Fairlee
Town Plan

September 30, 2014

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I. Introduction

Fairlee is a unique community. Unlike many of the towns around Fairlee, this community has lakes that are large enough to have a substantial seasonal population. Fairlee's lakes (Lake Morey and Lake Fairlee) attract tourists from outside of the community. While the tourist trade is valuable and growth in this area is encouraged, the community is seeking to add diversity and vitality to the local economy. The Planning Commission believes that in part this will be achieved by focusing efforts to encourage economic growth in Fairlee's Village Center. In 2007, a structural fire destroyed the Colby Block, a significant section of Fairlee's Village Center. This historic block was located in the heart of the village, and its loss was a blow to the community and to the village. Through this Plan, the Planning Commission is seeking to encourage new growth in the village which is balanced between the need to serve Fairlee's seasonal population and the need for year-round commerce. Encouraging the development of a broader year-round economy will vastly improve the vitality of the Village Center. The development of Interstate 91 which opened in 1971 effectively split Fairlee in two. Although the Interstate has benefited the community, it effectively separates a substantial amount of the community from the Village Center area. A Village Center often acts as the core of the community, where residents meet, engage with each other and form community bonds. The Planning Commission is seeking to encourage a greater sense of community through this Plan by fostering community involvement in the planning process and by encouraging a revitalization of the community's core.

Goals, Policies and Recommendations

State statute requires that all plans have a "statement of objectives, policies and programs of the municipality". In this plan, this requirement is met through "goals, policies and recommendations". Goals, policies and recommendations of a plan must be viewed as an integrated system of statements that have clear relationships to each other and to the body of the Plan. The definitions of these terms must be made clear for the understanding of each plan section as well as the coordination of the plan sections with each other. The terms defined below are used throughout the Plan:

Definitions:

- **Goal:** Why something should be done - the state of affairs that a plan is intended to achieve.
- **Policy:** What should be done - an expression of how to meet a goal.
- **Recommendation for action:** How should it be done and who should do it - a specific action that is advised to be taken in order to implement a policy.

Examples:

- **Goal:** Increased public safety for pedestrians.
- **Policy:** All the crosswalks in Fairlee should be painted with diagonal lines to alert vehicular traffic to the crossing of pedestrians.
- **Recommendation:** The Selectboard should work with the public works department to have the crosswalks painted.

The goals, policies and recommendations in the Plan are not listed in ranked order of importance; they are numbered for ease of reference.

A. What is a Town Plan?

In Vermont, a town plan serves as an official policy statement on the growth and development of a town. A town plan is prepared by a town's planning commission with public input, and expresses the values and vision of a town's residents regarding how their town's natural resources should be managed, town lands developed and town services be provided. At town plan briefly describes a town's past, identifies existing conditions, and, most importantly, states the goals objectives, policies and recommended actions for the future. A municipal plan is intended to act as a vision for the community. A community imagines what the future should be, and then starts putting these ideas into action. Communities with little or no planning are

more likely to experience problems of over-development, high property taxes and increased demands for community services. Their lack of local control leaves them subject to decisions made at the state level that might not accurately implement their vision. Fairlee, like every town, has choices in the way it provides for orderly growth and in the way it balances growth with natural and built environments. Planning is done to meet the needs of the people who reside here now and for those who will reside here in the future. The Plan includes a comprehensive analysis of Fairlee's demographics, jobs, economy, schools, roads, housing, natural resources, and land use. This analysis of current conditions in the context of goals for our community leads to policies and recommendations that can help our community make wise choices and provide direction for the patterns of its future growth.

Here are some specific reasons to have a Town Plan:

- **Guide for local regulations** - State statute requires that all land use regulations (zoning, subdivision, etc.) must be consistent with the goals of the local plan. The municipal plan functions as the framework under which these regulations operate.
- **A guide for community investments** - Information in the plan can be used for developing the recommendations contained in a Capital Budget and Program, for establishing a community development program, and for providing direction to the Selectboard for such things as community services, emergency services, recreation and municipal facility development to name a few. It also serves to guide the decisions made by the Development Review Board when permits come before them.
- **Support for grant applications and planning studies** - Many of the state run grant programs available to Fairlee consider whether or not the town has stated a need for its grant request. Studies are often called for within a plan, and the funding for such projects can come from state sources as well.
- **A guide for future development** - The District Environmental Commission considers Town Plans during an Act 250 hearing under Criterion 10. The Plan should clearly define what is and is not appropriate in terms of development within the community.

A town plan is a dynamic document to be reviewed at least every five years, amended, readopted or replaced to reflect new conditions, needs and vision of the community. State statute requires that a plan expires after five years unless readopted or replaced. While the Planning Commission is the public body responsible for preparing and revising a Town Plan, any individual can petition the municipal government to amend the Plan. Statute also requires that an "approved" town plan be consistent with statewide planning goals[1], be compatible with the Regional Plan[2] and other plans in the region, and contains all elements of a Plan[3]. A town plan is not a zoning document, but it is the blueprint by which zoning is implemented. Therefore, a town's land use regulations (zoning, subdivision, etc.) must conform to the Plan. A town plan cannot affect land use in existence prior to the plan's approval. It does not have the power of law designated to a zoning regulation and should not be confused with that power. The goals, policies and recommended actions in this plan should be applied reasonably and uniformly. No specific goal or policy in this plan should be applied in isolation from other goals and policies within it. Users of this plan must accept that interpretation of the plan involves close review of the facts.

[1] V.S.A. Title 24, Chapter 117, §4302
[2] V.S.A. Title 24, Chapter 117, §4350(b)(1)(B)
[3] V.S.A. Title 24, Chapter 117, §4382

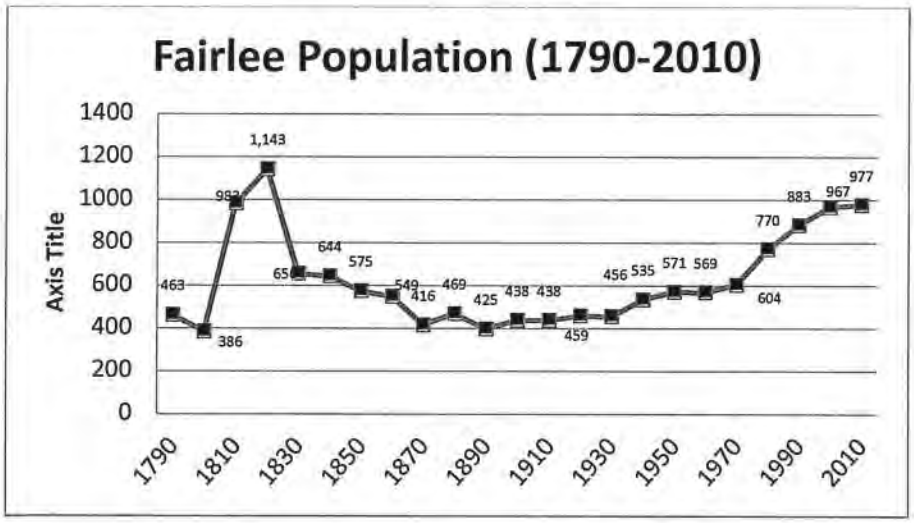
B. Goals of this Plan

1. To protect the constitutional right of the people to acquire, possess, and protect property;
2. To balance individual property rights with the needs of the community;
3. To determine current and future land use needs;
4. To establish areas desirable and suitable for development;
5. To maintain and enhance the vitality of the village center;
6. To enable efficient use and expenditure of public funds to support local governmental services;
7. To serve as a standard for the evaluation and review of proposed developments;
8. To determine current and future land use needs for Town-owned properties.
9. To encourage the continued growth and prosperity of Fairlee's economy.
10. To be consistent with the goals of Vermont's Planning Goals (24 V.S.A., 4302).

II. Demographics

The demographic nature of a town tells the reader a great deal about who the town is and what trends define its direction. To get a real-time snapshot of the town it is important to have the most up-to-date data available. Much of the content in this chapter has been taken from the 2010 US Census or the 2005-2009 American Community Survey. In other instances, state data was used.

A. Population



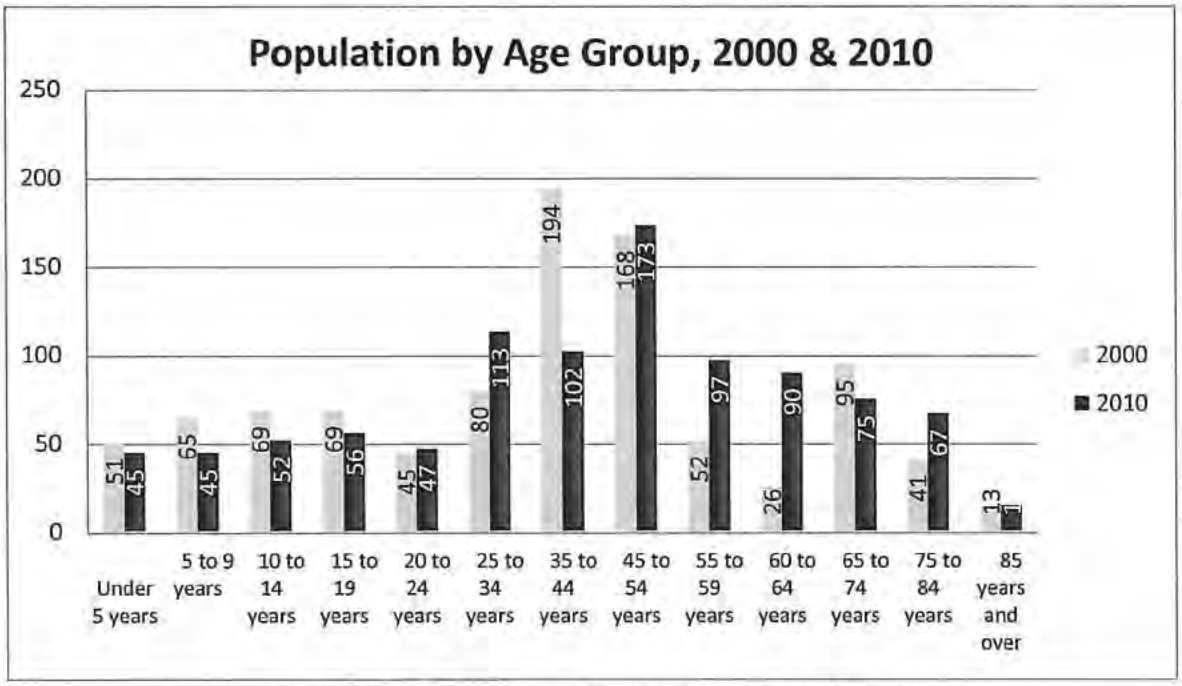
1 - Fairlee Population, 1790-2010 (Source: U.S. Census)

According to the data in figure 1, Fairlee's year 2010 population numbered 977 compared to a population of 967 in 2000, resulting on only a 1% increase. Fairlee's population change over time is reflective of many communities in Vermont. During the mid to late 1800's many Vermont towns reached their peak population. A mass exodus as citizens moved south caused a steep drop that finally stopped during the 1970's. Throughout the 1980's and up to 2000, most communities experienced a steady influx of new residents. Between 2000 and 2010, however, gains became losses in many communities (such as West Fairlee and Thetford); while other communities saw their population levels flatten.

B. Age of Population

In general, the age of Fairlee's population is similar to that of Vermont as a whole, with over half (63%) of the population over the age of 35. If the assumption is made that most of the population of Fairlee remained within the community during the period of 2000-2010, some changes in the demographic mixture of the community can be identified. For example, in 2000 roughly 7% of the population was aged 15-19. Ten years later, the population of 20-24 year-olds was just under 5%. It is reasonable to assume that as teenagers graduated from high school in Fairlee, they moved out of the community. If the same analysis is applied to residents aged 20-24 during 2000, it is interesting to note that Fairlee appears to have gained residents aged 25-34, an age group that is important to Vermont's communities. The loss of young adults (generally between the ages of 25-35) has been a concern throughout Vermont during the past decade. Often referred to as a "brain drain" the out-migration of young adults raises concerns on both economic and social levels.

Without a talented and well-educated pool of young workers, there are worries that the state will find it increasingly difficult to attract and retain well-paid jobs, which in turn can have serious repercussions for the state's capacity to raise tax revenues and pay for essential services. Young adults who leave their rural communities often do so because communities lack the resources commonly sought after by people of their age group, such as reliable high speed internet access, clear cell phone reception and opportunities for social interaction with others of their age group. According to the Department of Economic Development's (DED) 2007 Report "Growing Vermont's Next Generation Workforce", Vermont ranks at the bottom nationally for the percentage of its citizens between the ages of 25 and 29, and at the top in the percentage aged 50-54. While it is common, and perhaps desirable, for young adults to venture beyond their home state after college, the biggest concern is that many are not returning. During interviews for the DED report in 2007, young adults explained that their primary reason for leaving Vermont was to find better paying jobs. Likewise, the biggest hurdle for young adults wanting to return to Vermont was the availability of well-paying jobs and affordable housing. Those young adults who choose to return to, or relocate to, Vermont have indicated that their primary motivation for moving to Vermont is the lifestyle associated with the working landscape. Outdoor recreation, agriculture and the importance of community often encourage these citizens to return. The apparent increase in the number of residents aged 25-34 implies that there is some element of Fairlee's community that is attracting younger residents. This is a trend that needs to be explored and developed to insure growth in Fairlee as a community. In another trend that mirrors statewide trends, Fairlee also has an aging population. In 2010, 16% of the population was over 65 years of age, which is marginally higher than Orange County (15%) and the State of Vermont (14.6%). Vermont also has the lowest birth rate in the nation (10.4 births per 1,000 of population, compared with 14.2 for the U.S) which, when coupled with immigration of residents over 55, results in an aging population that will need services that are not readily available in a Town like Fairlee. The need for elderly housing will increase. For additional discussion regarding elderly housing, go to chapter III, Housing.



2 - Population by Age Group, 2000 &2010 (Source: U.S. Census)

III. Housing

A key element in the character of the Town is its housing - the quality, availability and variety of places for its residents to live. Housing has a large influence on the rate and direction of business and commercial growth a major goal of this plan is to encourage planning that meets two important community objectives:

1. To encourage, safe and affordable shelter for present and future populations; and
2. To provide for a density and distribution of housing throughout the Town that is sustainable and affordable.

Although the provision and maintenance of a town's housing stock is primarily a private sector activity, the growth and development of housing affects the character of the town and the facilities and services it provides or will provide. Housing constructed in the absence of adequate planning for public facilities can overburden schools, roads, and other municipal services. Poorly located housing can pollute a water supply or destroy an important wildlife habitat. Housing that is inadequate to meet the demand in a town or region can strain adjacent towns and prevent people from living close to their jobs.

A. Housing Profile

According to the U.S. Census, there were 625 housing units in Fairlee in 2010 (see figure 3). In 2000, there were 575 housing units. This amounted to an increase of 50 units or nearly 9% over the ten year period or an average of roughly 5 units per year. A housing unit, as defined by the U.S. Census, includes houses, apartments, mobile homes, and rooms for occupancy. As is the case for most Vermont towns, the bulk of Fairlee's housing units comprise of single-family homes (84%). When compared to its neighboring towns and Orange County as a whole, Fairlee has the lowest percentage of owner-occupied homes (47%). The percentage of second homes (26%) in Fairlee is higher than all of its immediate neighbors. When a town has a large number of homes that are not occupied year-round, it can have unforeseen impacts on town services. For example, communities which have volunteer fire department depend on full-time residents to staff its fire department and a lack of full-time residents can make acquiring staff difficult because the pool of candidates is reduced.

3 - Total Housing Units in Fairlee, 1940-2010 (Source: U.S. Census)

2010 Housing Occupancy, Fairlee and Surrounding Towns				
	Owner Occupied	Vacation	Renter Occupied	Vacant for Rent or Sale
Bradford	59%	7%	27%	7%
Fairlee	**47%**	**26%**	**23%**	**4%**
Newbury	53%	23%	18%	6%
Thetford	70%	11%	15%	5%
West Fairlee	58%	18%	17%	7%
Orange County	63%	14%	17%	6%

4 - 2010 Housing Occupancy, Fairlee & Surrounding Area (Source: U.S. Census)

B. Rental Housing

Fairlee's percentage of renter-occupied housing (23%) is higher than that of Orange County. But, the tight housing market statewide and lack of unoccupied apartments (only 2% of Fairlee's apartments are unoccupied) continues to drive up rental costs. The low percentage of homes that were unoccupied indicates that in 2010 Fairlee was experiencing a shortage of available rental housing stock. Anything below 5% is functionally considered a zero. This low percentage of housing stock is very consistent from town to town throughout Vermont. Fairlee's proximity to the Upper Valley and major centers of employment make it a potentially desirable location for additional rental housing. The most logical location for additional rental housing would be within or adjacent to the Village Center Area, particularly in areas where municipal water is available.

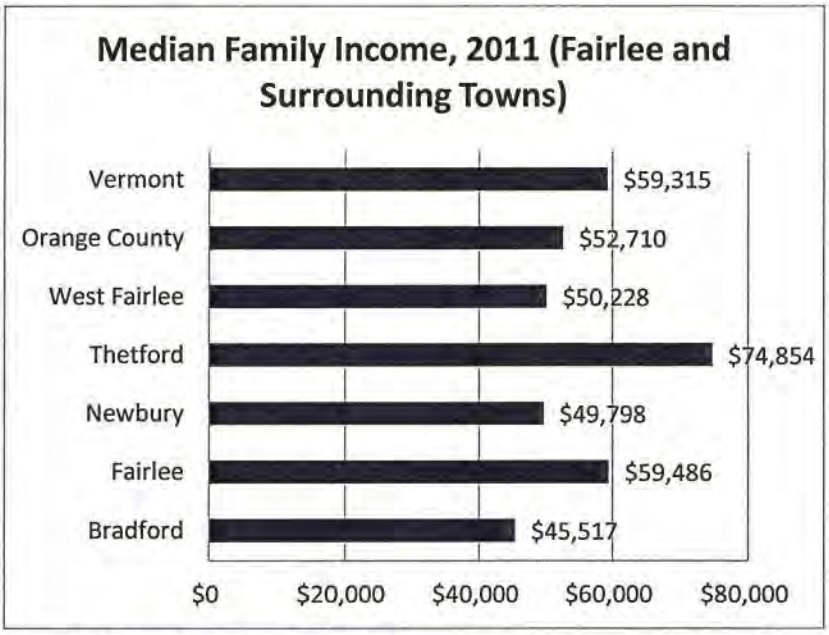
C. Affordability

Affordable housing is defined as that which a household making the County median income could afford if no more than 30% of its income were spent on housing costs. For homeowners, housing costs include payments for principal and interest on mortgage, taxes, etc. For renters, housing costs include rent and utilities. In 2000 the US Agency of Housing and Urban Development (HUD) calculated the fair market rent for a modest two bedroom apartment in Fairlee at $571 per month; in 2013 that cost had risen nearly 65% to $940 per month. In order for a renter in Fairlee to be able to afford rent for a two-bedroom apartment at this rate, in 2013 he/she would have needed a household income of roughly $30,760 annually. Given that more than 50% of Fairlee's households filed tax returns valued at less than 40,000 in 2012, it is likely that some renters in the community find it difficult to afford rental housing in Fairlee. This assessment is supported Vermont Housing and Finance' report "Housing Needs in East-Central Vermont" where they specifically identified Fairlee has having 42.7 percent of households that are spending more than 30% of their income on housing. Between 2000 and 2010, home prices throughout Vermont rose dramatically, but the collapse of the US housing bubble during the Great Recession (2007-2009) slowed the rise in home prices in many locations. Between 2010 and 2013, Fairlee's average equalized home value decreased by nearly 10%. When compared to neighboring communities in 2013 however, Fairlee had the highest average equalized residential home value ($223,458). But, it should be noted that average equalized residential home value data is not an exceptional indicator, as it can be skewed by a particularly expensive home and is subject to the local formula used for assessments.

Equalized Municipal Home Value, 2013	
Bradford	$184,407
Fairlee	$223,458
Newbury	$183,500
Thetford	$147,385
West Fairlee	$207,100
Orange County	$181,508

5 - Equalized Municipal Home Value, 2013 (Source: VT Dept. of Taxes)

The lack of consistent available housing data makes it challenging to track trends in housing values over time. The Vermont Housing Finance Agency (VHFA), in its 2013 "Housing Needs Assessment in East Central Vermont" indicated that the median income household in Orange County ($52,710) could likely afford the median home price of $178,700. Fairlee's median household income is higher than the county median ($59,486) but, as indicated on the previous page, 42.7% of Fairlee's residents are spending more than 30% of their income for housing. This is higher than the Orange County (35%) percentage.



6 - Median Family Income, 2012 (Source: American Community Survey)

Fairlee, like many communities, has experienced a trend toward fewer home occupants. This trend is unlikely to be reversed. The trend results in an increase demand for housing. The elderly, single households and other special populations are oftentimes in need of special types of housing including that which is affordable and readily accessible. Another barrier to affordable housing is the age of homes in Fairlee. Vermont's housing stock is among the oldest in the United States. 47% of the homes in Orange County were built before 1970, before newer energy efficiency technology was available, housing codes were more lax and the use of lead based paint was wide-spread. These factors make an important impact on the cost of operating housing, assuring the health and safety of all residents, and providing access to Vermonters with different abilities. The location of housing plays an important factor in housing affordability. Living near employment or other daily destinations can save costs substantially. The VHFA suggests that for a household that lives 10 miles from work, driving is likely to cost $122 less per month than a household who lives 25 miles away from work. A reduction in an expense of this nature would allow a household to better afford rent or a mortgage. In addition, a household with a shorter commute is likely to have a more stable future because it is less vulnerable to increases in vehicle fuel prices. In order to ensure the availability of affordable housing in Fairlee, the community encourages multi-family housing to be developed within or adjacent to the village center in areas served by infrastructure. Fairlee's location in relation to the Upper Valley and centers of employment make it an excellent location to live. The community would benefit from an expansion of the limited public transportation options that are available to a more substantial and robust system. The Village's proximity to I-91 and the railroad system provide multiple options for transporting residents to and from their places of work. Any efforts to expand public transportation services in Fairlee should be encouraged.

D. Elderly Housing

Section B of Chapter 1 discussed Fairlee's trend toward an aging population. The Baby Boomers (people born between 1946 and 1964) are beginning to retire, and the oldest ones will be 84 in 2030. This shift in demographics will put added pressure on an already tight housing market. Expanding health care costs may leave seniors with even less money to spend on housing.

Nursing and Residential Care Facilities 2012			
	Nursing Care (II)	Residential Care (III)	Residential Care (IV)
Bradford	0	0	12
Fairlee	0	0	0
Newbury	0	0	15
Thetford	0	0	0
West Fairlee	0	0	0

7 - Nursing and Residential Care Facilities, 2012 (Source: VT DAIL)

As the elderly (citizens aged 65 or older) become less comfortable with the tasks involved in managing their own home, they often turn to some sort of elderly housing. If health is an issue and some form of constant care is required, seniors will need to enter a nursing home or a residential care facility. As is indicated in Figure 7, there are no options in Fairlee and few in the surrounding area for this type of care. Elderly Fairlee residents in need of full-time care are forced to move away from their community. This is, of course, not just a local issue. There is a lack of elderly housing throughout the State of Vermont. Within Vermont, there are several types of elderly care facilities which are subject to State regulation, including nursing homes and residential care facilities. Nursing homes provide nursing care and related services for people who need nursing, medical, rehabilitation, or other special services. They are licensed by the state and may be certified to participate in the Medicaid and/or Medicare programs. Certain nursing homes may also meet specific standards for sub-acute care or dementia care. Residential care homes are state licensed group living arrangements designed to meet the needs of people who cannot live independently and usually do not require the type of care provided in a nursing home. When needed, help is provided with daily activities such as eating, walking, toileting, bathing, and dressing. Residential care homes may provide nursing home level of care to residents under certain conditions. Daily rates at residential care homes are usually less than rates at nursing homes.

E. Housing and Land Use Policy

As noted earlier in this chapter, the provision and maintenance of a town's housing stock is primarily a private sector activity. However, where a community plans for housing is important for several reasons. First, the location of housing can have a direct impact on a community's ability to provide services such as road maintenance and emergency services. Dense housing developments located in very rural areas would require additional roads and could overburden local first responders. Second, housing can impact the rural character of a community. The same dense housing development in a rural area could create increased traffic which could notably change the character of the area. Well thought out planning policy for housing can help housing developers identify locations that would be mutually beneficial for their customers as well as the community as a whole. Multi-family housing can offer cost-effective housing opportunities to an underserved portion of the community. Likewise, if new multi-family housing were located within or adjacent to the Village Center, the

increased population will stimulate the local economy, and may have the effect of improving community involvement. The area within the community that is served by Fairlee's water system is the most logical location for high density or multi-unit housing (less than 1 acre per unit). High density housing is typically less expensive to develop than housing that takes up more land because of the cost of that land. However, because the village lacks a municipal sewer system, any proposed high-density development would need to take into consideration the potential for negative impacts on existing properties.

F. Goals, Policies and Recommendations

Goals

1. To promote sufficient safe, affordable housing for Fairlee residents.
2. To encourage innovative planning, design and construction of residential housing which minimizes the cost, energy consumption and environmental impacts of housing while maintaining the character of the community.

Policies

1. The Town should allow for growth of housing for all income levels and at a rate consistent with the community's ability to provide services in a fiscally sound manner and consistent with the other goals and policies expressed in this Plan.
2. Use of public funds in the form of subsidies may be necessary to preserve maintenance of or access to affordable housing. Where such projects involve public funds, they should only be encouraged when these investments result in developments which are affordable on a long-term basis and when a clear public benefit to the community can be demonstrated.
3. Priority should be given to the preservation and improvement of housing already in existence.
4. Multi-family housing should be located adjacent to existing Village Center Area in the Interchange Area where municipal services are readily available.

Recommendations

1. Community leaders should work with state housing agencies, non-profit organizations, and lending institutions to insure the availability of loan or grant funds for Fairlee residents to acquire or improve their primary homes.
2. The Town should work with the Two Rivers-Ottauquechee Regional Commission to evaluate Fairlee's role in supplying the region's housing stock by assessing their capacity for growth.
3. The Fairlee Zoning Regulation shall be modified to regulate two family homes identically to single family homes.
4. The Fairlee Zoning Regulation shall be modified to make Multi-family housing a permitted use.

IV. Education

A. Educational Facilities & Programs

Preschool

The Rivendell Early Childhood Program (RECP) began in 2001 at the Westshire Elementary School in West Fairlee. In 2008, due to demand for preschool, a second site was added in Fairlee at Samuel Morey Elementary. In 2014 a second program with extended hours was added at Westshire Elementary. There are approximately 40 children ages 4-5 enrolled as part of this program.

Elementary

Samuel Morey Elementary is located in Fairlee's Village Center Area on School St. It provides K-6 level education for students in Fairlee, as well as the towns of Orford, Vershire and West Fairlee (grades 5-6). The School was built in 1956, and is considered to be in good condition. The most recent capital improvement to the facility was a roof replacement in 2010. There are no major capital improvements planned for this facility in the next 5-10 years. The school's playgrounds were rebuilt in 2012 after a design flaw in the previous facilities was discovered. Also in 2012, the facility received a complete changeover to occupancy and daylight sensors on all outside light fixtures in order to reduce energy use.

Jr./Sr. High

Grades 7-12 are taught at Rivendell Academy, which is located across the Connecticut River in Orford, NH on Route 25A. As part of the diverse educational opportunities offered by Rivendell, high school students have access to college courses at Dartmouth College or Community College of Vermont (CCV), or may participate in affiliated programs at River Bend Career and Technical Center in Bradford, VT, or Hartford Career and Technical Center in Hartford, VT. Parts of the Academy building are aging and in need of investment. In particular, the older sections of the building (which were formally Orford High School) require major heating upgrades. The School Board is currently working to determine the cost and timing of these necessary improvements. In 2012 high efficiency exterior light fixtures were installed. Also in 2012, the Academy's multi-purpose room was upgraded to include new lighting and a modern audio/visual system. The West wing of the building (which was built in the 1980's) was upgraded with synthetic exterior trim and all windows had foam insulation installed around their framing to reduce heat loss. In 2013 the school participated in an asbestos abatement program to remove the material from the school. During this period of time the gym floor and bleachers were replaced. Air handling facilities were also updated.

After School Programs

There are active after school programs at Samuel Morey Elementary (K-6) and Rivendell Academy (7-10). This provides students who attend with help completing homework, and the opportunity to socialize with friends as they participate in a range of activities.

B. Student Enrollment

Enrollments of Fairlee students in the Fairlee School System are reported annually to the Vermont Department of Education. Based upon annual student resident counts from the Department, average daily membership (ADM) at the school for grades (K-12) over the past decade has been as follows:

School Year	Elementary	Secondary
2013-2014	67	45
2012-2013	60	56
2011-2012	65	52
2010-2011	57	56
2009-2010	60	59
2008-2009	53	64
2007-2008	59	74
2006-2007	63	68
2005-2006	69	92
2004-2005	75	87

Figure 8: Average Daily Membership (Source: VT Dept. of Education)

Elementary level enrollment has remained relatively consistent for the past decade averaging about 63 students per year. However, secondary level enrollment has been on the decline for the past decade. In the school year spanning 2013-2014, only 45 students from Fairlee attended Rivendell Academy. When compared to the ADM of 87 during 2004-2005, there has been a decrease of nearly 50% in the number of students.

Secondary School Student Information	2010-2011	2011-2012	2012-2013
Attendance Rate	95%	96%	97%
9-12 Dropout Rate	0%	11%	6%
Graduation Rate	97%	85%	92%
Student Teacher Ratio	9.97	9.5	9.14

Figure 9: Secondary School Student Information 2010-2013 (Source: VT Dept. of Education)

Declining enrollments are being experienced as a state-wide trend, in great part due to Vermont's aging population. But, as was indicated in the Housing Chapter, Fairlee appears to be attracting young adults, which may account for the stability of the primary school population. Losses in student population at the secondary level suggests that residents are either leaving Fairlee when their children reach secondary school age, tuitioning their children to other schools or opting to homeschool. Regardless of the reasons for declines, it is an area of concern. Declining enrollments could impact school taxes and they could also limit the variety of educational opportunities students might have due reduced staffing, etc.

C. Childcare

An inventory of registered childcare facilities reveals that Fairlee has a very limited amount of childcare available to the community. The State of Vermont has two classifications of childcare that are regulated. They are:

Childcare Facilities, 2013	Registered	Licensed
Bradford	3	3
Fairlee	2	2
Thetford	2	5
West Fairlee	1	2

Figure 10: Childcare providers by type, by town 2013 (Source: VT Bright Futures)

- **Registered Family Child Care Home**: A child care program approved only in the provider's residence, which is limited to a small number of children based_on specific criteria.
- **Licensed Program**: A child care program providing care to children in any approved location. The number and ages of children served are based on available approved space and staffing qualifications, as well as play and learning equipment. A Licensed program must be inspected by the Department of Labor

and Industry's Fire Safety Inspectors and must obtain a Water and Wastewater Disposal Permit from the Agency of Environmental Conservation. A Licensed program is considered a public building under Vermont Law. Types of licensed programs include: early childhood programs, school-age care, family homes and non-recurring care programs.

There are currently only two licensed childcare services in Fairlee. Most residents currently arrange for care with relatives, or take their children to childcare facilities beyond the borders of Fairlee to neighboring towns.

D. Adult Education

Fairlee has a fairly limited amount of adult education opportunities. Most adults take advantage of the opportunities that are available in the greater Upper Valley Area as an alternative. These include:
Community College of Vermont (CCV) – CCV has offices and classrooms in Hartford, VT. CCV is part of the Vermont State College system and offers full and part time educational opportunities. Attendees may choose a two-year program that leads to an associate's degree, a four-year program that leads to a bachelor's degree, or the college's Certificate Program.
Hulbert Outdoor Center – The Hulbert Outdoor Center offers educational and human resources year-round through school and community programs of environmental education, leadership training, wilderness adventure, family camping, Elderhosteling, and a wide variety of special seasonal events.
River Bend Career and Technical Center (RBCTC) – Located in Bradford, VT, the RBCTC is part of Oxbow High School. RBCTC offers adult education courses that range from the traditional tech center focuses of mechanical and woodworking, to computer technology, small business management and bookkeeping, as well as arts, crafts and languages. Online courses are also available. RBCTC adult education classes are open to all for a fee. Other, more extensive, opportunities are available in Hartford as well.

E. Goals, Policies and Recommendations

Goals

1. To encourage the creation of affordable childcare facilities that meets the established needs of residents in Fairlee.
2. To provide a safe and secure learning environment where quality educational opportunities are provided to all students.
3. To enable the best opportunity to educate our students at the most equitable cost to the Town's taxpayers.

Policies

1. To support the Rivendell School District as long as it does not put an undue burden on taxpayers.
2. To support the private development of additional facilities to meet the childcare needs of its residents and may assist with seeking funding to develop these facilities.
3. Land development which is likely to result in large numbers of school children must be phased or planned so as to not place an undue financial burden on the capacity of the Town to provide educational services.

Recommendation

1. The Town should support private sector efforts to seek funding to assist with the development of childcare infrastructure.

V. Economic Development

A. Introduction

A local economy is comprised of several elements - activities that occur within the town and regional economic activities in which the town's residents are involved. Fairlee is often viewed as a bedroom community, and the data continues to support this concept. While it is likely that many residents will continue to seek employment outside of Fairlee, it is one of the key goals of this plan to see economic growth occur within the town.

Establishments, Employees and Wages				
	Local businesses[4]	Employed[5]	Unemployed	Average Wage
2012	69	518	3.7%	$30,892
2011	69	536	4.0%	$30,028
2010	67	536	5.7%	$28,951
2009	68	549	4.9%	$27,822
2008	71	577	2.8%	$26,997
2007	70	577	2.5%	$26,348
2006	70	565	2.0%	$26,355
2005	73	587	2.0%	$25,482
2004	67	566	2.4%	$26,006
2003	68	618	2.7%	$24,881
2002	66	610	2.2%	$23,309
2001	61	588	1.9%	$22,549
2000	60	554	1.8%	$20,303

Figure 11 - Establishments, Employees and Wages (Source: VT DLI)

Data from the Vermont Department of Labor and Industry indicates that the number of establishments (employers) in Fairlee has remained relatively flat for over a decade. While the number of employers in Fairlee is healthy, businesses appear to come and go and no trend of gains or losses exists beyond this natural fluctuation. The challenge faced by communities such as Fairlee, where many residents seek employment out of Town, is creating a viable method for encouraging economic growth. Initially, a community seeking to encourage economic growth must inventory its assets. Fairlee has several unique advantages that other communities do not, they include:

- Direct access to the rail system - The Vermont Rail System follows Route 5 along the Connecticut River, passing through Fairlee and its central village. This travel corridor has the potential to serve light industry as well as future travelers should rail ever become a viable method of public transit. The potential offered by rail transportation could effectively allow populations from major metropolitan areas such as Boston, MA, to take advantage of Fairlee's lakes and outdoor recreational opportunities.
- Direct access to the Interstate - While it has been acknowledged that the development of I-91 effectively split the community into two sections, the Interstate is a resource that offers Fairlee's economy direct

[4] The Vermont Department of Labor only reports information on jobs covered by unemployment, which excludes the self-employed, most business owners and some farm employees.

[5] This number reflects the total number of employed residents who live in Fairlee, not all of which are employed by local businesses.

access to travelers, freight and commerce. Additionally, Fairlee is unique in that the interchange is within the boundaries of its village center. This arrangement allows Fairlee to take advantage of interstate travelers by offering goods and services, without the negatives commonly associated with patterns of urban sprawl that often develop around interchanges outside of villages.

- Village Center - Fairlee has a Village Center, and although it is separated from much of the community by Interstate 91, it is a location where residents and visitors can do business, utilize services and participate in community events.
- Lake Morey and Lake Fairlee - Fairlee is fortunate to have Lake Morey in an area that is adjacent to the Village Center. Lake Fairlee offers a less developed alternative to the density of Lake Morey, expanding recreational opportunities. Both lakes act as a draw for tourists and provide recreation to visitors beyond Fairlee's borders. Although the population of visitors is higher during the summer, the lakes have the capability of providing a draw during winter months as well.

B. The Village Economy

While the value of tourism as part of Fairlee's local economy is undeniable, it is clear that the community could benefit from a more diverse year-round economy. An economy that is consistently active year-round would provide better local job opportunities and would increase Fairlee's draw as a destination. To encourage this type growth, it is the intent of this Plan to focus on the Village Center area as the most logical location to direct a substantial portion of future economic development. As such, it is important to recognize the need for village improvements. There are a number of locations within the Village Center that could be revitalized, most obviously, the Colby Block. The former Fairlee Railroad Depot is also a location ripe for revitalization. To encourage revitalization, Fairlee could (if it had an approved Town plan), enroll in the State of Vermont's Village Designation Program. This program offers tax credits for the revitalization of buildings within designated areas. Recognizing that the vitality of the Village Center area is supported by Fairlee's existing water system, there are several state programs which relate to drinking water and wastewater which can provide financial assistance to communities for expansion and improvements of existing systems. The potential funding is highest in areas that are designated as growth centers. To that end, this Plan designates the Village Center Area (including the Village Interchange Area) as a growth center. Other possible ways to encourage expanded economic development within the village is to improve the village's aesthetics and to add traffic calming measures that would make the village more pedestrian friendly. Fairlee's existing sidewalk system is substantially smaller than it has been in the past. Returning it to its historical size and improving the quality of design would improve pedestrian travel throughout the Village Center. Encouraging public transit or locating a formal park and ride within the village might draw more people into the village. Any cost-effective method of making the village a more desirable location for businesses and visitors is worth considering.

Village Designation Benefits

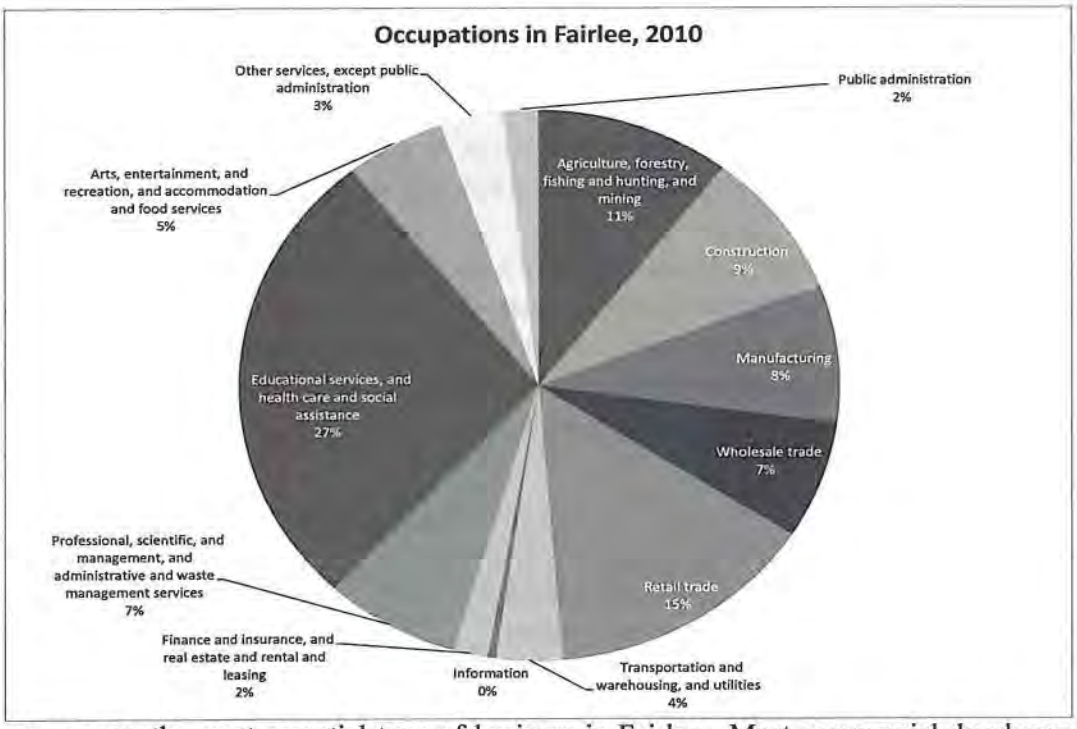
Because of its participation in the Vermont Village Designation Program, Fairlee's Village would have the following benefits available to it:

- 10% Historic Tax Credits
- 25% Facade Improvement Tax Credits
- 50% Code Improvement Tax credit
- Priority Consideration for HUD, CDBG and Municipal Planning Grants
- Priority consideration for Municipal Planning Grants and funding from Vermont's Community Development Program.
- Priority Consideration by State Building and General Services (BGS)
- Special Assessment Districts

No cost to community. Does not have regulatory effect.

C. The Town Economy

This Plan's focus on Village growth should not be taken as ignoring the benefits of commerce outside of the Village Area. In fact, this Plan recognizes that small businesses (many of which are home-based businesses) are



in many ways the most essential type of business in Fairlee. Most commercial development in Fairlee that is located outside of the village is of a size that is appropriate in the rural countryside, and is consistent with this plan. Through sensible planning and good land use regulations these enterprises should continue to be promoted throughout Fairlee. The Plan seeks to expand opportunities for small businesses by encouraging improvements to communication infrastructure such as affordable high-speed internet. It is hoped that such improvement may allow residents who are currently commuting to telecommute. Any opportunity to improve these services would have the support of the Town. The community will continue to encourage the development of small businesses as long as they do not negatively impact the rural character of Fairlee and are at a size and scale that live harmoniously with surrounding homes and other businesses. Businesses located outside of the village should not put an undue burden on community services, in particular roads. Commercial development that is consistent with "strip development" or "sprawl" is not consistent with the character of the community. Also important to the Fairlee Economy are Lake Morey and Lake Fairlee, which are home to several tourist destinations. This Plan is seeking to provide opportunities for the continued growth of these businesses while balancing the need to keep the Lakes healthy and vibrant by allowing for extensive master planning as part of the permitting process.

D. Promoting Economic Growth

Leadership is essential to this process as economic growth cannot be willed. Only through a consensus can the Town form a coordinated economic development effort. This is, of course, where the citizens of Fairlee have the most to offer. Key figures in the community, including small business owners, representatives of Town government and Realtors can join forces with active citizens to help create a vision for the economic future of Fairlee. But, because economic development takes time, all who participate in the process must be committed to a common vision of what the Town wants to be. In order to begin the process of economic development planning, citizens will have to determine what and who the Town's assets are (in addition to those listed above). Likewise, they will need to identify what the key needs in Town are and whether or not they can be realistically offered locally. Using this information, the Town should develop a mission that will help guide those involved toward the

ultimate goal of encouraging economic development in Fairlee. Fairlee does not have a local organization such as a business association or local chamber of commerce. The Lower Cohase Regional Chamber of Commerce

includes Fairlee as part of its region, and some efforts by the Chamber have been directed at the community. However, it would be beneficial to the businesses located within Fairlee to have another local business association which could represent their interests, provide information and training and create a forum at which business owners could communicate with each other regularly. A Fairlee Business association could work with the Town to create initiatives that would increase interest in the Village Center or to conduct studies that would help guide future investments in the Village. A 2012 study by the Urban Land Institute indicated that on a national level, businesses are making their location decisions based substantially on sense of place. Likewise, young adults have indicated that their primary motivation for moving to Vermont is the lifestyle associated with the working landscape. A small community's best method of encouraging new business is to recognize its best assets, protect those assets, and support any efforts to promote those assets. Fairlee's rural, natural, recreational and historical resources are its greatest assets, and should be prudently managed.

E. Employment and Wages

The number of employed residents in Fairlee has changed over time in a manner consistent with the State of

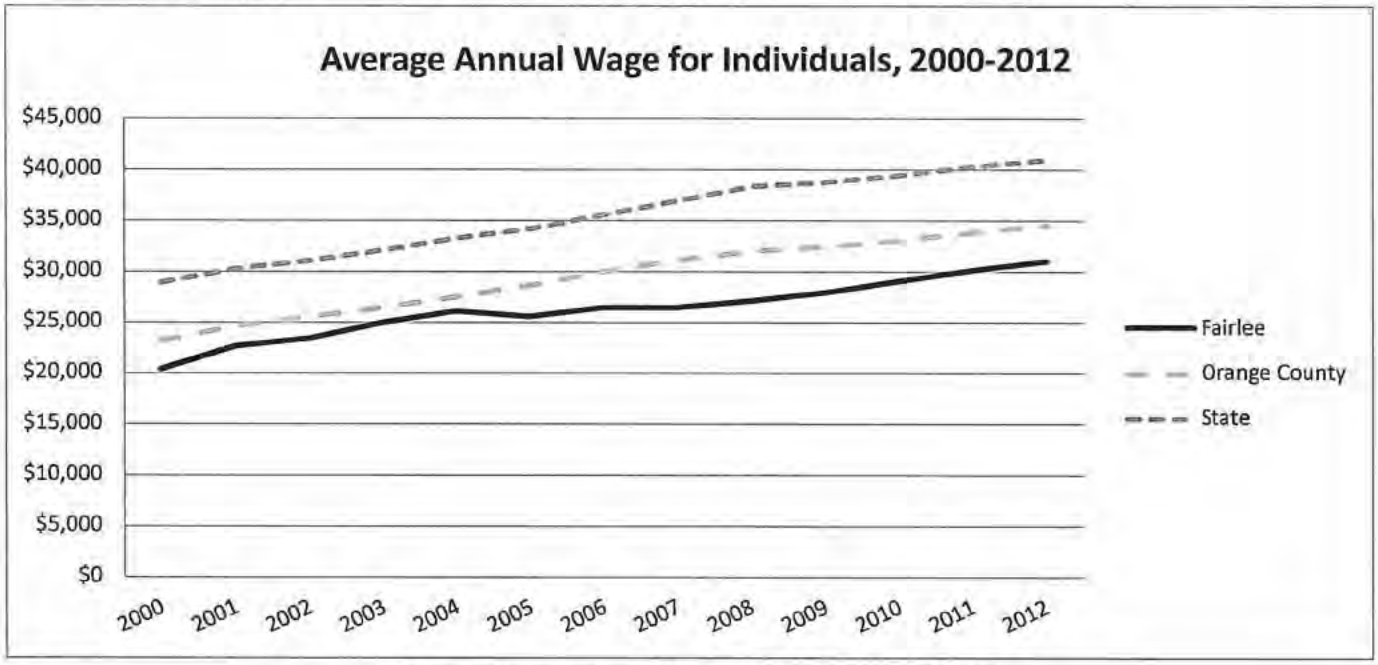


Figure 13 - Average Annual Wage, 2000-2012 (Source: VT DLI)

Vermont. Between 2000 and 2010, the unemployment rate rose 3.5%, reflecting the impacts of the "Great Recession" on Fairlee's job stability. Since 2010, Fairlee's unemployment rate has decreased slightly, which is consistent with changes.

Vermont's unemployment rate over the same period but, in 2012, Fairlee's unemployment rate of 3.7% was lower than either Orange County (4.9%) or Vermont (5%). According to the 2010 US Census, a plurality

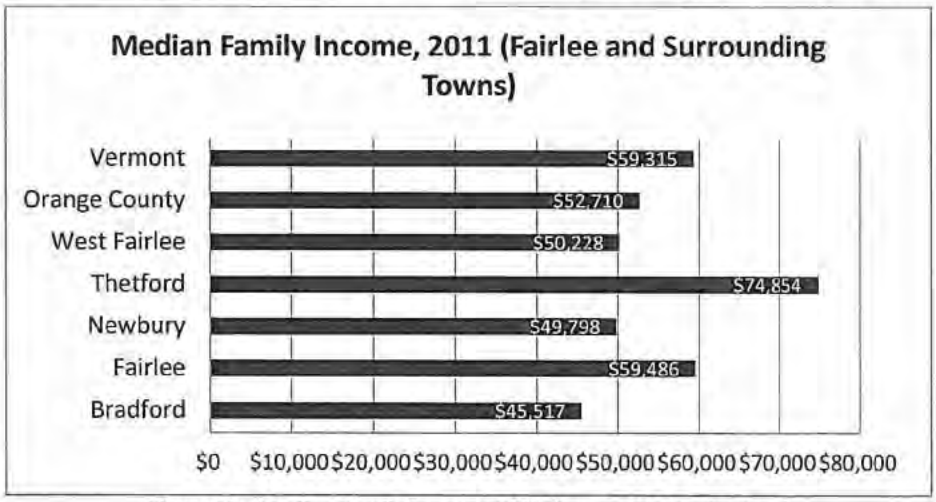


Figure 12 - Median Family Income, 2011 (Source: VT Dept. Taxes)

(27%) of residents in Fairlee are employed in education, health care and social assistance (see figure 9). It is likely that many of Fairlee's working residents are employed by the Upper Valley's largest employers—Dartmouth College and Dartmouth Hitchcock Medical Center. This is further supported by the fact that over 80% of Fairlee's workforce commute to work. Fairlee's workforce has been consistently below the County and State average annual wage levels for more than a decade. In 2012, Fairlee's average annual wage was $30,892, which was 11% lower than Orange County ($34,531) and over 30% lower than the State_($40,969). While individual wages in Fairlee lag behind state and county averages, family incomes do not. In 2011, Fairlee's median family income (A family consists of two or more people related by birth, marriage, or adoption residing in the same housing unit) was $59,486, which was 11% higher than the county median ($52,710) and slightly higher than the state ($59,315). Family income is an important factor to consider when analyzing the affordability of housing within a community. For more data relating to housing, go to Chapter III.

F. Goals, Policies and Recommendations

Goals

1. To encourage a strong and diverse local economy that provides satisfying and rewarding employment opportunities for residents while maintaining the community's rural character.
2. To encourage the development of a year-round economy in Fairlee.

Policies

1. The Town should work to attract diverse and sustainable businesses in Fairlee which create jobs and contribute to the local year-round economy.
2. The Town should encourage efforts to improve pedestrian travel within the Village Center through streetscaping or traffic calming.
3. The Town should encourage mixed-use commercial development within the Village Center area.
4. New commercial development (excluding primary retail) should be encouraged in appropriate locations outside of the Village Center where services such as roads, fire protection and power supply are available or planned.
5. The Town should consider creating a tax stabilization plan to encourage economic development in Fairlee.

Recommendations

1. The Town should encourage and support the responsible development of information technology and communication infrastructure necessary for new economic growth.
2. The Town should apply for Village Designation for Fairlee's Village Center to give local developers and business owners access to tax credits for revitalization.
3. The Town should encourage the State of Vermont to locate a park and ride facility within the Interchange Area adjacent to the Interstate.
4. The Town should support any efforts to expand public transit provided that the village is used as a location to pick up and drop off riders.

VI. Land Use

Fairlee's rural character is strongly influenced by its pattern of land development, building design, its relationship to the landscape, and the sense of community that comes from people living and working here. This section of the Plan describes Fairlee's current land use and sets a framework on how land should be utilized in the future. Although growth in the Upper Connecticut River Valley has slowed in the past decade, this Plan recognizes that in order to remain a vital and thriving community, Fairlee must continue to grow. It is hoped that future growth will result in new and expanded job opportunities, more income, and increased social and cultural diversity. Overall, past growth has been positive and has benefited the Town. In spite of this, the changes that result from growth underscore the need to identify and to develop effective growth and land use principles that will serve the long-term future interests of the community.

A. Overall Land Use Goals

In formulating a future land use pattern, consideration needs to be given to the existing settlement pattern, maintenance of the Village Center, the surrounding low-density rural and agricultural areas, large open spaces, forests and distinct recreational value. Additionally, consideration must be given to the State of Vermont's Planning goals (V.S.A. Title 24, Chapter 117, §4302). A key element of the State's goals is to maintain the traditional pattern of development most common to Vermont – densely populated village and urban centers surrounded by open countryside. Accordingly, the following are recognized as key factors for determining the type, scale and intensity of future land use:

- land topography, soils, water, and other natural resources characteristics;
- relative ease of access to roads and other transportation facilities;
- availability to public services, including water facilities;
- desirability of avoiding land use conflicts; and
- the needs of the citizens of Fairlee.

The overall land use goals for Fairlee are listed below:

- Encourage the full use of existing or designated growth centers or areas to avoid sprawl;
- Promote the economic viability and revitalization of the village center;
- Protect the scenic and recreational value of Lake Morey, Lake Fairlee and the Town Forest;
- Conserve the natural environment by judicious use of natural resources;

Sprawl - Dispersed auto-dependent development occurring outside of compact urban and village centers, along highways, and in rural countryside. Sprawl is typically characterized by:

- excessive land consumption;
- low densities in comparison with older centers;
- lack of choice in ways to travel;
- fragmented open space, wide gaps between development and a scattered appearance;
- lack of choice in housing types and prices;
- separation of uses into distinct areas;
- repetitive one-story development;
- commercial buildings surrounded by acres of parking;
- lack of public spaces and community centers.

- Protect the character of rural areas and their natural resources by avoiding scattered development and incompatible land uses;
- Protect wetlands and aquifers from incompatible development.

B. Current Land Use

The Town of Fairlee has many of the characteristics of a traditional Vermont community, in that it has a single village that is the primary location for civic and commercial uses, with the remainder of Town being generally rural in nature. Unlike many Vermont communities, Fairlee has access to two of Vermont's primary transportation corridors: Interstate 91 and the railroad. This access to transportation infrastructure positions Fairlee to be a good place for commercial and industrial development. Although the Interstate has benefited the community, it should be recognized that it divides the community, separating the village from a majority of Town. Because of this division, the Village is constrained by topography in such a way that developable areas near it are limited.

As of 2013, Fairlee's zoning districts consist of the following:

- Residential A
- Residential B
- Commercial A
- Commercial B
- Flood
- Industry
- Lake A
- Lake B

The Planning Commission has examined growth patterns over the past decade and recognizes that the potential impacts of continued growth, particularly around Fairlee's lakes, must be carefully considered. Because the Lakes have such an intrinsic value to the community, there is a need to create a mechanism that will allow for continued development that is well-planned and sustainable. The Planning Commission has proposed changes to Fairlee's land use regulations that should achieve this goal. In the Village, current regulations do not reflect existing patterns of development and are not supportive of the types of densities that are appropriate in a Village. Additional changes suggested below should allow for continued growth within the Village Area and should make the permitting process easier. In an effort to streamline the permitting process, many communities have moved from separate zoning and subdivision regulations to a "unified bylaw". The purpose of this change is to consolidate regulations and to simplify permitting. The Planning Commission supports this concept.

Secondary vs. Primary Retail

A primary retail establishment is a business whose primary purpose is the sale of goods. *Examples include (but are not limited to) a grocery store, a pharmacy, a flower shop, etc.*

A secondary retail establishment is a small portion of a business whose primary purpose does not involve the sale of goods. *Examples include (but are not limited to) a furniture manufacturer who has a small retail shop on site, a veterinarian's office that sells dog food, a brewery with a restaurant and beer sales, etc.*

C. Future Land Use Areas

The primary goal of the Fairlee Town Plan is to allow for sustainable growth and the creation of jobs while protecting the rural character, recreational assets and the vitality of the village. To encourage growth in a manner that does not overburden the Town's ability to provide services or negatively impact the vitality of the village center, the Planning Commission is creating the following Land Use Areas:

- Village Area
- Interchange Area
- Lakeshore Resort Area
- Lake Area
- Mixed Use Area
- Residential Area
- Industrial Area
- Flood Hazard Area

Each land use area is intended to further the Overall Land Use Goals of this chapter as outlined in section B.

Village Area

The purpose of the Village Area is to provide a location for a dense mix of commercial, civic and residential uses in Fairlee that sustain and improve the vitality of the community's core. Density in the Village Area should take advantage of existing municipal water service. Uses that are appropriate in this area include commercial (including primary retail), civic, municipal and residential. Commercial uses that require a large amount of land for storage of materials or products are not appropriate within the Village Area. Multi-family dwellings are encouraged within the Village Area. The design of development within the village should occur in a way that encourages walkability. The location of buildings should reflect the traditional pattern of a Vermont village, which can be achieved by limiting setbacks from pedestrian areas. Parking should be encouraged to locate behind buildings in order to support pedestrian use of the village.

Goals

1. To encourage the growth of Fairlee's Village Area in keeping with the rural character of the community.
2. To provide a location for thoughtful residential and commercial development at a size and scale that does not negatively impact Fairlee's ability to provide services or the rural and natural character of the area.

Policies

1. It is the policy of the Town that the establishment of commercial uses be encouraged in the Village Area.
2. It is the policy of the Town that all development within the village areas must be consistent with the existing character of the neighborhood.
3. Primary retail establishments (excluding those retail establishments that require substantial area for storage of materials, such as lumberyards and nurseries) must be located within the village.

Recommendations

1. The Planning Commission should increase the boundaries of the village area to reflect the boundaries of the current water service area and the addition of the Mixed Use Area.
2. The Planning Commission should investigate new models of zoning regulation that will encourage a pedestrian-friendly environment that supports the vitality of the Village.
3. The Planning Commission should consider amending the Fairlee Zoning Ordinance to provide guidance as to how landscaping can be used to maintain the character of the village.

Zoning for Re-development

While the area around the I-91 Intersection is well-developed, the Planning Commission recognizes that the interchange offers a unique opportunity for re-development. The creation of this land use area is intended to guide new development in a fashion that it supports re-development while protecting the character of the community.

Interchange Area

The purpose of the Interchange area is to allow for a dense mix of light industrial, multi-family housing, Professional offices and commercial (including primary retail) uses that can take advantage of the I-91 Interchange. Residential uses can be allowed but should not be the primary use in this area. Density should be as dense as the village area to take advantage of existing water services.

Goal

1. To allow a broad mix of uses that will benefit from immediate access to I-91 while maintaining the area as an appropriate entryway into Fairlee's Village Area.

Policies

1. It is the policy of the Town to encourage the development of a mix of appropriately sized commercial uses including primary retail and multi-family housing in an area that is immediately adjacent to the Village Area.
2. Businesses that are commonly associated with strip development or urban sprawl are not appropriate in this area.

Recommendation

1. The Planning Commission should create an Interchange zone in the Fairlee Zoning Ordinance, with provisions that will allow the Development Review Board to properly determine what types of development fit within the character of the area.

Lakeshore Resort Area

The purpose of this area is to understand the nature of Fairlee's existing urban lakeshore area and to maintain and support the recreational value of the waterfront while allowing for planned development of resort and recreational development among existing residential establishments. The density of this area should be no less than one-acre unless the development is part of a master plan. Resort development within this area would have to participate in an ongoing master planning process.

Goal

1. To maintain a positive relationship with Fairlee's resorts while ensuring that the scale, pace and type of development does not negatively impact the waterfront and residents who reside in the area.

Policy

1. It is the policy of the Town to support the managed development of Fairlee's resorts in a fashion that is compatible with the surrounding area and protective of the character of the waterfront.
2. It is the policy of the Town to limit commercial development in the Lakeshore Resort Area to appropriately scaled recreational businesses. Primary and secondary retail are not appropriate in this area.

Recommendation

1. The Planning Commission should create a master planning process for commercial developments within the Lakeshore Resort Area which requires a clearly developed five-year master plan as part of the application process.

Lake Area

The purpose of this area is to maintain existing residential and recreational access to Lakes Morey and Fairlee, while protecting the character of the lakes. Density within this area should be no greater than one acre (without Town services) or ½ acre with Town services. Commercial development is not appropriate in this area.

Goal

1. To ensure that the character and recreational value of Lakes Morey and Fairlee continue to be an asset to the citizens of Fairlee.

Policy

1. It is the policy of the Town to support a pattern of growth in the Lake Area that recognizes the value of access to the lake and its natural character.

Mixed Use Area

The purpose of this land use area is to provide a location for a mix of uses that will benefit from access to Route 5. Appropriate uses would include commercial (excluding most primary retail) and residential uses. Commercial primary retail uses that require substantial space for outdoor storage, such as lumberyards or tree sales, would be considered appropriate for this area. Density should be a minimum of roughly an acre. Home occupations and home businesses are encouraged in this area.

Policies

1. New commercial development within the Mixed Use should be designed in such a fashion that it:
   - creates compact and densely developed projects which utilize land efficiently;
   - reduces the impact of parking and integrates landscaping;
   - provides pedestrian and vehicular links between developments;
   - utilizes screening between the project and the street to reduce visual impacts and to diminish other impacts such as noise, including use of large trees;
   - discourages strip development and sprawl;
   - and includes signage that effectively communicates the desired message without being inappropriate.
2. Sound access management technics, including shared access points shall be incorporated into all commercial developments in an effort to ensure traffic safety and to minimize the number of curb cuts.
3. Primary retail establishments (excluding those that require a substantial amount of outdoor space for storage of materials) shall be located only in Fairlee's Village and not within this land use area.

Recommendations

1. The Planning Commission should create the Mixed Use Area along the Route 5 corridor north of the Village to the Fairlee Bradford Town line and south of the Village Area to the Industrial Area.
2. Clear standards (possibly including performance standards) with regard to the types and sizes of appropriate light industrial and commercial development and access management should be developed for conditional use review.
3. The Planning Commission should consider amending the Fairlee Zoning Ordinance to provide guidance as to how landscaping can be used to maintain the character of the Mixed Use Area.

Residential

The purpose of this land use area is to provide a location for residential development. High density residential development should be allowed only in areas immediately adjacent to the Village Area with access to municipal services. Areas not adjacent to the Village Center or served by municipal services should be less dense and more rural in character. Uses within this area should be primarily residential in nature. Commercial development within this area should fit with the character of the area and should not put a burden on roads or create a nuisance.

Goal

1. To encourage the development of residences at scales that are appropriate for the area in which they are located, based on availability of services and proximity to the village center. .

Policies

1. It is the policy to encourage that higher density residential housing is located in areas that have access to municipal water.
2. It is the policy of the Town to encourage that lower-density residential housing is in areas of the Town that are not served by municipal water.

3. It is the policy of the Town to encourage that multi-family housing is in areas of the Town that are adjacent to the village center or have access to municipal water.
4. Primary retail establishments are not appropriate for this area, but small-scale businesses such as services or professional offices may be appropriate provided that they have access to municipal water or are adjacent to the Village Area.

Industrial Area

The purpose of this land use area is to provide a location for light industrial and commercial (excluding primary retail) development adjacent to Route 5 and the railroad. Industrial activities in this area should be at a size that is appropriate for the community in terms of scale and impact. Residential development in this area is discouraged.

Goal

1. To encourage a strong and diverse local economy that provides satisfying and rewarding employment opportunities for residents while maintaining the community's rural character by providing locations in Town where employers can locate.

Policy

1. It is the policy of the Town to support opportunities for local industries that provide employment to the citizens of Fairlee provided that they are developed in a manner consistent with the character of the community.

Flood Hazard Area

The Flood Hazard Area covers lands adjacent to the Connecticut River as well as their tributaries and Lake Morey which are subject to periodic flooding. Floodplains and Fluvial Erosion Hazard Areas are unsuitable for development because of the high loss potential for life and property as well as the limited ability of septic systems to perform adequately during periods of high water. For more specific information about the function of Floodplains, see Chapter VI, Natural Resources.

It is the purpose of this land use area to:

- Avoid and minimize the loss of life and property, the disruption of commerce, the impairment of the tax base, and the extraordinary public expenditures and demands on public services that result from flooding related inundation and erosion;
- Ensure that the selection, design, creation, and use of development in hazard areas is safe and accomplished in a manner that is consistent with public wellbeing, does not impair stream equilibrium, flood plain services, or the stream corridor;
- Manage all flood hazard areas designated pursuant to 10 V.S.A. Chapter 32 § 753, the municipal hazard mitigation plan; and make the Town of Fairlee, its citizens, and businesses eligible for federal flood insurance, federal disaster recovery funds, and hazard mitigation funds as may be available.
- To protect the environmental and recreational value of Fairlee's rivers, streams and lakes.

Fairlee's adopted Flood Hazard Ordinance sets the minimum development standards allowed by the NFIP. In order to ensure the safety of the public and to protect against the loss of life and property in the Flood Hazard Area, the Planning Commission could create more stringent regulations. Any updates to the Fairlee Flood Hazard Ordinance that were more restrictive than they are now would apply only to new development; existing development would be grandfathered and could continue to operate within the area. While no changes to the Flood Hazard Ordinance are required, strategies to improve the strength of the flood hazard ordinance (and improve flood resiliency) could include:

- Prohibition on New Development – While most planners would suggest that a complete prohibition on new development within the floodplain is the best way to avoid future damages from extreme events, this is an unlikely approach in Fairlee.
- Also important to consider is exactly what the definition of "new development"" will include. The Planning Commission could include additions and renovations to existing structures over a certain size. This is not a commonly used methodology in most communities as it impacts grandfathered uses and can be challenging to implement.

- Prohibition of Specific Types of Development – An alternative to an outright prohibition on development is to identify specific types of development that should be kept from developing within the Floodplain. In some communities, new residential and commercial development has been prohibited from developing in the floodplain. In others, only residential has been prohibited. Decisions on which types of uses to prohibit are generally made with substantial citizen input with considerations for what will most substantially reduce risks to lives and property.

- Increasing Standards – Communities can choose to increase the requirements for new developments in the floodplain while still allowing all or most forms of development. Increased standards could include a requirement that structures be elevated higher than the minimum standards required by the NFIP (one foot above base flood elevation). Such standards could also include more specific requirements for tying down structures or for making them more capable of allowing floodwater to pass through them.

- Create River Corridor Protection Area - Some communities have created an area that extends beyond the mapped flood hazard areas. Often this River Corridor Protection Area uses fluvial erosion hazard data as part of its basis, but can also include simple setbacks from rivers in all parts of the community as a way to deter development in areas that may erode in the event of severe flooding.

Future revisions to the Fairlee Flood Hazard Bylaw will require input from the community regarding the level of regulation they believe is necessary to protect citizens and their buildings from severe flood hazard events. Provided that all parts of the Flood Hazard Bylaw meet the minimum requirements of the NFIP, communities have a broad range of flexibility in which to regulate the flood hazard area. For example, a community could prohibit commercial development in the floodplain everywhere except a village, because in some communities such a restriction would be damaging to the village center.

Goals

1. To enhance and maintain use of flood hazard areas as open space, greenways, non-commercial recreation and/or agricultural land.

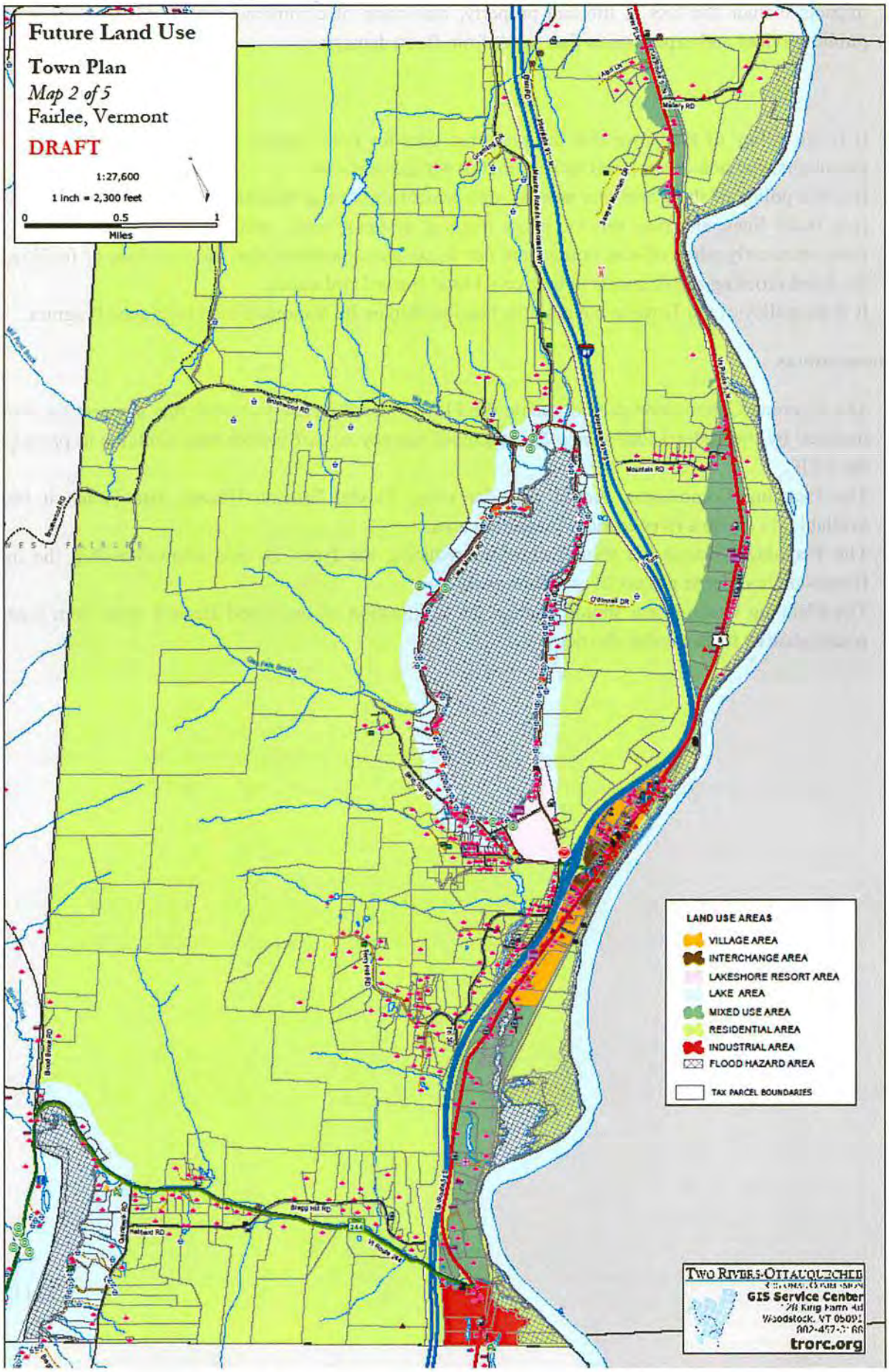
2. To minimize net loss of flood storage capacity in an effort to reduce potential negative impacts. These impacts include the loss of life and property, disruption of commerce, and demand for extraordinary public services and expenditures that result from flood damage.

Policies

1. It is the policy of the Town that the preferred uses for flood hazard areas should be for open space, greenbelts, and non-commercial recreational or agricultural uses.
2. It is the policy of the Town that new or replacement utilities or facilities serving existing development (e.g. water lines, electrical service, waste disposal systems, roads, and bridges) may be located within these areas only when off-site options are not feasible and provided that these utilities or facilities meet the flood proofing requirements in Fairlee's Flood Hazard Ordinance.
3. It is the policy of the Town to maintain its membership in the National Flood Insurance Program.

Recommendations

1. The Planning Commission should update the Flood Hazard Bylaw to ensure that it meets the standards required by the Federal Emergency Management Agency so that Fairlee may continue to participate in the NFIP.
2. The Planning Commission should consider using Fluvial Erosion Hazard data (when it becomes available) to create a river corridor protection area.
3. The Planning Commission should consider reducing the types of uses allowed within the mapped floodplain in order to protect lives and property.
4. The Planning Commission should change the designation of the Flood Hazard Area from a separate zoning district to an overlay district.


Future Land Use
Town Plan
Map 2 of 5
Fairlee, Vermont
DRAFT
1:27,600
1 inch = 2,300 feet
0
0.5
1
Miles
LAND USE AREAS
VILLAGE AREA
INTERCHANGE AREA
LAKESHORE RESORT AREA
LAKE AREA
MIXED USE AREA
RESIDENTIAL AREA
INDUSTRIAL AREA
FLOOD HAZARD AREA
TAX PARCEL BOUNDARIES
TWO RIVERS-OTTAUQUECHEE
GIS Service Center
trorc.org

VII Recreation

Recreation is an essential part of Fairlee's culture as a community. Fairlee has long been a destination for people who enjoy its lakes and wooded areas, and as a result this has been a core piece of Fairlee's economy. While the Economic Development chapter of this Plan recognizes the need for Fairlee to develop a more diverse year-round economy, it also acknowledges that Fairlee's recreational economy is a vital part of the picture.

Figure 14 - Photo Source: UVM Vermont Landscape Change Program

A. Recreation Council

Public recreation in Fairlee is managed in part by the Fairlee Recreation Council. This all-volunteer group helps organize multiple events throughout the year including events at the Town Beach, Town Christmas Tree Lighting and the yearly Town Holiday party. The Recreation Council is also responsible for maintaining the Community Calendar.

B. Town Owned Recreation Areas

The Town of Fairlee has several publicly owned recreation areas which offer multiple types of recreational opportunities. They include:

- **Fairlee Beach** – The Town (with assistance from the Recreational Council) operates a public beach on Lake Morey which allows residents and taxpayers access to the Lake for swimming (there is no boat access at the Fairlee Beach). The Recreation Council supports a number of events at the Town Beach. The Town Beach is located on the South end of Lake Morey, off of Clubhouse Rd.

- **Fairlee Town Forest** – Fairlee is fortunate to own 1570 acres of forested land that is open for public recreation. The Fairlee Town Forest is located in the western Fairlee, covering areas that include Bald Top Mountain and Glenn Falls Brook. The property is home to a large significant wetland, deeryards and other significant wildlife habitat.

Figure 15 - Photo Source: UVM Vermont Landscape Change Program

- **Lake Morey** – Lake Morey is one of Fairlee's recreational cornerstones. The 550 acre lake is located in close proximity to Interstate 91 and to Fairlee's Village Center. As a result, it has been a popular tourist destination since the late 1800's. The value of Lake Morey to the Fairlee community cannot be overstated. Its location brings a substantial population of summer residents and visitors. Visitors access the lake for

swimming via the beach and for fishing via the Fish and Wildlife access. Residents also have access from the camps, inns and homes that are located within walking distance of the Lake. Historically, a majority of the summer cottages which line Lake Morey's shores have been occupied only during the warmer months.

In addition to offering summer recreation, Lake Morey has become a prime location for outdoor winter sports. The Lake boasts the longest outdoor Nordic skating track in the United States (maintained by the Upper Valley Trails Alliance). Efforts to expand outdoor winter recreation at Lake Morey have been encouraged by the creation of Lake Morey Winter Weekend. This partnership between the Upper Valley Trails Alliance, Hulbert Outdoor Center and Lake Morey Resort features a range of outdoor winter events on and around the lake. Events such as Winter Weekend should continue to be supported by the community as they will increase the year-round economic viability of recreation in Fairlee.

- Lake Fairlee – Lake Fairlee is shared between Fairlee, West Fairlee and Thetford, with roughly 100 acres of the Lake located in Fairlee. Unlike Lake Morey, Lake Fairlee has fewer commercial recreation facilities, but it also offers a wide range of lake related recreational opportunities.

C. Privately Owned Recreation Areas

- Summer Camps – Lakes Morey and Fairlee are home to several long-standing summer camps for boys and girls. The Aloha Foundation, which was founded by the Gulick family in the early 1900's, has a number of camp locations on Fairlee's lakes; including the Hulbert Outdoor Center, which offers educational and human resources year-round through school and community programs of environmental education, leadership training, wilderness adventure, family camping, elder hosteling, and a wide variety of special seasonal events.

- Trails – Fairlee is fortunate to have several trail systems that are privately maintained but open to the public. The Cross Rivendell Trail system extends from Orford, NH through Fairlee for 3.5 miles to points west. In addition, there is a network of roughly 23 miles of public/private trails in an area that extends from Brushwood Rd to the Rivendell Trail system.

- ATV/Snowmobile Trails - Fairlee has a network of trails that are utilized by All-Terrain Vehicles. This system is maintained by the Westshire ATV Club, a local chapter of Vermont All-terrain Vehicle Sportsman's Association. During the winter, additional trails are utilized by snowmobilers. These trials area maintained by VAST, the Vermont Association of Snow Travelers.

Recreational Activity	%
Outdoor Sports Activities	70.2%
Picnicking/Sightseeing/Touring	68.3%
Swimming-Related Activities	68.1%
Snow-Related Activities	61.2%
Nature-Related Activities	55.1%
Non-Motorized Activities	54.7%
Boating-Related Activities	41.0%
Fishing-Activities	36.3%
Hunting Activities	28.7%
Motorized Activities	25.8%

Figure 16 – Statewide Comprehensive Outdoor Recreation Plan, 2012

D. Recreation and the Economy

Outdoor recreation is valuable to the economies of most communities in the State of Vermont, including Fairlee. State wide, outdoor recreation:

- Supports 35,000 jobs across Vermont.
- Generates $187 million in annual state tax revenue.
- Produces $2.5 billion annually in retail sales and services across Vermont – accounting for 12% of gross state product.

According to the Outdoor Industry Foundation, Vermonters participate in outdoor recreation at higher rates than national averages in bicycling, hunting, paddling, snow-based, trail based and wildlife watching activities. In 2011, the Vermont Department of Forests and Recreation conducted several surveys as part of the update to the Vermont Statewide Comprehensive Outdoor Recreation Plan (SCORP). The results of the survey clearly showed that more than 50% of Vermonters surveyed participate in multiple types of outdoor recreational activity. As the chart above indicates, many of these activities can be conducted in Fairlee using Fairlee's valuable recreational assets. While demand for some types (hunting and fishing[6]) of outdoor recreation seems to be declining throughout the state, demand for other types has increased. Mountain biking, ATV riding and trail-based recreation (hiking, etc.) have all seen growth over the past decade. It should also be noted that young adults who choose to return to, or relocate to, Vermont have indicated that their primary motivation for moving to Vermont is the lifestyle associated with the working landscape. Outdoor recreation, agriculture and the importance of community often encourage these citizens to return. The way land is used in the community has an influence on recreation. Fairlee should continue to maintain a pattern of development in the more rural areas of Town that is low density, allowing for larger amounts of open land and reducing the possibility of having large land areas broken up for development. To ensure that Fairlee's economy grows stronger and more vital, recreation and tourism will need to remain an important part of the equation. The unique value created by the lake and its 4.5 mile Nordic skating track is a valuable asset that will attract new tourists to the Town. Recognizing this, the community will continue to support all efforts to increase participation in outdoor winter activities.

E. Goals, Policies and Recommendations

Goals

1. To maintain, enhance and expand recreational opportunities in Fairlee.
2. To make outdoor recreation a strong part of Fairlee's year-round local economy.

Policies

1. To encourage the development of outdoor recreational businesses which operate in harmony with the surrounding area.
2. To encourage patterns of land use that maintains and enhances the opportunity for outdoor recreation.

[6] According to the SCORP the sale of hunting and fishing licenses has declined over the past 10 years.

Recommendations

1. The Town should consider adopting a clearly written policy on ATV use and public trails.
2. The Town should support efforts to create public access to the Connecticut River Byway.

VIII Natural, Scenic and Cultural Resources

A. Background

The rural landscape is of the utmost importance to the Fairlee community, both for its utility and its scenic value. Fairlee residents value open, working lands that are hospitable to both recreation and outdoor work. It is essential to the community that this landscape be protected as it is a fundamental reason why residents choose to live in Fairlee. Residents want to maintain the quality of their landscape for the future, to protect the natural world they value, while allowing the land to be worked sustainably and harmoniously.

Goals

1. To protect the natural, scenic and historic character of Fairlee.
2. To maintain the quality of their landscape for the future, to protect the natural world they value, while allowing the land to be worked safely and harmoniously.
3. To enhance and maintain Fairlee's outdoor environment for both active and passive recreational uses including hiking, fishing, boating, camping, hunting, music and the arts.

Policy

1. It is the policy of the Town to protect the natural, scenic and historic character of Fairlee's working landscape.

B. Water Resources

Water resources include groundwater aquifers (the supply of fresh water beneath the ground) and surface waters (includes rivers, streams, ponds and lakes).

Groundwater

Sustainable yields of quality water are necessary for the lives and livelihood of citizens of Fairlee. Fairlee has no mapped groundwater information. The process for mapping groundwater is complicated. It involves multiple scientific methods including using technology to create a detailed picture of groundwater situations and use patterns, analysis of well data provided to the state by well drillers and site specific analysis. Unfortunately, there is no easy method. The health of Fairlee's surface waters is essential to maintaining quality groundwater, as well as an important element for outdoor recreation and natural beauty. Vermont law declares that the lakes and ponds of the state and the lands lying underneath them are held in trust by the state for the benefit of all Vermonters. The state, as trustee, cannot sell or give away these public resources to individuals or corporations for purely private purposes. A permitting program for large groundwater withdrawals was implemented by the state in 2011. Those seeking permits will have to show that their withdrawals will not have an adverse impact on water resources. They must also show that their withdrawals must be consistent with local and Regional Plans.

Surface Waters

The natural and recreational values of Fairlee's streams make them an important resource to protect and maintain. Stream instability can lead to excessive flooding and other types of damage due to increased flow velocity. Riparian buffers are strips of bankside vegetation along waterways that provide a transition zone between water

and land use. Construction or development along stream banks, or removal or disruption of vegetation within these areas can create increased water pollution, higher water temperatures, destabilization of banks, higher soil erosion rates and loss of fish or wildlife habitats. The Plan suggests a policy which maintains that no structures shall be allowed within 35 feet of the top of the bank of designated permanent streams, except those that by their nature must be located near streams (hydro facilities, for example). No ground disturbance should be allowed within 35 feet, with the exception of bridge or culvert construction, or bank stabilization as is necessary for hazard mitigation purposes.

Shoreline Protection

Fairlee's lakes (Morey and Fairlee) are an important asset to the community from a recreational and natural resources standpoint. Recognizing this, it is important to consider ways in which the community can protect these areas while balancing the natural benefits of the lakes with their current and future uses. When a lake's natural shore land vegetation or woodland is removed and replaced by lawns and impervious surfaces, shores can erode and phosphorus pollution and sediment pollution to the lake can increase. Consequently, fish and wildlife habitat can degrade and the lake can become more vulnerable to water quality problems such as algae blooms. In order to protect Fairlee's lakes from these potentially damaging effects, this Plan continues to support a 50ft buffer for all development around the lakes. Within this area, groundcover is to be maintained to ensure that soil erosion does not occur. Limitations on removal of vegetation within the buffer area may want to be considered as a method of reducing potential erosion.

Goals

1. To maintain or enhance the quality and quantity of drinking-quality resources.
2. To allow use of groundwater resources by new development in such a manner to protect the public right to adequate quality and quantity of the resource.
3. To consider surface water and groundwater impacts and effects related to proposed or existing uses of land.
4. To maintain or improve surface water quality and quantity.
5. To protect Fairlee's lakes in a fair and equitable way that ensures their economic and recreational use for future generations.

Policies

1. Land use activities which potentially threaten groundwater quality must be carefully reviewed and monitored to prevent undue loss of groundwater quality.
2. The location, sizing and density of on-site sewage disposal facilities must be determined by the capacity of the soil, the natural limitations of the site, and underlying substrata conditions, such as depth to bedrock and seasonal high water tables.
3. Preservation of the natural state of streams should be encouraged by,
   - Protection of adjacent wetlands and natural areas;
   - Maintenance of existing stream bank and buffer vegetation including trees, together with wildlife habitat.
4. No structures shall be allowed within 35 feet of the top of the bank of designated permanent streams, except those that by their nature must be located near streams. No ground disturbance should be allowed within 35 feet, excepting that incidental to bridge or culvert construction, or permitted bank stabilization.

5. No structures shall be allowed within 50 feet of the shoreline of Lake Fairlee, Lake Morey or the Connecticut River.
6. Development in Fairlee shall be permitted only if it is designed to minimize environmental degradation and does not result in the pollution of watersheds, ground or surface waters or cause unreasonable reductions in supply.
7. All proposed development must be reviewed for appropriate location away from brooks streams, tributaries and well head recharge areas and for adequate protection of the recharge environment of these resources.
8. Development within the vicinity of Lake Morey, Lake Fairlee and the Connecticut River must conform to state stormwater regulations and may be subject to additional local permitting requirements.

C. Wetlands

Wetlands are ecologically fragile areas and how these lands are managed have a direct bearing on the quality and quantity of water resources. The Vermont Water Resources Board estimates that wetlands comprise less than 5 percent of the surface area of Vermont. In addition to being Vermont's most productive ecosystem, wetlands serve a wide variety of functions beneficial to the health, safety and welfare of the general public, including the following:

- Retaining storm water run-off, reducing flood peaks and thereby reducing flooding;
- Improving surface water quality through storage of organic materials, chemical decomposition and filtration of sediments and other matter from surface water;
- Providing spawning, feeding and general habitat for fish;
- Providing habitat for a wide diversity of wildlife and rare, threatened or endangered plants; and
- Contributing to the open space character and the overall beauty of the rural landscape.

In 1986, Vermont adopted legislation for the protection and management of wetlands [10 V.S.A., Chapter 37]. Determination of whether a wetland merits protection is based on an evaluation of the extent to which it serves the general functions outlined in the bulleted list above. Under the Vermont's Wetland Rules, if land development can be expected to impact a protected wetland, such activity cannot commence unless the Vermont Agency of Natural Resources first grants a Conditional Use Determination (CUD). A CUD will be granted when the proposed use will not have an undue adverse impact on the function of the wetland. In many cases, such approvals are granted with conditions to mitigate impacts and to more readily protect wetlands. For Fairlee, as well as the State, the most significant wetlands have been mapped and are included as part of the National Wetlands Inventory (NWI) prepared by the U.S. Fish and Wildlife Service. These wetlands have been delineated on USGS topographic maps, and by reference are made a part of this Plan (see Map 5, Natural Resources). Other smaller wetlands often do not show on these maps, so a field determination by a qualified biologist is needed for most activities that involve state permits. There are approximately 378 acres of mapped wetlands in Fairlee. In those towns such as Fairlee, that have zoning or subdivision regulations, final approvals cannot be granted for projects involving wetlands unless the Agency of Natural Resources has first had an opportunity to evaluate the effect of the project on the wetland [24 V.S.A., Section 4409]. It is important to note that future investigations of wetlands within Fairlee may result in additional areas being determined as significant or important for conservation. Setback requirements for wetlands vary as required by ANR staff, but communities are allowed to set more stringent requirements. Some communities have opted to create a standardized buffer around wetlands of up to 100 feet.

Goal

1. To identify and encourage land use development practices that avoid or mitigate adverse impacts on significant wetlands.

Policies

1. The Town shall abide and adhere to state wetlands regulations.
2. Structural development or intensive land uses shall not be located in mapped wetlands or within buffer zones to significant wetlands.
3. Development adjacent to mapped wetlands should be planned so as not to result in undue disturbance to wetland areas or their function. Mitigating measures (including but not limited to buffers) to protect the function of a wetland are an acceptable measure.
4. Development is not to be located in or allowed to fill in or alter any mapped wetland area.
5. Funding from the State of Vermont which comes from off-site mitigation should be directed to the Fairlee Conservation Commission (if created) for future land preservation and protection.

Recommendations

1. The Planning Commission should develop buffer rules for mapped wetlands.
2. The Town should consider completing a Town-wide wetlands inventory.

D. Flood plains and Flood Resiliency

Floods are inevitable and uncontrollable natural events which occur sporadically and affect lands adjacent to watercourses. It is therefore in the public interest to plan for floods, and to implement land use strategies which will protect these areas and minimize the risks to public health, safety, and property. Floodplains, lands adjacent to watercourses (rivers, streams and brooks), are periodically inundated by heavy rains or during spring thaws. They are porous and can absorb considerable water before reaching flood stage. Floodplains make excellent agricultural land but are poorly suited for development, both because of their propensity for flooding and because of their proximity to watercourses, which creates the potential for pollution. Approximately 396 acres in Fairlee are within the floodplain area, which is nearly 3% of the total land in the community. Vermont has experienced more than twenty-seven statewide and regional floods since 1973. All but one of these was declared federal disasters, and economic losses were significant. Damage was not limited to designated floodplains, but often occurred along unstable river systems and steep streams, and in areas where stream debris was excessive. Public interest dictates that every reasonable attempt should be made to avoid or reduce such exposure to flood damage.

National Flood Insurance Program (NFIP)

Under the provisions of the National Flood Insurance Act (1968), the Federal Emergency Management Agency (FEMA) has conducted a series of evaluations and hydrologic engineering studies to determine the limits of flood hazard areas along streams, rivers, lakes, and ponds expected to be inundated during the 100-year base flood, meaning that the flood level has a 1% chance of being equaled or exceeded in any given year. The calculations do not take into account the impact of ice dams, debris, or climate instability and may, therefore, actually underestimate the areas which are subject to flooding damage. FEMA has prepared a Flood Hazard Boundary Map for the Town of Fairlee, which includes flood hazard areas for the Lake Morey, Lake Fairlee, the

Connecticut River and a portion of Mill Pond Brook. This map is on file at the Town Office and at the Two Rivers-Ottauquechee Regional Commission. The Flood Hazard Area is indicated in Map 2, Future Land Use. If in doubt when developing, contact the Fairlee Zoning Administrator. FEMA also administers the National Flood Insurance Program, which provides flood hazard insurance at subsidized rates for property owners in affected areas. In order to qualify for federal insurance, towns must adopt and retain a by-law to control land development within these areas. Minimum standards must be included and approved by FEMA. Coverage is only available to landowners in Town if a Town elects to participate in the program. The Town of Fairlee incorporates Flood Hazard regulations as part of its Zoning Regulations, and is recognized as a participating community in the National Flood Insurance Program. Two Rivers-Ottauquechee Regional Commission has determined that approximately 76 structures (including 74 residences and 2 commercial/public buildings) have been identified as being located within the mapped flood hazard areas. Mortgage lending institutions require as a prerequisite to financing that flood insurance be purchased on property subject to flooding. In 2013, federal rules regarding flood insurance premiums changed to reflect actual costs rather than the traditional subsidized cost of flood hazard insurance. The result of this change is that premiums will rise 25% per year until actual risk rates are reached after 2013. It is estimated that a typical flood insurance premium would be $4,000/year for $170,000 in insured value.

Fluvial Erosion Hazards

Much flood damage in Vermont is associated with stream channel instability, also known as the fluvial erosion hazard (FEH) or river corridor area, as opposed to inundation related losses. This is a reflection of Vermont's natural geography and its man-made landscape consisting of steep, relatively narrow valleys with agricultural land uses, highway infrastructure, private residences and commercial properties located in close proximity to stream channels. River channels that are undergoing an adjustment process as a result of historic channel management activities or floodplain encroachments oftentimes respond catastrophically during large storm events. Historically, landowners and local government have relied on the standards and the flood hazard boundary maps provided by FEMA though the National Flood Insurance Program (NFIP) to determine areas within river corridors susceptible to flood damage. The maps are also used to delineate the allowable (floodway) limits of river corridor encroachments and human land use investments. However, the NFIP maps address only inundation issues by applying a water surface elevation based standard. For this reason the NFIP maps are often inadequate as an indicator of flood hazards, especially erosion. The NFIP standards do not recognize the danger present in unstable channels which may be undergoing a physical adjustment process. The stream bed may be eroding or it may be actively aggrading due to erosion occurring upstream. The NFIP standards often allow for significant encroachment within floodplain areas and river corridors that may prevent the stream from ever reestablishing its stability. Special mapping and geomorphic assessments can identify FEH areas along rivers, more comprehensively defining high-hazard areas. To date, no FEH mapping has been done in Fairlee.

Flood Resiliency

Since the 1990's the number of federally declared disasters has increased substantially. Between 2000 and 2009 there were 11 federally declared disasters, 9 of which were severe flooding events. Between 2010 and 2013, Vermont has experienced 8 federally declared disasters – all but one a severe flooding event. If this trend continues, the number of severe flooding events in Vermont will double during this decade. The extreme severity of 2011's Tropical Storm Irene, which inundated some parts of Vermont with heavy rains and severe flooding,

has made it clear that Vermont's communities need to plan for flood hazard events. It is important to recognize that severe flooding hazards do not always occur within the area mapped by FEMA as flood plain or fluvial erosion hazard areas. Instead, flood waters can do substantial damage along upland brooks. These upland stream valleys are common locations for rural roads, which puts them at risk of damage during such an event. Communities can plan for improved flood resiliency in several ways:

- **Build infrastructure to withstand severe flooding events** – This can be achieved through road design and by increasing the size of culverts and bridges so that they can accommodate large quantities of water. This can also include moving roads when possible or abandoning redundant bridges.
- **Encourage a strong emergency response** – A municipality can put hazard response plans in place that will allow them to be better prepared to help its citizens in the event of a severe hazard event. These are discussed in more detail in chapter #, Health and Emergency Services.
- **Reduce the amount of development within the Floodplain** – Fairlee's policy to prohibit new development within the floodplain continues to maintain the community's flood resilience.

Flood Hazard Regulation

Fairlee's adopted Flood Hazard Regulations prohibits within the mapped floodplain which is stronger than the minimum standards allowed by the NFIP. While a limited amount of Fairlee is located within the Flood Hazard Area (FHA), there are benefits to maintaining these regulations. Clearly, protecting development from future harm is a priority for any community. But, it should also be noted that communities who have stronger FHA regulations are eligible to receive greater Emergency Relief Assistance funding from the state in the event of a disaster declaration. Potential options for strengthening Fairlee's FHA regulations are outlined in Section V, Land Use.

Goals

1. To enhance and maintain use of flood hazard areas as open space, greenways, non-commercial recreation and/or agricultural land.
2. To ensure no net loss of flood storage capacity in an effort to minimize potential negative impacts. These impacts include the loss of life and property, disruption of commerce, and demand for extraordinary public services and expenditures that result from flood damage.

Policies

1. It is the policy of the Town that the preferred uses for flood hazard areas shall be for open space, greenbelts, pastureland, recreational and agricultural uses.
2. It is the policy of the Town that any land use activity (filling, or removal of earth or rock) within flood hazard areas which would result in net loss of flood storage or increased or diverted flood levels or increased risk to adjacent areas shall be prohibited.
3. It is the policy of the Town that utilities or facilities serving existing development (e.g. water lines, electrical service, waste disposal systems, roads, and bridges) may be located within these areas only when off-site options are not feasible and provided that these utilities or facilities meet the flood proofing requirements in Fairlee's Zoning Regulations.
4. It is the policy of the Town to maintain its membership in the National Flood Insurance Program.
5. It is the policy of the Town to recognize that upland areas adjacent to unstable rivers and to steep streams may be at risk of erosion during floods.

6. No new structural development (except development exempted by state law, such as agriculture) shall occur in the Flood Hazard Area.

Recommendations

1. The Planning Commission should update the Fairlee Zoning Regulations to ensure that it meets the standards required by the Federal Emergency Management Agency so that Fairlee may continue to participate in the NFIP.
2. The Planning Commission should maintain the Fairlee Zoning Regulations prohibition on new development within the floodplain, only allowing renewable energy generation facilities, recreational and agricultural uses.
3. FEMA should revise Fairlee's Flood Hazard maps to accurately reflect the locations of flood hazard areas to assist in appropriate land use decisions.

E. Flora, Fauna and Natural Communities

In Fairlee, there are a broad range of communities that exist in the older forests, early successional forests, open fields and valley floors. The breadth and diversity of wildlife and plant communities indicate a healthy, thriving ecosystem. Yet, natural communities are usually strongly affected by the surrounding environment. Plants respond to soil structure and chemistry, hydrology, and climate. The effects of unmanaged development can have a negative impact on plant communities, which in turn will harm the overall ecosystem in the area affected. Good management practices, such as requiring developers to locate their projects in less sensitive areas (such as wetlands or watersheds), maintain buffer areas and protect against silt runoff from excavating, are a few of the ways that these communities can be maintained. Fairlee's fields, forests, wetlands and streams provide habitat to a diversity of flora and fauna. Although nearly all undeveloped land in the Town provides habitat for these plants and animals, there are some areas which provide critical habitat that should remain intact. These areas include wetlands, vernal pools, and deer-wintering areas and ecotome (the edge transition zone between two cover types, such as field and forest). Development or logging in or adjacent to these areas should consider wildlife implications during the planning process. Wildlife is one of the primary attractions to the area and provides many citizens of Fairlee with direct and indirect livelihoods from sports, tourism and direct harvest of wildlife.

Wintering areas are an important habitat requirement for deer during the critical winter months when snow depth and climate are limiting factors to survival. Typically these areas consist of mature softwood stands, at low elevations or along stream beds, which provide cover and limit snow depths. Southerly facing slopes are also beneficial due to good sun exposure and may be utilized even in areas of limited softwood cover. More specific factors, such as percent canopy closure, species of softwoods, and stand age, also figure into the quality of the wintering area. Fairlee has in excess of 1481 acres (nearly 11% of Fairlee's total acreage) of deer wintering yards.

Wildlife management requires management of human activities around animals as much as management of animals around human activities. Managing for specific species is not as desirable as managing for the entire ecosystem supporting the species. Parochial wildlife management programs usually manage for one species at the expense of others, while a more ecological approach is to ensure healthy habitat for all components of the ecosystem. The Vermont Non-Game and Natural Heritage Program have identified several sites in Fairlee that are habitats for rare, threatened or endangered species. Large tracts of forest land, riverines, floodplains, and cliffs are natural communities for many habitats.

There comes a point where a species cannot use seemingly adequate habitat because of adjacent development. While certain strategies may lessen the impact on habitat, planners and developers should keep in mind that almost every development will affect the ecological balance. It should be noted, however, that high density or intensive land uses are more likely to have a negative impact on the quality of wildlife habitats.

Most important when considering development and its impact on wildlife is the concept of habitat fragmentation. Forests provide habitat to a diverse population of wildlife, which are negatively impacted when forested land is fragmented through development. Forest fragmentation affects water quality and quantity, fish and wildlife populations, and the biological health and diversity of the forest itself. When many small habitat losses occur over time, the combined effect may be as dramatic as one large loss. Forest fragmentation can disrupt animal travel corridors, increase flooding, promote the invasion of exotic vegetation, expose forest interiors, and create conflicts between people and wildlife. Habitat loss reduces the number of many wildlife species and totally eliminates others.

To help mitigate the effects of human population growth and land consumption, many scientists and conservationists urge governments to establish protected corridors which connect patches of important wildlife habitat. These corridors, if planned correctly, allow wildlife to move between habitats and allow individual animals to move between groups, helping to restore or maintain genetic diversity that is essential both to the long-term viability of populations and to the restoration of functional ecosystems. Because of its generally low density and the percentage of forestland enrolled in Current Use in Town, Fairlee maintains a substantial amount of good quality wildlife habitat.

Goals

1. To sustain the natural diversity of flora and fauna found in Fairlee.
2. To maintain or improve the natural diversity, populations, and migratory routes of natural species.
3. To encourage sport and subsistence hunting and fishing in accordance with seasons and bag limits determined by the State Department of Fish and Wildlife.

Policies

1. It is the policy of the Town that native wildlife populations and natural diversity should be sustained and enhanced.
2. It is the policy of the Town that long-term protection of critical habitats through conservation easements, land purchases, leases and other incentives is encouraged.
3. It is the policy of the Town to protect deer wintering areas from development and other uses that adversely impact these areas.
4. It is the policy of the Town that rural development, other than isolated houses and camps, should be designed to preserve continuous areas of wildlife habitat whenever possible. Fragmentation of habitat is discouraged. Efforts should be made to maintain connecting links between such areas.
5. It is the policy of the Town that preference shall be given to development that utilizes existing roads and whenever possible preserve existing agricultural use.

Recommendations

1. The Planning Commission or Conservation Commission (if created) should investigate methods of reducing habitat fragmentation in Fairlee.

F. Invasive Species

Invasive non-native species are a growing problem throughout Vermont. Invasive plants are defined as those exotic species that typically spread from disturbed areas into natural communities, but many of these species are also impacting yards, agricultural fields, and working forests. In Fairlee the spread of invasives is negatively impacting the rural character of the Town, reducing native plant populations and consequently affecting wildlife populations, creating economic impacts by dominating other plants in agricultural fields and inhibiting reproduction of trees in sugarbush areas and other forests, destroying the scenic quality of roadsides, reducing property values, and potentially posing health risks. At the present time, the greatest threats are posed by wild chervil (fields, roadsides and recently logged areas), Japanese knotweed (streams, rivers, roadsides, yards), and Japanese barberry (forests), but there are increasing threats throughout the region from garlic mustard, giant hogweed, and other invasives.

Some of these invasives, especially wild chervil and knotweed, have proliferated to such an extent that eradication from many sites is impossible, but there are still portions of the Town that have not been infested. Diligence is necessary from Town residents and employees to prevent the further spread of these species, and the introduction of new species that could pose more serious threats. For example, giant hogweed has been identified from several towns in Central Vermont. This Federally listed noxious weed produces a sap that, in combination with moisture and sunlight, can cause severe skin and eye irritation, painful blistering, permanent scarring and blindness.

One of the more common ways in which invasive species spread to new locations is when seeds or root segments are transported on vehicles, especially construction and logging machinery, mowers, etc. Best management practices have been identified for reducing the accidental spread of invasives including avoiding using fill from invaded sites, washing of equipment before leaving infected sites, stabilization of disturbed sites, timing of mowing, etc.

Also a concern in Fairlee is waterborne invasives such as milfoil or water chestnut. These invasives develop in and around lakes, often appearing when boats or animals bring them from outside of the community. It is in the best interest of the community to ensure that all boats are properly cleaned before going into or coming out of the lakes.

Goal

1. Reduce the impact of invasive species on Fairlee's ecosystems.

Policies

1. It is the policy of the Town that new occurrences of invasive species should be controlled to prevent further infestations.

Recommendations

1. Town employees, contractors, businesses and individuals should become familiar with the best management practices to prevent the accidental spread of invasives.
2. The Town should time roadside mowing to minimize and reduce the spread of invasive species.

G. Mineral Resources

The use and management of Fairlee's earth and mineral resources are matters of public good. Maintenance of sustainable quantities of gravel, sand, crushed rock, and other materials are essential for business development, as well as state and local highways. In spite of this, public and private interests are oftentimes in conflict over use of the resource. It is in the interest of the Fairlee business owners and residents to enable utilization of these resources when such uses do not significantly inhibit or conflict with other existing or planned land uses, or are in conflict with other stated goals in this Plan.

Goal

1. To support extraction and processing of mineral resources only where such activities are appropriately sited (taking into account aesthetics and compatibility with this Plan) managed and the public interest is clearly benefited. Any support shall be balanced against the need to maintain the rural character valued by the citizens of Fairlee.

Policies

1. It is the policy of the Town to consider pollution, noise and vehicle traffic as part of the decision making process when reviewing proposed gravel extraction projects.

2. It is the policy of the Town that existing and proposed mineral extraction and processing facilities shall be planned, constructed, and managed,
   - So as not to adversely impact existing or planned uses within the vicinity of the project site;
   - To not significantly interfere with the function and safety of existing road systems serving the project site;
   - To minimize any adverse effects on water quality, fish and wildlife habitats, viewsheds and adjacent land uses; and
   - To reclaim and re-vegetate sites following extraction.
   - To minimize noise impacts on adjacent uses including residential areas.
   - To maintain the rural character of the Town.

H. Significant Natural and Historic Areas

While Fairlee residents would agree that the entirety of the community is significant for its beauty and its rural landscape, there are several areas that represent the most significant places in Town. These lands are what most residents agree make Fairlee the place it is today. These areas include:

- **Bog Pond** – This roughly 10 acre property is a kettle bog with a depth of approximately 40'. It provides a substantial amount of good wildlife habitat and is preserved by the Nature Conservancy.
- **The Palisades** – This ledge outcropping is located behind the Fairlee Fire Department and is accessible by a public trail. This area has been a location where falcons nest.
- **Glens Falls** - Located across from the boat launch on Lake Morey, this area has a series of waterfalls which feed into the lake. It is accessible by path.

- **Lakes Morey and Fairlee** – Fairlee's lakes are an essential part of the community's character offering a wide variety of recreational opportunities.
- **Echo Mountain/Eagle's Bluff** - A point of rock that looks over the west side of Lake Morey. It can be accessed by multiple trails from several communities.
- **Fairlee Wetlands**- Located northwest of May Hill off Mill Pond Road, this is an area of upland wetlands.
- **Fairlee Town Hall** – Built in 1914, this building houses the community's municipal offices. It has kept many of its historic architectural characteristics during the past 100 years. The first floor was substantially renovated in 2013, but the second floor which contains a theatre is in need of repair.
- **Fairlee and Ely Train stations** – These two historic train stations are a significant reminder of the activity of the former Boston and Maine railroad.|
- **Fairlee Town Green** – Located in front of the Town Hall, the green contains a veteran's war monument and bandstand.

I. Conservation Commission

Vermont statute enables communities to create a Conservation Commission (CC), a volunteer board that focuses specifically on the natural, scenic and cultural resources within a community. Conservation Commissions have no regulatory authority, acting as an advisory committee to the Selectboard and Planning Commission. A CC may conduct inventories of natural resources, manage municipal properties, and manage the receipt of any gifts of land to the Town or Selectboard, to assist the planning commission with natural resource planning. It would be the responsibility of the Conservation Commission to receive any funds designated for mitigation of prime agricultural lands in the event of an Act 250 finding during development of those lands.

J. Land Protection Strategies

Methods of protecting significant lands are varied. In general, there are two ways to encourage the preservation of culturally and naturally significant areas: regulatory & voluntary. Voluntary methods include:

- Preserving land by placing restrictions on its use, through such tools as conservation easements or mutual covenants.
- Transferring land to a conservation organization (such as the Vermont Land Trust) through donation.
- Selling or donating land with conditions attached, like deed restrictions or conditional transfers.

Fairlee could become an active participant in land conservation through the creation of a conservation fund. This fund, which is generally funded on a yearly basis, would contain funds that a Conservation Commission could use to purchase land outright, or assist a land conservation organization with the purchase of a conservation easement. It is safe to assume that there will never be sufficient funding for land protection strategies to acquire conservation easements or ownership for all of the unprotected identified areas of value. Regulatory methods use zoning and/or subdivision rules to regulate the location, density and design of development within selected areas to minimize harmful impacts while allowing for a reasonable level of development. Regulatory methods include:

- **Overlay Districts** - The creation of overlay districts is the most common method of regulating specific areas for the purpose of protecting cultural or natural resources. Overlay districts can be used to exclude development on or to impose resource protection or conservation standards within overlay areas. These districts can be used to protect many types of resources.
- **Resource Protection Districts** - protect resource and open space areas or resource-based uses such as farming, forestry, recreation from incompatible development.
- **Large Lot Zoning** - Large lot zoning refers to the designation of a very large minimum lot size within certain zoning districts to accommodate resource-based uses, such as farming or forestry, or to require a pattern of very scattered, low-density development to limit, for example, impervious surfaces and protect surface and groundwater quality.
- **Fixed Area & Sliding Scale (Density-based Zoning)** - Fixed area and sliding scale zoning are two zoning techniques (typically applied in association with subdivision regulations) that are used to differentiate allowed densities of development from district lot size requirements.
- **Conservation (Open Space) Subdivision Design** - Conservation or open space subdivision design is a subdivision design process wherein subdivisions are intentionally designed to protect rural character and open space.

Each of these methods has its own set of benefits and pitfalls and all of them should be thoroughly evaluated before they are implemented. However, there are many examples of successful regulatory land protection strategies in Vermont. The key to success is to ensure that the community on a whole supports the regulations.

K. Goals, Polices and Recommendations

Goals

1. To identify and protect those natural and historic resources that are unique to Fairlee and make it special.
2. To preserve and protect Fairlee's important cultural and natural resources for future generations.
3. To allow for compatible development without sacrificing important cultural and natural resources.

Policies

1. It is the policy of the Town to ensure careful review of all development projects to minimize the impact on Fairlee's natural and cultural resources.
2. It is the policy of the Town to protect unique resources through careful planning.

Recommendations

1. The Town should consider creating a conservation commission.

IX Agriculture and Forestry

A. Background

Agriculture and forestry define the character of Vermont and comprise major industries in the Region. Over time, changes in these industries have led to instability. The shape of Vermont agriculture and forestry are changing and the pressures for change come from both inside and outside the state. These changes pose difficult challenges, not just for landowners, but for all who desire a rural lifestyle and working landscape. And yet, opportunities for new and innovative farm and forestry businesses are on the rise. How we maintain the working landscape and support the agriculture and forest industries will have a long term impact on our landscape and our local economy.

B. Farm and Forest Land Issues

Land and Taxation

An economic restructuring or a shift away from agriculture to the service and tourism industries has placed economic pressure on farm owners. The higher cost of owning land makes it difficult to rationalize conventional farming. Owners of forestland most often are faced with a tax bill on land that exceeds its economic value for timber production. This coupled with a need for house lots or development land in general, has prompted landowners to place their land on the market for these purposes.

Current Use Taxation

For farmland and forestland conservation to be successful, the pressures posed by the market value approach to taxation must be solved for both the landowner and municipality. One means to address this issue has been the Vermont Current Use Program administered by the State which sets the valuations on farm and forest land based on their productivity values rather than their development values. There are 6483.66 acres of land in Fairlee enrolled in the Current Use Program, this amounts to nearly 48% of all lands in Fairlee.

C. Agricultural Trends

An analysis of the United States Census of Agriculture data between 2002 and 2007 (2007 being the most recent period of data collected) shows that farming in Vermont is slowly shifting away from the larger scale farm that developed as a result of trends toward consolidation. Between 2002 and 2007, the number of farms in Vermont increased by 6%. The average size of farms decreased from 189 acres to 177 acres between ag censuses. This is most likely due to the fact that 37% of Vermont's farms in 2007 were considered "small-scale" farms that sell under $2,500 in agricultural products per year. While the number of small-scale farms continues to grow, these farms only produce slightly less than 3% of Vermont's agricultural income. Despite this decrease in farm size, over the past 10 years a growing movement in sustainable agriculture—involving increased local food production and consumption, value-added processing, and diversified farms—has taken off. In 2009, the State of Vermont

created legislation which created the Farm to Plate Investment program, part of which included the creation of the Farm to Plate Strategic Plan. In 2007, USDA data indicated the estimated agricultural revenue in Vermont to be $673 million per year. Vermont's major agricultural and food product output totaled $2.7 billion in 2007, the latest year of the Census of Agriculture. Many other businesses in Vermont depend on the "farm economy." According to the Vermont Farm to Plate Strategic Plan (F2PSP), which was released in 2011,Vermont has at least 457 food processing establishments that employ at least 4,356 people and is the second-largest manufacturing sector employer in the state, behind computer and electronic products. In addition, Vermont has at least 263 wholesale distribution establishments that collectively employ at least 2,288 people. The farm-related food industry is clearly connected to the farm economy. In Fairlee, as in the rest of Vermont, the scale and style of farming has changed. The 2007 Census of agriculture reports that there are 28 full and part-time farm operations. More than 64% of these operations utilize less than 50 acres of land. Products grown or produced on farms in Fairlee include hay, corn, maple syrup, fruit, cattle, horses, chicken, pigs and sheep. Though federal law recognizes the importance of farmland and farmland protection, local planning and zoning regulations often neglect the issue of prime agricultural land and the conflicts that arise between expanding development and successful farming. The distinctiveness of the working landscape gives Vermont its beauty. Farms provide open space for wildlife habitat, scenic views and a connection to the land that is hard to find in other places. They also help our towns avoid sprawl and maintain small town and village settlement patterns. As such, to continue to receive the benefits farming has to offer, a community must encourage farming.

For census purposes, a farm is defined as "a place from which $1,000 or more of agricultural products were produced and sold, or normally would have been sold, during the census year."

D. Forestry Trends

Three primary trends have affected the region's forestland and its productivity. First, forests and farms are being increasingly fragmented or subdivided into small lots which threaten the economic viability of forestry. Development pressure in the region has relaxed since the early 1990's, but the economy is predicted to rebound and the trend of land moving out of forest use to other uses will continue, particularly in those areas where access and development suitability are not severe. Funding of the Current Use Program has been identified by the Northern Forest Lands Council as vital to landowners keeping their patience, not over harvesting the forests or opting for liquidation cutting of tracts. High taxes contribute to a low rate of return on timber sales, and have prompted some conversion to non-forest uses. Second, markets for timber and wood have been responsive to a glut of some products affecting prices, at least in the short run. While the numbers of mills in the region have declined, there has been a move to new markets, one being an export demand for hardwood logs and another being a demand for pulpwood and other specialty types. For a state mostly known for hardwood, the demand for pulp has led to better managed forests because it is generally the lower grades or poorer cuts that are being used. Third, federal and state estate and inheritance tax laws have placed family landowners into financial predicaments where they need to subdivide or develop forest land in order to cover taxes. Current tax law bases estate values on the market value of land rather than at use value. By allowing land to be assessed on the basis of current use, family landowners are able to realize a more reasonable return on investment for long-term timber management. Forest products continue to be a significant share of the region's manufacturing sector, although the way statistics are kept makes it hard to quantify. Overall, according to the Vermont Department of Employment and Training, jobs in the lumber and wood products industries have increased statewide. In looking at the Vermont forest products industry, it is worth noting that the industry, like agriculture, has virtually no impact in setting trends as

it is a relatively small national producer. A major long-term issue for the Vermont forest products industry is how to keep it from drifting into the position of selling wood as a raw material without benefiting from the higher paying jobs that come from value-added wood products.

Agriculture and Land Use Regulation

Land use regulation has a definite impact on farming. For example, a zoning ordinance that allows for large tracts of land to be sold for residential purposes could conceivably help protect open space, but that open space might no longer be available for agricultural use without considerable forethought and design. The same ordinance calling for much smaller lot sizes (such as one acre) would, over time, lead to an incremental decrease in the amount of usable farmland. Therefore, if agricultural uses are to be preserved, we need to protect them. V.S.A. Title 12, Chapter 195, Section 5753 is intended to protect farmers against nuisance law suits. However, there have been circumstances where the state statute has not offered enough protection.

E. Sustaining Agriculture and Forestry

Planning policy and implementation efforts should be directed at sustaining agriculture and forestry pursuits and not just conservation of the resource. This is not only because it is the best way to keep the land open, but also because agriculture and forestry are critical industries in the Town and Region. Just as there is a variety of interests, there is a variety of tools than can be used to conserve these resources. Some are directed primarily at sustaining agriculture, others forestry, some are regulatory in nature, others are compensatory, and others voluntary. It is in the public interest to encourage conservation groups, landowners, local officials, and policymakers to utilize all of these tools.

Conservation Easements

Conservation easements are a common method used to ensure that the working landscape gets preserved. The Vermont Land Trust (VLT), Vermont's largest non-profit conservation organization, has conserved more than 590 parcels of land in agricultural use throughout the state, totaling 145,109 acres. Most land purchased with the intent of applying a conservation easement to it is funded, at least in part, by some form of grant funding from either state or private sources. The use of conservation easements has both pros and cons for municipalities, they include:

Pros

- Easements are flexible; they can be written to achieve specific goals of the Town involved.
- They are perpetual, and restrictions put on the conserved lands will remain in force even when the property is sold to a new party.
- They conserve scenic beauty and environmentally sensitive areas.
- Eased property remains on the tax rolls.

Cons

- Establishing an easement involves up-front costs, such as paying for legal counsel, biological analysis, etc.
- There are long-term expenses involved with monitoring the easement.
- The easement holder is responsible for ensuring that the restrictions placed on the easement are followed.

The Fairlee Planning Commission acknowledges that conservation easements are one potential solution to preserving the working landscape. Other strategies for preserving the working landscape can be found in Section J of chapter VI, Natural Resources.

F. Farming, Forestry and the Economy

In addition to preserving Fairlee's working landscape and maintaining the community's aesthetic beauty, farming and forestry can have an economic impact. Vermont is within easy reach of millions of people in cities like Boston and New York City. Additionally, Vermonters are increasingly seeking locally-sourced, sustainably-produced farm and forest products. Rising fuel prices have led to an increased interest in food and energy security. Vermont is a national leader in innovative education programs based on local food, agriculture and healthy eating. It is also widely recognized for its strong network of land trusts and other nonprofits that are models for conserving farm and forest lands. There is already a growing mix of emerging entrepreneurs and long-time land-based businesses that are constantly evolving to stay competitive. They're producing biofuels, artisan cheese, specialty wood products, produce, breads and other value-added items. It is in the best interest of Fairlee to encourage the continued development of these industries. For Fairlee, it is essential to encourage the growth of both forestry and agricultural industries within the community. These enterprises will continue to sustain the natural character of the Town while adding the potential for jobs and unique and creative attractions that will bring people into the community for recreation and education. If tourists come to Fairlee to visit a new organic farm or specialty wood or forest product producer, they will need a place to stay for the night; they will buy dinner at local restaurants, adding additional capital to the economy.

G. Goals, Policies and Recommendations

Goals

1. Encourage the conservation, wise use and management of the Town's agricultural and forestry resources, to maintain its environmental integrity, and to protect its unique and fragile natural features.
2. Protect the Region's rural agricultural character, scenic landscape, and recreational resources.
3. To encourage the economic growth of agricultural and forest operations at a scale that is appropriate for Fairlee.

Policies

1. Where contiguous areas of high value farming or forestry exist, or have significant potential to exist, fragmentation of these areas into uses other than those incidental to agriculture or forestry should be discouraged.

2. Where high value agricultural and forested land are identified, clustered or peripheral development is especially encouraged to protect such resources and prevent fragmentation and sprawling settlement patterns.
3. Contiguous forest and significant agricultural areas should remain largely in non-intensive uses unless no reasonable alternative exists to provide essential residential, commercial and industrial activities for the Town's inhabitants.
4. The construction of utilities, roads or other physical modifications should skirt tracts of productive agricultural land rather than divide them.
5. Farmers, loggers, and foresters should use Accepted Management Practices (AMP) and are encouraged to implement Best Management Practices (BMP) in their operations and to minimize point and non-point source pollution.
6. Support the development of value-added farm and forestry products in Fairlee.
7. To preserve recreational and scenic access by ensuring that at the completion of logging projects all roads are restored to their previous condition.

Recommendations

1. Local land use planning activities and programs affecting agriculture and forestry should consider the ways to promote these industries. This could include local bylaws and the creation of farm and forest land conservation programs, including:

   - overlay districts
   - agricultural zoning
   - transfer of development rights
   - purchase of development rights
   - cluster development
   - area based allocation
   - performance standards

2. To promote a better understanding of the farming and forestry practices and natural resource management in general, the industry, conservation organizations, public schools and the tourism and recreation industries should sponsor continuing educational opportunities to the public.

X. Utilities and Facilities

The provision of services and maintenance of facilities is one of the key roles of any municipal government. The cost of services and public facility maintenance can represent a substantial amount of a municipality's yearly budget (not including transportation, which is generally the largest portion).

A. Capital Budgeting & Planning

State statutes enable communities to create a Capital Budget and Program (CB&P) for the purposes of planning and investing in long-range capital planning. Although most communities have some form of capital account where they save money, many do not have a Capital Budget and Program as described in state statute (24 V.S.A §4443). A capital budget outlines the capital projects that are planned to be undertaken in the coming fiscal years over a five year period. It includes estimated costs and a proposed method of financing those costs. Also outlined in the Program is an indication of priority of need and the order in which these investments will be made. Any Capital Budget and Program must be consistent with the Town Plan and shall include an analysis of what effect capital investments might have on the operating costs of the community. An adopted Capital Budget and Program must be drafted with assistance from the Planning Commission to ensure consistency with the Town Plan. While the Planning Commission is designated in statute as the "preparer" of the Capital Budget and Program, it is essential that members of the Selectboard and Budget Committee are part of the team that develops the CB&P. The Selectboard has the ultimate decision as to whether or not such a budget and program is adopted.

When planning for routine major facilities investments, such as roof replacements, foundation repairs, etc., it is important to also consider making energy efficiency improvements at the same time. The cost to replace or renovate a community facility will only be slightly higher if energy efficiency improvements are done at the same time, rather than on their own. Other elements that may be considered in a CB&P include investments in transportation infrastructure and upkeep, as well as municipal expenses such as information technology systems.

At present, the Town of Fairlee has a Capital Budget and Program (as described in §4443) to help guide investments in community infrastructure and equipment. The Planning Commission may make recommendations to the Selectboard with regard to what capital investments should be considered annually.

B. Town Buildings

Town Office

The Fairlee Town Hall is located at 75 Town Common Rd. (Route 5) in the village. Space in the building is used for the Town Clerk, Town Administrator, Zoning Administrator and other Town officers. In 2013, the Town Hall was damaged when its fire suppression system malfunctioned. The resulting water damaged forced the community to substantially renovate the first floor of the building. Renovations included (but were not limited to):

- Replacing hard wood flooring
- Replacing damages ceiling and wallboard

- Insulating exterior walls that were damaged
- Insulating the basement
- Replace damaged light fixtures and wiring

These repairs cost the Town roughly $230,000, although much of that amount was covered by insurance. Some work beyond the scope of what was insured was done, including several energy efficiency improvements that were suggested by an audit conducted by the Energy Committee in 2010. The second floor of the Town Hall has a large ballroom with a stage. The upper floor is not well insulated. During the warmer months, it is used for some events and local classes but the lack of ADA accessibility limits use. The Town has an active Town Hall committee which has developed plans to completely renovate the second floor. Costs are estimated at roughly $500,000 to complete all upgrades including ADA improvements that would add an elevator and other accessibility modifications to the facility. These renovations would be covered primarily by grants and donations. Once installed, use of the hall space would be encouraged.

Fairlee Public Library

In 2002, the Fairlee Public Library moved from the Town Hall to its current location at 221 Route 5 N. The library building was built in 1930. In addition to its 15,725 volumes of books, the Public Library also offers movies, music, audio books, puzzles, board games and video games for borrowing. The library provides a range of programs for the community including movie and gaming nights, a creative writing group, book groups and reading opportunities for children. Libraries offer an essential service to the community by providing internet access for those residents who do not have it. Wi-Fi is available at the Fairlee Public Library 24 hours a day and there are six public computers available for use during library hours. The Library is ADA compliant, making it handicapped accessible. In 2012 the Energy Committee completed an energy audit on the Public Library. A majority of the recommendations from this audit, which were estimated at a cost of roughly $6000, were implemented in 2013. This included several health and safety modifications, insulating the foundation and other areas of the building envelope, as well as improving air sealing throughout the building. Remaining tasks include the installation of a programmable thermostat and upgrading exterior and interior lighting to more efficient products. It is estimated that remaining projects related to the audit will cost under $1000.

Emergency Services Building

The Fairlee Emergency Services Building is located at 5445 Lake Morey Road. This multi-purpose facility houses Fairlee's volunteer fire department, Fast Squad and the Upper Valley Ambulance. The building was built in 1990 and is in good condition. In 2010, the Energy Committee utilized grant funding to conduct an energy audit of the building, which identified key measures to reduce energy use. The most significant opportunities for saving energy in the building were relatively low-cost, focusing on improvements to the existing lighting system (interior and exterior), heating system and hot water. Fortunately, the building's envelope tested well, indicating that only a small amount of additional insulation was needed in the attic to improve efficiency. There are no additional improvements planned for the Emergency Services Building for the foreseeable future.

Fairlee Railroad Depot

The railroad depot building is located in Fairlee's Village. The building, last actively used by the railroad in 1972, was originally built in 1848. It has been identified as historically significant by virtue of it being an exceptionally well-preserved, first generation structure remaining from the earliest years of railroad development

within the State of Vermont. At present, the building has an antique shop that is open during the summer (utilizing the space for storage during the winter) and the surrounding parcel hosts a summer flea-market. The Town has considered possible uses for the building and has been making occasional investments in maintenance, the most recent being substantial repairs to the roof.

Town Beach Bath House

Fairlee maintains a small building on the Fairlee Public beach. This building has changing rooms and bathrooms that are available to beachgoers. It also provides space for storage.

C. Municipal Services

Public Water

The Fairlee Village area and parts of Lake Morey are served by a municipally owned water supply system. Groundwater serves as the source of supply from two gravel packed wells. They have a combined yield of 1200 gallons per minute. Water is stored in two reservoirs (265,000 gallon and 100,000 gallon respectively), which are located off Bald Top Rd. They are in excellent condition. The village water system provides water to 38% of the buildings in Town along a roughly 2 mile stretch of Route 5 within the village to the eastern (roughly 1.4 miles) and western (roughly .8 miles) sides of Lake Morey. There are a total of 340 connections, which average roughly 57,000 gallons of water per day. The system has the capacity to handle a maximum demand of 140,000gpd. The Fairlee Public Water System, like many water distribution systems in Vermont, is old and in need of improvements. Within the next 2-5 years, it is anticipated that pumps will need to be replaced. Additionally, the community recognizes that a backup well site is needed in the event that an existing well fails. Estimates on the potential cost of pump replacement and a new well site have not been calculated.

Wastewater Treatment

Fairlee does not have a centralized wastewater treatment facility. All wastewater is handled through on-site septic on a parcel by parcel basis. This method has worked reasonably well for the community, but the lack of centralized wastewater treatment does limit the potential for increased density in the Village Area. Additionally, much of the area around Lake Morey has reached its capacity to handle onsite septic, creating concerns about the possibility of effluent flowing into the lake should a system fail. It is recognized that a municipal wastewater system would be valuable to the community, but the expense of such a system is substantial. The development of a municipal wastewater system would require a substantial amount of state or federal grant assistance in order to make it feasible for the community.

Solid Waste Management

Fairlee's solid waste is presently handled by Quinttown Container Service at a cost to the Town of roughly $20,000 per year, which is raised through taxes. The community owns a 4.7 acre property on Dump Rd. which houses the Fairlee Transfer Station. This facility manages incoming solid waste, as well as recycling. The transfer station is only open to residents and taxpayers. Fairlee is part of the Central Vermont Solid Waste Management District, which offers various recycling programs including a household hazardous waste program

twice yearly (in Barre and Bradford) and other special collection events as necessary. The Town of Fairlee does not provide curbside pickup. Collection services are handled by the private sector.

D. Cemeteries

Fairlee has three Cemeteries: Village Center Cemetery (located on Route 5 N), Ely Cemetery (located on Bragg Hill Rd.), and Brushwood Cemetery (located on Brushwood Rd.). The cemeteries are managed by the Fairlee Cemetery Commission, which has an elected Board of Commissioners who oversee upkeep and long range planning. The cemeteries have adequate capacity and no major improvements or expansion is anticipated in the immediate future.

E. Communication Facilities

Telephone

- **Landline Communications** - Most of the telephone related services in Fairlee are still offered via the traditional telephone lines and poles (landline). Coverage over landlines in Fairlee is currently provided by Fairpoint Communications, Inc. and Topsham Communications.

- **Cellular Communications** - Cell coverage in Fairlee is generally excellent, with some areas that are not served due to topography. 3G and 4G coverage is provided by AT&T and Verizon Wireless. It is estimated that 95% of the households and 100% of businesses in Fairlee have adequate cell phone reception. Fairlee has a cell tower ordinance that guides the design of any towers that might be developed; however, any cellular provider who is creating a network of cell towers is exempt from local land use regulations under V.S.A Title 30, Chapter 5, §248a. While these facilities are exempt from local regulations, due consideration to the municipal plan is supposed to occur as part of the permitting process.

Internet

There are presently five ways to access the internet in Fairlee, they are: landline, DSL, cable, satellite, cellular internet, and fiber optic.

- **Dial-up** - Dial-up access is the most commonly available service to residents, but speeds over a telephone modem are very slow. Given the ever increasing need for bandwidth in day-to-day use of the internet, it is not practical for more than checking email. The faster and more stable options available to some residents are via cable, satellite, DSL and cellular services.
- **Fiber-to-the-Home** – In addition to offering cable coverage to Fairlee, Topsham Communications has also developed a strong fiber optic network in the community. Fiber optic cables offer the fastest connection speed available. A majority of the community has access to fiber optic internet.
- **Satellite Internet** - Provided by companies such as Dish Network, Direcway and Wildblue, satellite internet is an option for residents who are unable to access the internet via cable or DSL provided they have a clear view of the southern sky from their location. Although bandwidth over satellite is on average three to five times faster than a dial-up connection, it is more expensive than other methods of access and it can be affected by heavy weather such as torrential rains and blizzards.

- **DSL (Digital Subscriber Line)** - DSL (provided by Fairpoint Communications) is very similar to cable in speed. It is less subject to decreases in speed caused by heavy internet traffic because a certain amount of bandwidth is dedicated for each user. DSL is provided to those within range of a switching station. Fairpoint has a switching station in Fairlee Village.
- **Cable Internet** – Topsham Communications offers internet through their existing cable TV system. Speeds are generally considered good for home users, and businesses can acquire higher speeds through business specific packages. Home cable internet can be subject to slow-downs at peak hours when many users are accessing the internet at the same time. Cable is available in areas adjacent to the major routes in Fairlee.
- **Cellular Internet** – With the growing amount of bandwidth available to smartphone users via cellular phone networks, cellular providers are offering the ability to utilize their network for internet access. The nature of cellular connections is such that they are less susceptible to disruption from weather conditions as is the case with satellite internet. However, a clear and strong connection to a cellular tower is required in order to utilize this service. The State of Vermont has put a substantial amount of support behind the notion of providing internet access via this medium to those areas that are currently underserved.

F. Goals, Policies and Recommendations

Goal

1. To provide quality public services and public facilities that meet the needs of the community without creating an undue burden on taxpayers.

Policies

1. It is the policy of the Town to provide residents with safe, effective, responsive and affordable municipal infrastructure, facilities and services consistent with other Town goals and whenever possible, to encourage and work with other public and private utility or service providers to do the same.
2. It is the policy of the Town that municipal officials will participate in the Public Service Board's review of new and expanded telecommunications facilities to ensure that the goals and policies of this plan are considered in future development.
3. It is the policy of the Town to effectively plan for future investments and upkeep of community facilities so as to avoid overburdening taxpayers due to unexpected maintenance costs.

Recommendations

1. The Selectboard should work with the Planning Commission to maintain a Capital Budget and Program to guide future investments in infrastructure.
2. The Town should continue to utilize the municipal web site to improve communication and provide residents with access to municipal data.
3. The Town should participate in the Vermont Village Designation Program to allow local business owners the ability to access tax credits for substantial improvement and code improvements to structures in the Village.

XI. Health and Emergency Services

A. Health Care Facilities

Health care facilities are essential to the prevention, treatment, and management of illness, and to the preservation of mental and physical well-being through the services that they offer. Rural locations such as Fairlee are served by small facilities that can assist residents with general health care needs but are not suited for more complex, acute care services that require specialized services and equipment. Fairlee is fortunate to have a health center (Little Rivers Health Center) located in the neighboring Town of Bradford, less than five ten from Fairlee's Village, as well as several other small clinics located in the greater Upper Valley Area. For more extensive care, Dartmouth Hitchcock Medical Center (a tertiary care facility), is located in Lebanon, NH.

B. Fire Protection Services

The Town is served by a volunteer fire department that responds to fires and other emergencies in Fairlee and neighboring towns. Firemen respond to about sixty calls each year, of which less than 30% are Fairlee fires. Neighboring communities' departments are called in on large fires requiring outside resources per mutual agreements. The Fairlee Fire Department is operated exclusively by volunteers. At present, there are roughly 20 members. While coverage is adequate there is always a need for additional volunteers to serve as firefighters, to help raise money, and to help care for the equipment. Because a majority of Fairlee's residents work outside of the community, and because of the added challenge of the many State and Federal requirements for training, it can be challenging to find volunteers.

Fire Station

The Fairlee Fire Department is located in the Fairlee Emergency Services Building at 5445 Lake Morey Road. The building was built in 1990, and is in good condition. No upgrades to the Fairlee Fire Station are anticipated in the next five to ten years.

Equipment

Emergency vehicles consist of an engine/pumper, tanker, forestry truck and rescue truck. Fairlee has been fortunate in that the majority of their Emergency Services vehicles have been paid for by the Fairlee Fire Brigade through donations or by the Fairlee Fast Squad. Many of Fairlee's emergency service vehicles are aging and will need to be replaced, in particular the current engine/pumper is nearly twenty years old. The estimated cost of replacing the engine/pumper is roughly $250,000.

C. Police Protection Services

The Town of Fairlee does not have a full time police force. Instead, services are provided jointly by the Chief of Police who is appointed by the Selectboard, the Orange County Sheriff's Department and the Vermont State Police. The Sheriff's Dept. and the State Police provide services based on contract agreements with the Town. Total budgeted amounts allocated for police protection services are roughly $45,000 per year. The Fairlee Chief of Police provides limited police security, speed enforcement, and traffic control services when needed. In

addition, the Police Chief acts as liaison between all of the police service providers. The bulk of Fairlee's police protection services are provided through a contract with the Vermont State Police and the Sheriff's dept.

D. Emergency Medical Services

Upper Valley Ambulance

Emergency medical services in Fairlee are provided by Upper Valley Ambulance, Inc. (UVA). UVA is a not-for-profit emergency ambulance and rescue service comprised of paid full-time, part-time and volunteer staff. Emergency medical service is provided to a bi-state portion of the Upper Valley which includes the Towns of Orford & Piermont, NH and Bradford, Corinth, Fairlee, Strafford, Thetford, Vershire, and West Fairlee, Vermont. UVA is paid for its services through taxes, which are assessed on a per capita basis. It should be noted that those who use the ambulance will be charged on an individual basis in addition to fees paid by the Town.

Fairlee Fast Squad

Fairlee maintains a FAST (First Aid Stabilization Team) Squad which is designed to be the first-on-the-scene rescue service that can provide immediate first aid and stabilization to citizens in the event of a medical emergency or an accident. The Fairlee FAST Squad (FFS) also provides vital information to the ambulance service prior to their arrival on scene. There are currently five full-time members on the FFS, four are trained at the EMT-Basic level and one at the Intermediate Level. All FFS members are also members of the Fairlee Fire Department. The FAST Squad has a five person rescue truck, which allows them to respond to emergencies with the necessary equipment to meet the unique requirements of most emergencies. In 2013, the FAST Squad purchased (through an endowment to the FFS) a state-of-the-art Jaws of Life Tool system which allows for safer and quicker extrication of people trapped in an accident. In addition to the Jaws of Life, the FFS has a Paratech Vehicle Stabilization System, which makes it possible to stabilize a vehicle left in any position after an accident. This is essential to gaining access to those involved in the accident.

Dartmouth-Hitchcock Advanced Response Team (DHART)

The Dartmouth-Hitchcock Advanced Response Team is based in Lebanon, NH at Dartmouth-Hitchcock Medical Center. DHART crews provide air medical transportation services to the medical communities of Northern New England. In addition, DHART flight crews respond to public safety agency requests for medical evacuation of trauma patients from scenes of injury, and will transport patients to the closest Trauma Center in the region's five states. Operating 24 hours a day and seven days a week, DHART Crews transport adult, pediatric and neonatal patients to ANY appropriate medical facility in New England. DHART landings within Fairlee are generally coordinated by the Fairlee Fire Department.

E. Emergency Management Planning

The impact of expected, but unpredictable natural and human-caused events to the region can be reduced through proper emergency management. Emergency management is generally broken down into four areas: preparedness, response, recovery and mitigation.

- Preparedness includes emergency personnel acquiring suitable equipment, and conducting training and exercises. Preparedness is also a responsibility of residents, business, and government. Simple preparedness measures, like having disaster supplies on hand, installing smoke detectors and generators, having emergency fuel for generators and vehicles, and knowing basic first aid, will all help to lessen the impact of a disaster. Preparing emergency plans is also a preparedness activity.
- Response is the initial emergency response to save life and property during and immediately after the disaster. It is initiated by local emergency crews and then followed up by outside forces if necessary. Response operations are greatly enhanced by proper preparedness. Most emergencies of any scale will require towns to work together, and often to work with state or federal agencies. Practicing with all of these partners before an actual emergency is critical to smooth emergency operations.
- Recovery is the more long-term process of putting life back to normal, and includes many state and federal agencies, especially the Federal Emergency Management Agency (FEMA) in large disasters. As events like Tropical Storm Irene showed in other parts of the state, recovery can take a long time and is hindered if a disaster is severe or widespread. Communities that were hit hard by Irene discovered that there is less state and federal assistance than expected, and what assistance is available requires a substantial effort at the municipal level.
- Hazard mitigation means any sustained action that reduces or eliminates long-term risk to people and property from natural or human-caused hazards and their effects. Mitigation planning begins with an assessment of likely hazards, and then targets activities to reduce the effects of these hazards. Given that the largest threat in Vermont is flood related, good mitigation measures include proper road and drainage construction, as well as limiting development in flood prone areas.

Local Emergency Operations Plan

Fairlee, like every town in Vermont, maintains a Local Emergency Operations Plan (LEOP). This plan contact information that is available to authorized users, but is not available to the public. The Selectboard should continue to keep the LEOP up-to-date and ensure that all parts of municipal government that are active during a hazard event are aware of what is in it. This includes the Selectboard, Fire and Rescue, Road Crew and Shelter coordinators. The LEOP covers the procedures for Fairlee's response to a disaster. In the event of a disaster, the Selectboard will formally declare a state of emergency if the Board feels it exceeds the Town's emergency management capacity. This declaration will be faxed to Vermont Emergency Management and a local emergency operation center will be set up in the Town Office and/or Fairlee Fire Station. The Town Office is equipped with back-up power so that it can function in an emergency. Fairlee has an appointed Local Emergency Management Director who is responsible for coordinating the various components of the Emergency Management System: Fire, EMS, law enforcement, public works, volunteer groups and State resources. This plan is updated on a continual basis to ensure that personnel and roles remain accurate. In the event that emergency shelters are needed, Fairlee has emergency shelters, located at the Samuel Morey Elementary School and the Town Hall. The School does not have back up power, but food and showers are available at the school if there is power. In order

to avoid disasters as much as possible, the Local Emergency Planning Committee (LEPC #12) and the Regional Planning Commission have developed an all-hazards plan to address mitigation and education needs.

Hazard Mitigation Plan

Disaster mitigation covers actions done to reduce the effects of a disaster. For Fairlee, the primary hazard is severe weather (and the potential damage it can cause), with a variety of other lesser hazards. All hazards have been reviewed in the Town's Mitigation Plan. There are many ways that the Town can reduce damages, and since a disaster does not always result in state or federal assistance, the Town should take sensible steps to reduce disaster costs, damage to property and loss of life.

Emergency Access

Any new property development in Fairlee should be designed to allow safe access for emergency services. Poorly designed driveways that are too steep or too narrow can limit access, particularly in the winter, and may represent a safety hazard for emergency responders. The Fairlee Zoning Ordinance contains provisions to ensure that land development shall be designed to ensure adequate provision of facilities necessary for emergency services. In new subdivisions, the design of such drives or similar facilities should be done in consultation with the Fairlee Fire Department. On major subdivisions, the Development Review Board could require the provision of storage ponds and dry hydrants necessary for adequate fire protection.

F. Goals, Policies and Recommendations

Goals

1. High quality medical care should be available to all Fairlee residents.
2. To ensure the protection and safety of the citizens of Fairlee against crime and violations of law.
3. To maintain appropriate fire and ambulance service.

Polices

1. It is the policy of the Town to support and encourage the development of local health care facilities and counseling services to help residents obtain health care as close to home as possible.
2. It is the policy of the Town to support programs that improve medical services for Fairlee residents.
3. It is the policy of the Town to support the development of assisted living or other facilities or services dedicated to supporting the elderly in Fairlee.
4. It is the policy of the Town to support efforts to provide residents with access to high quality physical and mental health care through local providers.
5. It is the policy of the Town to support efforts to decrease response times for emergency services.
6. It is the policy of the Town that road and driveway access to proposed developments be evaluated for fire trucks and other emergency vehicles as part of the permit review process.
7. It is the policy of the Town to maintain its relationship with Upper Valley Ambulance.

8. It is the policy of the Town that the Selectboard maintain an up-to-date Local Emergency Operations Plan.
9. It is the policy of the Town to work with the Two Rivers-Ottauquechee Regional Commission to properly plan for hazard events.

Recommendations

1. The Selectboard should update the Local Emergency Operations Plan at least once a year or when key emergency management personnel change.
2. The Selectboard should adopt a Hazard Mitigation Plan with assistance from the Two Rivers-Ottauquechee Regional Commission
3. The Selectboard should have a clear plan for use of the emergency shelter. This plan should include written guidelines with regard to staffing and operation.
4. Town officials who are part of Fairlee's emergency management team should receive adequate training in the Incident Command System (ICS).
5. The Selectboard should investigate the viability of a "reverse 911" alert system to alert the community in the event of a local hazard event.

XII. Transportation

Land use, energy, and transportation are related. Land use, both within and outside Fairlee's borders, drives the need for improvements to the transportation system. At the same time, local land use goals must be facilitated in part by providing the necessary transportation facilities to accommodate growth where growth is desired. In addition, a given land use can have very different impacts on the transportation system depending on how it is sited and designed. Land use and transportation are both linked to the Town's economic well-being. Poorly planned land use patterns increase transportation costs and also the tax rate, whereas well planned development can add to the tax base of the Town, providing additional funds for the transportation system.

A. Public Highway System

Miles of Roads in Fairlee	
Class 1	0
Class 2	5.56
Class 3	11.47
Class 4	6.6
Total Town Roads	**23.63**

Figure 17: Miles of roads in Fairlee
(Source: Vtrans)

Highway classifications determine the amount of state aid available to assist with repair and maintenance. The Vermont Agency of Transportation (VTrans) and the Selectboard determine road classes. Criteria include traffic volume, road condition, and function. Class two highways are the major connectors linking villages with each other and with state highways, and they receive a higher rate of State aid than Class 3 highways. When compared to other nearby communities, Fairlee has a very small system of roads. For example, Thetford and Bradford both have over 50 miles of roads, respectively. Twenty-three percent (23%) of Fairlee's roads are Class 2 (Lake Morey Rd.). Class 3 highways are Town roads that are maintained in a manner enabling them to be driven under normal conditions in all seasons by a standard car. The majority (48%) of Fairlee's roads are Class 3. Nearly 30% of Fairlee's highways are Class 4, which is substantial compared to most communities where Class 4 roads make up less than 10% of total roads. Class 4 highways are generally in poor condition and are not maintained. No state aid is available for work on Class 4 highways. While not suited for regular traffic, these roads do represent a valuable asset for the Town from a recreation standpoint. Such Town-owned corridors will help ensure that there will continue to be a place to enjoy snowmobiling, ATV, cross country skiing, walking, hunting, horseback riding and other outdoor recreation. Because of the small number of roads Fairlee has to maintain, the community has opted to utilize the services of a private company to provide maintenance and upkeep. Bids for services are solicited on a three-year basis and the winning bid is contracted for the same period of time. Apart from education costs, public roads have been and will continue to be Fairlee's largest Town asset requiring significant financial investments paid through municipal taxes. Transportation funding sources come from numerous combinations of the local tax base, state and federal gas tax receipts, state and federal allocations and registration fees. The most significant funding resource comes from the federal transportation bill, which passes through the State of Vermont and is distributed to towns by the Agency of Transportation. The federal and state government pays a percentage of project costs and the community pays the remainder. This funding applies only to Class 1-3 roads. Maintenance of Class 4 roads is funded exclusively by the community. The Two Rivers-Ottauquechee Regional Commission has compared programs throughout the region and recommends a program of early intervention using preventative maintenance because such a program has proven to be 75-85% less costly than larger reconstruction work after significant deterioration has occurred. Fairlee has adopted a Transportation Capital Budget and Transportation Program for this purpose. Proper and

timely road and drainage system maintenance can help protect systems from most severe weather events. Maintaining a reliable and up-to-date inventory of existing culverts and structures, coupled with a short and long range plan for replacement and upsizing, is essential. Replacing deficient culverts and bridges also helps protect water quality – installing appropriately scaled and designed structures that can handle flood events, stormwater runoff, promote fish passage, and minimize the discharge of road sediment. These upgraded culverts and bridges, operating in greater harmony with the natural environment, will also be less likely to fail during storm events. The Town has conducted a culvert and bridge inventory to plan for future upgrades and maintenance.

B. State and Federal Highways

State highways in Fairlee include Route 25A and Route 244. Route 5 is part of the US Highway system, but is maintained by the State of Vermont using Federal Funding. Route 5 is a nationally designated Scenic Byway. Interstate 91 bisects Fairlee, but the presence of an exit from the Interstate (Exit 15) provides Fairlee with an source of travelers who may access the community's recreational opportunities and services.

State/Federal Roads in Fairlee	
State Highways	2.9
US Highways	7.2
Interstate Highways	8.1
Total State/Federal Roads	**14.26**

Figure 18: Miles of State/Federal roads in Fairlee (*Source: Vtrans*)

C. Class 4 & Publicly Owned Trails

Class 4 roads and trails primarily offer access to Town and conservation resources, and they provide unique insights into a long abandoned agrarian landscape. Many Class 4 roads have been incorporated into the natural landscape whereby very little development has occurred along these roads. Class 4 roads are not maintained except for some culvert and bridge work to ensure access for emergency vehicles. The Town also does not plow these roads during the winter. Public utility services or other municipal infrastructure that typically accompany roads are nearly nonexistent. Often, these roads are scenic travel corridors for hikers and bicyclists and provide limited access to hunting and conservation lands. Trails are used exclusively for recreational purposes and are not intended for vehicle access, therefore they are not maintained. According to the Vermont Agency of Transportation in 2012, Fairlee has only .39 miles of publicly owned trails.

D. Access Management

Access management is an important process to provide reasonable accessibility to adjacent land uses while maintaining a safe and efficient flow of traffic. The Town recognizes the value of access management and can implement access management strategies through its planning and public works related ordinances and policies. The following are some of the strategies for all public and private transportation and development projects impacting local and state public roads as well as private roads:

- Utilize State of Vermont design standards for all temporary and permanent access to include emphasis on drainage, sight distance, and access for emergency services;
- Encourage use of shared driveways and/or permitting access that may result in a future shared driveway;

- Require the review of access for existing development whenever a change of use, or other application process is brought before the Town;
- Encourage commercial properties to use existing development nodes in order to preserve or create road segments with few accesses, unless additional replacement access better meets access management goals;
- When practical, approve subdivisions with private and public road designs that allow shared access with other adjacent subdivisions and/or have the private rights-of-way reserved so an access may be built to connect to existing and future development;
- Encourage permanent landscaping and roadside enhancements to visually define access points and contribute to the roadway's aesthetic character;
- Use sight-distance standards based on the actual travel speeds and not the posted speed limits. If no such data exists or is not current, then the Town will work with the Regional Planning Commission to obtain the appropriate data.

E. Other Modes of Travel

Rail

A north-south railroad line, maintained by Vermont Rail Systems, runs through Fairlee parallel to the Connecticut River. The Vermont Rail System provides heavy haul freight rail service to Vermont, New Hampshire, and Upstate New York through its five affiliated short lines: Vermont Railway, Green Mountain Railroad, Clarendon & Pittsford Railroad, Washington County Railroad, and New York & Ogdensburg Railway. Washington County Railroad operates the line that passes through Fairlee. While there is presently no passenger service along the Washington County Railroad line, Fairlee recognizes that passenger access to rail in the village could have a beneficial economic effect. The ability for residents to utilize rail to commute to job centers in the Upper Valley would be a valuable commodity that might attract new residents, as well as reducing local use of automobiles which would help reduce greenhouse gas emissions.

Bicycles and Pedestrians

Many residents bike or walk on Town roads in Fairlee. Fairlee does not have a consistent system of sidewalks within Village Area. In addition to sidewalk improvements, other possible ways to encourage expanded economic development within the village is to improve the village's aesthetics and to add traffic calming measures that would make the village more pedestrian friendly. Returning it to its original capacity and improving the quality of design would improve pedestrian travel throughout the Village Center.

Trails

There are several trail networks in Fairlee, many of them around Lake Morey. Most notable is the Cross Rivendell Trail, a 36-mile trail that runs roughly east-west through Fairlee. It is a joint project of the Rivendell Trails Association (RTA) and the Rivendell Interstate School District (RISD). The Rivendell Trails Association (RTA) is a 501(c)3 non-profit organization charged with the mission to create and maintain the Cross-Rivendell

Trail as an educational and recreational resource. Additional recreational opportunities can be found using trails maintained by VAST and VASA.

Public Transportation

Fairlee is fortunate to have access to a small regional public transportation system, Stagecoach, Inc. Stagecoach offers regular transportation to West Lebanon, NH. Their southern route to West Lebanon (the River Route) has a regular stop located in Fairlee's village. The River Route has stops at the VA Hospital in Hartford, and connects with Advanced Transit (which offers service in NH) and Dartmouth Hitchcock Medical Center. Stagecoach also offers limited public transportation in the form of special requests for individuals who need transportation for medical reasons. Fairlee residents can take advantage of Stagecoach's "Ticket to Ride" Program, which helps pay a substantial percentage of the cost of rides for senior citizens (60+) and persons with special needs when there is not available transportation in the household or the person requesting the trips is unable to drive on the day of the trip. Ticket to Ride is available for a broad array of destinations, such as medical services, shopping, errands, and social purposes. Given that Fairlee's elderly population is growing, the need to maintain an affordable source of public transportation that can bring the elderly to major medical facilities like Dartmouth-Hitchcock and larger commercial centers for day-to-day shopping needs is important.

F. Goals, Policies and Recommendations

Goals

1. To provide and maintain a safe, energy-efficient and well-maintained transportation network in a cost-effective manner, integrating all modes of travel (auto, pedestrian, bicycle, and mass transit) and meeting the needs of the public in a manner consistent with the other goals, policies and recommendations of this Town Plan.
2. To maintain the rural and scenic character of the back roads and byways thereby protecting the rural scenic quality of the Town whenever possible.

Policies

1. It is the policy of the Town to maintain the existing road system, while discouraging the expansion or addition of new roads.
2. It is the policy of the Town to consider public input prior to a decision to substantially change the maintenance level, surface treatment, or class of a Town road.
3. It is the policy of the Town that to evaluate traffic volume and maintenance costs against other factors when deciding whether or not to pave a road, such as the up-front cost of paving and base improvements that may be necessary to support a paved surface and the potential quality-of-life impacts to residents.
4. It is the policy of the Town to replace undersized culverts and bridges with appropriately sized infrastructure whenever financially feasible, when addressing improvements on Class 3 roads.
5. It is the policy of the Town to integrate land use with transportation planning by encouraging concentrated growth in areas served by an adequate highway system, utilizing land use regulations and appropriate highway access management techniques to control the impacts of development on the transportation system, and by making transportation improvements in areas where growth is desired.

6. It is the policy of the Town to encourage access management techniques that limit the number of access points during new development along highways to reduce driver confusion, traffic congestion, and to minimize conflicts between through and local (turning) traffic via provisions on further subdivision in new access permits.
7. It is the policy of the Town to cooperate with other communities in the region through TRORC and its Transportation Advisory Committee to ensure that the region's transportation system is developed in a well-coordinated manner that recognizes and balances the needs and desires of each community.
8. It is the policy of the Town to consider the relationship of a road to surrounding features of the landscape when planning improvements needed to safely accommodate increased traffic.
9. It is the policy of the Town to encourage safe use of the roads by bicyclists and pedestrians.
10. It is the policy of the Town to retain Class 4 roads, trails, and other public rights-of-way as public resources.
11. It is the policy of the Town to require development on private roads to adhere to Town access standards and to provide safe year-round access for Town services, particularly fire and rescue.
12. Any plan for changes to routes 25A, 244, and 5 or I-91 should not unduly compromise the historic, scenic, rural and cultural characteristics of these routes. Economic development objectives or new growth creating increased demand for upgrading of these routes need to be balanced with the preservation of Fairlee's downtown, other built-up areas or planned expansion areas.
13. It is the policy of the Town to maintain a reliable and up-to-date inventory of existing culverts and structures, coupled with short and long range plans for replacement and upsizing.
14. It is the policy of the Town to actively participate in any process or project that would result in significant changes to Route 25, Route 244, or Route 5.
15. It is the policy of the Town to support efforts to sustain, expand, or enhance existing public transportation.
16. The Town should encourage efforts to improve pedestrian travel within the Village Center through streetscaping or traffic calming.

Recommendation

1. The Town should develop a Town highway capital plan and schedule that will guide maintenance and road infrastructure investments in the future.
2. Encourage participation in the Regional Transportation Advisory Commission as well as the TRORC Road Foreman's meeting program.
3. The Selectboard should actively explore the purchase and utilization of simple to use rural road maintenance software for maintaining roads and drainage systems.
4. The Town should reinvest in a village sidewalk system as a way to encourage economic development and safe pedestrian travel.

XIII. Energy

While the Planning Commission recognizes that energy supply and demand are directed largely by economic forces at the state, federal, and international levels, the manner in which Fairlee plans for future growth can have an impact on how much energy is needed and used in this community. By planning the location of jobs, public services and housing in close proximity to growth centers, the consumption of fuel and the need for additional roads can be reduced. The siting and design of buildings and the selection of energy systems can influence efficient use and conservation of energy.

A. Energy Demands

According to the 2011 Vermont Comprehensive Energy Plan (CEP), energy demand grew at 1.8% from 1990 to 1999, but has been close to 0% for the past 10 years. The combination of state energy efficiency programs and the 2007–2009 recession probably helped to reduce energy demand across most end-use sectors in Vermont. The 2010 American Community Survey indicates that the major heating fuels consumed in Vermont are oil (47%), electric (5%), wood (15%) and LPG and gas (30%).

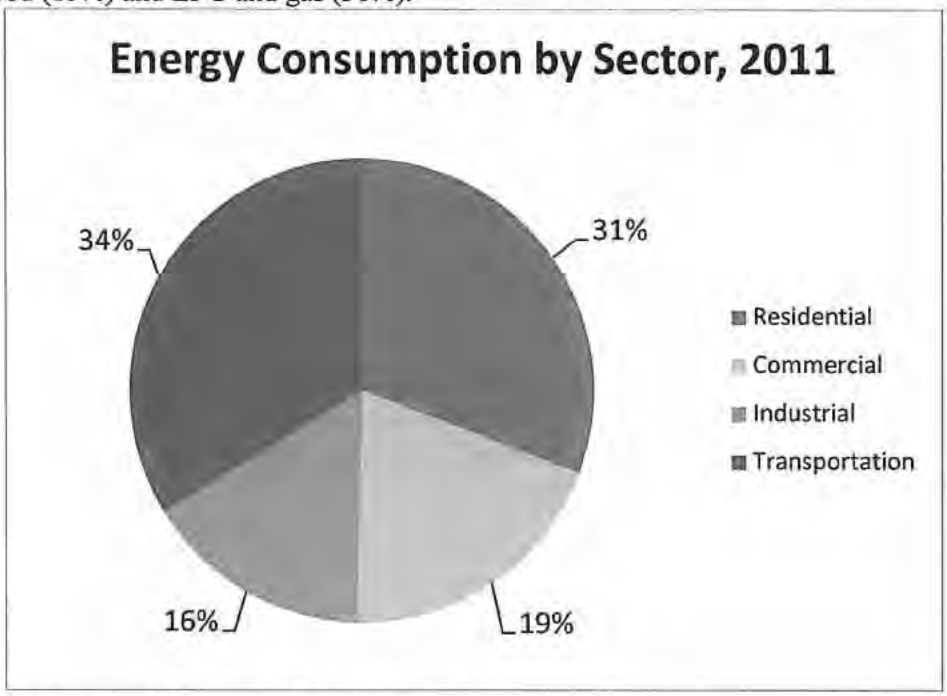


Figure 19: Source - US Energy Information Administration, 2009

In terms of per capita energy consumption for residential and transportation purposes, the North East is about the same as the rest of the U.S. In Vermont, almost 80% of residential energy is dedicated to space heating and domestic hot water, while approximately 34% of the state's total energy usage goes toward transportation. Of the energy dedicated to transportation, over 50% is used to fuel private cars for residents (as opposed to being used for public transit, road maintenance, or another public purpose). This fact reinforces the need for clear policies that take into account the transportation implications of land use decisions in this community.

According to data collected by Efficiency Vermont in 2010, the Town of Fairlee is 19th out of 30 towns in terms of average annual energy use levels in the TRORC region. In 2010, this data (limited only to residential energy use) determined that Fairlee used 6887 kWh of energy, roughly more than 3/5 of the towns in the Two

Rivers-Ottauquechee Region. When compared to other communities of similar size such as Bradford and Royalton, this level of residential energy use seems high.

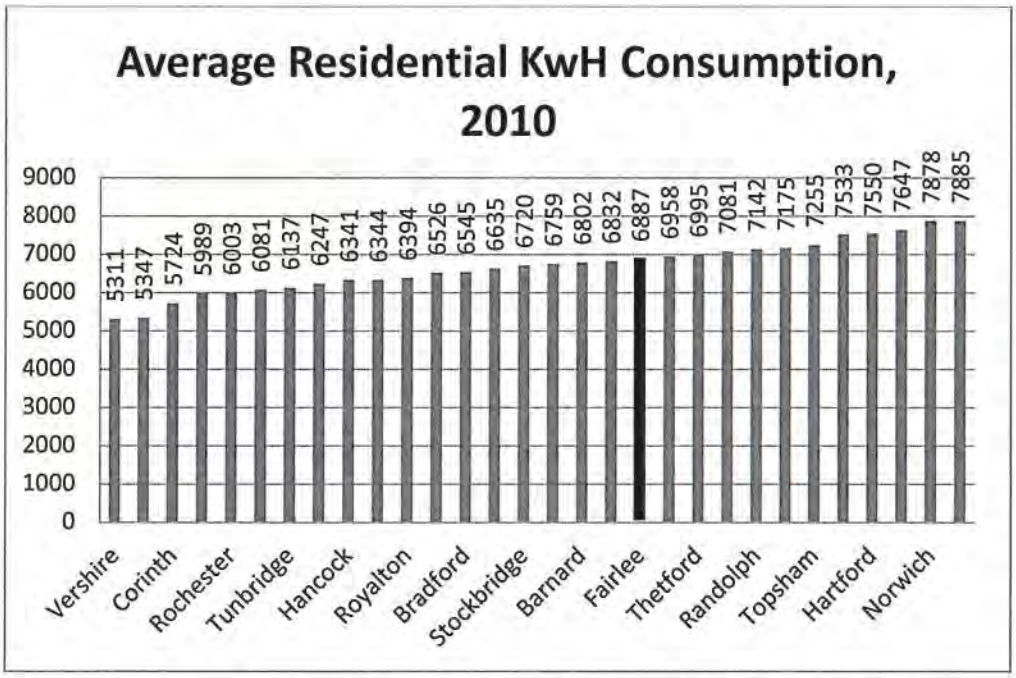


Figure 20 – Source: Vermont Energy Atlas and Efficiency Vermont, 2011

B. Renewable Energy Resources

The term "renewable energy" refers to the production of electricity and fuels from energy sources that are naturally and continually replenished, such as wind, solar power, geothermal (using the earth's heat to create power), hydropower, and various forms of biomass (trees, crops, manure, etc.).
The types of renewable energy found in Vermont are:

Solar Energy

Solar energy has potential for providing clean, reliable, and safe energy, even in Vermont's climate. Most areas in Vermont have the potential for some solar energy production, at least at the residential scale. According to the Vermont Energy Atlas, in Fairlee, if all potential opportunities to develop roof top solar energy production were taken advantage of the Town would have the potential to generate roughly 844,547 kWh of power. There are no commercial-scale solar electricity generation facilities in Fairlee. Because of the nature of solar arrays, they are in some ways more desirable than wind towers. This is primarily due to the fact that they do not need to be located on high ground and are therefore less visually prominent. In addition, these facilities can be located in areas that are less rural in nature, requiring fewer access roads and reducing adverse impacts on wild lands.
If not properly sited, large solar facilities can impact soil and water resources, as well as wildlife habitat and corridors. Considerations must also be given to public safety. Because photovoltaic collectors are reflective, they have the potential to create harsh and blinding lights that could be a hazard to nearby buildings or road traffic. Commercial solar facilities should be developed so as to avoid negative impacts on the rural character of the area in which they are proposed to be located. Developers should make all possible efforts to minimize damage to important natural areas as identified in the Natural Resources section of this Plan. Additionally, such facilities

should be located as close to existing roads as possible to avoid creating an increased need for Town services, such as road maintenance.

Wind Energy

Figure 21: Potential Wind Development Areas in Fairlee *(Source: Vermont Energy Atlas)*

There are multiple levels of potential wind energy generation, ranging from Class 1 (10-11 mph) to Class

Potential Wind Development Areas (Acres)							
	Class 1 (10-11 ph)	Class 2 (12-13 mph)	Class 3 (13-14 mph)	Class 4 (15-16 mph)	Class 5 (16-17 mph)	Class 6 (17-18 mph)	Class 7 (19-25 mph)
Residential (30-meter)	1482	0	0	0	0	0	0
Small Commercial (50-meter)	0	63	0	0	0	0	0
Large Commercial (70-meter)	0	0	0	0	0	0	0

7 (19-25 mph). Fairlee's topography and distance from the more windy areas of the state, makes it a poor location for wind energy generation, even on the residential level. Based on an analysis of these potential areas for wind development, the community does not wish to have the development of commercial-scale wind energy in Town.

Biomass & Biogas Energy Generation

There are no biomass energy generation facilities in Fairlee. Commercial biomass energy generation facilities should be located close to available biofuels to reduce transportation impacts and costs. A biomass power plant would require a great deal of space to accommodate the various stages of collection and conversion of the mass into fuel before burning it to produce electricity. Fairlee considers this ti be a heavy industrial use and would negatively impact the rural character of the community and the local road system.

Biofuels

Growing biomass to use in biofuels may be a viable way to encourage farming in Fairlee as well; however, balance should be sought between growing for energy demands and for human and animal consumption.

Hydropower

Many locations in Vermont, including Fairlee, once depended on hydropower to grind grain, run mills and even supply electricity to homes. But, with the onset of centralized power, most of these small-scale power generation facilities have been replaced by massive hydro facilities such as Hydro Quebec. There is one site on Lake Fairlee that is considered "in-service", meaning that they are not actively producing power, but have the basic infrastructure to do so. Retrofitting this existing site presents the most effective means of adding potential hydropower while keeping environmental impacts low. Hydropower generating facilities are regulated by the Federal Energy Regulatory Commission and stringent federal water quality standards. As a result, the regulatory process for hydro facilities is extensive and time consuming. Further, streams are public trust resources and the potential impacts of hydro projects warrant significant consideration. Any hydropower development proposed in Fairlee shall not result in an undue adverse impact to riverine ecosystems and water quality.

C. Permitting Considerations

Energy generation in Vermont is subject to a number of different permitting requirements, most of which are limited to state level permitting. On the municipal level, state statute protects residential renewable energy generation systems from regulations that will completely prohibit their development.

Section 248

Distributed power generation facilities, such as hydropower dams, fossil fuel plants as well as wind power or solar systems owned by utilities, are subject to review and approval by the Vermont Public Service Board (30 VSA §248). Under this law, prior to the construction of a generation facility, the Board must issue a Certificate of Public Good. A Section 248 review addresses environmental, economic, and social impacts associated with a particular project, similar to Act 250. In making its determination, the Board must give due consideration to the recommendations of municipal and regional planning commissions and their respective plans. Accordingly, it is appropriate that this Plan address these land uses and provide guidance to Town officials, regulators, and utilities.

For all energy generation facilities, the following policies shall be considered:

1. **Preferred Locations**: New generation and transmission facilities shall be sited in locations that reinforce Fairlee's traditional patterns of growth, of compact village centers surrounded by a rural countryside, including farm and forest land.
2. **Prohibited Locations**: Because of their distinctive natural, historic or scenic value, energy facility development shall be excluded from the following areas:
   - Floodways shown on FEMA Flood Insurance Rate Maps (except as required for hydro facilities)
   - Fluvial erosion hazard areas shown on Fluvial Erosion Hazard Area maps (except as required for hydro facilities)
   - Wetlands as indicated on Vermont State Wetlands Inventory maps or identified through site analysis.
   - Rare, threatened or endangered species habitat or communities.
3. **Significant Areas**: All new generation, transmission, and distribution facilities shall be sited and designed to avoid or, if no other reasonable alternative exists, to otherwise minimize and mitigate adverse impacts to the following:
   - Historic districts, landmarks, sites and structures listed, or eligible for listing, on state or national registers.
   - Public parks and recreation areas, including state and municipal parks, forests and trail networks.
   - Municipally designated scenic roads and viewsheds.
   - Special flood hazard areas identified by National Flood Insurance Program maps (except as required for hydro facilities)
   - Public and private drinking water supplies, including mapped source protection areas.
   - Primary agricultural soils mapped by the U.S. Natural Resources Conservation Service.
   - Necessary wildlife habitat identified by the state or through analysis, including core habitat areas, migration and travel corridors.
4. **Natural Resource Protection**: New generation and transmission facilities must be sited to avoid the fragmentation of, and undue adverse impacts to the Town's working landscape, including large tracts of undeveloped forestland and core forest habitat areas, open farm land, and primary agricultural soils mapped by the U.S. Natural Resource Conservation Service.
5. **Protection of Wildlife**: Designers must gather information about natural and wildlife habitats that exist in the project area and take measures to avoid any undue adverse impact on the resource. Consideration shall be given to the effects of the project on: natural communities, wildlife residing in the area and their

migratory routes; the impacts of human activities at or near habitat areas; and any loss of vegetative cover or food sources for critical habitats.

6. **Site Selection**: Site selection should not be limited to generation facilities alone; other elements of the facility need to be considered as well. These include access roads, site clearing, onsite power lines, substations, lighting, and off-site power lines. Development of these elements shall be done in such a way as to minimize any negative impacts. Unnecessary site clearing and highly visible roadways can have greater visual impacts than the energy generation facility itself. In planning for facilities, designers should take steps to mitigate their impact on natural, scenic and historic resources and improve the harmony with their surroundings.

D. Residential Energy Efficiency

There are a number of ways that the Town of Fairlee can meet its local energy demand, first by lowering that demand, and then by working to meet the remaining need with local, untapped energy resources.

Decreasing Energy Use by Implementing Energy Efficiency

For those necessary or desired services that require energy, we can apply the principles of energy efficiency to ensure that we use less energy to provide the same level and quality of service. Examples include:

- Have an energy audit done to identify the greatest ways to save energy.
- Implement the air-sealing and insulations recommendations of the energy audit.
- Don't heat unused areas of your home.
- Insulating with high R-value (or heat flow resistance) material,
- Using high efficiency windows,
- Installing energy efficient appliances like refrigerators, freezers, front loading washing machines, gas heated clothes driers and heating systems without blowers,
- Using high efficiency lighting,
- Using gas and/or solar hot water heaters,
- Siting buildings to make use of existing wind blocks and natural cooling patterns derived from the landscape's topography.
- Siting buildings with maximum southern exposure to capture passive solar energy.

New residential development in the State of Vermont is required to comply with Vermont Residential Building Energy Standards (RBES). Commercial development is subject to similar code regulations. -In order to comply with the RBES, a home, as built, must meet all of the Basic Requirements and the Performance Requirements for one of several possible compliance methods. If the home meets the technical requirements of the RBES, a Vermont Residential Building Energy Standards Certificate must be completed, filed with the Town Clerk and posted in the home. If a home required by law to meet the RBES does not comply, a homeowner may seek damages in court against the builder.

E. Municipal Role in Energy Efficiency

Although communities are unlikely to have an impact on energy consumption at the global level, they do have an impact at the local level given their demand for and use of energy. The relationship between a municipality and its energy use creates opportunities to have an impact on local energy use reduction.

Fairlee Energy Committee

Fairlee has an active Energy Committee (EC), which acts as an advisory board to the Selectboard and Planning Commission (PC) on all things energy related. The Fairlee EC is an independent group created for the purpose of establishing and implementing the Town's energy goals. Fairlee's EC is very active, their work has included conducting energy audits on municipal buildings, implementing the audits' recommendations, tracking energy use for these buildings, installing LED streetlights and working with the PC on the Energy Plan. In 2013, the EC worked with the Town Public Library to complete all the energy audit recommendations to air-seal the library and insulate the basement walls. The Town Hall contractor insulated the basement and 1st floor walls according to energy audit recommendations.

Property Assessed Clean Energy (PACE)

Vermont enacted legislation in May 2009 (Act 45) that authorizes local governments to create Clean Energy Assessment districts. Once created, municipalities can offer financing to property owners for renewable energy and energy-efficiency projects. Eligible projects include the installation of solar water and space heating, photovoltaic panels (PV), and biomass heating, small wind, and micro-hydroelectric systems. Property-Assessed Clean Energy (PACE) financing effectively allows property owners to borrow money to pay for energy improvements. The amount borrowed is typically repaid via a special assessment on the property over a period of up to 20 years; if the property owner wishes to sell the parcel before fully repaying the obligation, then the obligation is transferred to the new property owner at the time of sale. Fairlee is not currently part of the PACE program.

Policy Making for Change

In addition to reducing the energy use related to facilities, Fairlee can implement policies that lower energy use by Town staff or encourage greater energy efficiency. Examples include:
Energy Efficient Purchasing policy – A policy of this nature would require energy efficiency to be considered when purchasing or planning for other Town investments. For example, purchasing Energy Star rated equipment is a well-documented way to increase energy efficiency. Devices carrying the Energy Star logo, such as computer products and peripherals, kitchen appliances, buildings and other products, generally use 20%–30% less energy than required by federal standards.
Staff Policies - Towns can also implement policies that are designed to reduce wasteful energy practices. Through policy making, local government can set a clear example for townspeople and encourage sustainable behavior that will ultimately result in both energy and financial savings. Please see the goals, policies, and recommendations section (F, below) for more ideas.

F. Energy and Land Use Policy

The Vermont Municipal and Regional Planning and Development Act (24 V.S.A. Chapter 117) does not allow communities to impose land use regulations that prohibit or has the effect of prohibiting the installation of solar collectors or other renewable energy devices. However, statute does enable Vermont's municipalities to adopt regulatory bylaws (such as zoning and subdivision ordinances) to implement the energy provisions contained in their Town plan. Zoning bylaws are designed to control the type and density of development. It is important to acknowledge connection between land use, transportation and energy and seek to create zoning ordinances and subdivision regulations that encourage energy efficiency and conservation. Encouraging high density and diverse uses in and around existing built-up areas will lead to more compact settlement patterns, thereby minimizing travel requirements. At the same time, zoning bylaws must be flexible enough to recognize and allow for the emergence of technological advancements which encourage decreased energy consumption, such as increased use of solar and wind power. Zoning bylaws may contain provisions for planned unit developments (PUDs). PUDs are a grouping of mixed use or residential structures, pre-planned and developed on a single parcel of land. The

setback frontage and density requirements of a zoning district may be varied, to allow creative and energy efficient design (i.e. east-west orientation of roads to encourage southern exposure of structures, solar access protection, use of land forms or vegetation for wind breaks, and attached structures), and to encourage the construction of energy efficient buildings. Subdivision regulations are one of the most effective tools for encouraging energy efficiency and conservation. Subdivision regulations, like PUDs, involve Town review (through the DRB) in the design process. Because subdivision regulations govern the creation of new building lots, as well as the provision of access and other facilities and services to those lots, a community can impose requirements that a developer site their building to maximize solar gain. Likewise, subdivision regulations can require that landscaping be utilized to reduce thermal loss.

G. Energy and Transportation Policy

It is important that communities recognize the clear connection between land use patterns, transportation and energy use. Most communities encourage the development of residences in rural areas, and these are in fact coveted locations to develop because of the aesthetics that make Vermont special. However, this rural development requires most of our population to drive to reach schools, work and services. Because transportation is such a substantial portion of local energy use, it is in the interest of the community to encourage any new developments that are proposed in Fairlee to locate adjacent to existing roads. In particular dense residential developments should be located within or adjacent to existing village centers or within designated growth areas. Commercial development that requires trucking and freight handling should only locate on roads which can effectively handle the size of vehicle needed.

H. Goals, Policies and Recommendations

Goals

1. To ensure the long-term availability of safe, reliable and affordable energy supplies, to increase energy efficiency, and to promote the development of renewable energy resources and facilities in the Town of Fairlee to meet the energy needs of the community and region.
2. To reduce energy costs, the community's reliance on fossil fuels and foreign oil supplies, and greenhouse gas emissions that contribute to climate change.
3. To encourage a continued pattern of settlement and land use that is energy efficient.
4. To promote the construction of energy efficient residential and commercial buildings and increase awareness and use of energy conservation practices through educational outreach to the public.
5. To increase public transportation opportunities throughout the community, including park-and-ride access, bus service, bike paths, and sidewalks.
6. To promote greater use of existing public transportation services by community members.

Policies

1. Town officials should participate in the Public Service Board's review of new and expanded generation and transmission facilities to ensure that local energy, resource conservation and development objectives are identified and considered in future utility development.
2. Fairlee supports the development and use of renewable energy resources – including but not limited to wind, solar, biomass, micro-hydro and cogeneration – at a scale that is sustainable, that enhances energy system capacity and security, that promotes cleaner, more affordable energy technologies, that increases the energy options available locally, and that avoids undue adverse impacts of energy development on the local community and environment.
3. Town officials should support the Fairlee PACE program and other similar statewide programs designed to make energy efficiency improvements more affordable and more likely to be implemented. Town

officials should support efforts to educate homeowners about what resources are available to them for energy efficiency improvements.

4. It is the policy of the Town that generation, transmission, and distribution facilities or service areas should be encouraged only when they complement the recommended land use patterns set forth in this plan.
5. The rehabilitation or the development of new buildings and equipment should use proven design principles and practices with the lowest lifecycle costs (cost of owning, operating, maintaining, and disposing of a building or a building system over a period of time):
6. Where land development or subdivisions are proposed, design plans should reflect sound energy conservation principles, such as solar and slope orientation, the use of protective wind barriers, and cluster development (citing buildings close to each other to maintain open space on the remaining parcel).
7. Visual effects of electrical generation, transmission, and distribution facilities should be minimized whenever feasible.
8. It is the policy of the Town that new significant public investments (including schools, public recreational areas, municipal facilities, and major commercial or residential developments) must be located within or in close proximity to the village and shall utilize existing roads whenever possible.
9. It is the policy of the Town to encourage the use of broad band services to support energy efficient, small-scale home businesses.
10. It is the policy of the Town to promote energy efficient travel by residents by encouraging carpooling, increased use of public transportation telecommuting, home businesses, and safe bike routes.

Recommendations

1. Town officials and volunteers should work to increase public awareness and use of energy conservation practices, energy-efficient products and efficiency and weatherization programs through educational efforts aimed at local residents and businesses.
2. The Town should consider municipal or community-based renewable energy generation and the installation of individual or group net metered generation facilities on Town buildings and property to serve Town facilities. Sources of funding for municipal power generation could include third-party financing, municipal funds, bonds, grants, and available government incentive programs.
3. The Planning Commission should identify areas in Town that are appropriate for properly scaled energy production such as solar.
4. The Select Board should formally designate the Energy Committee as a Town committee so that they may develop an Energy Action Plan as a supplement to the municipal plan.
5. The Selectboard should authorize the Fairlee Energy Committee to track municipal energy use and costs (for example: through the EPA's free Energy Star® Portfolio Manager program), and develop an overall energy budget to manage the Town's energy consumption, which may also include the development of local generating capacity.
6. The Town should continue to implement energy efficiency measures recommended by the Energy Committee for existing and future facilities.
7. The Town, with help from the Energy Committee, should develop municipal procurement and purchasing policies that emphasize products that are energy efficient (e.g., Energy Star® rated).
8. The Town should continue to develop facility maintenance and operation policies that maximize energy efficiency while maintaining comfort levels for employees and visitors.
9. The Selectboard should discuss PACE at a future meeting and decide whether the program should be placed on the ballot for Town Meeting.

XIV. Relationship to Other Plans

A. Relationship to Municipal Plans

The Municipal Plan focuses primarily on development and policy within the community's boundaries. However, it is important to recognize that how a community grows and changes can be directly impacted by development that takes place outside of the community. For example, many places had large and vibrant villages that were negatively impacted by the location of the railroad in outside areas.

In order to analyze the potential for outside impacts on Fairlee, the Planning Commission has reviewed the Municipal Plans and, if available, the land use regulations of surrounding towns for consistency with this Plan. These communities include:

- **West Fairlee** – The Town of West Fairlee has an adopted Town Plan and a Flood Hazard Bylaw, but no other land use regulations. Much of the lands shared by West Fairlee and Fairlee are considered rural in nature by both towns, meaning that there is no conflict. In fact, the Town of West Fairlee owns the Brushwood Forest some of which is located in Fairlee. In addition to Brushwood, the two communities also share Lake Fairlee. The West Fairlee Town Plan currently has a Shoreland Overlay on the areas of the lakeshore within its boundaries. The purpose of this area is to protect the residential character of the area, to maintain use of the area for housing and camps, and to protect the shoreland to ensure continued water quality in Lake Fairlee. This is consistent with the Fairlee Town Plan.
- **Bradford** – The Town of Bradford has an adopted Town Plan, Zoning Bylaws and a Flood Hazard Bylaw. The bulk of Bradford's land (including those areas that abut the Town of Fairlee), is located within the Residential District. This area is made up almost exclusively of residential uses and it represents the classic "open countryside," outlined in state planning goals.
  Bradford's land use patterns are consistent with Fairlee's.
- **Thetford** – The Town of Thetford has an adopted Town Plan, Zoning Bylaws, Flood Hazard Bylaws and Subdivision Regulations. The bulk of the community, including those lands adjacent to Fairlee, is focused on traditional, disperse rural residential development. Thetford and Fairlee share access to Route 5, and in this area there is a potential conflict. At present, Fairlee has a designated Industrial Area located around Route 5 in the area bordering Thetford. It is possible that development allowed in Fairlee's Industrial Area might conflict with the more rural nature of Thetford's Rural lands. In addition, The Thetford Town Plan currently has a Shoreland Overlay on the areas of Lake Fairlee within its boundaries, which is consistent with its neighbors.
- **Orford** – The Town of Orford, NH is located directly across the Connecticut River from Fairlee. While the two communities do not share a land border, they do share access to the Connecticut River. Both plans seek to protect the River from harm. The Orford Municipal Plan supports the Connecticut River Management Plan (written by the Connecticut River Joint Commissions), which is intended protect the river. While this Plan has not been updated, it was written in 1997 with the participation of the Town of Fairlee. There are no conflicts between Orford and Fairlee.

B. Relationship to the Regional Plan

Fairlee is within the Two Rivers - Ottauquechee Regional Commission. It is one of thirty (30) municipalities that comprise the Region. The Region covers northern Windsor County, most of Orange County and the Towns of Pittsfield, Hancock and Granville. The Commission was chartered in 1970 by the acts of its constituent towns. All towns are members of the Commission, and town representatives govern its affairs. One of the Regional Commission's primary purposes is to provide technical services to town officials and to undertake a regional planning program. As is the case in many areas of the State, the extent of local planning throughout the region is varied. Some municipalities are more active than others. Thus, the level of services to each of the towns changes with time. The Regional Commission adopted its Regional Plan in June, 2012. It will remain in effect for a period of five years. This Plan was developed to reflect the general planning goals and policies expressed in the local plans. It is an official policy statement on growth and development of the Region. The Regional Plan contains several hundred policies to guide future public and private development in the Region. Policies for land use settlement are identified. These areas are: Town Centers, Village Settlement Areas, Hamlet Areas, Rural Area, and Conservation and Resource Areas. Delineation of each land use area is mapped or charted. Prior to revisions to this Plan, the Two Rivers-Ottauquechee Regional Commission provided Fairlee with an "enhanced consultation" at which staff identified areas of conflict between the Regional Plan and the Fairlee Town Plan adopted in 2012. The major area of concern was the strip of commercial retail development allowed along Route 5 that the Regional Commission viewed as counter to the state planning goal which discourages strip development. In response to this conflict, the Fairlee Planning Commission has modified the area identified as commercial including retail development, to exclude retail development with the exception of those uses that require substantial space for storage of materials such as lumberyards. Other commercial uses are still allowed outside of the Village Area.

C. Goals, Policies and Recommendations

Goal

1. To work with neighboring Towns and the region to encourage sustainable land use and environmental policies that benefits the citizens of Fairlee.

Policies

1. To encourage continued communication and cooperation between Fairlee and its neighboring Towns.
2. To continue participation in the Two Rivers Ottauquechee Regional Commission.
3. To exchange planning information and development data with neighboring communities.

XV. Town Plan Implementation

Title 24, Chapter 117, §4382(7) requires a Town Plan to contain a "recommended program for the implementation of the objectives of the development plan". While it is not required by law that communities implement any of the policies or recommendations in a municipal plan, it is important to recognize that in order to meet the vision of the Plan, it must be implemented wherever possible. Implementation can be approached in multiple ways some regulatory and some non-regulatory, they include (but are not limited to) the following:

Regulatory	Non-Regulatory
Zoning & Subdivision Bylaws	Design a Capital Budget & Program
Strengthening Town Plan language to clearly influence Act 250 proceedings (use of direct language, such as "shall")	Advisory Committees (i.e. Conservation Commissions or Energy Committees)
Official Map	Education/Outreach on important issues
Access Permits - Town Highways Only (Selectboard)	Purchase or acceptance of development rights
Flood Regulations & National Flood Insurance Program	Follow-up on recommendations for action in Plan

D. Regulatory Implementation

Regulation of land use and development through rules adopted by the Town is one possible method of Plan implementation. Well recognized and utilized means include, but are not limited to, Zoning Bylaws and subdivision regulations. Examples of potential implementation tools include:

Zoning Bylaws

Zoning Bylaws are a commonly used method for guiding development at the local level. Zoning may regulate:

- Uses of land,
- The placement of buildings on lots,
- The relationship of buildings to open space, and
- The provision of parking, signs, landscaping and open space.

Fairlee has Zoning Bylaws which establishes districts or zones that have a different set of uses, densities, and other standards for development. Zoning districts must be reasonably consistent with the Town Plan, and it is the responsibility of the Planning Commission to implement changes to the Zoning Bylaws that are proposed in this Plan. As an alternative to conventional methods, Fairlee may opt to implement a set of measurable performance standards for specific uses as opposed to dividing the Town into districts. This technique, referred to as "performance zoning", is designed to be more flexible and to recognize the specific conditions of each site proposed for development. Additionally, if the community is seeking to sustain the character of the village, it should consider the implementation of "form based zoning" which focuses less on uses and setbacks and instead focuses more on appearance and context within the existing built environment.

Subdivision Regulations

Fairlee has had subdivision regulations since the 1970's. These regulations are administered by the Planning Commission. Subdivision regulations govern the division of parcels of land and the creation of roads and other public improvements. Furthermore, subdivision regulations can ensure that land development reflects land capability and that critical open spaces and resources are protected from poor design or layout. It is the responsibility of the Planning Commission to implement any changes to subdivision regulations that are proposed in this Plan.

Flood Hazard Bylaws

Under Vermont law [24 V.S.A., Section 4412], the Town of Fairlee is able to regulate the use of land in a defined flood hazard area adjacent to streams and ponds. These bylaws have been established to ensure that design and construction activities within the limits of the 100 Year Flood Plain are designed so as to minimize potential for flood damage and to maintain use of agricultural land in flood-prone areas. As noted in the Natural Resources section of this Plan, property owners are eligible for federal flood insurance on buildings and structures, which can be accessed because Fairlee has a Flood Hazard Bylaw that meets FEMA's standards. Because of Fairlee's topography and pattern of land use, flooding and flood hazards are not as large a potential threat as in other communities.

Act 250

Since 1970, Vermont has had in place a statewide review system for major developments and subdivisions of land. Exactly what constitutes a "development" or "subdivision" is subject to a rather large and involved set of definitions. Generally, commercial and industrial projects on more than one acre of land; construction of 10 or more units of housing; subdivision of land into 6 or more lots; construction of a telecommunication tower over 20 feet in height; and development over 2,500 feet in elevation triggers Act 250 jurisdiction. Prior to these activities being commenced, a permit must first be granted by the District Environmental Commission. In determining whether to grant a permit, the Commission shall evaluate the project in relation to ten specific review criteria. These criteria relate to the environmental, economic, and social impacts of the proposed project on the community and region. Statutory parties to Act 250 proceedings include Fairlee, through the Planning Commission and Selectboard, the State, and the Regional Commission. One Act 250 criterion (Criterion 10) that needs to be addressed is whether the project is in conformance with the Fairlee Town Plan. If a project were determined not to be in conformance with the plan, the District Environmental Commission would have a basis to deny a permit. As such, Act 250 reviews can take into consideration protection of those types of resources considered important to the well-being of the community. Accordingly, it is in the interest of the Town to evaluate Act 250 projects affecting Fairlee and to offer testimony, as appropriate.

For a Town Plan to be given serious weight under Act 250, the Plan must contain specific and unambiguous language. If a community is serious that a policy be recognized by the District Environmental Commission during Act 250 review, it must use firm language such as "shall" or "must" instead of "should" or "could". The Planning Commission has been selective about where strong language is used in policy throughout this document, as it is important to recognize that the Town Plan should have some flexibility. In instances where flexibility was not wanted, the Planning Commission wrote policy with appropriately strong language.

Highway Ordinances

Fairlee has in effect a Highway Ordinance setting forth the standards and conditions for the maintenance, improvement, discontinuance, laying out and acceptance of Town highways. In addition, the ordinance includes provisions related to the reclassification of Town highways (Classes 2, 3 and 4). Lastly, Fairlee does have, through its Selectboard, the ability to regulate private access to municipal roads through the issuance of "curb cut" permits to landowners. "Curb cuts" are places where a private driveway or road connects to a Town highway. In granting a cut onto Town roads, the Selectboard can give consideration to safety issues such as adequacy of sight distance and proximity to intersections as well as conformance with this Plan.

E. Non-Regulatory Implementation

Capital Budget & Program

The creation of a capital budget and program has been discussed in several chapters of this Plan. A capital budget and program is a financing approach that benefits the Town greatly in the selection, prioritization, timing and costing of capital projects. Under the capital budget, a project is selected (e.g. bridge refurbishment), a funding source determined (e.g. general taxes, and general obligation bonds) and a priority year given for each activity. Collectively these capital projects make clear when public facilities will be placed to accommodate projected growth. In addition, it is noted that under Vermont's Act 250 law, in granting a Land Use Permit for a major development or subdivision, the District Environmental Commission must first find that the project is in conformance with the Town's capital budget. [See 10 V.S.A., Section 6086(a)(10).] Accordingly, this mechanism gives the Town an indirect method of implementing its policies and priorities as set forth in the Plan. Fairlee has a formal Capital Budget and Program which should be maintained.

Advisory Committees

State statute authorizes a community, by vote of the Selectboard, to create advisory committees. These committees can have differing roles, some provide advice to the Planning Commission or Zoning Board of Adjustment regarding development (for example, a historic review committee as part of a design review district), but more often advisory committees are created to focus on a specific topic in the Plan. The most common advisory committees are the Conservation Commission and the Energy Committee. These groups (outlined in the Natural Resources and Energy chapters respectively) can assist the Selectboard and/or Planning Commission with the creation of policy, but they can also act as the primary source of outreach and education relating to their primary focus point. Fairlee has an Energy Committee but does not have a Conservation Commission. The Planning Commission has identified specific roles a Conservation Commission might have if created by the voters.

Coordination of Private Actions

Citizens and private enterprise have a vested interest in the well-being of Fairlee. The actions of the private sector, such as the construction of homes and businesses, land conservation, and the use of land for recreation and agriculture, should relate positively to the goals and policies as set forth in this Plan. It is in the interest of Fairlee, through the Planning Commission and Selectboard, to develop a cooperative relationship with private investment

activities that may have a significant impact on the community values and policies set forth in the Plan. By working together in a cooperative venture early in the process of planning for a project, an adversarial relationship can be avoided. Contacts that should be maintained include the following:

- Green Mountain Economic Development Corporation
- Vermont Land Trust and Upper Valley Land Trust
- Twin State Housing Trust
- Owners of significant properties of high resource or development value, and
- Major employers in Fairlee.

Conservation Activities

Conservation programs are an effective means of securing protection of valuable farm and forestland or significant natural resources. Techniques available involve voluntary direct work between non-profit conservation organizations and affected landowners such as donation of conservation easements, bargain sales of land, and limited development schemes. The land trust movement has grown immensely during the past twenty years, particularly in Vermont. Land trusts offer viable means of bringing together the needs of property owners with the community interests. The Vermont Land Trust and the Nature Conservancy are particularly well-recognized organizations. Several organizations are also involved in water quality protection. It is the intent of this Plan to implement its policies through coordination and the involvement of these organizations and others dedicated to public purposes.

Vermont Community Development Program

Since the mid-1970's, the Vermont Community Development Program (VCDP) has made grant funds available to Towns for community projects. Historically, the major focus of the program has been on housing rehabilitation and affordable housing projects benefiting low and moderate-income families, but the program also offers funding for municipal infrastructure investments. Fairlee should investigate the Vermont Community Development Program and its potential to assist the community in addressing its housing and infrastructure needs. The Regional Commission and the Vermont Agency of Commerce and Community Development are resources available to assist.

Vermont Local Roads

The Vermont Local Roads program offers technical assistance to communities which focuses on transportation infrastructure and maintenance.

F. Responsibility for Implementation

In order to ensure that the policies of this Plan are implemented, it is essential to identify what municipal panel, organization or citizen is most suited to act on them. Throughout this Plan, the Planning Commission has identified recommendations for action and indicated who should be responsible for them. Generally, responsibility for implementation of the Plan falls to either the Planning Commission (in the case of implementing changes to land use regulations) or the Selectboard (in the case of implementing municipal policy). However, advisory committees as well as other community organizations could also have responsibilities for implementation. In addition to assigning responsibility, the Planning Commission should also keep track of

progress made toward implementing the goals, policies and recommendations of this Plan. This information will be useful to identify areas where additional effort needs to be applied to achieve implementation. It can also be used to describe how successful the community has been at implementation in the next iteration of this Plan, and to guide future policy. In order to track the progress of implementation, the Planning Commission has included a chart that identifies the policy or recommendation, the responsible party and the progress. See appendix A.

Appendix A: Implementation Plan

	Task	Responsibility	Timeline
Housing	Community leaders should work with state housing agencies, non-profit organizations, and lending institutions to insure the availability of loan or grant funds for Fairlee residents to acquire or improve their primary homes.	SB/Administrator	Ongoing
	The Town should work with the Two Rivers-Ottauquechee Regional Commission to evaluate Fairlee's role in supplying the region's housing stock by assessing their capacity for growth.	PC	Next 5 years
	The Fairlee Zoning Regulation shall be modified to regulate two family homes identically to single family homes.	PC	Next 2 Years
	The Fairlee Zoning Regulation shall be modified to make multi-family housing a permitted use within the area of the town covered by the Municipal Water System.	PC	Next 2 Years
Economic Development	The Town should encourage and support the responsible development of information technology and communication infrastructure necessary for new economic growth.	PC/SB	Ongoing
	The Town should apply for Village Designation for Fairlee's Village Center to give local developers and business owners access to tax credits for revitalization.	SB	Next Year
	The town should encourage the State of Vermont to locate a park and ride facility within the Village Center.	SB	Ongoing
	The Town should support any efforts to expand public transit provided that the village is used as a location to pick up and drop off riders.	SB/PC	Ongoing
	The Planning Commission should increase the boundaries of the village area to reflect the boundaries of the current water service area and the addition of the Mixed Use Area.	PC	Next 2 Years
	The Planning Commission should investigate new models of zoning regulation that will encourage a pedestrian-friendly environment that supports the vitality of the Village.	PC	Next 2 Years

Land Use	The Planning Commission should consider amending the Fairlee Zoning Ordinance to provide guidance as to how landscaping can be used to maintain the character of the village.	PC	Next 2 Years
	The Planning Commission should create the Mixed Use Areas along Route 5 north of the Village to the ledges and south of the Village to the Industrial Area.	PC	Next 2 Years
	Clear standards (possibly including performance standards) with regard to the types and sizes of appropriate light industrial and commercial development and access management should be developed for conditional use review.	PC	Next 2 Years
	The Planning Commission should consider amending the Fairlee Zoning Ordinance to provide guidance as to how landscaping can be used to maintain the character of the Mixed Use Area.	PC	Next 2 Years
	The Planning Commission should create a Village Interchange zone in the Fairlee Zoning Ordinance, with provisions that will allow the Development Review Board to properly determine what types of development fit within the character of the area.	PC	Next 2 Years
	The Planning Commission should create a master planning process for commercial developments within the Lakeshore Area which requires a clearly developed five-year master plan as part of the application process.	PC	Next 2 Years
	The Planning Commission should update the Flood Hazard Bylaw to ensure that it meets the standards required by the Federal Emergency Management Agency so that Fairlee may continue to participate in the NFIP.	PC	Next 2 Years
	The Planning Commission should consider using Fluvial Erosion Hazard data (when it becomes available) to create a river corridor protection area.	PC	When Available
	The Planning Commission should consider reducing the types of uses allowed within the mapped floodplain in order to protect lives and property.	PC	Next 2 Years
	The Planning Commission should change the designation of the Flood Hazard Area from a separate zoning district to an overlay district.	PC	Next 2 Years
	The Planning Commission should develop buffer rules for mapped wetlands.	PC	Next 2 years

Natural Resources	The Town should consider completing a town-wide wetlands inventory.	PC/CC (if created)	Next 5 years
	The Planning Commission should update the Fairlee Zoning Regulations to ensure that it meets the standards required by the Federal Emergency Management Agency so that Fairlee may continue to participate in the NFIP.	PC	Ongoing
	The Planning Commission should maintain the Fairlee Zoning Regulations prohibition on new development within the floodplain, only allowing renewable energy generation facilities, recreational and agricultural uses.	PC	Ongoing
	FEMA should revise Fairlee's Flood Hazard maps to accurately reflect the locations of flood hazard areas to assist in appropriate land use decisions.	FEMA	ASAP
	The Planning Commission or Conservation Commission (if created) should investigate methods of reducing habitat fragmentation in Fairlee.	PC/CC (if created)	Next 5 years
	Town employees, contractors, businesses and individuals should become familiar with the best management practices to prevent the accidental spread of invasives.	SB/Town Contractors	Ongoing
	The Town should time roadside mowing to minimize and reduce the spread of invasive species.	SB	Ongoing
	The Town should consider creating a conservation commission	SB/Voters	Next 2 years
Utilities & Facilities	The Selectboard should work with the Planning Commission to maintain a Capital Budget and Program to guide future investments in infrastructure.	SB/PC	Next 2 years
	The Town should continue to utilize the municipal web site to improve communication and provide residents with access to municipal data.	SB	PC
	The Town should participate in the Vermont Village Designation Program to allow local business owners the ability to access tax credits for substantial improvement and code improvements to structures in the Village.	SB	Next year
	The Selectboard should update the Local Emergency Operations Plan at least once a year or when key emergency management personnel change.	SB	Ongoing

Emergency Services	The Selectboard should adopt a Hazard Mitigation Plan with assistance from the Two Rivers-Ottauquechee Regional Commission	SB	Ongoing
	The Selectboard should have a clear plan for use of the emergency shelter. This plan should include written guidelines with regard to staffing and operation.	SB	Next 2 years
	Town officials who are part of Fairlee's emergency management team should receive adequate training in the Incident Command System (ICS).	SB	Ongoing
	The Selectboard should investigate the viability of a "reverse 911" alert system to alert the community in the event of a local hazard event.	SB	Next 5 years
Transportation	The Town should develop a town highway capital plan and schedule that will guide maintenance and road infrastructure investments in the future.	SB	Next 2 years
	Encourage participation in the Regional Transportation Advisory Commission as well as the TRORC Road Foreman's meeting program.	SB	Ongoing
	The Selectboard should actively explore the purchase and utilization of simple to use rural road maintenance software for maintaining roads and drainage systems.	SB	Next 2 years
	The town should encourage the State of Vermont to locate a park and ride facility within the Village Center.	SB	Ongoing
	The town should reinvest in a village sidewalk system as a way to encourage economic development and safe pedestrian travel.	SB/Voters	Next 5 years
	Town officials and volunteers should work to increase public awareness and use of energy conservation practices, energy-efficient products and efficiency and weatherization programs through educational efforts aimed at local residents and businesses.	ZA/EC	Ongoing
	The Town should consider municipal or community-based renewable energy generation	SB/EC	Ongoing
	The Planning Commission should identify areas in town that are appropriate for large scale energy production such as wind and solar.	PC	Next 5 years
	The Select Board should formally designate the Energy Committee as a Town committee so that they may develop an Energy Action Plan as a supplement to the municipal plan.	SB	Next 2 years

Energy	The Selectboard should authorize the Fairlee Energy Committee to track municipal energy use and costs (for example: through the EPA's free Energy Star® Portfolio Manager program), and develop an overall energy budget to manage the town's energy consumption, which may also include the development of local generating capacity.	SB	Next Year
	The Town should continue to implement energy efficiency measures recommended by the Energy Committee for existing and future facilities.	SB	Ongoing
	The Town, with help from the Energy Committee, should develop municipal procurement and purchasing policies that emphasize products that are energy efficient (e.g., Energy Star® rated).	SB	Next 2 Years
	The Town should continue to develop facility maintenance and operation policies that maximize energy efficiency while maintaining comfort levels for employees and visitors.	SB/EC	Next 5 Years
	The Selectboard should discuss PACE at a future meeting and decide whether the program should be placed on the ballot for Town Meeting.	SB	Next 2 years
Education	The Town should support private sector efforts to seek funding to assist with the development of childcare infrastructure.	SB	Ongoing
Recreation	The Town should consider adopting a clearly written policy on ATV use and public trails.	SB	Next 2 Years
	The Town should support efforts to create public access to the Connecticut River Byway.	SB	Ongoing

Appendix B: Glossary

Accessory Use-A land use that is subordinate to and customarily incidental to a principal use located on the same lot (e.g., off-street parking for a store).

Accessory Structure–Outbuilding or other structure subordinate to the primary use or structure on the lot, examples would include storage buildings, garages, sheds, tanks, towers.

Administrative Officer (AO)-A person officially designated by a municipality to administer and enforce a bylaw. See 24 VSA 4448.

Adverse Impact-Inadequate, unsafe, or unhealthy conditions that result from a Land Development.

AMP-Appropriate Municipal Panel, global term for municipal board with the jurisdiction over one matter or another. AMP's include Select Boards, DRBs, Planning Commissions and BCAs.

Buildout Analysis-A form of analysis predicting the total amount of development that could possibly occur in a given area under existing or proposed legal constraints (e.g. zoning ordinance) and environmental constraints (e.g. wetlands, floodplains, steep slopes, etc.).

Bylaws-Municipal regulations applicable to land development adopted under the authority of Chapter 117 (including Zoning, Subdivision Regulations, Flood hazard bylaws, Official Map). See 24 VSA 4303 (4).

Building-A structure with a roof supported by columns or walls used to shelter persons or property.

Certificate of Occupancy-A permit, typically issued at the completion of construction but preceding the use or change in use of a property, documenting compliance with all of a community's land use regulations and building codes and authorizing the owner to use the property for the purposes specified in the permit.

Carrying Capacity-The capability of a resource to sustain a level of use without having its qualitative features degraded in any significant way.

Character of the neighborhood-Qualities that make a neighborhood distinct relative to factors such as architectural styles, structures, look, physical components, street designs, etc.

Cluster Development-Land Development that concentrates Land Uses on lots that sometimes have been reduced in size below the minimum size required by Zoning, to allow the remaining land on a site to be used for recreation, common open space, or the preservation of environmentally sensitive features.

Compatibility-The characteristic when multiple land uses may be located next to or near one an-other without causing significant adverse impacts on one another.

Density-The number of dwelling units or units of nonresidential use that are authorized or planned for a unit of land area.

Design Standard-A minimum or maximum standard prescribed by a bylaw that governs a physical characteristic of a Land Development, Building, or Structure (such as its size or shape).

Development Review Board (DRB)-Development Review Boards are quasi-judicial, citizen volunteer bodies created under Vermont Statute 24 VSA Chapter 117, that are the AMP intended to interpret and uphold zoning ordinances of their municipality.

Economic Development-The sustained, concerted actions of policy makers and communities that promote the standard of living and economic health of a specific area.

Flood Hazard Area-The land subject to flooding from the Base Flood. See 24 VSA 4303 (8).

Fragmentation -Dividing areas used by wild-life for habitat with land uses or development into areas that are too small or lack all of the needed features to continue to serve as habitat for specific species.

Growth Center-Land Use term defined by Vermont statute as an area of land that incorporates a mix of uses that typically or potentially include uses such as; retail, office, commercial, civic, recreational, industrial, and residential within a densely developed, compact area that promotes social interaction. Growth centers are located in or adjacent to a designated downtowns, village centers, or new town centers with clearly defined

boundaries that have been approved by one or more municipalities in their municipal plans to accommodate a majority of growth anticipated over a 20-year period.

Hazard Area-Land subject to landslides, soil erosion, earthquakes, water supply contamination, or other natural or human-made hazards as identified within a local mitigation plan in conformance with and approved pursuant to the provisions of 44 C.F.R. 201.6. See 24 VSA 4303 (8) (C).

Historic Preservation-The research, protection, restoration and rehabilitation of buildings, structures, objects, districts, areas, and sites significant in the history, architecture, archaeology or culture of this state, its communities or the nation (22 VSA 701 (5)).

Home Occupation-An activity carried out for commercial gain by a resident conducted as an Accessory Use in the resident's dwelling unit also home business / home-based business a small business that is operated from an office inside the business owner's home, usually having a very small number of employees, usually all members of the business owner immediate family. Space allocated to a home business generally do not occupy more than about a quarter of the residence floor area, and is clearly secondary to the dwelling's use as living quarters. Home businesses usually lack shop frontage, customer parking and street advertising signs and do not have and undue adverse effect on the character of the neighborhood.

Impact-A consequence of an effect generated by a Land Use. An impact is most often considered to be significant when it is experienced off of the Lot of the Land Use that generated the effect.

Light Industrial-Activity related to the extraction, production or fabrication of products that generally does not produce waste products that cannot be treated on site.

Infrastructure-Facilities (such as streets and utilities) that are necessary for the use and development of land. The term sometimes refers only to public facilities.

Interim Bylaws-A Bylaw adopted under 24 VSA 4415 that is in effect for a fixed time while the municipality is considering a new or amended Comprehensive Plan or Bylaw.

Land Use-The purpose for which land or the structures on the land are being utilized (e.g., commercial, residential, or retail). Also used as a description of activities found throughout an urban area.

Major Subdivision-A Subdivision that does not qualify as a Minor Subdivision.

Master Plan-An officially adopted plan that describes, analyzes, and makes Policies about a wide range of topics (such as community facilities, economy, housing, land use, population, and transportation) to guide the development of an entire area (municipality, region, or state). See 24 VSA 4382 (municipalities) and 4348a (RPCs).

Minor Subdivision-A Subdivision that a community's Subdivision Regulation permits to be reviewed using an expedited procedure and/or reduced plan requirements.

Mixed Use-Development of land, a building, or a structure with a variety of complementary and integrated land uses. See 10 VSA 6001 (28).

Municipal Services-Fairlee municipal water, street lighting, policing, snow clearance, library, transfer station, Town clerk and Town beach operations.

Municipality-A Town, a city, an incorporated village, or an unorganized Town or gore.

Natural Area-An area of land or water that is not dominated by man-made features, containing significant flora, fauna, geological features.

Neighborhood-An area that shares a common function and/or character. It may refer specifically to (1) an area whose residents regard it to be a separate community or (2) a collection of residential, commercial, and institutional land uses that form a basic unit of community planning.

Nonconformity-A use, structure, lot, or parcel that is not in conformity with the town zoning, flood hazard or subdivision bylaws.

Overlay Zone (Overlay District)-A Zoning District (with boundaries that may or may not coincide with those of regular zoning districts) used to impose regulations that supplement those of the regular zoning districts.

Parcel-An area of land containing one or more lots under common ownership or control.

Permitted Use (Permitted by Right of Use)-A residential Land Use that does not require action by an Appropriate Municipal Panel before a Zoning Permit is issued or a commercial land use only subject to site plan review.

Phased Development-Required timing or other limitation on a particular development under the authority of a Bylaw to avoid or mitigate any undue Adverse Impact on existing or planned community facilities or services. See 24 VSA 4422.

Planned Residential Development PRD-A type of Planned Unit Development that provides for a mixture of housing types or densities and typically involves Cluster Development.

Planned Unit Development PUD-One or more lots, tracts, or parcels of land to be developed as a single entity, the plan for which may propose any authorized combination of density or intensity transfers or increases, as well as the mixing of land uses. The plan, as authorized, may deviate from bylaw requirements that are otherwise applicable to the area in which it is located with respect to lot size, bulk, or type of dwelling or building, use, density, intensity, lot coverage, parking, required common open space, or other standards. See 24 VSA 4303 (19) and 24 VSA 4417.

Plat-A drawing (or set of drawings) depicting details of a proposed development submitted by a developer to determine if the proposed Land Development will comply with the requirements of a Bylaw. The bylaw typically requires the plat to have a certain format and to show certain information.

Policy-Any goal, objective, strategy, or action that is recommended in a Comprehensive Plan or a Special Plan as a guide for subsequent decision making.

Primary Retail-A business whose primary purpose is the sale of goods. (Examples would include (but would not be limited to) a grocery store, a pharmacy, a flower shop, etc.)

Redevelopment-The conversion, reuse, and or reconstruction of Buildings, Structures, Neighbor-hoods, and communities.

Residential Development-One or more homes or structures intended to be used as a residence or residences along with accompanying accessory structures such as garages, sheds, storage buildings, etc.

Scale-The size and proportion of a Building, Structure, or Land Development in comparison with nearby development.

Shoreland-Land between the normal mean water mark of a lake, pond or impoundment exceeding 20 acres and a line not less than 500 feet or more than 1,000 feet from such mean water mark. See 10 VSA 1422 (8) and 24 VSA 4424.

Site Plan-A Plat that depicts the general layout of a proposed Land Development.

Site Plan Review-The process by which an AMP reviews the Site Plan for a proposed development to ensure that the development will conform to applicable regulations. See 24 VSA 4416.

Smart Growth-The pattern of land development that uses land efficiently, reinforces community vitality and protects natural resources. Smart growth strategies include efforts to maintain Vermont's historic settlement pattern, encourage concentrated development in and around downtown and villages while supporting Vermont's rural working land.

Sprawl-A scattered, untimely, and poorly planned development. It is an inefficient planning practice, which is usually Auto dependent and consumes land necessary for agricultural or natural resource protection. "Sprawl" typically manifests in the form of; "Leapfrog" development, "Strip-mall" or "Ribbon"

development, and large-lot single family units, strip development commercial land development so each individual establishment has direct access to road and parking areas (also known as "strip malls").

Streetscape-The appearance or view of a street

Subdivision Regulation-A municipal bylaw that may (1) regulate the procedures and requirements for the submission and processing of plats, and (2) establish standards for the design and layout of streets, curbs, gutters, street lights, fire hydrants, shade trees, water sewage and drainage facilities, public utilities and other necessary public improvements. See 24 VSA 4418 and 4463.

Village Center-A Village Center is a traditional center of the community, typically comprised of a cohesive core of residential, civic, religious, and commercial buildings, arranged along a main street and intersecting streets. See 24 VSA 2791 (10).

Watershed-An area of land that drains water, sediment, and dissolved material to a common outlet at some point along a stream channel.

Wetland-A wetland is an area of the state that is inundated by surface or groundwater with a frequency sufficient to support vegetation or aquatic life that depend on saturated or seasonally saturated soil conditions for growth and reproduction. See 24 VSA 4303 (32).

Zoning-A type of land use regulation governing the location, type, and density of development within a community through the delineation of one or more zones or zoning districts, as depicted on a zoning map. Local zoning regulations must conform to the municipal plan, including the plan's land use goals and recommendations, and proposed land use map.

Zoning Administrator (ZA)-Local administrator in charge of enforcing municipal zoning regulations. The ZA also is responsible for providing information to the public, reviewing plans and documentation for compliance, and assisting applicants with their requests for variances.

Zoning Map (Official Zoning Map)-The map officially adopted as part of a Zoning Bylaw that identifies Zoning District boundaries (Land Use Map).

APPENDIX C – MAPS

The attached maps are an integral part of this plan (24 V.S.A. §4382). However, the maps are not intended to be a precise representation of the features of Fairlee. Rather, they are intended to give the reader a sense of Fairlee. Although much map data is now available digitally, it is not always updated on a timely basis. For instance, the aerial photos which serve as a base in many of the maps date to the summer of 2003, however the Tax Parcels shown on Map 5 have not been updated in many years (see below for more information about the quality and timeliness of the map data). Despite these inaccuracies, the maps can serve as a planning tool. A brief discussion of each of the maps follows:

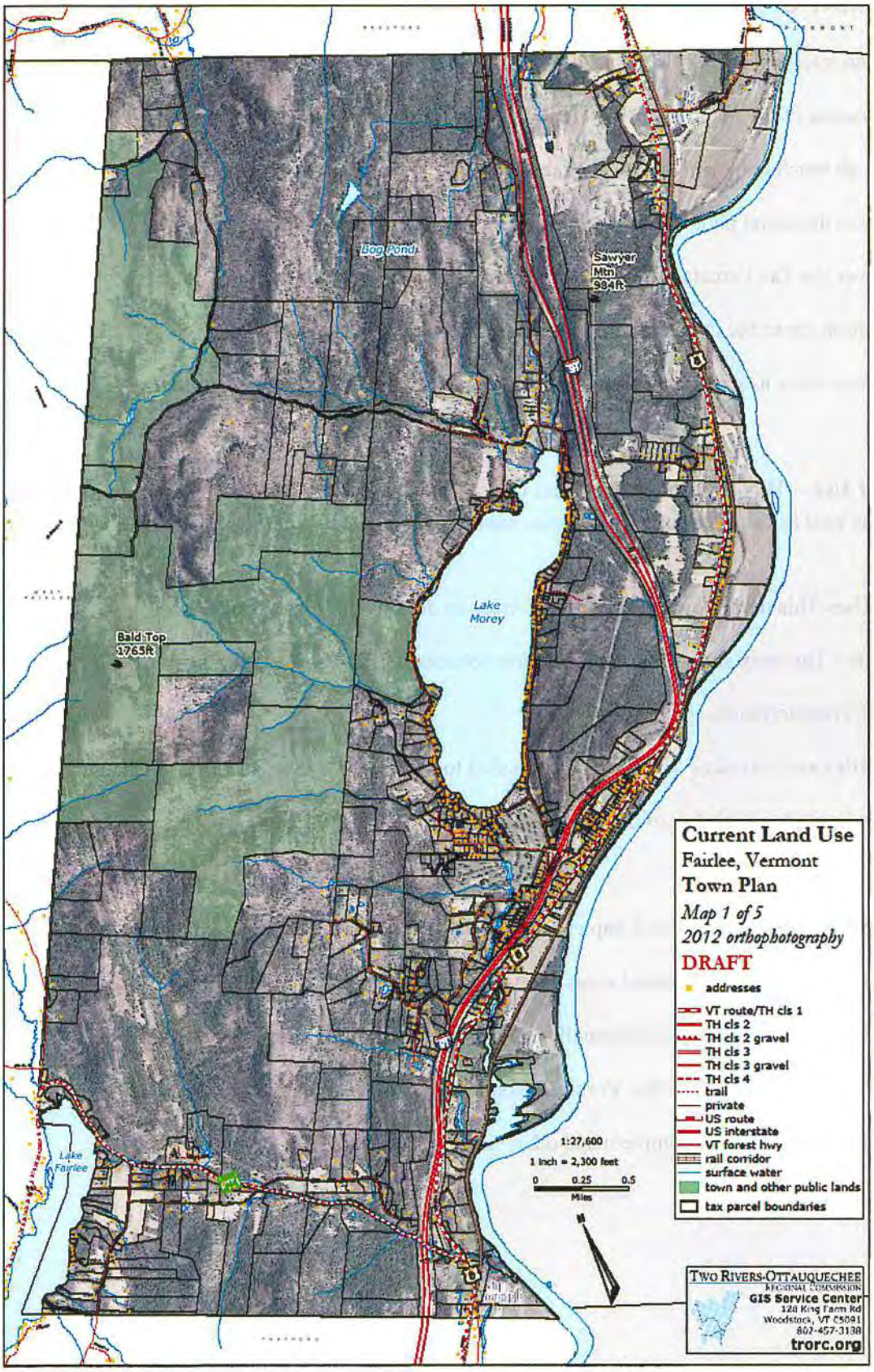
Map 1: Current Land Use – This map shows the Land Use Areas with Fairlee's as discussed in large forested and agricultural tracts as well as the distribution of houses, businesses and other buildings (collectively referred to as E911 Structures).

Map 2: Future Land Use- This map shows the Land Use Areas as designated in the Town Plan.

Map 3: Transportation – This map shows the transportation network within Fairlee. See Chapter II for more information about Transportation.

Map 4: Utilities, Facilities and Services – This map is intended to illustrate the items covered in Chapter III. However, due to the limited availability of digital data, not all items discussed in the Chapter appear on the map.

Map 5: Natural Resources – As discussed in Chapter V, open land provides critical habitat for both game and nongame species. The relatively undisturbed areas shown on this map illustrate open areas which are at least 500ft from a road or a structure. Additionally, sites of rare species and significant natural communities that have been identified under the Vermont Nongame and Natural Heritage Program are shown on this map. This inventory is not complete and other sites likely exist in Fairlee.


Bog Pond
Sawyer Mtn 984ft
Lake Morey
Bald Top 1765ft
Lake Fairlee
Current Land Use
Fairlee, Vermont
Town Plan
Map 1 of 5
2012 orthophotography
DRAFT
addresses
VT route/TH cls 1
TH cls 2
TH cls 2 gravel
TH cls 3
TH cls 3 gravel
TH cls 4
trail
private
US route
US interstate
VT forest hwy
rail corridor
surface water
town and other public lands
tax parcel boundaries
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1 inch = 2,300 feet
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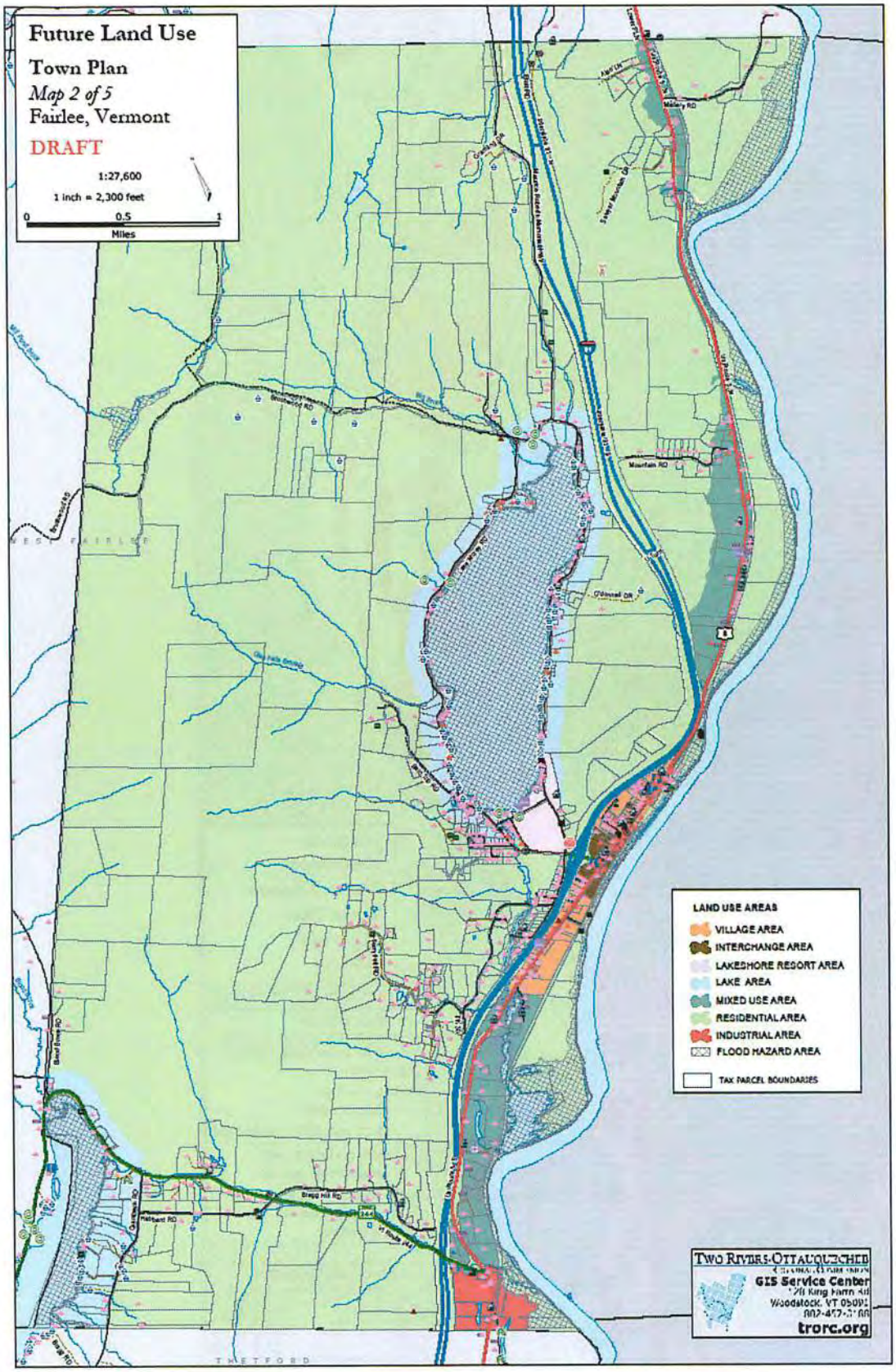
Two Rivers-Ottauquechee
Regional Commission
GIS Service Center
128 King Farm Rd
Woodstock, VT 05091
802-457-3188
trorc.org


Future Land Use
Town Plan
Map 2 of 5
Fairlee, Vermont
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LAND USE AREAS
VILLAGE AREA
INTERCHANGE AREA
LAKESHORE RESORT AREA
LAKE AREA
MIXED USE AREA
RESIDENTIAL AREA
INDUSTRIAL AREA
FLOOD HAZARD AREA
TAX PARCEL BOUNDARIES
Two Rivers-Ottauquechee
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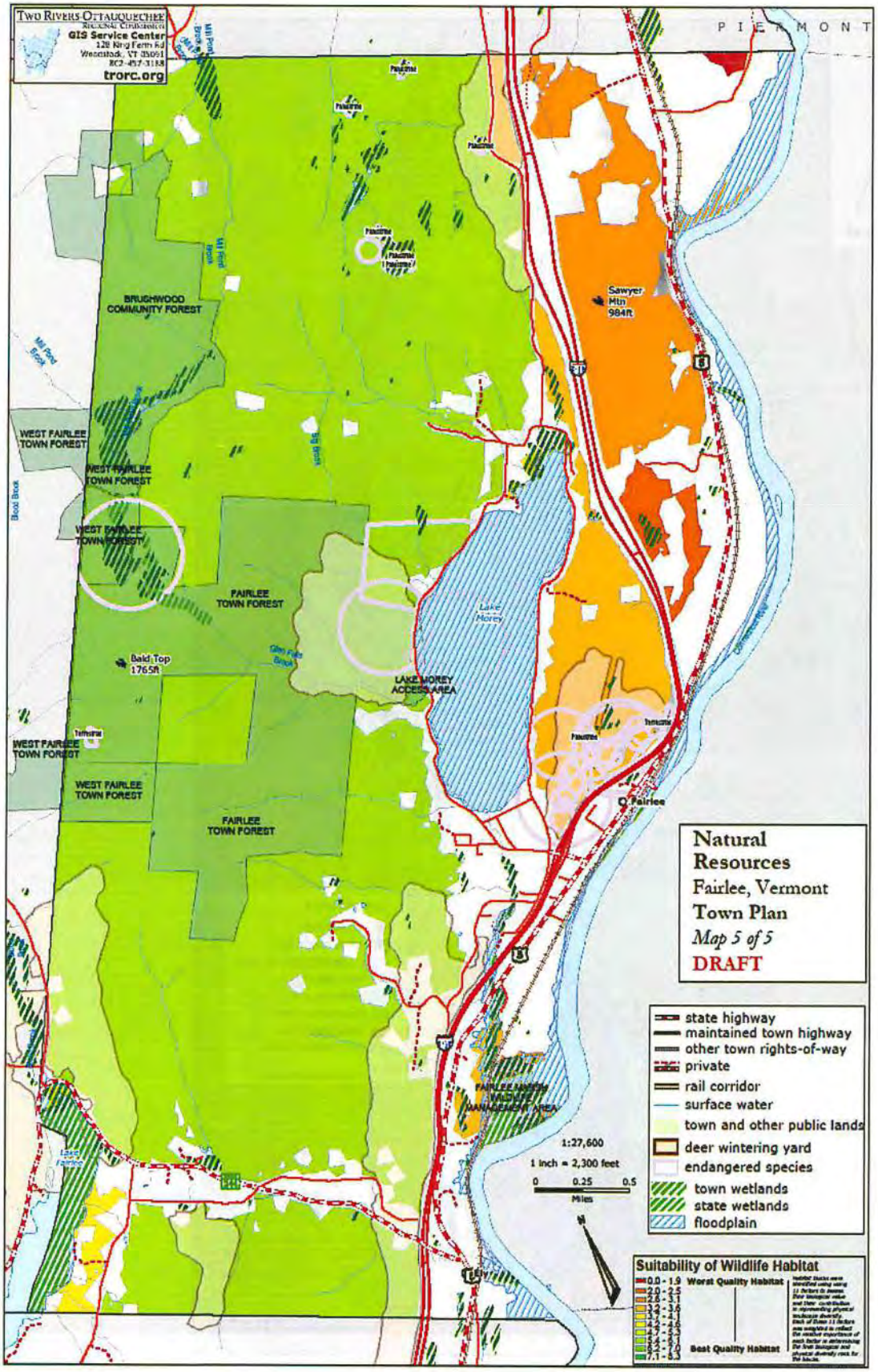
Two Rivers-Ottauquechee
Regional Commission
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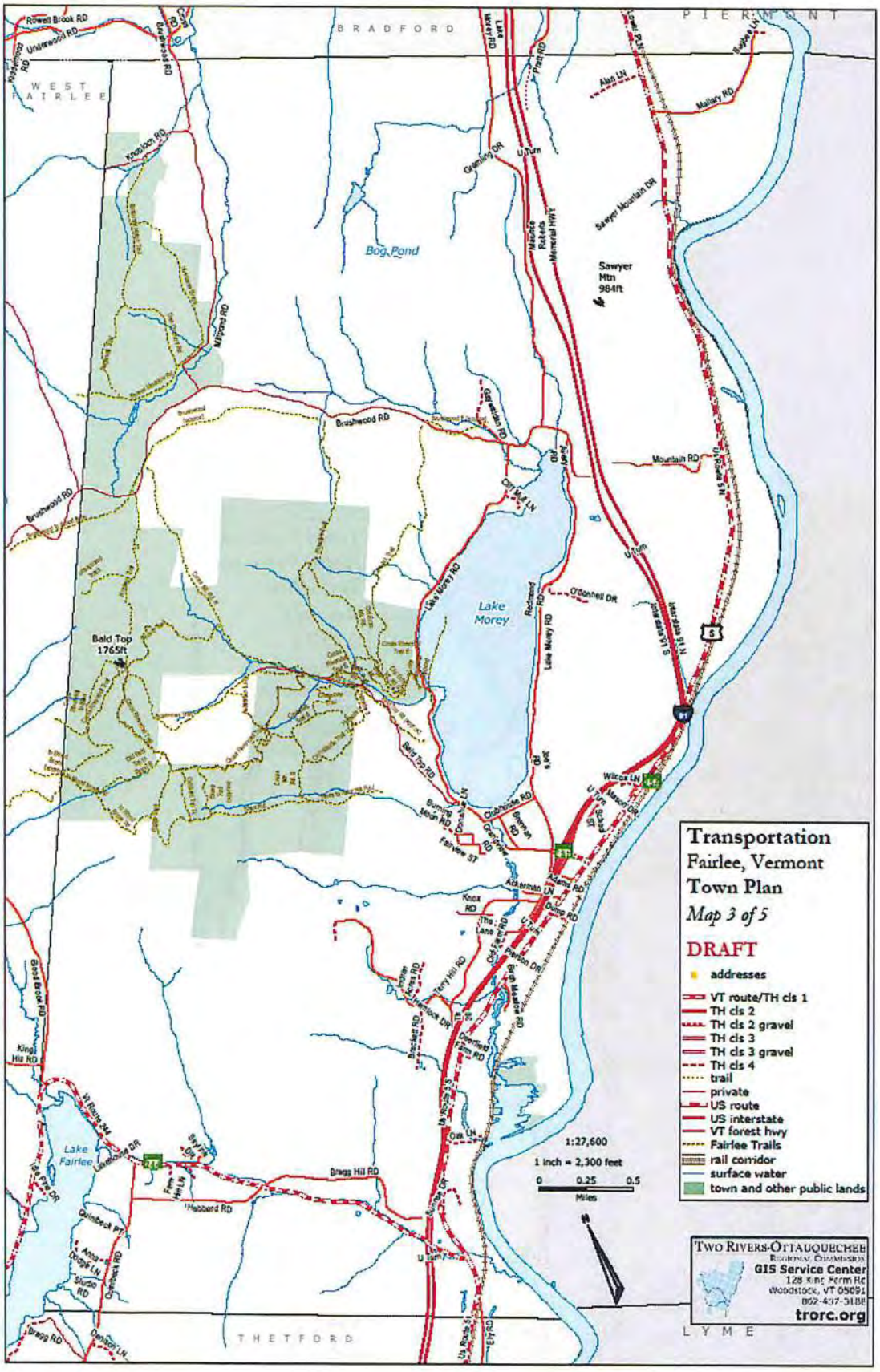
PIEDMONT
BRUSHWOOD COMMUNITY FOREST
WEST FAIRLEE TOWN FOREST
FAIRLEE TOWN FOREST
LAKE MOREY ACCESS AREA
Lake Morey
Sawyer Mtn 984ft
Bald Top 1765ft
Fairlee
Natural Resources
Fairlee, Vermont
Town Plan
Map 5 of 5
DRAFT
state highway
maintained town highway
other town rights-of-way
private
rail corridor
surface water
town and other public lands
deer wintering yard
endangered species
town wetlands
state wetlands
floodplain
1:27,600
1 inch = 2,300 feet
0 0.25 0.5
Miles
Suitability of Wildlife Habitat
0.0 - 1.9
2.0 - 2.5
2.6 - 3.1
3.2 - 3.6
3.7 - 4.1
4.2 - 4.6
4.7 - 5.3
5.4 - 6.1
6.2 - 7.0
7.1 - 8.3
Worst Quality Habitat
Best Quality Habitat


Transportation
Fairlee, Vermont
Town Plan
Map 3 of 5
DRAFT
addresses
VT route/TH cls 1
TH cls 2
TH cls 2 gravel
TH cls 3
TH cls 3 gravel
TH cls 4
trail
private
US route
US interstate
VT forest hwy
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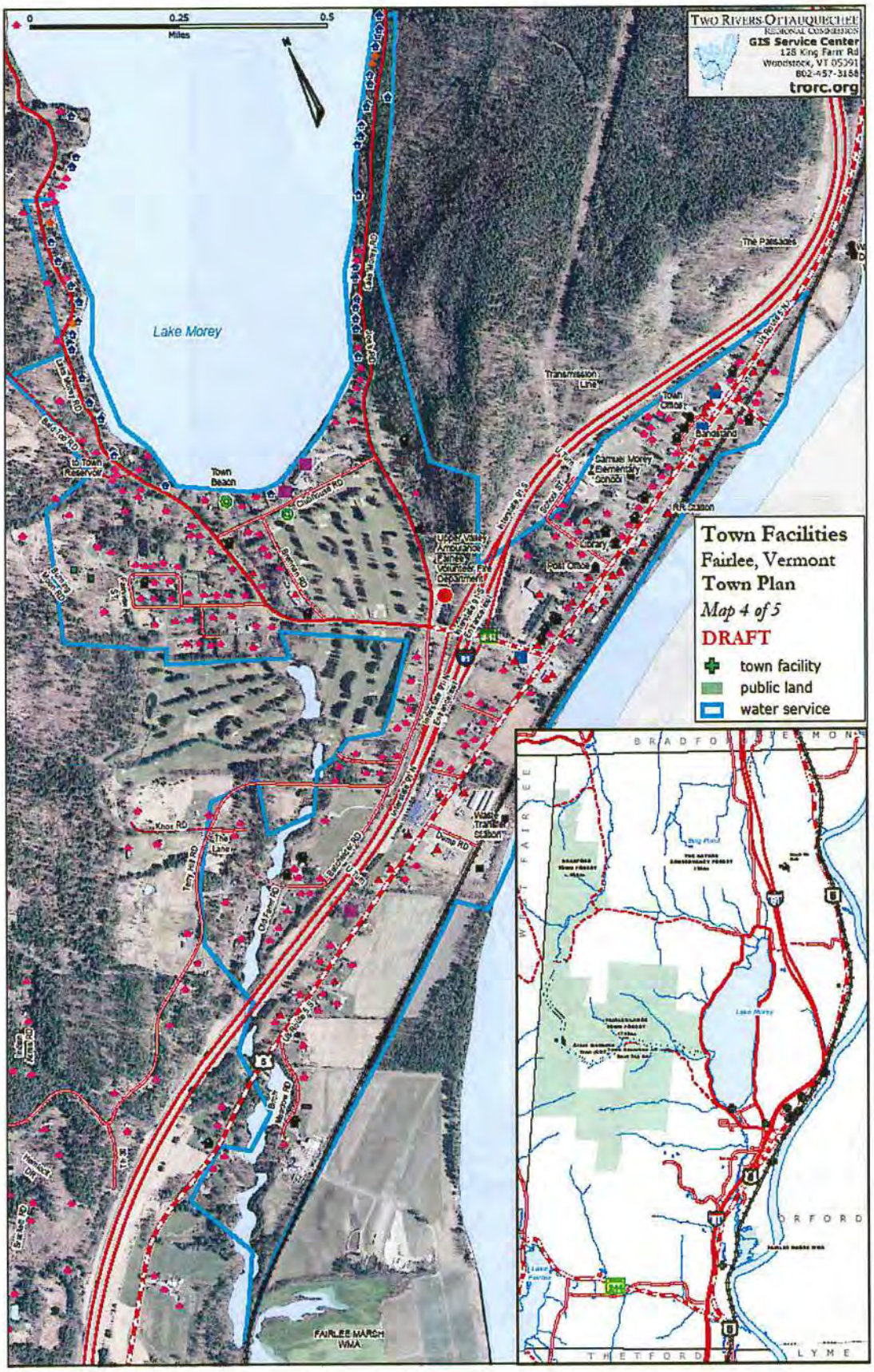
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802-457-3188
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Miles
Lake Morey
Town Beach
Upper Valley Ambulance Fairlee Volunteer Fire Department
Transmission Line
Town Office
Bandstand
Samuel Morey Elementary School
RR Station
Library
Post Office
The Palisades
Waste Transfer Station
Khox RD
The Lane
FAIRLEE MARSH WMA
Town Facilities
Fairlee, Vermont
Town Plan
Map 4 of 5
DRAFT
town facility
public land
water service
BRADFORD
VERMONT
WEST FAIRLEE
ORFORD
THETFORD
LYME