing Land Use GIS Layer, Town of Essex Community Develop Department

Figure 15: Existing Land Use 2011.

One of the tenets of Thoughtful Growth, as described by Heart & Soul of Essex, is a “balance of housing, business, and the preservation and maintenance of a variety of open spaces, including forests, trails, parks, and recreation fields.” Heart & Soul participants also wanted to ensure that citizens have input in planning and zoning processes.

By continuing to concentrate development in the sewer core – particularly in the growth areas described above – the Town can increase its tax base while protecting the

natural and scenic resources in the more rural parts of town. Existing zoning districts reflect the desire for higher density areas surrounded by more rural countryside. Outside the Village, the Susie Wilson Road corridor and Town Center area have zoning districts that support a mix of uses, including residential, commercial, and industrial zoning districts.

Residential neighborhoods are strung between the mixed use areas. The northern half of Essex remains less developed, with individual homes strung along rural roads between forests and agricultural land. Although Essex uses its zoning regulations and sewer core area to limit development in rural parts of town, residential development can slowly erode the community's more rustic, natural settings.

Essex has another dwindling Chittenden County resource: a significant amount of undeveloped industrial land. In the Town outside the Village, industrial land is primarily located in Essex West, Fort Ethan Allen, and the Saxon Hill area. A small portion of developed industrial land abuts the Village along VT Route 117/River Road.

Essex had long conducted its planning with the expectation that the Circumferential Highway would be completed. Since the 2011 Town Plan, however, Gov. Peter Shumlin announced that the Circ would not be finished. As a result of the announcement, Essex has worked with Colchester, Williston, the Village of Essex

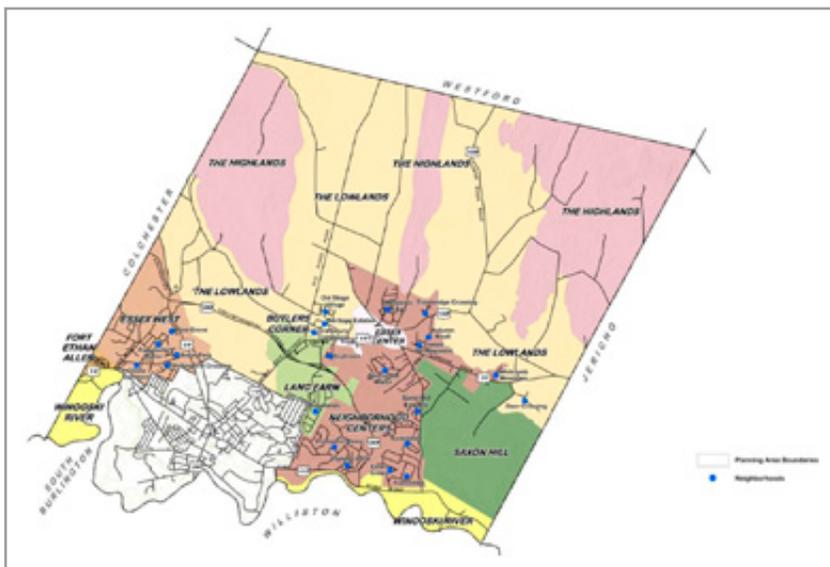
Junction, the Chittenden County Regional Planning Commission, and the Vermont Agency of Transportation to develop a series of **Circ Alternatives** to improve transportation in the region. The Circ Alternatives are described in the Transportation section of Chapter 2.

As Essex continues to develop, it will face the challenge of providing infrastructure and services to support a strong economy and a variety of housing types while also protecting the natural resources, open spaces and recreational offerings treasured by the community.

Description of Planning Areas

The Planning Commission has divided Essex into distinct planning areas based on the town's diverse, extensive land area: Fort Ethan Allen, Essex West, Neighborhood Growth Centers, Saxon Hill, the Highlands, the Lowlands, the Winooski River Corridor, and the Town Center area. The Town Center contains several sub-areas known as Butlers Corners/Lang Farm, and Essex Center.

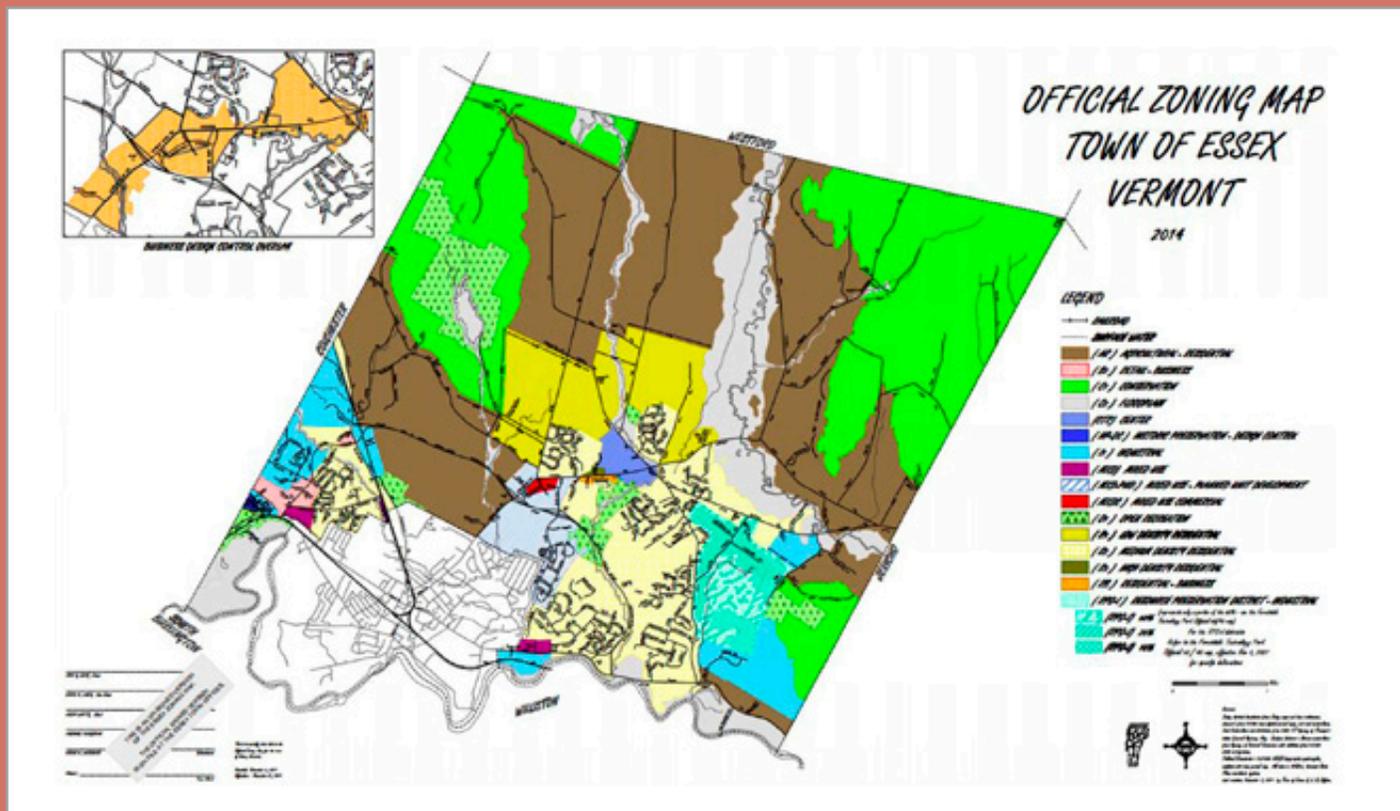
By considering Essex through distinct planning areas, residents and the Planning Commission can approach development and conservation through location-specific means that account for the unique characteristics found in different parts of town. The rest of this chapter lays out a general description of each planning area and describes the zoning districts found in each area. *(continued on page 87)*



Map 22: Planning Areas and Neighborhoods.

Although Essex uses its zoning regulations and sewer core area to limit development in rural parts of town, residential development can slowly erode the community's more rustic, natural settings.

Zoning Districts and Proposed Land Use



Map 23: Official Zoning Map.

The town's 15 zoning districts and two design control overlay areas guide the type of development that can occur in the various parts of town. The Village of Essex Junction has its own zoning districts that are not described in the *Town Plan*. More information about Village zoning is available in the [Village of Essex Junction Land Development Code](#).

Conservation (C1): The Conservation Area is intended to protect the sensitive natural resources and steep slopes that make these areas inappropriate for intensive development. The areas in C1 districts are removed from municipal services and facilities. Low-density residential development and related uses are permitted on parcels of 10 or more acres.

Floodplain (C2): Floodplain Areas are in place for several reasons: to reduce the potential for damage from flooding; to protect streams and water courses from erosion, siltation and pollution; and to protect the natural ecology of streambeds and lands adjacent to water courses. No building is permitted in floodplain areas; excavation, fill, disruption of vegetative cover or other encroachment is restricted.

Open Recreation (O1): Open Recreation Areas protect the natural resource value of publicly owned lands that meet the following criteria: are essentially undeveloped; lack direct access to public roads; are important to wildlife and wildlife habitat; have high potential for commercial forestry use; are unsuitable

for land development; or include irreplaceable, limited or significant natural, recreational or scenic resources. No public sewer and water facilities are planned for these areas. The only encouraged uses, which do not require additional facilities and services, are limited recreation uses, conservation, and forestry.

Agriculture/Residential (AR): Agriculture/Residential districts exist to protect lands that have an economic capability for agriculture. Currently, the districts contain some low-density residential development on lots no smaller than 3 acres, but are otherwise undeveloped except for uses associated with agriculture or forestry. With limited exceptions, the Town has no plans to develop roads or extend public water and sewer systems into AR districts. Therefore, only low density residential and recreational development that utilizes existing facilities, adequately disposes of sewage, and is compatible with the district's purposes and guidelines should be permitted. Encouraged uses include planned residential developments, as well as open space projects, conservation efforts, or forms of outdoor recreation that do not remove the potential of the land for agricultural production.

To facilitate effective use of existing structures, particularly historic structures and farm structures, the Town should explore additional allowable uses, such as community supported agriculture and renewable energy production, that will generate some economic return while not jeopardizing the rural character of the area.

As the Town and Village explore the potential to consolidate services, the community should evaluate the AR district boundary by the Circumferential Highway, VT 15, and the Village border to determine if other development allowances are more suitable than the current AR uses.

Low Density Residential (R1): Low Density Residential districts are intended to facilitate residential development in areas adjacent to but outside of the sewer core area. Minimum lot sizes of 1 acre maintain low densities and ensure that lots are large enough to accommodate on-site septic systems. Sites may be required to connect to municipal water service.

Medium Density Residential (R2): Medium Density Residential districts exist to facilitate residential development in areas inside the sewer core area. Connection to municipal sewer service shall be required when feasible or deemed necessary. Densities and lot sizes are based on the provision of municipal water and sewer services or a property's ability to accommodate on-site services.

High Density Residential (R3): The High Density Residential district is in place to encourage a wide range of housing opportunities in an area served by municipal services and facilities and public transportation. Home occupations, accessory apartments, and multi-family units on small lots are encouraged to enable some expansion of uses. Strip commercial development shall be avoided.

Zoning Districts and Proposed Land Use (*continued*)

Residential Business (RB): Located on the south side of VT Route 15 in Essex Center, the Residential Business district includes properties that are predominantly residential in nature. The district was established to protect existing residential uses while allowing for limited commercial uses that will generate minimal traffic and be compatible with neighboring residences.

Business Design Control Overlay (B-DC) and Historic Preservation Design Control Overlay (HPDC): The B-DC and HPDC areas exist to maintain and enhance the rich cultural and architectural heritage of Essex Center and Fort Ethan Allen, respectively, and to eliminate or minimize substantial character alterations of buildings in those areas. A report entitled *Historic Preservation and Design Control Standards for Essex Center and Fort Ethan Allen* (1986) contains standards and guidelines to be used in the review of development proposals in these areas. The Town should consider updating the design control standards.

Mixed Use (MXD): MXD areas allow a mix of residential and commercial uses in keeping with the existing character of the area.

Mixed Use-Planned Unit Development (MXD-PUD): The Town has conducted a comprehensive planning effort for the MXD-PUD district, a large tract of land near the new Town Center that has a combination of residential and commercial development.

Mixed Use District-Commercial (MXD-C): The MXD-C district provides land in the new Town Center for a broad range of retail and personal service shops, professional and governmental offices, and supportive, compatible commercial uses. High-density residential uses are encouraged when they add vitality to the area. All uses should be properly located and designed to enhance the existing structures in the area. Development should be reviewed in accordance with the 1991 *Town Center Master Plan* or any subsequent revisions. The Town should consider updating the Town Center Master Plan.

Center (CTR): The Center district, located around the intersection of VT Route 15 and VT Route 128, supports the role of the Historic Essex Center as the focus of many social and economic activities. Uses encouraged for the Center district include residential, civic, cultural, neighborhood commercial, home occupations, and others that will serve the needs of the community. Development should occur in a pattern and scale that maintains the traditional social and physical character of Historic Essex Center and preserves its historic and scenic resources. Sufficient facilities and services are planned for this area to accommodate moderate to high-density development. Development should be reviewed in accordance with the 1991 *Town Center Master Plan* or any subsequent revisions. The Town should consider updating the Town Center Master Plan.

Retail Business (B1): The town's B1 districts consist of existing commercial areas and adjacent lands that are becoming predominantly commercial. Because the

B1 districts are located on major thoroughfares, they are well-suited for providing the retail, business and personal service needs of Essex and nearby towns. Strip development along these thoroughfares must be prohibited in favor of consolidated access points that minimize traffic hazards and maintain smooth traffic flows. The B1 areas are the focal point of activity for the town, and the review of commercial development within B1 districts must ensure attractiveness for site design and signage. New commercial development should be compatible with adjacent commercial and residential structures. The Town should consider creating a business design control overlay for the B1 districts.

Resource Preservation District-Industrial (RPD-I): The RPD-I district, located in southeast Essex, contains forests, water bodies, and other natural settings. The district can also host industrial and commercial development when economically and aesthetically feasible. The district's specific objective is to protect the natural attributes for public enjoyment; economic development activities must occur in harmony with the natural surroundings.

Industrial (I1): The town's industrial districts are serviced by transportation facilities and public facilities, and provide employment opportunities in manufacturing, warehousing, and research and development. Commercial uses in I1 districts serve the industries and their employees. Development incompatible with industrial uses, such as residences, shall not be permitted for the health, safety and welfare of the community.

Fort Ethan Allen (HP-DC, I1, O1)

Fort Ethan Allen is an historic complex of buildings on VT Route 15 that spans the towns of Essex and Colchester and accommodates industrial, institutional, and residential uses. The large open area in front of Officers' Row, known as the Parade Grounds, is zoned for recreational uses and maintains an aesthetically pleasing gateway to Essex by providing a visual break in the built-up areas along VT Route 15. Because of its proximity to the Circumferential Highway and other major commuter routes, Fort Ethan Allen will be an attractive area for increased development. In 1987 the Town of Essex designated Fort Ethan Allen as a design control district to enhance the rich cultural heritage of the Fort and to minimize the threat of demolition or substantial character alterations of the many historic structures within the area as future development occurs.

Essex West (B1, I1, MXD, O1, R2)

The Essex West area functions as a self-contained community with a diversity of industrial and commercial businesses, a mix of housing opportunities, and direct access to major transportation routes. Essex West is bounded by Fort Ethan Allen to the south, the Town of Colchester to the west, Gentes Road and the Tree Farm recreation facility to the north, and the Village of Essex Junction to the east. With five different zoning districts and several gateways to the community, Essex West has experienced significant development pressure. Susie Wilson Road has become one of the primary commuter routes in Chittenden County by connecting the Circumferential Highway and VT Route 15. Three reports and studies completed since 2000 – Susie Wilson Road, Capacity and Access Management Study, a follow-up "scoping report," and a 2004 report from the Susie Wilson Road Study Committee – provide recommendations for traffic and zoning changes meant to accommodate growth in the Essex West area.

Neighborhood Growth Centers (C2, O1, R1, R2)

Because of past policies and regulations, nearly half of all homes in Essex are located on neighborhood streets as opposed to major roads. The areas immediately adjacent to River Road, Sand Hill Road, VT Route 15 and the Town/Village boundary have historically been the Town's



Fort Ethan Allen is an historic complex that includes residences, industrial buildings, and offices. Photo by Sharon Kelley.

residential growth centers. Neighborhoods help create a sense of community and future residential growth should be encouraged to maintain this development pattern. All of the neighborhood growth centers are located within the Town's sewer service area. Town services, including schools, adequate streets, sidewalks, sewer, water and recreation facilities, should be provided as needed to support these land uses.

Saxon Hill (I1, C1, O1, RPD-I)

Consisting of mature and reclaimed forest and four ponds formerly used as a public water supply, the Saxon Hill area has long been considered a resource to be preserved. The Saxon Hill forest has educational,

historical, recreational, and commercial (logging) value, and serves as a prime example of how forest management can reclaim poor soils and maintain a watershed.

In 1977, the Town designated approximately 750 acres of the Saxon Hill area as a Resource Preservation District – Industrial zoning district. The RPD-I district allows for limited, well-planned industrial and office uses. Within the RPD-I, 40 percent of the land can be developed industrially and commercially, while the remaining 60 percent must be kept as undeveloped open space. The land offers many of the characteristics desirable for industrial and office uses: level terrain, well-drained soils, proximity to transportation routes, and availability

of utilities. Portions of the undeveloped forest buffer neighboring residences from commercial and industrial development. More than a dozen businesses and industries have located in the Saxon Hill Industrial Park since 1977.

The Highlands (AR, C1, R1)

Essex faces the challenge of preserving the fragile natural resources in the Highlands, areas with steep slopes and high elevations that make up more than 20 percent of the town's land. The Highlands include Brigham Hill (elevation 1,032 feet), Bixby Hill (elevation 666 feet), Saxon Hill (elevation 807 feet), and the Osgood Hill Road and Sleepy Hollow Road areas. The majority of these areas fall in Conservation (C1) districts, which require minimum lot sizes of 10 acres. Steep slopes and poor soils make the Highlands ill-suited for anything other than low-density development. As a result, the Highlands have light, scattered residential development surrounded by large tracts of productive timber. The undeveloped land is important for wood production, aquifer recharge, wildlife habitat, recreation, erosion control and aesthetics. The State of Vermont has identified much of the Highlands as high priority habitat blocks that extend into Colchester and Westford and other towns to the north. Development that occurs in the Highlands shall be subject to strict siting standards and tight building envelopes to protect natural resources and scenic views.

The Lowlands (AR, C2, R1)

The river basins around Alder Brook, Browns River, and Indian Brook make up Essex's Lowlands. These water resources and their associated floodplains and wetlands influence the development patterns of other low-lying, open lands. Floodplains, for example, closely align with the availability of prime agricultural soils and often represent the town's most visually sensitive areas. A prohibition on floodplain development has preserved open land, particularly along the Browns River, Alder Brook, and Abbey Brook. Similarly, the land surrounding the Winooski River and its tributaries contains networks of recreation areas and proposed trails identified in the 1989 *Open Lands Study*.

Despite the protections afforded by floodplain regulations, significant portions of the Lowlands are

vulnerable to development. The Lost Nation Road area and the area northwest of VT Route 15 have become particularly attractive to development because of their proximity to the Circumferential Highway. Agricultural lands tend to lack physical constraints, making them attractive for development. Zoning in the Lowlands allows for agriculture, forestry, rural housing, recreation, and resource protection. The established zoning seeks to protect and manage the area's significant natural, scenic, and recreational resources.

The Town should seek to further protect the resources in the Lowlands through the careful placement of housing and the establishment of open space requirements.

Town Center (CTR, MXD-C, MXD-PUD, O2, RB, R3)

At the public forum for the 1990 Town Plan, residents overwhelmingly expressed a desire to maintain a sense of community and pride in the place they live. Heart & Soul participants reaffirmed that sentiment in 2012 and 2013. At the 1990 forum, residents identified the historic Essex Center area around the intersection of VT Routes 15 and 128 as essential to maintaining a sense of community, and called for the preservation of the historic town center. Around the same time, a Land Use Committee tasked with formulating a vision for future land use in Essex recommended that a new town center be developed.

Through a series of workshops and studies, Essex decided to locate the new Town Center at Butlers Corners and the Lang Farm, in the area where VT Route 15 intersects with the Circumferential Highway and Old Stage Road. A *Town Center Master Plan* released in 1991 describes a new town center at Butlers Corners and a more historic, civic center at the intersection of VT Routes 15 and 128. The *Town Center Master Plan* reinforces the goal of compact settlements surrounded by rural countryside by seeking to preserve and improve the quality of open space and enhance settled areas. The plan calls for lively, walkable, mixed-use centers in close proximity to greenways, trails, recreation land, forests, and farmland.

At Butlers Corners and the Lang Farm, the *Town Center Master Plan* calls for higher density and mixed-use buildings offering a variety of housing types within close



*Essex Town Center contains shops, restaurants, and apartments.
Photo by Greg Duggan.*

proximity to shops, services, community facilities, places of work, and a new common. The Master Plan expected the scope and scale of commercial development in the Town Center to serve a market that extends beyond Essex. A street network described in the plan would provide a framework for development and promote pedestrian circulation and public transit. Historic buildings in the Butlers Corners area are to be retained as prominent features within the greenway.

The *Town Center Master Plan* defines Essex Four Corners – the intersection of VT Routes 15 and 128 – as the cultural center of the community. The vision calls for a renovated common and a center in which civic spaces, cultural events, churches, community groups, pedestrians, artists, and performers thrive.

VT Route 15 links the new Town Center to Essex Four Corners, and the *Town Center Master Plan* envisions a broad, tree-lined boulevard that scales down to fit the character of the area as it enters historic Essex Center. Commercial development between Butlers Corners and Essex Center shall be limited in scale.

The designs, standards and recommendations from the *Town Center Master Plan* shall be considered in the review of future development for the area, although the Planning Commission can permit modifications if they conform to the overall goals and objectives of the Town Plan. In the years leading up to the 2016 Town Plan, the Planning Commission classified several residential care facilities in the Town Center area as commercial, rather than residential, uses. The determination allowed developers to build at a higher density than would have been otherwise allowed. As the Town Center continues to develop, the Town should revisit its classification of residential and congregate care facilities to determine if the commercial use should be allowed, or if residential facilities should be permitted at higher densities in the town's growth areas.

Twenty-five years after the release of the *Town Center Master Plan*, full build-out of the new Town Center has yet to occur due to market conditions, the uncompleted Circumferential Highway, and other factors. Development has, however, picked up in recent years, and the Town should prioritize an update of the *Town Center Master Plan*. Even the 2011 *Town Plan* acknowledged, “The 1991 Master Plan is long overdue for a comprehensive update to examine densities, infrastructure funding, uses and design control.”

*“The 1991 Master Plan
is long overdue for a
comprehensive update
to examine densities,
infrastructure funding, uses
and design control.”*

~2011 Essex Town Plan

Secondary Commercial and Residential Center

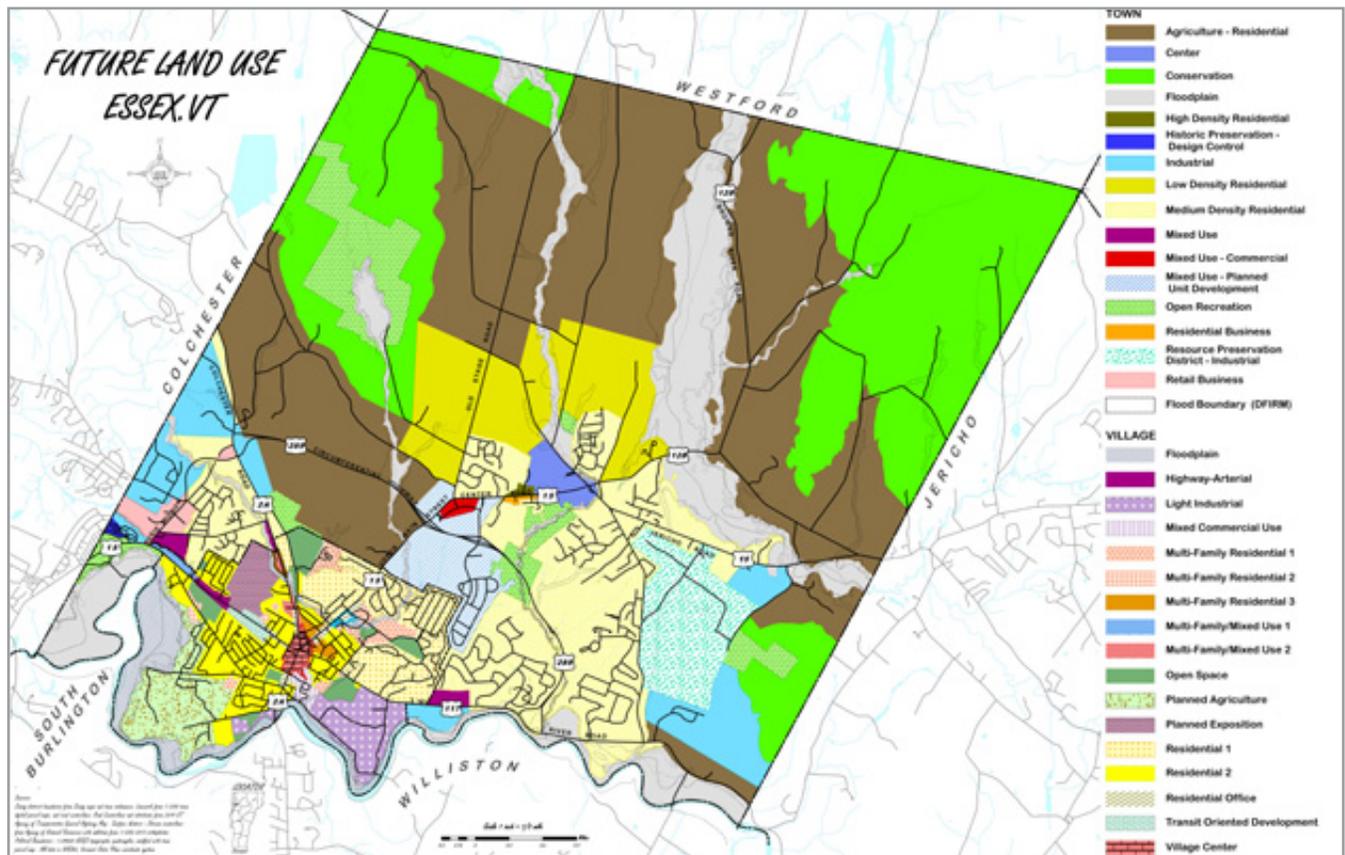
A secondary commercial and residential center is proposed for the area west of VT Route 15, south of Lost Nation Road, and north of the Circumferential Highway, as shown on the Future Land Use map. High-density residential development will go forward only if, in addition to the sole planned VT Route 15 vehicular access at the existing traffic signal, a strong pedestrian connection is provided across VT Route 15 to the Town Center.

This secondary center will allow for an expansion of the locally-oriented commercial services that were originally expected to fill the former Lang Farm Retail Center and the Town Center area. Development should be carefully designed and executed to preserve the rural/urban settlement pattern proposed by the *Town Center Master Plan*. Of particular concern would be the size, scale, and orientation of proposed buildings and how the final appearance of this highly visible area would be altered. Development in this area can probably be best

accomplished through a Planned Unit Development that would allow proposed projects to address setbacks and other zoning regulations constraints with some flexibility.

Land Use in Outlying Areas

Much of the Town's land use planning is focused on directing new development toward the Town Center and other planning areas within the sewer service area. A complementary planning goal is the prevention of excess development on rural land outside the municipal service boundary. Outside Butlers Corners and Lang Farm, Essex Center, and existing residential areas, development should be clustered and multi-unit dwellings discouraged. Such development patterns reinforce the concept of compact settlement surrounded by countryside, create more contiguous open space, and preserve significant views. The Town should consider additional analysis to address possible expansion of the sewer core area that enhances the Town Center. If the analysis occurs, it must consider the consequences of additional growth and sprawl.



Map 1: Future Land Use.

Serving the Community



Dan Roberge of the Highway Department repairs Old Colchester Road. Photo by Greg Duggan.

The Town provides community services for the health, benefit, safety and enjoyment of its residents. Careful planning is essential if community facilities and services are to meet local needs for growth, safety, recreation, transportation, education, and sustainability.

Local Government

The government of Essex derives its authority from a combination of Vermont statute and separate charters for the Town of Essex and the Village of Essex Junction. The Town of Essex includes the Village of Essex Junction, and Village residents are also Town residents.

The Town of Essex adopted its [charter](#) in 1763, with voters accepting a redrawn charter in 1971. The Village formed in 1893, when residents wanted more services than the rest of the Town was willing to support and successfully petitioned the Vermont Legislature for a [Village Charter](#). A [Village President and a board of four Trustees](#), whose duties are similar to those of the Town's Selectboard, oversee the Village government.

In the Town, five people are elected to the [Selectboard](#) for staggered three-year terms. The Town charter gives the Selectboard powers that include the provision of police and fire protection, acquisition of land, adoption and enforcement of ordinances, and dog control. The Selectboard also appoints volunteers to several [boards and committees](#) that serve the Town in various regulatory or advisory capacities.

The Town of Essex is responsible for functions related to records, listing (real estate assessment), tax collection, planning, issuing of licenses (liquor, dog, hunting, fishing,

Specific Policies

4(S).1 People expect many things of Town government. When considering the competing demands for services, the Town shall carefully measure these demands against the need to maintain fiscally responsible budgets and tax rates.

4(S).2 To the greatest extent possible, municipal buildings shall be located in the economic core of the community.

marriage), public health and welfare, and monitoring of the landfill. The Town is also responsible for water and sewer utilities, fire protection, regulation of elections, zoning enforcement, and maintenance of Town roads.

Oversight of daily Town affairs falls to the Town manager, a salaried official appointed by the Selectboard. The manager is accountable to the Selectboard, but also advises the Selectboard and can initiate policy. In 2013, Town Manager Patrick C. Scheidel also began serving as the Village manager. By creating a position for a joint municipal manager, the Selectboard and Village Trustees took the first step in a combined Town and Village effort to improve the delivery of services by consolidating various municipal departments.

With the early stages of the municipal manager model proving successful, the Selectboard and Trustees explored other consolidation possibilities. In September 2014, the Selectboard and Trustees accepted *An Examination of a Shared Services Delivery Model for the Village of Essex Junction - Town of Essex, Vermont*, a report of a study conducted by former Selectboard member Jeffrey B. Carr and former Village Trustee Mary L. Morris. The report considered consolidation from the perspective of service quality, noting, “If there were budget savings ... or new sources of revenue ... that emerge from the implementation of the recommendations, those economic or financial gains were treated as secondary impacts.”

Consolidation efforts continued in 2015, when voters approved a fiscal year end 2016 budget that consolidated the Town and Village Highway departments and stormwater functions, as well as the finance and administration functions for the Town and Village. The model for the shared highway departments came on a three-year trial basis, and as of 2015 the Town and Village planned to look at the possibility of sharing other public works functions in the near future.

The Town and Village also launched a project in 2015 to study the best way to plan for future growth and development in Essex. Entering 2015, each municipality had its own planning commission and zoning board of adjustment. As an outgrowth of Heart & Soul, the facilitated, community discussions planned as part of



Selectman Mike Plageman speaks at Town Meeting.
Photo by Dana Hanley.



Town Clerk Cheryl Moomey can help residents with tax and utility payments, marriage licenses, dog licenses, land records, notary services, and more. Photo by Greg Duggan.

“The Town Clerk’s office is the hub of the municipal offices. The people who come in over the years are family.”

~Cheryl Moomey, Essex Town Clerk

Regional Partners

In addition to its municipal government, Essex actively participates in or provides funding to a number of regional governmental entities, including the following:

- Champlain Water District (CWD)
- Chittenden County Court System
- Chittenden County Regional Planning Commission (CCRPC)
- Chittenden County Transportation Authority (CCTA)
- Chittenden Solid Waste District (CSWD)
- Greater Burlington Industrial Corporation (GBIC)
- Lake Champlain Regional Chamber of Commerce (LCRCC)
- Winooski Valley Park District (WVPD)

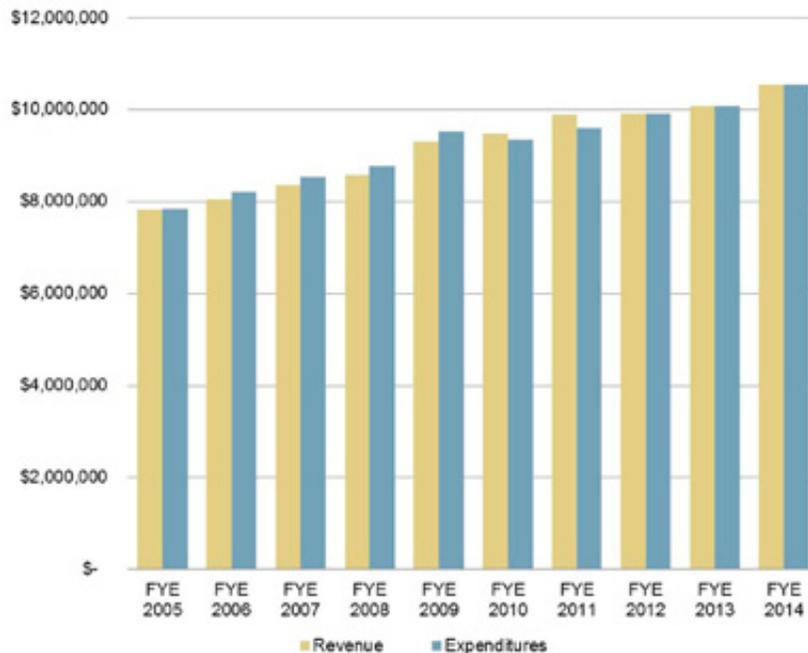
Thoughtful Growth in Action were meant to explore different scenarios for planning governance. A working group for Thoughtful Growth in Action expected to release recommendations early in 2016.

Fiscal Overview

Property taxes account for most of the Town's revenue and pay for the numerous services provided by local government and schools. The Town receives taxes from properties located in the Village, but the bulk of the analysis in this section will focus on the Town municipal budget and the value of property located outside the Village.

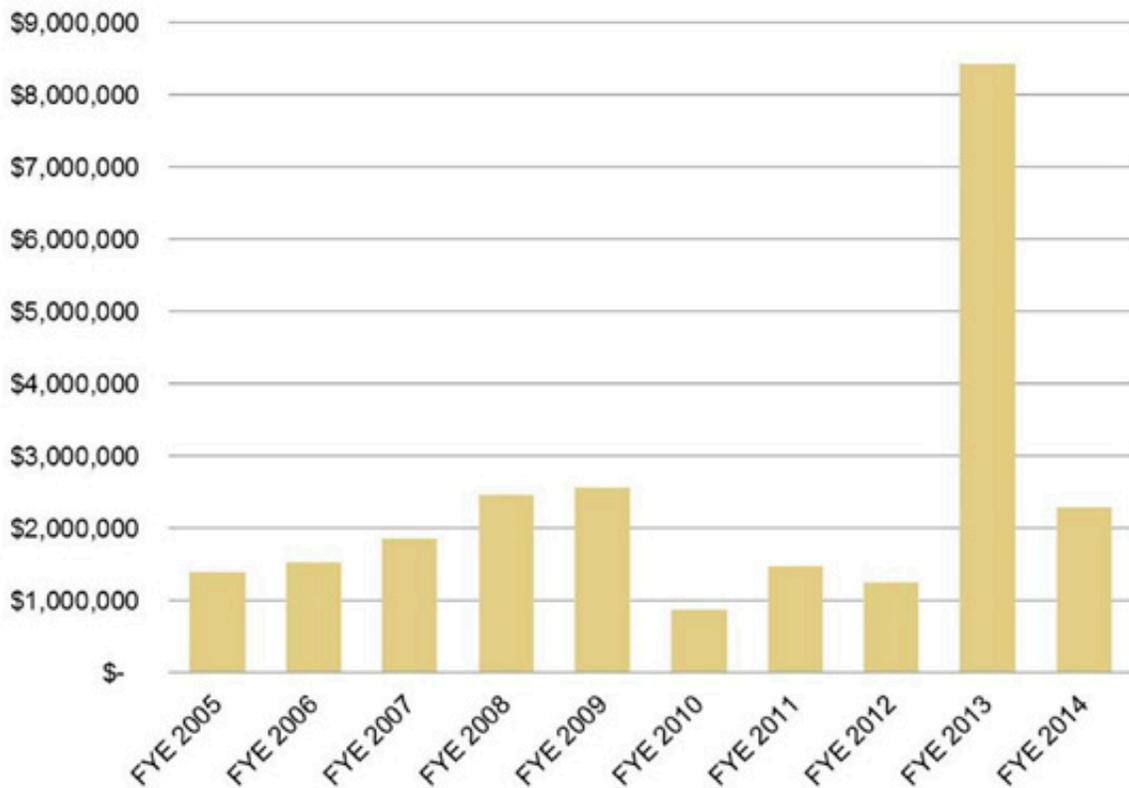
In the 10 years between fiscal year end 2005 and FYE 2014, the Town saw annual expenses increase by an average of 3.4 percent. In FYE 2014, the Town had general fund expenditures of \$10.53 million.

The Town has also had a capital budget since 1994. Since 2007, the capital tax rate has been 2 cents.



SOURCE: Town of Essex Finance Department

Figure 16. General Fund Revenue and Expenditures (Town outside Village) Fiscal Years 2005 - 2014.



SOURCE: Town of Essex Annual Reports

Figure 17. Capital Expenditures (Town outside Village) Fiscal Years 2005 - 2014.

Municipal taxes – the Town’s general fund, capital fund, highway tax, and local agreement rate – comprise less than 25 percent of the total tax rate. Tax rates vary each year based on the size of the budget and the value of the grand list, which represents 1/100th of the value of property in Essex. The Assessor’s Office determines the grand list value by appraising and assessing all taxable real estate in Essex. The last reassessment occurred in 2007.

Between FYE 2007 and FYE 2014, the total residential tax rate in the Town outside the Village increased from \$1.7367 to \$1.9911 per \$100 of a property’s assessed value. Non-residential tax rates rose from 1.7068 to 1.9840 over the same time period. The total tax rate includes municipal and school taxes.

Village taxpayers fund the Village general fund and Essex Junction Parks & Recreation in addition to the Town municipal taxes, although the Village rate does not include the Town Highway tax. School tax rates also differ between the Village and the Town outside the Village.

The passage of Act 60 in 1998 dramatically changed financing methods for school expenditures. Prior to Act 60, many communities encouraged commercial and industrial growth, as they directly benefitted from the development. Since Act 60, a town is able to keep its commercial and industrial tax base for municipal costs, but a portion of that tax base is shared with the entire state to pay for state-wide educational costs. In that way, growth in a community’s commercial and industrial tax base benefits the entire state, and has a much smaller financial benefit for the community. With school costs representing a high percentage of overall municipal expenditures, the funding formula greatly reduces a community’s tax incentive to seek commercial and industrial growth. As described in Chapter 2, however, Essex would like to increase its commercial and industrial base so that non-residential properties make up a greater proportion of the grand list. That would reduce the proportion of municipal taxes paid by residents, as well as bring more jobs close to home.

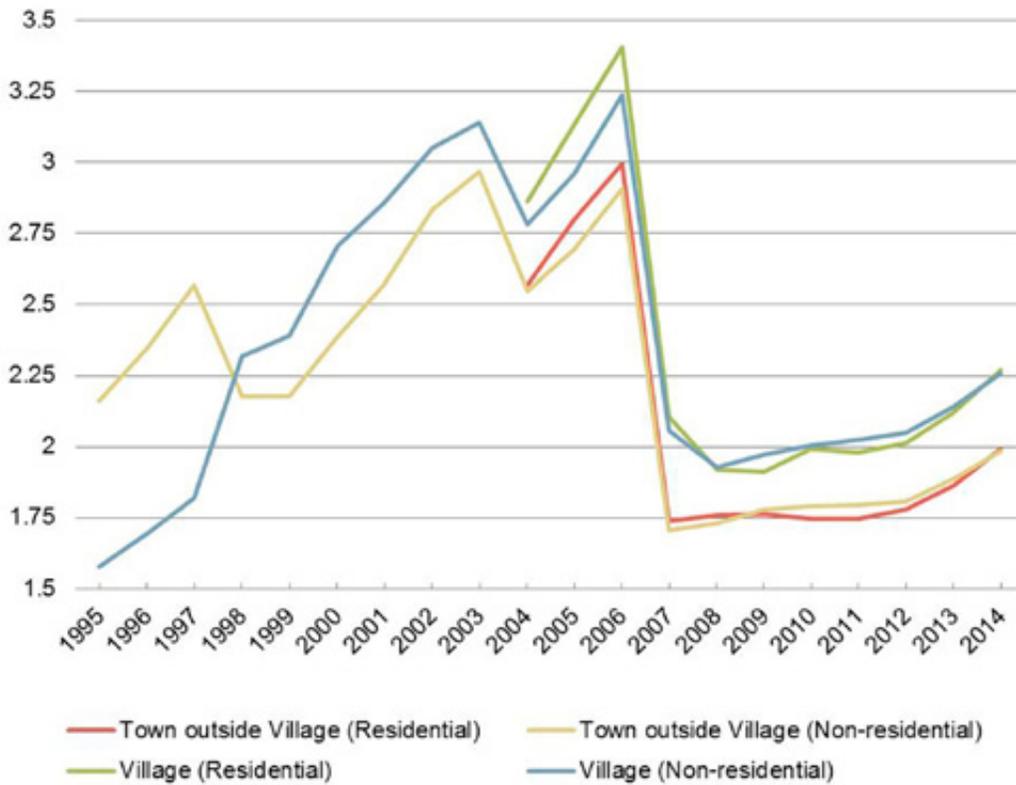


Figure 18. Essex Total Tax Rates (Municipal & School) Fiscal Years 1995 - 2014.

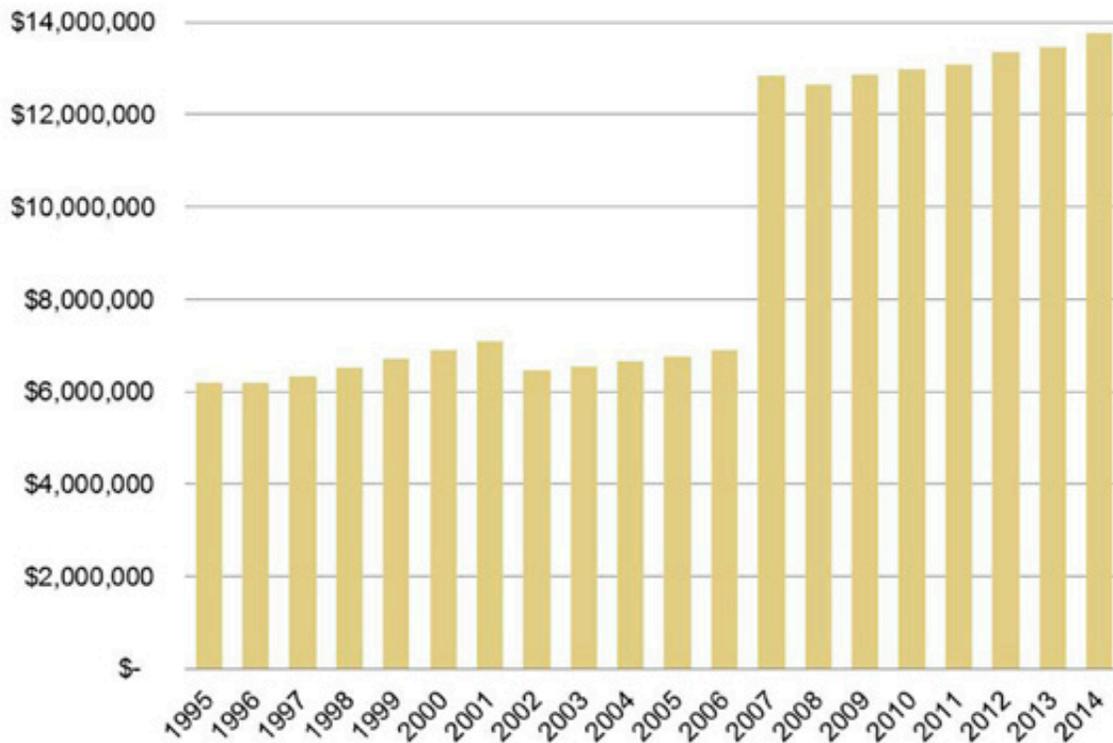
The grand list grows in two ways. First, the value of new development is added to the grand list each year. Second, appreciation of property values causes the grand list to grow. Property value officially appreciates only when adjustments are made through a reassessment. Between reassessments, grand list growth only reflects new development. The Town’s last reassessment took place in 2007. Since the reassessment, the grand list has averaged growth of slightly more than 1 percent per year through 2014, indicating a steady rate of development in the Town.

As of 2014, residential property (homes, mobile homes, apartments, and condominiums) made up 78 percent of the grand list. Commercial properties accounted for 14 percent of the grand list, and industrial plants nearly 4 percent. All other property types – utilities, farms, undeveloped land – made up the remainder of approximately 4 percent.

The Town has enacted impact fees to cover some or all of the capital costs of new public facilities needed to serve new development. Funds generated by impact fees must be used for the designated capital expenditures within a specified period of time. Impact fees reduce the burden of funding new capital facilities, which otherwise falls on the remainder of the grand list.

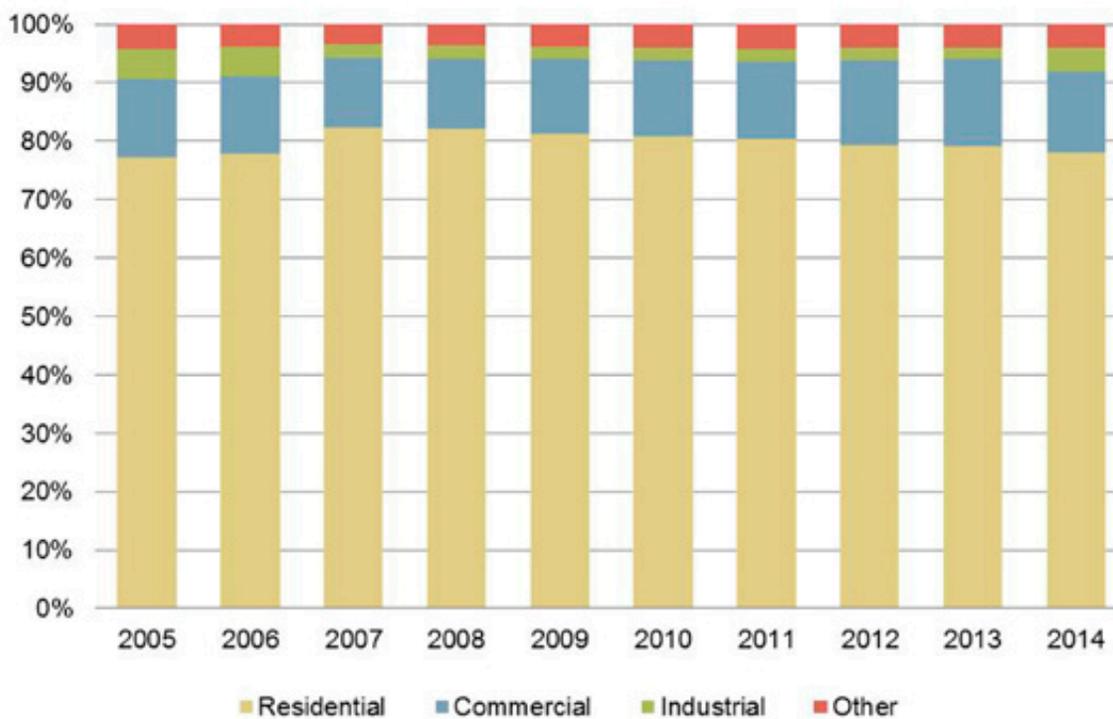
The Town’s [capital plan](#) identifies capital improvement needs, proposed funding, and potential funding sources.

The Town has also established enterprise funds for sewer and water facilities. These funds cover capital and operating costs by charging water and sewer customers for the services. The enterprise fund operations derive no revenue from the general tax base.



SOURCE: Essex Assessor's Office

Figure 19. Grand List (Town Outside the Village).



SOURCE: Form 411

Figure 20. Grand List by Property Type (Town Outside the Village).



Community Development Director Dana Hanley (left) and Zoning Administrator Sharon Kelley review plans for a subdivision application. Photo by Greg Duggan.

Municipal Office Building

Prior to its recent renovations and expansion, the municipal office building, located at 81 Main Street, provided 8,000 square feet for the Town Manager's office, Real Estate Assessment, Community Development, Finance, Parks and Recreation, and the Town Clerk. The Police Department moved from 81 Main Street into a new building at 145 Maple Street in 2014.

The municipal office building had long needed to come into compliance with the federal Americans With Disabilities Act (ADA) by installing an elevator and ADA-accessible bathrooms. When the police moved out of the municipal office building, the Town had an opportunity to make the necessary renovations, and did so in 2015. In addition to accessibility upgrades, renovations included an expanded vault, new entry stairs, new ceilings, new HVAC equipment, some reconfigured walls, new lighting, new windows, an expanded conference room, and a new membrane roof.

Assessor's Office

The **Assessor's Office** maintains property information records – including property ownership and physical attributes of taxable properties – sales information, and tax maps. The information is available to other Town departments, outside agencies, and the public.

Community Development Office

The **Community Development Office** oversees all planning and zoning issues. Staff coordinates the development review process by Town boards, commissions, and other municipal departments. The Community Development Office also undertakes long-range planning efforts for the future of Essex, and maintains and updates the Town Plan, the **Official Zoning Regulations** and the **Official Subdivision Regulations**.

The **Planning Commission, Zoning Board of Adjustment, and Conservation Committee** receive staff support from Community Development.

The health officer and GIS computer mapping services also reside in the Community Development Office.

Finance Department

The **Finance Department** is responsible for all financial record keeping: tax, water, and sewer billings and collections; insurance; and accounts payable and receivable.

Town Clerk's Office

The **Town Clerk's Office** serves as the hub of the municipal office building, providing a variety of services to residents and generating revenue for the Town. The policies and actions of the Clerk's office are mandated by state statutes. Residents can pay their taxes or utility bills in person in the Clerk's office. The Clerk's office prepares many licenses for the Town of Essex and the Village of Essex Junction, including marriage, dog, fish and game, and liquor licenses. The Clerk's office records and prepares certified copies of all vital records, land records and survey maps for the Town. Residents can also use the Clerk's office for notary services, temporary DMV registration renewals, and recording military discharges. Many attorneys and paralegals do title work in the vault, helping Town and Village residents buy new homes or refinance the homes they have.

Dogs in Essex

Dog licensing increased from 1,240 dogs in 2001 to 1,500 in 2014, based on tag number records kept in the Clerk's office. All dogs owned in the Town, including the Village, must be registered with the Town Clerk before April 1 of each year.

Dogs can roam off-leash at the dog park on West Street in the Village, at undeveloped parts of Indian Brook Park, and in the Saxon Hill Forest.

Town-wide Voter Turnout

The Town Clerk's Office tracks voter turnout. Since 2002, Essex has seen the following turnout in general elections:

2002: 7,582

2004: 10,411*

2006: 9,071

2008: 10,926*

2010: 8,550

2012: 10,433*

* *Presidential election*

The Clerk's office also acts as the central location for voters. Residents can go to the Clerk's office to register to vote, or to vote by absentee ballot before an election. On an election day, polls are open at Essex High School and Essex Middle School. The number of registered voters in Essex has increased from 13,727 in 2001 to 15,808 in 2014.

Parks and Recreation Department

The Essex **Parks and Recreation Department** helps ensure that residents can enjoy healthy, active lifestyles by managing recreational facilities and offering a variety of programs for everyone from preschoolers to seniors. With a goal to be "Your Connection to a Healthier Community," Parks and Recreation has responsibility in six areas: Recreation, Park Maintenance and Development, Senior Vans, Aquatics at Sand Hill Pool, Cemetery Maintenance, and the Extended School Program.

Essex residents appreciate opportunities to maintain healthy, active lives, and as the 2012 **Recreation Needs Assessment** found, "The Town of Essex is a thriving community with a rural character, offering a wide range of opportunities for outdoor recreation and active partnerships to serve a variety of indoor recreational needs." The report was based on a town-

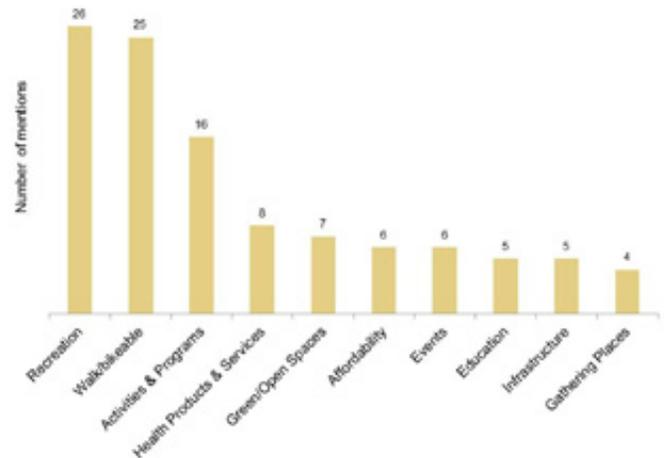


Essex residents carve pumpkins at the Halloween Celebration hosted by Essex Parks and Recreation and Essex Junction Recreation & Parks. Photo courtesy of Essex Parks and Recreation.

wide, statistically significant survey. The *Recreation Needs Assessment* contains a set of goals related to park, trail, and facility improvements, and shall be consulted as the Town plans for and expands its recreational offerings.

Not long after the release of the *Recreation Needs Assessment*, residents again highlighted the importance of healthy living during the Heart & Soul project: Health & Recreation emerged as one of Essex’s six community values.

“We value public places for outdoor and indoor recreation for all ages and abilities,” Heart & Soul said. “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.”



SOURCE: Heart & Soul of Essex

Figure 21. What **HEALTH & RECREATION** means to Heart & Soul participants.

The Parks and Recreation Department has supported active lifestyles since 1972, when the department was created with a part-time staff. Parks and Recreation became a full-time department in 1979. As of 2015, the Department was staffed with four full-time employees, two part-time employees (one funded through the Enterprise Fund, which is not taxpayer-based), and more than 60 seasonal employees.

The department maintains more than 18 parks and facilities in the Town outside the Village; **Essex Junction Recreation and Parks**, which operates under the Chittenden Central Supervisory Union, cares for the three parks within the Village limits. The recreation departments strive to complement each other, and collaborate on special events throughout the year.

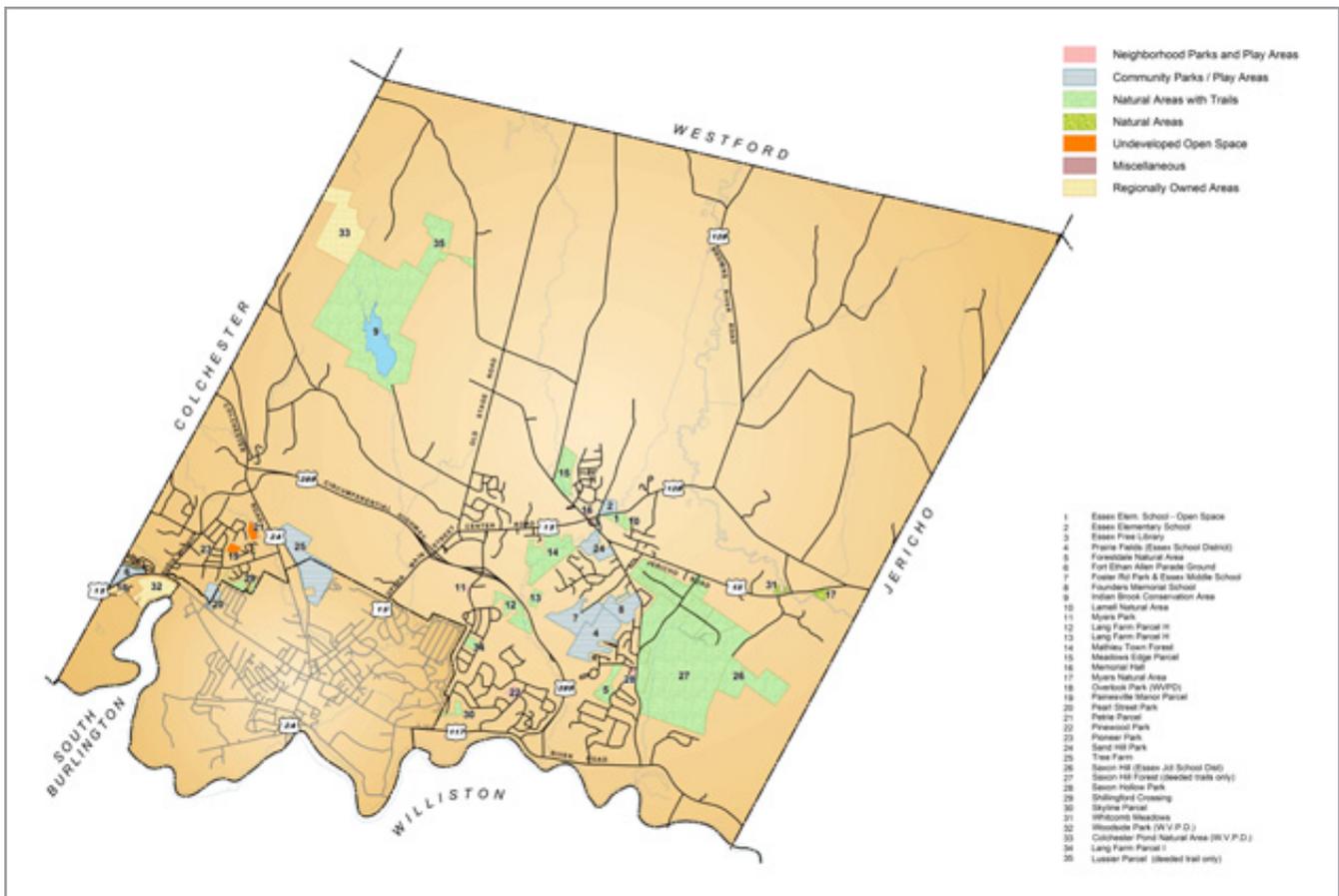
Parks and Facilities

The Parks and Recreation Department maintains all Town-owned land in Essex outside of the Village, allowing residents to recreate in parks and open spaces, in water, and on trails. The Town’s **capital improvement**

Heart & Soul Describes Health and Recreation

Heart & Soul participants described the Health and Recreation value in the following ways:

- Support for strong recreation departments;
- Biking and walking friendly, including the presence of lanes, paths, trails, sidewalks, and connectivity of these across the community;
- Diverse year-round recreational opportunities for all age groups, including community events;
- A variety of recreation facilities including pools, parks, fields, and shared community spaces;
- Access to health providers;
- Access to healthy, local food;
- Affordable and accessible opportunities for physical activity;
- Maintenance of open spaces and parks, particularly Indian Brook Reservoir; and
- Health, fitness and nutrition education.



Map 24: Parks and Recreation.

Park Classification

Community Parks are the largest type of park in the classification system. Visitors generally ride or drive to community parks, which are typically 10 acres to 25 acres in size. A community park should possess diverse environmental features such as a pond, some open space, and a forest. The park should also be suited for intense recreational activities, and should have facilities for people of all ages. Facilities might include a baseball or softball diamond, a basketball court, a tennis court, an ice skating rink, playground equipment, shuffleboard courts, a picnic area, or an outdoor nature study area.

Neighborhood Parks provide passive and active recreation opportunities for a nearby neighborhood, making them pedestrian-oriented parks. A neighborhood park that serves an area with single-family houses might consist of a softball field, playground equipment, and a picnic area. Alternatively, a neighborhood park near a condominium project with few children might contain a tennis court and a basketball court. Neighborhood parks will range in size from 1 acre to 15 acres. These spaces are often associated with elementary schools.

A Mini-Park is a specialized recreation space, usually 1 acre or smaller. Mini-parks provide recreational opportunities for a concentrated and limited population, and may guarantee green space within a subdivision. Almost exclusively accessed by pedestrians, mini-parks usually serve a radius of several blocks. Mini-parks should be low-maintenance facilities. Tot lots are a common type of mini-park. A mini-park designed for senior citizens could contain horseshoes or a shuffleboard court in addition to walking and sitting areas.

Natural Areas offer the potential for multi-purpose recreational use for the entire community. These sites contain significant natural features such as forests, water bodies, and high elevations. Natural areas can be used for conservation purposes or, with proper management and use, can provide varied recreational opportunities without damaging the natural qualities of the site.



Youngsters play tennis during one of the camps offered through Essex Parks and Recreation. Photo courtesy of Essex Parks and Recreation.



Residents can cool off during the summer at Sand Hill Pool. Photo courtesy of Essex Parks and Recreation.



Even in the colder months, Indian Brook Reservoir serves as a place for Essex residents to enjoy the outdoors. Photo by Karen Furland.

plan ensures timely maintenance and enhancements occur at parks and playgrounds. The Town's insurance company also inspects the facilities.

The Town has adapted a classification system from the **National Recreation and Parks Association** to describe the types of parks outside the Village. By classifying facilities, the Town can better decide how to allocate money and staff time to its parks. The preceding map and sidebar show and describe the sites in Essex.

Indian Brook Park is the Town's most popular park. The 575-acre natural area in northwestern Essex contains miles of trails and a 60-acre reservoir where visitors can swim, fish, and paddle. The reservoir served as the public water supply for the Village of Essex Junction

until the Village joined the Champlain Water District in 1973. A private owner purchased the entire parcel in 1977. The Town obtained the park in 1986, when voters approved a \$750,000 bond to purchase the property, repair the dam, and make necessary improvements. The Town also received a \$16,000 donation from The Nature Conservancy toward the purchase price of \$435,000.

Initial renovations to Indian Brook Park took place during 1988. Parks and Recreation continues to enhance the park with trail improvements, signage, and treatment of the invasive species Eurasian milfoil. The Town explores mitigation measures for milfoil on an ongoing basis. Beavers have dammed tributaries in the past, causing problems that Essex has attempted to resolve by trapping and by using beaver baffles.



A mountain biker navigates one of the many trails throughout Essex. Photo by Karen Furland.

To mitigate overuse of the park, the Town began to limit the issuance of new Indian Brook permits to Essex residents in 2013. All park visitors must purchase a permit from Parks and Recreation; the Town issued nearly 4,000 passes in 2014. The Town needs to conduct a capacity study and develop a master plan for the park. Parks and Recreation should coordinate with the Police Department to map zones and trails within the park to improve wayfinding and support emergency response. During the busy summer months, Parks and Recreation would like to share a seasonal staff person with Public Works for maintenance purposes.

When possible, the Town seeks to expand the trail system around Indian Brook by capturing trail

easements in the area. North and west of Indian Brook, the [Winooski Valley Park District](#) owns an abutting property that contains trails leading to [Colchester Pond](#).

Residents can enjoy other natural areas in town, as well. In southeast Essex, **Saxon Hill Forest** features a combination of conservation/recreation land and industrial land over approximately 750 acres. The forest contains at least 12 miles of trails. Public access easements exist over some trails, but entering 2015, only 90 acres were under public ownership – the Essex Junction School District leases the top of Saxon Hill and lands immediately east of Saxon Hill Road to the Town. In the spring of 2015, however, the Selectboard reached a conceptual settlement with a private

landowner to acquire approximately 245 acres for conservation and recreation purposes. Once the Town takes over the land, it should develop a forest management plan for the property.

In Essex Center, the 30-acre **Town School District Forest** contains a small reservoir. Founders Road provides access to the forest. Nearby, **Mathieu Town Forest** covers 76 acres between Sunset Drive and Birchwood Manor. Donated by Robert Mathieu, the forest includes a rough trail that runs through steep ridges and deep gullies. Trails also run through more than 44 acres of abutting forestland at the end of Tanglewood Drive, donated to the Town by Owen Jenkins.

Alder Brook provides fishing opportunities in Mathieu Town Forest. The southernmost portion of Alder Brook, after it leaves Mathieu Town Forest, flows through an area likely to see future residential development. As proposed residential development abutting Alder Brook goes through the subdivision approval process, the Town should consider acquiring the most sensitive areas and incorporating a greenway and trail system.

Other water-based recreation opportunities exist on the Winooski River and Browns River. The Winooski Valley Park District owns **Woodside Natural Area**, a 58-acre parcel in the southwest corner of Essex off VT Route 15. The park contains trails and a small boat ramp, offering the only public access to the Winooski River in the Town outside the Village.

The Browns River Valley makes up the largest contiguous tract of open land in Essex. In addition to its agricultural potential, the valley could support snowmobiling, fishing, and trails. Undeveloped public accesses to the river exist, including land owned by Essex. At least one of the Town-owned parcels should be considered for a public canoe launch.

The Town shall pursue opportunities to acquire or preserve open space to support the community desire for passive recreation and conservation. When the Town does acquire land for passive recreation, it should expect to see an increase in activities such as hiking, biking, and cross country skiing. Because of staffing limitations – at 2015 staffing levels, Parks and Recreation had only one full-time employee available to respond to the

demands of the parks and facilities – the Town may seek to support passive recreation on public open space by collaborating with groups such as local Scout troops, **Local Motion**, and **Fellowship of the Wheel**.

Another popular park, the **Tree Farm Recreational Facility**, is frequently used by organizations such as Essex United, Nordic Soccer, the Vermont Soccer Association, Burlington Rugby, and both Essex recreation departments. Located off Old Colchester Road, the 99-acre property straddles the border between the Village of Essex Junction and the Town outside the Village. The Tree Farm had operated as a state tree nursery until 1995. In its post-nursery life, the property was developed as a regional recreational facility by the non-profit Tree Farm Management Group. After years of leasing the property, the Town and Village purchased the Tree Farm in 2010; the Tree Farm Management Group still manages the property. Although best-known for its 13 fields used for soccer, rugby, and other sports, the Tree Farm also contains a cross-country running trail and a multi-use bicycle and pedestrian path.

The multi-use path signifies the importance of trails within Essex. Residents want to run, bike, walk and jog, whether for recreation or to travel around the community. Chapter 2 contains a map of proposed trail networks, and the 2014 **Bicycle and Pedestrian Plan for the Town of Essex and Village of Essex Junction** includes an inventory of existing bicycle and pedestrian paths,



Soccer players descend upon the Tree Farm Recreational Facility every fall. Photo courtesy of Essex Parks and Recreation.

funding opportunities, and collaborative visions between the Town and the Village. Combined with the Town Plan, the *Bicycle and Pedestrian Plan* will help Essex become even more friendly for bicyclists and pedestrians.

Programs and Funding

The Parks and Recreation Department does much more than just maintain the Town's parks and natural areas. The department offers programs to meet community needs and interests, programs that build family unity, teach life skills, and elevate personal growth. The department also promotes community-wide events, including the Spring Egg Hunt, Touch-a-Truck, Winter Carnival, and the Youth Fishing Derby.

Volunteers are crucial to Parks and Recreation's sports programs, including fall soccer, the Bolton After School Ski & Ride program, and Youth Lacrosse. The Department also supports non-municipal organizations such as Babe Ruth Baseball and Little League Baseball and Softball, Essex Youth Football, Essex Youth Hockey, and Warrior Wrestling.

Registration and enrollment fees have, since 2011, financed a self-sustaining Enterprise Fund. Over the years, the fund has relieved taxpayers from more than \$250,000 for programs. The Enterprise Fund pays the salary of a part-time Assistant Program Coordinator and covers the pay of seasonal employees.

The Parks and Recreation Department wants to expand the number and variety of programs – particularly those geared toward adults – and continue cooperating with other organizations.

Because many Essex seniors enjoy Parks and Recreation programs, the department hired a part-time Senior Activities Coordinator in 2014 to support senior programming. Senior participation rose so rapidly that the Town increased the coordinator's hours in 2015. The Town should consider making the position full-time to meet the demand for senior programming. The Town should also conduct a study for a new Senior Center; an existing Senior Center is located in Lincoln Hall at Five Corners in the Village.

Aquatics

Sand Hill Pool, built in 1979, provides Essex residents with learn-to-swim opportunities throughout the summer months. The pool serves as the home of the Town of Essex Swim Team, which had 135 swimmers in 2014 and has held many records and titles over the years. Sand Hill Pool has also hosted the Champlain Valley Swim League meet, most recently in 2015.

Smaller children can enjoy a sprayground element at Sand Hill Pool, which was added in 2010 in place of a small wading pool. The Town should consider creating a master plan for the future of Sand Hill Pool.

Because of the popularity of Sand Hill Pool, the community has often considered adding an indoor aquatic center. One of the top nine goals from the 2012 Recreation Needs Assessment was to conduct a feasibility study for a community/aquatics center. Additional space for aquatics and general programming for all ages and seasons would allow residents to sustain their high quality of active life throughout the year, and not just during the short Vermont summer.

Senior Van

Parks and Recreation operates the Essex Senior Van service, offering free, in-town transportation to residents 60 and older. Two vans drive more than 150 miles per day, bringing eligible riders to appointments and Sunday church. Ridership has increased over the years and should continue to grow with the construction of 55-and-older congregate housing complexes and rehabilitation residences.

Parks and Recreation also uses the vans for special trips and programs, including the Holiday Lights Tour in December, weekly sponsored lunches, and theatre productions.

Per a lease agreement with the Chittenden County Transportation Authority, most van maintenance occurs in the CCTA garage. Maintenance occurs quickly, but the Town does not have a suitable backup vehicle and should consider using funds from the capital budget to purchase a minivan.



Essex Free Library Director Ann Paietta (right) can help patrons who visit the library. Photo by Sharon Kelley.

Essex Free Library

Essex Free Library, located at the corner of VT Route 15 and VT Route 128, is an integral part of historic Essex Center and a much-used community resource. The library primarily serves Essex residents who live outside the Village, as Village residents can enjoy the services of **Brownell Library**.

Library cards, also known as HOMECARDS, are issued to Essex residents every two years and may be used at any library in Chittenden County except for Burlington's Fletcher Free Library. As of July 2013, 8,629 Essex residents had updated cards from Essex Free Library.

More than 1,000 patrons from Westford, Cambridge, Jericho and Underhill also use the library.

As of July of 2013, the library housed a collection of 35,743 items for public use, including nearly 9,000 items in the Children's Room. Inter-Library Loan allows Essex patrons to access titles not available in this collection, including 3,398 e-books and audiobooks.

The library has had an automated circulation system since 1996. Patrons can access the catalog online or by using one of five Online Public Access Catalogs (OPACs) at the library. The public workstations are located on all three floors and allow visitors to use the internet and word processing, as well as a printer/scanner/fax/copier.



Fire Chief Charles Cole oversees the Essex Fire Department, which operates out of its station on Sand Hill Road. Photo by Karen Furland.

Essex Free Library joined the Vermont Organization of Koha Automated Libraries (VOKAL), a project of the Green Mountain Library Consortium, in November 2013. Patrons from more than 50 libraries in the state now have access to Essex Free Library records. Patrons can also renew online or place a hold on a book.

In addition to the collection of books and other items, Essex Free Library offers programs throughout the school year for toddlers, preschoolers, their parents or caregivers, and other adults. The Summer Reading Program creates a fun, popular way for youngsters to continue good reading habits throughout the warmer months. An adult book discussion meets monthly and follows a new theme each year.

The library, an historic structure, originated in 1804 as the timber-framed Essex Congregational Church. Following a disastrous fire in 1838, a brick structure was constructed on the foundation. The building was used by a succession of small church organizations and for other

community purposes during the early- to mid-1900s, but the building continued to deteriorate structurally until it was abandoned in 1985. Two years later, Essex voters approved a bond to restore the building as a new home for Essex Free Library. The library left the building now housing Public Works, completing the relocation in February 1989.

Public Safety

Fire Department

Essex has two fire departments operating out of two stations. The **Essex Town Fire Department** is located on Sand Hill Road, in front of the highway garage. The **Village of Essex Junction Fire Department** is located on Pearl Street near Five Corners. Each department consists of paid, on-call volunteers who provide fire protection and, in conjunction with **Essex Rescue**, emergency medical first response.

Although each department is funded separately by its respective jurisdiction, both operate on a written mutual aid agreement to provide dual response coverage to any significant call for service anywhere in the community. The Essex Police Dispatch Center provides dispatching services, ensuring a coordinated response of police, fire, and rescue services directly from VT 911. In 2013-2014, the Essex Fire Department responded to 665 calls for service, 279 of which were medical first response calls. Essex Fire Department also provides mutual aid to Westford for most calls, and to other neighboring communities when needed.

Neither the Town nor the Village fire department has full-time personnel. Each department has a roster of about 30 people who respond to calls when nearby and available. The on-call volunteers receive an hourly wage when they show up for an emergency call. The Essex Fire Department does pay for some members to stay at the station on a part-time basis during the weekdays to conduct maintenance at the station and on the vehicles, and to ensure coverage.

In addition to responding to fire calls, the Essex Fire Department maintains a Bureau of Life Safety, which conducts courtesy inspections of buildings in conjunction with Community Development and the State Fire Marshal.

Reacting to Illegal Drugs

The illegal drug trade has been a driving force of crime for some time, and will continue to be a major focus of the Police Department's enforcement efforts. For years the department has teamed with local, state and federal law enforcement agencies to pursue the most efficient and effective means of confronting the perennial threat that addiction poses to society. In the years prior to the 2016 *Town Plan* update, the entire state was dealing with an opiate epidemic.

Responding to the issue of illegal drugs requires perspectives beyond crime prevention. A comprehensive look at the impact of opiate addiction and illegal drug use in Essex may require input from the schools and the Parks and Recreation Department, for example. A number of organizations in Chittenden County work on issues tied to illegal drugs, including the [Howard Center](#), the Chittenden County Opiates Prevention Coalition, the [Vermont Department of Health](#), and [United Way](#). [Essex CHIPS](#) is a local organization working on substance abuse issues. The Essex Parks and Recreation Department and Essex High School have hosted events addressing opiate addiction.

Officer-to-Population Ratios (2014)

National average: 2.0 officers per 1,000 residents

Burlington: 2.1

Colchester: 1.6

ESSEX: 1.3

South Burlington: 2.1

Williston: 1.9

Winooski: 2.2

Police Department

The [Essex Police Department](#) has served the Town of Essex and the Village of Essex Junction since its inception in 1980. The department had 33 full-time employees in 2014, including 27 sworn officers (1 IT/officer position is shared with the Town), four dispatchers, one administrative assistant and one records clerk. The department also had five part-time officers, one part-time dispatcher and one part-time administrative assistant.

The demand for police services — including patrol, motor vehicle enforcement, investigations, crime prevention, and court preparation — has stretched the department’s resources to the limit. The new police facility at 145 Maple Street, which opened in the fall of 2014, will allow staff to provide services more efficiently. Staffing limitations, however, will restrict expansion of the services provided by the police department.

Because of limited staffing levels, the Police Department has sought to proactively deter crime by forming partnerships in the community. The police and community benefit from programs such as Neighborhood Watch, robbery seminars, neighborhood meetings, youth drug and alcohol education programs Project Northland and ALERT, and School Safety Committee meetings.

The **Essex Community Justice Center** has also expanded its capacity to address low-level crime and conflict since its inception in 2003. Although not funded solely by Essex residents, the CJC allows citizens to work together to prevent crime, resolve conflicts, and render justice by using the principles of restorative justice.

Rescue Services

A private, nonprofit corporation, **Essex Rescue, Inc.** was organized in 1971 as a professionally-trained, volunteer emergency medical service. The squad provides emergency medical treatment and transportation in

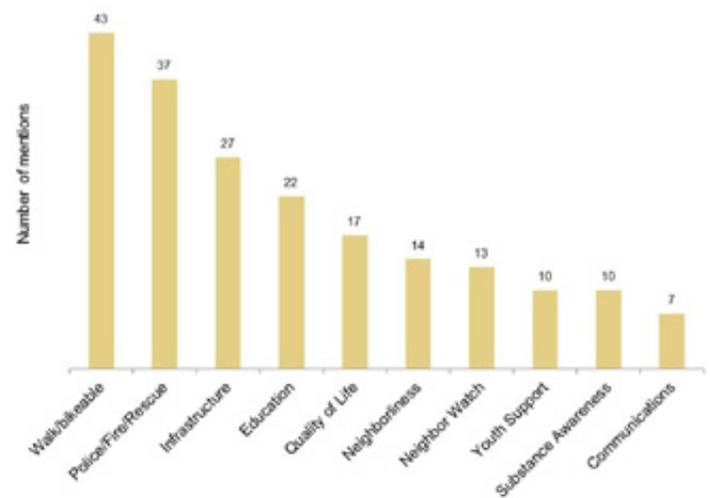
Heart & Soul Describes Safety

Heart & Soul participants described the Safety value in the following ways:

- The presence of physical infrastructure that supports safety, including sidewalks, bike lanes, street lighting and cameras;
- A robust first responder system (police, fire and rescue) and a police department that is engaged, active, visible, and strong;
- Education and activities that help all of us know how to be safe, smart and make healthy choices;
- A connected community where neighbors know, care and watch out for each other;
- Substance abuse education, prevention and services;
- Activities and support for our youth and young adults; and
- Openness and communication about safety issues through venues like Front Porch Forum.

Valuing Safety

Heart & Soul identified Safety as one of the community’s six core values, noting, “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.”



SOURCE: Heart & Soul of Essex

Figure 22. What SAFETY means to Heart & Soul participants.



The Highway Department prepares for winter by moving salt at the Public Works Highway Garage on Sand Hill Road. Photo by Greg Duggan.

Essex, Jericho, Underhill, and Westford. A staff of approximately 50 volunteers, four full-time paramedics, and an executive director respond to 9-1-1 calls 24 hours a day, 365 days a year. Essex Rescue has a community advisory board with Selectboard-appointed representation from each of the covered towns.

Funding for Essex Rescue's operating budget comes from patient and insurance billings, member town contributions, private donations, and a subscription plan that allows residents to pay an annual fee in lieu of any bills not covered by insurance. The four member towns pay less than 5 percent of the squad's annual operating funds, and Essex Rescue wants to have funding from the member towns equalized on a per capita basis. Essex Rescue values its volunteer labor at more than \$250,000 a year.

Essex Rescue owns its primary station near the Essex Community Educational Center in the Village of Essex Junction. The building sits on leased land, in a 100-year floodplain, with a 99-year lease that will expire in 2070. The squad also deploys an ambulance out of the Underhill-Jericho Fire Station on VT Route 15 in

Underhill. Because emergency call volume has increased to more than 2,000 responses per year, Essex Rescue is exploring options for various response models, including additional station sites.

Public Works Department

The **Public Works Department** moved to the former Essex Free Library building in 1989. The 700-square-foot office, located on the Town Common near the intersection of VT Route 15 and VT Route 128, provides space for four employees – the Public Works director, the town engineer, the stormwater coordinator, and the secretary. Moving to the office freed up space in the Town Offices and provided better accessibility to the Public Works Garage, which is located off Sand Hill Road.

The Public Works Highway Garage Complex is a 10,000-square-foot facility that houses the Town's snow plows, heavy equipment, and maintenance equipment. It received some insulation and CFL lighting in 2008 but is sorely in need of major upgrades.

Memorial Hall

Memorial Hall was built as the Town Hall and dedicated in 1871 to the men of Essex who died fighting in the Civil War. When the Town government moved to the Village of Essex Junction, Memorial Hall began hosting indoor basketball games and a variety of other events, eventually becoming the home of the **Essex Community Players**. The theater group made many interior improvements to Memorial Hall, but the overall condition of the building continued to deteriorate.

During the low point in the building's history in 1986, however, Memorial Hall was found eligible for inclusion in the National Register of Historic Places. The Selectboard appointed a committee to study the building in the late 1980s and determine what improvements were needed. As a result of the committee's work, Town voters authorized a bond to pay for basic safety improvements.

Another Selectboard-appointed group, the Memorial Hall Study Committee, completed a more in-depth assessment of renovation and restoration needs in 1995. As of 2015, the Study Committee had been inactive for several years, although the Public Works Department has set aside funds to install a food preparation area within the building.

Sewage Disposal

The Town operates its own sewer system. A network of wastewater gravity sewers, pressure force-mains and pump stations deliver wastewater to the Village of Essex Junction's sewage treatment facility. Per an agreement signed in the early 1970s, the plant treats wastewater from the Village of Essex Junction, the Town

	Original Capacity	2015 Capacity
Village of Essex Junction	1,220,000 gpd	1,220,000 gpd
Town of Essex outside the Village	1,000,000 gpd	1,100,000 gpd
Williston	530,000 gpd	780,000 gpd
Total Plant Capacity	2,750,000 gpd	3,100,000 gpd

of Essex outside the Village, and Williston. Improvements to the plant have increased the treatment capacity to 3,100,000 gallons per day, up from the original capacity of 2,750,000 gpd. Each municipality has purchased a portion of that capacity (see box at lower left).

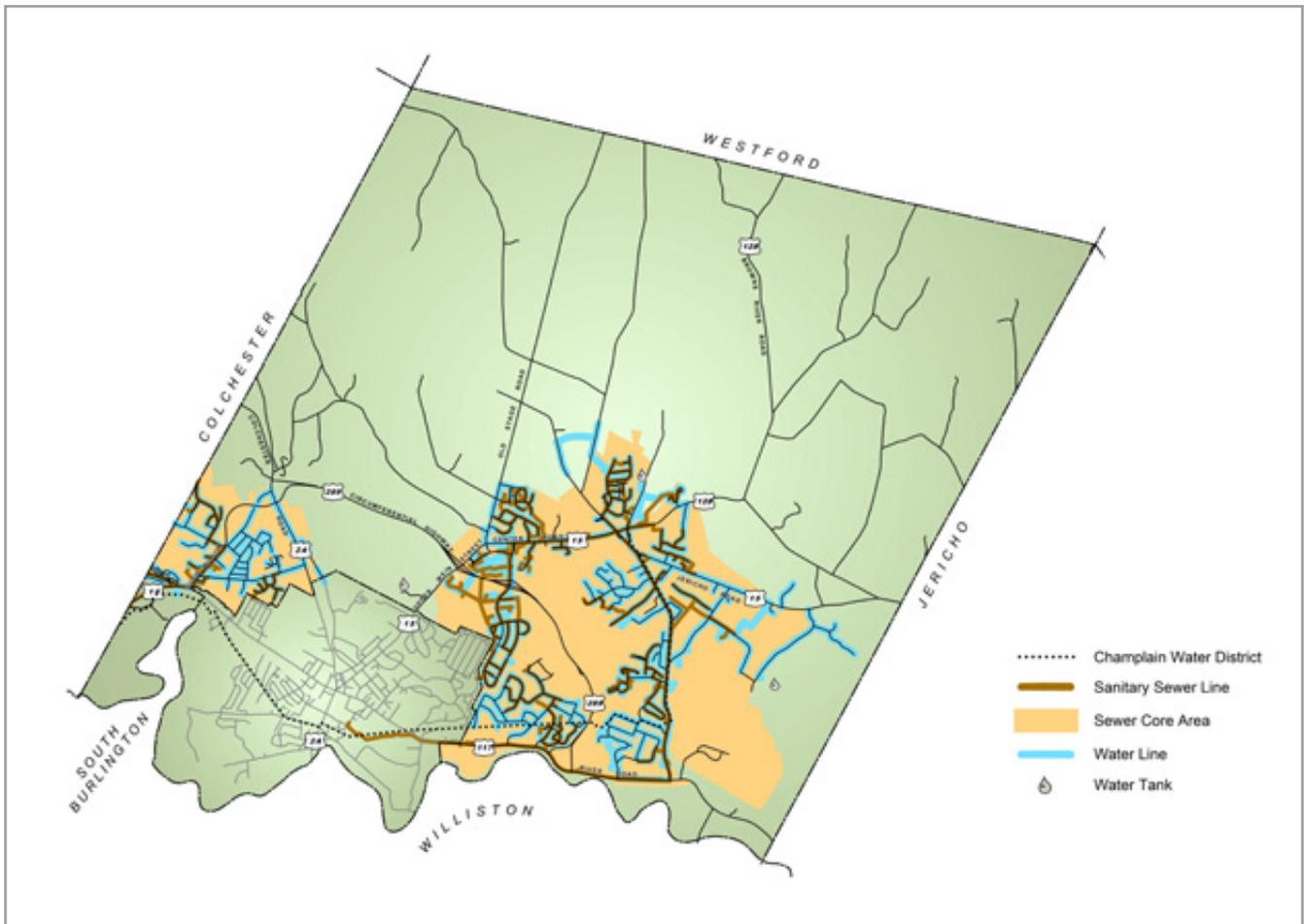
The wastewater treatment facility was reconditioned in 2013 and 2014 for \$15 million. The three communities shared the costs of the upgrade in proportion to their respective purchased capacity.

Essex sewage flows in March 2015 had a five-year daily average of 480,183 gpd – almost 44 percent of the Town's purchased treatment capacity of 1,100,000 gpd. Another 122,635 gpd had been allotted to developments that were approved but not yet built as of August 2014, leaving 497,182 gpd of available capacity. The Town has tentatively assigned 366,975 gpd to individual parcels within the sewer core, although landowners have yet to purchase that capacity. If all properties in the sewer core with tentatively-assigned capacity were to be completely built-out per the allocation map, the Town would have a remaining, undesignated allocation capacity of approximately 130,200 gpd.

The net unallocated capacity may increase or decrease depending on changes in land use and climate, but full build-out is unlikely to occur within the time frame of this Town Plan. The Selectboard therefore has the ability to provide wastewater allocations in the approximate range of 130,200 gpd (unallocated capacity) to 497,200 gpd (unpurchased capacity). The reserve capacity appears to be adequate for an estimated 10 to 15 years. Planning for additional capacity should begin around 2020.

The Selectboard distributes sewer capacity based on the Sewer Allocation Policy, which is contained in Chapter 10.18 of the **Town Ordinances**. The policy was established based on the results of a 1998 sewer capacity study and amended following a 2003 update to the 1998 study.

Past town plans have identified parts of Essex that need sewers due to failures of on-site septic systems. One of those areas, the Wildwood Drive area of Pinewood Development, connected to municipal sewer in the fall of 2000. The Town has indefinitely postponed plans to extend municipal sewer service to Blair Road, portions



Map 25: Water and Sewer Service Areas.

of Pinecrest Drive from Susie Wilson Road to Pioneer Street, Pioneer from Pinecrest to Ira Allen Drive, and Ira Allen Drive. The area has many small lots and a history of septic problems. A design for the sewer extension project was completed in 2007, but the Selectboard shelved the project due to high costs and insufficient funding sources.

Water Supply

The Town of Essex operates a distribution system of waterlines, fed with water supplied by the Champlain Water District. The Town water system has more customers than the Town sewer system.

Two principal service areas exist outside the Village: a low service area and a high service area. The low service area, which consists of Fort Ethan Allen, Susie Wilson

Road, Kellogg Road, Pinecrest Drive, and VT Route 2A, lies below the 468-foot elevation of the Essex Junction storage tanks. The highest elevation served in the low service area is approximately 420 feet USGS, resulting in a static pressure at the high point of 38 pounds per square inch (psi). Winooski and portions of Colchester are also served within the low-pressure zone.

The high service area, located in the eastern and central portions of Essex, is between the elevation of the Essex Junction storage tank at 468 feet and the two Essex Town storage tanks at 640 feet. The Town has 500,000 gallons in storage in the tank on Bixby Hill and 680,000 gallons in the Saxon Hill tank. Static pressure ranges from 43 psi at the high point near Butlers Corners to more than 110 psi along River Road.



Stormwater ponds, like the one next to Essex Way, prevent water from overwhelming local streams. Photo by Greg Duggan.

Within the existing water system, a number of areas have been identified for the expenditure of capital funds. The two most significant categories are pipes with insufficient sizes to accommodate fire demand, and dead-end lines that need to be looped, or connected, to improve water quality, pressure, and service. Loops could be completed with future water projects on VT Route 2A from Pinecrest Drive to the Village boundary, and from Douglas Road to Willoughby Drive.

Another category of potential water projects could prove costly. In the late 1960s and early '70s, the Town water system rapidly expanded. The pipe used during this period was coated asbestos-cement. Because of a lack of tensile strength, the pipe is subject to shear failure when the ground shifts. The pipe has also softened in some areas due to constant exposure to a high water table. The Town does not have any plan to systematically replace the piping, but the project will likely become a capital need prior to 2020.

Stormwater

Rather than a central stormwater system serving the entire town, Essex has a collection of independent culverts, catch basin systems with interconnected pipes, and some stormwater detention basins. Not including road cross culverts or soil discharge systems, the Town has more than 195 separate catch basin/piped discharge stormwater systems and 1,707 total catch basins, including 489 private catch basins and 71 owned by the Vermont Agency of Transportation. Public Works maintains all culverts and catch basins within the public right-of-way, as well as permitted systems specifically accepted by the Town.

The Environmental Protection Agency published a Final Rule (64CFR68722) titled Stormwater Phase II that requires certain designated urban core areas, including Essex, to develop and implement a comprehensive stormwater management program. The Town has a National Pollutant Discharge Elimination System (NPDES) Phase II stormwater permit (#3-9014), amended in 2012, that is intended to accomplish three goals: reduce the discharge of pollutants as much as possible; protect existing water quality that meets standards; and improve water quality in streams that do not meet the Total Maximum Demand Load.

To accomplish these goals, the Phase II permit requires a small stormwater management program of Municipal Separate Storm Sewer Systems (MS4) to contain six elements, to be implemented in concert:

- Public Education and Outreach
- Public Participation/Involvement
- Construction Site Runoff Control
- Illicit Discharge Detection and Elimination
- Post-Construction Runoff Control
- Pollution Prevention/Good Housekeeping

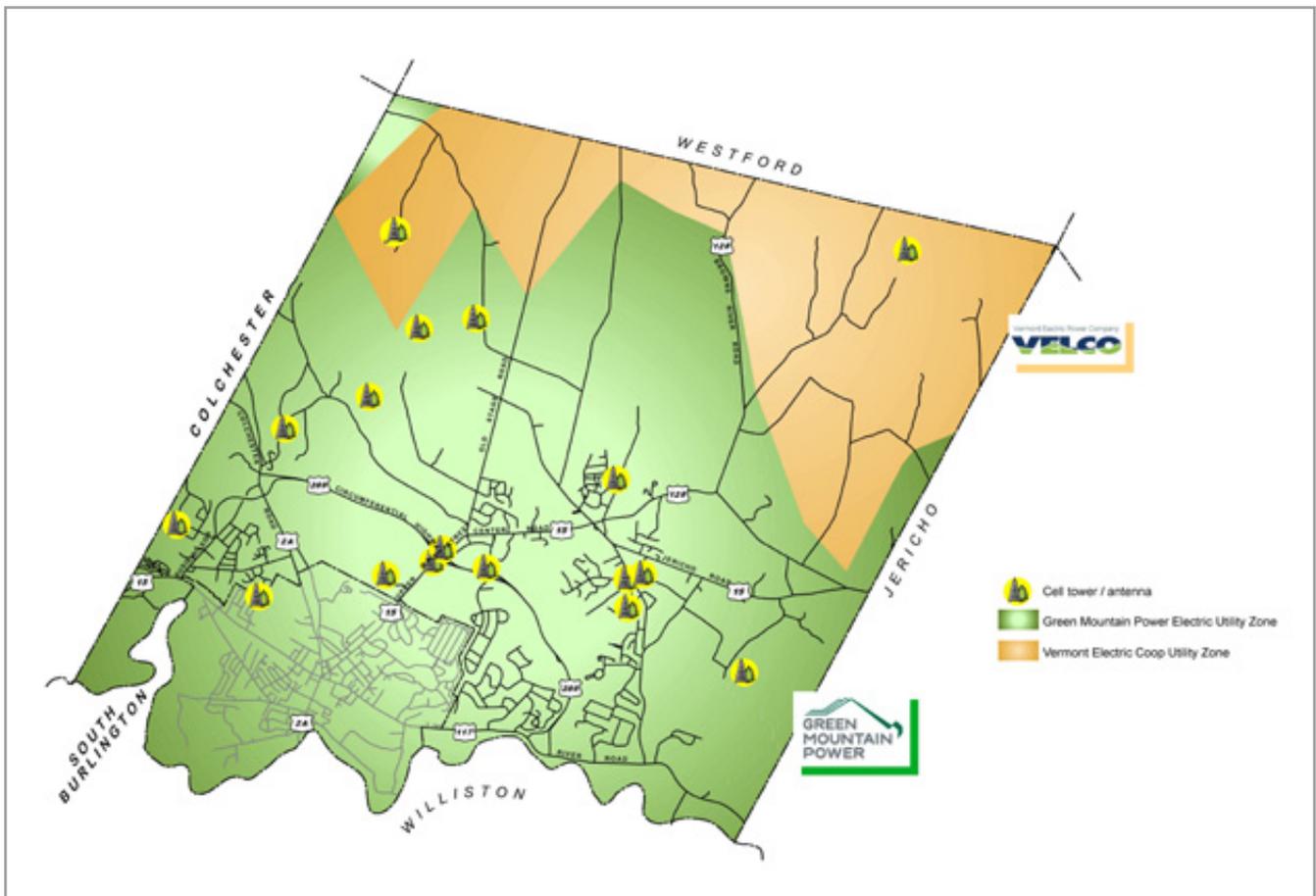
The issuance of the new December 2012 NPDES Phase II MS4 permit required a revised **Town of Essex Stormwater Management Plan**. Public Works staff prepared the document, which was approved by the Selectboard and accepted by the State. The document identifies Essex's strategy for meeting the permit requirements and is a component element of the Town Plan.

A Joint Stormwater Coordinating Committee

established by the Selectboard and Village Trustees works with municipal staff to develop a plan for meeting the new permit requirements. The plan functions on a watershed basis, rather than by political boundaries. The committee has a goal of developing a community-wide stormwater permit and management program that encompasses the interests of the Town of Essex, including the Village. Work overseen by the committee has made substantial progress in all areas, with the status of the tasks available on the Town website.

Telecommunications

Essex is generally well served by modern telecommunications services and facilities. Cellular phone service is available throughout most of the town, and since 2011 providers have applied to the state to install several new cell towers. Residents can receive broadband internet access from Fairpoint Communications. Comcast provides cable television and broadband access to properties within the Village and adjacent neighborhoods. Cable service is not available in more rural parts of the community. Wireless internet access has been developed in many areas of the community.



Map 26: Utilities

The Vermont Public Service Board regulates telephone service providers and cable television providers, as well as electric power companies, pipeline gas companies, and some private water companies. As a result, the Town has little oversight regarding the siting of telecommunications facilities.

Solid Waste

The Town of Essex operated a municipal landfill off VT Route 2A until the landfill was closed in the early 1990s with EPA closure grant funds. The landfill remains on the list of active Comprehensive Environmental Response

Compensation and Liability Information System (CERCIS) sites, also known as EPA Superfund sites. The landfill has 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, is tested twice a year and will be monitored for the foreseeable future.

Essex is a member of the [Chittenden Solid Waste District](#), which handles disposal of the Town's solid waste. The former municipal landfill site now hosts a transfer station for CSWD, with drop-off and storage facilities for a wide variety of materials.



Public Works provides support for Green Up Day efforts in Essex. Photo by Sheri Larsen.

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Essex Town Center. Photo by Greg Duggan.

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Camel's Hump towers over cornfields on River Road. Photo by Sheri Larsen.



Town of Essex

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