

**TRUSTEES MEETING NOTICE & AGENDA**  
**TUESDAY, JULY 22, 2014 at 6:00 PM**  
**LINCOLN HALL MEETING ROOM, 2 LINCOLN STREET**

1. **CALL TO ORDER/PLEDGE OF ALLEGIANCE TO FLAG** [6:00 PM]
2. **EXECUTIVE SESSION**
  - a. Contracts
3. **AGENDA ADDITIONS/CHANGES** [6:30 PM]
4. **GUESTS, PRESENTATIONS AND PUBLIC HEARINGS** [6:35 PM]
  - a. Comments from Public on Items Not on Agenda
5. **OLD BUSINESS** [6:35 PM]
  - a. Discussion and Action on Proposed Ordinance from Joint Stormwater Coordinating Committee
  - b. Co-Generation Engineering Services Agreement
  - c. Co-Generation Environmental Credits: Efficiency Vermont Incentive Agreement and Native Energy Agreement
  - d. Approve and Sign Fire Truck Note Renewal
  - e. Discussion and Amendments to 2014 Draft Comprehensive Plan
6. **NEW BUSINESS** [7:30 PM]
  - a. Purchasing Policy Waiver for Sale of Used WWTF Aeration Blowers
  - b. Appointment of Trustee to Recreation Advisory Council
  - c. Donation Request for Children's Summer Lunch Program
  - d. Appointment of Authorized Representatives for Requisitions of Bond Proceeds
  - e. Approve Municipal Bond Post-Issuance Compliance Procedures
  - f. Appointment to CSWD Board of Commissioners
  - g. Bid Award for FYE 15 Paving
  - h. Set FYE 15 Tax Rate
  - i. Acceptance and Review of Village/Town Shared Services Report and Discussion of Next Steps
7. **VILLAGE MANAGER'S REPORT** [8:30 PM]
  - a. Information/Update on Town Municipal Building
  - b. Trustees meeting schedule
8. **TRUSTEES' COMMENTS & CONCERNS/READING FILE** [8:40 PM]
  - a. Board Member Comments
  - b. Planning Commission Minutes 6/26/14
  - c. Press Release from Champlain Water District
  - d. Certificate of Appreciation from the NFMCA
9. **CONSENT AGENDA** [8:45 PM]
  - a. Approve Minutes of Previous Meeting 7/8/14
  - b. Approve Warrants including check #10049615 through #10049675 totaling \$336,079.05.

## **TRUSTEES AGENDA 7/22/14**

- c. Approve Warrants including check #10049676 through #10049747 totaling \$262,322.73.

10. **ADJOURN**

[8:50 PM]

*Meetings of the Trustees are accessible to people with disabilities. For information on access or this agenda, call the Village Manager's office at 878-6944. Times on the agenda are approximate.*

# VLCT 2014 PACIF Equipment Grant Rules & Guidelines

*A program exclusively for PACIF members*

*Agenda Addition /*

*New  
Business*

The PACIF Equipment Grant Program is back again for 2014 and continues to be extremely popular with PACIF members. The program has been allotted \$200,000 to help members purchase equipment that will have a significant and direct impact on future workers' compensation, property/casualty, or liability insurance claims. Last year, about 85 percent of the available funds were allocated at the close of the first application period. Therefore, members should submit completed applications as soon as possible to improve their chances that funding will be available.

Please read this entire document carefully for program rules, limitations, application requirements, and guidance, as we continue to make small changes to the program. If you have questions, contact your VLCT Loss Control Consultant or call the Safety & Health Division at 1-800-649-7915. If you choose to apply, be sure to use the **2014 application**.

## I. ELIGIBLE EQUIPMENT

The equipment outlined in the application must have a legitimate beneficial impact on loss exposure(s) and reduce the potential for future losses. The primary benefit from the proposed equipment must accrue to the member or its employees (rather than the general public).

Equipment purchased with a PACIF grant should not be something required for normal business operations (e.g. weapons for police officers or power tools), routine operating expenses (such as equipment repair, licensing fees, and central station monitoring fees) or disposable personal protective equipment (such as hardhats, safety shoes, gloves, hearing protection, and safety glasses). Noteworthy changes to the program and equipment eligibility include:

- Turnout gear, EMS clothing, and other emergency services protective gear continues to be eligible; however, each member will only be allowed to purchase specific protective equipment one time through the program. No repeat requests for a specific type of emergency services protective gear will be allowed. For example, if turnout jackets and pants are purchased one year, different gear such as helmets, boots, or gloves are eligible for reimbursement in future years.
- Patches, lettering, emblems, and decorative embellishments often used on turnout gear and EMS gear are not eligible for reimbursement.
- Video surveillance systems that record to DVRs only and have no internet access will be permitted as long as the member provides supporting evidence that the DVR location is secure and located such that it cannot be removed from the premise during a burglary.
- Radio communication equipment of any kind is not eligible for program.
- Funding applied for or received from any other grant must be deducted from the cost of the item(s) requested. The member's "net" costs are still eligible for the PACIF equipment grant program.

The spirit of this program is to help make high-cost items affordable while ensuring that as many members as possible can apply. Therefore, each **item requested** should have a value of at least \$200, except for lowercost items included in the list of qualifying equipment below. In all cases, the minimum total reimbursement request must be \$200.

Examples of equipment and items that **do** qualify for the program:

- Rear view back-up cameras which are designed for a stated type of vehicle and for Vermont's inclement weather. At a minimum, the camera must be infrared (for night vision), heated, shock resistant, and waterproof. Installation costs are also be eligible for reimbursement. This includes factory installed equipment in new vehicles.
- Portable or installed eye wash stations.
- Ergonomic patient handling equipment such as powered ambulance cots, cot loading systems, stair chairs and sliding sheets.
- Ergonomics-focused gear for law enforcement such as under-clothing harnesses designed to transfer the weight of the duty belt to the officer's shoulders.
- Ergonomic office equipment such as office chairs, keyboards and adjustable trays, etc.
- Officer camera systems and similar recording devices for law enforcement personnel.
- Material handling equipment such as manhole cover lifters, hydraulic lifting tailgates, truck cranes, tank bosses, powered pallet jacks, miscellaneous lifting equipment, fire hose rolling equipment, drum grasps for forklifts and wheel dollies.
- Multi-gas meters and other air monitoring equipment, video inspection equipment, tripods, full body harnesses, and related gear needed for safe operations in permit-required confined spaces.
- MUTCD compliant traffic work zone safety equipment such as sign packages, AFADs, cones, barrels, and barricades.
- Portable light towers and portable/temporary signal lights.
- General safety equipment such as flammable liquids cabinets, oily waste containers, and equipment related to lockout/tagout, fall protection, and machine guarding.
- Specific personal protective equipment (PPE): turnout gear, SCBAs and related equipment, EMS extrication gear, chain saw chaps and helmets, ballistic vests, ANSI Class II vests, and other Class II and Class III high visibility outerwear.
- Quantitative fit testing equipment to comply with the respirator standard's fit testing requirements.
- Bollards to protect fuel tanks, insured structures, etc.
- Trench protective systems such as trench boxes, shielding systems, and shoring.
- Video cameras specifically designed for sewer pipeline inspection to prevent sewer back-ups.



- Centrally monitored building protection and/or security systems such as fire/alarm systems and other theft deterrents such as job boxes.
- Theft/vandalism deterrent video surveillance systems for buildings. Systems must be able to be viewed via the internet or have proof of secure installation (or with the DVR located offsite) to prevent unit theft.
- Equipment and/or facility upgrades/repairs noted in member-specific PACIF loss control recommendations, except as otherwise prohibited.

Furthermore, **equipment must meet all current applicable safety standards.** Product literature should include documentation of compliance where appropriate. For example:

- Retroreflective clothing must meet ANSI 107-2010 requirements for Class 2, Class 3, or Class E items or ANSI 207-2006 for public safety vests.
- Eye washes must indicate compliance with ANSI Z-358.1-2009 for flow rate.
- Workzone equipment, signage, etc. must comply with MUTCD 2009.
- Firefighting and EMS/extrication garments and related equipment must comply with applicable NFPA standards.

## II. QUOTES

Interested members need to submit applications that specify the equipment desired, explain its intended purpose, and provide cost details in the form of a quote. We strongly encourage members to control costs (so the program can help more municipalities) by seeking competitive pricing from multiple vendors.

- VLCT may have preferred pricing information for certain equipment (e.g. sign packages and after-market back-up cameras). Please call us for details.
- Photocopied pages from the “bluebook” or similar resources will **not** be considered as an adequate quote, due to the high cost of these vendors. Members that submit these documents with their application will be asked to obtain alternate quotes.
- Grant money can be used to pay for additional necessary expenses such as shipping and professional installation of equipment. It is crucial that members obtain a quote or estimate of these costs in advance and submit that information as part of the application.
- Applications must include actual copies of the vendor quotes with expenses itemized. Product description literature is very helpful in documenting that equipment meets required standards as well as providing a visual of the items.
- Summarize the quote information from the vendor quote sheets and enter it on the application form. Indicate the cost per item and the number of items requested. If you need additional room to list all items, use the optional **Itemization Form**.

- Listing any pending or approved grants from other sources on the application.

### III. GRANT AMOUNTS

Members are eligible for up to 50 percent of the quoted cost of qualifying equipment to a maximum of \$5,000.

- All applicants will receive an award letter or email indicating the projected award amount or a rejection letter indicating why the application was rejected in whole or in part. Amounts noted in the award letter will be based on the quote detail provided in the application and its supporting documents. Please contact us if you have any questions about the award or rejection correspondence.
- Members who are able to obtain other sources of grant funding must indicate the amount and source of that funding. The grant program will only reimburse up to 50 percent of the member's final (net) costs. Monies anticipated or received from other grant sources will be deducted before calculating awards.
- If actual expenditures on approved items exceed the quoted costs, the grant will pay up to 50 percent of the quoted amount. If the actual purchase costs are less than the quoted amount, the award will pay 50 percent of the actual cost of the items.
- Grants will be awarded or declined at the sole discretion of the Awards Committee, which is comprised of VLCT Risk Management Services supervisory staff. The Awards Committee will award grants in May and September of each year, issuing as many grants as possible without exceeding the annual budget.
- Applications are considered on a first come, first serve basis, and there is no guarantee that funding will be available for the entirety of either application period. Therefore, members are encouraged to submit their applications as soon as they are ready to do so.

### IV. APPLICANT ELIGIBILITY AND APPLICATION SCHEDULE

Only current PACIF members may apply. All applications meeting the requirements below and received within an application period defined in the table below will be considered **if they contain all of the required information and are approved by a senior municipal official** (e.g. mayor, municipal manager/administrator, or selectboard member).

Application Period	Application Received by VLCT	Notification Letters Sent
Round 1	January 1 - April 30, 2014	May 2014
Round 2	May 1 - August 31, 2014	September 2014

- **Each member is allowed to receive only one grant award each calendar year.** Requests from multiple departments **must be combined** and submitted as a single application.
- Applications may be handwritten or completed electronically after downloading the form at [www.vlct.org/rms/pacif/pacif-equipment-grants/](http://www.vlct.org/rms/pacif/pacif-equipment-grants/).

- **There is no guarantee that a grant will be awarded.** Therefore, requested equipment should not be purchased prior to receiving a grant award letter. If special circumstances exist where equipment is needed to address a high hazard or imminent danger situation, we encourage you to contact your VLCT Loss Control Consultant who can evaluate the issue and bring it to the Awards Committee for immediate consideration. After committee review, we will notify you of the award decision.
- Applications will not be considered from any member that has not spent a previously awarded grant and submitted a reimbursement request for it. To be eligible for a new grant, the member must first either complete the purchase of items from the previous grant award or elect to waive the award and close out the prior application without purchase. To close out a previous grant award, a senior municipal official must submit a specific request by letter or email to the Awards Committee.
- **All applicants must have no outstanding (uncompleted) level “A” VLCT Loss Control recommendations from visits dated 1/1/2012 to the date of application submission.** Members with outstanding level “A” recommendations may submit applications for systems and/or equipment that addresses those outstanding recommendations. Contact Jim Carrien or your loss control consultant if you have questions about whether you have any outstanding level “A” recommendations.
- Grant awards are valid for **one year from the date that the award letter or email was issued** to the member, provided that the recipient remains a PACIF member. After that time, they expire.

## V. APPLICATION GUIDELINES

- Completed applications and all appropriate supporting documentation must be received by PACIF staff according to the schedule provided in Section IV above. Documents may be faxed, mailed, or emailed. All documents must be legible.
- Supporting documentation must include a clear description of the equipment requested and vendor price quotations. Be sure to include additional costs such as shipping and installation.
- In the application, explain why this particular equipment is needed and how it will aid in reducing the frequency and/or severity of workers’ compensation, property, or casualty/liability claims.
- The application **must** be signed by a senior official of the municipality (e.g. mayor, municipal manager/administrator, or board member). The availability of municipal funding must be confirmed.
- Given the amount of staff time that is devoted to application review, we urge members to thoroughly review the program guidelines and make every effort to submit thoughtful, complete applications.

## VI. APPLICATION CHECKLIST

Before you send your application, please use the following checklist to help ensure that your application won’t encounter administrative snags. This is a tool for you: **do not** send it with your application. If you answer **“No” to any question**, review the application and these guidelines to make sure you qualify for the program and that all requirements have been met. **Incomplete applications are subject to rejection!**

Application Item Checklist	Yes	No
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1. Is your municipality currently a PACIF member?	<input type="checkbox"/>	<input type="checkbox"/>
2. Are requests for equipment from different municipal departments consolidated into a single application?	<input type="checkbox"/>	<input type="checkbox"/>
3. If a PACIF Equipment Grant was awarded to your municipality in 2013, has it been spent and reimbursement received or officially waived? (See Section IV above for information.)	<input type="checkbox"/>	<input type="checkbox"/>
4. Has your municipality addressed <b>all</b> level "A" loss control recommendations that it may have received between 1/1/2012 and today? (See Section IV above for information.) This is particularly important if your municipality has multiple departments or a fire department that falls under the PACIF insurance program.	<input type="checkbox"/>	<input type="checkbox"/>
5. Does the equipment itemization section of the application have clear item descriptions and cost per item information, including professional installation (if appropriate)?	<input type="checkbox"/>	<input type="checkbox"/>
6. If any item is not on the list of previously approved items (see Section I above), have you contacted a member of the VLCT Loss Control team to discuss the item?	<input type="checkbox"/>	<input type="checkbox"/>
7. Have you obtained a quote for shipping and included the cost in the application?	<input type="checkbox"/>	<input type="checkbox"/>
8. Is the grant award (reimbursement) request more than \$200?	<input type="checkbox"/>	<input type="checkbox"/>
9. Has your municipality committed funds for this purchase?	<input type="checkbox"/>	<input type="checkbox"/>
10. Have you provided appropriate contact information (including email addresses) in case we need to obtain additional information about the application or requested equipment?	<input type="checkbox"/>	<input type="checkbox"/>
11. Has the application been signed by a senior municipal official?	<input type="checkbox"/>	<input type="checkbox"/>

## VII. OBTAINING REIMBURSEMENT AFTER THE PURCHASE

After your municipality has purchased **all** desired qualifying equipment within the required timeframe, you must provide proof of purchase **and** payment in order to obtain reimbursement.

- All purchased items must be **identical to or of equivalent or superior quality to items that were "approved" in the application process**; otherwise they may not qualify for reimbursement. Substituting lesser quality items may result in no reimbursement for those items. Please contact us if you have any questions. Purchasing fewer items than what was proposed in the application will result in an adjustment to any reimbursement.
- Grant awards not spent on equipment that was in the grant application may not be "reallocated" to other equipment. If specific items are not purchased, those reimbursement monies are forfeited.
- Send the following documentation for all items purchased:
  - A clear description of the items purchased with cost per item and shipping costs clearly shown.
  - Vendor invoice(s).
  - Proof of payment in the form of a copy of the cleared check(s) used to pay for equipment. Ideally, the check(s) should reference the vendor's invoice #.
  - For security systems, include evidence that the system is centrally monitored.

- Submit the above documentation to VLCT Attn: Jim Carrien by email, fax, or mail. Above all, feel free to contact us with your questions. Jim Carrien can be reached toll free at 1-800-649-7915 or via email: [jcarrien@vlct.org](mailto:jcarrien@vlct.org).

**VLCT 2014 PACIF**  
**Equipment Grant Application**  
*A program exclusively for PACIF Members*

VLCT USE ONLY	
<div style="display: flex; justify-content: space-between;"> <span>_____ Proposed Grant Amount</span> <span>Round _____</span> </div>	<div style="display: flex; justify-content: space-between;"> <span>_____ Date Completed</span> <span>1 or 2</span> </div>
<div style="display: flex; justify-content: space-between;"> <span>_____ Reviewed By _____</span> <span>Reviewed By _____</span> </div>	
<div style="display: flex; justify-content: space-between;"> <span>_____ Outstanding Level A Recommendations</span> <span><input type="checkbox"/> completed</span> </div>	

PACIF Member Name (Municipality) & Address

Applicant Name & Title:	Preferred/Alternate Contact Name & Title (Optional):
Primary Phone:	Preferred/Alternate Phone:
Applicant Email Address:	Preferred/Alternate Contact Email Address:
Grant award correspondence should be sent via: <b>US Mail:</b> <input type="checkbox"/> <b>Email:</b> <input type="checkbox"/>	Fax:

If you have not read all of the instructions, please do so now.

1. Itemize the equipment requested and cost for each item or groups of like items. Additional items should be listed separately on the Equipment Itemization Worksheet. A single quote containing multiple items may be listed on one line. Note: The amount of any external grants (applied for or received) for items listed in this application must be deducted from the amount of the total cost listed below.

Item Description (and <u>price per item</u> if purchasing more than 1)	Expected Purchase Date	Total Cost
		\$
		\$
		\$
		\$
		\$

Amount of external grant monies requested or received	Subtract from total	\$
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2. What is the <b>total quoted net cost</b> (less external grants) for the proposed purchase, including estimates for shipping or installation?	\$
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3. Why is this equipment needed and how will it reduce potential claims? Attach additional pages if necessary.

Applicant Signature:	Date:
Senior Municipal Official Signature:	Date:
Senior Municipal Official Printed Name:	Senior Municipal Official Title:

**NOTE: Please use the Application Checklist on page 5 of the Grant Guidelines before sending this application.**

**Submit this completed application to VLCT, Attn: Jim Carrien.** Email to [jcarrien@vlct.org](mailto:jcarrien@vlct.org); fax to 802-229-2211; or mail to VLCT, 89 Main Street, Suite 4, Montpelier, VT 05602-2948. If you have questions contact Jim at (800) 649-7915, ext. 1946.



## **MEMORANDUM**

TO: Essex Junction Trustees and Pat Scheidel, Village Manager  
FROM: James Jutras, Water Quality Superintendent  
cc: Lauren Morrisseau Assistant Manager/Finance Director  
DATE: July 17, 2014  
SUBJECT: Joint Essex Town/Village of Essex Junction Stormwater ordinance addressing permits in Indian and Sunderland Brook watersheds.

**Issue:** The issue is whether or not the Village Trustees will approve a new Stormwater Ordinance presented as Chapter 19 of the Village Municipal Code. The ordinance will address the issue of expired stormwater permits, unpermitted discharges and other stormwater permits in the impaired watersheds of Indian and Sunderland Brooks in compliance with the NPDES Phase 2 Stormwater permits issued to Essex and Essex Junction. The Town of Essex Selectboard approved proceeding with an ordinance, inclusive of the Village, at their July 14 meeting.

**Discussion:** Memorandums relating to this subject were provided to each municipal governing body in late February 2014 outlining this issue and the approach to be taken with respect to the NPDES permit requirement regarding expired permits. A copy of the referenced memorandum is attached. It provides the basis for moving forward with actual ordinance or code changes.

A significant effort has been expended over the past four months by the Committee, the Town Attorney and the Village Attorney to further develop the general concepts outlined in the February memorandums. The end product of many rewritten versions is attached as the recommended course of action relative to this issue. It is recommended that the ordinance and code changes go through the public adoption process for approval and staff implementation. There may be some amendment needed on the **Appendix A, Table 1** listing of expired and valid permits.

The Village Ordinance implementation process is:

- As an Agenda item, the Village Trustees can adopt Chapter 19 at this meeting.
- Upon Adoption, post notice of the Ordinance in 5 places of general public access
- Provide notice in a newspaper of general public distribution
- Implementation is automatic after 60 days unless appealed with 45 days of adoption.

**Costs:** Costs related to complete implementation are not known at this time. The Town of Essex has provided most of the initial implementation costs as a direct service to both communities. Future costs to implement flow restoration plan improvements will be borne by private and public entities. More information will be developed and presented as work is completed on the Flow Restoration Plan.

**Recommendation:** It is recommended that the Village Trustees adopt Town of Essex Ordinance Title 10.20 Stormwater, as amended, as Chapter 19 of the Village Municipal Code.

**NOTICE OF AMENDMENT TO THE  
ESSEX JUNCTION MUNICIPAL CODE**

In accordance with V.S.A. Title 24, Sec. 1972, notice is hereby given to the residents and those interested in lands in the Village of Essex Junction that on July 22, 2014 the Trustees of the Village adopted the following ordinance as an amendment to the Municipal Code (new text is underlined.)

**VILLAGE OF ESSEX JUNCTION  
MUNICIPAL CODE  
CHAPTER 19.**

**ORDINANCE ESTABLISHING STORMWATER PERMIT TRANSFER AUTHORITY FOR  
EXPIRED AND UNPERMITTED DISCHARGES TO IMPAIRED WATERWAYS**

**PURPOSE:** To establish and transfer responsibility for State of Vermont issued Department of Environmental Conservation Authorization to Discharge Permits under General Storm Water Permits and for Unpermitted Discharges to Impaired waterways within the Town of Essex, Inclusive of the Village of Essex Junction (the "Town") to NPDES MS4 General Permit 3-9014

**SECTION 1901. The Village of Essex Junction shall incorporate all provisions of the Essex Town Title 10.20 Stormwater Ordinance, as amended. When conflict occurs between Village Land Development Code and the Ordinance 10.20, the Town Ordinance shall govern.**

This ordinance shall become effective on the 20<sup>th</sup> day of September 2014 unless 5% of the qualified voters of the Village, by written petition filed with the Village Clerk no later than September 5, 2014, request that the voters of the Village disapprove the amendment at a duly warned annual meeting or special meeting.

Dated at Essex Junction, Vermont, the 22<sup>nd</sup> day of July, 2014.  
Susan McNamara-Hill, Village Clerk

Questions about this amendment may be addressed to the Village Manager, 2 Lincoln Street, Essex Junction, VT, or by calling 802-878-6944 or email [admin@essexjunction.org](mailto:admin@essexjunction.org).





Village Manager's Office  
2 Lincoln Street  
Essex Junction, VT 05452

Office: (802) 878-6944  
Fax : (802) 878-6946  
[www.essexjunction.org](http://www.essexjunction.org)

Name  
Address  
City, State, etc.

Date

RE: Expired Stormwater Permit # \_\_\_\_\_

Dear \_\_\_\_\_:

Records provided by the Vermont Agency of Natural Resources indicate that the property or development referenced above is a component of an expired State Stormwater Permit that discharges into the impaired watersheds of Indian and Sunderland brooks. The Village of Essex Junction Stormwater permit compliance requirements call for the Village to address all expired stormwater permits in our community.

For this compliance, the Village and Town of Essex formed a Joint Stormwater Committee to review this requirement along with other stormwater issues. The Committee determined the best way to handle the expired stormwater permits would be to amend the Town's Stormwater Ordinance and establish a Village Stormwater Ordinance that references the Town's Ordinance. The intent of the Ordinances is to provide equity in handling all expired permits within the Town of Essex including the Village.

What does this mean you?

- It allows you or your association to work with the Village instead of the State of Vermont to come into compliance with the expired permit.
- To achieve compliance, an inspection of all stormwater infrastructure described in the permit must occur in the very near future to certify that the infrastructure is in accordance with the permit requirements.

Your options:

- The Village will inspect the existing stormwater infrastructure, as described in the permit, at no cost to the permit holder. OR
- The permit holder may hire an engineering firm to complete the inspection of the existing stormwater infrastructure but MUST notify the Village that they have done so. The deadline for compliance requires that this work commence this year.

Enclosed is a copy of the expired permit as well as a copy of the proposed Ordinance and adoption schedule.

Your immediate attention to this issue will be greatly appreciated and will benefit your property and the community. Please forward this letter to the appropriate contact person or board. Questions may be directed to the Essex Junction Wastewater Treatment Facility at 878-6943 or by email to [jim@essexjunction.org](mailto:jim@essexjunction.org)

Sincerely,

James L. Jutras, Water Quality Superintendent

Enclosures

## TOWN OF ESSEX SELECTBOARD CHANGES TO TITLE 10.20, STORM WATER ORDINANCE

The Selectboard of the Town of Essex hereby ordains that the following changes be made to the Municipal Ordinance, Title 10.20, Storm Water Ordinance. Added material is underlined, with the exception that entire added chapter sub-sections shall be noted in the heading as **"added in entirety"**. Deleted material is in brackets and struck through.

Add the following to Section 10.20.015, Definitions:

**Added in Entirety:**

*"Authorization to Discharge Permits"* means permits issued by the State of Vermont to discharge storm water into receiving water bodies, which may or may not be valid permits at time of adoption of Section 10.20.090 of this Ordinance.

*"Expired storm water permits"* means storm water permits previously issued by the State of Vermont that are no longer current.

*"Flow Restoration Plan (s)"* means a stream flow plan required by the State of Vermont designed to implement storm water runoff controls producing runoff characteristics that return stream flows to compliant, stable flow conditions as required to meet the water-quality based TMDL requirements for a particular impaired waterway.

*"Impaired waterways"* means rivers, lakes, or streams that do not meet one or more water-quality standards, and therefore are considered too polluted for their intended uses.

*"Non-impaired waterways"* means rivers, lakes, or streams that currently meet the designated water-quality standards for the water body.

*"Non-public contributing storm water permittee"* means a current storm water permit holder, including homeowner associations and any successors or assigns, of either a valid or expired storm water permit that is not a public entity.

*"Non-public storm water infrastructure"* means storm water infrastructure not owned, operated or maintained by the Town.

*"Private (storm water) system owner"* means the non-public owner of a storm water system, including homeowner associations and any successors or assigns, consisting of, but not limited to, culverts, pipes, catch basins, treatment ponds, treatment devices, and/or storm water infiltration systems.

*"Public storm water infrastructure"* means storm water infrastructure such as, but not limited to, culverts, pipes, catch basins, treatment ponds, treatment devices, and/or storm water infiltration systems, all of which is under Town ownership or within Town

easements, and which infrastructure has been accepted by the Town as a component of the Town storm water system or systems.

*"Residual Designation Authority (RDA)"* means the authority granted to the United States Environmental Protection Agency and delegated to the State of Vermont to issue a permit directly to a party or parties discharging storm water to a water body where a TMDL supports such a determination and where discharges are contributing to water quality violations.

*"Shared storm water system"* means a storm water system such as, but not limited to, culverts, pipes, catch basins, treatment ponds, treatment devices, and/or storm water infiltration systems which consist of both public and non-public storm water infrastructure.

*"Unpermitted (storm water) discharges"* means a system discharging storm water to a stream or watercourse that has never been issued any type of authorization to discharge storm water by either the Town or the State of Vermont.

*"Valid storm water system"* means a system which has been issued a storm water permit by the Town or the State of Vermont that is current with respect to the issuance and expiration dates of the permit.

Revise Section 10.20.090 to delete reference to (~~Riparian Buffer Zones (Reserved for Future)~~) and rename): Establishment and Transfer of Responsibility for State of Vermont issued Department of Environmental Conservation Authorization to Discharge Permits under General Storm Water Permits and for Unpermitted Discharges to Impaired Waterways within the Town of Essex, Inclusive of the Village of Essex Junction

Add Section 10.20.90: (**added in entirety**):

**10.20.090 Establishment and Transfer of Responsibility for State of Vermont issued Department of Environmental Conservation Authorization to Discharge Permits under General Storm Water Permits and for Unpermitted Discharges to Impaired Waterways within the Town of Essex, Inclusive of the Village of Essex Junction (the "Town") to NPDES MS4 General Permit 3-9014.**

A. The Vermont Agency of Natural Resources Department of Environmental Conservation ("DEC") issues Authorization to Discharge Permits under General Permits for area or site-specific storm water discharges to applicants, including municipalities, private parties, and shared storm water systems involving both privately-owned and publicly-owned components.

B. Valid storm water system discharge permits have been issued by the DEC for projects in the non-impaired and impaired waterways within the Town, and the Town has either accepted full responsibility for such permits in these waterways or shared permit responsibility based upon the percentage of impervious area contributed by the

publicly-owned component of the system in comparison to the impervious area contributed by the privately-owned component.

C. As of the adoption of this Ordinance, valid storm water system discharge permits have not been issued to expired storm water permit holders in the impaired waterways due to the inability to legally authorize, under State law, renewal of the previously issued Authorization to Discharge Permits.

D. Current responsibility for previously issued expired storm water permits and valid storm water system discharge permits in the impaired watersheds in the MS4 area varies widely. In some cases, there is a well-defined chain of responsibility from the "owner" of the original permit to the current permit holder. In other cases, permit responsibility is either poorly defined or non-existent notwithstanding that permit responsibility runs with the land. Some expired and valid (permit) discharges are defined in the original permit as directly to a stream or water body; in others, they are defined as being directed to or connected into a shared storm water system.

E. Pre-existing unpermitted storm water discharges occur within the impaired and non-impaired waterways. These discharges were either never issued permits or the discharges occurred before DEC began issuing discharge permits. Pre-existing unpermitted storm water discharges into impaired waterways may obtain legal coverage under the MS4 general permit in the manner outlined in this Ordinance.

F. The Village of Essex Junction ("Village") regulates storm water discharges through its Land Development Code. The Village intends to amend its Ordinances to incorporate the terms of this Town Ordinance, which is intended to apply to storm water discharges in the Town, inclusive of the Village. To the extent the terms of this Ordinance conflict with the Village Ordinance, the Town Ordinance governs.

G. For purposes of this Ordinance, the "appropriate legislative body" for the Town outside the Village shall be the Selectboard, and for the Village, the Board of Trustees. Either appropriate legislative body may delegate its authority under this Ordinance to an appropriate municipal panel.

#### **10.20.091 General Approach and Purpose**

A. The Town seeks to develop consistent policy and procedures for determination of storm water permit responsibility for both valid storm water system discharge permits and expired storm water permits, and to establish minimum requirements for transfer of expired and future new permit responsibility by and between the appropriate parties.

B. MS4 responsibility for operation, repair and maintenance of storm water infrastructure extends only to public storm water infrastructure and proportional shared

responsibility on shared storm water systems, and is separate and distinct from permit responsibility. The Town may accept permit responsibility if determined by the appropriate legislative body to be in the Town's best interests. Factors to be considered when determining whether acceptance of permit responsibility is in the Town's "best interests" include, but are not limited to, whether improved water quality is not otherwise obtainable without additional Town participation, potential cost savings to the Town, or provision of land or easements for treatment or storage of storm water for shared systems. The non-public contributing storm water permittee shall be responsible for the operation, maintenance, repair, replacement and upgrade of the non-public infrastructure, unless the Town determines that accepting some or all of this responsibility to be in its best interests as defined above.

#### **10.20.092 NPDES Phase 2 MS4 Requirement for Expired Authorization to Discharge Permits**

A. The Vermont Agency of Natural Resources (VANR) Authorization to Discharge Permit Number 7025-9014 issued to the Town and Authorization to Discharge Permit Number 7024-9014 issued to the Village under NPDES MS4 General Permit 3-9014 requires the Town and the Village, separately as MS4 permittees, to submit to the Secretary of VANR a plan for addressing expired storm water permits discharging to the MS4 permittee's system, which was accomplished through the proposed adoption of this Ordinance.

B. A compliance date of October 2015 is set within the Authorization to Discharge Permits for verification of the condition of all public and non-public storm water infrastructure identified in and approved under each original expired permit.

C. On expired permits within the impaired waterways or with regard to discharges that have no permits in the impaired waterways, it is the intent of the VANR to either have these permits ultimately come under the umbrella of the Town MS4 Permit or issue Residual Designation Authority (RDA) permits directly to each permittee or party responsible for the storm water discharge not covered under the MS4 umbrella permit.

#### **10.20.093 Classification of Storm Water Systems within the Town as relates to Authorization to Discharge Permits**

A. Due to the complexity and variety of existing permit "ownership" and types of permits, the Town has classified all valid storm water system discharge permits and all expired storm water permits into one of the following four types for purposes of determining permit responsibility:

##### **1. Type 1 Storm Water System:**

a. A Type 1 storm water system consists of a system of storm water infrastructure that is entirely on public land (public rights of

way, municipally-owned property or on public storm water easements) and owned by the Town, including residential subdivisions or groups of houses with no non-public storm water infrastructure, such as privately-owned catch basins or privately-owned storm water pipelines connected into storm water systems on public land (excluding private underdrain systems). For purposes of this Ordinance, a "private underdrain system" is storm water infrastructure serving individual private lots or buildings from the private lot or building to the point of interconnection with public storm water infrastructure.

b. Examples of Type 1 storm water systems include:

1) Public buildings such as municipal offices, police stations, fire stations, municipal highway garage complexes, schools or other educational facilities with no on-site storm water infrastructure (other than underdrains connected with public storm water infrastructure) which do not discharge directly into a stream, and/or similar facilities.

2) Residential subdivisions with valid or expired permits in the Town. Those residential subdivisions presently identified by the Town as meeting the Type 1 criterion are listed in Table 1 in the Appendix to this Ordinance. Table 1 may be revised by the Town, acting through its Municipal Manager or their designee(s) as such additional systems are identified.

c. Type 1 storm water systems do not include any private lot, residential subdivision or groups of housing covered under an expired storm water permit that has non-public storm water infrastructure such as catch basins and pipelines (excluding private underdrain systems) connected into public storm water infrastructure.

## 2. Type 2 Storm Water System:

a. A Type 2 storm water system consists of a system of storm water infrastructure that is entirely contained on private property, discharges directly or indirectly to a stream or other recognized water body and is not directly connected by piping to a Type 1 or Type 3 storm water system.

b. Examples of Type 2 of storm water systems include:

1) Private residential, commercial or industrial systems that retain all storm water flows onsite as originally designed and

have valid or expired permits for such discharge, and private residential, commercial or industrial systems that discharge some or all of their storm water flows to a stream or other recognized water body.

2) Select storm water systems in the Town. Those private residential, commercial or industrial systems presently identified by the Town as meeting the Type 2 criterion are listed in Table 1 in the Appendix to this Ordinance. Table 1 may be revised by the Town, acting through its Municipal Manager or their designee(s) as such additional systems are identified.

### 3. Type 3 Storm Water System:

a. A Type 3 storm water system consists of a shared storm water system covered under either valid and/or expired storm water permits that combines storm water flow from both public and non-public storm water infrastructure before discharging storm water directly or indirectly into a stream, swale or other method of water conveyance to waters of the State.

b. Examples of Type 3 storm water systems include:

1) Non-public storm water infrastructure systems that discharge directly to public storm water infrastructure; public storm water infrastructure systems that discharge to non-public storm water infrastructure; public and non-public infrastructure systems that discharge to a common storm water pond or open swale on public or private property or to an outfall pipe leading to a stream, swale or other conveyance to a recognized water body; other systems that combine storm water flow from both public and non-public storm water infrastructure; prior valid storm water permits involving both public and non-public components covered under one issued permit with responsibility defined in the permit between public and non-public contributors to a storm water system.

2) Those combined public-private systems in the Town presently identified by the Town as meeting the Type 3 criterion are listed in Table 1 in the Appendix to this Ordinance. Table 1 may be revised by the Town, acting through its Municipal Manager or their designee(s) as such additional systems are identified.

#### 4. Type 4 Storm Water System:

- a. Any other type of storm water system not covered under Types 1 through 3.
- b. Unique storm water systems with valid or expired storm water permits not included in Types 1 through 3 have not been identified as of the date of adoption of this Ordinance. This category is reserved for such systems.
- c. Storm water systems involving both Town and Vermont Agency of Transportation (VTRANS) infrastructure.
- d. Those combined public-private systems in the Town that are identified by the Town as meeting the Type 4 criterion will be listed in Table 1 in the Appendix to this Ordinance created by the Town, acting through its Municipal Manager. Table 1 may be revised by the Town, acting through its Municipal Manager or their designee(s) as additional systems are identified.

B. Prior to adoption of this section, the Town has not accepted full or shared permit responsibility for Authorization to Discharge permits within the impaired watersheds.

#### **10.20.094 Methodology for Establishment of Permit Responsibility for Each Type of Storm Water System**

##### A. Type 1 Storm Water Systems

1. The Town accepts responsibility for all valid Type 1 storm water system permits in the non-impaired waterways, all expired Type 1 storm water system permits in the impaired waterways, and all future Type 1 storm water system permits. These permits will be consolidated under the Town's NPDES MS4 General Permit 3-9014.
2. The Town accepts responsibility for the operation, maintenance, repair, replacement and upgrade of all public storm water infrastructure included in Type 1 storm water systems, with the exception of private underdrain systems and overland storm water flow systems from private lands such as driveways, open swales, and vegetated land. Such private underdrain systems and overland flow systems shall remain the responsibility of the property owner.
3. Acceptance of storm water permit responsibility by the Town does not relieve individual property owner(s) or housing and/or homeowner association(s), or any successor(s) and assign(s), from compliance with other sections of the Town's storm water ordinance or State



environmental regulations, including but not limited to sections dealing with illicit discharges, offsite discharge of sediment, site erosion, fertilizer application with respect to phosphorous and overall compliance with best storm water management practices as defined in adopted regulations or ordinances.

#### B. Type 2 Storm Water Systems

1. The Town shall have no responsibility for the operation, maintenance, repair, replacement or upgrade of non-public storm water infrastructure identified in a valid or expired storm water permit, or non-public storm water infrastructure added subsequent to the original version of a valid or expired permit, to meet an approved Flow Restoration Plan (FRP) unless it is determined by the appropriate legislative body, in its sole discretion, to be in the Town's best interests, as defined in Section 10.20.091.B above, to accept some or all of this responsibility.

2. The Town may accept MS4 permit responsibility for valid or expired Type 2 storm water system permits if requested by the current private storm water system owner and provided the following conditions are satisfied:

a. The private storm water system owner under an original valid or expired permit enters into a written agreement with the Town prior to January 1, 2015, which includes, at a minimum, the requirements set forth in section 10.20.094.b, below. A form of the Type 2 Storm Water System Agreement is provided in Appendix B to this Ordinance. If the private storm water system owner has not entered into a written agreement with the Town by January 1, 2015, the Town will request the State to use its RDA to require permit compliance by the holder of the expired Type 2 storm water permit.

b. The written agreement specified in section 10.20.094.a shall, at a minimum, require the following:

i. All applicable permit fees, including initial fees and all future renewal fees, if any such fees are required, shall be paid by the Type 2 private storm water system owner;

ii. The Type 2 private storm water system owner shall allow the Town to hire a professional engineer, at no cost to the holder of the Type 2 storm water permit, to inspect and certify that the Type 2 non-public storm water infrastructure is in compliance with the infrastructure requirements as contained in the expired permit. The certification shall occur prior to August 1, 2015. Alternatively, the

current holder of the expired non-public storm water permit may hire a professional engineer, acceptable to the Town, to perform the necessary inspection and certification. Future inspections that occur after the initial certification inspection of Type 2 non-public storm water infrastructure shall be conducted by the Town at no charge to the private storm water system owner;

iii. The Type 2 non-public contributing storm water permittee shall correct any deficiencies noted as a result of the engineer's inspection at their own expense prior to the August 1, 2015 date for system certification;

iv. The Type 2 non-public contributing storm water system permittee shall be responsible for permanent maintenance, repair, replacement and upgrade if necessary of all elements covered under the Type 2 storm water system permit. The Town shall conduct annual system compliance inspections to verify the condition and maintenance of the Type 2 storm water system and report findings to the State and the responsible party identified under the Type 2 storm water system permit;

v. The Type 2 non-public contributing storm water system permittee shall sweep clean all paved private roadways or parking lots at least twice per year and clean out all private catch basins whenever the depth of deposited material exceeds 50% of the depth of the catch basin sump, or enter into an agreement with the Town to perform the services for a fee;

vi. The failure of the Type 2 non-public contributing storm water system permittee to perform the required actions under b. iv. and v. shall be deemed a violation of this Ordinance and shall subject the non-public contributing storm water system permittee to penalties under section 10.20.112. The Town has the right but not the obligation to take the necessary actions to insure that the required maintenance is performed and otherwise correct any violation of this Ordinance. The provisions of section 10.20.116 of this Ordinance shall apply in the event the costs for the maintenance or correcting the violation are not paid by the non-public contributing storm water system permittee; and

vii. The cost of required storm water system upgrades to the Type 2 storm water system to meet the Town's adopted and State approved FRP shall be borne by the non-public contributing storm water system permittee unless it is determined by the Town to be in

its best interests as defined in Section 10.20.091.B above to participate in some or all of the system upgrade project or project costs.

3. Any prior written agreements entered into by the Town and non-public contributing storm water system permittees shall remain in full force with respect to cost sharing and operation, maintenance, repair and replacement of existing storm water infrastructure.

a. Permit responsibility and upgrades to meet the FRP are separate elements of storm water responsibility not defined in previous agreements and therefore this Ordinance is the controlling document relative to permitting.

b. In the event of any conflict between pre-existing agreements and the ordinance, the pre-existing agreements shall control.

4. Acceptance of partial storm water permit responsibility by the Town shall not relieve non-public contributing storm water system permittees from compliance with all other elements of the storm water ordinance or State environmental regulations, including but not limited to sections dealing with illicit discharges, offsite discharge of sediment, site erosion, fertilizer application with respect to phosphorous and overall compliance with best storm water management practices as defined in adopted regulations or ordinances.

#### C. Type 3 Storm Water Systems

1. The Town will not accept responsibility for operation, maintenance, repair, replacement and upgrade to meet an approved FRP of non-public storm water infrastructure identified in a valid or expired storm water permit or non-public storm water infrastructure added subsequent to the original version of the valid or expired permit, unless it is determined by the appropriate legislative body, in its sole discretion, to be in the best interests of the Town, as defined in Section 10.20.091.B above, to accept some or all of this responsibility.

2. The Town will accept MS4 permit responsibility on a proportional basis by relative impervious area contributed within the permitted area of the shared storm water system for the valid or expired Type 3 storm water system permit if requested by the non-public contributing storm water system permittee and provided the following conditions are satisfied:

a. The Type 3 non-public contributing storm water permittee shall enter into a written agreement with the Town prior to January 1, 2015, which includes, at a minimum, the requirements set forth in

section 10.20.094.b.i-vii above. A form of the Type 3 Storm Water System Agreement is provided in Appendix C to this Ordinance. If the non-public contributing storm water system permittee has not entered into a written agreement by January 1, 2015, the Town will request the State to use its RDA to require permit compliance by the Type 3 non-public contributing storm water system permittee.

b. If the Type 3 non-public contributing storm water system permittee elects not to enter into a shared agreement with the Town on MS4 permit responsibility, the Town shall comply with the requirements pertaining to the public storm water infrastructure, and may request the State to use its RDA over that portion of the shared storm water system not included within an agreement with the Town.

c. All applicable permit fees, including initial fees and all future renewals, if such fees are required, shall be shared between the municipality and the non-public contributing storm water permittee on the basis of relative impervious area, unless the appropriate legislative body determines that it is in the Town's best interests, as defined in Section 10.20.091.B above, that such fees shall be paid either on a larger percentage than relative impervious area or in full by the Town. If the Town accepts permit responsibility, then the intent is to consolidate the permit under the municipal NPDES MS4 General Permit 3-9014.

3. Any prior written agreements entered into by the Town and the Type 3 non-public contributing storm water system permittee shall remain in full force with respect to cost sharing and operation, maintenance, repair and replacement of existing storm water infrastructure.

a. Permit responsibilities and upgrades to meet the FRP are separate elements of storm water responsibility not defined in previous agreements and therefore this Ordinance is the controlling document relative to these issues.

b. In the event of any conflict between executed pre-existing agreements and this Ordinance, the pre-existing agreements shall control.

4. Acceptance of MS4 Permit responsibility by the Town does not relieve non-public contributing storm water system permittees from compliance with other elements of the Town's storm water ordinance or State environmental

regulations, including but not limited to sections dealing with illicit discharges, offsite discharge of sediment, site erosion, fertilizer application with respect to phosphorous and overall compliance with best storm water management practices as defined in adopted regulations or ordinances.

#### D. Type 4 Storm Water Systems

1. Other storm water systems with valid or expired storm water permits that do not qualify as a Type 1, 2, or 3 storm water system.
2. These systems shall be managed on a case by case basis, using the general procedures and methods as applicable from the three system types.
3. Permits involving the Town and VTRANS shall fall under this category. VTRANS is a separate MS4 permittee. Under a future adopted FRP for each impaired waterway, the Town will negotiate an agreement with VTRANS on the level of shared responsibility and costs for meeting the TMDL requirement of each impaired waterway. In the event an agreement cannot be negotiated with VTRANS, the Town will request VANR to use its RDA with respect to those VTRANS direct or indirect discharges contributing storm water flow to the impaired watersheds under the VTRANS MS4 permit.

## APPENDIX A

**Table 1: Valid and Expired Storm Water Permits in the Village of Essex Junction and the Town of Essex outside the Village as of the Date of Ordinance Adoption**

Permit #	Old Permit #	Village or Town	Project Name	Valid (V) or Expired (E)	Ordinance Type	Watershed
2-0855		Village	Village Knoll-Woods End & Acorn	Valid	Type 1	Indian Brook
2-1103		Village	Pleasant Street & East Street	Valid	Type 1	Indian Brook
1-1074		Village	Countryside II Fairview Farms: Chestnut Lane	Expired	Type 2	Indian Brook
1-1074		Village	Countryside II Fairview Farms: Spruce Lane	Expired	Type 2	Indian Brook
1-1074		Village	Countryside II Fairview Farms: Walnut Lane	Expired	Type 2	Indian Brook
2-0835		Village	Village Glen Condos	Expired	Type 2	Indian Brook
1.1527.0111		Village	Highland Village	Expired	Type 2	Sunderland Brook
1-0236		Village	Brickyard	Expired	Type 2 & 3	Indian Brook
1-1074		Village	Countryside II Fairview Farms: Locust Lane	Expired	Type 3	Indian Brook
2-0863		Village	167 Pearl Street (McEwing)	Expired	TBD	Sunderland Brook
2-0633		Town	Shillingford Crossing	Expired	Type 1	Sunderland Brook
3575-9010.R	1-1186	Town	Woodlands I	Valid	Type 1	Alder Brook
1-0667		Town	Woodlands I	Expired	Type 1	Indian Brook
3577-9010.R	1-0667	Town	Woodlands II/Lang Farm Parcel H	Valid	Type 1	Alder Brook

1-0250		Town	Kimberly Drive	Expired	Type 1	Sunderland Brook
3578-9010.R	1-0612 2-0752	Town	Pinewood Development	Valid	Type 1	Winooski River /Alder Brook
3581-9010.R		Town	Heritage Phase II	Valid	Type 1	Alder Brook
3579-9010.R		Town	Old Stage Village	Valid	Type 1	Alder Brook
3580-9010.R		Town	Rivers Bend	Valid	Type 1	Winooski River
3201-9010.R		Town	Pinewood Section G	Valid	Type 1	Winooski River
3267-9010.R		Town	Saybrook	Valid	Type 1	Alder Brook
4367-9010.R		Town	Autumn Knoll	Valid	Type 1	Browns River
3996-9010		Town	Town Swimming Pool Complex	Valid	Type 1	Alder Brook
2-0631		Town	Essex Resort and Spa	Expired	Type 2	Indian Brook
1-1463		Town	VT Systems, Inc.	Expired	Type 2	Sunderland Brook
1-0965		Town	#7 Ewing Place	Expired	Type 2	Sunderland Brook
1-0518		Town	#3 Ewing Place	Expired	Type 2	Sunderland Brook
1-0619		Town	#26 Susie Wilson Road	Expired	Type 2	Sunderland Brook
2-0634		Town	#26 Susie Wilson Road	Expired	Type 2	Sunderland Brook
1-1319		Town	Church of Latter Day Saints	Expired	Type 2	Indian Brook
1-1371		Town	Why Not LLC (Lang Farm Golf Course)	Expired	Type 2	Indian Brook
3324-9010.R		Town	Meadows Edge	Valid	Type 3	Alder Brook
3574-9010.R	1-0730	Town	Forestdale	Valid	Type 3	Winooski River /Alder Brook
3081-9010.R		Town	Perkins Bend	Valid	Type 3	Winooski River

1-1381		Town	The Commons at Essex Way	Expired	Type 3	Indian Brook
1-1307		Town	Homestead Design	Expired	Type 3	Indian Brook
1-0775		Town	The Outlets and Hannafords	Expired	Type 3	Indian Brook
2-0613		Town	The Outlets and Hannafords	Expired	Type 3	Indian Brook
1-1469		Town	Mainstay Suites	Expired	Type 3	Sunderland Brook
1-0552		Town	The Market Place	Expired	Type 3	Sunderland Brook
1-0896		Town	Yankee Enterprises, Oil #1 LLC, Bradley, Oil Annex, Patco Properties	Expired	Type 3	Sunderland Brook
1-0761		Town	Ewing	Expired	Type 3	Sunderland Brook
1-0694		Town	Ewing	Expired	Type 3	Sunderland Brook



Appendix B

TYPE 2 STORM WATER SYSTEM AGREEMENT

This STORM WATER SYSTEM AGREEMENT ("Agreement") is made this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_ by and between the [Village of Essex Junction] [Town of Essex], a Vermont municipal corporation with a principal place of business at [Village address] [81 Main Street], Essex, Vermont 05452 (the ["Town"] ["Village"]), and \_\_\_\_\_ with a principal place of business at \_\_\_\_\_ ("Permittee"). The [Town] [Village] and Permittee are sometimes each referred to in this Agreement as a "Party" or collectively as the "Parties."

WITNESSETH:

WHEREAS, the [Town has adopted an amendment to its Storm Water Ordinance] [Village has adopted an amendment to its Village Ordinance , incorporating Section 10.20.90 of the Town Storm Water Ordinance] entitled Establishment and Transfer of Responsibility for State of Vermont issued Department of Environmental Conservation Authorization to Discharge Permits under General Storm Water Permits and for Unpermitted Discharges to Impaired Waterways within the Town of Essex, Inclusive of the Village of Essex Junction; and

WHEREAS, the Storm Water Ordinance amendment identifies the requirements under section 10.20.094.B necessary for the [Town] [Village] to accept storm water permit responsibility for a valid or expired Type 2 storm water permit, as such type is defined in the Ordinance Amendment; and

WHEREAS, Permittee has identified that it is in their best interests to have the [Town] [Village] accept storm water permit responsibility by entering into this Agreement; and

WHEREAS, it is in the best interests of the Parties to work together to achieve State of Vermont storm water permit compliance; and

WHEREAS, the Parties agree that the [Town] [Village] has no responsibility for the operation, maintenance, repair, replacement or upgrade of all non-public storm water or storm water-related infrastructure, or non-public storm water infrastructure added to the original version of a valid or expired storm water permit; and

WHEREAS, the [Town] [Village] may in its sole discretion, if determined by the legislative body to be in its best interests, to accept some or all of the operation, maintenance, repair, replacement or upgrade of all non-public storm water or storm water-related infrastructure, at some future date;

NOW, THEREFORE, in consideration of the matters described above, and of the mutual benefits and obligations set forth in this Agreement, and on the express condition that all conditions precedent described below are satisfied, the Parties agree as follows:

SECTION ONE  
[TOWN] [VILLAGE] OBLIGATIONS

The [Town] [Village] agrees to accept full or shared permit responsibility for valid or expired storm water system permits as follows and also shall:

1. Hire a professional engineer, at no cost to Permittee, to inspect and certify that the Type 2 storm water system, including but not limited to catch basins, storm pipes, and treatment facilities, is in compliance with the infrastructure requirements as contained in the expired permit, unless such work is undertaken at no cost to the [Town] [Village] by Permittee. The certification shall occur prior to August 1, 2015.
2. Conduct future inspections that occur after the initial certification inspection of Type 2 storm water systems at no charge to the Permittee.
3. Conduct annual system compliance inspections to verify the condition and maintenance of the Type 2 storm water system and report findings to the State and the Permittee.
4. Inspect and prepare an annual structural condition survey and extent of debris capture in all catch basins contributing storm water flow within the permitted area.
5. At the request of Permittee, arrange for cleaning of non-public catch basins, and to bill such cleaning costs to the Permittee.
6. Make best efforts to minimize the impact on the Permittee's property and their business operations thereon in performing its obligations under this Agreement.

SECTION TWO  
PERMITTEE OBLIGATIONS

Permittee shall:

1. Accept all responsibility for the operation, maintenance, repair, replacement or upgrade of non-public storm water infrastructure identified in a valid or expired storm water permit, or non-public storm water infrastructure added subsequent to

the original version of a valid or expired permit, to meet an approved Flow Restoration Plan (FRP) unless it is determined by the appropriate legislative body, in its sole discretion, to be in the [Town's] [Village's] best interests, as defined in Section 10.20.091.B above, to accept some or all of this responsibility.

2. To pay all applicable permit fees, including initial fees and all future renewal fees, if any such fees are required of the Type 2 storm water system.
3. Hire a professional engineer, at no cost to the [Town] [Village], to inspect and certify that the Type 2 storm water system, including but not limited to catch basins, storm pipes, and treatment facilities, is in compliance with the infrastructure requirements as contained in the expired permit, unless Permittee requests such work be performed by the [Town] [Village]. The certification shall occur prior to August 1, 2015.
4. Correct any deficiencies identified in the engineer's storm water system inspection at their own expense prior to the August 1, 2015 date for system certification.
5. Maintain, repair, replace and upgrade as necessary all storm water infrastructure covered under the Type 2 storm water system permit.
6. Sweep clean all paved private roadways or parking lots at least twice per year and clean out all private catch basins whenever the depth of deposited material exceeds 50% of the depth of the catch basin sump, or enter into an agreement with the Town to perform the services for a fee.
7. Bear all costs of required storm water system upgrades (if needed) to the Type 2 storm water system to meet the [Town's] [Village's] adopted and State approved FRP unless it is determined by the [Town] [Village] to be in its best interests as defined in Section 10.20.091.B of the Town's Storm Water Ordinance [as adopted by Village's Land Development Code] to participate in some or all of the system upgrade project or project costs.
8. Comply with all other elements of the Storm Water Ordinance or State environmental regulations, including but not limited to sections dealing with illicit discharges, offsite discharge of sediment, site erosion, fertilizer application with respect to phosphorous and overall compliance with best storm water management practices as defined in adopted regulations or ordinances.

9. Perform any necessary structural repairs to any non-public storm water infrastructure beyond the annual routine maintenance within at least six (6) months of discovery of such needed structural repair or, if not repaired within six months of discovery, reimburse the [Town] [Village] for all its costs for such catch basin repair plus a ten percent (10%) surcharge for associated administrative expenses relating to such repair.
10. Indemnify, defend and hold harmless the [Town] [Village] and its officers, employees, agents, and representatives for and from any claims for liability and or damages arising out of the [Town's] [Village's] performance of the required annual operations and maintenance and required testing of the storm water infrastructure, including all catch basins and pipes, that may occur on Permittee's property, except to the extent such claims (a) arise from the gross negligence or intentional misconduct of the [Town] [Village] or its employees, agents or contractors, or (b) are covered by insurance carried by the [Town] [Village], its agents or contractors.

### SECTION THREE MISCELLANEOUS

1. The [Town] [Village] will notify Permittee at such time as the FRP for the watershed in which the property lies is adopted as to any obligations of Permittee to make on-site storm water improvements as required under the FRP.
2. All payments required under this Agreement shall be due upon receipt of an invoice. Any payments not made within thirty (30) days of their due date shall accrue interest at a rate of one percent (1%) per month on the past due amount until paid in full.
3. The Parties covenant and agree that the conditions and obligations under this Agreement shall run with the land, and shall accrue to the benefit of and be binding upon their respective successors and assigns as if they were parties to this Agreement. Any payments required under this Agreement not made when due shall constitute a lien on property of the Party failing to make payment, and shall be collectible in the same fashion as unpaid property taxes.
4. In the event a Party resorts to the judicial process to enforce another Party's obligations hereunder, the prevailing Party shall be entitled to recover its reasonable attorneys' fees.
5. This Agreement shall be interpreted consistent with and governed by the laws of the State of Vermont.

6. This Agreement consists of the entire understanding between the Parties relative to its subject matter, and may not be modified orally, but only by a written instrument signed by all Parties.

**IN WITNESS WHEREOF**, the Parties have caused their corporate seal to be affixed hereto and these premises to be signed in its name and on its behalf by its duly authorized agent as of the day and date first written above.

\_\_\_\_\_, VERMONT

\_\_\_\_\_  
Witness

BY: \_\_\_\_\_  
Duly Authorized Agent

\_\_\_\_\_  
Witness

BY: \_\_\_\_\_  
Duly Authorized Agent

STATE OF VERMONT            )  
  )    SS.  
COUNTY OF CHITTENDEN    )

At Essex in said County this \_\_\_\_ day of \_\_\_\_\_, A.D., \_\_\_\_, personally appeared \_\_\_\_\_ duly authorized officer of \_\_\_\_\_, and he acknowledged this instrument, by him sealed and subscribed to be his free act and deed and the free act and deed of the [Town of Essex] [Village of Essex Junction].

Before me,

\_\_\_\_\_  
Notary Public  
My Commission Expires: \_\_\_\_\_

STATE OF VERMONT            )  
  )       SS.  
COUNTY OF CHITTENDEN    )

At Essex in said County this \_\_\_\_ day of \_\_\_\_\_, A.D., \_\_\_\_, personally  
appeared \_\_\_\_\_ duly authorized officer of \_\_\_\_\_, and  
he/she acknowledged this instrument, by him/her sealed and subscribed to be his/her free  
act and deed and the free act and deed of \_\_\_\_\_.

Before me,

\_\_\_\_\_  
Notary Public  
My Commission Expires: \_\_\_\_\_

## Appendix C

### TYPE 3 STORM WATER SYSTEM AGREEMENT

This STORM WATER SYSTEM AGREEMENT ("Agreement") is made this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_ by and between the [Village of Essex Junction] [Town of Essex], a Vermont municipal corporation with a principal place of business at [Village address] [81 Main Street], Essex, Vermont 05452 (the ["Town"] ["Village"]), and \_\_\_\_\_ with a principal place of business at \_\_\_\_\_ ("Permittee"). The Town and Permittee are sometimes each referred to in this Agreement as a "Party" or collectively as the "Parties." (**NOTE: May be multiple parties to sign**)

#### WITNESSETH:

WHEREAS, the [Town has adopted an amendment to its Storm Water Ordinance] [Village has adopted an amendment to its Village Ordinance , incorporating Section 10.20.90 of the Town Storm Water Ordinance] entitled Establishment and Transfer of Responsibility for State of Vermont issued Department of Environmental Conservation Authorization to Discharge Permits under General Storm Water Permits and for Unpermitted Discharges to Impaired Waterways within the Town of Essex, Inclusive of the Village of Essex Junction; and

WHEREAS, the Storm Water Ordinance amendment identifies the requirements in section 10.20.094.C necessary for the [Town] [Village] to accept shared or full storm water permit responsibility for a valid or expired Type 3 storm water permit, as such type is defined in the Ordinance Amendment; and

WHEREAS, Permittee (**NOTE: May be multiple parties**) has identified that it is in their best interests to have the [Town] [Village] accept storm water permit responsibility by entering into this agreement; and

WHEREAS, it is in the best interests of the Parties to work together to achieve State of Vermont storm water permit compliance; and

WHEREAS, the Parties agree that the [Town] [Village] has no responsibility for the operation, maintenance, repair, replacement or upgrade of all non-public storm water or storm water-related infrastructure, or non-public storm water infrastructure added to the original version of a valid or expired storm water permit and shared responsibility on storm water systems consisting of both public and non-public infrastructure; and

WHEREAS, the [Town] [Village] may in its sole discretion, if determined by its legislative body to be in the [Town's] [Village's] best interests, to accept some or all of the operation, maintenance, repair, replacement or upgrade of all non-public storm water or storm water-related infrastructure, at some future date;

NOW, THEREFORE, in consideration of the matters described above, and of the mutual benefits and obligations set forth in this Agreement, and on the express condition that all conditions precedent described below are satisfied, the Parties agree as follows:

SECTION ONE.  
[TOWN] [VILLAGE] OBLIGATIONS

The Town agrees to accept full or shared permit responsibility on a proportional basis by relative impervious area contributed by the public and non-public storm water infrastructure within the permitted area for valid or expired storm water system permits. The relative impervious area has been agreed as follows: [Town] [Village] \_\_%; Permittee \_\_%. The [Town] [Village] also shall:

1. Hire a professional engineer, at no cost to the Permittee, to inspect and certify that the Type 3 storm water system, including but not limited to catch basins, storm pipes, and treatment facilities, is in compliance with the infrastructure requirements as contained in the expired permit, unless such work is undertaken at no cost to the [Town] [Village] on non-public storm water infrastructure by Permittee. The certification shall occur prior to August 1, 2015.
2. Conduct future inspections that occur after the initial certification inspection of Type 3 storm water systems at no charge to the Permittee.
3. Conduct annual system compliance inspections to verify the condition and maintenance of the Type 3 storm water system and report findings to the State and the Permittee.
4. Inspect and prepare a structural condition survey and extent of debris capture in all catch basins contributing storm water flow within the permitted area.
5. At the request of Permittee, arrange for cleaning of non-public catch basins, and to bill such cleaning costs to the Permittee.
6. Make best efforts to minimize the impact on any Permittee's property and their business operations thereon in performing its obligations under this Agreement.

SECTION TWO  
PERMITTEE OBLIGATIONS

Permittee (**NOTE: May be multiple parties**) shall:



1. Accept all responsibility for the operation, maintenance, repair, replacement or upgrade of non-public storm water infrastructure identified in a valid or expired storm water permit, or non-public storm water infrastructure added subsequent to the original version of a valid or expired permit, or their portion of a shared storm water system to meet an approved Flow Restoration Plan (FRP) unless it is determined by the appropriate legislative body, in its sole discretion, to be in the [Town's] [Village's] best interests, as defined in Section 10.20.091.B of the Storm Water Ordinance to accept some or all of this responsibility.
2. Pay their proportionate share of all applicable permit fees, including initial fees and all future renewal fees, if any such fees are required of the Type 3 storm water system, and
3. Hire a professional engineer, at no cost to the [Town] [Village], to inspect and certify that the non-public or shared portion of the Type 3 storm water system, including but not limited to catch basins, storm pipes, and treatment facilities, is in compliance with the infrastructure requirements as contained in the expired permit, unless Permittee requests such work be performed by the [Town] [Village]. The certification shall occur prior to August 1, 2015.
4. Correct any deficiencies on the non-public portion of the storm water system identified by the engineer's storm water system inspection at their own expense prior to the August 1, 2015 date for system certification.
5. Maintain, repair, replace and upgrade as necessary all non-public storm water infrastructure and to share responsibility for portions of shared storm water systems covered under the Type 3 storm water system permit according to the percentages identified above.
6. Sweep clean all paved private roadways or parking lots at least twice per year and clean out all private catch basins whenever the depth of deposited material exceeds 50% of the depth of the catch basin sump on non-public private storm water infrastructure or enter into an agreement with the [Town] [Village] to perform such services for a fee.
7. Bear the cost of required storm water system upgrades on non-public portions of the shared storm water systems and to share in the costs of all shared elements of the storm water system ( if needed) to the Type 3 storm water system to meet the [Town's] [Village's] adopted and State approved FRP according to the percentages identified above unless it is determined by the [Town] [Village] to be in its best interests as defined in Section 10.20.091.B of the Town's Stormwater

Ordinance to participate in some or all of the system upgrade project or project costs.

8. Comply with all other elements of the Storm Water Ordinance or State environmental regulations, including but not limited to sections dealing with illicit discharges, offsite discharge of sediment, site erosion, fertilizer application with respect to phosphorous and overall compliance with best storm water management practices as defined in adopted regulations or ordinances.
9. Perform any necessary structural repairs to any non-public storm water infrastructure beyond the annual routine maintenance within at least six (6) months of discovery of such needed structural repair or, if not repaired within six (months) of discovery, reimburse the [Town] [Village] for all its costs for such catch basin repair plus a ten percent (10%) surcharge for associated administrative expenses relating to such repair; and share in such costs on shared elements of the storm water system according to the percentages identified above.
10. To indemnify, defend and hold harmless the [Town] [Village] and its officers, employees, agents, and representatives for and from any claims for liability and or damages arising out of the [Town's] [Village's] performance of the required annual operations and maintenance and required testing of the storm water infrastructure, including all catch basins and pipes, that may occur on Permittee's property, except to the extent such claims (a) arise from the gross negligence or intentional misconduct of the [Town] [Village] or its employees, agents or contractors, or (b) are covered by insurance carried by the [Town] [Village], its agents or contractors.

### SECTION THREE MISCELLANEOUS

1. The [Town] [Village] will notify Permittee at such time as the FRP for the watershed in which the property lies is adopted as to any obligations of Permittee to make on-site storm water improvements as required under the FRP.
2. All payments required under this Agreement shall be due upon receipt of an invoice. Any payments not made within thirty (30) days of their due date shall accrue interest at a rate of one percent (1%) per month on the past due amount until paid in full.
3. The Parties covenant and agree that the conditions and obligations under this Agreement shall run with the land, and shall accrue to the benefit of and be binding upon their respective successors and assigns as if they were parties to this

Agreement. Any payments required under this Agreement not made when due shall constitute a lien on property of the Party failing to make payment, and shall be collectible in the same fashion as unpaid property taxes.

4. In the event a Party resorts to the judicial process to enforce another Party's obligations hereunder, the prevailing Party shall be entitled to recover its reasonable attorneys' fees.
5. This Agreement shall be interpreted consistent with and governed by the laws of the State of Vermont.
6. This Agreement consists of the entire understanding between the Parties relative to its subject matter, and may not be modified orally, but only by a written instrument signed by all Parties.

**IN WITNESS WHEREOF**, the Parties have caused their corporate seal to be affixed hereto and these premises to be signed in its name and on its behalf by its duly authorized agent as of the day and date first written above.

ESSEX], VERMONT

[VILLAGE OF ESSEX JUNCTION] [TOWN OF

\_\_\_\_\_  
Witness

BY: \_\_\_\_\_  
Duly Authorized Agent

PERMITTEE

\_\_\_\_\_  
Witness

BY: \_\_\_\_\_  
Duly Authorized Agent

STATE OF VERMONT

)

SS.

COUNTY OF CHITTENDEN

)

At Essex in said County this \_\_\_\_ day of \_\_\_\_\_, A.D., \_\_\_\_, personally appeared \_\_\_\_\_ duly authorized officer of \_\_\_\_\_, and he

acknowledged this instrument, by him sealed and subscribed to be his free act and deed  
and the free act and deed of the [Town of Essex] [Village of Essex Junction].

Before me,

\_\_\_\_\_  
Notary Public

My Commission Expires: \_\_\_\_\_

**TOWN OF ESSEX SELECTBOARD  
CHANGES TO TITLE 10.20, STORM WATER ORDINANCE  
Inclusive of Appendix A, B and C:**

Adopted this \_\_\_\_\_ day of \_\_\_\_\_ 2014 by the Town of Essex Selectboard.

\_\_\_\_\_  
Max Levy , Chair

\_\_\_\_\_  
Brad M. Luck, Vice Chair

\_\_\_\_\_  
Andy J. Watts, Clerk

\_\_\_\_\_  
Irene Wrenner

\_\_\_\_\_  
R. Michael Plageman

Received for Record by Essex Town Clerk this \_\_\_\_\_ day of \_\_\_\_\_ 2014.

# Memorandum

TO: Patrick C. Scheidel, Town /Village Manager and the Selectboard/Board of Trustees

FROM: JOINT STORMWATER POLICY COORDINATING COMMITTEE

DATE: 23 June 2014

SUBJECT: Changes to the Town of Essex Stormwater Ordinance and the Village of Essex Junction Land Development Code for the purpose of addressing expired stormwater permits, unpermitted discharges and other stormwater permits in the impaired watersheds of Indian and Sunderland Brooks in compliance with the NPDES Phase 2 Stormwater permit issued to each municipality by the Vermont Agency of Natural Resources in December of 2012.

ISSUE: The issue is whether or not the Selectboard and Trustees will approve a Public Hearing on Stormwater Ordinance changes in the Town of Essex and whether or not the Village Trustees will separately initiate the process to change Village Ordinances to address the issue of expired stormwater permits, unpermitted discharges and other stormwater permits in the impaired watersheds of Indian and Sunderland Brooks in compliance with the NPDES Phase 2 Stormwater permits issued to each community.

DISCUSSION: Memorandums relating to this subject were provided to each municipal governing body in late February 2014 outlining this issue and the approach to be taken with respect to the NPDES permit requirements regarding expired permits. A copy of the referenced memorandum is attached. It provides the basis for moving forward with actual ordinance or code changes.

A significant effort has been expended over the past four months by the Committee, the Town Attorney and the Village Attorney to further develop the general concepts outlined in the February memorandums. The end product of many rewritten versions is attached as the recommended course of action relative to this issue. It is recommended that the ordinance and code changes go through the public adoption process for approval and staff implementation.

The proposed adoption schedule in the Town is as follows:

- 1) Presentation to the Selectboard on July 14, 2014 and release of the documents to affected permittees and their engineers.
- 2) Approval of the Selectboard on July 14<sup>th</sup> to hold a first hearing on the proposed Ordinance on August 4<sup>th</sup> and a final Public Hearing on August 18<sup>th</sup>. This will enable the legal warnings to go into the Essex Reporter both on July 31<sup>st</sup> and August 7<sup>th</sup> – more than the minimum one week prior to the hearing. If the warning for the final public hearing is not approved by the Selectboard until August 4<sup>th</sup>, there will be insufficient time to meet the Town warning requirements and the Essex Reporter deadlines.
- 3) Hold a first reading of the Ordinance on August 4<sup>th</sup>.
- 4) Contact will be made by staff with as many current expired permit holders as possible prior to the public hearing.

- 5) The Public Hearing and anticipated adoption will occur on August 18, 2014

The proposed adoption schedule in the Village is as follows:

- 1) Presentation to the Trustees on July 22, 2014 and release of the documents to affected permittees and their engineers.
- 2) Approval of the Trustees on July 22<sup>nd</sup> of the proposed Ordinance.
- 3) There is a 60 day period for public comments on the Ordinance following adoption.
- 4) Contact will be made by staff with as many current expired permit holders as possible prior to the July 22<sup>nd</sup> meeting.

Recommendation for the Town of Essex Selectboard:

It is recommended that the Selectboard approve the request to hold Public Hearings on the proposed Stormwater Ordinance changes to Title 10.20 as referenced in this memorandum.

Recommendation for the Village of Essex Junction Trustees:

It is recommended that the Village Trustees approve the request to revise Village Ordinances to incorporate the proposed Town Stormwater Ordinance Title 10.20 as amended for expired stormwater permits and as referenced in this memorandum.

NOTE: Attached to this memorandum are the following:

- 1) Memorandum to the Selectboard dated 18 February 2014 providing the background for development of an Ordinance change relating to expired stormwater permits
- 2) Memorandum to the Village Trustees dated 6 March 2014 providing the background for development of an Ordinance change relating to expired stormwater permits
- 3) The proposed full Public Hearing Notice for the Town's Stormwater Ordinance changes
- 4) The proposed shortened (newspaper) version of the Public Hearing Notice for the Town's Stormwater Ordinance changes
- 5) The proposed municipal code adoption verbiage for the Village
- 6) The proposed Ordinance change to be signed after adoption by the Selectboard
- 7) A copy of the current Town Stormwater Ordinance.

# Memorandum

TO: Patrick C. Scheidel, Town Manager and the Selectboard  
FROM: Dennis Lutz, P.E. Public Works Director  
DATE: 18 February 2014  
SUBJECT: Required 1 April 2014 Stormwater Permit Response to the State Regarding Expired Permit Responsibility in the Impaired Watersheds

ISSUE: The issue is whether or not the Selectboard will approve the recommendation from the Joint Stormwater Policy Coordinating Committee to address the issue of stormwater permits in the impaired watersheds through future adoption of an amendment to the Town's existing Stormwater Ordinance.

DISCUSSION: The issue of how to handle the expired permits within the impaired watersheds as required under municipal NPDES MS4 General Permit 3-9014 was one of the tasks given to the Committee by the Selectboard and Trustees. Specifically, task #2 stated:

"Develop recommendations relative to municipal partial/ full /no acceptance of responsibility for expired permits in the impaired waterways.

- a. Review all existing permits to better understand commonalities/differences
- b. Review the VANR documentation relative to the implications of accepting partial or full or no expired permit responsibility
- c. Develop pros/cons on potential recommendations with respect to the three approaches
- d. Recommend an approach
- e. Complete preliminary work on this issue prior to 1 January 2014 as a target date"

The Committee has met five times and gradually developed a consensus on the best approach to handling of these permits. The recommended approach is contained in a draft amendment to the Town's Stormwater Ordinance, a copy of which is attached. The draft amendment to the Ordinance has been reviewed by the Town Attorney and a copy of his e-mail response is also attached.

As the Town Attorney has indicated both in his e-mail and in separate discussions, the methodology of handling the expired State permits as proposed is fine but the wording of the Ordinance needs "finishing". Although the ideal situation would be to have a final version of the Ordinance Amendment prepared for the Selectboard before 1 April 2014, there is insufficient time to have it ready for Selectboard or Trustee consideration by the permit deadline. In the case of the Town Selectboard, there are only two meetings before the deadline (24 February and 17 March) and three for the Village Trustees (25 February, 11 and 25 March). The Town Attorney will be gone for the last two weeks in February. It is unrealistic to anticipate



a final draft being ready in time for the March Board meetings. A realistic schedule would be for final draft to go to the Boards in April, followed by public hearings and adoption around the late June time frame.

A letter has been prepared for transmittal to the State which will meet the 1 April 2014 deadline. A copy is attached. With approval from the Selectboard, this letter will be forwarded.

In the tasking to the Committee, three approaches were noted and the pros and cons were to be developed for each. The proposed methodology is really a combination of the approaches and therefore there is no clear-cut pro or con rationale to each approach. However, there are some broad considerations that have driven the recommendation. These are:

- 1) If a municipality decides to take no action on the expired permits, then the State will issue a Residual Designation Authority (RDA) Permit to the existing expired permit holder. This permit requires a much shorter compliance time (up to 3 years) and development of an EFA (Engineering Feasibility Analysis) for each permit. If the MS4 takes over the permit (i.e., no RDA), the compliance time could go to 20 years and individual permit costs would not be required.
  - a. In many cases, the stormwater discharge from the expired permit is co-mingled with municipal stormwater, so in effect, the municipality would be putting itself under a much tighter time frame for compliance.
  - b. The majority of expired permit holders have no idea that the requirement exists and little ability to deal with the issue of stormwater permit compliance.
- 2) There is a distinct difference between stormwater permit compliance and ownership of private stormwater infrastructure. The municipality can provide umbrella stormwater permit coverage and through agreements, not accept responsibility for private infrastructure.
- 3) It is important that there be equity in the handling of all expired permits and any proposed ordinance should be consistent with positions already taken by the municipality on acceptance of permits in the non-impaired watersheds (Note that the Town has already accepted responsibility for fourteen 3-9010 stormwater permits in the non-impaired watersheds).
- 4) The municipality can offer permit compliance and system certification at no cost to parties that agree to sign an agreement with the municipality. The municipality can also arrange for private stormwater system maintenance (for a fee). These are incentives to bring current expired permit holders under the municipal permit umbrella. In return, the private system or shared system permit holders have system ownership requirements to include proper operation, maintenance and (if needed) upgrade of their systems.
- 5) Any proposed methodology for dealing with the expired permits has to recognize that the Flow Restoration Plan (FRP) required by the NPDES MS4 Permit is just being developed. There are no answers today to the questions of what will have to be built, where will new stormwater facilities go and what will be the cost. Any management plan to deal with the expired permits, such as the proposed ordinance amendment, has to leave the door open to future resolution of these questions. The two municipalities

could decide to fund the solutions jointly through property taxes or a fee-based system and they could also decide that some of the costs for implementation may go to the current expired permit holders. It would be premature to take over all existing expired permits without some form of protection for the municipality (in agreements) that enable these questions to be settled at a later date when more facts are known.

Selectboard and Trustee concurrence with the recommendation suggested by staff in this memorandum allows for changes to the draft Ordinance Amendment by the Town and Village Attorneys, the Joint Stormwater Policy Coordinating Committee and both boards prior to any warning for adoption. Other than conceptual concurrence, nothing in the document is "locked in".

**RECOMMENDATION:** It is recommended that the Selectboard conceptually approve the approach outlined in the draft Stormwater Ordinance Amendment entitled **"Policy and Procedures for Establishment and Transfer of Responsibility for State of Vermont issued Department of Environmental Conservation Authorization to Discharge Permits Under General Permit 3-9010 to the Municipal NPDES MS4 General Permit 3-9014."** In addition, the Selectboard approves sending the letter from Dennis Lutz to Christy Witters regarding municipal compliance with Section IV, C, 1, e), (3) of NPDES MS4 General Permit 3-9014 pertaining to ..." a plan for addressing expired state stormwater permits discharging to the permittee's MS4 system."



## **MEMORANDUM**

TO: Essex Junction Trustees and Pat Scheidel, Village Manager  
FROM: James Jutras, Water Quality Superintendent  
cc: Lauren Morrisseau and Susan McNamara-Hill, Co-Managers  
DATE: March 6, 2014  
SUBJECT: Development of Expired Stormwater Permit Ordinance for the Village and the Town

**Issue:** A Municipal Separate Storm Sewer (MS4) Phase 2 General Permit (3-9014) was issued to the Village of Essex Junction in 2013. This permit requires the Village to improve the water quality of its stormwater impaired watersheds (Indian and Sunderland Brooks) which we share with the Town of Essex. As a result, the two communities formed the Joint Stormwater Committee (JSWC) to coordinate efforts needed to meet permit requirements. This MS4 permit requires expired stormwater permits be primarily handled at the local level. This has led the JSWC to propose and draft an Expired Stormwater Permit Ordinance (attached) that would be adopted by both communities to comply with permit requirements. There has been legal review by the Town Attorney with future review and comment by the Village attorney.

The issue for consideration is whether the Village Trustees will approve the recommendations from the JSWC to address these permit requirements through the future adoption of an Expired Permit Stormwater Ordinance or via amendments to the Land Development Code (LDC).

**Discussion:** The JSWC was formed to address the expired stormwater permit requirement and other community stormwater matters. As stated in the MS4 General Permit (3-9014) a municipality designated as a small MS4 that discharges to a stormwater impaired stream must prepare Flow Restoration Plans (FRP) to meet the stormwater Total Maximum Daily Load (TMDL) and Water Quality Standards for those streams. As part of the FRP process municipalities must, by April 1, 2014, submit to the Secretary of ANR plans for addressing expired stormwater permits discharging to their MS4. Prioritization of flow remediation, implementation funding as well as many other logistical items are still under development for future Trustee and Selectboard consideration.

The MS4 permit specifically states that we must develop recommendations relative to municipal partial/full/no acceptance of responsibility for expired permits within these impaired waterways. The municipality may either take over the expired permit by incorporating it into their MS4 General Permit OR request the Secretary to exercise Residual Designation Authority (RDA) for those expired permits. The RDA forces compliance in that the ANR takes the lead on corrective action. Through this process, it does not necessarily excuse the municipality from some degree of participation in the remediation process. We are considering all options that we can think of to make the process fair and equitable to the situations presented. It should also be noted that the broad discussion involves the fact that many expired permits have already been incorporated into municipal infrastructure. Also under discussion

are mechanisms to insure future compliance through infrastructure maintenance and planned improvements, possibly on a fee basis, to some permittees

After several meetings the JSWC agreed that the issue is very complex. The consensus was that we develop an Expired Permit Ordinance as the best recommendation to reach compliance with this MS4 permit requirement. The current DRAFT ordinance outlines four permit situations:

Type 1: Stormwater system that consists of infrastructure entirely on public land (road right of way, municipal property, municipal stormwater easement), owned by the municipality including residential subdivision or groups of houses with no private stormwater infrastructure connected into stormwater systems on public lands (excluding building under drains)

Type 2: Stormwater system that consists of infrastructure that is entirely contained on private property and dischargers directly or indirectly to a recognized body of water and which is not directly connected by piping to a public (Type 1) or combined public/private (Type 3)

Type 3: Stormwater system that consists of a shared infrastructure covered under both valid and/or expired stormwater permits that combine stormwater flow from both public and private stormwater infrastructure before discharging directly or indirectly into a body of water

Type 4: Any other type of stormwater system not covered under Types 1 through 3.

Depending on what "Type" category the expired permit falls into, there are various conditions, agreements, fees that must be met between the permit holder and the municipality to ensure the permit is no longer treated as expired. These agreements, conditions, fee etc. are explained in detail in the ordinance.

Village Trustee and Town Selectboard concurrence with the recommendation suggested by staff in this memorandum allows for changes to the draft Expired Stormwater Permit Ordinance by the Village and Town Attorneys, The Joint Stormwater Committee and both boards prior to any warning for adoption. We are only asking for conceptual concurrence at this time. The Town Selectboard has already supported this conceptual ordinance proposal.

**Costs:** Consideration for Cost related to implementing the Expired Stormwater Permit Ordinance has been worked into the existing Town Capitol budgets within the past couple years. In addition some funds have been sequestered in grants to implement the development of Flow Restoration Plan and other related permit compliance. Most of the costs would be by the Town with some undefined Village participation.

**Recommendation:** It is recommended that the Village Trustees conceptually approve the approach outlined in the draft Expired Stormwater Permit Ordinance titled "**Policy and Procedures for Establishment and Transfer of Responsibility for State of Vermont issued Department of Environmental Conservation Authorization to Discharge Permits Under General Permit 3-9010 to the Municipal NPDES MS4 General Permit 3-9014.**" In addition, the Village Trustees approves sending the letter to the State regarding municipal compliance with Section IV.C.1.e).(3) of the NPDES MS4 General Permit 3-9014 pertaining to "...a plan for addressing expired state stormwater permits discharging to the permittee's MS4 system."

## Notice of Public Discussion of the proposed Stormwater Ordinance

Village residents may attend a public discussion in either the Village or the Town.

### Village of Essex Junction Proposed Adoption Schedule

1. Presentation to the Trustees on July 22, 2014.
2. Approval of the proposed ordinance by the Trustees on July 22<sup>nd</sup>.
3. There is a 60 day period for public comments on the Ordinance following adoption.
4. Contact will be made by staff with as many current expired permit holders as possible prior to the July 22<sup>nd</sup> meeting.

### Town of Essex Proposed Adoption Schedule

1. Presentation to the Selectboard on July 14, 2014 and release of the documents to affected permittees and their engineers.
2. Approval by the Selectboard on July 14<sup>th</sup> to hold a first hearing on the proposed ordinance on August 4<sup>th</sup> and a final public hearing on August 18<sup>th</sup>.

## Attachment-1: Kick off Meeting



### Minutes

**Project:** Sunderland and Indian Brooks FRP  
**Meeting:** Project Kick-Off Meeting  
**Date/Time:** 6-13-14, 8:30AM  
**Location:** Town of Essex Fire Department  
**Attendees:** Dennis Lutz, Ann Costandi (Town of Essex), Jim Jutras, Chelsea Mandigo (Village of Essex), Jenn Callahan (VTrans), Bryan Osborne, Warner Rackley (Town of Colchester), Lani Ravin (UVM), Wayne Elliott, Rachel Marvin (Aldrich and Elliott), Andres Torizzo, Dana Allen (WCA)

*Meeting convened at 8:30AM*

*Introductions to all involved.*

*WCA recorded the meeting's proceedings for the benefit of their employee, Joanie Stultz, who could not attend in person.*

Andres (WCA) opened the meeting by stating need to focus on known problem areas first to make efficient use of time.

#### **Discussion of BMPDSS Modeling Process –**

Discussed how model is split up into pre and post 2002 conditions and the 'credit' system for projects that the State may not know about, how they integrate into the model, etc.

Discussed the attainment numbers for Existing Conditions Model –

Bryan (Town of Colchester) pointed out that according to model Colchester has attained goals already. WCA noted that they would be reviewing this on the ground to verify that the model was accurate with respect to attainment targets.

Both Town and Village of Essex stated that they have lists of newer SW structures that could be added to model and will send them to WCA.

Discussed role of natural features – since they change the Base but not the Credit Model these won't be an area of focus.

Discussed the delineation line for Sunderland – Town of Colchester believed the impaired watershed was incorrectly delineated. Wayne (A&E) explained that it was delineated by the State and therefore the area of record.

Data Sharing – both Town and Village of Essex noted that they would send the most recently available SW infrastructure data, as well as biological assessment data.

Discussed UVM's potential involvement as an MS4 landowner in the watershed – some public outfalls occur on UVM's land. As that land is 'land bank' property, UVM expressed reservations about having SW infrastructure on the land.

**Discussed the Future Growth Allocation (non-jurisdictional growth, i.e. sub 1 acre impervious):**

WCA to review FGW for each watershed, determine real amount of FGA, break out by each drainage area and establish some amounts for each.

Bryan (Town of Colchester) asked how does FGA get divvied up between communities?

WCA explained that that will be reviewed during the FRP process.

Dennis (Town of Essex) – wants to work with planning commissions to allocate between communities and set acreages.

Both Essex and Colchester have small site stormwater requirements.

Essex has it for all watersheds (not just impaired)

Colchester reviews all development with Public Works

**Discussion of Specific BMP sites/areas of concern within each watershed.**

**Sunderland Brook:**

Discussed various project areas that could be involved in FRP retrofits including

- Suffolk Lane
- Parizo/Kimberley Drive Outfall
- Suzie Wilson Rd
- David Drive
- Morse Drive

Discussed potential sites – both Town and Village of Essex highlighted several projects they have in mind and expressed their desire to look at each of these sites as potential retrofits, and to evaluate projects above and beyond what is strictly required at a minimum by the FRP to be prepared for the future.

Town of Essex expressed interest in both LID-type projects as well as more traditional buried perforated pipe flow-control projects but is willing to look at both.

Maintenance – Town of Essex is willing to maintain if retrofit is in Town's best interest  
Permitting –

Town of Essex is developing ordinance of permit types for Essex

Purely Public Permits

Private Permits with Public Inspection (potentially permit held by Town)

Shared – mix of public/private outfall systems

Other? – not defined yet

Village of Essex will provide WCA with their data. GIS can be obtained from CCRPC.

All VTRANS owned drainage flows to 5598-INDS (Forth Ethan Allen)

District Office is at Fort.

A&E has design plans – need to verify as-built

**Indian Brook -**

Discussed attainment targets - 88% addressed for high-flows.

Discussed missing BMPs from Model

*Village of Essex:*

- Brookside Ave – missing an INDO – swirl separator – they have plans for it
- Discussed opportunities for additional retrofits -
- Fairview Drive – easy natural depression to get some storage (next to 1-1074)
- Taft Street – sheet flow to stream – could have swale
- North Creek Condos (Brickyard Rd) – flows overland to earthen bermed area – could be pond – no permit? Not in model
- End of Countryside Drive – large impervious entry – could be narrowed to smaller entry

*Town of Essex:*

- Doubleday Lane – 3 pipe outfall where only one pipe discharges during storms – ponds on Syndey Drive not taking enough flow – break outfall pipes and route to pond – improve ponds.
- Doubleday Lane – two ponds off Doubleday that don't meet standards – could be retrofit
  - WCA was given CD titled Essex Way (UVM Study)
- Inn at Essex and LDS Church (Essex Way) Study –
  - New piping to do treatment under parking lot at LDS Church
  - LDS Church has expired permit (pond) which treats only their SW – Town wants to take it over and treat more area

*VTRANS:*

- Could do median BMPs (filter swales)
- Could check sites farther north towards unnamed tribs to see if runoff is sheet flowing to median
- VTRANS has to do 0.2% to achieve regulated reduction – median swale will probably do this.

Briefly discussed funding – how to deal with non-profits (don't pay taxes, so don't contribute via taxation to SW infrastructure payments)

**Discussed Field Work protocol -**

Towns will put it out in paper and on Front Porch Forum.

VTRANS – need permit from District 5 (Randy Snelling) – WCA to send Jenn e-mail for contact info

WCA to coordinate with Town and Village of Essex to do field visits with officials and interns.

**Logistics:**

WCA to send contact info to Dennis (e-mail/phone/fax)



Project deadlines were not discussed in-depth – no major issues were present with respect to schedule.

Scope of Work was discussed for both watersheds – all aspects were deemed acceptable to all concerned.

# Essex Town Current Ordinance

## Chapter 10.20

### STORM WATER

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APPENDIX A: Small Site Erosion Control Guide

APPENDIX B: Town of Essex Erosion and Sediment Control Permits Application

APPENDIX C: Stormwater Management Permit and Plan

APPENDIX D: Stormwater Management Design Criteria

#### **§10.20.010 General Provisions**

This chapter is adopted pursuant to the Town's enabled right to adopt ordinances, bylaws, and regulations according to Section 103(a), et seq. of the Town of Essex Charter, and Sections 3508 and 3617 of Title 24, Vermont Statutes Annotated.

#### **§10.20.011 Basis for the Ordinance**

A. Land development activities and associated increases in site impervious cover often alter the hydrologic response and water quality aspects of local watersheds and increase storm water runoff rates and volumes, flooding, stream channel erosion, sediment transport and deposition and the concentration of waterborne pollutants and pathogens.

B. Clearing and grading during construction tend to increase soil erosion and reduce the native vegetation important for terrestrial habitat, for stream regulation through shading and for maintenance of natural food cycles important to food chains and aquatic habitat.

C. Improper design and construction of storm water management practices can increase downstream flooding and increase the velocity of storm water runoff causing stream bank erosion and build-up of sedimentation.

D. Impervious surfaces allow less water to percolate into the soil, thereby decreasing groundwater recharge and stream base flow.

E. Storm water runoff, soil erosion and non-point source pollution can be controlled, minimized and in some cases eliminated through the regulation of storm water runoff from land development activities. Illicit discharges must be eliminated.

F. The regulation of storm water discharges from new development and redevelopment of existing sites, the elimination of illicit discharges and the control of erosion and sediment discharge is in the public interest and will minimize threats to public health and safety.

G. Economic loss and stream water quality degradation can result from these adverse impacts. Pet and wildlife wastes in storm water may raise bacteria levels, potentially resulting in loss of recreation use of the streams and Lake Champlain.

#### **§10.20.012 Purpose**

The purpose of this chapter is to provide for increased regulation to address the items outlined in Section 10.20.011 and to thereby protect the public health, safety, and general welfare of the Town of Essex through the establishment of storm water best management practices in the following areas:

- A. Illicit Discharges (reference Section 10.20.050).
- B. Erosion and Sediment Control (reference Section 10.20.060).
- C. Development Storm Water Management (reference Section 10.20.070).
- D. Storm Water Control, Operation, and Maintenance (reference Section 10.20.080).
- E. Riparian Buffer Zones (reserved for the future)

In addition, this chapter ensures compliance with the storm water management provisions of the Small Municipal Separate Storm Sewer Systems (MS4), General Permit No. 3-9014, for those construction sites and post construction storm water management projects which disturb one acre or more of earth.

#### **§10.20.013 Applicability.**

This chapter applies to all property within the Town of Essex, Vermont outside the Village of Essex Junction and shall apply specifically as indicated in other sections by topic matter in this Ordinance.

#### **§10.20.014 Documents Incorporated by Reference.**

The latest versions of the following documents are incorporated herein by reference:

- A. *Town of Essex Outside the Village of Essex Junction Official Subdivision Regulations.*
- B. *Town of Essex Outside the Village of Essex Junction Official Zoning Bylaws.*
- C. *Town of Essex Standard Specification for Construction.*
- D. *Vermont Storm water Management Manual*, Volumes I and II.
- E. *Vermont Handbook for Soil Erosion and Sediment Control on Construction Sites*
- F. *Town of Essex Storm Water Management Plan dated April 2003.*

**§10.20.015 Definitions.**

As used in this chapter:

*"Accelerated erosion"* means erosion caused by development activities that exceed the natural processes by which the surface of the land is worn by the action of water, wind, or chemical action.

*"Applicant"* means a property owner or duly designated agent who files an application for a land disturbance activity.

*"Best management practices"* (BMP's) means schedules of activities, prohibitions of practices, maintenance procedures, the use of pollution control devices and other management practices to prevent or reduce the amount of pollution introduced to receiving bodies of water from storm water runoff. BMP's can include treatment practices, operating procedures, and practices to control site runoff, spillage or leaks, sludge or water disposal, or drainage from raw materials storage.

*"Building"* is as defined in Article XXVII of the Town of Essex Zoning Bylaws, as amended.

*"Channel"* means a natural or artificial watercourse with a definite bed and banks that conducts continuously or periodically flowing water.

*"Clean Water Act"* means the federal Water Pollution Control Act (33 USC §1251, et seq.), and any subsequent amendments thereto.

*"Clearing"* means any activity that removes the vegetative surface cover.

*"Construction activity"* means activities such as clearing and grubbing, grading, excavating, and demolition. Coverage for construction site runoff under the State of Vermont General Permit may be required for projects resulting in land disturbance of one acre or more of land.

*"Conveyance"* means the process of water moving from one place to another.

*"Detention"* means the temporary storage of storm water runoff in a storm water system with the goal of controlling peak discharge rates and providing gravity settling of pollutants.

*"Detention facility"* means a detention basin or alternative structure designed to temporarily store stream flow or surface runoff and to gradually release stored water at controlled rates.

*"Development"* is as defined in Article XXVII of the Town of Essex Zoning Bylaws, as amended.

*"Drainage easement"* means a legal right granted by a landowner to a grantee allowing the use of land for storm water management purposes.

*"Drainage way"* means a channel that conveys surface runoff through the site.

*"Erosion"* means when land is diminished or worn due to wind or water. Often the eroded debris (silt or sediment) becomes a pollutant via storm water runoff. Erosion occurs naturally but can be intensified by land clearing activities such as farming, development, road building, and timber harvesting.

*"Erosion and sediment control plan"* means a plan that indicates the specific measures and their sequencing for use to control sediment and erosion on a development site during and after construction.

*"Existing development"* means a development that was built prior to the effective date of the adoption of this Ordinance.

*"Grading"* means excavation or fill of material, including the resulting conditions thereof.

*"Hazardous materials"* means any material, including any substance, waste, or combination thereof, that because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to, a substantial present or potential hazard to human health, safety, property, or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

*"Hotspot"* means an area where land use or activities generate highly contaminated runoff, with concentrations of pollutants in excess of those typically found in storm water.

*"Hydrologic soil group"* (HSG) means a Natural Resource Conservation Service classification in which soils are categorized into 4 runoff potential groups. The groups range from "A" soils with high permeability and little runoff production to "D" soils that have low permeability rates and produce much more runoff.

*"Illicit discharge"* means any direct or indirect non-storm water discharge to the storm

drain system, except as may be exempted under this chapter.

*"Illicit connections"* means either of the following definitions:

- A. Any drain or conveyance, whether on the surface or subsurface, that allows an illicit discharge to enter the storm drain system including but not limited to any conveyances that allow any non-storm water discharge including sewage, process wastewater, and wash water to enter the storm drain system and any connections to the storm drain system from indoor drains and sinks, regardless of whether said drain or connection had been previously allowed, permitted, or approved by an authorized enforcement agency.
- B. Any drain or conveyance connected from a commercial or industrial land use to the storm drain system that has not been documented in plans, maps or equivalent records and approved by an authorized enforcement agency.

*"Impervious cover"* means human-made surfaces including, but not limited to, paved and unpaved roads, parking areas, building roofs, driveways (paved and unpaved) walkways and compacted surfaces, from which precipitation runs off rather than infiltrates. A measure of imperviousness is a "C" value for runoff under of the Unified Soil Classification System of .70 or greater.

*"Industrial activity"* means activities subject to NPDES Industrial Permits as defined in 40 CFR §122.26(b)(14).

*"Industrial storm water permit"* means a NPDES permit issued to a commercial industry or group of industries that regulates the pollutant levels associated with industrial storm water discharges or specifies on-site pollution control strategies.

*"Infiltration"* means the process of percolating storm water into the subsurface.

*"Infiltration facility"* means any structure or device designed to infiltrate retained water to the subsurface. These facilities may be above or below grade.

*"Jurisdictional wetland"* means an area inundated or saturated by surface water or groundwater at a frequency and duration

sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions, commonly known as hydrophytic vegetation.

*"Land disturbance activity"* means any activity that changes the volume or peak flow discharge rate of rainfall runoff from the land's surface. This may include grading, digging, cutting, scraping, or excavating soil, placement of fill materials, paving, construction, substantial removal of vegetation, or any activity that bares soil or rock or involves the diversion or piping of any natural or human-made watercourse.

*"Landowner"* means the legal or beneficial owner of land, including those holding the right to purchase or lease the land, or any other person holding proprietary rights in the land.

*"Maintenance agreement"* means a legally recorded document that acts as a property deed restriction and that provides for long-term maintenance of storm water management practices.

*"Maximum extent practicable"* (MEP) means the requirement in the federal Clean Water Act permitting discharges from municipal storm sewers to include controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the state of Vermont determines appropriate for the control of such pollutants.

*"Minimum control measures"* means any BMP or other method used to prevent or reduce the discharge of pollutants to waters of the United States.

*"MS4"* means the municipal separate storm water system.

*"National Pollutant Discharge Elimination System"* (NPDES) means the name of the surface water quality program authorized by Congress as part of the 1987 Clean Water Act. This is EPA's program to control the discharge of pollutants to waters of the United States and means a permit issued by EPA (or by a state under authority delegated pursuant to 33 USC §1342(b)) authorizing the discharge of pollutants to waters of the United States, whether the permit is applicable on an individual, group, or general area-wide basis.

*"New development"* means the construction of new impervious surfaces on a tract or tracts of land occurring after the effective date of this Ordinance

*"Non-point source (NPS) pollutants"* means pollutants from many diffuse sources. NPS pollution is caused by rainfall or snowmelt moving over and through the ground. As the runoff moves, it picks up and carries away natural and human-made pollutants, finally depositing them into lakes, rivers, wetlands, coastal waters, and even into underground sources of drinking water.

*"Non-storm water discharge"* means any discharge to the storm drain system that is not composed entirely of storm water.

*"Nonstructural best management practices"* means non-physical methods or activities used to mitigate the adverse impacts of storm water runoff including, but not limited to ordinances, maintenance activities and education/outreach activities.

*"Offset fee"* means a monetary compensation paid to a local government for an inability to meet pollutant load reduction targets.

*"Offsite"* means the land within the development's drainage area that is not owned or controlled by the permit applicant.

*"Outfall"* means the point where drainage discharges from a pipe, ditch, or other conveyance to a receiving body of water.

*"Perimeter control"* means a barrier that prevents sediment from leaving a site by filtering sediment-laden runoff or diverting it to a sediment trap or basin.

*"Person"* means any individual, association, organization, partnership, firm, corporation, or other entity recognized by law and acting as either the owner or as the owner's agent.

*"Phasing"* means clearing of a parcel of land in distinct phases, with the stabilization of each phase completed before the clearing of the next.

*"Point source pollutant"* means pollutants from a single, identifiable source such as a factory or refinery.

*"Pollutant"* means anything that causes or contributes to pollution. Pollutants may include, but are not limited to, paints, varnishes and solvents, oil and other automotive fluids, non-hazardous liquid and solid wastes and yard wastes, refuse, rubbish, garbage, litter, or other

discarded or abandoned objects, and accumulations, so that same may cause or contribute to pollution, floatables, pesticides, herbicides and fertilizers, hazardous substances and wastes, sewage, fecal coliform and pathogens, dissolved and particulate metals, animal wastes, wastes and residues that result from constructing a building or structure, and noxious or offensive matter of any kind.

*"Recharge"* means the replenishment of underground water reserves.

*"Redevelopment"* means in the context of storm water, any construction, alteration, or improvement exceeding 10,000 square feet on previously developed land.

*"Riparian Buffer Zone"* means the width of land adjacent to streams or lakes between the top of the bank or top of slope or mean water level and the edge of other land uses. Riparian buffer zones are typically undisturbed areas that protect the water body and adjacent riparian corridor ecosystem from the impact of adjacent land uses.

*"Riparian corridor"* means the water body and width of adjacent land that supports a distinct ecosystem with abundant and diverse plant and animal communities and which provides for channel stability of the water body.

*"Runoff"* means drainage or flood discharge that leaves an area as surface flow or as pipeline flow that has reached a channel or pipeline by either surface or sub-surface routes.

*"Sediment"* means soil, sand, and minerals washed from land into water, usually after rain. Sediment can destroy fish-nesting areas, clog animal habitats, and cloud water so that sunlight does not reach aquatic plants.

*"Sediment control"* means measures that prevent eroded sediment from leaving the site.

*"Sheet flow"* means the portion of precipitation that moves initially as overland flow in very shallow depths before eventually reaching a stream channel.

*"Site"* means a parcel of land or contiguous combination thereof, where grading work is performed as a single unified operation.

*"Stabilization"* means the use of practices that prevent exposed soil from eroding.

*"Start of construction"* means the first land-disturbing activity associated with a development, including land preparation such as

clearing, grading, and filling, installation of streets and walkways, excavation for basements, footings, piers, or foundations, erection of temporary forms, and installation of accessory buildings such as garages.

*"Stop work order"* means an order issued requiring that all construction activity on a site be stopped.

*"Storm drainage system"* means facilities by which storm water is collected and/or conveyed including, but not limited to, any roads with drainage systems, municipal streets, gutters, curbs, inlets, piped storm drains, pumping facilities, retention and detention basins, natural and human-made or altered drainage channels, reservoirs, and other drainage structures.

*"Storm water"* means any surface flow, runoff, and drainage consisting entirely of water from any form of natural precipitation, and resulting from such precipitation.

*"Storm water management"* means the use of structural or non-structural practices that are designed to reduce storm water runoff pollutant loads, discharge volumes, and/or peak flow discharge rates.

*"Storm water pollution prevention plan"* means a document describing the BMP's and activities to be implemented by a person or business to identify sources of pollution or contamination at a site and the actions to eliminate or reduce pollutant discharges to storm water, storm water conveyance systems, and/or receiving waters to the maximum extent practicable.

*"Storm water retrofit"* means a storm water management practice designed for an existing development site that previously had either no storm water management practice in place or a practice inadequate to meet the storm water management requirements of the site.

*"Storm water runoff"* means flow on the surface of the ground, resulting from precipitation.

*"Storm water treatment practices"* (STP's) means measures, either structural or non-structural, that are determined to be the most effective, practical means of preventing or reducing point source or non-point source pollution inputs to storm water runoff and water bodies.

*"Structural best management practices"* means physical features used to improve storm water quality or reduce peak flows such as detention ponds, grassed swales, sand filters, and infiltration basins.

*"Substantially deteriorated"* means the condition of a storm water treatment practice that would necessitate repair or reconstruction beyond that which would be considered typical, periodic maintenance for a system of similar design.

*"Total maximum daily load"* (TMDL) means the maximum amount of pollutants that can be released into a water body without adversely affecting the water quality.

*"Urban runoff"* means storm water from urban areas that tend to contain heavy concentrations of pollutants from urban activities.

*"Wastewater"* means any water or other liquid other than uncontaminated storm water discharged from a facility.

*"Water quality volume"* (Wqv) means the storage needed to capture and treat 90% of the average annual storm water runoff volume. Numerically Wqv will vary as a function of long-term rainfall statistical data.

*"Watercourse"* means a permanent or intermittent stream or other body of water, either natural or human-made, that gathers or carries surface water.

*"Watershed"* means that geographical area that drains to a specified point on a watercourse, usually a confluence of streams or rivers.

*"Wetland"* means those areas that are inundated by surface or ground water with a frequency sufficient to support plants and animals that depend on saturated soil conditions for growth and reproduction. Designated wetlands in Vermont are classified as Class I, II or III.

#### § 10.20.016 General Exemptions

The Illicit Discharge requirements of this Ordinance are applicable in all cases.

The following activities are exempt from review or control under this Ordinance to the extent they do not involve Illicit Discharges:

A. Agricultural and silvicultural activity, except that log landing and log haul roads are subject to the provisions of this Ordinance. In

addition, logging or silvicultural activity conducted as a part of a land development application is not exempt from the general provisions of this Ordinance.

B. Repairs to any storm water management system that is deemed necessary by the Town Engineer

C. Cemetery facilities

D. Installation of fence, sign, telephone and electric poles and other kinds of fences, posts or poles.

E. Emergency activity immediately necessary to protect life, property or natural resources.

F. Activities of an individual engaging in home gardening by growing flowers, vegetable and other plants primarily for the use by that person and his/her family.

G. Land development activities that disturb less than one (1) acre.

H. Municipal activities not requiring Site Plan or Subdivision approval. Reconstruction/maintenance of municipal gravel roads shall adhere to the guidelines entitled "Vermont Better Back Roads Manual," latest version.

#### **§10.20.050 Illicit Discharges**

##### **§10.20.051 Illicit Discharges - General.**

This sub-chapter regulates non-storm water discharges to the storm drainage system as required by federal and state law. Methods are established for controlling the introduction of pollutants into the municipal separate storm water system (MS4) to meet the following objectives, consistent with the requirements of the State of Vermont General Permit process:

- A. To regulate the contribution of pollutants to the MS4 by storm water discharges by any user.
- B. To prohibit illicit connections and discharges to the MS4.
- C. To establish legal authority to carry out all inspection, surveillance, and monitoring procedures necessary to ensure compliance with this Ordinance.

##### **§10.20.052 Discharge Prohibitions.**

Prohibition of illicit discharges. No person shall discharge or cause to be discharged into the municipal storm drain system or watercourses any materials including, but not limited to, pollutants or waters containing any pollutants that cause or contribute to a violation of applicable water quality standards, other than storm water.

The commencement, conduct, or continuance of any illicit discharge to the storm drain system is prohibited except as described herein. The following discharges are exempt from discharge prohibitions established by this sub-chapter:

- A. Flushing of water line or other potable water sources (except when a particular substance in the water is subject to control by State or federal regulation and then the discharge is still exempt if within the limits of acceptability for the controlled substance).
- B. Landscape irrigation or lawn watering (unless such watering results in a direct discharge and the discharge is identified as containing pollutants or chemicals that are required to be controlled by state or federal regulation).
- C. Diverted stream flows.
- D. Rising or pumped groundwater, providing such groundwater is not contaminated or polluted.
- E. Groundwater infiltration to storm drains.
- F. Foundation or footing drains (not including active groundwater dewatering systems) containing no contaminants or pollutants.
- G. Air conditioning condensation (except when control of a particular substance in the water is by federal regulation and then the discharge is still exempt if within the limits of acceptability for the controlled substance).
- H. Uncontaminated springs.
- I. Non-commercial washing of vehicles (unless such watering results in a direct discharge and the discharge is identified as containing pollutants or chemicals that are required to be controlled by state or federal regulation).
- J. Natural riparian habitat or wetland flows.



- K. Swimming pools (if de-chlorinated—typically less than one PPM chlorine and except when control of a particular substance in the water is by State or federal regulation and then the discharge is still exempt if within the limits of acceptability for the controlled substance).
- L. Fire fighting activities, not including the cleanup of spills or accidents involving contaminated material such as oil spills or hazardous wastes.
- M. Any other water source not containing pollutants.
- N. Discharges specified in writing by an authorized representative of the Town of Essex as being necessary to protect public health and safety.
- O. Dye testing is an allowable discharge, if approved by the Town Engineer.

The prohibition shall not apply to any non-storm water discharge permitted under an NPDES permit, waiver, or waste discharge order issued for the discharge and administered under the authority of the US EPA, provided that the discharger is in full compliance with all requirements of the permit, waiver, or order and other applicable laws and regulations, and provided that written approval has been granted by the Town for any discharge to the storm drain system.

Prohibition of illicit connections. The construction, use, maintenance, or continued existence of illicit connections to the storm drain system is prohibited.

This prohibition expressly includes, without limitation, illicit connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.

A person is in violation of this sub-chapter if the person connects a line conveying sewage, laundry waste or other forms of gray water to the MS4 or allows such a connection to continue.

#### **§10.20.053 Suspension of MS4 Access.**

Suspension due to illicit discharges in emergency situations. The Town may, without notice, suspend MS4 discharge access to a person when such suspension is necessary to stop an actual or threatened discharge that

presents or may present imminent and substantial danger to the environment, or to the health or welfare of persons, or to the MS4 or waters of the United States. If the violator fails to comply with a suspension order issued in an emergency, the Town Engineer may take such steps as deemed necessary to prevent or minimize damage to the MS4 or water of the United States, or to minimize danger to persons.

A person commits a violation of this Ordinance if the person reinstates MS4 access to premises terminated pursuant to this section, without the prior approval of the Town Engineer.

#### **§10.20.054 Industrial or Construction Activity Discharges.**

Any person subject to an industrial multi-sector permit or other separately issued storm water permit by the Town, State or EPA shall comply with all provisions of such permit. Proof of compliance with said permit may be required in a form acceptable to the Town prior to the allowing of discharges to the MS4.

#### **§10.20.055 Monitoring of Discharges.**

Applicability. This section applies to all facilities that have storm water discharges associated with industrial activity, including construction activity.

Access to facilities. Authorized representatives of the Town shall be permitted to enter and inspect facilities subject to regulation under this chapter as often as may be necessary to determine compliance with this chapter. If a discharger has security measures in force that require proper identification and clearance before entry into its premises, the discharger shall make the necessary arrangements to allow access to authorized representatives of the Town.

Facility operators shall allow the authorized Town representative ready access to all parts of the premises for inspection, sampling, examination, and copying of records that must be kept under the conditions of an NPDES or State permit to discharge storm water, and the performance of any additional duties as defined by state and federal law.

The Town shall have the right to require the discharger to install on any permitted facility

such devices necessary in the opinion of the Town Engineer to conduct monitoring and/or sampling of the facility's storm water discharge at the expense of the discharger.

The facility's sampling and monitoring equipment shall be maintained at all times in a safe and proper operating condition by the discharger at its own expense. All devices used to measure storm water flow and quality shall be calibrated to ensure their accuracy.

Any temporary or permanent obstruction to safe and easy access to the facility to be inspected and/or sampled shall be promptly removed by the operator at the written or oral request of the authorized Town representative and shall not be replaced. The costs of clearing such access shall be borne by the operator.

Unreasonable delay in allowing the authorized Town representative access to a permitted facility is a violation of a storm water discharge permit and of this Ordinance. A person who is the operator of a facility with a NPDES permit to discharge storm water associated with industrial activity commits a violation of this Ordinance if the person denies the authorized Town representative reasonable access to the permitted facility for conducting any activity authorized or required by this chapter.

If the authorized Town representative has been refused access to any part of the premises from which storm water is discharged, such refusal shall be a violation of this Ordinance. The authorized Town representative may secure warrants from the applicable court having jurisdiction in cases where access is refused.

#### **§10.20.056 Requirement to Prevent, Control, and Reduce Storm Water Pollutants.**

The Town has adopted best management practices for any activity, operation, or facility that may cause or contribute to pollution or contamination of storm water, the storm drain system, or waters of the United States through the State of Vermont Phase II Storm-water Permit. The owner or operator of a commercial or industrial establishment shall provide, at their expense, reasonable protection from accidental discharge of prohibited materials or other wastes into the municipal storm drain system or

watercourses through the use of applicable structural and non-structural BMP's. Further, any person responsible for a property or premise, that is, or may be, the source of an illicit discharge, may be required to implement, at said person's expense, additional structural and non-structural BMP's to prevent the further discharge of pollutants to the MS4. Compliance with all terms and conditions of a valid Multi-sector General permit authorizing the discharge of storm water associated with industrial activity, to the extent practicable, shall be deemed compliance with the provision of this section. These BMP's shall be part of a storm water pollution prevention plan (SWPP) as necessary for compliance with requirements of the NPDES permit.

#### **§10.20.057 Watercourse Protection.**

Every person owning property through which an intermittent or continuously flowing watercourse passes, or such person's lessee, shall not deposit in the watercourse or on the land impacted by runoff to the watercourse trash, debris, cut brush, grass or wood, pet waste and other obstacles that would pollute, contaminate, or significantly alter the natural flow of water through the watercourse. Natural blockages of the stream by wildlife are considered not the responsibility of the landowner or lessee. In addition, the owner or lessee shall maintain existing privately owned structures within or adjacent to a watercourse, so that such structures will not become a hazard to the use, function, or physical integrity of the watercourse.

Riparian buffers established as part of development approval and required by Town regulations shall be maintained by the developer and all other subsequent property owners or associations within the development.

#### **§10.20.058 Notification of Spills.**

Notwithstanding other requirements of law, as soon as any person responsible for a facility or operation, or responsible for emergency response for a facility or operation has information of any known or suspected release of materials that are resulting or may result in illegal discharges or pollutants discharging into storm water, the storm drain system, or waters of

the United States from such facility or operation, said person shall take all necessary steps to ensure the discovery, containment, and cleanup of such release. In the event of such a release of hazardous materials said person shall immediately notify emergency response agencies and the Town Engineer of the occurrence. In the event of a release of non-hazardous materials, said person shall notify the Town Engineer no later than the next business day. Notifications in person or by phone shall be confirmed by written notice addressed and mailed to the Town Engineer within 3 business days of the phone or in-person notice. If the discharge of prohibited materials emanates from a commercial or industrial establishment, the owner or operator of such establishment shall also retain an on-site written record of the discharge and the actions taken to prevent its recurrence. Such records shall be retained for at least 3 years.

**§10.20.060 Erosion and Sediment Control**

**§10.20.061 Erosion and Sediment Control- General.**

During construction, soil is vulnerable to erosion by wind and water. Eroded soil endangers water resources by reducing water quality and causing the siltation of aquatic habitat for fish and other desirable species. Clearing and grading during construction causes the loss of native vegetation necessary for terrestrial and aquatic habitat. For erosion and sediment control, this sub-chapter:

- A. Safeguards persons, protects property, and prevents damage to the environment.
- B. Promotes the public welfare by guiding, regulating, and controlling the design, construction, use, and maintenance of any development or other activity that disturbs or breaks the topsoil or results in the movement of earth on land.

**§10.20.062 Erosion and Sediment Control Applicability.**

This sub-chapter applies to any clearing, grading, construction or land disturbance activity within the jurisdictional area of the Ordinance.

All such activities are regulated under this subchapter unless exempted under section 10.20.016

**§10.20.063 Disturbance of Less Than One Acre of Land**

Erosion Control Permits will not be required for clearing, grubbing, grading or any land disturbance activities that involve one acre or less of contiguous disturbed land, unless a Storm Water Management Plan per Section 10.20.072 is required.

The Town shall provide erosion and sediment control standard diagrams for mandatory compliance on sites that involve less than one acre of disturbance, and that do not require a Storm Water Management Plan. The small site plan diagrams and guidelines shall be provided with the issuance of each building permit issued within the Town and shall be available for all persons within the Town at the Town offices. The information is contained in Appendix A. Non-compliance with any of the provisions within Appendix A is a violation of this Ordinance, subject to the same legal remedies and fines as under the main body of the Ordinance.

Compliance with the erosion control guidelines is also required for individual building construction performed within a larger subdivision or project which is subject to additional conditions imposed under a broader Town or State issued General Permit for Construction Site Runoff.

**§10.20.064 Applicability of State Erosion and Sediment Control Permits**

The Town shall accept a State of Vermont General Permit for construction site runoff as evidence of meeting Town erosion and sediment control permit requirements for those projects which fall under the jurisdiction of the State requirements. If a state permit is accepted as evidence of compliance with the Town Ordinance, a separate Town application will not be required and Town storm-water permit fees shall be waived.

**§10.20.065 Permit Required**

No person shall be granted a permit for construction activities disturbing more than one

acre of land without the Town Engineer's approval of an erosion and sediment control plan.

Appendix B to this Ordinance contains the requirements for inclusion in an Erosion and Sediment Control Permit issued by the Town. Each permit application shall be accompanied by a non-refundable permit application fee as established by the Selectboard, which shall be reviewed annually. Incomplete applications will not be accepted. The erosion and sediment control plan shall be submitted by a registered professional engineer in the State of Vermont or by a licensed and certified erosion control technician. Each application shall include a statement that any land clearing, construction, or development involving the disturbance of at least one acre of earth shall be in accordance with the erosion and sediment control plan and that an authorized representative of the applicant shall be onsite or readily accessible on all days when construction or grading takes place.

The applicant shall file with the Town, if required based upon the scope of the work, a faithful form of improvement security, such as a letter of credit or similar financial instrument, in an amount deemed sufficient by the Town to cover all costs of improvements, landscaping and maintenance of improvements for such period as specified by the Town, including any necessary amount to cover inflationary and contingency costs, and engineering and inspection costs to cover the cost of failure or repair of improvements installed on the site. If the project is included as part of an overall development involving a formal letter of Credit and Highway Agreement, the estimated costs for erosion control compliance may be included as a line item in the overall development letter of credit.

Review and approval. The Town shall review each application for an erosion and sediment control permit to determine its conformance with the provisions of this regulation. Within 15 business days after receiving an application deemed complete by the Town, the Town shall, in writing: approve the permit application; approve the permit application subject to such reasonable conditions as may be necessary to secure substantially the objectives of this regulation; and, issue the

permit subject to these conditions; or, disapprove the permit application, indicating the reason(s).

#### **§10.20.066 Erosion and Sediment Control Plans.**

A description and listing of the plan requirements is contained in Appendix B.

#### **§10.20.067 Construction Site Access and Driveway Requirements.**

All construction site accesses shall meet the minimum requirements for a construction access road as contained in Appendix A. In addition:

- A. The Town may require more stringent site access requirements if conditions warrant or if the construction site access is not maintained in an acceptable condition.
- B. All persons within the Town of Essex are required to take preventative action to prevent the tracking of sediment from construction sites and driveways onto Town or State roads. Immediate action shall be taken by the responsible persons to wet sweep the road and to clean any catch basins or remove such sediment from drainage ditches affected by the tracking of sediment onto paved roadways. Failure to comply shall be a violation of this Ordinance, subject to the remedies contained therein.

#### **§10.20.068 Inspection.**

The Town Engineer or his representative shall make inspections on an as needed basis.

For projects operating under a Town approved and issued erosion control plan, periodic scheduled inspections are required by the design engineer or licensed technician to certify the status of the implemented plan. The following inspection schedule is a requirement of the issued permit:

- A. Start of construction.
- B. Installation of sediment and erosion measures;
- C. Completion of final grading;
- D. Close of the construction season (if multi-season);
- E. Completion of final landscaping and following clean up of all impacted Town

infrastructure, such as catch basins, storm water piping and detention basins.

The permit holder shall notify the Town Engineer or his authorized representative at least 24 hours in advance of the scheduled inspections by the certifying engineer or licensed technician.

All inspections shall be documented in writing and submitted to the Town Engineer as specified by the approved permit.

The authorized representative of the Town shall enter the property of the applicant as deemed necessary to conduct periodic inspections.

Failure to inspect or keep a written record of the inspection as required shall be considered a violation of this Ordinance.

#### **§10.20.070 Development Storm Water Management**

#### **§10.20.071 Development Storm Water Management - General.**

This subchapter establishes minimum storm water management requirements for new development/redevelopment to augment existing Town development regulations and to provide controls to protect and safeguard the general health, safety, and welfare of the public. This subchapter:

- A. Minimizes increases in storm water runoff from new development and redevelopment to reduce flooding, siltation, and stream bank erosion.
- B. Minimizes increases in non-point source pollution caused by storm water runoff from development that would otherwise degrade water quality.
- C. Minimizes the total annual volume of surface water runoff that flows from any specific site during and following development to not exceed the predevelopment hydrologic regime to the maximum extent practicable.
- D. Reduces storm water runoff rates and volumes, soil erosion, and non-point source pollution, wherever possible, through storm water management controls and to ensure that these management controls are properly maintained and pose no threat to public safety.

#### **§10.20.072 Development Storm Water Management - Applicability.**

This subchapter applies to all subdivision and site plan applications for new development and redevelopment activities that create new or is an expansion of old impervious surfaces that are equal to or greater than one-half (1/2) acre.

In addition, this subchapter applies to land development activities smaller than the minimum applicability criteria if such activities are part of a larger common plan of development (Master Plan, Planned Residential Development, Planned Unit Development) meeting the applicable criteria, even though multiple separate and distinct land development activities may take place at different times on different schedules.

Exemptions. The following activities shall be exempt from the provisions of this chapter:

Additions and modifications to existing single-family residential structures.

Permit required. No landowner or land operator shall receive any Town permit, including a Zoning Permit, required for new development or redevelopment projects that creates a new or expanded impervious area of one-half (1/2) acre or more without first meeting the requirements of this chapter.

Application requirements. Unless specifically excluded by this chapter, any person desiring a permit for a new development or redevelopment project creating or disturbing one acre or more of land and/or creates a new or expanded impervious land area of one-half (1/2) acre or greater shall submit to the Town Engineer a Development Storm-water Permit application on a form provided for that purpose.

State permits. Projects requiring a State Storm water permit may submit a copy of the issued State permit with supporting documentation as evidence of compliance with the requirement for a Town Development Storm-water Management Permit. The permit requirements are found in Appendix C.

Unless otherwise exempted by this chapter, a Development Storm-water Management Permit application must be accompanied by the following for an application to be considered complete: a storm water management plan; a maintenance agreement; an erosion and

sediment control permit per Section 10.20.065, if applicable, and a non-refundable permit review fee. The storm water management plan shall be prepared to meet the requirements of this chapter, and the fees shall be those established by the Selectboard of the Town, which shall be reviewed annually.

Application review fees. The fee for review of a Development Storm-water Management Permit shall be based on the amount of new or disturbed impervious land. The fee shall be used to support local plan review, inspection, and program administration or related municipal storm water projects or storm-water related taskings. The fee must be submitted with the application prior to the issuance of any Zoning Permit for construction.

Application procedure. Applications for Development Storm-water Management Permit Applications must be filed with the Town. An original and three copies of the permit application shall be submitted, including four copies of all supporting documents. Within 15 business days of the receipt of a complete application, including all documents as required by this chapter, the Town shall inform the applicant whether the application, plan, and maintenance agreement is approved, approved with conditions, or disapproved. If the permit application, final storm water management plan, and maintenance agreement are approved (with or without conditions), a Development Storm-water Management Permit shall be issued.

Permit duration. Permits issued under this section shall be valid from the date of issuance through the date three years after the Town notifies the permit holder that all storm water management practices have passed final inspection.

Other related permits. Issuance of a local Development Storm-water Management Permit does not negate the requirement of the applicant to obtain State or other storm-water permits as may be required.

#### **§10.20.073 Storm Water Design Manual.**

The storm water manual as referenced in this chapter refers to the technical analysis and design standards specified in the *Vermont Storm Water Management Manual* (Volumes I and II), latest revision.

#### **§10.20.074 General Performance Criteria.**

The following performance criteria shall be addressed for storm water management at all sites:

- A. All site designs shall establish storm water management practices to control the peak flow rates of storm water discharge associated with specified design storms, as noted in the Vermont Storm Water Management Manual, Volumes I and II, aimed at reducing the generation of storm water. These practices should seek to use pervious areas for storm water treatment and to infiltrate storm water runoff from driveways, sidewalks, rooftops, parking lots, and landscaped areas to the maximum extent practical to provide for both water quality treatment and control of quantity.
- B. All storm water runoff generated from new development shall not discharge storm water directly into a jurisdictional wetland or local water body without adequate treatment. Where such discharges are proposed, the impact of the proposal on wetland functional values shall be assessed using a method acceptable to the Town. In no case shall the allowable impact on functional values be any less than the impact allowed by the Army Corps of Engineers (ACE) or the state wetlands office (or its successor).
- C. Annual groundwater recharge rates shall be maintained by promoting infiltration through the use of structural and non-structural methods. At a minimum, annual recharge from the post development site shall be at the same rate as the annual recharge from pre-development site conditions.
- D. For new development, structural storm water treatment practices, where required, shall be designed at a minimum to remove 80% of the average annual post development total suspended solids load (TSS) and 40% of the total phosphorus load, unless a TMDL has been established requiring a

more stringent criteria in the receiving water. It is presumed that a STP complies with this performance standard if it is: sized to capture the prescribed water quality volume; designed according to the specific performance criteria outlined in the current state storm water manual; constructed properly; and maintained regularly.

- E. To protect stream channels from degradation, a specific channel protection criteria shall be provided as prescribed in the current state storm water manual.
- F. Storm water discharges to critical areas with sensitive resources (e.g., swimming areas, recharge areas, water supply reservoirs) may be subject to additional performance criteria, or may need to use or restrict certain storm water management practices.
- G. Certain industrial sites are required to prepare and implement a storm water pollution prevention plan and shall file a notice of intent (NOI) under the provisions of the National Pollutant Discharge Elimination System (NPDES) general permit. The storm water pollution prevention plan requirement applies to existing and new industrial sites.
- H. Storm water discharges from land uses or activities with higher potential pollutant loadings, known as "hotspots," may require the use of specific structural STP's and pollution prevention practices.
- I. Prior to design, applicants are required to consult with the Town to determine if they are subject to additional storm water design requirements.
- J. The calculations for determining peak flows as found in the current storm water design manuals shall be used for sizing all storm water management practices.
- K. An evaluation may be required of any downstream impacts.

**§10.20.075 Basic Storm Water  
Management Design Criteria.**

Minimum control requirements are contained in Appendix D to this Chapter, which is incorporated herein by reference.

Maintenance agreements. All storm water treatment practices shall have an enforceable operation and maintenance agreement to ensure the system functions as designed. This agreement will include any and all maintenance easements required to access and inspect the storm water treatment practices and to perform routine maintenance as necessary to ensure proper functioning of the storm water treatment practice. In addition, a legally binding covenant specifying the parties responsible for the proper maintenance of all storm water treatment practices shall be secured prior to issuance of any permits for land disturbance activities.

On projects involving storm-water systems that will ultimately become the responsibility of the Town because of location in the public right of way or on public land, the maintenance agreement shall identify the responsibilities of all parties from permit approval through transfer of responsibility to the Town.

**§10.20.076 Requirements for  
Development Storm Water  
Management Plan Approval.**

A storm water management plan is required for all developments, meeting the criteria of section 10.20.072. No application for development, meeting the criteria of section 10.20.072, will be approved unless it includes a storm water management plan detailing in concept how runoff and associated water quality impacts resulting from the development will be controlled or managed. This plan must be prepared by a professional engineer and must indicate whether storm water will be managed on-site or off-site and, if on-site, the general location and type of practices. The complexity and details of the submitted plan may vary depending upon the extent of the submitted project.

The storm water management plan(s) shall be referred for comment to all other interested agencies, and any comments must be addressed in a final storm water management plan. This final plan must be signed by a licensed, professional engineer, who will verify that the design of all storm water management practices

meet the submittal requirements. No building permit shall be issued until a satisfactory final storm water management plan, or a waiver thereof, shall have undergone a review and been approved by the Town after determining that the plan or waiver is consistent with the requirements of this chapter.

**§10.20.077 Construction Inspection.**

The applicant must notify the Town in advance before the commencement of construction. Regular inspections of the storm water management system construction shall be conducted by the professional design engineer and certified upon completion to the Town.

The Town shall also conduct periodic inspections as verification of the work progress and compliance with the approved plans. All inspections shall be documented and written reports prepared that contain the following information: date and location of the inspection; whether construction is in compliance with the approved storm water management plan; variations from the approved construction specifications; and, any violations that exist.

If any violations are found, the property owner shall be notified in writing of the nature of the violation and the required corrective actions. All corrective actions shall be made within a reasonable time as determined by the Town. If corrective actions are not taken in accordance with the Town's schedule, it shall be considered a violation of this Ordinance subject to the penalties established herein. If the situation is determined to pose an immediate threat to the environment or the public health, safety and welfare, the Town may order work to cease on the project until the corrections are satisfactorily completed.

**§10.20.078 As-built Plans.**

All applicants shall submit actual "as-built" plans for any storm water management practices after final construction completion. The plan must show the final design specifications for all storm water management facilities and must be certified by a professional engineer. A satisfactory final inspection by the Town Engineer is required before the release of any performance securities may occur.

If the final construction is substantially different from the approved plans, a final plan amendment may be required as part of the development review process.

**§10.20.079 Landscaping and Stabilization Requirements.**

Any area of land from which the natural vegetative cover has been either partially or wholly cleared or removed by development activities shall be re-vegetated within 10 business days from the substantial completion of such clearing and construction, or as otherwise approved by the Town. The criteria for vegetative cover are identified in Appendix D.

A landscaping plan must be a component element of the final design describing the vegetative stabilization and management techniques to be used at a site after construction is completed. This plan will explain not only how the site will be stabilized after construction, but who will be responsible for the maintenance of vegetation at the site and what practices will be employed to ensure that adequate vegetative cover is preserved. This plan must be prepared by a registered landscape planner or other qualified person, and must be approved prior to receiving a permit. A landscaping plan submitted in compliance with other Town requirements as noted in the Subdivision Regulations or Zoning Bylaws will satisfy the requirements in this Ordinance provided the landscaping plan addresses the requirements of this Ordinance.

**§10.20.080 Storm Water Control, Operation and Maintenance.**

**§10.20.081 Design.**

All storm water Best Management Practices (BMP's) shall be designed to minimize the need for maintenance and reduce the chance of failure in accordance with the design guidelines outlined in the most current state storm water management manual.

Storm water easements and covenants shall be provided by the property owner for access for facility inspections and maintenance. Easements and covenants shall be recorded in the Town Land Records for any storm water discharge permit.



**§10.20.082 Routine Maintenance.**

All storm water BMP's shall be maintained according to the measures outlined in the current state storm water management manual or as directed in approval documents issued by the Town specific to the permit.

**§10.20.083 Maintenance Easement.**

Prior to the issuance of any permit that has a storm water management facility as one of the requirements of the permit, the property owner of the site must execute a maintenance access agreement that shall be binding on all subsequent owners of land served by the storm water management facility. The agreement shall provide for access to the facility at reasonable times for periodic inspection by the Town and for regular or special assessments of property owners to ensure that the facility is maintained in proper working condition to meet design standards and any other provisions established by this chapter. The easement agreement shall be recorded in the Town Land Records.

**§10.20.084 Maintenance Covenants.**

Maintenance of all storm water management facilities shall be ensured through the creation of a formal maintenance covenant that must be approved by the Town and recorded in the Town Land Records prior to final plan approval. As part of the covenant, a schedule shall be developed for when and how often maintenance will occur to ensure proper function of the storm water management facility. The covenant shall include plans for periodic inspections to ensure proper performance of the facility between scheduled cleanouts.

The Town, in lieu of a maintenance covenant, may accept dedication of an existing or future storm water management facility for maintenance, provided such facility meets all the requirements of this chapter, includes adequate and perpetual access and sufficient areas, by easement or otherwise, for inspection and regular maintenance, and the components of the system are entirely within a Town right-of-way or Town easement. All storm water management facilities must undergo, at a minimum, an annual inspection to document maintenance and repair needs and ensure

compliance with the requirements of this chapter and accomplishment of its purposes. These needs may include: removal of silt, litter, and other debris from all catch basins, inlets and drainage pipes, grass cutting and vegetation removal, and necessary replacement of landscape vegetation. Any identified maintenance needs must be addressed in a timely manner, as determined by the Town, and the inspection and maintenance requirement may be increased as deemed necessary to ensure proper functioning of the storm water management facility.

**§10.20.085 Maintenance Inspections.**

Inspection programs. Inspection programs may be established on any reasonable basis including, but not limited to: routine inspections; random inspections; inspections based on complaints or other notice of possible violations; inspection of drainage basins or areas identified as higher than typical sources of sediment or other contaminants or pollutants; inspections of businesses or industries of a type associated with higher than usual discharges of contaminants or pollutants or with discharges of a type that are more likely than the typical discharge to cause violations of state or federal water or sediment quality standards or the NPDES storm water permit; and, joint inspections with other agencies inspecting under environmental or safety laws. Inspections may include, but are not limited to: reviewing maintenance and repair records; sampling discharges, surface water, groundwater, and material or water in drainage control facilities; and, evaluating the condition of drainage control facilities and other storm water treatment practices.

Right-of-entry for inspection. When any new drainage control facility is installed on private property, or when any new connection is made between private property and a public drainage control system, sanitary sewer or combined sewer, the property owner shall grant to the Town the right to enter the property at reasonable times and in a reasonable manner for the purpose of inspection. This includes the right to enter a property when it has a reasonable basis to believe that a violation of this chapter is occurring or has occurred, and to enter when

necessary for abatement of a public nuisance or correction of a violation of this chapter.

**§10.20.086 Records of Installation and Maintenance Activities.**

Parties responsible for the operation and maintenance of a storm water management system including but not limited to catch basins, pipes and treatment systems shall make records of the installation and of all maintenance and repairs, and shall retain the records for at least 5 years. These records shall be made available to the Town during inspection of the facility and at other reasonable times upon request.

**§10.20.087 Failure to Maintain Practices.**

If a responsible party fails or refuses to meet the requirements of the maintenance covenant, the Town after reasonable notice may correct a violation of the design standards or maintenance needs by performing all necessary work to place the facility in proper working condition. In the event that the storm water management facility becomes a danger to public safety or public health, the Town shall notify the party responsible for maintenance of the storm water management facility in writing. Upon receipt of that notice, the responsible person shall have 30 days to effect maintenance and repair of the facility in an approved manner. After proper notice, the Town may assess the owner of the facility for the cost of repair work and any penalties, and the cost of the work shall be a lien upon the real estate furnished with such service in the same manner and to the same effect as taxes are a lien upon real estate under section 5061 of Title 32 and shall be an assessment enforceable under the procedures set forth in section 3504 of Title 24.

**§10.20.090 Riparian Buffer Zones (Reserved for Future)**

**§10.20.100 Waivers.**

Every applicant shall provide for storm water management as required by this chapter, unless a written request is submitted to the Town Selectboard to waive applicable portions of this Ordinance.

Input from the Town Engineer shall be obtained as to whether there is a technical basis for the granting of a waiver.

Minimum requirements for storm water management may be waived in whole or in part provided at least one of the following conditions applies:

- A. It can be demonstrated that the proposed development will not impair attainment of the objectives of this chapter.
- B. Alternative minimum requirements for on-site management of storm water discharges have been established in a storm water management plan approved by the Town.
- C. Provisions are made to manage storm water by an off-site facility. The off-site facility is required to be in place, designed and adequately sized to provide a level of storm water control that is equal to or greater than that which would be afforded by on-site practices and there is a legally obligated entity responsible for long-term operation and maintenance of the storm water practice.
- D. The Town finds meeting the minimum on-site management requirements is not feasible due to the natural or existing physical characteristics of a site.
- E. Non-structural practices will be used on the site that reduce: the generation of storm water from the site, the size and cost of storm water storage, and the pollutants generated at the site. These non-structural practices are explained in detail in the current state design manual and the amount of credit available for using such practices shall be determined by the Town.

In instances where one of the above conditions applies, the Town may grant a waiver from strict compliance with this chapter, as long as acceptable mitigation measures are provided. However, to be eligible for a waiver, the applicant must demonstrate to the satisfaction of the Town that the waiver will not result in any of the following impacts to downstream waterways: deterioration of existing culverts, bridges, dams, and other structures; degradation

of biological functions or habitats; accelerated stream bank or streambed erosion or siltation; or increased threat of flood damage to public health, life, and property.

Furthermore, where compliance with minimum requirements for storm water management is waived, the applicant shall satisfy the minimum requirements by meeting one of the following mitigation measures approved by the Town.

Mitigation measures may include, but are not limited to, the following: the purchase and donation of privately owned lands, or the grant of an easement to be dedicated for preservation and/or re-forestation (these lands should be located adjacent to the stream corridor to provide permanent buffer areas to protect water quality and aquatic habitat); the creation of a storm water management facility or other drainage improvements on previously developed properties, public or private, that currently lack storm water management facilities designed and constructed pursuant to the purposes and standards of this chapter; monetary contributions (fee-in-lieu) to fund storm water management activities such as research and studies.

- A. Where the Town waives all or part of the minimum storm water management requirements, or where the waiver is based on the provision of adequate storm water facilities provided downstream of the proposed development, the applicant shall be required to pay a fee based on the impact of the impervious area created in an amount determined by the Town.
- B. In lieu of a monetary contribution, an applicant may obtain a waiver of the required storm water management practice by entering into an agreement with the Town for the granting of an easement or the dedication of land by the applicant, for the construction of an off-site storm water management facility. The agreement shall be entered into by the applicant and the Town prior to the recording of a plat(s) or, if no record of a plat(s) is required, prior to the issuance of any Zoning Permit for construction.

#### **§10.20.105 Appeals.**

Any applicant aggrieved by a decision of the Town not associated with a noticed violation of this Ordinance may appeal that decision in writing to the Selectboard within 15 calendar days of such decision. With public notice, the Selectboard shall hold a hearing within 30 calendar days of such an appeal and shall render a decision within 15 calendar days after the close of such hearing. Following the Selectboard's decision, any person aggrieved by the decision may appeal that decision to the appropriate court. The administrative process must be exhausted before appealing to court.

#### **§10.20.110 Enforcement.**

##### **§10.20.111 Stop-work Order; Revocation of permit.**

Should any person holding a development storm water permit or erosion and sediment control permit pursuant to this chapter, violate the terms of the permit or implement site development in such a manner as to materially adversely affect the health, welfare, or safety of persons residing or working in the neighborhood or development site, the Town may suspend or revoke the storm water permit.

##### **§10.20.112 Violation and Penalty.**

No person shall construct, enlarge, alter, repair, or maintain any grading, excavation, fill, or cause the same to be done, contrary to or in violation of any terms of this Ordinance. Any person violating any of the provisions of this Ordinance or a permit issued hereunder shall be subject to a civil penalty of Five Hundred Dollars (\$500.00) for each violation of this Civil Ordinance.

Each day that any violation of any of the provisions of this Ordinance or a permit issued hereunder continues shall constitute a separate offense.

Any person, partnership, or corporation convicted of violating any of the provisions of this chapter shall bear the expense of any required restoration. The Town may recover all attorney's fees, court costs, and other expenses associated with enforcement of this chapter, including sampling and monitoring expenses.

**§10.20.113 Notice of Violation.**

Whenever the Town finds that a person violates a prohibition or fails to meet a requirement of this Ordinance or any permit issued hereunder, the Town may order compliance by written notice of violation to the responsible person. Such notice may require without limitation: the performance of monitoring, analyses, and reporting; the elimination of illicit connections or discharges; that violating discharges, practices, or operations shall cease and desist; the abatement or remediation of storm water pollution or contamination hazards and the restoration of any affected property; payment of a fine to cover administrative and remediation costs; and, the implementation of source control or treatment BMP's.

If abatement of a violation and/or restoration of affected property is required, the notice shall set forth a deadline within which such remediation or restoration must be completed. Said notice shall further advise that, should the violator fail to re-mediate or restore within the established deadline, the work will be done by the Town or its designated contractor and the expense thereof shall be charged to the violator.

**§10.20.114 Appeal of Notice of Violation.**

Any person receiving a notice of violation may appeal the determination of the authorized representative of the Town to the Selectboard. The notice of appeal must be received by the authorized representative of the Town or the Town Clerk within five business days from the date of the notice of violation. After public notice, the Selectboard shall conduct a hearing on the appeal. The hearing shall take place within 30 calendar days of the date of receipt of the notice of appeal. The decision of the Town Selectboard shall be final, subject to appeal procedures under Vermont Statutes.

**§10.20.115 Enforcement Measures after Appeal.**

If the violation has not been corrected pursuant to the requirements set forth in the notice of violation or, in the event of any appeal, within 10 business days of the decision of the

Town upholding the violation, then representatives of the Town shall be authorized to enter upon the subject property and take any and all measures necessary to abate the violation and/or restore the property. It shall be unlawful for any person, owner, agent or person in possession of any premises to refuse to allow the Town to enter upon the premises for the purposes set forth above.

**§10.20.116 Cost of Abatement of the Violation.**

Within 30 calendar days after abatement of the violation, the property owner shall be notified of the cost of abatement, including administrative costs. The property owner may file a written protest objecting to the amount of the assessment within 10 calendar days. If the amount due is not paid within a timely manner as determined by the decision of the Town or by the expiration of the time in which to file an appeal, the charges shall become a lien upon the real estate furnished with such service in the same manner and to the same effect as taxes are a lien upon real estate under section 5061 and Title 32 and shall be an assessment enforceable under the procedures set forth in section 3504 of Title 24.

Any person violating any of the provisions of this section shall become liable to the Town for the cost of abating such violation. Interest at the legal percentage rate established by State Statute shall be assessed on the balance beginning on the 1<sup>st</sup> day of the 1<sup>st</sup> month following discovery of the violation.

**§10.20.117 Injunctive Relief.**

It shall be unlawful for any person to violate any provision or fail to comply with any of the requirements of this Ordinance or any permit issued hereunder. If a person has violated or continues to violate the provisions of this chapter, the Town may petition for an injunction restraining the person from activities that would create further violations or compelling the person to perform abatement or remediation of the violation.

**§10.20.118 Violations Deemed a Public Nuisance.**

In addition to the enforcement processes and penalties provided, any condition caused or permitted to exist in violation of any of the provisions of this Ordinance or any permit issued hereunder is a threat to public health, safety, and welfare, and is declared and deemed a nuisance, and may be summarily abated or restored at the violator's expense, and/or a civil action to abate, enjoin, or otherwise compel the cessation of such nuisance may be taken.

**§10.20.119 Remedies not Exclusive.**

The remedies listed in this chapter are not exclusive of any other remedies available under any applicable federal, state, or local law and it is within the discretion of the Town to seek cumulative remedies.

**§10.20.120 Other Applicable Regulations.**

In case of any other applicable regulation, bylaw, ordinance, or statute that differs from this chapter, the stricter shall apply.

Any requirements under this chapter may be administered by the Town through other regulatory and permitting processes including but not limited to the reviews enabled in the Essex Zoning Bylaws and the Essex Subdivision Regulations.

**§10.20.130 Adherence to Public Works Specifications.**

All development, redevelopment, construction, etc. shall adhere to the Town's Public Works Specifications.

**§10.20.140 Fees, Fines, and Applicable Charges.**

The Town Selectboard shall adopt a schedule of reasonable fees, fines, and other charges applicable to carrying out the purposes of this chapter, and shall review the schedule of fines and fees on an annual basis.

**§10.20.150 Severability.**

If any portion of this chapter is held unconstitutional or invalid by a court of competent jurisdiction, the remainder of this chapter shall not be affected.

~~Approval of any storm water management system design and installation~~ by the granting of a municipal storm water permit and certificate of compliance shall not imply that the approved system will be free from malfunction. Proper maintenance of storm water systems is vital to their proper functioning. The provisions of this chapter shall not create liability on the part of the Town, of any Town official, or employee for the storm water management system.



## **MEMORANDUM**

TO: Essex Junction Trustees and Pat Scheidel, Village Manager  
FROM: James Jutras, Water Quality Superintendent  
cc: Lauren Morrisseau Assistant Manager/Finance Director  
DATE: July 17, 2014  
SUBJECT: CoGeneration Engineering Services Agreement

A handwritten signature in blue ink, appearing to read "James Jutras".

**Issue:** The issue is whether to approve a contract with Aldrich + Elliott Water Resource Engineers for comprehensive services related to the installation of the CoGeneration system at the wastewater facility.

**Discussion:** Work on the CoGeneration installation continues. The Generator unit was recently delivered to the wastewater facility. The installation work requires Engineer oversight, electrical and mechanical review as well as final review of the project.

The attached contract for engineering services was proposed by Aldrich + Elliott and is presented here for your consideration. Included in the pricing is work related to the potential addition of an automated high strength waste feed system for pumping waste products that enhance methane production to our digester. This material will allow us to run the generator at a higher speed on a continuous basis. The alternate feed stock portion of the project is being presented in the bid as an alternate item and will only be pursued if verified that there are sufficient project funds available.

**Costs:** Total engineering is presented at \$70,400.00. Individual line item costs are presented as Lump Sum (LS) or Not to Exceed (NTE) values. The NTE values will be billed as the project progresses and represent a total amount. These values may be changed through contract amendment.

**Recommendation:** It is recommended that the Village Trustees authorize the Municipal Manager to sign the Methane CoGen System Upgrade Engineering Services Agreement with Aldrich + Elliott for \$70,400.00

Mr. Patrick Sheidel, Municipal Manager  
Village of Essex Junction  
2 Lincoln St.  
Essex Junction, VT 05452

Re: Engineering Services Agreement for Bid and Construction Phase  
Methane Cogen System Upgrade  
Owner's Project No. 3B  
Engineer's Project No. 13073

This AGREEMENT is written pursuant to the Village of Essex Junction's (OWNER) request for Aldrich + Elliott, PC (ENGINEER) to provide professional engineering services as outlined below.

### **SCOPE OF SERVICES**

Professional engineering services are to be performed by the ENGINEER as detailed in **Attachment No. 1** of this AGREEMENT. The OWNER may, from time to time, request changes in the scope of services to be performed under this AGREEMENT. Any changes in scope, including an increase or decrease in the amount of the ENGINEER's compensation, shall be mutually agreed upon in writing by and between the OWNER and the ENGINEER and shall be incorporated into this AGREEMENT by a written Amendment signed by both parties.

### **BASIS OF COMPENSATION**

For services performed under this AGREEMENT, the OWNER agrees to compensate the ENGINEER as follows:

I. Bid Phase Services:	\$ 3,600.00 Not to Exceed (NTE)
II. Construction Phase Services:	
A. Contract Administration	\$ 13,500.00 Lump Sum (LS)
B. Resident Project Representative	\$ 15,000.00 NTE
III. Special Services:	\$ 6,100.00 NTE
IV. Additional Services:	\$ 33,200.00 NTE
Total amount of all items included in this AGREEMENT:	\$ 70,400.00

Billing for each work item shall be on a monthly basis as follows:

Lump Sum Services: Includes all engineering costs and direct expenses per **Attachment No. 2**. Shall be invoiced / billed throughout the project duration based upon percentage complete. The cost to the OWNER will be limited to the lump sum fee indicated for each LS work item above.

Not-To-Exceed Services: A Fee based on expenses incurred in the interest of the Project, to include direct labor equal to the actual salaries of personnel, overhead expense of 1.70 times direct labor and profit of 16% of direct labor and overhead, plus reimbursable expenses per **Attachment No. 2**. The cost to the OWNER will be at or below the NTE fee indicated for each work item above.

All invoices/bills will accurately depict all services provide from the Agreement and any authorized Amendment date through the date of each invoice/bill. All invoices/bills to the OWNER will be formatted to comply with the current State of Vermont Department of Environmental Conservation (DEC)/Facilities Engineering Division (FED) directive.

It is understood that the ENGINEER's labor rates may be adjusted annually on January 1st. The fees for services provided under this AGREEMENT and any fully executed Amendment(s) shall be the current rates at the time that the work is performed. Refer to **Attachment No. 2 – Schedule of Fees & Reimbursable Expenses**.

#### **TERMS AND CONDITIONS**

Refer to **Attachment No. 3** for the **Terms and Conditions** that govern this AGREEMENT and any fully executed Amendment(s).

#### **RESIDENT PROJECT REPRESENTATIVE**

Refer to **Attachment No. 4** for "**Duties, Responsibilities and Limitations of Authority of the Resident Project Representative**".

#### **EXECUTED AGREEMENT**

This AGREEMENT and any fully executed Amendment(s) shall be considered binding when duly authorized agents of the ENGINEER and the OWNER sign the document and one (1) executed copy is returned to the office of the ENGINEER. If this AGREEMENT or any Amendment(s) are not executed within sixty (60) days of the date signed by the ENGINEER, it may be subject to re-negotiation.

#### **DURATION OF SERVICES**

The Engineer shall commence services on the Date of Execution of this Agreement, and shall fully complete all authorized services within 520 consecutive calendar days.



## **OFFER OF PROFESSIONAL ENGINEERING SERVICES**

The ENGINEER, as an independent agent, offers to provide the professional engineering services described in this AGREEMENT, including Attachment Nos. 1 through 4, for the compensation and duration specified.

**Aldrich + Elliott, PC**

\_\_\_\_\_  
Bradley F. Aldrich, PE, F.NSPE

President

Dated: \_\_\_\_\_

### **OWNER ACCEPTANCE**

The OWNER acknowledges this to be a binding AGREEMENT and agrees to the conditions as stated. The ENGINEER is hereby directed to proceed with the scope of services on the Date of Execution identified below.

The OWNER acknowledges that it has the financial resources and intends to pay for services rendered in accordance with the conditions as stated herein and acknowledges that if invoices are not paid in full within sixty (60) days of date of invoice, that the ENGINEER may stop work, without consequence or liability of any kind, until the invoices are paid.

The OWNER warrants that the signature below is that of its duly authorized representative of the OWNER who possesses the full legal authority to execute this AGREEMENT on behalf of OWNER.

The OWNER acknowledges that this AGREEMENT is comprised of, and incorporates by reference, Attachment Nos. 1 through 4.

**Village of Essex Junction**

\_\_\_\_\_  
Patrick Sheidel, Municipal Manager

\_\_\_\_\_  
Date of Execution

\_\_\_\_\_  
Witness to Signature

Executed in Duplicate

## **ATTACHMENT No. 1**

### **SCOPE OF SERVICES**

The ENGINEER will perform the following scope of services.

#### **I. BID PHASE SERVICES**

A. The ENGINEER will provide the following support services to assist the OWNER in obtaining bids from contractors. The bid period for this project is 21 consecutive calendar days to allow bidders adequate time to become familiar with the work. The ENGINEER will:

1. Assist with procurement of the contract WORK and/or equipment to be purchased directly by the OWNER.
2. Coordinate the notification process for Disadvantaged Business Enterprises (DBEs) as required by the funding agency.
3. Utilizing Bid Documents previously developed for the OWNER, prepare the Advertisements for Bid for publication in a Vermont newspaper of major circulation, and notify appropriate industry publications such as Dodge Reports and Works-in-Progress. Publication fees will be invoiced separately and are not included in this proposal.
4. Prepare necessary copies of drawings, contract/bid documents and technical specifications, and distribute them to interested parties. Construction contract documents will be distributed from the ENGINEER's office.
5. Conduct one Pre-Bid Meeting with interested contractors, representatives of regulatory and funding agency, and the OWNER. The ENGINEER will schedule the meeting no later than two weeks prior to the bid opening to allow bidders to become more familiar with the site and contract requirements. Bidder general and technical questions with the ENGINEER's responses will be published in the form of an addendum no later than five (5) consecutive calendar days before the bid date.
6. Attend the Bid Opening, administer the receipt of bids, compare bids, check for compliance with the contract requirements, call references, confirm math and tabulate the results. Based upon this review, the ENGINEER will make a written recommendation to the OWNER for award of the contract.
7. Modify Contract Documents to incorporate information included in bid addenda and publish five construction sets for contract signing.

## **II. CONSTRUCTION PHASE**

**A. Contract Administration** - Throughout the construction period, the ENGINEER will act as the OWNER's representative and liaison to the Contractor as defined and authorized under the Construction Contract Documents. As the OWNER's representative, the ENGINEER will:

1. Conduct a project Preconstruction Meeting with the OWNER, representatives of the regulatory and funding agency and the Contractor.
2. Review submittals for general conformance with the design plans and specifications, and provide the Contractor with a list of required submittals at the time of the Preconstruction Meeting. Submittals will be required for estimated work and payment schedules, and specified equipment and materials. The Contractor is responsible for the means and methods of completing all of the work, and all safety programs. Copies of reviewed submittals indicating equipment and materials utilized will be incorporated into the Operation and Maintenance Manual for the OWNER reference.
3. Make recommendations to the OWNER on the Contractor's regular monthly pay requisitions and the initial and updated work schedules, and assist the OWNER, as necessary, with applications to the funding agency.
4. Prepare Change Orders for review and approval by the Contractor and OWNER, and process them to the funding agency for approval.
5. Coordinate regular project meetings with representatives of the OWNER, and monthly meetings with the Contractor, OWNER and funding agency.
6. Conduct substantial and final completion review with the OWNER and funding agency and make recommendations for payment as set forth in the Contract Documents.
7. Provide to the OWNER a final project cost summary.
8. Conduct an 11<sup>th</sup> month performance/contract warranty inspection with the OWNER, Contractor and the funding agency representative.

**B. Resident Project Representative (RPR)** - Throughout the active construction period, the ENGINEER will provide RPR services to assist the ENGINEER in reviewing the work of the Contractor. The RPR (s) will:

1. Conduct on-site observations of the work to determine if it is in accordance with the Contract Documents.
2. Interpret the Contract Documents to address questions raised by the Contractor.
3. Make recommendations to the OWNER regarding work not meeting the requirements of the Contract Documents.
4. Witness equipment and material testing, and determine compliance with the Contract Documents.
5. Prepare regular field reports to document progress of the work.
6. Review work quantities submitted for payment by the Contractor and make recommendations to the OWNER.
7. Prepare work lists of items requiring completion or correction by the Contractor.
8. Coordinate with sub-consultants and testing laboratories for specialty work and materials testing.
9. The project budget assumes part-time) RPR services throughout the active on-site work period for construction, estimated at 12 weeks and 8 hours/week. The ENGINEER will adjust the RPR services coverage as necessary, subject to the contractors work activities (when applicable).
10. See **ATTACHMENT No. 4 - "Duties, Responsibilities and Limitations of Authority of the Resident Project Representative."** This document more definitively outlines the requirements of the RPR.
11. The ENGINEER will monitor the Contractor's schedule, staffing, quality of workmanship and progress throughout the construction period and advise the OWNER of deviations from the work schedules and the budget. If the Contractor is permitted to work outside the specified work hours or a proposed Contractor Change Order will add or delete contract time, the ENGINEER will review the approved budget for RPR services and immediately advise the OWNER, in writing, of any impact that this modification will have on the RPR or any other previously approved services.

### **III. SPECIAL SERVICES**

1. Compaction and Concrete Testing – The ENGINEER will assure that independent quality control soil compaction testing and concrete cylinder collection and testing will be completed by a sub-consultant of the CONTRACTOR.

2. Record Drawings - Through the course of construction, the ENGINEER and RPR will work with the Contractor in recording the location of installed work and deviations from the design drawings. Upon completion of the project, the ENGINEER will prepare record drawings of the site and facility isometric and schematic drawings. The ENGINEER will provide the OWNER with two sets and Vermont Agency of Natural Resources ANR with one printed set plus the electronic (CD) copy of record drawings for their files.

3. Operations and Maintenance (O&M) Manual - The ENGINEER will prepare an O&M manual for the OWNER detailing normal operations, routine maintenance, emergency operations, and equipment information. The ENGINEER will provide two copies to the OWNER, one copy to the ANR, and maintain one copy on file for reference, in order to assist the facility operators with questions.

#### **IV. ADDITIONAL SERVICES**

- A. The ENGINEER will provide additional project related engineering services as requested by OWNER and as agreed by ENGINEER. Eligibility for such services is not guaranteed without prior approval by said agency.

1. **Review of Cogeneration Equipment Proposals** – The Engineer will provide a detailed evaluation and review of the proposals to furnish methane cogeneration system equipment to be purchased by the Owner. The review will include detailed review of shop drawings and design drawings of the selected vendor to confirm conformance with the performance based bid package for cogeneration equipment. The Engineer will invoice/bill the OWNER monthly for the services requested and performed. The budget for this additional services is \$ 22,900.00 NTE.

2. **Clarifier Weir Design** – The Engineer will prepare design documents for weir covers for the three secondary clarifiers. The work will be bid as an alternate under Contract 3B. The Engineer will invoice/bill the OWNER monthly for the services requested and performed. The budget for this additional services is \$ 1,750.00 NTE.

3. **Leachate Bunker Design** - The Engineer will prepare design documents for the leachate bunker modifications, to include structural, mechanical and electrical modifications to the existing bunker to house a new leachate receiving and transfer station. The work will be bid as an alternate under Contract 3B. The Engineer will invoice/bill the OWNER monthly for the services requested and performed. The budget for this additional services is \$ 8,600.00 NTE.

**END OF ATTACHMENT No. 1**

## ATTACHMENT No. 2

### Schedule of Fees & Reimbursable Expenses

**Hourly rates for services rendered** shall be invoiced as set forth in the Agreement. A schedule of billing rate ranges for ENGINEER's personnel and **reimbursable expenses** are as follows:

<b>Project Principal</b>	\$125.00 - \$150.00/hour
<b>Project Manager</b>	\$100.00 - \$150.00/hour
<b>Senior Engineer</b>	\$80.00 - \$120.00/hour
<b>Resident Project Representative</b>	\$60.00 - \$90.00/hour
<b>Staff Engineer</b>	\$70.00 - \$90.00/hour
<b>CAD Technician</b>	\$50.00 - \$70.00/hour
<b>Administrative Staff</b>	\$45.00 - \$60.00/hour

**Subconsultant & Vendor Expenses** @ cost

#### **Travel Related Expenses:**

- |   |                    |
|---|--------------------|
| ▪ Auto (including gas and other service charges)          | @ GSA mileage rate |
| ▪ Other Travel (including airfares, rentals, tolls, etc.) | @ cost             |
| ▪ Meals & Lodging   | @ cost             |

#### **Reproduction Expenses (provided in-house):**

- |                           |               |
|---------------------------|---------------|
| ▪ 8½ x 11 one sided copy  | @ \$0.08/each |
| ▪ 8½ x 11 two sided copy  | @ \$0.12/each |
| ▪ 24 x 36 blue-line print | @ \$3.50/each |
| ▪ 36 x 48 blue-line print | @ \$5.00/each |
| ▪ Mylar or velum plots    | @ \$8.00/each |

#### **Administrative Expenses:**

- |                                 |        |
|---------------------------------|--------|
| ▪ Postage                       | @ cost |
| ▪ Shipping                      | @ cost |
| ▪ Other Administrative Expenses | @ cost |

**END OF ATTACHMENT No. 2**

## ATTACHMENT No. 3

### TERMS AND CONDITIONS

**Extent of Agreement:** This Agreement comprises the final and complete agreement between the Owner and the ENGINEER. It supersedes all prior or contemporaneous communications, representations, or agreements, whether oral or written, relating to the subject matter of this Agreement. Execution of this Agreement signifies that each party has read the document thoroughly, has had any questions explained by independent counsel, and is satisfied. Amendments to this Agreement shall not be binding unless made in writing and signed by both the Owner and the ENGINEER.

- 1. Billings/Payments:** Invoices will be submitted monthly by the ENGINEER, in the format required by the Vermont DEC/FED, to the OWNER for all services provided and expenses incurred to date and, unless other mutually satisfactory arrangements have been made between the OWNER and the ENGINEER, are due upon receipt. The invoices shall be considered past due if not paid within sixty (60) days after the invoice date and the ENGINEER may, without waiving any claim or right against the OWNER, and without liability whatsoever to the OWNER, terminate the performance of the service. A finance charge will be assessed in the amount of 1.5% per month on unpaid balances. If the OWNER fails to make payments when due or otherwise is in breach of this AGREEMENT and any fully executed Amendments, the ENGINEER may suspend performance of services upon five (5) calendar day notice to the OWNER. The ENGINEER shall have no liability whatsoever to the OWNER caused by any breach of this AGREEMENT and any fully executed Amendments by the OWNER. If the OWNER fails to make payment to the ENGINEER in accordance with the payment terms herein, this shall constitute a material breach of this AGREEMENT and shall be cause for termination by the ENGINEER. Payment of invoices is in no case subject to unilateral discounting or set-offs by the OWNER, and payment is due regardless of suspension or termination of the AGREEMENT by either party.
- 2. Standard of Care:** Services provided by the ENGINEER under this agreement will be performed in a manner consistent with the degree of care and skill ordinarily exercised by members of the same profession currently practicing under similar circumstances and under their licensure by the State of Vermont.
- 3. Termination:** The OWNER or the ENGINEER may suspend the Agreement upon giving seven (7) calendar days written notice. This AGREEMENT and any fully executed Amendments may be terminated upon no less than thirty (30) calendar day's prior written notice by either party. In the event of termination by written notice, the OWNER shall pay the ENGINEER for all services rendered to the date of termination, all reimbursable expenses, and may include reasonable termination expenses if the termination is initiated by the OWNER.



- 4. Access to Site:** Unless otherwise stated, the ENGINEER will have safe and legal access to the Site for activities necessary for the performance of the services. The ENGINEER will take precautions to minimize damage due to these activities, but shall not be held responsible for the restoration of any resulting damage. Arrangements and/or permission for access to the site shall be made by the OWNER unless otherwise stated. The OWNER shall provide for the ENGINEER's right to enter the property owned by the OWNER and/or others in order for the ENGINEER to fulfill the scope of services included hereunder. The OWNER understands that use of testing or other equipment may unavoidably cause some damage, the correction of which is not part of this AGREEMENT or any fully executed Amendments.
- 5. Buried Utilities:** The ENGINEER and/or its authorized subconsultant will conduct the research that in its professional opinion is necessary with respect to the assumed locations of underground improvements. Such services by the ENGINEER or its subconsultant will be performed in a manner consistent with the ordinary standard of care. The OWNER recognizes that the research may not identify all underground improvements and that the information upon which the ENGINEER relies may contain errors or may not be complete. The OWNER agrees, to the fullest extent permitted by law, to waive all claims and causes of action against the ENGINEER and anyone for whom the ENGINEER may be legally liable, for damages to underground improvements resulting from subsurface penetration locations established by the ENGINEER.
- 6. Timeliness:** The ENGINEER will perform its services with due and reasonable diligence consistent with sound professional practices.
- 7. Delays:** The ENGINEER is not responsible for delays caused by factors beyond the ENGINEER's reasonable control. When such delays beyond the ENGINEER's reasonable control occur, the CLIENT agrees that the ENGINEER is not responsible for damages, nor shall the ENGINEER be deemed to be in default of this AGREEMENT or fully executed Amendment.
- 8. Hidden Conditions:** A condition is hidden if it cannot be investigated by reasonable visual observation or records reviewed as customary in the performance of the services being rendered. If the ENGINEER has reason to believe that such a condition may exist, the ENGINEER shall notify the OWNER who shall authorize and pay for costs associated with the investigation of such a condition and, if necessary, costs necessary to correct said condition. If the OWNER fails to authorize such investigation or correction after due notification, or the ENGINEER has no reason to believe that such a condition exists, the OWNER is responsible for all risks associated with this condition, and the ENGINEER shall not be responsible for the existing condition nor any resulting damages to persons or property.

- 9. Hazardous Materials:** Unless specifically agreed upon prior to the commencement of service, the ENGINEER shall have no responsibility for the discovery, presence, handling, removal, disposal of, or exposure of persons to hazardous materials of any form.
- 10. Subconsultants:** The ENGINEER may use the services of subconsultants when, in the ENGINEER's sole opinion, it is appropriate and customary to do so.
- 11. Ownership of Documents:** All documents produced by the ENGINEER under this AGREEMENT and any fully executed Amendment(s) shall remain the property of the ENGINEER and will not be used by the OWNER for any other endeavor without the consent of the ENGINEER. The OWNER has, and will retain the right to use the documents for all project purposes. The OWNER shall indemnify and hold harmless the ENGINEER for any re-use, mis-use or alteration of said documents.
- 12. Additional Services:** Services not explicitly detailed in this AGREEMENT or fully executed Amendment(s) will not be provided without the OWNER's prior written authorization.
- 13. Unauthorized Changes:** In the event that the OWNER consents to, allows, authorizes, or approves of changes to any plans, specifications, or other documents, and these changes are not approved in writing by the ENGINEER, the OWNER recognizes that such changes and results thereof are not the responsibility of the ENGINEER. Therefore, the OWNER agrees to release the ENGINEER from any liability arising from the construction, use, or result of such changes.
- 14. Code Compliance:** The ENGINEER shall put forth reasonable professional efforts to comply with applicable laws, codes and regulations in effect as of the date of the execution of this AGREEMENT and any fully executed Amendment(s). Design changes made necessary by newly enacted laws, codes and regulations after this date shall entitle the ENGINEER to a reasonable adjustment in the schedule and additional compensation in accordance with the Additional Services provisions of this AGREEMENT.
- 15. Information Provided by Others:** The OWNER shall furnish, at the OWNER's expense, all information, requirements, reports, data, surveys and instructions required by this AGREEMENT or any fully executed Amendment(s). The ENGINEER may use such information, requirements, reports, data, surveys and instructions in performing its services and is entitled to rely upon the accuracy and completeness thereof.

**16. Opinions of Probable Cost:** In providing opinions of probable cost (formerly referred to as cost estimates), the Owner understands that the ENGINEER has no control over the contractor's methods of pricing, or the cost of materials and labor, and that such opinions are provided on the basis of the ENGINEER's experience and qualifications. The Engineer makes no warranty, expressed or implied, as to the accuracy of such opinions as compared to bid or actual cost.

**17. Shop Drawing Review:** The ENGINEER will review the contractor's submittals for conformance with the design concept and the contract documents. The review shall be consistent with the standard of care referred to above. The ENGINEER expects each of the contractor's submittals to have been reviewed by the contractor for accuracy and completeness. The ENGINEER will either; a.) Approve the document as submitted, b.) Approve subject to resubmittal in response to comments or c.) Disapprove requiring resubmittal. The ENGINEER will give timely written notification to the OWNER if a contractor's repetitive resubmittal or failure to submit the specified materials or equipment will have an adverse impact the ENGINEER's services budget.

**18. Indemnifications:** The ENGINEER agrees, to the fullest extent permitted by law, to indemnify and hold harmless the OWNER, its officers, directors and employees (collectively, OWNER) against all damages, liabilities or costs, to the extent caused by the ENGINEER's negligent performance of professional services under this AGREEMENT and fully executed Amendment(s), and that of its sub-consultants or anyone for whom the ENGINEER is legally liable. The OWNER agrees, to the fullest extent permitted by law, to indemnify and hold harmless the ENGINEER, its officers, directors, employees and sub-consultants (collectively, ENGINEER) against all damages, liabilities or costs, to the extent caused by the OWNER's negligent acts in connection with the Project and the acts of its contractors, subcontractors or consultants or anyone for whom the OWNER is legally liable. Neither the OWNER nor the ENGINEER shall be obligated to indemnify the other party in any manner whatsoever for the other party's own negligence.

**19. Professional Liability Insurance:** The ENGINEER will maintain and provide evidence of Professional Liability Insurance in the amount not less than \$250,000 covering services to be provided under this Agreement and any duly executed Amendments.

**20. Insurances:** Before commencing work on this contract the ENGINEER will provide certificates of insurance to show that the following minimum coverage's are in effect. It is the responsibility of the ENGINEER to maintain current certificates of insurance on file with the OWNER through the term of the contract.

- a. Workers Compensation: With respect to all operations performed, the ENGINEER shall carry workers compensations insurance in accordance with the laws of the State Of Vermont.
- b. General Liability and Property Damage: With respect to all operations under the contract, the ENGINEER shall carry general liability insurance having all major divisions of coverage including, but not limited to:  
Premises – Operations  
Independent Contractor's Protective  
Products and Completed Operations  
Personal Injury Liability  
Contractual Liability  
The policy shall be on an occurrence form and limits shall not be less than:  
\$1,000,000 per Occurrence  
\$1,000,000 General Aggregate  
\$1,000,000 Products/ Completed Product Aggregate  
\$50,000 Fire Legal Liability
- c. Automotive Liability: The ENGINEER shall carry automotive liability insurance covering all motor vehicles, no matter the ownership status, used in connection with the contract. Limit of coverage shall not be less than:  
\$1,000,000 Combined Single Limit.

No warranty is made that the coverage's and limits listed herein are adequate to cover and protect the interests of the ENGINEER for the ENGINEER's operations. These are solely minimums that have been set to protect the interests of the OWNER.

- 21. Dispute Resolution:** Any claim or dispute between the OWNER and the ENGINEER shall be negotiated in good faith for a period of 30 days from the date of written notice served by either party prior to exercising their rights under law.
- 22. Consequential Damages:** Notwithstanding any other provision of the Agreement, neither party shall be liable to the other for any consequential damages incurred due to the fault of the other party, regardless of the nature of this fault or whether it was committed by the OWNER or the ENGINEER, their employees, agents, subconsultants, or subcontractors. Consequential damages include, but are not limited to, loss of use and loss of profit.
- 23. Electronic Files:** The OWNER acknowledges that differences may exist between the electronic files delivered and the printed hard-copy construction documents. In the event of a conflict between the signed construction documents prepared by ENGINEER and electronic files, the signed or sealed hard-copy construction documents shall govern. In addition, the OWNER agrees, to the fullest extent permitted by law, to indemnify and hold harmless the ENGINEER, its officers, directors, employees and subconsultants, against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, arising from any changes

made by anyone other than the ENGINEER or from any reuse of the electronic files without the prior written consent of the ENGINEER. Under no circumstances shall delivery of electronic files for use by the OWNER be deemed a sale by the ENGINEER and the ENGINEER makes no warranties, either expressed or implied, of merchantability and fitness for any particular purpose. In no event shall the ENGINEER be liable for indirect or consequential damages as a result of the OWNER's use or reuse of the electronic files. The ENGINEER will provide upon request from the State of Vermont, electronic files relating to services performed under this Agreement. Record Drawings will be provided to the State in digital format (CD).

**24. Severability:** Any provision of this AGREEMENT and any fully executed Amendment(s) later held to be unenforceable for any reason shall be deemed void, and all remaining provisions shall continue in full force and effect.

**25. Governing Law:** The OWNER and the ENGINEER agree that all disputes arising out of or in any way connected to this Agreement and any fully executed Amendment(s), its validity, interpretation and performance, and remedies for breach of contract, or any other claims related thereof shall be governed by the laws of the State of Vermont.

**26. Assignment:** Neither party to this AGREEMENT and any fully executed Amendment(s) shall transfer, sublet or assign any rights under or interest (including but not limited to monies that are due or monies that may be due) without the prior written consent of the other party.

**27. Job-Site Safety:** Neither the professional activities of the ENGINEER, nor the presence of the ENGINEER or its employees and subconsultants at a construction site, shall relieve the Construction Contractor and any other entity of their obligations, duties and responsibilities including, but not limited to, construction means, methods, sequence, techniques, or procedures necessary for performing, superintending, or coordinating all portions of the work of construction in accordance with the contract documents, and any health or safety precautions required by any regulatory agencies. The ENGINEER and its personnel have no authority to exercise any control over any construction contractor or other entity, or their employees in connection with their work, or any health or safety precautions. The OWNER agrees that the Construction Contractor is solely responsible for job-site safety, and warrants that this intent shall be made evident in the OWNER's agreement with the Construction Contractor. The OWNER also agrees that the OWNER, the ENGINEER, and the ENGINEER's consultants shall be indemnified and shall be made additional insured under the Construction Contractor's general liability insurance policy.

### **END OF ATTACHMENT No. 3**

## **ATTACHMENT No. 4**

### **Duties, Responsibilities and Limitations of Authority Of the Resident Project Representative**

Resident Project Representative (RPR) assists the ENGINEER in observing performance of the work of Contractor.

Through on-site observations of the work in progress and field checks of materials and equipment by the RPR (and any assistants), the ENGINEER shall endeavor to provide protection for the OWNER against defects and deficiencies in the work of the Contractor, but the furnishing of such services will not make the ENGINEER responsible for or give the ENGINEER control over construction means, methods, techniques, sequences and procedures, or for safety precautions or programs, or for the Contractor's failure to perform the Work in accordance with the Contract Documents.

The duties and responsibilities of the RPR are limited to those of the ENGINEER in the ENGINEER'S agreement with the OWNER and in the construction Contract Documents, and are further limited and described as follows:

#### **A. GENERAL:**

The RPR is the ENGINEER'S agent at the site, will act as directed by and under the supervision of the ENGINEER, and will confer with the ENGINEER regarding the RPR's actions. The RPR's dealings in matters pertaining to the on-site work shall in general be with the ENGINEER and the Contractor keeping the OWNER advised as necessary. The RPR's dealings with subcontractors shall only be through or with the full knowledge and approval of the Contractor. The RPR shall generally communicate with the OWNER with the knowledge of and under the direction of the ENGINEER.

#### **B. DUTIES AND RESPONSIBILITIES OF RPR:**

1. Schedules: Review the progress schedule, schedule of Shop Drawing submittals and schedule of values prepared by the Contractor, and consult with the ENGINEER concerning acceptability.
2. Conferences and Meetings: Attend meetings with the Contractor, such as preconstruction conferences, progress meetings, job conferences, and other project-related meetings, and prepare and circulate copies of minutes thereof.

3. Liaison:
  - a. Serve as the ENGINEER'S liaison with the Contractor, working principally through the Contractor's superintendent, and assist in their understanding the intent of the Contract Documents, and assist the ENGINEER in serving as the OWNER'S liaison with the Contractor when the Contractor's operations affect the OWNER'S on-site operations.
  - b. Assist in obtaining from the OWNER additional details or information, when required for proper execution of the Work.
4. Shop Drawings and Samples:
  - a. Record date of receipt of Shop Drawings and samples.
  - b. Receive samples which are furnished at the site by the Contractor, and notify the ENGINEER of availability of samples for examination.
  - c. Advise the ENGINEER and the Contractor of the commencement of any Work requiring Shop Drawings or samples, if the submittal has not been stamped "No Exception Taken" by the ENGINEER.
5. Review of Work, Rejection of Defective Work, Inspections and Tests:
  - a. Conduct on-site observations of the Work in progress to assist the ENGINEER in determining if the Work is in general proceeding in accordance with the Contract Documents.
  - b. Report to the ENGINEER whenever the RPR believes that any Work is unsatisfactory, faulty or defective, or does not conform to the Contract Documents, or has been damaged, or does not meet the requirements of any inspection, test or approval required to be made; and advise the ENGINEER of Work that the RPR believes should be corrected or rejected, or should be uncovered for observation, or requires special testing, inspection or approval.
  - c. Verify that any tests, equipment and system start-ups and/or operating and maintenance training required under the construction contract are conducted in the presence of appropriate personnel, and that the Contractor maintains adequate records thereof; and review these records, and report to the ENGINEER appropriate details relative to the test procedures and start-ups.

- d. Accompany visiting inspectors representing public or other agencies having jurisdiction over the Project, record the results of these inspections and report to the ENGINEER.
- 6. Interpretation of Contract Documents: Report to the ENGINEER when clarifications and interpretations of the Contract Documents are needed, and transmit to the Contractor clarifications and interpretations as issued by the ENGINEER.
- 7. Modifications: Consider and evaluate the Contractor's suggestions for modifications in Drawings or Specifications, and submit any recommendation to the ENGINEER. Transmit to the Contractor decisions as issued by the ENGINEER.
- 8. Records:
  - a. Maintain orderly files for correspondence, reports of job conferences, Shop Drawings, Addenda, Change Orders, Field Orders, additional Drawings issued subsequent to the execution of the Contract, ENGINEER'S clarification and interpretations of the Contract Documents, progress reports, and other Project related documents.
  - b. Keep a diary or log book, recording Contractor hours on the job site, weather conditions, data relative to questions of Change Orders or changed conditions, list of job site visitors, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures; and send copies to the ENGINEER.
  - c. Record names, addresses and telephone numbers of all Contractors, sub-contractors, and major suppliers of materials and equipment.
- 9. Reports:
  - a. Furnish the ENGINEER periodic reports as required of progress of the Work and of the Contractor's compliance with the progress schedule, schedule of Shop Drawings and sample submittals.
  - b. Consult with the ENGINEER in advance of scheduled major tests, inspections or start of important phases of the Work.
  - c. Draft proposed Change Orders, obtaining back-up material from the Contractor and recommend to the ENGINEER Change Orders and Field Orders.



- d. Report immediately to the ENGINEER and the OWNER upon the occurrence of any accident.
- 10. Payment Requests: Review applications for payment with the Contractor for compliance with the established procedure for their submission and forward with recommendations to the ENGINEER, noting particularly the relationship of the payment requested to the schedule of values, work completed, and materials and equipment delivered at the site but not incorporated in the Work.
- 11. Certificates, Maintenance and Operation Manuals: During the course of the Work, verify that certificates, maintenance and operation manuals and other data required to be assembled and furnished by the Contractor are applicable to the items actually installed and in accordance with the Contract Documents and have this material delivered to the ENGINEER for review and forwarding to the OWNER prior to final payment for the Work.
- 12. Completion:
  - a. Before the ENGINEER issues a Certificate of Substantial Completion, submit to the Contractor a list of observed items requiring completion or correction.
  - b. Conduct final inspection in the company of the ENGINEER, the OWNER, and the Contractor and prepare a final list of items to be completed or corrected.
  - c. Observe that all items on the final list have been completed or corrected and make recommendations to the ENGINEER concerning acceptance.

C. LIMITATIONS OF AUTHORITY:

The Resident Project Representative:

- 1. Shall not authorize any deviation from the Contract Documents or substitution of materials or equipment, unless authorized by the ENGINEER.
- 2. Shall not exceed limitations of the ENGINEER'S authority as set forth in the Agreement or the Contract Documents.
- 3. Shall not undertake any of the responsibilities of the Contractor, sub-contractors, or Contractor's superintendent.

4. Shall not advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences or procedures of construction unless such advice or directions are specifically required by the Contract Documents.
5. Shall not advise on, issue directions regarding, or assume control over safety precautions and programs in connection in the Work.
6. Shall not accept Shop Drawings or sample submittals from anyone other than the Contractor.
7. Shall not authorize the OWNER to occupy the PROJECT in whole or in part.
8. Shall not participate in specialized field or laboratory tests or inspections conducted by others except as specifically authorized by the ENGINEER.

**END OF ATTACHMENT No. 4**

**SUMMARY OF TASK OUTLINE FEE ESTIMATES  
CONSTRUCTION PHASE SERVICES (STEP III ENGINEERING)**

**CLIENT:** Village of Essex Junction  
**PROJECT NAME:** Methane Cogen System Upgrade  
**Project No.:** 13073  
**DATE:** July 15, 2012

<u>TASK</u>	<u>FEE ESTIMATE</u>	<u>FEE TYPE</u>
CONSTRUCTION PHASE SERVICES		
BID PHASE SERVICES - 305	\$ 3,600	NOT TO EXCEED
CONSTRUCTION ADMINISTRATION - 310	\$ 16,000	LUMP SUM
RESIDENT PROJECT REPRESENTATIVE - 320	\$ 15,000	NOT TO EXCEED
SPECIAL SERVICES - 330	\$ 6,100	NOT TO EXCEED
ADDITIONAL SERVICES - 340	\$ 33,200	NOT TO EXCEED
<b>TOTAL STEP III:</b>	<b>\$ 73,900</b>	
	<b>\$ (3,500)</b>	Credit Adjustment
<b>FEE TOTAL</b>	<b>\$ 70,400</b>	

State Curve Allowance

Construction Cost: \$ 566,820.00 <--Enter Construction Cost  
**Fee Allowance:** **\$75,278**

For Projects less than \$780,000:  $\$3,575 + (\text{Construction Cost} \times 0.1265)$   
For Projects greater than \$780,000:  $0.55 * (0.6788 * \text{Construction Cost} ^ 0.9206)$

## REVISION NO.: 1

PREPARED BY: BFA  
CHECKED BY: WAE

CONSTRUCTION ADMINISTRATION - 310	\$ 16,000
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SUMMARY OF TASK OUTLINE FEE ESTIMATES  
CONSTRUCTION PHASE SERVICES (STEP III ENGINEERING)

REVISION NO.: 1

CLIENT: Village of Essex Junction  
PROJECT NAME: Methane Cogen System Upgrade  
Project No.: 13073  
DATE: July 15, 2012

PREPARED BY: BFA  
CHECKED BY: WAE

TASK	LABOR					SUBTOTAL LABOR COST	REIMBURSIBLE EXPENSES					SUBTOTAL TOTAL EXPENSES	TYPE OF EXPENSE	TOTAL COST
	PP	PM	FT	CO	AS		SUBCONTRACTORS			OTHER SUB				
							ELECTRICAL	MECHANICAL	STRUCTURAL					
RESIDENT PROJECT REPRESENTATIVE - 320														
Pre-construction Conference			0			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -
Part Time Construction Inspection (8 hours/week x 12 weeks)		96	0			\$ 15,034	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		\$ 15,034
TOTAL:	0	96	0	0	0	\$ 15,034	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		\$ 15,034

RESIDENT PROJECT REPRESENTATIVE - 320 \$ 15,000

SUMMARY OF TASK OUTLINE FEE ESTIMATES  
CONSTRUCTION PHASE SERVICES (STEP III ENGINEERING)

REVISION NO.: 1

1

CLIENT: Village of Essex Junction  
PROJECT NAME: Methane Cogen System Upgrade  
Project No.: 13073  
DATE: July 15, 2012

PREPARED BY: JRB  
CHECKED BY: BFA

BFA  
WAE

TASK	LABOR					REIMBURSIBLE EXPENSES							FEE SUMMARY			
	PP	PM	FT	CO	AS	SUBTOTAL LABOR COST	SUBCONTRACTORS				OTHER SUB	OTHER	SUBTOTAL TOTAL EXPENSES	TYPE OF EXPENSE	TOTAL COST	
							ELECTRICAL	MECHANICAL	STRUCTURAL							
SPECIAL SERVICES - 330																
Preparation of Record Drawings and/or Tie Records		1		8		\$ 695	\$ -	\$ -	\$ -	\$ -	\$ 50	\$ 50	50	Reproductions	\$	745
Preparation of O&M		32			8	\$ 5,412	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-		\$	5,412
TOTAL:	0	33	0	8	8	\$ 6,107	\$ -	\$ -	\$ -	\$ -	\$ 50	\$ 50	50		\$	6,157

SPECIAL SERVICES - 330 \$ 6,100

SUMMARY OF TASK OUTLINE FEE ESTIMATES  
CONSTRUCTION PHASE SERVICES (STEP III ENGINEERING)

REVISION NO.: 1

CLIENT: Village of Essex Junction  
PROJECT NAME: Methane Cogen System Upgrade  
Project No.: 13073  
DATE: July 15, 2012

PREPARED BY: BFA  
CHECKED BY: WAE

TASK	LABOR					SUBTOTAL LABOR COST	REIMBURSIBLE EXPENSES					FEE SUMMARY	
	PP	PM	FT	CO	AS		SUBCONTRACTORS			SUBTOTAL TOTAL EXPENSES	TYPE OF EXPENSE	TOTAL COST	
							ELECTRICAL	MECHANICAL	STRUCTURAL				OTHER SUB
BID PHASE SERVICES - 305						\$ 157	\$ -	\$ -	\$ -	\$ -	\$ -		\$ 157
		1				\$ 307	\$ -	\$ -	\$ -	\$ -	\$ 800	Reproductions	\$ 1,107
		4				\$ 626	\$ -	\$ -	\$ -	\$ -	\$ -		\$ 626
		8				\$ 1,253	\$ -	\$ -	\$ -	\$ -	\$ -		\$ 1,253
		1				\$ 157	\$ -	\$ -	\$ -	\$ -	\$ -		\$ 157
		1				\$ 157	\$ -	\$ -	\$ -	\$ -	\$ -		\$ 157
		1				\$ 157	\$ -	\$ -	\$ -	\$ -	\$ -		\$ 157
TOTAL:	0	17	0	0	3	\$ 2,813	\$ -	\$ -	\$ -	\$ 800	\$ 800		\$ 3,613

BID PHASE SERVICES - 305 \$ 3,600

SUMMARY OF TASK OUTLINE FEE ESTIMATES  
CONSTRUCTION PHASE SERVICES (STEP III ENGINEERING)

REVISION NO.: 1

CLIENT: Village of Essex Junction

PROJECT NAME: Methane Cogen System Upgrade

Project No.: 13073

DATE: July 15, 2012

PREPARED BY: BFA  
CHECKED BY: WAE

TASK	LABOR					SUBTOTAL LABOR COST	REIMBURSABLE EXPENSES				SUBTOTAL TOTAL EXPENSE	TYPE OF EXPENSE	TOTAL COST
	PP	PM	FT	CO	AS		SUBCONTRACTORS			OTHER SUB			
							ELECTRICAL	MECHANICAL	STRUCTURAL				
BID PHASE SERVICES - 305													
Cogen System Bid Review		76				\$ 11,902	\$ 8,000	\$ 3,000	\$ -	\$ -	\$ -	\$ 11,000	\$ 22,902
Clarifier Weir Design		6		12		\$ 1,748	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,748
Leachate Bunker Design		8		12		\$ 2,061	\$ 1,500	\$ 1,500	\$ 3,500	\$ -	\$ -	\$ 6,500	\$ 8,561
TOTAL:	0	90	0	24	0	\$ 15,710	\$ 9,500	\$ 4,500	\$ 3,500	\$ -	\$ -	\$ 17,500	\$ 33,210

BID PHASE SERVICES - 305 \$ 33,200





## **MEMORANDUM**

TO: Essex Junction Trustees and Pat Scheidel, Village Manager  
FROM: James Jutras, Water Quality Superintendent  
cc: Lauren Morrisseau Assistant Manager/Finance Director  
DATE: July 17, 2014  
SUBJECT: CoGeneration Environmental Credits

**Issue:** Whether to proceed with Efficiency VT incentive of \$80,000 for co-generation including additional incentive to construct automated feed of Green Mountain Cider and other, high strength, methane producing waste streams.

**Discussion:** The wastewater facility is approaching completion of the maintenance improvements contract. A continuing part of the project is CoGeneration or combined heat and power. The methane fueled generator has been delivered to the site. The original co-generation financial package approved by the Tri-Town Sewer Committee and the Village Trustees included estimated Efficiency VT financial incentives. The incentive package has been finalized by Efficiency Vermont and presented herein with a change that warrants explanation.

Renewable Energy Credits (RES's) also know as environmental credits or carbon credits. These renewable energy credits are a salable commodity throughout New England in various markets to ISO New England, the independent electric grid system operator. Prior Trustees approval included discussions about revenues by selling Environmental Credits. We have been in communication with brokers to better understand the benefits of participation in these markets.

As the co-gen project advanced, we requested an updated incentive agreement from Efficiency Vermont. The new incentive agreement presented contains a new standard that guarantees Efficiency VT "...sole rights to any electric system capacity credits and/or environmental credits associated with this energy efficiency project. These credits will be used for the benefit of Vermont ratepayers." This new clause is in direct conflict with what I presented to the Trustees in our earlier approval process as potential revenue source. This new clause also creates a conflict with environmental credits that the Village sold to Native Energy with our 2003 co-gen project. In order to proceed with a new Efficiency VT incentive, Native Energy was contacted to work out terms and conditions to the existing agreement. A \$4,000 "buy out" of the \$10,000 original Native Energy agreement was negotiated based on power produced to date.

Staff has provided additional review of Environmental Credits with Efficiency VT, Aldrich + Elliott and Native Energy. The energy credit market is well established but complicated. Markets are currently low and flat with the number of renewable energy systems coming on line. Municipalities with small alternative energy systems do not typically participate in these environmental markets. To maximize potential REC revenue from the co-gen project, the Village would need to hire a broker and pay commission on trading and maintenance of REC's.

The incentive agreement also includes money for automated feed of high strength, methane producing waste streams to the digester. This additional portion of the project will be bid separately as part of the CoGeneration installation project. Authorizing the Efficiency VT agreement does not obligate us to move forward with this developing project. The automated feed system will be bid as an additional price and will only proceed if there are sufficient funds remaining under our project authorization. If we only build the CoGeneration, the incentive for cogeneration will still be provided.

**Costs:** Payout for Native Energy contract, \$4,000. Efficiency VT Incentive

**Revenue:** Efficiency Vermont Total incentive \$80,000 breakdown of this value, as we know it:

- CoGeneration Incentive: \$65,000.00
- Alternative Waste feed system: \$15,000.00

**Recommendation:** It is recommended that the Village Trustees authorize the Municipal Manager to sign the Efficiency Vermont incentive agreement and the Native Energy contract release agreement.



# Efficiency Vermont

[www.efficiencyvermont.com](http://www.efficiencyvermont.com)

128 Lakeside Avenue, Suite 401 • Burlington, VT 05401-4939 • phone: 802-860-4095 • toll-free: 888-921-5990 • fax: 802-658-1643

March 17, 2014

Mr. James Jutras  
Water Quality Superintendent  
Village of Essex Junction  
2 Lincoln Street  
Essex Junction, VT 05452-3685

Re: Essex Junction Wastewater Treatment Facility – Biogas Combined Heat and Power system  
Efficiency Vermont Project # 6013-V625

Dear Jim,

It is a pleasure working with you to make energy efficiency improvements at your business. Based on your inputs, we estimate that the proposed CHP system and variable flow rate feedstock handling improvements at the Essex Junction Wastewater Treatment Facility will save you approximately \$93,460 per year at current energy rates. In addition, this project will reduce statewide energy consumption and improve our environment by saving an estimated 812,692 kWh of electricity and 945,332 pounds of carbon emissions per year.

Based on estimated project costs and energy savings, Efficiency Vermont is pleased to offer a cash incentive of \$80,000 toward the items identified in the attached "Scope of Efficiency Improvements."

### Project Economics

Estimated Cost of Efficiency Improvements	\$689,000
Efficiency Vermont Incentive	\$80,000
Your Net Cost After Incentives	\$609,000
Estimated First-Year Energy Savings	\$93,460
Estimated Simple Payback Period	7.7 years
Estimated Average Lifetime of Efficiency Improvements	10 years
Estimated Rate of Return on Your Investment (pretax)	5%

Please review and sign the Incentive Agreement and Scope of Efficiency Improvements. Return a signed copy of the signature page to Efficiency Vermont via fax, pdf or mail. You will need to communicate your efficiency criteria and specifications with your contractors and design professionals to ensure the scope of the efficiency improvements is met.

I look forward to working in partnership with you and your business. If you have any questions about the Incentive Agreement, or want to discuss any aspect of this project, please contact me at 888-921-5990 ext. 7636.

Sincerely,



Greg Baker, CEM



Senior Account Manager

## EFFICIENCY VERMONT INCENTIVE AGREEMENT PROJECT # 6013-V625

This agreement is between the Vermont Energy Investment Corporation doing business as (dba) Efficiency Vermont and the Essex Junction Wastewater Treatment Facility located at 39 Cascade Street, in Essex Junction, Vermont with a principal place of business in the State of Vermont (hereafter called "Customer").

The Customer agrees to purchase, install, and operate certain efficiency improvements at the Essex Junction Wastewater Treatment Facility, located at 39 Cascade Street in Essex Junction, Vermont, which are described in the attached "Scope of Efficiency Improvements." To assist the Customer with the installation of these efficiency improvements, Efficiency Vermont agrees to provide \$80,000 in incentives, which will be paid in cash to the Customer in accordance with the provisions specified in the attached "Terms and Conditions of the Incentive Agreement."

Efficiency Vermont's incentive offer is good for thirty (30) days from the Efficiency Vermont representative's signature date below. Upon receiving the signed incentive agreement, Efficiency Vermont will reserve the incentive amount to be paid upon project completion for up to 6 months after the date of this agreement unless otherwise agreed in writing.

In addition to this page, this Incentive Agreement includes the attached "Scope of Efficiency Improvements" and "Terms and Conditions of the Incentive Agreement."

WE THE UNDERSIGNED AGREE TO THIS INCENTIVE AGREEMENT.

EFFICIENCY VERMONT

Signature [Signature]

Printed Name KARL GOETZ

Date March 17, 2014

Title: Manager, Engineering

ESSEX JUNCTION WWTF

Signature \_\_\_\_\_

Printed Name \_\_\_\_\_

Date \_\_\_\_\_

Title: \_\_\_\_\_

Electric Company: GMP

Account # 132400000

Federal Tax Payer Identification Number (TIN):

Please select one:

- ☐ Corporation (Provide TIN)  
☒ Tax-Exempt Organization (Provide TIN)  
☐ City, County or State Dept., Govt. or Agency (Provide TIN)  
☐ All Others (Provide SSN or EIN/TIN):

Social security number	or	Employer identification number

Ensure that one of the boxes above is checked and the Taxpayer Identification Number is provided, otherwise your incentive payment may be delayed.

Please review, sign and return a copy of this agreement to Efficiency Vermont.

## SCOPE OF EFFICIENCY IMPROVEMENTS:

The Customer agrees to complete the following efficiency improvements as specified at the Essex Junction Wastewater Treatment Facility, located at 39 Cascade Street, in Essex Junction, Vermont:

	Equipment Description	Quantity
1	<b>Industrial Process Efficiency</b>	
	Combined Heat and Power system powered by biogas, 150 kW nominal gross output <ul style="list-style-type: none"><li>Minimum full-load efficiency: 81%</li><li>2G Cenergy 150 kW CHP system, per October 2013 bid review by Aldrich &amp; Elliott</li></ul>	1
	Variable flow rate feed system for high-strength feedstock to the anaerobic digester <ul style="list-style-type: none"><li>Essex Junction WWTF to provide evaluation results of the benefits to biogas production</li></ul>	1

The listing of a specific manufacturer does not represent an endorsement of a specific product by Efficiency Vermont. With prior approval by Efficiency Vermont, Customer may substitute an equivalent product. This attachment provides only an estimate of the quantity of improvements made or equipment to be installed. The total incentives paid will be based on the actual type of equipment and quantities installed, provided that the actual equipment meets or exceeds the minimum efficiency requirements.

## TERMS AND CONDITIONS OF THE INCENTIVE AGREEMENT

This Incentive Agreement sets out the terms and conditions under which Efficiency Vermont will provide incentives on this project.

If you are not the owner of this facility, you promise that you are entitled to make the efficiency improvements covered by this agreement through a lease agreement with the owner of the facility or you have obtained written permission from the owner of the building allowing you to make the efficiency improvements. .

### Installation

1. You agree to purchase, properly install, operate, and maintain the efficiency improvements specified herein and to comply with all terms and conditions described in this agreement and in Scope of Efficiency Improvements within the timeframe specified on the signature page of this document.
2. You agree to include in your agreement(s) with your contractor(s) a requirement that contractor(s) give you, on request, documents that establish the purchase price(s) (including all discounts) of any efficiency improvements purchased for installation under this Agreement; and the installation cost(s) for the equipment or improvements. In order to help us verify the installation of the efficiency improvements, you agree to supply us with copies of these documents, upon our request.

### Inspection

1. Efficiency Vermont reserves the right to inspect projects to verify that the efficiency improvements are installed and in use.
2. You agree to notify us when the efficiency improvements in this agreement are installed and operating. Within thirty (30) days of notification, we will need reasonable access to your facility and to documents pertaining to the acquisition and installation of the efficiency improvements.
3. No payment will be made until the improvements have been installed and inspected by an Efficiency Vermont representative or Efficiency Vermont determines that an inspection is not necessary. If the efficiency improvements have not been installed as specified in Scope of Efficiency Improvements, or they do not operate properly, then Efficiency Vermont may reduce or eliminate the incentives associated with that project.

### Incentives

1. Upon satisfactory verification of the improvements, we will send a check to you within forty five (45) days of the inspection date. You may designate in writing that a third party should receive this payment.
2. You understand and agree that the incentives provided by Efficiency Vermont may be considered taxable income by the Internal Revenue Service and other governmental authorities.
3. The parties agree that the actual cost of purchasing, installing, operating, or maintaining the efficiency improvements under this agreement may differ from the estimates provided to you by Efficiency Vermont. Efficiency Vermont will not be required to provide additional incentives for the efficiency improvements covered by this agreement when installation costs are higher than estimated.

### Dispute Resolution

Efficiency Vermont and you will attempt in good faith to resolve any disputes that may arise in carrying out this agreement. In the event that we are unable to resolve a dispute, the matter will be immediately referred to an executive of Efficiency Vermont who has authority to resolve the dispute. If you and this individual are unable to agree upon a solution within thirty (30) days you can file a written complaint with the Vermont Department of Public Service or the Vermont Public Service Board. If after review by the Department of Public Service or the Public Service Board there is still no resolution then the parties agree to finally settle the dispute via arbitration. The arbitration will be conducted in accordance with the commercial arbitration rules of the American Arbitration Association and will take place in Burlington, Vermont. The decision reached in any proceeding to resolve a dispute will be final and binding.

The parties understand that this agreement contains an agreement to arbitrate. After signing this document, the parties understand that they will not be able to bring a lawsuit concerning any dispute that is covered by the arbitration agreement unless the dispute involves a question of constitutional or civil rights. Instead the parties agree to submit any such dispute to an impartial arbitrator.

### Other Terms & Conditions

**POTENTIAL FUTURE MONITORING:** For no longer than five (5) years following the completion date, you agree to allow VEIC staff and/or contractors acting on behalf of VEIC/Efficiency Vermont and/or the Vermont Department of Public Service, to install equipment at your building to monitor any efficiency improvements installed under this agreement.

You agree to cooperate with us in any proceedings before the Vermont Public Service Board or other authorities concerning the matters in this agreement.

**SAVINGS ARE ESTIMATES:** The operation and effect of energy efficiency improvements differ due to hours of operation and many other factors, including but not limited to weather and changes in business operations. As such, we do not guarantee the specific energy savings or benefits that will result from any efficiency improvements that are installed. Efficiency Vermont does not warrant that you will receive energy savings or benefits of any kind as a result of your participation in Efficiency Vermont's services. If the energy efficiency project is financed, there is no guarantee that the monthly energy savings will be greater than the monthly loan payment.

**LIMITATION OF LIABILITY:** Efficiency Vermont does not guarantee the performance of installed equipment expressly or implicitly. Efficiency Vermont does not endorse any particular manufacturers, products, or systems designs.

**INDEMNIFICATION:** You agree to indemnify Efficiency Vermont and its directors, officers, employees, agents, and invitees from all liabilities (including reasonable attorney's fees) arising in connection with this agreement, excluding liability resulting from acts of willful misconduct or gross negligence on the part of Efficiency Vermont. These include liabilities that may rise from changes in your operations, including both direct and indirect losses.

You also agree that if you make a claim against Efficiency Vermont for any damage arising from our action or inaction under this agreement, your remedy will be limited to the total amount of our payments to you for the efficiency improvements installed in your building.

**CAPACITY CREDITS/ENVIRONMENTAL CREDITS:** As part of this agreement, the customer acknowledges that Efficiency Vermont holds the sole rights to any electric system capacity credits and / or environmental credits associated with this energy efficiency project. These credits will be used for the benefit of Vermont ratepayers.

This agreement will be governed by and interpreted in accordance with the laws of the State of Vermont.

This agreement sets forth the entire agreement between the parties and replaces all oral or written agreements. No part of this agreement may be waived or changed except by the written agreement of both parties.

Nothing in this agreement will create any contractual relationship between Efficiency Vermont and any of your employees, contractors, or agents. Nor will this agreement create any obligation on the part of Efficiency Vermont to pay, or to see to the payment of, any monies due from you to subcontractors, employees, agents, or other persons or organizations.



July \_\_, 2014

Village of Essex Junction  
2 Lincoln Street  
Essex Junction, VT  
Attn: Patrick Scheidel, Municipal Manager  
VIA E-mail: PatS@essexjunction.org

Re: Re: Green Tags Purchase and Sale Agreement between the Village of Essex Junction and NativeEnergy, Inc., dated as of December 11, 2002.

Dear Mr. Scheidel:

Reference is made to the foregoing agreement (the "Agreement"). Please sign and return a copy of this letter to confirm the agreement of the Village of Essex Junction and NativeEnergy, Inc., that effective upon NativeEnergy's receipt of payment of a \$4,000.00 termination fee (payable within 30 days from the date hereof), for NativeEnergy to replace the Green Tags (as defined in the Agreement) otherwise to be provided to it under the Agreement, the Agreement is hereby terminated without further liability of either party thereunder. Thank you and we wish you the best in your installation of the two new generators.

Very truly yours,

Thomas E. Stoddard  
V.P. & General Counsel

Accepted and agreed to as of  
the \_\_ day of July, 2014:

THE VILLAGE OF ESSEX JUNCTION

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_





## MEMORANDUM

TO: Village Trustees and Pat Scheidel, Village Manager  
FROM: Susan McNamara-Hill, Clerk/Treasurer and Lauren Morrisseau, Finance *SM*  
Director/Assistant Manager *Smh*  
DATE: July 22, 2014  
SUBJECT: Fire Truck Note Renewal

### Issue

The issue is whether or not the Trustees will adopt the Resolution for Current Expense Borrowing and sign the Current Expense Note and the Resolution for the renewal of the Fire Truck Note.

### Discussion

The Trustees approved a one year note in FYE13 in the amount of \$250,000 to help pay for the fire ladder truck. The plan was to pay \$50,000 principal each year for five years and to renew the note annually. The bill list includes a check for \$53,031.67 to pay \$50,000 principal and \$3,031.67 of interest which is our second payment. The Merchants Bank has agreed to issue another

one year note for \$150,000. The cost of the fire truck has been paid in full in the amount of \$829,736 (the Village saved \$30,000 by prepaying for the truck). The funds to purchase the truck came from:

Village Rolling Stock	\$529,736 (includes note for \$250,000)
Town of Essex contribution	\$300,000

### Cost

The interest on the \$150,000 note is 1.55%, which will result in an interest charge of approximately \$2,325.

### Recommendation

It is recommended that the Trustees adopt the Resolution for Current Expense Borrowing and sign the Current Expense Note and the Resolution.



Note No. 1 of 1

\$150,000.00

Village of Essex Junction  
CURRENT EXPENSE NOTE  
1160107528

Village of Essex Junction, Vermont,

July 30, 2014

On the July 29, 2015 for value received, the Village of Essex Junction promises to pay to  
MERCHANTS BANK, or order, the principal sum of:

ONE HUNDRED FIFTY THOUSAND AND 00/100 DOLLARS  
(\$150,000.00)

with interest at the rate of 1.55% per annum, calculated on an actual 365 day year from the date of  
original delivery of this note, with principal and interest payable in lawful money of the United States at  
the Main Office of MERCHANTS BANK, in the City of South Burlington, Vermont. Principal and  
interest may be prepaid in whole or in part prior to the above maturity date.

This note is issued to defray the cost of current expenses, pursuant to a resolution adopted by the  
Board of Trustees of said Village of Essex Junction at a meeting thereof duly noticed, called and held on  
July 22, 2014.

It is hereby certified and recited that all acts, conditions and things required to be done precedent  
to and in the issuance of this note have been done, have happened, and have been performed in regular  
and due form as required by law and that the full faith and credit of said Village of Essex Junction are  
hereby irrevocably pledged for the payment of this note, as well as interest at the above-specified rate.

Village of Essex Junction

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
Treasurer

\_\_\_\_\_  
Board of Trustees Or a Majority Thereof

Village of Essex Junction  
RESOLUTION  
CURRENT EXPENSE BORROWING

WHEREAS, the Board of Trustees is authorized and empowered to borrow money on the credit of the Village of Essex Junction to defray the cost of paying current expenses incurred and accrued for the delivery of governmental services and functions incurred and accrued for the delivery of governmental services and functions; and

WHEREAS, it is hereby found and determined that in order to carry out the responsibilities placed upon the Board of Trustees by law, it is necessary and expedient for the Village of Essex Junction to meet current expenses; and

WHEREAS, the Village of Essex Junction has been and is now providing essential governmental services and funds are needed to meet expenses relating to the delivery thereof; and

WHEREAS, current funds are not available to pay in full incurred and accrued current expenses and it is necessary for the Board of Trustees to borrow money on the credit of the Village of Essex Junction for such purpose; and

WHEREAS, in order to have funds available to meet current expenses as aforesaid, the Board of Trustees has arranged to borrow \$150,000.00 from MERCHANTS BANK, with such borrowing evidenced by a single Current Expense Note (the "Note").

THEREFORE, BE IT RESOLVED, that the Board of Trustees and the Treasurer proceed forthwith to complete said transaction and issue said evidence of indebtedness to cover the same; and

BE IT FURTHER RESOLVED, that said evidence of debt when issued and delivered pursuant to this Resolution shall be a valid and binding general obligation of the Village of Essex Junction, payable according to the terms and tenor thereof from unlimited ad valorem taxes duly assessed on the grand list of taxable property in said Village of Essex Junction, as established by law; and

BE IT FURTHER RESOLVED, that all acts and things heretofore done by the lawfully constituted officers of the Village of Essex Junction and its Board of Trustees in, about, or concerning the expenditure of proceeds of the Note evidencing the borrowing and the issuance thereof are hereby ratified and confirmed; and

We, the undersigned Board of Trustees and Treasurer, hereby certify that we as such officers have signed the Note, numbered 1, dated July 30, 2014 and due July 29, 2015, with an interest rate of 1.55 %, payable as therein set forth and further certify that the Note is issued under and pursuant to this Resolution adopted at a duly noticed and warned meeting of the Board of Trustees of the Village of Essex Junction held on July 22, 2014.

We the said Board of Trustees and Treasurer of the Village of Essex Junction, hereby certify that we are the duly chosen, qualified and acting officers as undersigned, that the Note is issued pursuant to authority, that no proceeding relating thereto has been taken other than as shown in the foregoing recital, that no such authority or action has been amended or repealed, and that there is no litigation threatened or pending in any state or federal court of competent jurisdiction seeking to enjoin either the issuance of the Note or the expenditures being financed by the proceeds of the same.

We also certify that there has been full and timely compliance with all public procurement, solicitation and bidding laws, ordinances and regulations with respect to each of the transactions embodied in this Resolution

We certify also that no litigation is pending or threatened affecting the validity of the Note or the apportionment and assessment of taxes if necessary, to pay the same when due, that neither the corporate existence nor the boundaries of the Board of Trustees, nor the title of any of us to our respective offices is being questioned or contested.

Further, we hereby certify to and covenant with MERCHANTS BANK, its successors and assigns, including specifically the transferees, assigns, holders and owners of the [above-described note] Note that:

1. The aggregate principal amount of the Note does not exceed the maximum cumulative cash flow deficit of the Village of Essex Junction for the term of the Note from date of issue to and including date of maturity, as computed under Sections 148 (f)(4)(iii) of the Internal Revenue Code of 1986, and the Regulations promulgated thereunder.

2. No proceeds of the Note (including investment proceeds thereof) will be used (directly or indirectly) in any trade or business carried on by any person other than the Village of Essex Junction nor used to make or finance loans to any person.

3. During the current calendar year, the Village of Essex Junction will not issue debt of any sort aggregating \$10,000,000.00 or more.

4. The Village of Essex Junction will file when and as required with the Treasury Department or Internal Revenue Service information returns relating to the issuance of the Note and all other obligations of the Village of Essex Junction.

5. The Village of Essex Junction will comply with, perform, maintain and keep each and every covenant, representation, certification and undertaking in the accompanying Tax Certificate, execution and delivery of which is hereby authorized.

Village of Essex Junction

Treasurer

\_\_\_\_\_

ATTEST:

Clerk

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Board of Trustees Or a Majority Thereof

Village of Essex Junction  
TAX CERTIFICATE  
CURRENT EXPENSE BORROWING

We the Treasurer and at least a majority of the Board of Trustees of the Village of Essex Junction, Vermont (the "Issuer"), hereby certify and represent as follows with respect to the aggregate \$150,000.00 Current Expense Note of the Issuer (the "Note"), which Note is dated July 30, 2014 and is payable as therein set forth:

1. The Issuer is issuing and delivering the Note simultaneously with the delivery of this Certificate.
2. We are the officers of the Issuer charged by law with the responsibility for issuing the Note.
3. The Note is being issued for the purpose of paying certain current expenses required by law to be made, which expenditures shall be made in a timely fashion.
4. The entire amount borrowed by the issuance of the Note, together with all of such, if any, amounts previously raised or borrowed for the same purpose, does not exceed the total costs of such current expenses less all other funds available for the purpose, and all of the proceeds of the Note have been or are expected to be needed and expended for such current expenses within six (6) months from the date of the first borrowing for these expenses.
5. The Note is being issued to a refund note previously issued for the same purpose described in paragraph (3).
6. Any real and personal property, acquisition of which has been financed by the Note has not been and is not expected during the life of the Note to be sold or otherwise disposed of for consideration.
7. It is expected that any earnings or net profit derived from investment or deposit of the proceeds of the Note, including transferred proceeds, any accrued interest received upon sale of the Note and any premium received on the delivery thereof, will be expended for current expense payment purposes within the period stated in paragraph (4) above to the extent such funds are not commingled for accounting purposes in the general funds of the Issuer with tax and other substantial operating revenues.
8. The Issuer has not created and does not expect to create or establish any debt service fund, bond payment reserve, sinking fund, or other similar fund pledged to the payment of the Note or from which it is expected that payment of the Note would be made.
9. To the best of our knowledge, information and belief, the above expectations are reasonable.
10. The Issuer has not been notified of any action by the Commissioner of Internal Revenue Service to disqualify it as an issuer whose arbitrage certificates may be relied upon.
11. No part of the proceeds derived from the issuance and sale of the Note nor the expenditures financed by the proceeds of the Note shall be:

- a. Used, loaned or otherwise made available to any person or other entity, other than the Issuer or a governmental body, so as to cause the Note to be classified as a private activity bond or an arbitrage bond, as those terms are defined under the Internal Revenue Code of 1986, as amended, and the Regulations promulgated thereunder by the U. S. Treasury (collectively, the "Code").
- b. Used directly or indirectly in a trade or business by any person other than the Issuer or another municipal entity;
- c. Loaned to any person directly or indirectly other than the Issuer;
- d. The subject of any contract, lease or agreement of any sort having a term of one year or more and calling for the payment by the Issuer of consideration other than a flat fee;
- e. Expended to finance the construction, alteration or renovation of any improvement the use, occupancy, availability or beneficial enjoyment of which shall be restricted among public users thereof or for which preferential, different or unique fees, rates, assessments or charges shall be levied;
- f. Invested in such a manner or for such a period or at a yield to result in the rebate of interest earnings thereon to the United States under any public law now or hereafter in effect;

12. The Issuer shall furnish to the United States, or any agency, department or instrumentality thereof, in a timely fashion, such information as may be required by law with respect to all evidences or debt now or hereafter issued by the Issuer.

13. Neither the proceeds of the Note, nor any earnings derived from the investment thereof, shall be expended for the purpose of paying any costs associated with the issuance of the Note.

14. The Note will not be refunded or otherwise paid, defeased or secured by the proceeds of any form of debt issued by the Issuer, if the manner of such payment, refunding or security, results in the Note being classified as a "private activity bond" or an "arbitrage bond" within the meaning of Sections 103, 141 and 148 of the Code.

15. The proceeds of the Note shall not be invested for a period or at a yield so as to render the interest payable on the Note includable in the gross income of the holder thereof.

16. The proceeds of the Note will not be used in a manner that will cause the Note to be "arbitrage bonds" or "private activity bonds" within the meaning of Sections 103(c), 141 and 148 of the Code.

17. The aggregate principal amount of the Note is not greater than the maximum anticipated cumulative cash flow deficit which has been computed in accordance with the Regulations promulgated under Section 148 of the Code.

18. The Note is declared to be a "qualified" obligation under Section 265(b) of the Code.

This Certificate is executed and is being delivered pursuant to Section 1.148(b)(2)(i) of the Regulations promulgated under Section 148 of the Code.

Dated July 30, 2014

Village of Essex Junction

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
Treasurer

\_\_\_\_\_  
Board of Trustees Or a Majority Thereof

# Information Return for Tax-Exempt Governmental Obligations

► Under Internal Revenue Code section 149(e)  
► See separate instructions.  
Caution: If the issue price is under \$100,000, use Form 8038-GC.

OMB No. 1545-0720

## Part I Reporting Authority

If Amended Return, check here ► ☐

1 Issuer's name <b>Village of Essex Junction</b>		2 Issuer's employer identification number (EIN) <b>03-6000466</b>
3a Name of person (other than issuer) with whom the IRS may communicate about this return (see instructions)		3b Telephone number of other person shown on 3a
4 Number and street (or P.O. box if mail is not delivered to street address) <b>2 Lincoln Street</b>	Room/suite	5 Report number (For IRS Use Only) <b>3</b>
6 City, town, or post office, state, and ZIP code <b>Essex Junction, VT 05452</b>		7 Date of issue <b>7/30/2014</b>
8 Name of issue <b>Current Expense Note</b>		9 CUSIP number
10a Name and title of officer or other employee of the issuer whom the IRS may call for more information (see instructions) <b>Susan McNamara- Hill, Treasurer</b>		10b Telephone number of officer or other employee shown on 10a <b>802-878-6946</b>

## Part II Type of Issue (enter the issue price). See the instructions and attach schedule.

11 Education . . . . .	11		
12 Health and hospital . . . . .	12		
13 Transportation . . . . .	13		
14 Public safety . . . . .	14	150,000	00
15 Environment (including sewage bonds) . . . . .	15		
16 Housing . . . . .	16		
17 Utilities . . . . .	17		
18 Other. Describe ►	18		
19 If obligations are TANs or RANs, check only box 19a . . . . .			
If obligations are BANs, check only box 19b . . . . .			
20 If obligations are in the form of a lease or installment sale, check box . . . . .			

## Part III Description of Obligations. Complete for the entire issue for which this form is being filed.

	(a) Final maturity date	(b) Issue price	(c) Stated redemption price at maturity	(d) Weighted average maturity	(e) Yield
21	7/29/2015	\$ 150,000.00	\$ 150,000.00	1 years	1.55 %

## Part IV Uses of Proceeds of Bond Issue (including underwriters' discount)

22 Proceeds used for accrued interest . . . . .	22		
23 Issue price of entire issue (enter amount from line 21, column (b)) . . . . .	23		
24 Proceeds used for bond issuance costs (including underwriters' discount) . . . . .	24		
25 Proceeds used for credit enhancement . . . . .	25		
26 Proceeds allocated to reasonably required reserve or replacement fund . . . . .	26		
27 Proceeds used to currently refund prior issues . . . . .	27	150,000	00
28 Proceeds used to advance refund prior issues . . . . .	28		
29 Total (add lines 24 through 28) . . . . .	29	150,000	00
30 Nonrefunding proceeds of the issue (subtract line 29 from line 23 and enter amount here) . . . . .	30		00

## Part V Description of Refunded Bonds. Complete this part only for refunding bonds.

31 Enter the remaining weighted average maturity of the bonds to be currently refunded . . . . .	years
32 Enter the remaining weighted average maturity of the bonds to be advance refunded . . . . .	years
33 Enter the last date on which the refunded bonds will be called (MM/DD/YYYY) . . . . .	
34 Enter the date(s) the refunded bonds were issued ► (MM/DD/YYYY)	

For Paperwork Reduction Act Notice, see separate instructions.

Cat. No. 63773S

Form **8038-G** (Rev. 9-2011)



**Part VI Miscellaneous**

<b>35</b>	Enter the amount of the state volume cap allocated to the issue under section 141(b)(5) . . . . .	<b>35</b>	
<b>36a</b>	Enter the amount of gross proceeds invested or to be invested in a guaranteed investment contract (GIC) (see instructions) . . . . .	<b>36a</b>	
<b>b</b>	Enter the final maturity date of the GIC ▶ _____		
<b>c</b>	Enter the name of the GIC provider ▶ _____		
<b>37</b>	Pooled financings: Enter the amount of the proceeds of this issue that are to be used to make loans to other governmental units . . . . .	<b>37</b>	
<b>38a</b>	If this issue is a loan made from the proceeds of another tax-exempt issue, check box <input type="checkbox"/> and enter the following information:		
<b>b</b>	Enter the date of the master pool obligation ▶ _____		
<b>c</b>	Enter the EIN of the issuer of the master pool obligation ▶ _____		
<b>d</b>	Enter the name of the issuer of the master pool obligation ▶ _____		
<b>39</b>	If the issuer has designated the issue under section 265(b)(3)(B)(i)(III) (small issuer exception), check box . . . . .		<input checked="" type="checkbox"/>
<b>40</b>	If the issuer has elected to pay a penalty in lieu of arbitrage rebate, check box . . . . .		<input type="checkbox"/>
<b>41a</b>	If the issuer has identified a hedge, check here <input type="checkbox"/> and enter the following information:		
<b>b</b>	Name of hedge provider ▶ _____		
<b>c</b>	Type of hedge ▶ _____		
<b>d</b>	Term of hedge ▶ _____		
<b>42</b>	If the issuer has superintegrated the hedge, check box . . . . .		<input type="checkbox"/>
<b>43</b>	If the issuer has established written procedures to ensure that all nonqualified bonds of this issue are remediated according to the requirements under the Code and Regulations (see instructions), check box . . . . .		<input type="checkbox"/>
<b>44</b>	If the issuer has established written procedures to monitor the requirements of section 148, check box . . . . .		<input type="checkbox"/>
<b>45a</b>	If some portion of the proceeds was used to reimburse expenditures, check here <input type="checkbox"/> and enter the amount of reimbursement . . . . . ▶ _____		
<b>b</b>	Enter the date the official intent was adopted ▶ _____		

**Signature and Consent**

Under penalties of perjury, I declare that I have examined this return and accompanying schedules and statements, and to the best of my knowledge and belief, they are true, correct, and complete. I further declare that I consent to the IRS's disclosure of the issuer's return information, as necessary to process this return, to the person that I have authorized above.

Signature of issuer's authorized representative _____	Date	Susan McNamara- Hill, Treasurer Type or print name and title
--	------	---

**Paid Preparer Use Only**

Print/Type preparer's name	Preparer's signature	Date	Check <input type="checkbox"/> if self-employed	PTIN
Firm's name ▶	Firm's EIN ▶			
Firm's address ▶	Phone no.			



## **MEMORANDUM**

**TO:** Village Trustees and Pat Scheidel, Village Manager  
**FROM:** Lauren Morrisseau, Finance Director/Assistant Manager *LM*  
**DATE:** July 8, 2014  
**SUBJECT:** Adoption Process of 2014 Comprehensive Plan

### **Issue**

To outline for the Trustees the process for adopting the revised Comprehensive Plan

### **Discussion**

The Planning Commission approved the draft Comprehensive Plan on 6/26/14. Normally, after review, the Trustees would submit amendments to the Planning Commission. However, the addition that the Village Trustees approved on 6/10/14 (attached) did not get into the draft Comprehensive Plan approved by the Planning Commission and will need to be re-submitted to the Planning Commission with any other changes. The Trustees are required by law to hold two public hearings. The schedule is as follows:

July 8 & 22	Review Comprehensive Plan submitted by the Planning Commission.
July 22	Submit amendments to the Planning Commission.
Aug. 7	Planning Commission reviews the changes from the Village Trustees to see if they are consistent with state statute and the document is amended. The Planning Commission submits a revised written report indicating consistency with state planning goals.
Aug. 12	Trustees 1 <sup>st</sup> Public Hearing on Draft Comprehensive Plan.
Aug. 26	Trustees 2 <sup>nd</sup> Public Hearing on Draft Comprehensive Plan.

If there are no amendments at the second public hearing, the Trustees can adopt the Comprehensive Plan at that time or at a later meeting.

### **Cost**

There is no cost associated with this issue.

### **Recommendation**

This memo is for informational purposes only.

- will be turned over to the village. The tax abatement process for the village will not change because the village is the taxing authority. The arrangement with the town is a one year trial to see if the result is positive. Pat Scheidel added having one tax bill is a symbol of cooperation and suggests the village and town are one entity.

George Tyler said village taxpayers will see a small net savings in the future because the village will not be doing tax collection (less staff time). Lauren Morrisseau noted the \$50,000 in revenue that the village will not receive due to the consolidation can be made up with payment from the town for delinquent taxes and revenue from license and permit fees.

**MOTION by George Tyler, SECOND by Andrew Brown, that the Board of Trustees approves management's pursuit of consolidated tax billing and collections and to authorize the municipal manager to enter into a tax billing and collection agreement with the Town of Essex and the Essex Junction School District including the Essex Junction Recreation and Parks Department. VOTING: unanimous (4-0); motion carried.**

#### 5. Review Draft Notes from Annual Retreat

The Trustees reviewed the list of actionable items from the May 27, 2014 retreat. The following was noted:

- Greg Morgan with the Essex Economic Development Committee will be invited to the Trustees meetings periodically during the year to provide an update on the committee's activities.
- Dan Kerin will do a flowchart of the process for development applications before the Planning Commission to provide residents with an understanding of the review process.
- An interactive webpage on the village website would be useful.
- Elaine Sopchak is working with Channel 17 on a short video about the review process for applications before the Planning Commission.

#### 5. NEW BUSINESS

##### 1. Approve Vision Statement from Bike/Walk Advisory Committee

**MOTION by Dan Kerin, SECOND by Elaine Sopchak, to approve the following vision statement and include the statement in the Transportation section of the village comprehensive plan:**

**"Essex Junction strives to be recognized as a friendly village of connected neighborhoods and destinations in which convenient and safe bicycle and pedestrian facilities are integrated into a seamless and accessible year-round transportation system. This system will promote the enjoyment and health of all citizens, a more vibrant local economy, and a cleaner environment."**

**VOTING: unanimous (4-0); motion carried.**

##### 2. Approve FY2014 General Fund Departmental Budget Transfers

Lauren Morrisseau briefly reviewed deficits and surpluses in departments. The deficits can be covered by the surpluses.

**Patty Benoit**

---

*Agenda Addition  
New Business a.*

**From:** Robin Pierce  
**Sent:** Monday, July 07, 2014 11:06 AM  
**To:** Terry Hass; Patty Benoit  
**Subject:** Fwd: Emailing: EssexJunctionTownPlanFormalReview070314  
**Attachments:** Map5CommunityFacilities20140707.pdf; ATT00001.htm

For inclusion in the MP.

Thanks,

Robin.

Sent from my iPad

Begin forwarded message:

**From:** Pam Brangan <[pbrangan@ccrpcvt.org](mailto:pbrangan@ccrpcvt.org)>  
**Date:** July 7, 2014, 10:49:21 AM EDT  
**To:** Regina Mahony <[rmahony@ccrpcvt.org](mailto:rmahony@ccrpcvt.org)>, "Robin Pierce ([robin@essexjunction.org](mailto:robin@essexjunction.org))" <[robin@essexjunction.org](mailto:robin@essexjunction.org)>  
**Subject:** RE: Emailing: EssexJunctionTownPlanFormalReview070314

Attached map has Vermont Gas line and Electric transmission line.

Pam

Pam Brangan, GISP  
CCRPC Senior Planner  
110 West Canal St.  
Suite 202  
Winooski, VT 05404  
802.846.4490 ext. 22  
Check out the recently updated ECOS Map Viewer

-----Original Message-----

**From:** Regina Mahony  
**Sent:** Thursday, July 03, 2014 3:41 PM  
**To:** Pam Brangan; Robin Pierce ([robin@essexjunction.org](mailto:robin@essexjunction.org))  
**Subject:** FW: Emailing: EssexJunctionTownPlanFormalReview070314

Hi Robin & Pam,

Lee has conducted his review of the Essex Junction Comp Plan for the PAC - and found that none of the maps include major transmission lines like electric and gas. Is that something that we can add to Map 5 (Community Facilities for lack of a better place) and have the Trustees make that change?



# DRAFT Map 5: Community Facilities Essex Junction 2014 Village Plan

1:15,000

## Legend



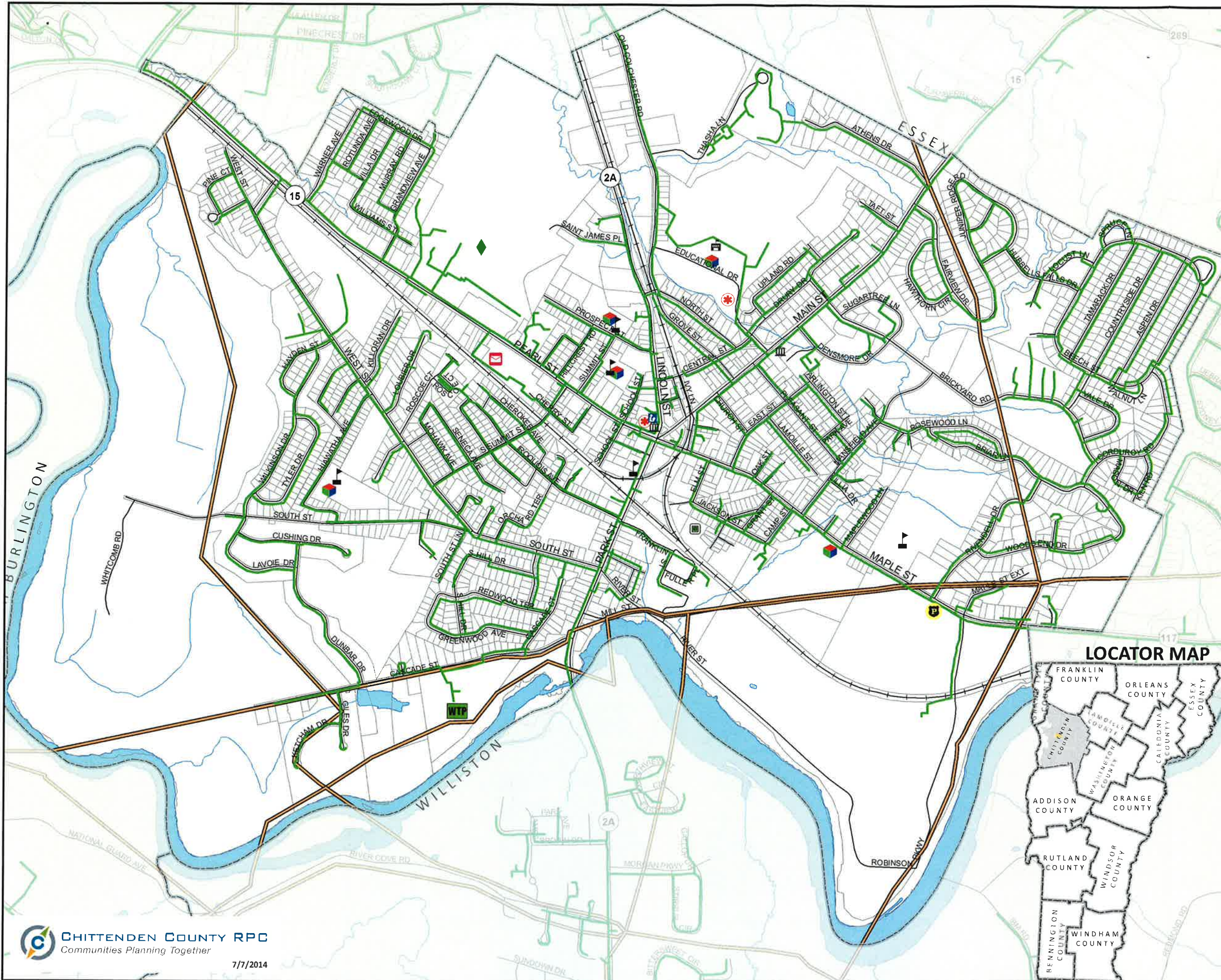
- Municipal Office
- Fire/Rescue
- Police Department
- Post Office
- Library
- Fairgrounds
- Public Works
- Wastewater Treatment Plant
- Elementary/Middle School
- High School
- Childcare
- Vermont Gas Line
- Electric Transmission Line
- Road Centerline
- Railroad
- Stream Centerline
- Water Body
- 2013 Tax Parcel Boundary

0 0.25 0.5 Mile

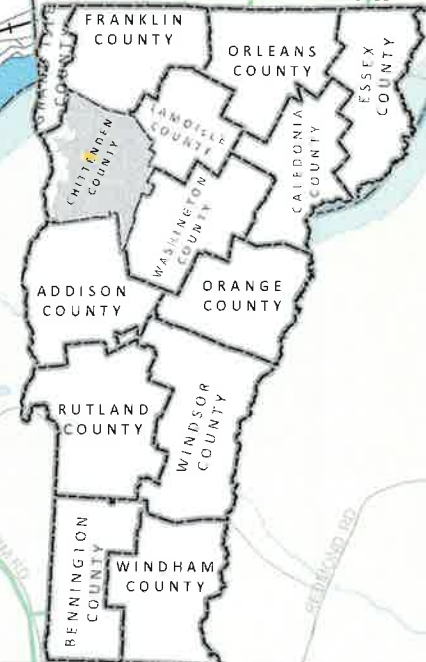
Source:  
Childcare - updated by CCRPC using Childcare Resources info, 5/2014.  
Road Centerline - e911, 7/2013  
Railroad - VTrans, 2003  
Surface Water - VHD, 2008 (VCGI)  
Map created by P. Brangan using ArcGIS. All data is in State Plane Coordinate System, NAD 1983.

Disclaimer:  
The accuracy of information presented is determined by its sources. Errors and omissions may exist. The Chittenden County Regional Planning Commission is not responsible for these. Questions of on-the-ground location can be resolved by site inspections and/or surveys by registered surveyor. This map is not sufficient for delineation of features on-the-ground. This map identifies the presence of features, and may indicate relationships between features, but is not a replacement for surveyed information or engineering studies.

Document Path: D:\Projects14\EssexJun\VillagePlanCommFacilities20140707.mxd



## LOCATOR MAP





## **Planning Commission Reporting Form for Municipal Plan Amendments**

This report is in accordance with 24 V.S.A. §4384(c) which states:

*“When considering an amendment to a plan, the planning commission shall prepare a written report on the proposal. **The report shall address the extent to which the plan, as amended, is consistent with the goals established in §4302 of this title.**”*

### **Summary of the proposed 2014 Comprehensive Plan changes:**

The entire Comprehensive Plan was updated. The Plan does not include any changes to the designation of the land area, as the land use strategy remains generally the same as the previous Plan. “The planning challenge for Essex Junction is to manage growth, encourage reinvestment in the existing urban environment, protect existing neighborhoods and ensure that redevelopment or new development enhances the vitality and village character of Essex Junction.” Most of the chapters were expanded to include additional information or further detail on the proactive steps the Village has undertaken to meet the Plan’s goals. The Heart and Soul values were incorporated throughout the Plan. More specifically the changes include:

Chapter II – Incorporation of the Heart and Soul values into the community vision.

Accomplished Objectives were updated for the previous 5 years. The priority goals for the next five years have been updated.

Chapter III – Historical Resources have been better defined, however more work is needed following adoption of the Plan to analyze and prioritize to determine which structures should be preserved. Population growth and demographics have been updated.

Chapter IV:

1. Energy – A significant energy profile was added to the Plan, as well as a discussion on greenhouse gas emissions.
2. Agriculture & Community Forestry – Status of the Whitcomb Farm was updated including the latest land conservation efforts and solar generation farm. The variety of agriculture related efforts the Junction has been taking was added – including the thriving Farmers Market. Community Forestry efforts were added as well.
3. Business/Economic Development – The Village’s strengths were added. Employment and income data was updated. Strategies from the Town’s Economic Development and Vision Plan was added.
4. Open Space - Recreation & Natural Resources – The Natural Environment Resources section was expanded significantly. Other additional sections include Climate Change and Flood Resiliency.
5. Education and Child Care – Data was updated, and the child care section was expanded.
6. Utilities/Facilities – All utility and facility updates were noted. The Library strategies were updated according to their Strategic Plan. The following sections were added: Senior Center, Police and Rescue.
7. Housing – Data was updated. Information on the Vermont Neighborhood and Vermont Neighborhood Development program was added.

8. Transportation – Data was updated. Circ Alternative projects were added. CCTA service was expanded. Bike/Ped efforts were expanded including adding the work of the Bike-Walk Advisory Committee.
9. Land Use – Intro was re-worded to reinforce the Plan's goal of concentrating new growth in areas already developed – with specific emphasis on 'thoughtful growth'. The Village Center Designation and its benefits were included. The Land Use Categories were clarified.

Chapter V, Implementation – The Government Finance data was updated. Funding sources were clarified. The Implementation Schedule was updated to reflect all of the updated goals and objectives, and relationship to the Heart & Soul values and ECOS Strategies were added.

Appendix A, Historic Resources – This was added and includes cross references to the historic sites listed on Map 2.

Maps – all maps were updated. Map 11 was added for the new Flood Resiliency section.

**See the attached spreadsheet, *Essex Junction Draft 2014 Comprehensive Plan – Goal and Element Review*, for how the Plan is consistent with the goals established in §4302.**

Essex Junction Draft 2014 Comprehensive Plan - Goal and Element Review

Appendix A, CCRPC Guidelines and Standards for Confirmation of the Municipal Planning Processes and Approval of Municipal Plans					
	Requirement	Guideline Questions	Yes/No	Location	Comments
	Consistent with General Goals in Sec. 4302(b)				
1	(1) To establish a coordinated, comprehensive planning process and policy framework to guide decisions by municipalities, regional planning commissions, and state agencies.	Are municipal decisions guided by a coordinated, comprehensive planning process and policy framework?	Yes		
2	(2) To encourage citizen participation at all levels of the planning process, and to assure that decisions shall be made at the most local level possible commensurate with their impact.	Is citizen participation encouraged at all levels of the planning process?	Yes		
3	(3) To consider the use of resources and the consequences of growth and development for the region and the state, as well as the community in which it takes place.	Is consideration being given to the use of resources and the consequences of growth and development?	Yes		
4	(4) To encourage and assist municipalities to work creatively together to implement and develop plans.	Is the municipality working creatively together with other municipalities to develop and implement plans?	Yes		
	Requirement	Guideline Questions	Yes/No	Location	Comments
	Consistent with Specific Goals in Sec. 4302(c)				
5	1. To plan development so as to maintain the historic settlement pattern of compact village and urban centers separated by rural countryside.	Do the land use patterns proposed in the Land Use chapter of the Plan support this goal? If so, are proposed densities higher within or adjacent to village/downtown/growth areas?	Yes	Priority Goals in Chapter II and the Land Use Chapter	
6	A. Intensive residential development should be encouraged primarily in areas related to community centers, and strip development along highways should be discouraged.	Does the plan ensure that intensive residential development is encouraged primarily in areas related to village/downtown/growth areas?	Yes	Land Use Chapter	
		Does the plan allow for auto-centered commercial uses outside of designated village/downtown/growth areas?	No	Land Use Chapter	
		If so, are these areas that already have historic strip-type development? Is the town making an effort to incorporate more multi modal land uses?	Yes	Land Use Chapter & Transportation Chapter	
		If so, is strip development limited to areas that are already developed as strip developments or is the community encouraging new strip development?	Yes	Land Use Chapter	Development limited to areas that are already developed.
		Is economic growth encouraged in locally designated growth areas, or employed to revitalize existing village and town urban centers, or both?	Yes	Business/Economic Chapter	



**Essex Junction Draft 2014 Comprehensive Plan - Goal and Element Review**

7	B. Economic growth should be encouraged in locally designated growth areas, or employed to revitalize existing village and urban centers, or both.	<i>Does the plan discuss where economic growth is to be located?</i>	Yes	Business/Economic Chapter	
		<i>Are the types of uses described of a scale and type that they will have little or no impact on the rural countryside? (such as home businesses)</i>	Yes	Business/Economic Chapter and Land Use chapter	
		<i>Does the plan discuss the need to locate most municipal or public buildings within the economic core of the community?</i>	Yes	Business/Economic, Utility/Facility and Land Use chapters	
		<i>Does the proposed transportation system encourage economic development in existing village centers/growth areas/downtowns?</i>	Yes	Business/Economic & Transportation Chapters	
8	C. Public investments, including the construction or expansion of infrastructure, should reinforce the general character and planned growth patterns of the area.	<i>Are public investments, including the construction or expansion of infrastructure, planned to reinforce the general character and planned growth patterns of the area?</i>	Yes	Business/Economic, Utility/Facility and Land Use chapters	
		<i>Does the plan effectively discuss future infrastructure needs?</i>	Yes	Business/Economic, Utility/Facility and Transportation Chapters	
		<i>Does the plan effectively discuss where future infrastructure will be needed?</i>	Yes	Business/Economic, Utility/Facility and Transportation Chapters	
		<i>If no planned infrastructure investments are planned, does the plan make this clear?</i>	Yes	Utility/Facility and Transportation Chapters	
		<i>Are the development patterns proposed in the land use chapter likely to lead to forced infrastructure improvements and increased services due to increases in density? (such as high density development on rural roads)</i>	No		
9	2. To provide a strong and diverse economy that provides satisfying and rewarding job opportunities and that maintains high environmental standards, and to expand economic opportunities in areas with high unemployment or low per capita incomes.	<i>Does the plan have an economic development chapter?</i>	Yes	Business/Economic	
		<i>Does the plan discuss its position in terms of regional employment? (i.e. is it an employment center, is it a bedroom community, etc.)</i>	Yes	Business/Economic	
		<i>Does the plan discuss unemployment or lack thereof?</i>	Yes	Business/Economic	
		<i>Does the plan discuss the balance of improving the economy and maintaining environmental standards?</i>	Yes	Business/Economic, Open Space - Natural Resources and Land Use chapters	
	3. To broaden access to educational and vocational training	<i>Does the plan discuss adult education?</i>	Yes	Education, Utility/Facility and	
		<i>Does the plan discuss where educational opportunities are and might be found?</i>	Yes	Education Chapters	

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10	opportunities sufficient to ensure the full realization of the abilities of all Vermonters.	<i>Is the town working with the local school district or the community to provide educational opportunities in schools and in other community settings?</i>	Yes	Education and Recreation Chapters	
11	4. To provide for safe, convenient, economic and energy efficient transportation systems that respect the integrity of the natural environment, including public transit options and paths for pedestrians and bicyclers.	<i>Is the proposed land use plan coordinated with the transportation network? Does it discuss the connection between land use and transportation efficiency? The following ought to be considered:</i>	Yes	Transportation chapter	
		<i>o Access management</i>	Yes	Transportation chapter	
		<i>o Discouraging new roads in outlying areas</i>	Yes	Transportation chapter	
		<i>Does the Transportation chapter discuss and encourage multi-modal transportation?</i>	Yes	Transportation chapter	
12	(A) Highways, air, rail and other means of transportation should be mutually supportive, balanced and integrated.	<i>Does the Transportation chapter discuss and encourage public transit?</i>	Yes	Transportation chapter	
		<i>Does the Plan discuss development of transportation connections between smaller towns and centers of employment?</i>	Yes	Transportation chapter	
		<i>In the development of the transportation system, does the plan use good resource management and minimize or reduce negative impacts to the natural environment?</i>	Yes	Transportation chapter	
		<i>If the community has rail or air transportation, is it discussed?</i>	Yes	Transportation chapter	
13	5. To identify, protect and preserve important natural and historic features of the Vermont landscape, including:	<i>Does the community consider other modes of transportation when discussing expansion of transportation infrastructure?</i>	Yes	Transportation chapter	
14	(A) significant natural and fragile areas;	<i>Does the plan identify significant natural and fragile areas? (Note to planners: does the plan include criteria for what makes an area "significant"? Towns should be encouraged to move in this direction so that the maps and future regulations are legally defensible).</i>	Yes	Open Space - Natural Resources	
		<i>If identified, does the plan clearly (not vaguely) discuss how they should be preserved?</i>	Yes	Open Space - Natural Resources	Calls for inventorying the resources, determining current level of protection and additional protection measures if necessary.
		<i>If identified, is land use proposed in such a fashion that these areas will be protected?</i>	Yes	Open Space - Natural Resources	

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		<i>Does the plan discuss alternative (non-regulatory) ways to protect these areas (other than through land use regulations)?</i>	Yes	Open Space - Natural Resources	
15	(B) outstanding water resources, including lakes, rivers, aquifers, shorelands and wetlands.	<i>Does the plan identify outstanding water resources, including lakes, rivers, aquifers, shorelands and wetlands? (Note to planners: does the plan include criteria for what makes a resource “outstanding”?</i> <i>Towns should be encouraged to move in this direction so that the maps and future regulations are legally defensible).</i>	Yes	Open Space - Natural Resources	The term "outstanding" is not used.
		<i>If identified, does the plan clearly (not vaguely) discuss how they should be preserved?</i>	Yes	Open Space - Natural Resources	
		<i>If identified, is land use proposed in such a fashion that these areas will be protected?</i>	Yes	Open Space - Natural Resources	
		<i>Does the plan discuss alternative (non-regulatory) ways to protect these areas (other than through land use regulations)?</i>	Yes	Open Space - Natural Resources	
16	(C) significant scenic roads, waterways and views;	<i>Does the plan identify scenic roads, waterways and views? (Note to planners: does the plan include criteria for what makes a scenic resource “significant”?</i> <i>Towns should be encouraged to move in this direction so that the maps and future regulations are legally defensible).</i>	Yes	Open Space - Natural Resources	
		<i>If identified, does the plan clearly (not vaguely) discuss how they should be preserved?</i>	Yes	Open Space - Natural Resources	Could be stronger
		<i>If identified, is land use proposed in such a fashion that these areas will be protected?</i>	Yes	Open Space - Natural Resources	Could be stronger
		<i>Does the plan discuss alternative (non-regulatory) ways to protect these areas (other than through land use regulations)?</i>	Yes	Open Space - Natural Resources	
17	(D) important historic structures sites, or districts, archaeological sites and archeologically sensitive areas.	<i>Does the plan identify historic structures, sites, or districts, archaeological sites and archaeologically sensitive areas? (Note to planners: does the plan include criteria for what makes a site “important”?</i> <i>Towns should be encouraged to move in this direction so that the maps and future regulations are legally defensible)</i>	Yes	Chapter III	The plan calls for further analysis and prioritization.
		<i>If identified, does the plan clearly (not vaguely) discuss how they should be preserved?</i>	Yes	Chapter III & Land Use Chapter	

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		<i>If identified, is land use proposed in such a fashion that these areas will be protected?</i>	Yes	Chapter III & Land Use Chapter	
		<i>Does the plan discuss alternative (non-regulatory) ways to protect these areas (other than through land use regulations)?</i>	Yes	Chapter III & Land Use Chapter	
<b>18</b>	<b>6. To maintain and improve the quality of air, water, wildlife and land resources.</b>				
<b>19</b>	(A) Vermont's air, water, wildlife, mineral and land resources should be planned for use and development according to the principles set forth in 10 V.S.A 6086(a).	<i>Is there a complete inventory/map of existing water resources, wildlife habitat, mineral resources and other land resources?</i>	Yes	Open Space - Natural Resources, Map 1	Calls for inventorying the resources, determining current level of protection and additional protection measures if necessary.
		<i>Does the plan discuss air quality? If so, does it describe measures to maintain and improve its quality?</i>	Yes	Open Space - Natural Resources, Energy and Transportation	
		<i>Does the plan discuss water quality? If so, does it describe measures to maintain and improve its quality? Recommendation: Include watersheds - could be a good way to present/organize this information.</i>	Yes	Open Space - Natural Resources, and Utility/Facility chapters	
		<i>Does the plan discuss wildlife resources? If so, does the plan describe measures to maintain and improve its quality?</i>	Yes	Open Space - Natural Resources	Calls for inventorying the resources, determining current level of protection and additional protection measures if necessary.
		<i>Does the plan discuss floodplain protection? If so, does the plan describe measures to maintain and improve its quality? Recommendation: Also include Fluvial Erosion Hazard maps and information.</i>	Yes	Open Space - Natural Resources, Map & 11	
		<i>Does the proposed land use pattern maintain or improve the quality of the resources listed above? Recommendation: Include reference to the All Hazards Mitigation Plan &amp; Emergency Operation Plans. Do these plans call for any changes that should be addressed in the Town Plan?</i>	Yes	Open Space - Natural Resources & Land Use Chapters	
			Yes	Open Space - Natural Resources	
		<i>Does the town recognize the connection between energy, transportation and land use?</i>	Yes	Energy & Transportation Chapters	
		<i>Does the energy chapter of the plan discuss energy efficiency and renewable energy? Recommendation: Reference the VT State Residential Building Energy Code &amp; the Commercial Building Energy Standards.</i>	Yes	Energy Chapter	

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20	7. To encourage the efficient use of energy and the development of renewable energy resources.	Does the plan contain policies and recommendations that encourage energy efficiency?	Yes	Energy Chapter	
		Does the plan contain policies and recommendations that encourage the development of renewable energy resources?	Yes	Energy Chapter	
		Does the pattern of land use proposed in the community appear to encourage the efficient use of energy either through the proposed location of development in relation to community services, or in terms of lot layout and design?	Yes	Energy & Land Use Chapter	
21	8. To maintain and enhance recreational opportunities for Vermont residents and visitors.	Does the plan discuss recreation and identify important recreational areas?	Yes	Open Space - Recreation	
		Does the land use plan encourage development that protects or harms access to or the availability of recreational activities?	Yes	Open Space - Recreation and Land Use Chapter	
22	(A) Growth should not significantly diminish the value and availability of outdoor recreational activities.			Open Space - Recreation and Land Use Chapter	
23	(B) Public access to noncommercial outdoor recreational opportunities, such as lakes and hiking trails, should be identified, provided, and protected wherever appropriate.			Open Space - Recreation and Land Use Chapter	The Bike/Walk Advisory Committee is in the process of developing a map to identify additional opportunities.
24	9. To encourage and strengthen agricultural and forest industries.	Does the plan discuss agriculture and forestry?	Yes	Agriculture & Community Forestry	
25	(A) Strategies to protect long-term viability of agricultural and forest lands should be encouraged and should include maintaining low overall density.	Does the plan discuss the protection of agriculture and silviculture? If not, does it legitimately discuss why it does or cannot?	Yes	Agriculture & Community Forestry	
		Do proposed densities of development appear to negatively impact the availability of workable land?	No	Agriculture & Community Forestry, and Land Use Chapters	The Whitcomb Farm is being preserved by the Vermont Land Trust and the rest of Essex Junction is largely built out already.
26	(B) The manufacture and marketing of value-added agricultural and forest products should be encouraged.	Does the plan discuss the economic value of agriculture and forestry?	Yes	Agriculture & Community Forestry and Business Chapters	
		If so, does it have viable policies and recommendations on how to encourage them?	Yes	Agriculture & Community Forestry	
27	(C) The use of locally grown food products should be encouraged.	Is the availability of locally produced food encouraged in the plan?	Yes	Agriculture & Community Forestry	
28	(D) Sound forest and agricultural management practices should be encouraged.	Does the plan discuss methods of agriculture/silviculture and their potential impact on the environment?	Yes	Utility/Facility and Open Space - Natural Resources chapters	This could be stronger - though it is there between floodplain protection and stormwater management efforts.

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29	(E) Public investment should be planned so as to minimize development pressure on agriculture and forest land	<i>Does the plan direct public investments such as roads and sewer systems and other infrastructure away from agricultural and forest land?</i>	Yes	Agriculture & Community Forestry	
30	<b>10. To provide for the wise and efficient use of Vermont's natural resources and to facilitate the appropriate extraction of earth resources and the proper restoration and preservation of the aesthetic qualities of the area.</b>	<i>Does the plan adequately discuss the extraction of earth resources?</i>	No	Open Space - Natural Resources chapters	The plan indicates that there are none of these resources in the Junction.
31	<b>11. To ensure the availability of safe and affordable housing for all Vermonters.</b>	<i>Does the plan inventory the types and costs of housing in the community?</i>	Yes	Housing Chapter	
		<i>Do the proposed land use patterns or public investments in the plan support the resident's ability to have safe and affordable housing?</i>	Yes	Housing Chapter & Land Use Chapter	
		<i>Does the plan adequately discuss housing and housing density throughout the community?</i>	Yes	Housing Chapter & Land Use Chapter	
32	(A) Housing should be encouraged to meet the needs of a diversity of social and income groups in each Vermont community, particularly for those citizens of low and moderate income.	<i>Does the plan have a housing section that encourages low income housing and housing for the elderly?</i>	Yes	Housing Chapter	Though VHFA encouraged less emphasis on elderly specific housing.
33	(B) New and rehabilitated housing should be safe, sanitary, located conveniently to employment and commercial centers, and coordinated with the provision of necessary public facilities and utilities.		Yes	Housing Chapter	
34	(C) Sites for multi-family and manufactured housing should be readily available in locations similar to those generally used for single-family conventional dwellings.		Yes	Housing Chapter	
35	(D) Accessory apartments within or attached to single family residences which provide affordable housing in close proximity to cost-effective care and supervision for relatives or disabled or elderly persons should be allowed.	<i>Does the plan discuss accessory apartments?</i>	Yes	Housing Chapter	
		<i>Does the plan discuss the availability of health care and elderly services?</i>	Yes	Housing Chapter & Utility/Facility	Though not healthcare.
36	<b>12. To plan for, finance and provide an efficient system of public facilities and services to meet future needs.</b>	<i>Does the plan discuss future public facility investments, or at least acknowledge that none are needed?</i>	Yes	Utility/Facility, Transportation Chapters	
		<i>If so, does the plan discuss how these projects will be financed and how they will meet the needs of the public?</i>	Yes	Utility/Facility, Transportation and Implementation Chapters	
		<i>Does the plan discuss how it provides services to the community and whether or not they are meeting the community's needs?</i>	Yes	Utility/Facility, Transportation Chapters	

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		<i>Does the town have a Capital Improvement Plan and Budget outlining timing and funding for necessary public investments to ensure efficiency and coordination in their provision?</i>	Yes	Utility/Facility, Transportation Chapters	
37	(A) Public facilities and services should include fire and police protection, emergency medical services, schools, water supply and sewage and solid waste disposal.	<i>Are fire, police, emergency medical services, schools, water supply, sewage and solid waste disposal discussed adequately in the plan? Recommendation: Identify how stormwater is being managed in the municipality as well, use of low impact development practices, etc.</i>	Yes	Utility/Facility Chapter	
38	(B) The rate of growth should not exceed the ability of the community and the area to provide facilities and services.	<i>Does the plan ensure that high density development occurs only where urban public facilities and services exist or can be reasonably made available?</i>	Yes	Land Use and Implementation Chapters	
		<i>Does the plan discuss growth in relation to the provision of services and facilities adequately?</i>	Yes	Land Use and Implementation Chapters	
		<i>Does the plan speak clearly about how growth might impact these services and facilities?</i>	Yes	Land Use and Implementation Chapters	
		<i>Does the plan discuss how they will control growth in a manner that allows them to phase upgrades in facilities and the expansion of services at a rate that is sustainable?</i>	Yes	Land Use and Implementation Chapters	
39	<b>13. To ensure the availability of safe and affordable child care and to integrate child care issues into the planning process, including child care financing, infrastructure, business assistance for child care providers, and child care work force development.</b>	<i>Within the childcare element of the plan, is there a discussion about the availability of childcare related to the needs of the community? Note: Child Care Resource can be a good source of data.</i>	Yes	Education and Child Care Chapter	
		<i>Does the plan discuss how the town can make childcare more available?</i>	Yes	Education and Child Care Chapter	
40	<b>14. To encourage flood resilient communities. Note: this will take effect on July 1, 2014.</b>				
41	(A) New development in identified flood hazard, fluvial erosion, and river corridor protection areas should be avoided. If new development is to be built in such areas, it should not exacerbate flooding and fluvial erosion.	<i>Is new development discouraged in these areas?</i>	Yes	Open Space - Natural Resources Chapter	
42	(B) The protection and restoration of floodplains and upland forested areas that attenuate and moderate flooding and fluvial erosion should be encouraged.	<i>Is protection and restoration of these areas encouraged?</i>	Yes	Open Space - Natural Resources Chapter	
43	(C) Flood emergency preparedness and response planning should be encouraged.	<i>Is flood emergency preparedness and response planning encouraged?</i>	Yes	Open Space - Natural Resources Chapter	

**Essex Junction Draft 2014 Comprehensive Plan - Goal and Element Review**

	Requirement	Guideline Questions	Yes/No	Location	Comments
	<a href="#">Contains 11 Required Elements in Sec. 4382(a)</a>				
44	1. A statement of objectives, policies and programs of the municipality, to guide the future growth and development of land, public services and facilities, and to protect the environment.		Yes	Chapter II and Land Use Chapter	
45	2. A LAND USE PLAN, consisting of a MAP and statement present and prospective land use, indicating those areas proposed for forests, recreation, agriculture, (using 6 VSA Section 8), residence, commerce, industry, public and semi-public uses and open spaces reserved for flood plain, wetland protection, or other conservation purposes; and setting forth the present and prospective location, amount, intensity and character of such land uses and the appropriate timing or sequence of land development activities in relation to the provision of necessary community facilities and services.	<i>Does the plan include future and prospective land uses - both descriptions and locations on a map?</i>	Yes	Land Use Chapter and Maps 9 & 10	
		<i>Does the plan collectively indicate appropriate timing or sequence of land development in relation to facilities and services?</i>	Yes	Utility/Facility, Transportation, Land Use and Implementation Chapters	
46	3. A TRANSPORTATION PLAN, consisting of a MAP and a statement of present and prospective transportation and circulation facilities showing existing and proposed highways and streets by type and character of improvement, and where pertinent, parking facilities, transit routes, terminals, bicycle paths and trails, scenic roads, airports, railroads and port facilities, and other similar facilities or uses, with indications of priority of need.	<i>Does the plan include an inventory of existing roads and other transportation facilities?</i>	Yes	Transportation Chapter and Maps 4 & 6	
		<i>If relevant, does the plan indicate the transportation problems in the community and the relative seriousness of those problems?</i>	Yes	Transportation Chapter	
		<i>If relevant, does the plan include possible solutions that the community can work toward, as specified by this element?</i>	Yes	Transportation Chapter	
		<i>Is the plan consistent with the currently adopted Metropolitan Transportation Plan?</i>	Yes		
47	4. A UTILITY AND FACILITY PLAN, consisting of a MAP and statement of present and prospective community facilities and public utilities showing existing and proposed educational, recreational and other public sites, buildings and facilities, including hospitals, libraries, power generating plants and transmission lines, water supply, sewage disposal, refuse disposal, storm drainage and other similar facilities and activities, and recommendations to meet future needs for community facilities and services, with indications of priority of need, costs and methods of financing.	<i>Does the plan indicate the location, character, and capacity of existing community facilities and public utilities as referenced in this element?</i>	Yes	Utility/Facility and Open Space - Recreation chapters, and Maps 3, 5, 7 & 8	
		<i>Does the plan describe how changes in population will affect the need for services and facilities, indicating the priority of need?</i>	Yes	Utility/Facility, Transportation, Open Space - Recreation, Land Use and Implementation Chapters	
		<i>Does the plan indicate the recommended prospective facilities to meet future needs, indicating their estimated costs and methods of financing?</i>	Yes	Utility/Facility, Transportation, Open Space - Recreation, Land Use and Implementation Chapters	



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48	5. A statement of policies on the <b>PRESERVATION</b> of rare and irreplaceable natural areas, scenic and historic <b>FEATURES AND RESOURCES</b> .	<i>Does the plan include one or more policy statements that document the community's commitment to take steps to ensure the preservation of the rare and irreplaceable features and resources in keeping with the goals of 24 VSA 4302? Recommendation: Include features from surrounding municipalities on your natural resource maps (and other maps if it makes sense to)?</i>	Yes	Open Space - Natural Resources Chapter	
49	6. An <b>EDUCATION FACILITIES PLAN</b> consisting of a <b>MAP</b> and a statement of present and projected uses and the local public school system.	<i>Does the plan include statements and maps that collectively indicate the location, character and capacity of existing and prospective educational facilities?</i>	Yes	Education Chapter and Map 5	
		<i>Does the plan describe the ability of the local public school systems to meet the needs of children and adults, with specific reference to attendance trends, school facilities, and future needs?</i>	Yes	Education Chapter and Map 5	
		<i>While not required, it is encouraged that this element be written in conjunction with local school boards.</i>	Yes	Education Chapter	The school was involved in the writing of this chapter and came to talk to the Planning Commission about it.
50	7. A recommended program for the <b>IMPLEMENTATION</b> of the objectives of the development plan.	<i>Does the plan include statements that identify programs the municipality expects to use to address the objectives in the plan?</i>	Yes	Implementation Chapter	
		<i>When known funding, timeframe and responsible party can be helpful within the implementation element.</i>	Yes	Implementation Chapter	
51	8. A statement indicating how the plan relates to development trends and plans for <b>ADJACENT MUNICIPALITIES</b> , areas and the <b>REGION</b> developed under Title 24.	<i>Does the plan include statements that collectively indicate that the municipality examined and considered development trends for the municipality, adjacent municipalities and the region?</i>	Yes	Chapter I	
52	9. An <b>ENERGY PLAN</b> , including an analysis of energy resources, needs, scarcities, costs and problems within the municipality, a statement of policy on the conservation of energy, including programs, such as thermal integrity standards for buildings, to implement that policy, a statement of policy on the development of renewable energy resources, a statement of	<i>Does the plan include an analysis of energy resources, needs, scarcities, costs and problems within the municipality?</i>	Yes	Energy Chapter	
		<i>Does the plan include an energy conservation policy and programs to implement that policy?</i>	Yes	Energy Chapter	
		<i>Does the plan include a policy on the development and use of renewable energy resources?</i>	Yes	Energy Chapter	

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	<b>policy on patterns and densities of land use likely to result in conservation of energy</b>	<i>Does the plan include a policy on how future development in the municipality can support energy conservation — both in terms of individual buildings and general land use patterns?</i>	Yes	Energy Chapter	
53	<b>10. A HOUSING ELEMENT that shall include a recommended program for addressing low and moderate income persons' housing needs as identified by the regional planning commission pursuant to Section 4348a (a) (9) of Title 24.</b>	<i>Does the plan include an inventory of the existing housing stock that identifies the number of housing units in each major type of housing in the community based on recent data?</i>	Yes	Housing Chapter	
		<i>Does the plan compare the existing housing stock with recent population trends (such as changes in total population, households, and household size?</i>	Yes	Housing Chapter	
		<i>Does the plan assess the ability of municipal residents to reasonably afford safe, well-constructed, and efficient housing?</i>	Yes	Housing Chapter	
		<i>Does the plan identify progress and/or implementation steps toward Regional Plan strategies and actions regarding housing? (NOTE: this will not come into effect until the new Regional Plan (aka ECOS Plan) is adopted)</i>	Yes	Housing Chapter	
54	<b>11. An ECONOMIC DEVELOPMENT ELEMENT that describes present economic conditions and the location, type and scale of desired economic development, and identifies policies, projects, and programs necessary to foster economic growth.</b>	<i>Does the plan identify present economic conditions and the location, type and scale of desired economic development, and identifies policies, projects, and programs necessary to foster economic growth?</i>	Yes	Business/Economic Development Chapter	
55	<b>(12)(A) A flood resilience plan that: <span style="color: red;">Note: this will take effect on July 1, 2014.</span></b>				
56	(i) identifies flood hazard and fluvial erosion hazard areas, based on river corridor maps provided by the Secretary of Natural Resources pursuant to 10 V.S.A. § 1428(a) or maps recommended by the Secretary, and designates those areas to be protected, including floodplains, river corridors, land adjacent to streams, wetlands, and upland forests, to reduce the risk of flood damage to infrastructure and improved property; and	<i>Does the plan identify flood hazard and fluvial erosion hazard areas, and designate these areas to be protected (including floodplains, river corridors, land adjacent to streams, wetlands, and upland forests) for the purposes of reducing the risk of flood damage to infrastructure and improved property?</i>	Yes	Open Space - Natural Resource Chapter and Maps 1 and 11	

**Essex Junction Draft 2014 Comprehensive Plan - Goal and Element Review**

57	(ii) recommends policies and strategies to protect the areas identified and designated under subdivision (12)(A)(i) of this subsection and to mitigate risks to public safety, critical infrastructure, historic structures, and municipal investments.	<i>Does the plan recommend policies to protect these areas and mitigate risks to public safety, critical infrastructure, historic structures and municipal investments?</i>	Yes	Open Space - Natural Resource Chapter and Maps 1 and 11	
58	(B) A flood resilience plan may reference an existing local hazard mitigation plan approved under 44 C.F.R. § 201.6.	<i>Does the municipality have an existing local hazard mitigation plan approved under 44 C.F.R. § 201.6, and if so is it referenced in the Plan?</i>	Yes	Open Space - Natural Resource Chapter and Maps 1 and 11	
	<b>Requirement</b>	<b>Guideline Questions</b>	<b>Yes/No</b>	<b>Location</b>	<b>Comments</b>
	Compatible with the Current Regional Plan, Chap 117, Sec 4350(b)(1)(B)				
59	Planning areas		Yes	Map 10 and Land Use Chapter	
60	Goals and strategies		Yes	Implementation Schedule	
	<b>Requirement</b>	<b>Guideline Questions</b>	<b>Yes/No</b>	<b>Location</b>	<b>Comments</b>
	Compatible with Plans in other municipalities, Chap 117, Sec 4350(b)(1)(C)				
	<b>WILLISTON</b>				
61	Land use		Yes	Map 10	Both municipalities have similar land use designations on both sides of the Winooski River - mostly residential along Route 2A and Floodplain & Industrial to the East.
62	Goals and objectives		Yes		
	<b>SOUTH BURLINGTON</b>				
61	Land use		Yes	Map 10	Both municipalities have similar land use designations on both sides of the Winooski River - Floodplain & Conservation.
62	Goals and objectives		Yes		
	<b>ESSEX TOWN</b>				

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61	Land use		Yes	Map 10	There are a variety of land use designations along the borders of the Junction and the Town. Both include mixed uses along Route 15; both include a variety of residential and open space between Route 2A and 15; the Junction is largely residential from Route 15 to Route 117 while the Town includes mixed use PUD, residential and a small section of mixed use land uses; and finally both the Junction and the Town have industrial south of Route 117. While there are some differences, it appears to be compatible.
62	Goals and objectives		Yes		
	Requirement	Guideline Questions	Yes/No	Location	Comments
	Confirm planning process, Chap 117, Sec 4350(a)				
63	1. Continuing planning process resulting in approved plan		Yes		PC public hearing will take place on June 26th.
64	2. Maintaining efforts to provide local funds for municipal & regional planning				



# **COMPREHENSIVE PLAN**

**2014**

Public Hearing Draft

Re-adopted ???

## Village of Essex Junction Comprehensive Plan – 2014

### ***Board of Trustees:***

George A. Tyler, Village President  
Daniel S. Kerin, Vice President  
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Lori A. Houghton  
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Diane Clemens, Chair  
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Nick Meyer  
Aaron Martin  
Amber Thibeault  
John Alden  
David Nistico

### ***Staff:***

Patrick Scheidel, Manager  
Robin Pierce, Community Development Director/Zoning Administrator  
Susan McNamara-Hill, Co-Assistant Manager/Clerk/Treasurer/Tax Collector  
Lauren Morrisseau, Co-Assistant Manager/Finance/MIS Director  
Patricia Benoit, Administrative Assistant to the Village Manager  
Rick Jones, Public Works Superintendent  
James Jutras, Water Quality Superintendent  
Penny Pillsbury, Library Director  
Chris Gaboriault, Fire Chief  
Terry Hass, Assistant Zoning Administrator  
Darby Mayville, Economic Development/Community Relations Assistant

Adopted the ?? day of ??.

## **Contributors**

### *Village of Essex Junction*

Robin Pierce, Community Development Director/Zoning Administrator  
Lauren Morrisseau, Co-Assistant Manager/Finance/MIS Director  
Rick Jones, Public Works Superintendent  
James Jutras, Water Quality Superintendent  
Penny Pillsbury, Library Director  
Chris Gaboriault, Fire Chief  
Terry Hass, Assistant Zoning Administrator  
Darby Mayville, Economic Development/Community Relations Assistant  
Brad Luck, Director, Essex Junction Recreation and Parks

Rick Hamlin, Bike/Walk Advisory Committee

### *Town of Essex*

K. Dana Hanley, Community Development Director  
Gregory Duggan, Planner  
Brad Larose, Police Chief

Greg Morgan, Chair, Essex Economic Development Committee  
J.C. McCann, Essex Energy Committee

### *Chittenden County Regional Planning Commission*

Regina Mahony, Senior Planner  
Pam Brangan, Senior Planner  
Melanie Needle, Senior Planner  
Peter Keating, Senior Transportation Planner  
Dan Albrecht, Senior Planner

### *Other Organizations/Boards*

Grant Geisler, Exec. Director of Operations/CFO, Chittenden Central Supervisory Union  
Maura Collins, Vermont Finance Housing Agency  
Whitcomb Family  
Meredith Birkett, Chittenden County Transportation Authority  
Liz Subin & Susan McCormack, Heart & Soul of Essex

## **Funding**

This Comprehensive Plan update was funded by a Municipal Planning Grant, awarded by the Department of Economic, Housing and Community Development.

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## **Chapter I**

### **General Planning Background**

#### **1. What is a Comprehensive Plan?**

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

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

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

#### **2. Why Develop a Comprehensive Plan?**

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

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

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

#### **3. The Planning Process**

The Planning Process typically involves six distinct and identifiable steps:

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

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

#### **4. Statutory Authority**

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

#### **5. Consistency with Adjoining Town and Regional Plans**

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

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

#### **6. Plan Format**

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

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

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

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

## Chapter II

### Community Vision and Strategies for Essex Junction: 2014-2019

#### 1. Community Values, Vision and General Goals

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

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

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

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

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

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

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

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



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

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

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

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

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

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

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

## 2. Accomplished Objectives

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

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

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

### **The Planning Challenge: Toward 2019 and Beyond**

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

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

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

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

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

**Goal 2: Promote thoughtful growth.**

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

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

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

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

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

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



## **Chapter III**

### **History with an Eye Toward the Future**

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

#### **1. Historic Development Patterns**

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

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

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

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

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

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

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

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

## 1.1 **Historical Resources**

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

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

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

## 2. **Recent Trends**

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

## 2.1 Population Growth & Demographics

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

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

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

**Table 1**  
**Population Growth 1900 – 2010**

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

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

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

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

**Table 2**  
**2010 Percentage of Population by Age**

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

**Table 3**  
**2010 Percentage of Population by Race**

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

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

## 2.2 Population Projections

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

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

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

**Table 4**  
**Population Projections 2010 - 2030**

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

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

## **Chapter IV**

### **Comprehensive Plan Elements**

#### **Introduction**

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

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

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

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

# 1. Energy

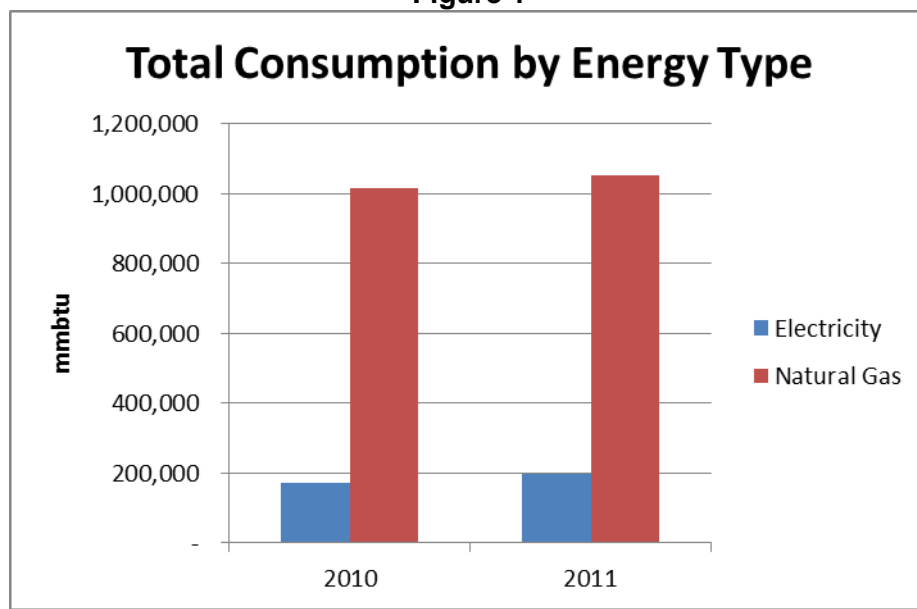
Energy is a core component of community success. The Village of Essex Junction is a jurisdiction where energy production and use are of vital concern which impact overall quality of life in the community. Exterior lighting control is also critical from an energy, safety and biological perspective. The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

## 1.1 Energy Profile

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

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

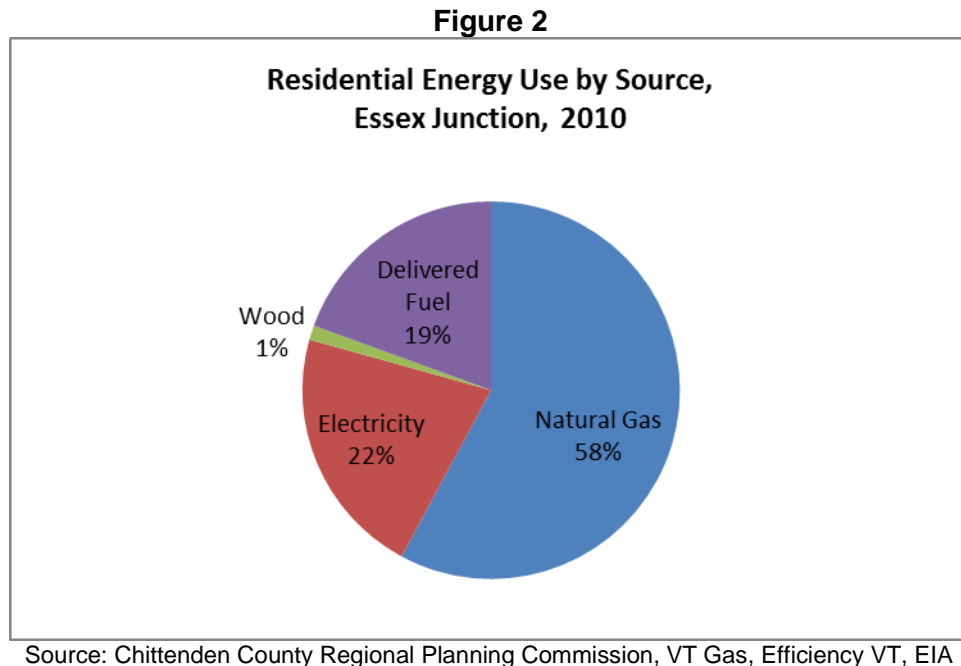
**Figure 1**



Source: VT Gas, Efficiency VT

**Residential:**

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



Strategies for how to lower residential energy use include:

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

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

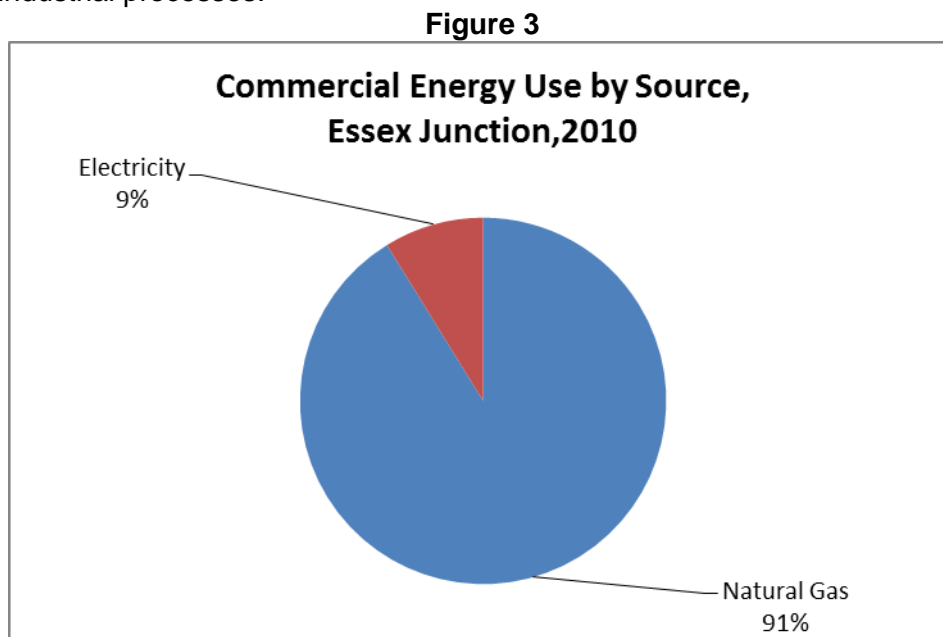
- ✓ Meet or exceed state energy efficiency building standards for new construction and major renovations

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

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

### **Commercial/Industrial:**

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



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



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

### **Municipal Lighting & Energy Use:**

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

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

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

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

### **Land Use & Transportation:**

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

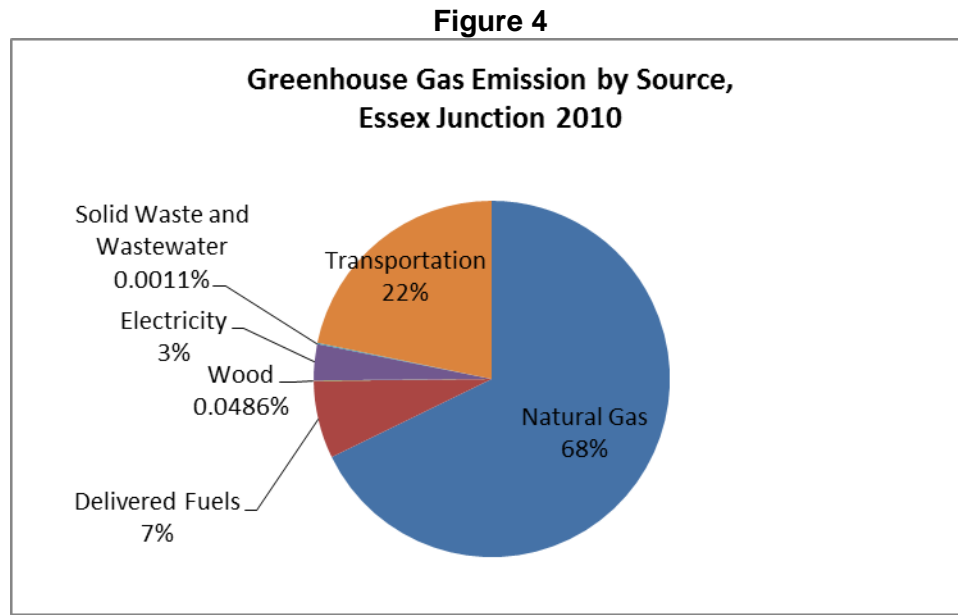
In recent years communities are realizing the important connection between transportation and land use, which impacts energy use. Certain land use patterns can reduce dependency on the automobile by providing greater transportation options through compact mixed use developments where people can choose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

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

## 1.2 Greenhouse Gas Emissions

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

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



Source: Chittenden County Regional Planning Commission

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

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

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

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

✓ Promote Energy Efficient Programs and Emissions Reductions Campaigns

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

✓ Become an Electric Vehicle (EV) Ready Town

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

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

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

✓ Bring car-share programs to Essex Junction

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

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

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

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

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

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

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

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

#### **1.4 Low Income Energy Assistance**

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

#### **1.5 Underground Storage Tanks**

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

#### **1.6 Energy Goals**

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

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

## **2. Agriculture & Community Forestry**

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

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

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

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

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

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

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

*Helpful Resource:*

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

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

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

## **2.1 Agriculture & Community Forestry Goals**

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

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

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

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

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

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

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

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

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

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

Objective 3.5: Encourage the practice of edible landscaping.

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

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

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

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

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



### **3. Business/Economic Development**

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

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

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

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

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

### 3.1 Employment

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

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

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

<b>Table 5</b> <b>Businesses by Category in Essex Junction as</b> <b>Reported in the Essex Junction Business List</b>	
<b>Business Classification</b>	<b>Estimated Total Businesses</b>
Auto Repair	12
Bank	6
Construction Services	4
Fitness	4
Government	4
Industrial	6
Medical	26
Misc. Services	15
Non-Profit	10
Personal Services	19
Professional Services	31
Restaurant	29
Retail Store	52
<b>Total</b>	<b>218</b>
Source: Essex Junction Business List, dated 2/7/2014 – information gathered from Zoning Permits and therefore not a complete inventory of the existing businesses.	

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

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

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

### **3.2 Income Characteristics & Labor Force**

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

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

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

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

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

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

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

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

### **3.3 Village Center and Park Street Areas**

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

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

### **3.4 Pearl Street Business**

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

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

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

### **3.5 Champlain Valley Exposition Fairgrounds**

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

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

### **3.6 IBM**

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

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

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

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

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

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

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

### 3.8 **Business/Economic Development Goals**

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

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

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

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

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

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

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

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

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

## **4. Open Space – Recreation & Natural Resources**

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

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

### **4.1 Local Parks, Schools and Recreational Facilities**

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

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

Essex Junction's existing parks and open space include the following (See Map 3):

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



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

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

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

The only pieces of the recreation master plan related to facilities that are not yet implemented include building two sand volleyball courts at Maple Street Park, and further investigating the need for more indoor recreation space, including an indoor swimming pool. Sand volleyball courts are currently in the FY17 capital plan, though Maple Street Park has some space constraints as much of the property is already used. The Recreation Advisory Council is beginning discussions this year about future space needs.

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

## **4.2 Other Urban Amenities**

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

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

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

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

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

Paths that are currently being considered include:

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

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

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

### **4.3 Natural Environmental Resources**

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

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

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

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

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

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

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

### How Fluvial Erosion Occurs:

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

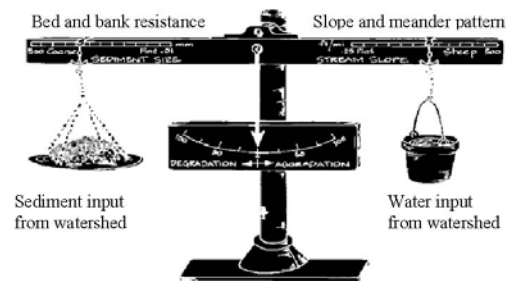


Figure 1. The channel balance (Lane, 1955)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

#### **4.4 Other Natural Resource Considerations**

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

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

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

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

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

#### **4.5 Flood Resiliency**

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

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

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

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

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

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

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

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



#### 4.6 Open Space/Recreation/Environmental Goals

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

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

**Goal 2: Create urban open spaces.**

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

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

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

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

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

- necessary define them and establish standards for protection of them in the Land Development Code.
- Objective 4.6: Coordinate with the Town, Region and State on efforts to establish air quality goals/objectives and encourage methods of air quality improvement.
- Objective 4.7: Analyze the thrust faults to determine how properties in these areas should be managed for protection of aquifer recharge and minimizing undue property damage.
- Goal 5: Reduce greenhouse gas emissions contributing to climate change and adapt to become more resilient to a changing climate.**
- Objective 5.1: Engage in climate mitigation strategies to reduce the region's contribution of greenhouse gases. For example, continue to implement policies that promote investment in transportation options that reduce emissions – such as sidewalks and bike lanes; and implement programs to increase urban forest canopy.
- Objective 5.2: Engage in climate adaptation strategies to help individuals, businesses and communities be able to withstand and bounce back from – or even take advantage of – the impacts of climate change. For example, prepare and maintain plans for emergency operations, emergency response, business continuity and business recovery.
- Goal 6: Avoid new development in floodplains, fluvial erosion hazard areas, and land adjacent to streams, wetlands, and upland forests; eliminate the exacerbation of flooding and fluvial erosion; encourage protection and restoration of these areas; and plan for flood emergency preparedness and response.**
- Objective 6.1: Continue to enforce the flood plain regulations to protect flood prone areas and minimize fluvial erosion.
- Objective 6.2: Monitor the fluvial erosion hazard area south of Cascade Street that is not currently regulated by the flood plain regulations to determine if additional protections are needed.
- Objective 6.3: Monitor all of the fluvial erosion areas to see how best to accommodate fluvial equilibrium and natural erosion processes while minimizing undue damage to property.
- Objective 6.4: Plan culvert replacements for any undersized culverts in conjunction with roadway improvements.
- Objective 6.5: Review the Hazard Mitigation Plan on a regular basis and follow-up on action steps.
- Objective 6.6: Continue annual certification of the Emergency Operations Plan.

## 5. Education and Child Care

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

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

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

**Table 8**  
**School Property Inventory**

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

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

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

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

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

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

## 5.1 Childcare

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

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

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

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

## 5.2 Education Goals

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

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

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

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

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

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

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

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

## **6. Utilities/Facilities**

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

### **6.1 Water Distribution System**

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

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

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

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

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

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

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

## **6.2 Stormwater Drainage System**

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

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

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

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

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

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

## **6.3 Wastewater Collection System**

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



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

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

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

#### **6.4 Wastewater Treatment Capacity**

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

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

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

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

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

##### **6.4.1 Pump Stations**

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

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

#### **6.4.2 Sludge**

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

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

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

### **6.5 Solid Waste Disposal**

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

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

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

## **6.6     Utilities**

### **Communications**

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

### **Vermont Gas Systems**

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

### **Green Mountain Power**

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

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

### **Public Buildings/Offices**

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

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

## **6.7 Brownell Library**

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

### **1. *Education***

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

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

### **2. *Community Connections***

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

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

### **3. *Health and Recreation***

Support healthy minds and bodies and stimulate imagination.

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

### **4. *Local Economy***

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

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

## **6.8 Senior Center**

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

## **6.9 Fire Department**

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

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

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

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

## **6.10 Police**

The Town of Essex Police Department was formed in 1980 to serve both the Town of Essex and the Village of Essex Junction. The Department is overseen by the Police Chief who is appointed by the Town Manager. In 2013, the department had 26.2 full-time officers, five (5) part-time officers, four (4) full-time dispatchers, two (2) other full-time civilian employees, a part-time secretary and one (1) part-time dispatcher. The officer to population ratio in Essex is 1.3 officers per 1,000 residents. The national average is 2.1 officers per 1,000 residents. Neighboring communities of Burlington (2.1),

Colchester (1.6), South Burlington (2.1), Williston (1.9) and Winooski (2.2) presently average 2.0 officers per 1,000 residents.

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

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

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

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

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

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

## **6.11 Rescue**

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

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

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

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

## **6.12 Utilities/Facilities Goals**

**Goal 1: Provide a Village infrastructure system that adequately ensures the availability of potable water, discharges storm and ground water runoff and disposes of**

**sanitary wastes in a manner which ensures community health and is environmentally sound.**

- Objective 1.1: Maintain Public Works Specifications utilizing prudent and reasonable technology to ensure adequate infrastructure systems. Include adequate designs to allow for peak usage and control peak flows.
- Objective 1.2: Implement Asset management plans through capital projects that upgrade existing water, stormwater and sanitary sewer systems to insure long term rate stability.
- Objective 1.3: Utilize the available sewer capacity in a manner which will provide the most benefit to the Village of Essex Junction.
- Objective 1.4: Continue to provide improvements or extensions to existing infrastructure systems without undue financial burden to the Village.
- Objective 1.5: Maintain the existing infrastructure systems for maximum life and use.
- Objective 1.6: Ensure new developments have adequate services.
- Objective 1.7: Continue to identify existing areas where deficiencies in the systems occur and could potentially have a detrimental effect on safety, health, or the environment.
- Objective 1.8: Consider leasing on a more permanent basis basic sewer capacity in excess of potential development in the Village. (Trustee Decision)
- Objective 1.9: Actively participate in the Champlain Water District operations and planning process.
- Objective 1.10: Obtain voting membership in the Champlain Water District.
- Objective 1.11: Implement stormwater discharge standards to be included in the Land Development Code revisions.

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

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

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

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

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

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

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

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

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

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

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

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



## 7. Housing

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

### 7.1 Housing Supply

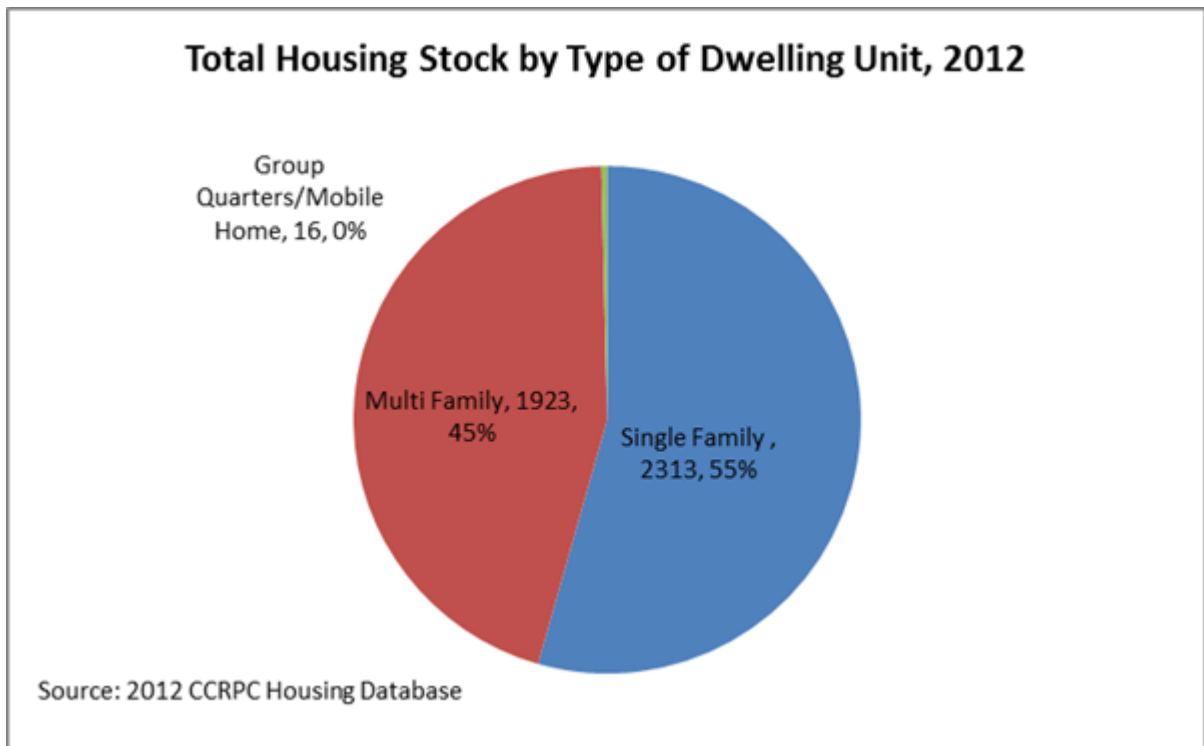
Table 10 provides a historical perspective on the housing supply in Essex Junction and comparisons to the County. While the housing unit data from the Census is not entirely accurate it is helpful to provide trend data.

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

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

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

**Figure 5**



## **7.2 Characteristics of Residents**

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

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

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

## **7.3 Building Activity**

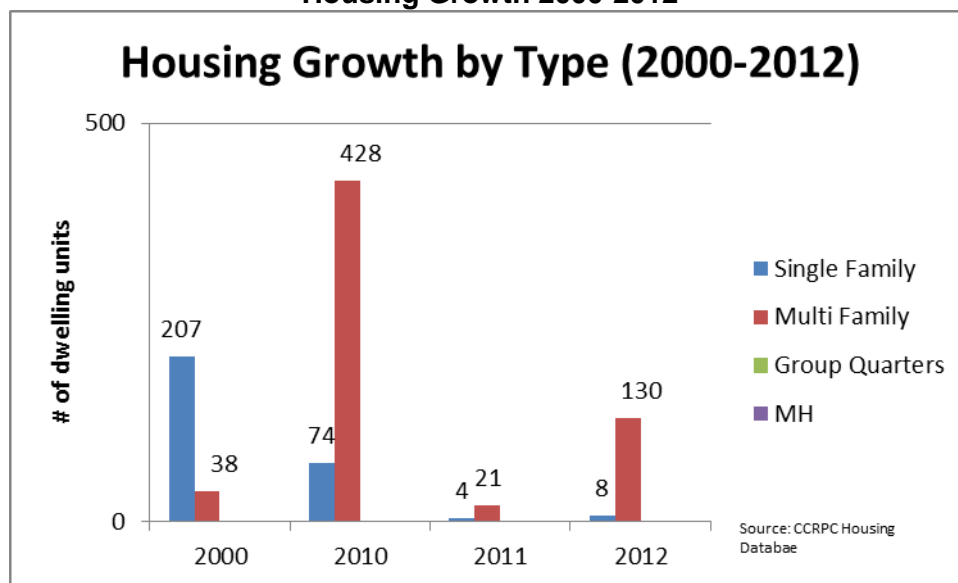
The Village has seen a decline in the development of single-family detached housing over the last twelve years which could be linked to a diminished land base, and since 2008, financing constraints brought on by the recession. The increase in higher density multi-family housing was made possible by zoning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

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

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

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

**Figure 6**  
**Housing Growth 2000-2012**



#### **7.4 Housing Cost and Affordability**

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

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

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

The median value of an owner-occupied housing unit in Essex Junction in 2007 to 2011 was \$260,000<sup>1</sup>. The median household income was \$64,013<sup>2</sup>. Assuming that households should not spend more than 30% of their gross income on housing costs and 5% cash is given as a down payment, a household would need to earn \$76,429 annually to afford a median value house in Essex Junction. Therefore, the median home price in Essex Junction is slightly out of reach for households earning the median income. A home that would be more affordable for the median income would be approximately \$217,000 assuming approximately \$18,000 cash for closing.

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

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

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

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

<sup>1</sup> VHFA's Analysis of Property Transfer Tax Data

<sup>2</sup> American Community Survey 2007-2011

<sup>3</sup> Vermont Housing Data, Fair Market Rents 2003-2013.

<sup>4</sup> US Census Bureau.

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

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

#### **Vermont Neighborhood Development Program:**

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

[http://accd.vermont.gov/strong\\_communities/opportunities/revitalization/vermont\\_neighborhoods](http://accd.vermont.gov/strong_communities/opportunities/revitalization/vermont_neighborhoods)

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

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

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

## 7.5 Other Housing Issues

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

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

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

## 7.6 Housing Goals

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

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

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

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

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

## 8. Transportation

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

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

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

### 8.1 Streets

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

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

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

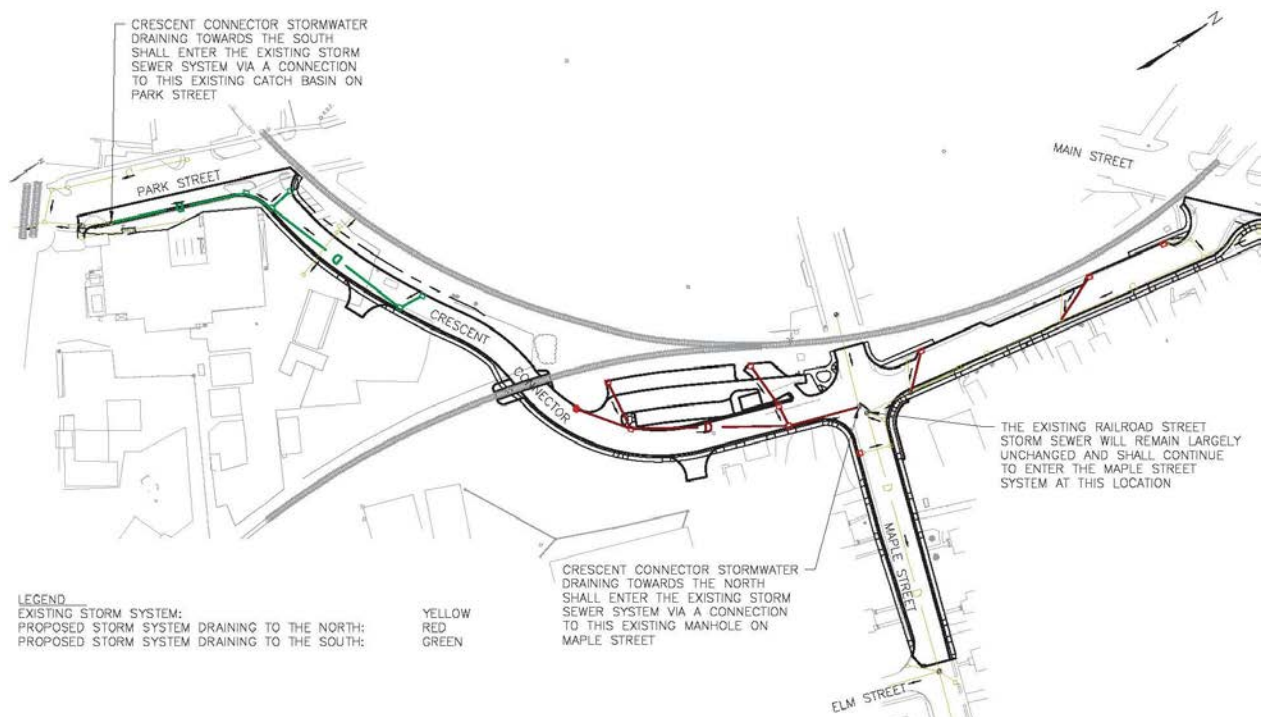
**Five Corners Roadway AADT**

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

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

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

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



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



## 8.2 Sidewalks/Bike Paths

The provision of sidewalks and bicycle lanes and shared use paths within the Village are important transportation goals. Essex Junction currently has 35.3 miles of sidewalk and 1.5 miles of shared use paths to maintain. Cost and the efficient expenditure of tax dollars on sidewalks was a major consideration in the preparation of the Sidewalk Plan and Policy in 2005 to address the existing and future sidewalk network. The Bike-Walk Advisory Committee is also in the process of working on a bike-walk master plan which will help prepare for future facilities.

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

**Table 12: Sidewalk Policy**

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

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

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

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

Due to the built-out nature of Essex Junction it is difficult to construct a completely new shared use path. Some combination of all three facilities, plus sidewalks, is necessary. On major arterial roads such as Pearl Street the high number of curb cuts makes a shared use path less desirable and does not adequately address the need for local access if the path is not immediately adjacent to the street. On-street bicycle facilities should be considered in these areas and supported at the regional level. In addition, new recreational opportunities will be made available to Village residents as a result. On

low density residential streets bicyclists use the road shoulder, or share the lane with vehicles, with minimal conflicts. The need for bicycle facilities is highest on major arterials where options are extremely limited for safe bicycle access.

### 8.3 Parking

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

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

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

### 8.4 Public Transportation

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

Table 13. AMTRAK Vermonter Ridership, FY2005 - 2012

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

Source: Amtrak Monthlies

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

Bus service is provided by the Chittenden County Transportation Authority (CCTA) on three routes. The Essex Junction route (#2) runs from approximately 6:00 am to 10:00 PM with 15 minute peak hour service to Burlington from Monday to Friday, and additional service on Saturday. This is CCTA's highest ridership route with 1,872 average riders/weekday. The Essex Center route (#4) runs Monday through Friday with 30-minute headways. This route has 94 average riders/weekday. The Williston-Essex route (#1E) runs Monday through Friday with 30-minute peak hour headways. This route has 105 average riders/weekday. CCTA's Transit Development Plan calls for a number of improvements including:

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

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

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

## **8.5 Air Pollution/Energy Conservation**

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

## 8.6 Transportation Goals

### **Goal 1: Support the completion of the Circumferential Highway.**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

## 9. Land Use

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

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

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

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

### 9.1 Existing Land Use

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

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

lines and cover a very high percentage of their sites. Frequently, they share common walls with their neighbors. On the front facades their first floors contain glazed storefronts which add to the pedestrian sense of the area.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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



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

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

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

## 9.2 **Future Land Use**

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

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

This Plan Element encompasses three major sections:

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

### 9.3 Land Use Goals

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

- Objective 1.1: Consider redefining zoning district boundaries of the Village Center to address differences in land development patterns between the core commercial areas and the residential neighborhoods.
- Objective 1.2: Encourage the development of a variety of residential units in the Village Center and Pearl Street Districts.
- Objective 1.3: Study the purchase of key properties in and around the Village Center for public use.

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

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

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

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

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

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

- Objective 6.1: Consider overlay districts and development agreements, and enact design review as a means to achieve innovative development.
- Objective 6.2: Consider the inclusion of visuals within the Land Development Code to make the design standards clear for developers and residents. Engage the public in development of these visuals to gain consensus on design standards for the Village.
- Objective 6.3: Promote use of the Village Center Designation benefits.

**Goal 7: Coordinate development with adjoining communities.**

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

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

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

- Goal 10:**      **Design new street layouts to minimize both overall street length and the quantity of site grading required. When possible connect new streets through to existing streets to increase connectivity.**
- Goal 11:**      **Place a high priority in development review on pedestrian and vehicle access and safety.**
- Goal 12:**      **Protect and enhance sensitive and important areas.**
- Objective 12.1:      Consider design review criteria for main corridors upon approach to the Village Center (such as Pearl St. from CVE to 5 Corners).
- Objective 12.2:      Analyze and prioritize historic resources to determine which sites and structures should be preserved.
- Objective 12.3:      Consider zoning changes or historic district overlay to preserve existing residential structures of significant historic character along major arterials and in historic neighborhoods.

## 9.4 Land Use Categories

### 9.4.1 RESIDENTIAL 1

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

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

Range of Potential Uses:

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

Other Information:

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

### 9.4.2 RESIDENTIAL 2

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

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

Range of Potential Uses:

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

Other Information:

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

#### **9.4.3 PLANNED COMMERCIAL DEVELOPMENT**

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

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

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

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

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

#### **9.4.4 MULTI-FAMILY RESIDENTIAL 1**

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

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

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

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

#### **9.4.5 MULTI-FAMILY RESIDENTIAL 2**

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

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

Range of Potential Uses:

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

Other Information:

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

#### **9.4.6 MULTI FAMILY RESIDENTIAL 3**

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

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

Range of Potential Uses:

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

Other Information:

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

#### **9.4.7 TRANSIT ORIENTED DEVELOPMENT**

Intent: The purpose of the Transit Oriented Development District (TOD) is to encourage development that supports a variety of transportation options including public transit (bus, rail), walking, biking and the automobile. In order to achieve the desired goal of providing greater transportation options, development within the district shall embody the characteristics of compact urban

development and pedestrian oriented design. Mixed use buildings with first floor retail, wide sidewalks, interconnected streets, on-street parking, high density residential development, pedestrian amenities, transit stations and stops, open spaces, and public or shared parking are strongly encouraged and in many cases required as a part of the standards within the TOD District.

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

The specific objectives of the TOD District are:

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

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

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

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

#### **9.4.8 MULTI-FAMILY/MIXED-USE-1**

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



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

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

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

#### **9.4.9 MULTI-FAMILY/MIXED-USE-2**

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

Density: 15 units per acre

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

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

#### **9.4.10 PLANNED RESIDENTIAL (where applicable)**

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

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

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

school offices or administrative facilities. Other public uses may be approved upon Special Review.

Other Information:

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

#### **9.4.11 VILLAGE CENTER**

Intent: To provide a compact commercial center with a mix of commercial and residential uses which is compatible with existing architectural and design standards.

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

Range of Potential Uses:

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

Other Information:

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

#### **9.4.12 RESIDENTIAL-OFFICE**

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

Range of Potential Uses:

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

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

Other Information:

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

**9.4.13 LIGHT INDUSTRIAL**

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

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

Range of Potential Uses:

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

Other Information:

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

**9.4.14 HIGHWAY-ARTERIAL**

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

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

Range of Potential Uses:

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

Other Information:

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

vehicular access is of concern. Consideration of pedestrian and bicycle access is required.

#### **9.4.15 COMMERCIAL MIXED USE**

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

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

Range of Potential Uses:

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

#### **9.4.16 PLANNED EXPOSITION**

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

Density: Minimum 120 acres.

Range of Potential Uses:

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

Other Information:

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

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

- 1) Permitted Use – No Special Review required unless projected attendance, noise or other factors exceed performance standards as developed. Examples of permitted uses may include agriculture exhibitions, educational workshops and reunions. Prior notification of all events may be required.
- 2) Temporary Uses – Special administrative review is required to determine if Special Review is necessary. Temporary use permits are to be issued by staff

within a specified time period. Staff review is limited to type of event, location of event, and performance standards as developed. Examples of uses may include temporary sales (accessory to a permitted event), antique sales and shows, dog shows, car shows, boat shows and temporary group sales (i.e. retail associations, car dealerships, clearance sales, etc.). Temporary use permits may be granted on an annual basis based upon a submitted schedule. Events not included shall be reviewed on an individual application basis.

- 3) Major Uses – Special Review is required for major uses and may include public meeting. Major uses are those uses which may generate substantial levels of traffic, noise or other adverse impacts. Examples may include major concerts, events which last 5 or more days and other uses denied by staff as Permitted Uses or Temporary Uses. Staff shall make the initial determination on a major use application within a specified period of time. If staff determines there may be substantial traffic, noise, odor, or other impacts, further Special Review shall be required and the applicant shall be immediately notified.
- 4) Champlain Valley Exposition Annual Fair – The Planning Commission may choose to review the Fair on an annual basis. The Planning Commission shall notify the Champlain Valley Exposition in writing by November 30<sup>th</sup> of the year before the Fair that they wish to review. The Champlain Valley Exposition shall then submit a permit application for review by January 31<sup>st</sup> of the following year. Review shall be conducted at a public hearing.

A) Permitted Uses – Daily shows (other than grandstand concerts), education workshops, product demonstrations, food services, booths, carnivals, and any activities within enclosed structures are not reviewed on an individual basis and are uses by right.

B) Cumulative Uses – The cumulative effect of all fair activities may be reviewed in cooperation with the Fair Board to develop traffic control, parking and noise plans.

C) Special Events – Special events including, but not limited to, concerts, demolition derbies, tractor pulls and other similar events may be reviewed for compliance with noise standards, dust control, parking and traffic flow. Consideration should be given to timing of all special events to minimize traffic conflicts, noise or other impacts. Special Review of these events or waivers may be required. Staff may not grant waivers to adopted standards, but will determine if additional Special Review or waivers are necessary.

#### **9.4.17 PLANNED AGRICULTURAL**

Intent: To provide areas for active agricultural uses and provide mechanisms to ensure the long term viability of agricultural uses. Prime agricultural land shall be preserved whenever possible through transfer of development rights to agriculturally unproductive areas. Property used for agricultural purposes shall be deemed the predominant use and shall be protected from adverse urban development.

The entire area shall be subject to a Master Plan. No changes that involve any new development or change of use shall be permitted until a Master Plan for the entire Planned Agricultural district has been approved by the Planning Commission. Such a

Master Plan shall ensure adequate infrastructure, roads and public amenities before additional development is approved.

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

Range of Potential Uses:

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

Other Information:

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

#### **9.4.18 FLOOD PLAIN**

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

Minimum Lot Size:

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

Range of Potential Uses:

Agriculture, conservation areas, recreation facilities.

Other Information:

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

## **Chapter VI**

### **Implementation**

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

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

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

Short Term – 1-2 Years

Mid Term – 2-3 Years

Long Term – 4-5+ Years

Ongoing – No definitive timeframe; may be ongoing policy

#### **1. Government Finance**

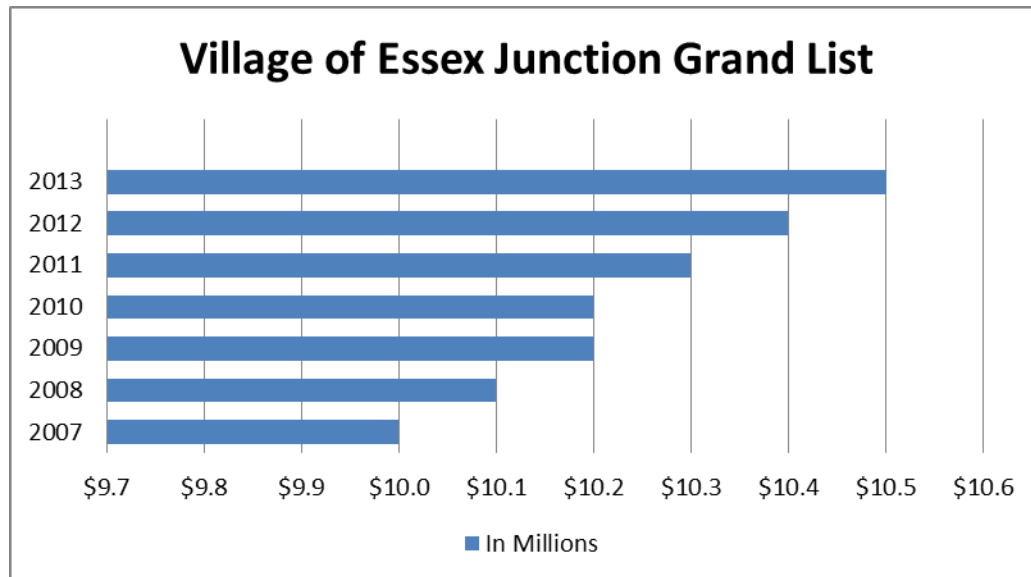
Local government is primarily financed through property tax revenue. Thus, consideration of the local tax effort is an important issue. It gives some indication of economic growth within the community as well as an indication of the community's ability to pay for improvements which may be required in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

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

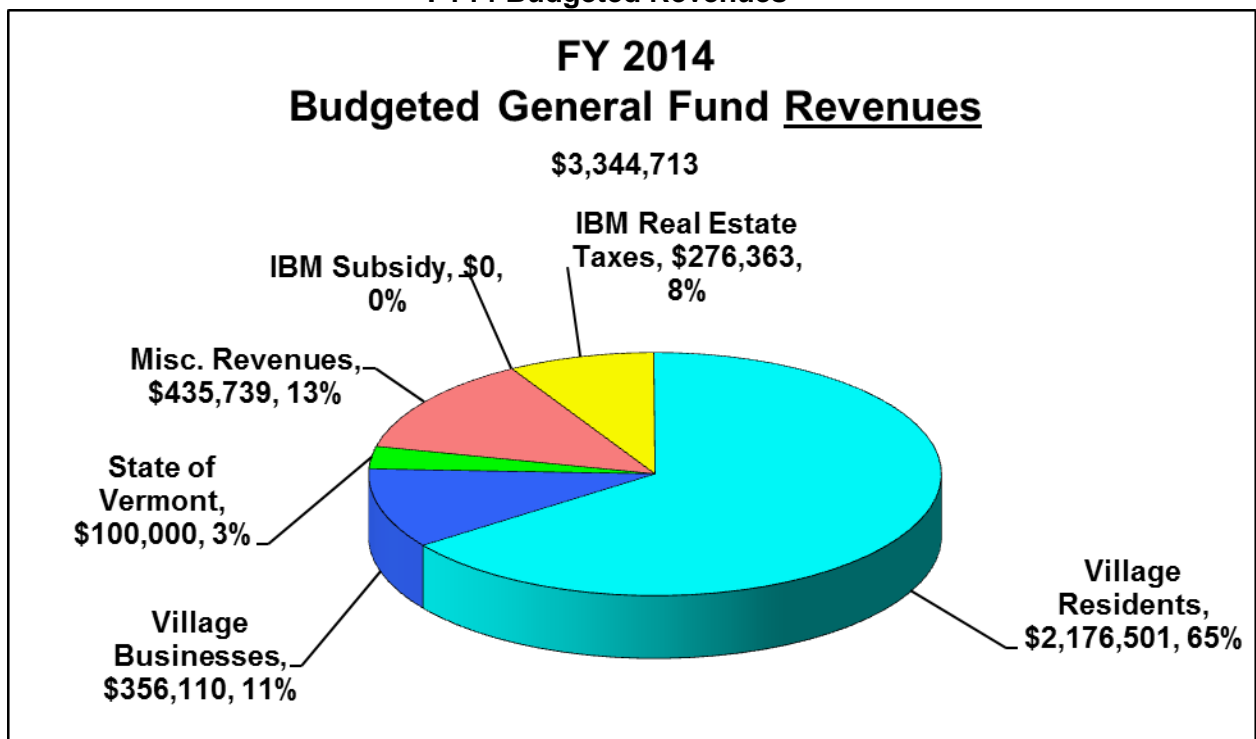
It is important to note that the data included herein are for the Village of Essex Junction taxes only. Residents are also required to pay school taxes and Town of Essex taxes. Both the school system and Town are totally independent taxing agencies over which the Village has no control. Residents should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

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

**Figure 7**  
**Grand List 2007 - 2013**

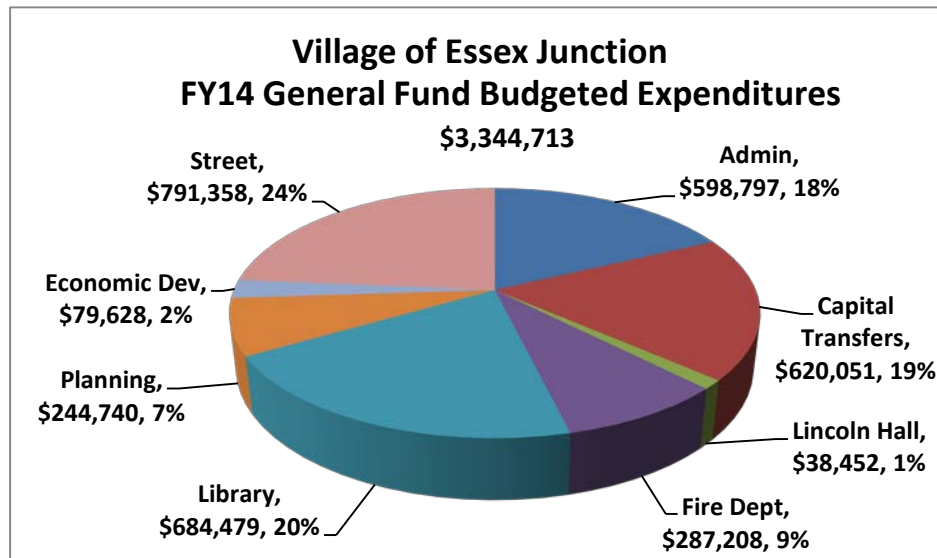


**Figure 8**  
**FY14 Budgeted Revenues**





**Figure 9**  
**FY 14 Budgeted Expenditures**



## 2. Funding Sources

### Local Funding:

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

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

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

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

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

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

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

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

### **Regional/State/Federal Funding:**

All grant funds are listed as of 2014.

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

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

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

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

There are also Federal and State tax credit programs. For more information visit: [http://accd.vermont.gov/strong\\_communities/opportunities/funding/downtown\\_village\\_tax\\_credit](http://accd.vermont.gov/strong_communities/opportunities/funding/downtown_village_tax_credit). The specific credits available are listed here:

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

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

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

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

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

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

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

**Table 14: Implementation Schedule - see *the next page***

Table 14: Implementation Schedule

Goal/Objective	Dept.	Timeline	Funding	Heart & Soul Values						ECOS Strategies							
				1. Local Economy	2. Health & Recreation	3. Community Connections	4. Education	5. Thoughtful Growth	6. Safety	1. Improve Economy	2. Concentrate Development & Infrastructure	3. Improve Water Quality and Safety	4. Protect Working Landscapes and Habitats	5. Increase Health and Personal Safety	6. Educate our Residents	7. Improve Efficiency of Financing and Governance	8. Ensure Equity
				①	②	③	④	⑤	⑥	①	②	③	④	⑤	⑥	⑦	⑧
<b>Priority Goals for Next 5 Years</b>																	
Goal 1: Assist and work with existing businesses to stay and grow in Essex Junction. Encourage and assist new businesses and clean industries to invest in Essex Junction.				①		③		⑤		①	②						
Objective 1.1: Maintain a favorable business climate in Essex Junction.	ALL	Ongoing	N/A	①		③		⑤		①	②						
Objective 1.2: Engage in policies to make progress on the transit specific strategies in the Town's Economic Development and Vision Plan including #4 (regional multi-modal improvements), #10 (freight rail service expansion), and #12 (transit oriented development).	P&Z, PW	Ongoing	State Funding, Capital Budget	①				⑤		①	②						
Objective 1.3: Continue efforts to revitalize the Village center and attract business through public investment in infrastructure.	P&Z, PW	Ongoing	State Funding, Capital Budget	①				⑤		①	②						
Goal 2: Promote thoughtful growth.								⑤			②						
Objective 2.1: Ensure that new development and rehabilitation efforts enhance and reinforce the existing architecture, design and layout along major arterials and historic neighborhoods.	P&Z	Ongoing	N/A	①				⑤			②						

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

Table 14: Implementation Schedule

Objective 2.2: Encourage mixed-income infill housing within existing developed areas in the commercial and multi-family districts.	P&Z	Ongoing	N/A	①				⑤			②					
Objective 2.3: Promote the redevelopment of underutilized properties in the Transit Oriented Development (TOD) and Village Center District.	P&Z	Ongoing	N/A	①				⑤			②					
Objective 2.4: Continue improvements in the public realm for a high quality pedestrian experience.	P&Z, PW	Ongoing	State Funding, Capital Budget					⑤	⑥		②					
Objective 2.5: Continue efforts to preserve and rehabilitate existing historic structures through state and federal funding programs and incentives; and encourage private investment for the same.	P&Z	Ongoing	N/A					⑤			②					
Objective 2.6: Hold an enhanced community discussion and design charrette to develop design standards for the Downtown.	AD, P&Z	Short Term	General Fund			③		⑤	⑥		②					
Goal 3: Continue improving access to and safety of bicycle and pedestrian facilities, and public transit. Support the work of the Bike-Walk Advisory Committee.					②			⑤	⑥		②			⑤		
Goal 4: Implement projects that will move traffic more efficiently while making the Village a more welcoming place for all modes of travel.	P&Z, PW	Ongoing	State Funding, Capital Budget		②			⑤	⑥		②			⑤		
Objective 4.1: Implement the Connector Road project.	AD, PW, P&Z	Short Term	State Funding, Capital Budget		②			⑤	⑥		②			⑤		
Objective 4.2: Consider pedestrianization of Main Street.	AD, PW, P&Z	Long Term	State Funding, Capital Budget		②			⑤	⑥		②			⑤		
Objective 4.3: Consider alternatives for vehicular traffic through Five Corners, such as redirecting Route 15.	AD, PW, P&Z	Long Term	State Funding, Capital Budget		②			⑤	⑥		②			⑤		
Goal 5: Establish policies and manage the Village budget and assets to enhance and ensure the continuation of the high quality of life Village residents, businesses and visitors value.	ALL	Ongoing	N/A					⑤			②					⑦

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Table 14: Implementation Schedule

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

Objective 7.1: Continue to require energy efficient street lamps in new developments.	P&Z	Ongoing	N/A									2					
Objective 7.2: Use energy efficient street lamps when replacing existing lamps.	PW	Ongoing	Public Works Budget									2					
Objective 7.3: Meet or exceed the current adopted version of the Regional Planning Outdoor Lighting Manual for Vermont Municipalities.	P&Z	Ongoing	N/A									2					
Goal 8: Support a variety of non-automobile transportation options	PW, WQ, FD	Ongoing	Public Works Budget					5				2					
Goal 9: Continue reducing local energy demand by providing further expansion of sidewalks, bike paths, park & rides and public transportation.	PW, P&Z	Ongoing	N/A					5				2					
Goal 10: Display and distribute information to residents and businesses that will help them save energy.	AD	Ongoing	N/A			3	4					2					
Goal 11: Encourage the Brownell Library to expand, and update regularly, energy publications and publicize this source to the general public.	LB	Ongoing	Library Budget			3	4					2					
Goal 12: Continue recycling programs at all village buildings and facilities.	AD, PW	Ongoing	Public Works Budget					5				2					
Goal 13: Conduct energy audits for all Village Buildings.	AD, PW	Ongoing	Public Works Budget									2					
Goal 14: Continually examine cost effectiveness to expand use of methane generated at the Waste Water Treatment Plant.	AD, PW	Ongoing	Public Works Budget									2				7	
Goal 15: Consider fuel efficiency when purchasing new vehicles, including alternative fuels	AD, PW	Ongoing	Public Works Budget									2					
Goal 16: Provide residents with information on heating assistance programs	AD	Ongoing	N/A			3			6						5		8
<b>Agriculture</b>																	
Goal 1: Continue to support the Whitcomb Farm in their conservation efforts.	P&Z	Ongoing	N/A	1	2					1			3	4			
Goal 2: Support the Farmers Market and other local value-added agricultural businesses.	AD, P&Z	Ongoing	N/A	1						1							

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Objective 2.1: Ensure accommodation at Five Corners for the Farmers Market, unless an alternative site is established.	AD, P&Z	Ongoing	N/A	①						①							
Objective 2.2: Work with Five Corners Farmers' Market to assist in finding a permanent winter location.	AD, P&Z	Ongoing	N/A	①						①							
Objective 2.3: Hold farm-to-table community events	RC	Ongoing	N/A			③							④				
Goal 3: Continue support of the Community Garden Program, home gardening and micro-farming.	RC	Ongoing	N/A			③							④				
Objective 3.1: Offer incentives for developments that include community gardens and/or allow home gardens on common land.	P&Z	Midterm	N/A					⑤					④				
Objective 3.2: Strengthen language in zoning regulations to protect topsoil during construction so that yards are more suitable for gardening.	P&Z	Midterm	N/A					⑤					④				
Objective 3.3: Encourage composting	RC	Ongoing	N/A									③	④				
Objective 3.4: Develop a method to donate excess food from community gardens.	RC	Midterm	N/A			③											⑧
Objective 3.5: Encourage the practice of edible landscaping.	RC, P&Z	Ongoing	N/A		②									⑤			
Objective 3.6: Inventory and designate additional public space for community gardens	P&Z	Long Term	N/A			③				②			④				
Goal 4: Establish a Tree Management Plan	P&Z	Short Term	N/A					⑤		②			④				
Objective 4.1: Increase the Village tree canopy	P&Z	Ongoing	N/A					⑤		②			④	⑤			
Objective 4.2: Educate residents on value of the urban forest.	P&Z	Ongoing	N/A			③				②			④				
Objective 4.3: Establish a process for the Village Tree Advisory Committee to work with the Planning Commission to review and provide advice on development projects that include tree planting in public spaces.	P&Z	Midterm	N/A					⑤		②			④				
<b><u>Business/Economic Development</u></b>																	

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Table 14: Implementation Schedule



Goal 1: Assist and work with existing and new business development in Essex Junction.	AD, P&Z	Ongoing	N/A	①							①						
Objective 1.1: Maintain a favorable business climate in Essex Junction.	AD, P&Z	Ongoing	Economic Development	①		③					①						
Objective 1.2: Encourage the development of a diverse array of residential units in the Village Center and Pearl St. Districts.	AD, P&Z, PW	Ongoing	N/A	①				⑤			①	②					
Objective 1.3: Consider performing market studies to attract businesses	AD, P&Z	Ongoing	Economic Development	①							①						
Objective 1.4: Work with officials at IBM, and other IBM campus businesses to meet their future development needs.	AD	Ongoing	N/A	①							①						
Objective 1.5: Encourage opportunities for bandwidth improvements.	AD, P&Z, PW	Ongoing	N/A	①							①	②					
Objective 1.6: Encourage entrepreneurs and start-ups	AD, P&Z	Ongoing	Economic Development	①							①						
Objective 1.7: Help identify underutilized structures in the Village and assist in matching the landowners with business prospects.	AD, P&Z	Ongoing	Economic Development	①				⑤			①	②					
Goal 2: Increase the Village's relationship with the local business community.	AD	Ongoing	N/A	①		③					①						
Objective 2.1: Look for strategic opportunities to work with business and property owners on economic development.	AD, P&Z	Ongoing	N/A	①							①						
Objective 2.2: Work closely with regional business organizations	AD, P&Z	Ongoing	N/A	①							①						
Objective 2.3: Encourage Village membership on key local and regional committees involved with business expansion and economic development.	AD	Ongoing	N/A	①							①						
Objective 2.4: Promote the Village as a destination for shopping, services, and tourism.	AD, P&Z	Ongoing	Economic Development	①							①						
Objective 2.5: Provide mechanisms for increased communication between the business community and Village Officials.	AD, P&Z	Ongoing	N/A	①		③					①						

Objective 2.6: Continue work with the Town and Essex Economic Development Commission on the implementation strategies from the Economic Development and Vision Plan: Essex.	P&Z	Midterm	Municipal Planning Grant/Planning Budget	①		③				①							
Goal 3: Provide mechanisms for efficient and timely review of development applications.	AD, P&Z, PW	Ongoing	Public Works Streetscape	①				⑤		①	②						
Objective 3.1: While maintaining environmental standards, ensure that the local codes do not inhibit/prohibit local development.	P&Z	Ongoing	N/A	①						①		③					
Objective 3.2: Provide application checklist of all requirements for each stage of review.	P&Z	Ongoing	N/A	①				⑤		①	②						
Goal 4: Preserve and enhance the appearance and historical character of the Village of Essex Junction.	P&Z	Ongoing	Grants, Capital Fund	①				⑤		①	②						
Objective 4.1: Maintain Design Review in the Village Center.	P&Z	Ongoing	N/A	①				⑤		①	②						
Objective 4.2: Design publicly financed improvements to preserve the character of the Village Center.	P&Z, PW	Ongoing	Public Works Streetscape	①				⑤		①	②					⑦	
Objective 4.3: Establish local historic districts or other mechanisms along major arterials and in historic neighborhoods.	P&Z	Midterm	Municipal Planning Grant/Planning Budget	①				⑤		①	②						
Objective 4.4: Create a list of noted historic sites and buildings to supplement Map 2.	P&Z	Midterm	Municipal Planning Grant/Planning Budget	①				⑤		①	②						
Objective 4.5: Continue streetscape and landscaping efforts to attract private sector investment.	P&Z, PW	Ongoing	Public Works Streetscape	①				⑤		①	②						
<b>Open Space – Recreation &amp; Natural Resources</b>																	
Goal 1: Support the Essex Junction Recreation Department in providing a wide range of recreation and leisure opportunities for all residents of the Village.					②	③		⑤	⑥		②				⑤		

Objective 1.1: Continue regulations which require the dedication of usable park lands and open spaces as a requirement of major development approval.	P&Z	Ongoing	N/A		②	③		⑤	⑥		②			⑤			
Objective 1.2: Support the implementation of the 2007 Essex Junction Recreation and Park Master Plan.	RC, ALL	Ongoing	N/A		②	③		⑤	⑥		②			⑤			
Objective 1.3: Encourage increasing the annual funding of the Recreation Capital Replacement Reserve Fund to one cent (.01) of the municipal grand list.	AD, RC	Ongoing	Capital Budget		②	③		⑤	⑥		②			⑤		⑦	
Objective 1.4: Encourage implementation of a recreation impact fee to create a fund to support future community park and facility needs.	AD, RC	Ongoing	Capital Budget		②	③		⑤	⑥		②			⑤		⑦	
Goal 2: Create urban open spaces.				①	②	③		⑤			②						
Objective 2.1: Encourage the provision of plazas and other urban outdoor areas in major redevelopment projects in the Village Center and Transit Oriented Development Districts.	P&Z	Ongoing	N/A	①	②	③		⑤			②						
Objective 2.2: Require pedestrian and bicycle amenities in the creation of new public streets in the Village Center and Transit Oriented Development Districts.	P&Z	Ongoing	N/A	①	②	③		⑤			②			⑤			
Objective 2.3: Consider the development of a village green within the Village Center District.	ALL	Ongoing	Grants, Capital Budget	①	②	③		⑤			②						
Objective 2.4: Encourage or require the preservation of open space in new residential developments. Allow for innovative design in the preservation of open space through clustering and design techniques.	P&Z	Ongoing	N/A		②	③		⑤			②			④			
Goal 3: Preserve the natural beauty indigenous to Vermont within the Village of Essex Junction.					②			⑤			②			④			
Objective 3.1: Maintain regulations which encourage the preservation of trees in new development.	P&Z	Ongoing	N/A		②			⑤			②			④			

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Table 14: Implementation Schedule

Objective 3.2: Implement a program of selective planting of trees on private property adjacent to existing road right-of-ways.	AD, PW	Midterm	N/A		②			⑤			②		④			
Objective 3.3: Promote and actively participate in an annual tree planting program.	AD, PW	Ongoing	N/A		②			⑤			②		④			
Objective 3.4: Consider protection of the outstanding view sheds identified in this Plan through amendments to the Land Development Code.	P&Z	Ongoing	N/A		②			⑤			②		④			
Goal 4: Continue protection of existing natural resources identified in this chapter.					②			⑤			②	③	④			
Objective 4.1: Continue to enforce stormwater treatment standards in the Land Development Code to improve water quality in impaired waters and to minimize non-point source water pollution from new development.	P&Z, WQ	Ongoing	N/A		②			⑤	⑥		②	③		⑤		
Objective 4.2: Require retention of vegetation or effective re-vegetation of areas vulnerable to erosion.	P&Z	Ongoing	N/A		②			⑤	⑥		②	③		⑤		
Objective 4.3: Work with the Center for Technology Essex to develop a nursery to raise street trees for the Village and Town.	AD, PW	Ongoing	N/A		②			⑤	⑥		②			⑤		
Objective 4.4: Continue incentivizing growth in the areas planned for growth, so that development pressures on natural resources and open spaces are lessened.	P&Z	Ongoing	N/A		②			⑤	⑥		②	③		⑤		
Objective 4.5: Ensure protection of the Village's significant wildlife habitat resources by inventorying the resources, determining their current level of protection, and if necessary define them and establish standards for protection of them in the Land Development Code.	P&Z	Ongoing	N/A		②			⑤	⑥		②		④	⑤		
Objective 4.6: Coordinate with the Town, Region and State on efforts to establish air quality goals/objectives and encourage methods of air quality improvement.	AD, P&Z, PW	Ongoing	N/A		②			⑤	⑥		②		④	⑤		

Objective 4.7: Analyze the thrust faults to determine how properties in these areas should be managed for protection of aquifer recharge and minimizing undue property damage.	P&Z	Long Term	Grants		②			⑤	⑥		②	③	④	⑤			
Goal 5: Reduce greenhouse gas emissions contributing to climate change and adapt to become more resilient to a changing climate.					②			⑤	⑥		②			⑤			
Objective 5.1: Engage in climate mitigation strategies to reduce the region's contribution of greenhouse gases. For example, continue to implement policies that promote investment in transportation options that reduce emissions – such as sidewalks and bike lanes; and implement programs to increase urban forest canopy.	ALL	Ongoing	PW, Capital Budget		②			⑤	⑥		②	③	④	⑤			
Objective 5.2: Engage in climate adaptation strategies to help individuals, businesses and communities be able to withstand and bounce back from – or even take advantage of – the impacts of climate change. For example, prepare and maintain plans for emergency operations, emergency response, business continuity and business recovery.	ALL	Ongoing	PW, Capital Budget		②			⑤	⑥		②			⑤			
Goal 6: Avoid new development in floodplains, fluvial erosion hazard areas, and land adjacent to streams, wetlands, and upland forests; eliminate the exacerbation of flooding and fluvial erosion; encourage protection and restoration of these areas; and plan for flood emergency preparedness and response.					②			⑤	⑥		②	③	④	⑤			
Objective 6.1: Continue to enforce the flood plain regulations to protect flood prone areas and minimize fluvial erosion.	P&Z	Ongoing	N/A		②			⑤	⑥		②	③	④	⑤			

Objective 6.2: Monitor the fluvial erosion hazard area south of Cascade Street that is not currently regulated by the flood plain regulations to determine if additional protections are needed.	PW, WQ	Ongoing	N/A		②			⑤	⑥		②	③	④	⑤			
Objective 6.3: Monitor all of the fluvial erosion areas to see how best to accommodate fluvial equilibrium and natural erosion processes while minimizing undue damage to property.	PW, WQ	Ongoing	N/A		②			⑤	⑥		②	③	④	⑤			
Objective 6.4: Plan culvert replacements for any undersized culverts in conjunction with roadway improvements.	PW, WQ	Ongoing	N/A		②				⑥			③		⑤			
Objective 6.5: Review the Hazard Mitigation Plan on a regular basis and follow-up on action steps.	ALL	Ongoing	N/A		②				⑥			③		⑤			
Objective 6.6: Continue annual certification of the Emergency Operations Plan.	AD	Ongoing	N/A		②				⑥			③		⑤			
<b>Education and Childcare</b>																	
Goal 1: Provide opportunities for access to quality education for all segments of the population and promote full use of all facilities.								④							⑥		
Objective 1.1: Coordinate new development with schools to minimize impacts	P&Z	Ongoing	N/A					④	⑤						⑥		
Objective 1.2: Encourage the use of village facilities for adult education, workshops and career development	RD, AD, PW, LB, SC	Ongoing	N/A	①				④							⑥		
Goal 2: Coordinate school population projections	P&Z, SC	Ongoing	N/A					④	⑤						⑥		
Goal 3: Encourage alternative access to education facilities	P&Z, PW, SC	Long Term	Capital Budget, School Budget, Safe Routes to School, TIP, Enhancement Grants					④							⑥		
Goal 4: Maximize use of all public facilities								④							⑥		

Goal 5: Improve bicycle and pedestrian safety for school children including continued participation in Safe Routes to School.	P&Z, PW, SC	Ongoing	Capital Budget, School Budget, Safe Routes to School, TIP, Enhancement Grants		②		④		⑥		②				⑥		
Goal 6: Continue to allow childcare services in most areas of the village	P&Z	Ongoing	N/A	①			④								⑥		⑧
<b>Utilities/Facilities</b>																	
Goal 1: Provide a Village infrastructure system that adequately ensures the availability of potable water, discharges storm and ground water runoff and disposes of sanitary wastes in a manner which ensures community health and is environmentally sound.								⑤			②	③					
Objective 1.1: Maintain public works standards that utilize reasonable technology to ensure adequate infrastructure	PW, WQ	Ongoing	N/A					⑤			②	③					
Objective 1.2: Implement Asset Management to insure long term rate stability	PW, WQ	Midterm	Public works budget, CCRPC/CCMPO Assistance					⑤			②					⑦	
Objective 1.3: Manage sewer capacity for village benefit	AD, PW, WQ, P&Z	Ongoing	N/A	①				⑤			②						
Objective 1.4: Improve infrastructure with minimal financial burden on taxpayers	PW, WQ	Ongoing	Capital Funds/Water-Wastewater Funds					⑤			②					⑦	
Objective 1.5: Maintain infrastructure for maximum life/use	PW, WQ	Ongoing	Wastewater and Water revenue funds, Capital Budget					⑤			②						
Objective 1.6: Ensure new development has adequate services	P&Z, PW, WQ	Ongoing	N/A	①				⑤			②						
Objective 1.7: Continue to identify infrastructure deficiencies and upgrade as appropriate	PW, WQ	Ongoing	Wastewater and Water revenue funds, Capital Budget					⑤			②						

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Objective 1.8: Consider leasing WW capacity on permanent basis	AD	Ongoing	N/A					⑤			②					⑦	
Objective 1.9: Actively participate in the Champlain Water District operations and planning process.	PW, WQ	Ongoing	N/A					⑤			②						
Objective 1.10: Obtain voting membership in the Champlain Water District	AD, PW, WQ	Midterm	N/A					⑤			②						
Objective 1.11: Implement stormwater management regulations	P&Z, WQ, PW	Short Term	N/A					⑤			②	③					
Goal 2: To participate in Public Service board hearings and to encourage the continued provision of a high quality of public utility services to the Village.								⑤			②						
Objective 2.1: Encourage utility companies to provide high quality services to new developments	PW, WQ, P&Z	Ongoing	N/A					⑤			②						
Objective 2.2: Require public utilities companies to maintain corridors	PW, WQ	Ongoing	N/A					⑤			②						
Goal 3: To provide the community with the best possible sidewalks for the purpose of pedestrian travel at the most reasonable cost.					②			⑤			②						
Objective 3.1: Prioritize sidewalk upgrades	PW	Ongoing	Capital Budget, Public Works Operating Budget		②			⑤			②						
Objective 3.2: Continue to maintain assessments and inventory on all sidewalks	PW	Midterm	Public Works Operating Budget, Municipal Planning Grant		②			⑤			②						
Goal 4: To continue to provide all Village segments with the best fire protection.								⑥						⑤			
Objective 4.1: Actively recruit firefighters, and consider the need for a new fire station to assist in recruitment and retention efforts.	FD	Ongoing	Fire Department Budget					⑥						⑤			
Objective 4.2: Consider a limited full time fire department	AD, PD	Ongoing	General Fund					⑥						⑤			
Objective 4.3: Consider life safety/building codes	AD, FD, PW, P&Z	Midterm	Building Code permit fees		②			⑥			②			⑤			⑧

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Goal 5: To provide a high level of Library Services to Village residents for their enjoyment and information, with particular emphasis on education, community connections, health and recreation, and the local economy.				①	②	③	④			①					⑤	⑥		⑧
Objective 5.1: Create opportunities for lifelong learning and exploration	LB	Ongoing	Library Budget				④									⑥		
Objective 5.2: Nurture community spirit in a safe, collaborative and comfortable space.	LB	Ongoing	N/A			③												⑧
Objective 5.3: Support healthy minds and bodies and stimulate imagination.	LB	Ongoing	N/A		②										⑤			
Objective 5.4: Support efforts to improve economic vitality	LB	Ongoing	Library Budget	①						①								
Goal 6: Maintain public buildings and municipal functions in/near village center, encourage new public buildings in village center	AD, P&Z, LB, SD	Ongoing	N/A	①		③		⑤			②						⑦	
Goal 7: To continue to provide the Village with the best police protection.									⑥						⑤			
Objective 7.1. Decrease the amount of time vacancies remain open.	AD	Ongoing	N/A						⑥						⑤			
Objective 7.2. Increased staffing to address the crime rate and the increase in traffic.	AD	Ongoing	General Fund						⑥						⑤			
Objective 7.3. Greater community participation in crime prevention efforts.	AD	Ongoing	N/A			③			⑥						⑤			⑧
Goal 8: Continue to explore options to bury power lines in core commercial districts and require new developments to site utilities underground.	P&Z, PW	Ongoing	Capital Budget					⑤			②							
<b>Housing</b>																		
Goal 1: Provide a variety of housing opportunities while creating and preserving quality residential environments and existing neighborhood characteristics.								⑤			②							
Objective 1.1: Permit innovative development strategies	P&Z	Ongoing	N/A					⑤			②							
Objective 1.2: Study and consider building codes and fire codes	P&Z, FD, PW, AD	Midterm	Planning Budget, Municipal Planning Grant					⑤	⑥		②							

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

Table 14: Implementation Schedule

Objective 1.3: Promote adherence to state energy standards and consider energy conservation and alternative energy requirements for new development	P&Z, AD	Ongoing	Planning Budget, Municipal Planning Grant					⑤			②						
Objective 1.4: Encourage development in established growth areas	P&Z, AD	Ongoing	N/A	①				⑤			②						
Objective 1.5: Consider zoning changes to preserve historic buildings and neighborhoods	P&Z, AD	Midterm	Planning Budget, Municipal Planning Grant					⑤			②						
Objective 1.6: Provide a mechanism in the code to encourage affordable housing	P&Z, AD	Midterm	Planning Budget, Municipal Planning Grant					⑤			②						
Objective 1.7: Maintain allowance of affordable housing density in the Planned Residential District	P&Z, AD	Midterm	N/A					⑤			②						
Objective 1.8: Allow high density in major commercial areas and maintain the R-2 small lot single family zoning for affordable housing	P&Z	Ongoing	N/A					⑤			②						
Objective 1.9: Compile rental registry and inspection program	P&Z	Long Term	N/A					⑤	⑥		②			⑤			
Objective 1.10: Consider zoning changes to encourage pocket parks and other public urban open space amenities.	P&Z	Short Term	N/A		②			⑤			②						
Goal 2: Work with housing organizations to jointly create affordable housing and senior housing.	P&Z, AD	Ongoing	Planning Budget					⑤			②						
Goal 3: Continue to provide areas for special needs housing	P&Z	Ongoing	N/A					⑤			②			⑤			⑧
Goal 4: Encourage property owners to retain the historic integrity of buildings	P&Z	Ongoing	N/A			③		⑤			②						
<b>Transportation</b>																	
Goal 1: To support the completion of the Circumferential Highway.								⑤			②						
Objective 1.1: Provide alternate routes for non-destination traffic	AD, PW, P&Z	Ongoing	State Funding, Capital Budget					⑤			②						
Objective 1.2: Do not support capacity increases on state highways in the Village that involve additional vehicle lanes	AD, PW, P&Z	Ongoing	N/A					⑤			②						

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

Table 14: Implementation Schedule

Objective 1.3: Emphasize local access, public transit, bicycle facilities, pedestrian safety and access, and aesthetics in future streetscape projects	AD, PW, P&Z	Ongoing	N/A		②			⑤	⑥		②						
Objective 1.4: Reduce idling at the Five Corners by closing off a short section of Main Street to create a crossroads intersection	AD, PW, P&Z	Long Term	State Funding, Capital Budget					⑤			②						
Objective 1.5: Redirect Route 15 to Susie Wilson Road and Route 289 to reduce non-destination traffic in the Village.	AD, PW, P&Z	Long Term	State Funding, Capital Budget					⑤	⑥		②						
Goal 2: Monitor, evaluate and implement traffic management practices	P&Z, PW	Ongoing	N/A					⑤			②						
Objective 2.1: Monitor annual traffic counts and accident data	P&Z, PW	Ongoing	N/A					⑤			②						
Objective 2.2: Review all development proposals to minimize traffic and pedestrian safety concerns	P&Z, PW	Ongoing	N/A					⑤	⑥		②						
Objective 2.3: Reduce the size and number of non-conforming curb cuts during development review	P&Z, PW	Ongoing	N/A					⑤	⑥		②						
Objective 2.4: Encourage the use of shared parking lots and joint access	P&Z, PW	Ongoing	N/A					⑤			②						
Objective 2.5: Monitor the timing and sequencing of all traffic lights to optimize traffic and pedestrian safety	PW	Ongoing	Public Works budget, CCMPO					⑤	⑥		②						
Objective 2.6: Cooperate with adjoining communities to minimize traffic increase within the Village resulting from development beyond the Village limits.	AD, P&Z, PW	Ongoing	N/A					⑤			②						
Objective 2.7: Avoid dead-end streets; connect new streets into the existing street network from at least two points	P&Z, PW	Ongoing	N/A			③		⑤			②						
Objective 2.8: Request that neighboring communities require major development proposals to include traffic impact analysis at the Five Corners and that traffic analysis be submitted to the Village for review.	P&Z, PW	Ongoing	N/A					⑤			②						

Objective 2.9: Study and improve safety at high crash locations	P&Z, PW	Midterm	Planning Budget, Municipal Planning Grant, CCMPO						⑤	⑥		②					
Objective 2.10: Implement Village Sidewalk Plan and Policy	P&Z, PW	Ongoing	Capital Budget, TIP, Enhancement grants		②				⑤			②					
Goal 3: To facilitate the use of sidewalks as a viable transportation alternative.					②				⑤			②					
Objective 3.1: Review development proposals for sidewalk efficiency	P&Z, PW	Ongoing	N/A		②				⑤			②					
Objective 3.2: Consider alternative sidewalk standards based on location/usage	PW, P&Z	Ongoing	N/A		②				⑤			②					
Objective 3.3: Encourage children to walk to school/enrollment in SR2S program	SC, PW	Ongoing	N/A		②				⑤			②					
Objective 3.4: Utilize all traffic calming techniques and strategies available.	P&Z, PW	Ongoing	N/A		②				⑤	⑥		②					
Goal 4: Review and implement parking strategies consistent with other planning purposes.									⑤			②					
Objective 4.1: Encourage quality site design and landscaping for parking lots	P&Z, PW	Ongoing	N/A						⑤			②					
Objective 4.2: Encourage bus and pedestrian access to all parking lots	P&Z, PW	Ongoing	N/A						⑤			②					
Objective 4.3: Develop long term parking strategies for the Village Center	PW, P&Z	Long Term	Planning Budget, Municipal Planning Grant, CCMPO, Capital Budget	①					⑤			②					
Objective 4.4: Review parking requirements to allow for alternatives to on-site parking	P&Z, PW	Ongoing	N/A						⑤			②					
Objective 4.5: Cooperate with surrounding communities to create commuter facilities	AD, PW	Ongoing	N/A						⑤			②					
Objective 4.6: Encourage or require bicycle facilities at major activity centers	P&Z	Ongoing	N/A		②				⑤			②					
Goal 5: Promote and implement strategies to encourage the use of bicycles as alternate transportation modes.					②				⑤			②					

Objective 5.1: Consider bicycle access in new developments	P&Z, PW	Ongoing	N/A		②			⑤			②						
Objective 5.2: Consider the construction or signage of bicycle lanes in street projects	AD, P&Z, PW	Ongoing	N/A		②			⑤	⑥		②						
Objective 5.3: Pursue state and local funding for shared use paths and bicycle lanes	AD, PW, P&Z	Ongoing	Enhancement grants, TIP, federal earmarks		②			⑤			②						
Objective 5.4: Include shared use paths in capital budget	AD, PW	Ongoing	Capital Budget		②			⑤			②						
Objective 5.5: Utilize Bike-Walk Advisory Committee to recommend projects, pursue funding sources and conduct bike/ped education to encourage safety and visibility.	AD	Long Term	N/A		②			⑤			②						
Objective 5.6: Encourage donations for implementation of shared use paths	AD, P&Z	Ongoing	N/A		②			⑤			②						
Goal 6: To encourage increased usage of the public transportation system.							④	⑤			②						
Objective 6.1: Cooperate with CCTA to increase access to bus routes including higher frequencies during peak hours	AD	Ongoing	N/A					⑤			②						
Objective 6.2: Encourage the use of bus turn offs and shelters on major streets	P&Z, AD, PW	Ongoing	N/A					⑤			②						
Objective 6.3: Encourage alternatives to the property tax for funding public transportation	AD	Ongoing	N/A					⑤			②					⑦	
Objective 6.4: Cooperate with CCTA to provide education on the benefits of public transportation	P&Z	Ongoing	Planning Budget, CCTA				④	⑤			②						
Objective 6.5: Continue to support elders and disabled transportation programs	AD	Ongoing	N/A					⑤			②						⑧
Goal 7: Cooperate with the State of Vermont to locate air quality monitors at the Five Corners.					②			⑤			②						
Objective 7.1: Require state/federal air quality permits as prerequisite to local permits	AD, P&Z	Ongoing	N/A					⑤			②						
Objective 7.2: Ensure uniform enforcement air quality standards	AD, P&Z, PW	Ongoing	N/A					⑤			②						

Goal 8: Cooperate with state and regional to develop commuter and international passenger rail				①				⑤			②						
Objective 8.1: Appropriate upgrades to the existing station and the surrounding areas to meet future needs.	AD, P&Z, PW	Ongoing	N/A														
<b>Land Use</b>																	
Goal 1: Provide sufficient locations within the Village to accommodate a variety of land uses								⑤			②						
Objective 1.1: Redefine zoning district boundaries in Village Center to address differences in land use patterns	P&Z	Ongoing	N/A					⑤			②						
Objective 1.2: Encourage the development of a variety of residential units in the Village Center and Pearl Street Districts.	P&Z	Ongoing	N/A	①				⑤			②						
Objective 1.3: Study the purchase of key properties in the Village Center for public use	AD, P&Z	Long Term	Planning Budget, Land Acquisition Fund, Economic Development Fund					⑤			②						
Goal 2: Promote responsible residential growth and encourage the growth and maintenance of quality residential areas.				①				⑤			②						
Objective 2.1: Preserve open space/agricultural land	AD, P&Z	Long Term	Land Acquisition Fund		②							④					
Goal 3: Mitigate negative impacts of contiguous but different land uses	P&Z	Ongoing	N/A					⑤			②						
Goal 4: Ensure quality land planning and site design in new commercial/industrial development in a manner compatible with surrounding architecture.	P&Z	Ongoing	N/A					⑤			②						
Goal 5: Coordinate land use decisions with public infrastructure needs	P&Z	Ongoing	N/A					⑤			②						
Goal 6: Encourage innovative development while maintaining the existing urban character of the Village.								⑤			②						
Objective 6.1: Consider overlay districts, design review and development agreements as a means to achieve innovative development	P&Z	Ongoing	Planning Budget, Municipal Planning Grant, TIF District					⑤			②					⑦	

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Table 14: Implementation Schedule

Objective 6.2: Include visuals within the LDC to make standards clear for developers and residents. Engage the public in development of these visuals to gain consensus on design standards.	P&Z, AD	Midterm	Municipal Planning Grant/Planning Budget			③	④	⑤			②						
Objective 6.3: Promote use of the Village Center Designation benefits	P&Z	Ongoing	N/A					⑤			②						
Goal 7: Coordinate development review with adjoining communities	P&Z	Ongoing	N/A					⑤			②						
Objective 7.1: Initiate communication with surrounding communities to discuss development impacts on land use and planned compatibility.	P&Z	Ongoing	N/A					⑤			②						
Goal 8: Coordinate needed public improvements with development review	P&Z, PW	Ongoing	N/A					⑤			②						
Goal 9: Prevent development on lands that are environmentally unsuitable	P&Z, WQ	Ongoing	N/A					⑤			②	③	④				
Goal 10: Design new streets to limit the length and site grading; when possible connect new streets through to existing streets to develop a grid pattern.	P&Z, PW	Ongoing	N/A					⑤			②						
Goal 11: Place a high priority in development review on pedestrian and vehicular access and safety	P&Z, PW	Ongoing	N/A					⑤	⑥		②						
Goal 12: Protect and enhance sensitive and important areas.	P&Z, PW	Ongoing	N/A					⑤			②	③	④				
Objective 12.1: Consider design review on main corridors upon approach to the Village Center	P&Z	Midterm	Planning Budget, Municipal Planning Grant					⑤			②						
Objective 12.2: Analyze and prioritize historic resources to determine which sites and structures should be preserved	P&Z	Midterm	Planning Budget, Municipal Planning Grant					⑤			②						
Objective 12.3: Consider zoning changes to preserve historic structures	P&Z	Midterm	Planning Budget, Municipal Planning Grant					⑤			②						

## Heart &amp; Soul Values:

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

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Table 14: Implementation Schedule

2. *Health & Recreation:* We value public places for outdoor and indoor recreation for all ages and abilities. We treasure Indian Brook reservoir, neighborhood parks and the chance to connect by bicycle or on foot. Community institutions provide education and programs to support healthy lifestyles.
- Community Connections:* Our deep connections with each other make Essex special. Neighbors help each other during good times and bad. We value diversity and welcome everyone. We build our sense of community at local events such as the Memorial Day Parade, Five Corners Farmers Market, and Winter Carnival. Our local
3. *Education:* Essex invests time, energy, and resources to ensure that our highly respected schools meet the needs of everyone in the community. We are proud to support learning that extends beyond the traditional classroom and includes the arts, athletics, and vocational instruction. Community programs, and libraries offer diverse and affordable opportunities that prepare residents of all ages for lifelong learning and for work in an evolving economy.
4. *Thoughtful Growth:* We value wide-open spaces and tight-knit neighborhoods, rural roads and vibrant downtown streets. Essex is a place where we can enjoy a beautiful view, walk in the woods and go out to eat without ever leaving town. We support a diverse housing mix, opportunities for business development and a transportation system with a variety of options including a connected network of walking and biking routes.
5. *Safety:* Essex is a safe place where neighbors watch out for one another. We value an active, visible police force and strong fire and rescue services. Upgrades to our physical infrastructure will allow us to move about our community with comfort and security.

**ECOS Strategies:**

- Strategy 1:* Improve and strengthen the economic systems of our region to increase opportunities for Vermont employers and employees.
- Strategy 2:* Strive for 80% of new development in areas planned for growth, which amounts to 15% of our land area.
- Strategy 3:* Improve the safety, water quality, and habitat of our rivers, streams, wetlands and lakes in each watershed.
- Strategy 4:* Increase investment in and decrease subdivision of working lands and significant habitats, and support local food systems.
- Strategy 5:* Increase opportunity for every person in our community to achieve optimal health and personal safety.
- Strategy 6:* Equip our residents with the education and skills that they need to thrive.
- Strategy 7:* Develop financing and governance systems to make the most efficient use of taxpayer dollars and reduce costs.
- Strategy 8:* Ensure that the projects and actions in all ECOS strategies assess equity impacts, and that the design and development of programs are inclusive of all and engage underrepresented populations.



Appendix A - Historic Resources

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

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

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

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

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

Other information:

[http://accd.vermont.gov/strong\\_communities/preservation/resources/state\\_register](http://accd.vermont.gov/strong_communities/preservation/resources/state_register)  
[http://accd.vermont.gov/strong\\_communities/preservation/resources/national\\_register](http://accd.vermont.gov/strong_communities/preservation/resources/national_register)  
[http://accd.vermont.gov/strong\\_communities/preservation/resources/state\\_register/criteria](http://accd.vermont.gov/strong_communities/preservation/resources/state_register/criteria)

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

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

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

## Appendix B

### Underground Storage Tanks in Essex Junction

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

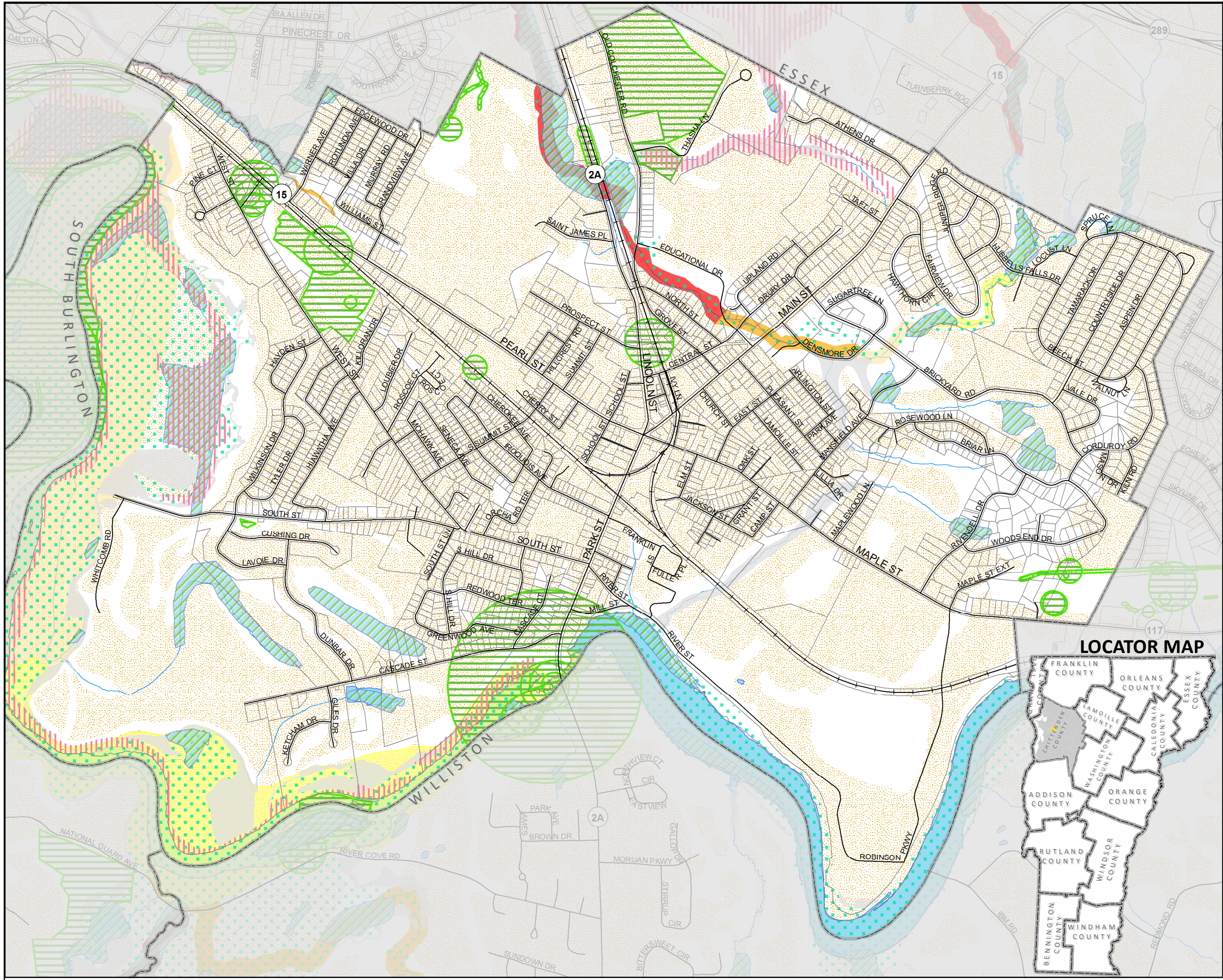
Source:                   Underground Storage Tank Program  
                               Waste Management Division  
                               Vermont Department of Environmental Conservation

## **Appendix C**

### **Maps**

- Map 1: Natural Resources
- Map 2: Historic Resources
- Map 3: Recreational Facilities/Open Space
- Map 4: Transportation
- Map 5: Community Facilities
- Map 6: Non-Motorized Transportation
- Map 7: Wastewater Distribution System
- Map 8: Water Distribution System
- Map 9: Existing Lane Use
- Map 10: Future Land Use
- Map 11: Flood Hazard Areas





**DRAFT Map 1:**  
**Natural Resources**  
**Essex Junction**  
**2014 Village Plan**  
**Legend**

- Vermont Significant Wetlands Inventory
- Rare, Threatened, Endangered Species & Natural Communities
- Contiguous Habitat

**Fluvial Erosion Hazard**  
**Sensitivity Rating**

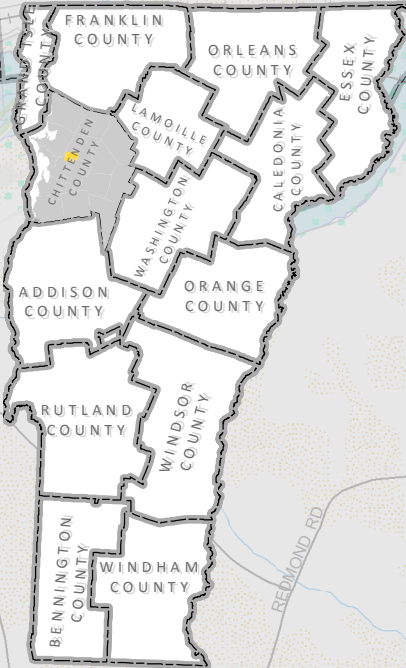
- Very Low
- Moderate
- High
- Very High
- Extreme

- Special Flood Hazard Area (100 yr flood)
- .2 % annual chance flood hazard (500 yr flood)
- Primary Agricultural Soil
- Stream Centerline
- Water Body



1:15,000

**LOCATOR MAP**



Source: VSWI - 2010; FEMA DFIRM - July, 2011; RTE - April, 2013  
Contiguous Habitat - Arrowwood Environmental, Essex Open Space  
Surface Water - VHD, 2008 (VCGI)  
Map created by P. Brangan using ArcGIS. All data is in State Plane  
Coordinate System, NAD 1983.

Disclaimer:  
The accuracy of information presented is determined by its sources.  
Errors and omissions may exist. The Chittenden County Regional  
Planning Commission is not responsible for these. Questions of on-  
the-ground location can be resolved by site inspections and/or surveys  
by registered surveyor. This map is not sufficient for delineation of  
features on-the-ground. This map identifies the presence of features,  
and may indicate relationships between features, but is not a  
replacement for surveyed information or engineering studies.

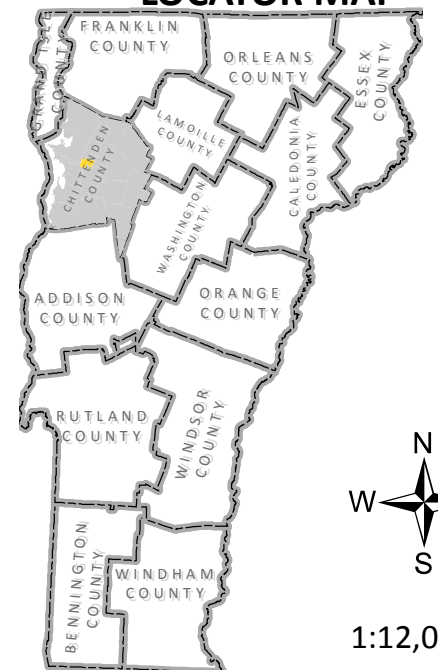


# Map 2: Historic Sites and Districts Essex Junction 2014 Village Plan

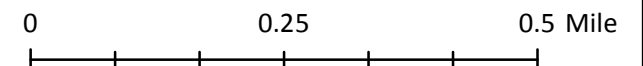
## Legend

- ▲ Historic Site
- Historic District

## LOCATOR MAP

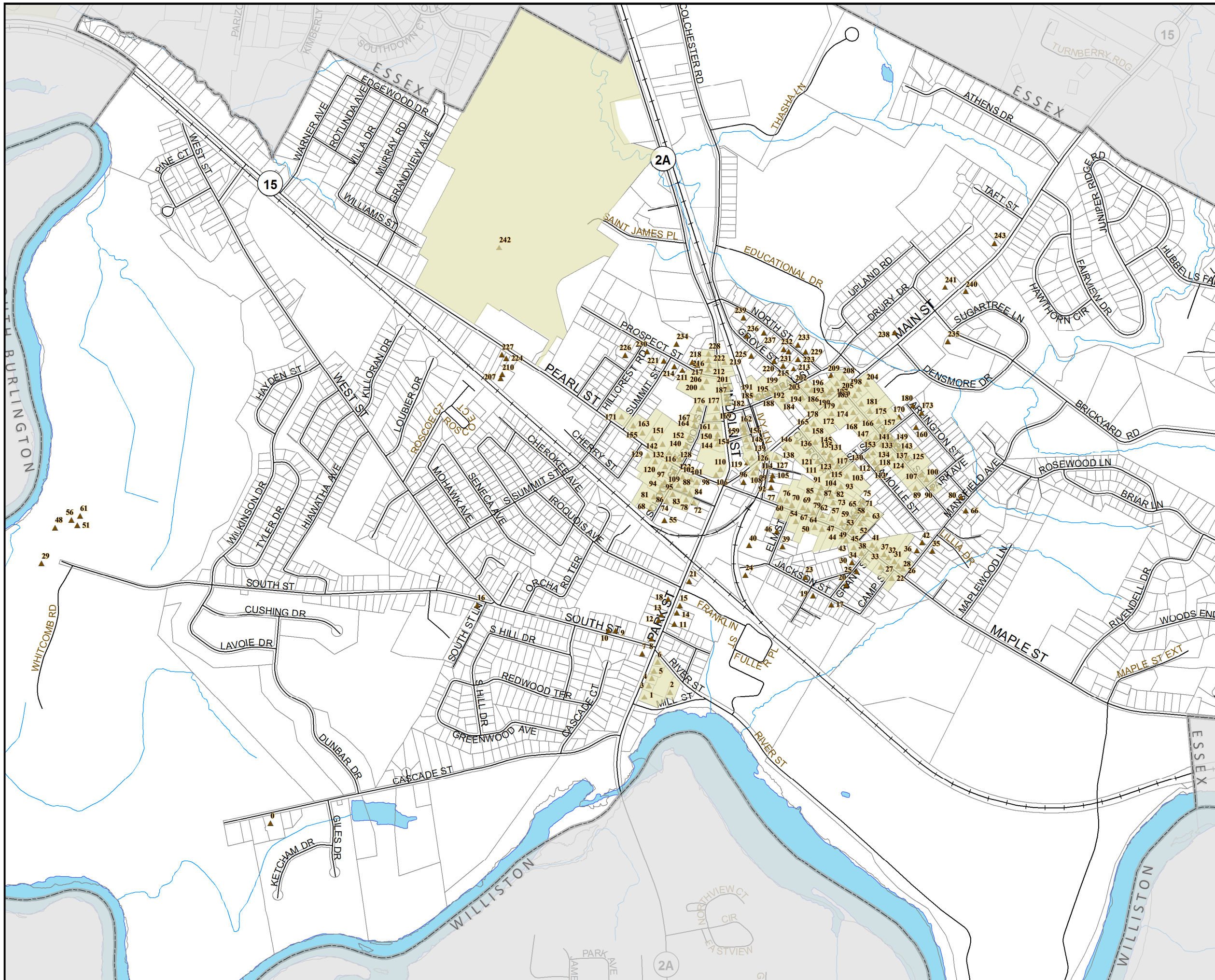


1:12,000



Source:  
 Historic Sites & Districts - developed by CCRPC, updated 2005  
 Road Centerline - e911, 7/2013  
 Railroad - VTrans, 2003  
 Surface Water - VHD, 2008 (VCGI)  
 Map created by P. Brangan using ArcGIS. All data is in State Plane Coordinate System, NAD 1983.




Disclaimer:  
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# DRAFT Map 3: Recreation Facilities & Open Space Essex Junction 2014 Village Plan

## Legend


-  Public Passive Open Space
-  Neighborhood Park
-  School Park
-  Regional Recreation Facility
-  Community Park
-  Community Garden


## Neighborhood Park Service Area

 1/3 Mile

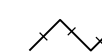
## Community Park Service Area

 1.5 Mile

 Stream Centerline

 Water Body

 Road Centerline

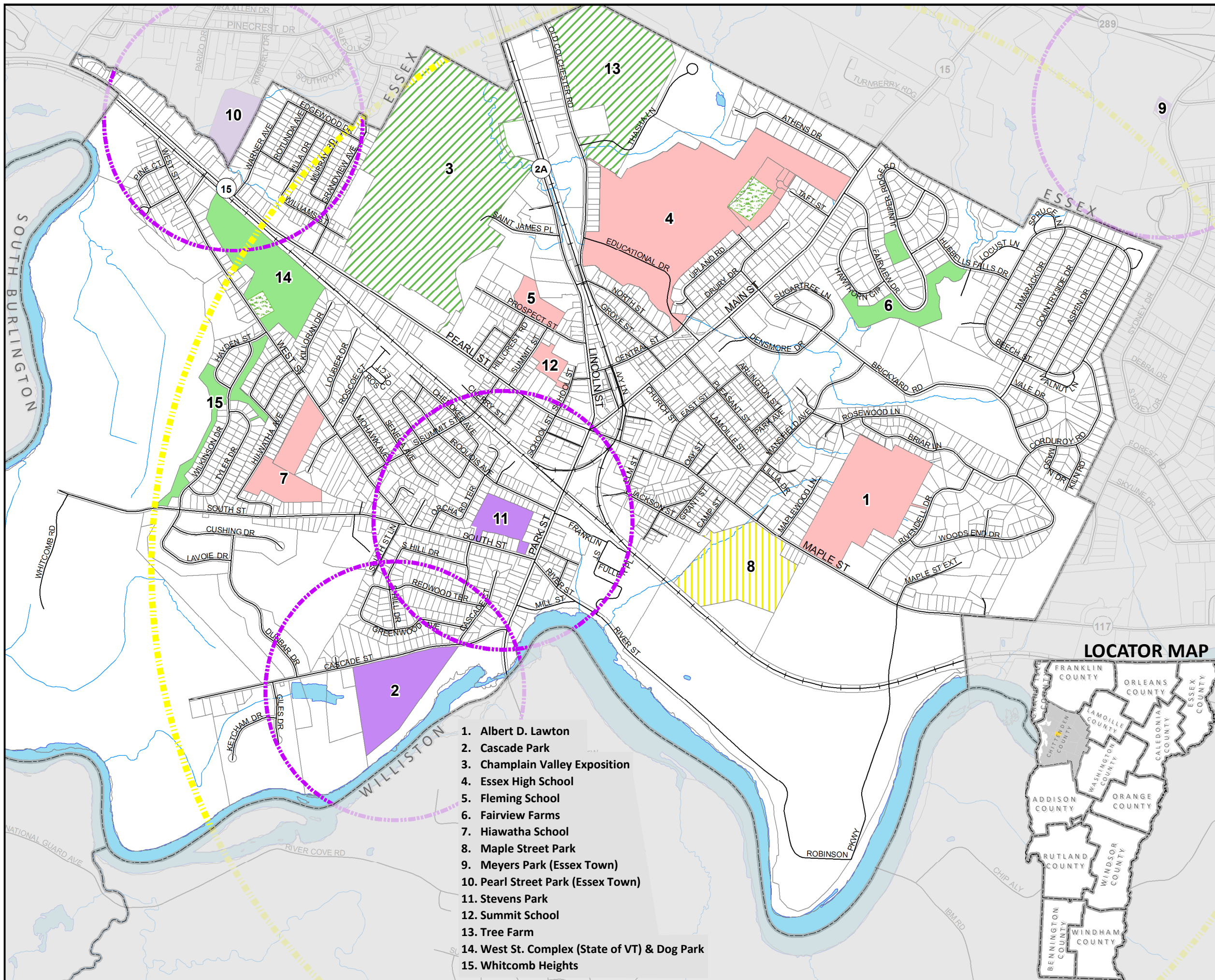
 Railroad

 2013 Tax Parcel Boundary

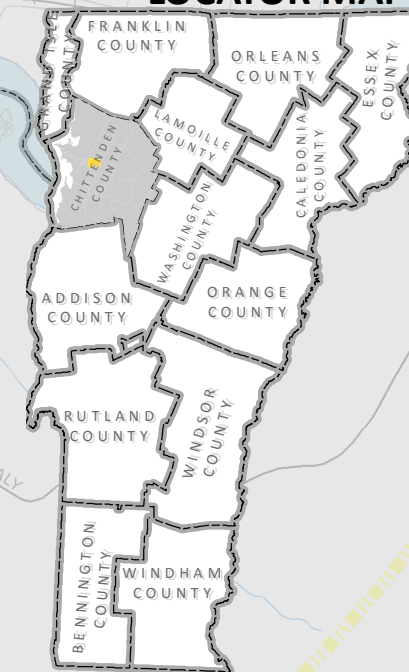
0 0.25 0.5 Mile

Source:  
Rec Properties - CCRPC, 2007  
Surface Water - VHD, 2008 (VCGI)  
Map created by P. Brangan using ArcGIS. All data is in State Plane  
Coordinate System, NAD 1983.

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and may indicate relationships between features, but is not a  
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## LOCATOR MAP



1. Albert D. Lawton
2. Cascade Park
3. Champlain Valley Exposition
4. Essex High School
5. Fleming School
6. Fairview Farms
7. Hiawatha School
8. Maple Street Park
9. Meyers Park (Essex Town)
10. Pearl Street Park (Essex Town)
11. Stevens Park
12. Summit School
13. Tree Farm
14. West St. Complex (State of VT) & Dog Park
15. Whitcomb Heights