

# Town of Jericho



## Comprehensive Town Plan

Adopted February 17, 2011

Revised November 20, 2014

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## **1. INTRODUCTION, VISION AND GOALS**

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The Comprehensive Plan is a policy document authorized in Title 24 Vermont Statutes Annotated, Chapter 117, Section 4381.

The Jericho Comprehensive Plan is a reflection of the aspirations of Jericho's citizens for the future of the town. In 1989, the Planning Commission encouraged citizen participation in the drafting of the Town Plan through the appointment of citizen advisory committees for affordable housing, community facilities and services, historic sites, natural resources, and roads. The contributions of these committees were invaluable in the Planning Commission's establishing overarching goals which provided a broad philosophical base from which zoning and subdivision regulations were drafted. For the 2006 Town Plan, a survey was distributed to town residents and the results used to inform that document. A compilation of the survey is included as an appendix to this Plan.

The following "Vision Statement" is intended to be an expression of what we hope the Town will be like a decade hence.

"The Town of Jericho has a strong sense of community. It is not merely a bedroom community for activities elsewhere; its residents participate in local events centered around its three vital traditional village centers. The appearance and physical characteristics of these centers is such as to encourage pedestrian, bicycle, and alternate modes of transportation and reflect the historic patterns of settlement rather than acquiescing to the dominance of the automobile. Municipal buildings, schools, and other public facilities such as libraries and art galleries are in the Villages, drawing residents to these activity centers. In addition to businesses and services, the Village Centers also include a wide range of housing choices, allowing a diverse population to reside in Jericho. Residential and sprawl-like development outside of the village centers has declined as the environmental, social, and economic costs of such development have been recognized. Small agriculturally-based enterprises, home businesses, and tourism continue to thrive. Jericho's schools and public recreation facilities are of high quality, and form an integral part of the community. Some areas of the town remain virtually untouched and still provide important habitat to some of the Northeast's most sensitive species. These concepts of Village Centers, small-scale local businesses, and preservation of natural resources are consistent with a wider view of Jericho's role in Chittenden County."

From this Vision we derive the following Goals:

1. TO PROTECT THE NATURAL ENVIRONMENT
2. TO PRESERVE THE RURAL AND HISTORIC CHARACTER OF JERICHO

AND ENDEAVOR TO IMPROVE LIVABILITY THROUGHOUT JERICHO

3. TO CONCENTRATE NEW DEVELOPMENT IN JERICHO'S THREE VILLAGE CENTERS
4. TO PROVIDE FOR ECONOMIC DEVELOPMENT.
5. TO PROMOTE SOCIO-ECONOMIC DIVERSITY WITHIN JERICHO.
6. TO SUPPORT A WIDE RANGE OF TRANSPORTATION OPTIONS, INCLUDING ALTERNATIVES TO THE AUTOMOBILE.
7. TO PROVIDE FOR LONG-RANGE TOWN PLANNING CONSISTENT WITH REGIONAL AND STATE GUIDELINES.

## **2. THE JERICO COMMUNITY**

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### **HISTORY**

Jericho has developed a wealth of history in the 235 years since Governor Benning Wentworth granted 23,040 acres to 66 grantees on June 7, 1763. In addition to the shares assigned each grantee, Governor Wentworth reserved 500 acres (2 shares) for himself, one share for the Incorporated Society for the Propagation of the Gospel in Foreign Parts, one share for a Glebe for the Church of England, one share for the first sought minister, and one share for a school.

The geographical center of the grant was at the end of Bolger Hill Road; rocky, hilly land hardly suited for a village setting. Lewis Chapin, who had purchased a tract of "wild land" in 1786 and settled in town just south of Jericho Center, gave the town land for a green around which the present village grew.

There is strong evidence that original grantees came from the Long Island area and quite possibly the Town took its name from Jericho, Long Island. According to records, none of the grantees ever settled in town. The first three families, the Roods, the Messengers, and the Browns, came to settle from Berkshire County, Massachusetts, in 1774. The following ten years were marked by Indian raids and the backlash of conflict of the colonies with the British. The Brown family was captured by Indians and, for \$8.00 a captive, turned over to the British in Montreal. The Roods and the Messengers left for safer areas farther south.

Once peace was declared and life in the area became less risky, these families returned and more settlers arrived to start clearing the land for farming. Many of the earliest families came from Guilford, Connecticut. In October 1794 at a Town Meeting "it was voted to build a meeting house." This building was situated in about the middle of the present Jericho Center green and served as a meeting place for both church and town. In 1809 Pliny Blackman opened a business which is the oldest continually operated general store in Vermont.

As the wilderness that greeted the early settlers gave way to farms and supporting services, the waterpower provided by Jericho's three streams attracted settlement and industrial development along their banks. It was not long before saw mills, gristmills, woolen mills, and various factories and shops appeared. The Browns River, from Cilley Hill Road to the Route 15 bridge, provided the best mill sites and, as a result, Jericho Corners soon became the most active area in town.

In 1794 the first change in the Town borders took place. This was due to the loss of 5,000 acres at the southern end which along with land from Bolton, Huntington, and Williston were incorporated by Act of the Legislature to form the Town of Richmond. In 1926 the United States Government began acquiring land from Jericho, Underhill, and Bolton "for the military training camp and for military purposes and for all other purposes

connected therewith..." This acquisition continued into the 40's, and now approximately 5,240 acres of originally town-governed land lies within the Range Area. Two small parcels (20.457 acres) have been deeded to the Mt. Mansfield Union School District but still remain outside the taxable land.

In 1876 the Burlington and Lamoille Railroad made daily stops at the Jericho Depot carrying freight, mail, and passengers north to Cambridge and west to Essex Junction. When the town was unable to provide a high school, students took the train to attend the Essex Classical Institute in Essex Center. After 61 years of serving this valley region, the railroad gave way to increased travel by car and truck.

One-room school buildings were provided when the number of "scholars" within an area warranted such a facility. Eventually there were 16 independent district schools. In 1893 the Legislature enacted a bill which made the new town system compulsory, and the local autonomy of the district system was lost. The Village schools at the Center and at the Corners absorbed several of these smaller units. At this same session of the Legislature, the Incorporated District of Underhill (Underhill ID) was formed, including the Underhill Flats area and, in Jericho, the area including, and adjacent to, Riverside. Following reorganization, the remaining one-room schools were given up one by one and the children transported to the larger units.

Jericho Academy, now the Town Library in Jericho Center, was built in 1825 and provided "higher education" until 1845. After this, various privately run "select" schools operated intermittently until about 1890. One such school was available at the Corners in 1882 and continued for several years with some 50 "scholars". By the turn of the century there was sufficient interest in providing advanced schooling for the Town to support a vote to establish the Jericho High School which opened in 1905 using the upper story of what are now the Jericho Congregational Church offices in Jericho Center. Town growth in the 40's and 50's put pressure on the existing schools, which finally resulted in the building of the present elementary building on Route 15 in 1957. This new building accommodated all of the students in the lower grades and left the building in the center available for the expanding high school population. Within the past 30 years population pressures have brought about the formation of the Mt. Mansfield Union School District (1967) composed of the high school and the two middle schools (Browns River and Camel's Hump), and the expansion of the Route 15 Jericho Elementary School.

Jericho developed three distinct Village Centers – Jericho Center, Jericho Corners, and Riverside area of Underhill Flats. Portions of each Village Center are on the National Register of Historic Places, and each Village Center is recognized as a "Designated Village Center." Recently, significant gains have been made in reestablishing the traditional importance of these Centers, with the influx of a variety of new businesses, renovation of historic properties, streetscape improvements, and upgrades to pedestrian infrastructure.

Significant changes occurred in Chittenden County in the second half of the 20<sup>th</sup>

Century as major employers, most notably IBM, transformed the area's formerly agrarian economy. Significant residential development, as well as an explosion in national chain stores, altered the economic and physical landscape of inner Chittenden County towns. This development coincided with the construction of the first leg of the Circumferential Highway in Essex and expansion of the Burlington International Airport. Wider use of the automobile further encouraged development to spread into rural areas.

As the core towns of Chittenden County have built up, development pressure has increased on the county's outlying towns, including Jericho. At this juncture Jericho stands at a crossroads. While change is inevitable, the Town can plan for and direct these development pressures so that it complements and enhances, rather than detracts from, Jericho's existing character and community. The manner in which this Plan and the accompanying Land Use Regulations are developed and implemented will determine how the Town reacts to these inevitable pressures and their impact on the appearance and quality of life in Jericho.

## COMMUNITY PROFILE

**Note on Data:** *Much of the data in this and other sections is derived from the US Census, which is gathered on a 10 year cycle. Vermont State law requires Town Plans to be updated at least every five years. Updated 2010 Census data was not available for the drafting of this Town Plan. As a result, 2000 Census data is used when other reliable data is not available. The demographic information should be updated when 2010 Census data becomes available, or during the drafting of the 2016 Jericho Town Plan.*

### Population Trends

Population trends serve as an important indicator of the potential pressures and demands that a community must take into consideration in planning for its future. With the information on the people of the community one can better understand the growth trends in the municipality and the region, the future demand for services, facilities, and economic improvements, and environmental conditions.

Since 1960, Jericho has experienced a varying rate of growth that peaked in the early 1970's (Table 2.1). This population boom in the early 1970's is likely tied to the influx of workers to the region due to the opening of the IBM plant in Essex Junction in the 1960's and 1970's. Jericho's growth rate reached an annual rate of two and three times that of the county during the 1960's and 1970's, during which time Chittenden County shared the national post-war trend of a gradual dispersion of urban populations into suburban and rural communities. This trend continued through the 1980's and 1990's, as Jericho's population grew at a faster rate than the County as a whole. Based on the most recent population estimates, Jericho has grown at rate equal to that of the County as a whole over the past decade

**Table 2.1. Population History**

	<u>Jericho</u>			<u>Chittenden County</u>	
Year	Population	Avg Annual % change	% Of County	Population	Avg Annual % change
1900	1,373	---	3.5%	39,600	---
1910	1,307	-0.5%	3.1%	42,477	.7%
1920	1,138	-1.3%	2.6%	43,708	.3%
1930	1,091	-0.4%	2.3%	47,471	.9%
1940	1,077	-0.1%	2.1%	52,098	1.0%
1950	1,135	0.5%	1.8%	62,570	2.0%
1960	1,425	2.6%	1.9%	74,425	1.9%
1970	2,343	6.4%	2.4%	99,131	3.3%
1980	3,575	5.3%	3.1%	115,534	1.7%
1990	4,302	2.0%	3.3%	131,761	1.4%
2000	5,015	1.7%	3.3%	146,571	1.1%
2008(e)	5,190	0.4%	3.4%	152,782	0.4%

Source: US Census

(e) estimate: The annual census population estimates are derived using a different methodology than the 10 year Census Counts. These figures should be updated when official census counts become available.

**Table 2.2. Estimated Population Jericho and Contiguous Towns**

Town	1990 Census	2000 Census	2008 Census Estimates (e)	Absolute Change 1990-2000	Absolute Change 2000-2008	Annual Percent Change 1990-2000	Annual Percent Change 2000-2008
Jericho	4,302	5,015	5,015	713	175	1.66%	0.35%
Underhill	2,799	2,980	3,082	181	102	0.65%	0.34%
Bolton	971	971	1,000	0	29	0%	0.30%
Richmond	3,729	4,090	4,160	361	70	0.97%	0.17%
Williston	4,887	7,650	8,430	2,763	780	5.65%	1.02%
Essex (incl. Essex Jct.)	16,498	18,626	19,649	2,128	1,023	1.29%	0.55%
Westford	1,740	2,086	2,229	346	143	1.99%	0.69%
Burlington	39,127	38,889	38,897	-238	8	-0.06%	0.00%
Chittenden County	131,761	146,571	152,782	14,810	6,211	1.07%	0.42%

Source: US Census

(e) estimate: The annual census population estimates are derived using a different methodology than the 10 year Census Counts. These figures should be updated when official census counts become available.

Table 2.3 shows the most recent Population Forecasts developed and endorsed by the Chittenden County Regional Planning Commission (CCRPC). Note the CCRPC projections measure the number of households rather than population. These projections show Jericho growing at a slightly slower pace than the County as a whole over the next twenty years.

**Table 2.3. Population Forecasts**

	1980	1990	2000	2005(f)	2010(f)	2015(f)	2020(f)	2025(f)	2030(f)	Annual Rate of change*
Jericho	1,052	1,436	1,751	1,743	1,964	2,212	2,263	2,263	2,263	1.05%
Chittenden County	38,528	48,439	56,452	63,760	68,513	72,092	76,490	82,284	88,284	1.31%

Source: Chittenden County Regional Planning Commission

(f): forecast

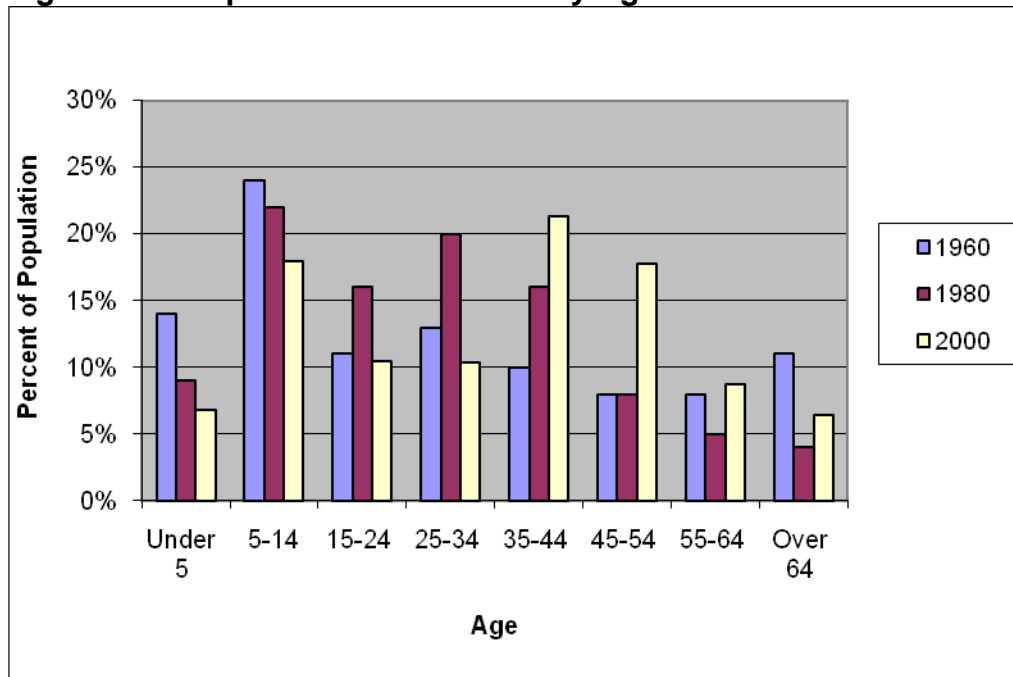
\*Average rate, 2005-2030



## Age Distribution

Figure 2.1, based on U.S. Census data shows changes in the age distribution of Jericho's population between 1960 and 2000. The effect of age distribution on school enrollments is indicated by Tables 2.4a and 2.4a, grade 1-8 enrollments since 1960, and Table 2.5, grade 9-12 enrollments since 1995.

**Figure 2.1. Population Distribution By Age in Jericho**



Source: US Census

**Table 2.4a. Total School Enrollments (Jericho Elementary School Grades 1-8)**

Year	Students	Average Annual % Change
1960	258	---
1970	502	6.9%
1980	496	-0.1%
1990	456	-0.8%
1995	515	2.5%
2000	479	-1.5%
2005	448	-1.3%
2010	404	-2.0%

Note: I.D.School and Kindergarten enrollments not included

Source: Jericho Town Annual Reports and Chittenden East Supervisory Union

**Table 2.4b. Total School Enrollments (Underhill ID Grades 1-4)**

Year	Students	Average Annual % Change
1995	158	---
2000	130	-3.5%
2005	119	-1.7%
2010	110	-1/5%

Source: Chittenden East Supervisory Union,

Note: ID Enrollments include students from Underhill

**Table 2.5. Total School Enrollments (Grades 9-12)**

Year	Students	Average Annual % Change
1995	197	---
2000	286	7.7%
2005	261	-1.7%
2010	274	1.0%

Source: Chittenden East Supervisory Union

The 95% increase in school enrollment in the 1960's is attributable to an influx of new families as part of the overall population growth in Jericho. Between 1970 and the late 1990's, school enrollments in elementary and middle schools were relatively level but high school enrollments continued to grow. A significant factor in school enrollment trends is the percentage of adults in the childbearing years between 25 and 44. This age group increased sharply from 23% of the population in 1960 to 36% in 1980. Between 1980 and 2000, a split occurred in this age group with a significant decline in the 25-34 age group and a continued increase in the 35-44 age group. Demographic trends suggest a continued aging of population in Jericho and all of Chittenden County.

As a result of the aging of the population, school enrollments have been projected to decline. Enrollments have declined from their peak in the mid 1990's, and continued to decline between 2005 and 2010 for grades 1-8. High School enrollments have remained relatively stable over the last five years. In fact, Jericho has experienced a slight increase in high school enrollments since 2005. The increase in number of students from Jericho has been offset by declining enrollments from other towns in the Chittenden East Supervisory Union, leading to an overall decrease in the number of students enrolled in the District's schools since 2000.

### **Origin of Population Increase**

Figures on the sources of Jericho's population increase (Table 2.6) suggest that the high rate of immigration seen in the 1960's and 1970's dropped in the 1980's.

**Table 2.6. Population Origin**

Period	Population (end of period)	Total Increase	Natural(1) Increase	New(2) Residents
1951-1960	1425			
1961-1970	2343	918	203 (22%)	715 (78%)
1971-1980	3575	1232	365 (30%)	867 (70%)
1981-1990	4302	727	451 (62%)	276 (38%)
1991-2000	5015	713	464 (65%)	249 (35%)
2001-2010	*	*	204	*

(1) Births minus deaths

(2) Total increase minus natural increase

Source: Jericho Annual Town Reports

\*add when census data becomes available

## Race and Ethnicity

As shown in Table 2.7 below, over 97% of Jericho Residents identified themselves as white on the 2000 US Census. While this is a greater percentage than the United States as a whole, it is in keeping with Chittenden County and Vermont.

**Table 2.7. Race/Ethnicity, Percent; 2000**

	Jericho	Chittenden County	Vermont	United States
White	97.4	95.1	96.8	75.1
Black/african american	0.7	0.9	0.5	12.3
Americhan Indian/Alaska Native	0.1	0.3	0.4	0.9
Asian	0.6	2.0	0.9	3.6
Native Hawaiian/Pacific Islander	0.1	0.0	0.0	0.1
Other Race	0.3	0.3	0.2	5.5
Mixed Race	0.8	1.3	1.2	2.4
Latino (all races)	1.1	1.1	0.9	12.5

Source: US Census

## Resident Economic Status

Analysis of data from state income tax returns reveals that the people of Jericho have experienced substantial increases in personal income in recent years and that their incomes are among the highest in both the county and the state. As shown in Table 2.8, the median household income for Jericho 1999 was \$65,375, higher than all but two other Chittenden County communities. Further, this figure represents a substantial increase from 1989 when Jericho's median household income was \$51,969.

**Table 2.8. Median Household Income, Chittenden County Towns; 1989 and 1999**

Town	1989	1999
Bolton	\$33,359	\$49,625
Buels Gore	-	\$39,583
Burlington	\$25,523	\$33,070
Charlotte	\$51,004	\$62,313
Colchester	\$39,308	\$51,429
Essex Junction	\$40,600	\$53,444
Essex Town	\$44,372	\$58,441

Hinesburg	\$40,359	\$49,788
Huntington	\$37,045	\$49,559
Jericho	\$51,969	\$65,375
Milton	\$36,694	\$49,379
Richmond	\$42,177	\$57,750
Shelburne	\$52,311	\$68,091
South Burlington	\$42,358	\$51,566
St. George	\$35,000	\$44,028
Underhill	\$46,685	\$66,492
Westford	\$39,732	\$61,205
Williston	\$45,182	\$61,467
Winooski	\$26,888	\$30,592
<b>Chittenden County</b>	<b>\$36,877</b>	<b>\$47,673</b>

Source: US Census (not adjusted for inflation)

## Employment

Table 2.9 identifies the distribution of workers by employment category and the changes between 1990 and 2000. The largest increases were 70% in public administration and 67% in manufacturing. Two service-oriented categories, wholesale/retail with a 47% decline and services with a 43% increase, combined for a very small net change. A surprising change, which countered previous trends in Jericho and current trends elsewhere in the county, was a 52% increase in agriculture/forestry.

**Table 2.9. Number of Employees by Employment Category**

Category	1990		2000		% Change 1990-2000
	#	%	#	%	
Agriculture/Forestry	46	2%	70	3%	52%
Construction	194	8%	142	5%	-27%
Manufacturing	333	14%	555	20%	67%
Transportation	65	3%	67	2%	3%
Wholesale/Retail	655	28%	348	13%	-47%
Services	980	42%	1403	51%	43%
Public Administration	89	4%	151	6%	70%
Totals	2,362		2,736		16%

Services include business and repair services, entertainment and recreational services, professional and related services.

Source: U.S. Census

The 2001 Town Plan described Jericho as substantially a bedroom community. Table 2.10 contains data from the 2000 US Census indicating that 73.2% of Jericho residents worked in five central Chittenden County communities – Essex, Burlington, South Burlington, Williston and Colchester. However, a substantial 12.5% of residents worked in Jericho. Note that this number may undercount the total number of residents working in Jericho, as it may not account for telecommuters and some home businesses. The 2005 Town Plan survey (see Appendix A) suggests an even higher 20.8% of residents

working either at home or at some other employment location in Jericho. These figures indicate that Jericho's status as a bedroom community is changing.

**Table 2.10. Employment Location for Jericho Residents, 2000**

Workplace	Count	Percent
Essex town	705	25.4%
Burlington	545	19.6%
Jericho	347	12.5%
South Burlington	327	11.8%
Williston	253	9.1%
Colchester	202	7.3%
Winooski	46	1.6%
Other Chittenden County	139	5.0%
Montpelier	42	1.5%
Waterbury	37	1.3%
Other Vermont	103	3.7%
Out of State	33	1.2%
Total	2,779	100.0%

Source: US Census

## Property Taxes

For years, Jericho's tax base has been dominated by residential property. As shown in Table 2.11, the percentage of residential property in the grand list has gradually increased from 79% in 1970 to over 90% in 2005. This percentage declined slightly to 88.6% in 2010, largely as a result of an increase in the percentage of commercial property. The greatest decline has been in farm property. Other categories have remained relatively steady, though there has been a noticeable increase in the value of commercial property since 1999.

**Table 2.11. Percentage Contribution to Grand List by Land Use Category, 1970-2010**

Category	1970	1980	1990	1994	1999	2005	2010
Residential(1)	79	87.6	83.6	83.0	82.4	90.2	88.6%
Vacation	1	.7	0.6	0.3	0.3	0.2	0.2%
Commercial	1	2.7	0.6	1.5	1.5	2.3	2.8%
Industrial	5	0.0	0.0	0.0	0.0	0.0	0.0%
Utilities	0	1.5	0.3	0.5	0.4	0.8	1.3%
Farm	11	3.5	1.2	1.0	0.7	0.9	0.9%
Other(2)	3	3.9	13.7	13.7	14.6	5.5	6.1%

(1) Residential includes Residential I and II and Mobile Homes – U and L.

(2) Other includes government, woodland, miscellaneous

Source: Jericho Grand List (1970-2005)

Previous versions of the Town Plan noted Jericho's high reliance on residential property for financing public services. In general, the cost of providing services to residential uses is higher than the property tax revenue they produce, while the opposite is true for commercial, industrial, and agricultural uses. As a result, Jericho has had a high tax

rate in comparison to other towns with more commercial and industrial property. However, with the passage of Act 60 and Act 68, school property tax revenues were distributed statewide rather than to individual communities. This has reduced the local financial benefits of commercial and industrial development. Table 2.12 provides the effective tax rates for Jericho and all other municipalities in Chittenden County. The residential total is the sum of school homestead, municipal and local agreement taxes.

**Table 2.12. Effective<sup>1</sup> Tax Rates in Chittenden County, 2009**

	School Homestead	School Nonresidential	Municipal	Local Agreement	Total (Residential)
Bolton	1.2317	1.3021	0.478		1.7097
Buels Gore	0.7915	1.2422	0.0000		0.7915
Burlington	1.0871	1.3452	0.6276		1.7147
Charlotte	1.3155	1.3419	0.1588	0.0008	1.4751
Colchester	1.1203	1.3603	0.5191		1.6394
Essex Junction	1.2842	1.3472	0.3219	0.0009	1.6070
Essex Town	1.3310	1.3490	0.3994		1.7304
Hinesburg	1.2891	1.2964	0.4252	0.001	1.7153
Huntington	1.2207	1.3420	0.5160		1.7367
Jericho	1.2353	1.3585	0.4056	0.0114	1.6524
Jericho ID	1.2310	1.3513	0.4069	0.0115	1.6494
Milton	1.1347	1.3449	0.3945		1.5292
Richmond	1.1595	1.3202	0.5449		1.7044
Shelburne	1.2143	1.3224	0.3127	0.0007	1.5277
South Burlington	1.3546	1.3400	0.3441	0.0009	1.6996
St. George	1.3834	1.4204	0.1727		1.5561
Underhill	1.2104	1.3432	0.3998	0.0281	1.6383
Underhill ID	1.2223	1.3413	0.4012	0.0282	1.6517
Westford	1.1384	1.3017	0.4713	0.0027	1.6124
Williston	1.2135	1.3393	0.0006	0.1872	1.4013
Winooski	1.0955	1.3332	0.8518		1.9473

Source: Vermont Department of Taxes, Division of Property Valuation and Review, 2009 Equalization Study/2010 Annual Report

1) The "effective" tax rate is the rate that would be in effect if all property within a municipality was appraised at full market value.

## Crime Statistics

Based on data provided by the Vermont State Police, between 2005 and 2009, police issued an average of 429 traffic citations per year, and responded to an annual average of 570 other incidents. This represents a relatively low volume of incidents to Jericho's population. The average annual numbers of various incidents requiring police response are listed in the Table 2.13 below.

**Table 2.13. Vermont State Police Incident Response 2005-2010**

Nature of incident	Ave.	Nature of incident	Ave.	Nature of incident	Ave.
<b>Total</b>	<b>569.2</b>	assault	4.1	fish and game complaint	1.4
suspicious person/ circumstance	83.0	missing person	4.0	non-sufficient funds check	1.3
motor vehicle complaint	51.6	wanted person	3.8	unsecure premise	1.2
911 hang up call	49.5	custodial interference	3.7	restraining order	1.1
theft	49.5	not defined	3.5	property damage, non vandalism	1.1
traffic accident with damage	48.3	littering/pollution/public health	3.5	abandoned vehicle	1.0
alarm	41.7	attempted suicide	3.5	accident fatal	1.0
agency assistance	23.5	fire	3.0	alcohol offense	1.0
family fight/domestic	17.7	dead body	2.5	arson	1.0
unlawful mischief	16.8	death message	2.3	attempt to locate	1.0
citizen dispute	14.5	sex offender registry	2.3	condition of release violation	1.0
phone problem/harassment	13.7	VIN number inspection	2.3	custodial dispute	1.0
burglary	12.9	runaway juvenile	2.2	explosives problem	1.0
welfare/suicide check	11.7	found property	2.1	unknown emergency	1.0
juvenile problem	11.1	ATV accident/incident	2.0	fire hazard	1.0
traffic accident with injuries	10.9	bomb threat or attack	2.0	fireworks	1.0
trespassing	9.7	child abuse/neglect	2.0	lost property	1.0
burglary alarm	9.3	forgery	2.0	miscellaneous CAD call record	1.0
threatening	7.6	theft of automobile	2.0	overdose	1.0
citizen assist	7.2	sex offense	1.9	public speaking	1.0
traffic hazard	7.0	DUI alcohol or drugs	1.9	recovered stolen vehicle	1.0
noise disturbance	6.0	intoxicated person	1.7	safety hazard	1.0
fraud	5.3	disorderly conduct/noise	1.6	search warrant	1.0
driving -- license suspended	5.0	controlled substance problem	1.6	stalking	1.0
animal problem	4.5	fire investigation	1.4	traffic violation	1.0

Source: Vermont State Police, Williston Barracks

### **3. LAND USE**

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This Plan envisions future growth and development focused in Jericho's three Village Centers. These areas should develop into vibrant centers of culture, community, and commerce. The Village Centers should be interspersed with open, rural countryside, working agricultural and forest land, lands containing natural resources, and rural homes. By implementing this vision, Jericho will preserve the community's sensitive natural and historic resource base and rural, open character while providing for reasonable, responsible growth.

The Land Use Districts below describe the various densities and development patterns envisioned for different areas of Jericho. These Land Use Districts shall be the basis for Jericho's Regulations. The Land Use areas should also be used to inform future capital investments.

#### **OPEN SPACE DISTRICT**

The purpose of the Open Space District is to retain these lands for public use, nature resource management, and conservation. The Open Space District encompasses that land in Jericho currently held by public or quasi-public organizations, including the University of Vermont Research Forest, Mobbs Farm, Mills Riverside Park, Old Mill Park, and Wolfrun Natural Area. Open Space designation for future large public or quasi-public land acquisitions should be considered.

The Ethan Allen Firing Range is currently owned by the Federal Government and is also included in the Open Space District; however there is no public access to this property. Portions of the Range are heavily developed with numerous structures and significant infrastructure, while other areas remain largely undeveloped. The activities occurring on the site are currently outside the Town's jurisdiction. Should the Federal Government terminate its ownership of the Range in the future, the Range shall be considered part of the Open Space District until a significant public dialogue on the designation and future of this area has occurred.

#### **FORESTRY DISTRICT**

This district was formerly called the Conservation District, but was renamed because most of the property within the district is privately owned. The Forestry District generally consists of undeveloped or sparsely developed forest land in the eastern half of Jericho and is part of a largely unfragmented forest block in the Chittenden County Uplands.

The purpose of the Forestry District is to maintain the rural character of Jericho by preserving significant aesthetic, recreational, and natural resources. Some land in the district may be unsuitable for development due to physical limitations such as steep slopes or high water table. Planned Unit Development provisions are recommended to preserve rural land and resources and to determine limited, appropriate sites for any new residential or other development. Lands within this district should receive high priority for conservation funding.



## **AGRICULTURE DISTRICT**

The Agriculture District consists of open and wooded land through much of Jericho. Although there are forests within the agricultural district, there are more uses permitted in this area than in the Forestry District. The purpose of the Agricultural District is to provide open land for agriculture, forestry, and rural housing. Prime forest and agriculture land should be protected while allowing for limited, compatible development. Planned Unit Development provisions are recommended to preserve rural land and resources and to determine limited, appropriate sites for any new residential or other development.

## **RURAL RESIDENTIAL DISTRICT**

The Rural Residential District consists of areas along higher volume town roads, particularly Browns Trace and portions of Lee River Road, Barber Farm Road, Nashville Road, Plains Road, Packard Road and northern Fitzsimmons Road. Several smaller side roads close to Browns Trace, including Ethan Allen Road, Morgan Road, Pratt Road, and the lower portion of Bolger Hill Road are also within the Rural Residential District. A break in the Rural Residential District has been maintained on Plains Road between Schillhammer Road and Jericho Center to preserve a sense of open countryside between Jericho Corners and Jericho Center.

The purpose of the Rural Residential District is to provide for land uses that are compatible with rural areas. This district creates a transition between the higher density Village, Commercial, and Village Center Districts and the lower-density Open Space, Forestry, and Agricultural Districts.

Development in the Rural Residential District has generally consisted of scattered, low density residential development disassociated from surrounding neighborhoods, sometimes referred to as “sprawl.”

## **VILLAGE DISTRICT**

The Village District includes areas between Route 15, the Lee River, and Orr Road not within the Village Center District or the Commercial District. The Village District also contains a portion of land bounded by Raceway and Cilley Hill Roads, Route 15, and the Browns River. Together, these areas are sometimes referred to as the “Village Triangle.” The residential neighborhoods of Lawrence Heights, Palmer Lane, and Foothills are also included within the Village District.

The purpose of the Village District is to provide a moderate-density residential area as a transition from the Village Center Districts. The Village District is intended to provide a variety of housing options for Jericho residents, including a mix of single and multi-family housing, near the amenities provided by the Village Center District and the Commercial District. Pedestrian linkages to surrounding neighborhoods and the Village Centers are of particular importance in this district. Small service-oriented commercial

uses may be appropriate if they are compatible with the predominantly residential character of the district.

## **COMMERCIAL DISTRICT**

The Commercial District contains land on both sides of Route 15 between Raceway and Orr Roads. The primary purpose of the Commercial District is to provide employment opportunities and a location for minimum impact commercial enterprises that cannot or should not be located in the Village Center District. Generally, this refers to light industrial or commercial uses that rely on trucks and/or heavy equipment that would come into conflict with pedestrians and/or residential uses in the Village Center District.

While roadside visibility is important for the viability of some businesses, measures should be taken to prevent the appearance of strip development. Curb cuts should be limited to avoid impeding circulation on Route 15, and interior circulation roads may be required on larger parcels. Green space, landscaping, and other visual treatments may be necessary to soften the appearance of development, particularly along Route 15. Residential uses may be approved, if they are compatible with the predominantly commercial character of the district.

## **VILLAGE CENTER DISTRICT**

The Village Center District encompasses Jericho's three Village Centers -- Jericho Corners, Jericho Center, and Riverside. The Village Center in Riverside generally consists of the water service area of the Jericho-Underhill Water District. The Jericho Center Village Center includes the Jericho Center Green and surrounding properties and extends south to the Jericho Center Cemetery and north to the Underhill-Jericho Fire Sub-Station on Browns Trace. Jericho Corners consists of areas along Route 15 from the Essex Town Line to the old Village water district parcel, as well as surrounding residential neighborhoods. The Jericho Corners Village Center extends down Lee River Road to Lafayette Heights. The boundaries of these three areas are generally considered to be sufficient at this time.

The purpose of the Village Center District is to encourage the concentration of people and community-focused activities in traditional centers. Each of the three Village Centers is listed as an historic district on the State Historical Register. These areas generally retain an architectural character that constitutes a valuable and unique part of our cultural heritage. Jericho Corners and Jericho Center are on the National Register of Historic Places. In addition to the buildings themselves, the character of the villages is defined by the relationship of the structures with one another, with the roads, and with open land. The orientation of new buildings should encourage walkability and reflect traditional patterns. Generally, large setbacks with parking in front of the building are less inviting to pedestrians than buildings close to the road with parking to the side or rear.

Different growth opportunities exist in each of the three Village Center Districts. In Riverside, a large proportion of new growth may take place on existing large parcels

that are either vacant or largely undeveloped. Planned Unit Developments should be encouraged for any proposed development on these parcels. Redevelopment at a smaller scale also may take place on parcels fronting on Route 15 and other major roadways. On these parcels, it will be necessary to balance needs of new development versus compatibility with historical patterns on nearby parcels. Development review should pay particular attention to bulk, setbacks, and relationship of buildings to parking. Larger buildings can be successfully incorporated into the village centers through proper siting and the use of landscaping and architectural treatments to interrupt building bulk.

Pedestrian-scale development should be encouraged within village centers. With attention to the location of buildings and connections between buildings, multiple use patterns within a village setting will be able to continue. Connectivity, both for vehicles and pedestrians, is important. A grid of streets throughout the village center with multiple connections to major streets, particularly in the Riverside area of Underhill Flats, will disperse traffic throughout the village and avoid congestion at any single point. On-street parking and other traffic-calming measures will decrease vehicle speed and encourage pedestrian safety. Sidewalks and paths should be constructed along streets and from streets to buildings.

Sufficient parking is necessary for commercial viability. However, parking should not be allowed to dominate the visual appearance of a parcel. Particularly along Route 15, parking lots should not be permitted in front of buildings. In general, on-site parking should be encouraged at the side and rear of buildings.

Existing neighborhood developments are located within the boundaries of the Village Center District, particularly in Jericho Corners. These neighborhoods generally are within easy walking distance to major commercial and public uses within the three villages. Pedestrian connections should continue to be encouraged. Any commercial use or residential growth should be modest in scope and should be compatible with neighboring parcels.

Any major development, including most commercial uses, should take place along major roads and on parcels with direct access to such roads.

Growth opportunities may be more limited in Jericho Center, which lacks a public water supply and is not situated on a state highway. Development may be more modest in scope than in the other centers. Nonetheless, Jericho Center should continue to serve as a focal point for the Town. Reuse and expansion of existing structures may be the primary form of development in this area, though some modest amount of new construction may occur on larger parcels. Development in this area should be mindful of impacts on groundwater quality and availability and of existing historic features such as the Village Green. Traffic calming and pedestrian circulation is of particular importance as development occurs along Browns Trace.

## **INSTITUTIONAL PROPERTIES**

### **Ethan Allen Firing Range**

Nearly 25% of Jericho's land area is property under Federal Government ownership, commonly known as the Ethan Allen Firing Range. The entire Range consists of 11,218 contiguous acres of land located in the towns of Jericho, Underhill, and Bolton, with Jericho's portion consisting of 5,248 acres lying north of Nashville Road and east of Browns Trace. This land was purchased from local residents in two stages, 2,218 acres in 1926, and 3,030 acres in 1941.

The overall management of the Range is conducted by the United States Army Armament Munition & Chemical Command, although the actual use of the property is divided between the Vermont Army National Guard, which utilizes the site to conduct personnel training maneuvers, and General Dynamics which leases a portion of the Range from the U.S. Government for weapons testing. The Range also has a biathlon course used for national and international competitions. This course can be made available to several school and community athletic organizations.

Although tours of the site are offered to local officials on a regular basis, the Town of Jericho has neither taxing nor regulatory authority over the Range land or its associated activities. It is generally felt that more interaction between Town and Range officials would be desirable, both to keep residents informed of activities occurring in the Range and how those activities might affect Jericho residents, as well as to explore possible beneficial aspects of the Range.

### **University of Vermont (UVM) Jericho Research Forest**

UVM owns and maintains a forest research facility in Jericho adjacent to the Town's Mobb's Farm property. Acquired by UVM in 1941, the Jericho Research Forest (JRF) is located on 478 acres of former agricultural land and managed by the UVM Rubenstein School of Environment and Natural Resources. The forest is utilized extensively for UVM research, education, and service-learning and in 2005 became host to the UVM Green Forestry Education Initiative. The forest itself includes a mix of natural stands of northern hardwoods and white pine and plantations of native and exotic conifers. Topography of the site includes steep slopes, sandy terraces, and visible bedrock.

While research and education are two of the primary purposes of the UVM Research Forest, construction or expansion of structures for these purposes is not currently permitted in the Open Space District. This could inhibit the expansion of programs and activities at the Research Forest.

## **ADJACENT MUNICIPAL AND REGIONAL PLANS**

The Town of Jericho is one of nineteen municipalities comprising the Chittenden County region. The general development of Chittenden County has occurred such that the "core municipalities" to the west of Jericho (Burlington, South Burlington, Winooski,

Colchester, Essex, Williston, and Shelburne) contain the heaviest concentrations of commercial and industrial development, while the outlying towns, including Jericho, are more residential in nature. In addition to residential housing, the outlying towns also provide valuable forest, agricultural, recreational, historic, and natural resource opportunities for the region. In the past decade, commercial and higher density residential development has begun to occur in several outlying towns, including Milton, Hinesburg, Richmond, and Jericho. For the most part, these communities have attempted to focus this development into existing village centers

Jericho has representation on the Chittenden County Regional Planning Commission, and the Chittenden County Metropolitan Planning Organization by appointment of the Selectboard. Jericho's Village Centers and other future land use districts are compatible with the village, rural and other planning areas from the 2006 Regional Plan. A new draft of the Chittenden County Regional plan is currently in preparation.

As part of the preparation of this Town Plan, Jericho planners have reviewed Future Land Use Maps in five adjacent communities.

**Essex** lies to the northwest of Jericho. Along most of the shared border, Agricultural Districts in Jericho are compatible with Agriculture-Residential and Conservation Districts in Essex. Along VT 15, Jericho's Village District ends at the Essex Town line. This is a suitable ending point for the village, and no similar district is found on adjacent land in Essex. Further south, one portion of Essex's Industrial District extends to the Jericho Town line. The terrain in the easterly portion of this district appears marginally suitable for such use. No access should be permitted to the Industrial District from Jericho's rural Skunk Hollow Road.

**Underhill** lies to the northeast of Jericho. Along most of the shared border, Forestry, Open Space, and Agricultural Districts in Jericho are compatible with Rural Residential and Conservation Districts in Underhill. An overlap of land uses occurs in Riverside/Underhill Flats where the village is split between the Towns of Jericho and Underhill. Land use plans in both towns are compatible. The two towns have engaged in a multi-year public process to plan for the future of this Village Center. Jericho and Underhill have a long history of shared services and organizations, including a joint fire department, land trust, park district, library district, water district, and elementary school. This close relationship makes collaboration between the two towns critical.

**Bolton** lies to the southeast of Jericho. Predominant land uses are rural residential and open space. Conservation and Rural I Districts in Bolton are compatible with Agricultural, Forestry, and Open Space Districts in Jericho.

**Richmond** lies to the south of Jericho. Along most of the shared easterly border, Richmond's Low Density Rural District is compatible with Jericho's Conservation District. Along Browns Trace, Richmond's Medium Density Rural District should be compatible with Jericho's Rural Residential District. At Richmond's northeast corner, along VT Route 17 and Governor Peck Road, two areas have been designated as

Commercial/Industrial Districts. The abutting areas in Jericho are primarily residential. Any non-residential uses in these areas in Richmond should be reviewed carefully for potential impacts on Jericho parcels.

**Williston** lies across the Winooski River to the southwest of Jericho. Most adjacent land in the two communities is in the floodplain – Floodplain District in Williston and River Overlay District in Jericho.

In general, Jericho's Town Plan is compatible with the goals and objectives of all neighboring towns. Any concerns with individual proposals for development may be addressed during the review process.

## **GOALS, STRATEGIES AND IMPLEMENTATION**

**Goal 3.1: Focus development in Jericho's three Village Centers. New development will reinforce and enhance Jericho's settlement pattern of compact centers interspersed with rural countryside.**

Strategy 3.1.1: Plan so that the majority of new growth over the next twenty years can be accommodated within the Village Center and Village Districts

Implementation 3.1.1.1: Conduct an updated build-out analysis based on the revised Land Use and Development Regulations and determine projected population growth over the next twenty years.

Implementation 3.1.1.2: Evaluate whether, under current regulations, at least fifty percent of Jericho's projected population growth could occur within the Village Center and Village Districts.

Implementation 3.1.1.3: Consider infrastructure investments and/or zoning incentives/revisions that will increase the likelihood that development will occur in these districts.

Implementation 3.1.1.4: Evaluate if Growth Center Designation would be appropriate and beneficial for certain areas of Jericho.

Strategy 3.1.2: Public investments, including the construction or expansion of infrastructure, shall reinforce the land use and growth patterns articulated in this Plan. Priority for transportation and other infrastructure investments should be directed toward the Village Centers.

Implementation 3.1.2.1: Pursue grant and other funding opportunities to enhance infrastructure improvements that support additional development within the Village Centers.

Strategy 3.1.3: Development on the periphery of the Village Centers shall reinforce traditional settlement patterns and provide for pedestrian access to a Village Center.

Implementation 3.1.3.1: The Rural Residential District should not be expanded beyond its boundaries as they presently exist.

Implementation 3.1.3.2: Identify areas that are adjacent to the Village Centers or Village Districts that may be appropriate for inclusion in the Village District. Areas to be considered shall have pedestrian access to one of the Village Centers and be served by appropriate infrastructure, or areas where appropriate capital planning could provide necessary infrastructure in the near future.

Implementation 3.1.3.3: Consider the impacts of the I89 Interstate exit on development patterns along the Route 117 corridor and the surrounding road network and evaluate zoning revisions and other planning techniques appropriate for this area.

Strategy 3.1.4: Maintain contiguous areas of open space and natural resource lands in the Agriculture, Forestry, and Rural Residential Districts, while providing for appropriate areas for residential development.

Implementation 3.1.4.1: Promote the use of Planned Unit Developments as a tool to cluster residential development and maintain critical natural resources and open space.

Implementation 3.1.4.2: Work with local and regional conservation organizations such as the Vermont Land Trust and Jericho Underhill Land Trust to afford landowners the opportunity to conserve their property.

Implementation 3.1.4.3: Continue funding the Open Space Fund for conservation opportunities.

Implementation 3.1.4.4: Consider adopting incentives and programs to promote the protection of scenic areas and wildlife corridors.

Implementation 3.1.4.5: Consider amendments to the Land Use and Development Regulations to protect wildlife corridors, such as the creation of a wildlife corridor overlay, "maximum setback" in certain areas, or other regulatory standards.

**Goal 3.2: Jericho's planning efforts will consider the regional context.  
Planning decisions will be made in part based on coordination with adjacent towns, entities within Jericho, and regional and State agencies**

Strategy 3.2.1: Coordinate Jericho's planning efforts with those of adjacent towns, the region, and the state

Implementation 3.2.1.1: In keeping with the Regional Land Use Plan and ACT 200 goals, work closely with the Regional Planning Commission and State agencies to preserve Jericho's natural, historic, and recreational resources, provide continued opportunities for agriculture and forestry, and provide for residential and mixed uses in Jericho's Village Centers.

Implementation 3.2.1.2: Communicate with adjacent towns through participation in regional meetings.

Implementation 3.2.1.3: Provide responsible input to Jericho's representatives on regional planning groups, particularly the Metropolitan Planning Organization (MPO) and the Chittenden County Regional Planning Commission (CCRPC).

Strategy 3.2.2: Pursue opportunities for joint projects with adjacent towns aimed at addressing common issues.

Implementation 3.2.2.1: Continue joint planning efforts with the Town of Underhill related to the Riverside/Underhill Flats Village Center.

Implementation 3.2.2.2: Monitor development along the I89 exit in Richmond, and coordinate transportation and facilities upgrades necessitated by such development with the Town of Richmond. Work with developers in this area to ensure that adequate protection for residential properties is provided when commercial or industrial development occurs across the town line.

Strategy 3.2.3: Improve communication and coordinate land use planning with major institutions within Jericho, such as the Ethan Allen Firing Range and UVM Research Forest.

Implementation 3.2.3.1: The Selectboard and Planning Commission should seek to meet annually in public session with Range and University officials.

Implementation 3.2.3.2: Consider revisions to the Land Use and Development Regulations to allow educational and research facilities within the Open Space District, subject to appropriate standards.



#### **4. NATURAL RESOURCES**

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The conscientious planning of Jericho's development as a town at the periphery of the growing Burlington urban area depends on careful inventory and wise use of its natural resources.

#### **GEOLOGICAL FEATURES**

Detailed information regarding Jericho's geological features can be found in the 2008 report titled "Enduring Features of Jericho, Vermont: An Analysis for Conservation, Restoration, and Climate Change Adaptation Planning", sponsored by the Jericho Conservation Commission.

Noteworthy Geologic features worthy of preservation include:

- Jericho Kettle and Kame deltaic at the intersection of Browns Trace and Nashville Roads
  - The spillway east of Browns Trace at the Richmond-Jericho town line
  - The spillway and kame deposit east of Jericho Center
  - Hillside channels on the western shoulder of Bald Hill
  - Gorge and falls at the Chittenden Mill
  - Glacial Lake Champlain lakeshore features such as Laisdell Hill

#### **Sand and Gravel**

Sand and gravel deposits exist throughout the town. Several active gravel pits are located on land owned by the Underhill Jericho Fire Department at the Intersection of Browns Trace and Lee River Road. In addition, several inactive pits are located throughout Jericho.

#### **Topography**

Jericho's topography has determined its pattern of land use, both historically and in the present. A landscape of hills and valleys has shaped transportation routes, provided the settings for villages and patterned land use. Jericho's topography is depicted on Map 2.

Topographic information is important for planning future land use, transportation, and public facilities and services. Topography influences accessibility, provides natural boundaries between areas, and often determines land use. Topographic features such as peaks or gorges often have symbolic and historic importance to a community.

Land use is determined, to a great degree, by elevation and slope. Jericho is located in the foothills of the Green Mountain Range. A majority of land in the town has a slope greater than 5% (5' vertical rise in 100' horizontal distance). Land having a slope of less than 5% is located in the valleys or flood plains of the major rivers and streams. Most of the land with slopes greater than 15% is located east of Browns Trace and includes South Hill, Bald Hill, Birch Hill, and Huckleberry Hill. These hills also include the highest

elevations in town, ranging from 1,227 feet (above sea level) at Birch Hill, to over 1,900 feet on Bald Hill.

As the degree of slope increases, so do the costs of roads, utilities, and maintenance services, such as snow removal. The difficulty and cost of building structures and septic systems are also greater. Additional safeguards must be considered when development occurs on slopes greater than 8%. Such development can affect the equilibrium of an entire watershed and can also impair the distinctive aesthetic resources which constitute the rural character so valuable to Jericho. Careless or intensive development on these slopes is certain to affect soil stability, causing erosion, degradation of water quality, and a possible threat to public health.

## Soils

Several soil variables are useful considerations in planning. These include depth to bedrock, depth to seasonal high water table, and a soil's suitability for onsite sewage disposal. These factors are important factors when considering potential uses and intensity of development for a given area. It is worth noting that new technologies, evolving construction techniques, and changes in state wastewater regulations may make development feasible in areas previously thought to be undevelopable. Addressing these issues will require careful planning.

## Agricultural Potential

The Chittenden County Regional Planning Commission (CCRPC) has classified the Chittenden County landscape's ability to support agricultural functions. The CCRPC developed an Agricultural Lands Measure as part of their Open Space Inventory Phase II project to identify land area suited for agricultural use. The Agricultural Lands Measure considers the slope of the land, Natural Resource Conservation Service's (NRCS) rating of prime farmland and soil potential for agricultural productivity, access to surface water, compatibility of adjacent land uses with agricultural activity, and municipal zoning. The landscape was assigned a numeric score that expresses the degree to which the mentioned characteristics exist. All of the scores relating to the characteristics of agricultural lands were totaled and the scores representing similar degrees of suitability were grouped into four suitability categories (Most Suited, More Suited, Suited, and Less Suited). Results are given in Table 4.1.

**Table 4.1. Soil Suitability for Agricultural Functions in the Town of Jericho**

Most suitable for agriculture	1,527 acres
More suitable for agriculture	2,482 acres
Suitable for agriculture	9,259 acres
Less suitable for agriculture	8,182 acres
Not Rated	1,276 acres

Source: CCRPC Open Space Inventory Phase II, 2003

The Land Evaluation and Site Assessment Program (LESA) is a system developed by the Natural Resource Conservation Service (NRCS) and adopted locally by the Chittenden County Regional Planning Commission. This program is a detailed rating

system that evaluates agricultural land to identify farmlands that are agriculturally most important and suitable for conservation efforts. LESA takes into account the physical properties of the existing soils as well as non-soil factors such as the size and location of specific farms, access to markets, current land use patterns and local public policy. A LESA program was last conducted in Jericho in 1991, but it was not completed. An update of the program is needed.

## **Forestry Potential**

Vermont's soils with potential for forestry have been classified into four categories: Site 1, Site 2, Site 3, and Site 4. The Vermont Department of Forests, Parks, and Recreation recommends that sites 1 and 2 be considered as primary forestry soils. As is the case in agricultural soils, these classifications reflect only physical and chemical composition of the soils and do not consider location, current land use, and parcel size. The NRCS has also designed a LESA to evaluate forestlands (FLESA).

## **WATER RESOURCES**

### **Surface Waters**

Surface waters in Jericho include ponds, streams, and wetlands. These waters are valuable as sources of water supply; recreation areas; absorption areas for flood waters; habitats for wildlife, waterfowl, and vegetation; and aesthetic enjoyment. The value of surface waters can be diminished through pollution, alteration, and overuse.

### **Rivers and Watersheds**

Jericho lies within two major watersheds, which both drain into Lake Champlain. The northern section of the town feeds into the **Browns River watershed**. This watershed begins at the headwaters of the Mount Mansfield State Forest in the Town of Underhill, flows through Jericho, the eastern section of Essex, through the middle of Westford, and into the southern part of Fairfax before entering the Lamoille River. The Lee River is a tributary to the Browns River. This smaller watershed (i.e., sub watershed) primarily occurs within Jericho, flowing through the Ethan Allen Firing Range. The headwaters of the Lee River occur within the Towns of Underhill and Bolton. The southern section of Jericho includes most of the **Mill Brook watershed**, which flows into the Winooski River. The headwaters of Mill Brook are in the Town of Bolton. The approximate location of watersheds in Jericho is depicted on Map 3.

The Vermont Water Resource Board has established a water quality classification system (Table 4.2). The water quality classifications establish (1) water quality goals to be attained where actual water quality is lower than the standard or (2) the minimum standard to be maintained where actual water quality is high. Every body of water in Jericho has been classified by the Water Resource Board as Class B.

**Table 4.2. Vermont Water Quality Classifications**

	<u>Value</u>	<u>Uses</u>
Class A	high quality waters that have significant ecological value and water quality of uniformly excellent character	as a source of public water supply with disinfectant when necessary and, when compatible, for the enjoyment of water in its natural condition
Class B	water that consistently exhibits good aesthetic value and provides high quality Habitat for aquatic biota, fish and wildlife.	public water supply with filtration and disinfection; irrigation and other agricultural uses; swimming and recreation

There are two river areas within Jericho that could fall under the State of Vermont criteria as "outstanding water resources:" (1) the section of the Browns River from the Old Red Mill to Old Pump Road and (2) the section of Mill Brook that travels along Tarbox Road. The designation as "outstanding water resource" indicates that these areas have significant aesthetic, cultural, natural beauty, or geologic features.

### **Riparian Areas**

Shorelands surrounding lakes, ponds, rivers, and streams are referred to as "riparian areas." Undisturbed, vegetated riparian areas can prevent water pollution and preserve wildlife habitat, as well as provide open space and scenic beauty, minimize erosion and provide access to public waters. Riparian vegetation is a key biological component in water quality functions of a riparian area. Vegetation reduces the amount of erosion along a riparian buffer, filters runoff before it reaches a stream, provides habitat, and regulates water temperature. In order to maximize the effectiveness of Riparian Areas, a buffer of undisturbed soil and vegetation should be maintained in these areas.

### **Floodplains**

Vermont statutes governing the use of areas likely to be flooded have been developed to protect people as well as natural resources. Two types of areas have been defined, flood hazard areas and floodways.

Flood hazard areas (Title 10 V.S.A., Chapter 32) are areas that have a 1 in 100 chance of being inundated by flood in any given year. If the flood hazard area is improperly used and unprotected, a flood can create a serious threat to the public, private investments can be destroyed, and significant natural resources can be damaged. A floodway (Title 10 V.S.A., Chapter 32) is the channel of a river or other watercourse and the adjacent land area that must be reserved to discharge the 100-year floods without cumulatively increasing the water surface elevation more than one foot. The floodway is the most hazardous section of a flood hazard area. Developments in a floodway are likely to increase the flood height and velocity and probably would be damaged in the event of a flood. Flood hazard areas have been designated by both federal and state governments and are often updated.

Floodplains in Jericho are depicted on Map 4 and Map 13.

## **Fluvial Erosion Hazards**

Rivers and streams are not static, and meander across the landscape over time. Fluvial Erosion occurs as rivers and streams modify their bank locations, and can range from gradual bank erosion to catastrophic changes in river channel location and dimensions during a large flood event. (See Municipal Guide to Fluvial Erosion Hazard Mitigation.) Most flood related damage in Vermont is caused by fluvial erosion rather inundation. Modification to a river and its banks, such as straightening or restricting access to the floodplain, can exacerbate the effects of fluvial erosion. Limiting the amount of new structures placed in defined Fluvial Erosion Hazard Areas prevents unnecessary threats to life and property and reduces the need for flood control measures

The Vermont Department of Conservation and Chittenden County Regional Planning Commission recently completed a Geomorphic Assessment for the Browns River and its tributaries in Underhill, Jericho, and Westford, This assessment defined Fluvial Erosion Hazard Areas along the river and identified and prioritized restoration projects. These projects will reduce sediment and nutrient loading to downstream receiving waters such as the Lamoille River and Lake Champlain, reduce the risk of property damage from flooding and erosion, and enhance the quality of in-stream biotic habitat. Many of these projects involve conservation and re-vegetation of riparian areas. Since many of these areas are privately owned property, coordination and collaboration with property owners will be especially important to implement these projects.

## **Floodplain Resiliency**

The Town of Jericho is situated along the Browns River. Flood hazard areas include portions of land bordering the Winooski River, Browns River, Lee River, Mill Brook, Skunk Hollow Brook, and The Creek. Jericho was included in the Browns River Phase 2 Stream Geomorphic Assessment Summary prepared by Fitzgerald Environmental dated 3/30/2010, which contains recommendations for streambank restoration and maintenance associated with floodplain resiliency. This report and other flood data specific to Jericho are available on the Flood Ready Vermont website [floodready.vermont.gov](http://floodready.vermont.gov). The floodplains and flood erosion hazard (FEH) zones are depicted in Map 13. The Town of Jericho has an established Local Hazard Mitigation Plan (approved by FEMA 8/8/11 and valid for 5 years), which was prepared in conjunction with the Chittenden County Regional Planning Commission. Jericho participates in the National Flood Insurance Program. There is also a Town Emergency Operations Plan that provides a directive for emergency preparedness and response planning. Minimum federal standards prohibit any construction within the designated “floodway” and require any development within the 100-year floodplain (Zone A) to be built on sufficient fill to avoid being subject to flood hazard. The Town of Jericho exceeds this federal minimum. Development within the 100-year floodplain is limited to agriculture (not including structures), silviculture/forestry, farmers markets, recreation and wildlife management. However, due to development predating the regulations there are approximately 16 residences and 2 commercial/industrial structures located within the 100-year floodplain, according to an analysis performed for the 2011 Town of Jericho All-Hazards Mitigation Plan.

## **Lakes**

As noted above, the major watersheds in Jericho drain into Lake Champlain. Maintaining and improving the quality of Lake Champlain is of paramount importance to residents of Jericho for several reasons. Many residents now obtain their water from Lake Champlain through the Champlain Water District. The Lake also provides important wildlife habitat and has economic and recreational value to Jericho and the Region. Portions of Lake Champlain are currently considered "impaired" due to a variety of factors, excess phosphorus loads being one of note. Measures to protect and improve water quality in Jericho will ultimately benefit Lake Champlain, just as actions that damage water quality in Jericho will ultimately have a negative impact on the Lake.

## **Stormwater**

Stormwater runoff is generated when precipitation from rain and snowmelt flows over land or impervious surfaces and does not percolate into the ground. As the runoff flows over the land or impervious surfaces (paved streets, parking lots, and building rooftops), it accumulates debris, chemicals, sediment or other pollutants that can adversely affect water quality. Rapid discharges of stormwater can also adversely impact the hydrology of a water body, leading to erosion or flooding downstream and damage to the built environment. Sediment carried in stormwater can adversely affect aquatic wildlife, and may also be bound with pollutants such as phosphorous. The State of Vermont regulates stormwater impacts from developments which create more than one acre of impervious surfaces. However, much of the development occurring in Jericho falls under this threshold. For this reason, Jericho requires medium sized developments that do not meet the thresholds for state stormwater permits to meet certain water quality criteria. In some cases, these criteria can be met using "Low Impact Development" techniques such as reducing the width of roads and driveways, directing runoff away from impervious surfaces and into vegetated areas, and infiltrating runoff into soil before it reaches surface waters through use of rain gardens or similar techniques.

Jericho may be subject to the Municipal Separate Storm Sewer System (MS4) requirements of the Clean Water Act following the 2010 census. This requires regulated communities to meet five minimum control measures, which include public education and outreach, public participation and involvement, illicit discharge detection and elimination, construction site runoff control, post construction runoff control, and pollution prevention and good housekeeping.

## **Wetlands**

According to 10 VSA §902, wetlands are "those areas of the state that are inundated by surface or ground water with a frequency sufficient to support significant vegetation or aquatic life that depend on saturated or seasonally saturated soil conditions for growth and reproduction." Wetlands include marshes, swamps, sloughs, potholes, fens, river and lake overflows, mud flats, bogs, and ponds, but they do not include areas on which

food or crops are grown. Wetlands contribute the following functions:

- provide temporary water storage for flood waters
- contribute to quality of surface and ground water by chemical action
- control the effects of erosion and runoff
- provide spawning, feeding, and habitat for aquatic life
- provide for wildlife, waterfowl, and vegetation
- provide resources for education and research in natural sciences
- provide recreation values
- contribute to community open space and scenic beauty

The state of Vermont identifies three types of wetlands: Class I, Class II, and Class III. Class I and Class II wetlands are protected through the Vermont Wetlands Act and its associated Vermont Wetland Rules, and through Act 250. These wetlands are identified on the National Wetland Inventory (NWI) and Map 4 of this Plan. Wetlands which do not appear on the NWI maps or were not considered significant when last evaluated are considered Class III wetlands.

The elimination or encroachment of wetlands by uncontrolled development, drainage, or filling would be an irreplaceable loss to Jericho residents. Class I and II wetlands are regulated by the Vermont Wetlands Rules and the Jericho Land Use and Development Regulations. Sizable impacts to wetlands, including Class III wetlands, require approval by the Army Corps of Engineers.

### **Vernal Pools**

Vernal Pools are seasonal wetlands, filling with snowmelt and spring rains, but often drying up by summer, creating a cycle of flooding and drying that prohibits permanent fish populations. These pools provide critical habitat for many salamanders, including some “medium” priority Species of Greatest Conservation Need, such as the Blue-Spotted, Spotted, Jefferson, and Four-toed salamanders, and other vernal pool-dependent invertebrates such as fairy shrimp, and several freshwater snails and dragonflies. The loss of a single vernal pool in any given area could easily cause the demise of the local wood frog population, along with any pool-breeding salamanders, and would certainly cause the extirpation of the pool’s fairy shrimp.

Vernal pools are critical habitats of incredible diversity and productivity. Vernal pools often receive little or no protection under federal and state regulations. In Vermont, vernal pools are not recognized as significant wetlands under the 1990 Vermont Wetlands Rules, and while they may qualify for protection as “wildlife habitat” under Act 250, they are not considered critical wildlife habitat, a designation necessary for legal protection. As a result, vernal pools are not currently protected if a development is not subject to Act 250 review.

The Jericho Conservation Commission has undertaken a project to map and document all vernal pools that occur within Jericho. Protection of these resources should be

incorporated into the Town's Land Use Regulations.

## **Groundwater**

Groundwater is a finite and vulnerable resource. Since the majority of Jericho residents rely solely on wells for their water supply, the continued quality and quantity of water resources is very critical. In Jericho the amount of potable groundwater is affected by weather conditions, increased demand, decreased quality, decreased wetland area, naturally occurring radioactivity, and increased impervious cover.

Most groundwater is derived from precipitation that has infiltrated and percolated through the soil. Areas where groundwater naturally flows and collects are called recharge areas. Water within the recharge area may come from precipitation on upslope areas, from saturated gravel deposits, or from water-filled bedrock fractures. Every activity within that recharge area can directly affect the quantity and quality of the groundwater supply. Landfill leachate, leaking gasoline, road salt, sewage, industrial wastes, and other materials can all contaminate the groundwater. The quantity of water that actually reaches the water table may be reduced by an increase in impervious cover, including buildings, roads, and parking lots.

Areas around active public wells have been designated as Wellhead Protection Areas (WHPA's) for protection to maintain the quality and quantity of water from each of those wells. Currently designated Wellhead Protection Areas, including two areas with water sources in Bolton and Richmond, are depicted on Map 5.

Large areas beneath the Village Water District, the UVM Research Forest, and an area between Skunk Hollow and Schillhammer Roads have been documented as having groundwater recharge potential. A review of other wetland areas in the town suggests the possible importance of regions near and particularly east of the intersection of Lee River Road and Browns Trace, and the wetland area east and south of Cilley Hill Road. All these areas should be considered for WHPA designation.

Evidence of naturally occurring radioactivity affecting the quality of water has appeared, particularly in deep wells. Data as to the extent of the phenomenon in Jericho's water supplies is sparse at this time, but it is known that long-term exposure to such radiation is harmful to health.

## **FORESTS**

Over the last 100 years, farm abandonment and intermittent timber harvests have resulted in the considerable variety of forest types in Jericho. When viewed collectively, Jericho's various forest stand compositions are extremely diverse, providing excellent wildlife cover and forage opportunities for numerous species.

Jericho has considerable acreage devoted to forestland, especially since the Ethan Allen Firing Range and UVM Jericho Research Forest are included within the town boundaries. The Firing Range is currently under the management of Forest Resource



Associates of Shelburne, Vermont. The UVM Jericho Research Forest is owned by the University of Vermont and managed by the UVM Rubenstein School of Environment and Natural Resources. Other significant acreage in Jericho is under a variety of forest land-use programs. This total acreage is not known precisely, but it may be as much as 5,000 acres.

In April, 1996, Jericho completed a Forest Land Evaluation and Site Assessment (FLESA) process. Most of this was completed by the Jericho Conservation Commission, several community volunteers, and professional consultants (Greenleaf Forestry, Morse and Morse). A total of 109 parcels, all larger than 25 acres each, were evaluated ("scored") using criteria in three categories:

- Wildlife habitat
- Timberland
- Recreation

FLESA results indicated that there is a very strong relationship between parcel size and parcel score (i.e., the larger the parcel, the higher score). FLESA scores for partially or completely forested parcels in Jericho are depicted on Map 6. In general the results support the contention that connectivity of habitat is critical to the ecological functions and values of forested land. It is therefore critical that large parcels of forested land be protected from subdivision plans that destroy this function.

The Jericho Conservation Commission is working to identify and map priority large habitat blocks and the connecting lands that link them in and around the Town of Jericho. Many wildlife species in decline are dependent on large contiguous blocks of habitat that often span town boundaries. These same species and numerous other species are dependent on connectivity between these contiguous habitat blocks. Connectivity is critical for both species and populations. Many species annually, seasonally, or even daily migrate to find optimal feeding, denning, and breeding grounds; again, these functional habitat combinations regularly span town boundaries. Additionally, connectivity encourages individuals to disperse between neighboring populations, which can reduce the likelihood of population extinction and inbreeding.

FLESA identified significant forested areas in three parts of town:

### **Southwestern Jericho**

This area (beginning at Route 117, particularly the UVM Jericho Research Forest, Mobbs Farm and northward to Lee River Road) includes a number of more or less contiguous large parcels of land, several of which are publicly owned and under current forest management. Forest stands in these areas are principally hemlock and white pine, with some hardwood. Some of this area provides important winter habitat for deer.

### **Southeastern Jericho**

An area (south of Nashville Road, between Browns Trace and Leary Roads) that is primarily a set of high, steep-sided hills, parts of which are isolated by ledge terrain. These areas provide important habitat for a number of wildlife species, including bear, moose, deer, and bobcat. Mill Brook runs through the northern part of this area, providing habitat connectivity with forests of southwestern Jericho. Stands in the area are mostly hardwoods, with some hemlock, especially on steeper slopes and ravines.

### **Northern Jericho**

This area (north of Rte. 15 and east of Old Pump Road, north of the Village Triangle) features some large and important parcels. Forest stands here are young hardwood and pine forests and older (greater than 100 years) hemlock and white pine forests.

## **WILDLIFE HABITAT AND CORRIDORS**

Jericho's wildlife would be difficult to regain once lost. Many animal species rely on an interconnected network of unique habitats and land features for their survival. In order to promote diverse wildlife species, it is important to conserve a variety of habitat types, areas containing limiting life requirements, such as food, water, and cover, and the corridors which connect these areas. The Jericho Conservation Commission plans to complete a Wildlife Habitat Inventory and Map during the next five year planning window.

### **Core habitat**

Human activities and their artifacts, such as roads, houses, and active farmland, impinge on core habitat. These areas provide important mating, nesting, feeding, and denning habitats for species that cannot survive in close proximity to human habitation. Species that rely on such areas include hawks, owls, songbirds, fisher, moose, bobcat, and black bear. Fragmentation of large forest blocks through subdivision and development diminishes their ability to access core habitat functions. Map 7 contains a map of currently unfragmented forest blocks.

Growth can have a negative effect on wildlife and wildlife habitat. As new developments and single family residences are located in forested areas, they increase forest fragmentation. Fragmentation (patches of habitat) produces less attractive wildlife habitat than contiguous forestland. As a result, wildlife species can change from aesthetically pleasing and recreationally important (deer, moose, bear, bobcat, otter) to less attractive, often undesirable, nuisance species (pigeons, sparrows, starlings, rats, skunks). In order to assure a high likelihood of native wildlife species, contiguous blocks of habitat should be connected through wildlife corridors. Mammals such as deer, moose, bear, bobcat, fisher, and coyote may require very large contiguous forest acreage up to 600 to 7,500 acres. The Ethan Allen Firing Range contains a large area of contiguous habitat. In addition, the forested habitat adjacent to the Range is an important wildlife corridor because it links with other forested habitats in Jericho. Residential, commercial, or industrial development within or adjacent to a Deer

Wintering Area decreases the amount of land available to deer and erodes a town's deer population.

The southeastern region of Jericho is currently under intense scrutiny. This area is sparsely developed and contiguous to huge tracts of undeveloped land spanning the ridge of the Green Mountains. It is home to sensitive species such as bear, bobcat, fisher, and otter. It is important to the well-being of these species that human interaction be minimized and that viable corridors be maintained between the mountains and other habitat lower in the valleys. This area is currently being studied by a multi-town, ad hoc citizens group, the Chittenden County Uplands Project.

Minimizing forest and habitat fragmentation, protecting core habitat, and maintaining the ecological functions of various natural features are important strategies to maintain viable wildlife populations in Jericho. As noted, however, it will be difficult to prevent all encroachments into these areas. This increases the importance of protecting specialized habitats that serve critical ecological functions to one or more species. The following lists several critical habitat areas to be considered. This is not an exhaustive list of all critical habitats in Jericho, and the fact that a particular area is not listed should not be construed to minimize its importance nor should it reduce the need to consider and mitigate undue adverse impacts of development on an unlisted habitat.

**Deer Wintering Habitat** – Deer are common in Jericho, providing enjoyment to both hunters and passive viewers. While deer generally accommodate human populations, they require specialized habitat to survive winter conditions. These areas are referred to as deer wintering areas or more commonly “deeryards”, and generally consist of areas where coniferous forests dominate. Not only are these areas critical to deer, but nearly half of Vermont’s vertebrate wildlife species rely on coniferous forests for at least part of their life needs.

Important deeryards have been identified by the Vermont Department of Fish and Wildlife. These areas are depicted on Map 7 of this plan. Deer Wintering Habitat is currently protected under the Jericho Land Use and Development Regulations by the Natural Resources Overlay District. It should be noted that deeryard boundaries change over time, and consequently, inventory maps need to be updated on a regular basis, and site analysis may be required to determine the exact boundary

**Wetlands, Riparian Areas, and Aquatic Habitat** – In addition to the water quality functions discussed in more detail above, wetlands and riparian areas provide a host of ecological functions. Wetlands provide a critical seasonal food source for black bear and other species. Similarly, riparian vegetation provides habitat for amphibians, mammals such as river otter, long tailed weasels, moose, big brown bats, and a variety of bird species. Riparian vegetation also helps to maintain water temperatures which in turn improves habitat for temperature sensitive fish species such as trout. Wetlands and riparian areas also often serve as important wildlife corridors between core habitat areas.

**Mast Stands** – Mastling trees are those that provide concentrated fruit and nut production. When concentrated into a stand, these trees provide a critical food supply for a variety of wildlife, including deer, turkey and bear. Mast stands are of particular importance to local bear populations, which tend to prefer stands that are isolated from human habitation. The Conservation Commission is attempting to map these areas in Jericho, and UVM has mapped Mast Stands at the Research Forest.

**Rare, Threatened, and Endangered Species** – The Vermont Non-Game and Natural Areas Program maintains an inventory of the locations of rare plants and animals. In order to reduce the potential for poaching, the exact nature and locations of these species are not made available to the general public. There are several identified occurrences of rare, threatened, and endangered plants, animals, and natural communities in Jericho. (See Map 7)

**Wildlife Travel Corridors** – Wildlife travel corridors are areas used by wildlife to travel between different habitat areas. The Conservation Commission is currently involved in a three Town effort with Underhill and Richmond to identify wildlife corridors in the Chittenden County Uplands.

## **NATURAL AREAS**

In general, a natural area can be described as an area of land or water that, in contrast to the normally encountered landscape of a region, retains or has reestablished its natural character (although it need not be undisturbed) and retains unusual or significant flora, fauna, geological, or similar features of scientific or educational interest.

There are essentially three types of natural areas: geological features such as cliffs, glacial landforms, and mineral or fossil deposits; hydrological features such as bogs, marshes, swamps, and ponds; and biological features, such as rare plants or animals and critical habitats, including nesting sites. Two such sites have been designated by the State of Vermont as Natural Areas within Jericho. They are the Kettle Hole at the start of Nashville Road at Browns Trace and the Jericho Center beaver pond area behind The Jericho Center Market. The Kettle Hole is protected as part of the common land of a Planned Residential Development and will never be developed. The Jericho Center beaver pond was recently the focus of a court action in which the importance of the pond was validated by the Agency of Natural Resources.

The Nongame & Natural Heritage Program of the Department of Fish and Wildlife identified six locations within Jericho that harbor significant natural communities and/or rare and threatened animals and plants (Table 4.4). A single plant species occurring at a location within the Browns River floodplain is listed as threatened under the Vermont Endangered Species Law (10 V.S.A. Chap. 123).

**Table 4.4. Significant natural communities and rare and threatened plant and animal species in Jericho.**

Location	Common Name	State Rank	State Status	Land Ownership
Otter Bog	Dwarf shrub bog	S2		Federal
Castle Trail Cove Forest	Mesic red oak-northern hardwood forest Drooping bluegrass	S3 S2,S3		Federal
Browns River floodplain	Obedience	S2	T	Private
Browns River	Finescale dace	S3		Public
UVM Jericho Research Forest	Pine barrens zancognatha Noctuid moth	S1 S1		Quasi-Public
Jericho Bend	Silver maple-ostrich fern Riverine floodplain forest Rivershore grassland	S3 S3		Private
Cilley Hill Bottoms	Hemlock-Sphagnum Basin Acidic Swamp	preliminary		Private
Leary Fenn	Poor Fen	preliminary		Private
OP Hill East Swamp	Hemlock-Hardwood Swamp	preliminary		Public
Winooski Rivershore System	Low-gradient Silty-sandy Riverbank System	preliminary		
Bald Hill Dry Oak Forest	Dry Oak Forest	preliminary		
Bald Hill Ridge	Red Spruce-Heath Rocky Ridge Forest	preliminary		
Huckleberry Hill Dry Oak Forest	Dry Oak Forest	preliminary		conservation easement

State ranks assigned by Nongame & Natural Heritage Program

S1: Very rare, generally 1 to 5 occurrences, vulnerable to eradication; S2: Rare, generally from 6 to 20 occurrences, vulnerable to eradication; S3: Uncommon, believed to be more than 20 occurrences

**State Status** T: Threatened, high possibility of becoming endangered in the near future.

The **Otter Bog** site is a good example of a lowland bog, an uncommon and sensitive natural community type in Vermont.

The **Castle Trail Cove Forest** site contains a mature mesic (dry) red oak-hardwood forest. Mature undisturbed examples of this forest type are uncommon in Vermont. The stand has not been cut in at least 40 years and shows little evidence of previous timber harvest. Tree ages range from 65 to 100 years.

The **Jericho Bend** site contains a forested natural community of statewide significance, a floodplain forest along the Winooski River. This is an excellent example of a riverine floodplain forest in Chittenden County, a forest type not widely represented in Jericho.

The **Browns River floodplain** site provides habitat for a plant species of the mint family. This occurrence is particularly noteworthy because the species was previously known in Vermont only from the Connecticut River and Lake Champlain.

The Browns River Watershed has a high biological diversity of fish species, with 27 species being noted. The most common fish species occurring in the Mill Brook and Browns River watersheds include: Brook trout, brown trout, rainbow trout, Rosyface shiner, Finescale dace and Trout perch. In recent years school groups and local

volunteers have planted Atlantic salmon fry in both Mill Brook and the Browns River.

## **SCENIC RESOURCES**

Scenic Resources are important, though difficult to quantify, features of communities. These features reveal the landscape quality and setting of the community and are part of the community's identity. They offer aesthetic pleasure to residents and visitors alike. Scenic resources may be ranked to viewer preference. Components of a view's quality considered are the diversity or contrast among landscape elements, the kind and arrangement of man-made structures, and the distance of the view. The extent of interaction between the land use pattern (farmed areas, villages, etc.) with land form (hills, mountains, valleys, etc.) contributes to the diversity. Generally a view with more contrast is more pleasing.

A natural resource committee first undertook a scenic road assessment in 1989. Entire roads that were identified as scenic included Bolger Hill, Fitzsimmonds, Hanley Lane, Nashville, and Old Pump. Other scenic surveys that were conducted came from the Village Triangle Plan in 1994, which identified the Lee River Road as a scenic corridor and identified sections of Orr Road, Route 15, and Browns Trace as having scenic views. These surveys were updated again by the Open Space Committee in 2001 and 2009. The results of the earlier evaluation are contained in the Open Space Committee Report, dated February 2003. The most recent evaluation is described below

In 2009, as part of a joint project with the Town of Essex and Smart Growth Vermont, Jericho undertook a comprehensive project to evaluate and photo document roads identified as having scenic resources in past studies. Several roads remain to be documented.

This evaluation noted two features, the traditional landscape pattern and ridgelines, which contribute to Jericho's scenic landscape. The traditional landscape pattern, which includes open fields or meadows with their patterns contrasted by rolling forested hills and ridgelines, is a landscape pattern that is commonly identified as scenic. These landscapes define much of the character of Jericho. It should be noted that these landscapes are the result of more than two centuries of farming. If not kept open by productive use or regular maintenance, many of the scenic views and vistas visible from the town's roads would eventually be obscured as fields transitioned to forest.

Also noted by the study were prominent ridgeline and mountain features, including views to Mount Mansfield and Camels Hump. Given Jericho's position in the foothills of the Green Mountains, undeveloped hilltops are considered an essential part of the Town's rural character particularly when they are visible from the roads.

In addition to their scenic values, both of these features offer other natural resource values. For example, open fields provide habitat for several bird species. Many of the undeveloped ridgelines are parts of important core habitat, or provide important corridors for wildlife. These ridgelines often also contain head waters of local streams, seeps, and ground water recharge areas.

The scenic qualities of a forested ridgeline or hillside silhouetted against the sky can be compromised by poorly planned development, such as inappropriate building placement, site design, and excessive clearing. While some of the most visually and ecologically sensitive areas of town, the town's hillsides and ridgelines remain highly desired locations because of the views they offer. It is possible to locate development in the town's uplands in a manner that preserves the scenic qualities of the landscape. Landowners wanting a more open view in a forest setting can limb trees and selectively cut branches to create view corridors rather than clear-cut a swath of trees.

## CONSERVED LAND AND PUBLIC OPEN SPACE

Jericho contains numerous publicly owned or conserved properties. These properties provide a variety of functions. For example, the purpose of some conserved land is primarily to protect important natural features, while others provide the public with access to recreational land. In general, these functions are better served by large, interconnected blocks of open space, rather than dispersed or fragmented areas.

Open Space may be owned by a variety of entities. In some cases, it may be owned outright by the Town or State Government. Jericho also contains several properties owned by non-profit organizations such as the Jericho Underhill Land Trust and Winooski Valley Park District. Conserved land is sometimes under private ownership and subject to deed restrictions. In addition, open space can be preserved and incorporated into new developments through the use of Planned Unit Developments. In this case, open space may be owned by a homeowners association.

Conserved land is not necessarily open to the public. Those wishing to access open space or conserved land should contact the owners or appropriate governing authority to ensure permission is granted and all applicable rules for access are followed.

**Table 4.5. Conserved Land and Public Open Space**

Name	Owner	Acerage
UVM Research Forest	University of Vermont	365
UVM Research Forest – Rogers Tract	University of Vermont	125
Mobbs Farm	Town of Jericho	255
Water District – Route 15	Town of Jericho	11
Water District – Packard Road	Town of Jericho	28
Jericho Center Green	Town of Jericho	3
Park Street Green	Town of Jericho	0.5
Old Mill Park	Winooski Valley Park District	11
Mills Riverside Park	Jericho Underhill Park District	206 acres in Jericho
Wolfrun Natural Area	Jericho Underhill Land Trust	187
Kikas Valley Farm	Jericho Underhill Land Trust	280
State Dept of Fish and Wildlife (Nasville Road)	Vermont. Dept of Fish and Wildlife	41
Camp Swampy – Nashville Road	CESU School District	21
Prelco (Snipe Island Road)	Private Ownership with Conservation Easement	351

Simpson High Meadow (Bently Lane)	Private Ownership with Conservation Easement	201
Peet (Browns Trace)	Private Ownership with Conservation Easement	28
Xenophone Drive PUD	Homeowners Association	30
Valleys Edge PUD	Homeowners Association	16
Jericho East	Homeowners Association	24
Starbird Road	Homeowners Association	8
Old Farm PUD	Homeowners Association	22
Twin Meadow Lane PUD	Homeowners Association	18
Clover Lane PUD	Homeowners Association	9
Cedar Circle PUD	Homeowners Association	4.5
Elm Circle PUD	Homeowners Association	5.6
Gabaree Lane PUD	Homeowners Association	9
Kittell Subdivison	Homeowners Association	
Laisdell Hill Subdivison	Homeowners Association	29
Laisdell Pond Subdivison	Homeowners Association	22
Mansfield Drive PUD	Homeowners Association	20
Kettle Creek PUD	Homeowners Association	27
Sunset Ridge PUD	Homeowners Association	15.5
Rodgers Forest PUD	Homeowners Association	26
Larabee PUD (Barber Farm Road)	Private Ownership with Conservation Easement	30
White Oak Drive PUD	Homeowners Association	54.5

## OPEN SPACE COMMITTEE REPORT

An Open Space Committee, commissioned by the Jericho Planning Commission, produced a report in February 2003 entitled "Plans for Open Space, Scenic Roads, and Water Resources". The report inventoried important open space, scenic and water resources throughout the town and listed priorities for a number of these resources. Seven stated purposes of the report are:

1. To provide meaningful input for Zoning Regulations, Public Works, and future Town Plans;
2. To encourage and guide land protection actions by individuals, and by nonprofit organizations, such as the Jericho Underhill Land Trust and the Vermont Land Trust;
3. To ensure thoughtful expenditure of public moneys, particularly the town's Open Space Fund, and to leverage additional money from other sources for implementation of portions of the plan;
4. To identify, protect, and manage for scenic roads;
5. To identify, encourage, and foster the scenic views;
6. To protect water quality and river processes that are important for humans and wildlife alike; and
7. To protect wildlife habitat and their travel corridors.

The Open Space, Scenic Roads, and Water Resources Plans have not been formally adopted by the Town of Jericho, but they are an important resource in the town's natural



resource planning efforts.

## **AIR QUALITY**

The United States Environmental Protection Agency sets National Ambient Air Quality Standards (NAAQS) which set acceptable levels of various types of criteria air pollutants. Areas whose air meets these standards are considered “in attainment”, while areas that do not are considered “out-of attainment.” Vermont is currently the only state in which no area is currently designated as non-attainment for the NAAQS. However, Vermont is located in the Ozone Transport Region, and as such must meet additional requirements to reduce levels of ozone and ozone forming pollutants.

Chittenden County is very close to being out of attainment for ozone and fine particulate matter. Local sources of ozone and particulate matter come primarily from transportation and wood combustion, though a good quantity of this and other pollutants migrates to Vermont from other areas of the country. The exact proportion of air pollution generated locally is difficult to quantify. If the county were designated as “non-attainment”, the state would need to develop regulations that will require the area to take additional actions to reduce emissions of target pollutants.

## **GOALS, STRATEGIES, AND IMPLEMENTATION**

### **Goal 4.1. Protect, preserve, and improve Jericho’s natural resources, such as agricultural and forest land, scenic roads and vistas, open space, and wildlife.**

Strategy 4.1.1. Consider the cumulative effect of multiple developmental actions in writing regulations; e. g., standards should require that there be no measureable impact to water quality and sensitive ecosystems. Provision for effective off-site mitigation (for example, other permeable areas within the same watershed) may be considered, particularly in Village Centers.

Strategy 4.1.2. Ensure protection of ground and surface water quality

Implementation 4.1.2.1. Monitor changes in state septic regulations and keep up-to-date on new technologies as they become available.

Implementation 4.1.2.2. Continue to enforce regulations that will prevent development (including but not limited to structures, filling, or substantial grading) within the 100 year floodplain and Fluvial Erosion Hazard Areas. Update these existing regulations based on best practices determined by local, state, and federal authorities.

Implementation 4.1.2.3.–Protect the groundwater recharge (Wellhead Protection Areas) areas for active public water supplies by limiting development in the immediate wellhead and providing appropriate standards and guidelines for development in the larger recharge area.

Implementation 4.1.2.4.- Assess and map other major aquifers in Jericho and evaluate regulatory mechanisms for their protection.

- Implementation 4.1.2.5. Maintain undeveloped, vegetative buffer zones along the boundaries of streams, wetlands, and ponds.
- Implementation 4.1.2.6. Continue to require stormwater management and erosion control practices for developments that fall under the threshold for State stormwater permitting. Evaluate the effectiveness of the current local regulations.
- Implementation 4.1.2.7. Develop and implement a “Water Resources Plan” with the help of the Conservation Commission, schools, and other concerned groups and citizens. The plan shall address issues such as availability of potable water, erosion, stream sediment, fisheries habitat, and other water quality subjects, on a watershed basis.
- Strategy 4.1.3. Protect, preserve, and maintain agricultural, forest, open space, and undeveloped lands
  - Implementation 4.1.3.1. Encourage development in or adjacent to Village Centers. Study, plan, and develop additional planning tools to focus growth in Village Centers.
  - Implementation 4.1.3.2. Cluster development away from prime agricultural and unfragmented forest land.
  - Implementation 4.1.3.3. Investigate and implement incentive and disincentive programs, such as TDRs (Transferable Development Rights), mandatory PUDs (Planned Unit Developments), and density bonuses.
  - Implementation 4.1.3.4. Utilize non-regulatory mechanisms such as tax stabilization plans to mitigate the costs of maintaining undeveloped land
- Strategy 4.1.4. Ensure that practical constraints resulting from Jericho’s topography are considered and detrimental impacts caused by development of unsuitable areas are avoided.
  - Implementation 4.1.4.1. Avoid development on land with extreme slopes, and minimize impacts from development on more moderate slopes. Standards for various slopes will be defined.
  - Implementation 4.1.4.2. Review regulations requiring conditional use approval for development on slopes of 25% or greater, and consider if similar review should be required for slopes between 8 and 24%.
  - Implementation 4.1.4.3. Continue to enforce regulations regarding extraction of sand, gravel, topsoil, and ledges to prevent undue environmental harm and to maintain town character and avoid its defacement.
- Strategy 4.1.5. Protect critical habitats that harbor wildlife, fish, and plant species. Protect and enhance Jericho’s wildlife populations
  - Implementation 4.1.5.1. Continue to protect deer wintering areas under the Natural Resource Overlay District. Consider including additional habitat

areas within this overlay, including but not limited to black bear habitat and mast stands.

Implementation 4.1.5.2. Develop and implement regulatory standards and non-regulatory programs to prevent or reduce fragmentation of large forest blocks.

Implementation 4.1.5.3. Consider amendments to the Land Use and Development Regulations to protect wildlife corridors, such as the creation of a wildlife corridor overlay, maximum setbacks in certain areas, or other regulatory standards.

Strategy 4.1.6. Maintain and enhance the rural character of Jericho and attractive landscape features such as scenic vistas, hillsides, and ridgelines,

Implementation 4.1.6.1. Examine regulations that pertain to light pollution for applicability to the latest lighting technology. Ensure that outdoor lighting is designed in a manner that minimizes glare, sky glow, and adverse impacts on adjacent property owners

Implementation 4.1.6.2. Review existing noise performance standards to determine if they meet the needs of the community and consider adopting a noise ordinance or implementing other regulatory measures.

Implementation 4.1.6.3. Consider regulatory standards to protect ridgelines, such as the creation of a ridgeline protection overlay and/or ridgeline development standards.

Implementation 4.1.6.4. Consider regulatory standards to protect and preserve identified scenic resource, such as subdivision siting standards, density bonus provisions, screening standards, or access management policies

**Goal 4.2. Update, augment, and regularly maintain existing information and studies on the Town's significant natural resources, and implement the recommendations of those studies.**

Strategy 4.2.1. Update existing natural resources data using the best available and most reliable sources of data. Use this information as a resource for town planning and development review.

Implementation 4.2.1.1. Identify critical habitats and corridors between habitats that harbor wildlife, fish, and plant species, including but not limited to mast stands, vernal pools, and critical core habitat

Implementation 4.2.1.2. Provide for the update and maintenance of the LESA (Land Evaluation and Site Assessment) program.

Implementation 4.2.1.3. Provide for the update and maintenance of the FLESA (Forest Land Evaluation and Site Assessment) program.

Implementation 4.2.1.4. Develop and/or update a map of local wildlife sightings.

Strategy 4.2.2. Update and implement the “Open Space Plan” with the help of the Jericho/Underhill Land Trust, schools, Conservation Commission, Selectboard, affected landowners, and other concerned groups and citizens.

Implementation 4.2.2.1. Conduct a detailed inventory and assessment of all land parcels

Implementation 4.2.2.2. Objectively rank and choose which open spaces, farmland, natural areas, wildlife habitat, scenic roads, vistas, ridge tops, and recreation areas are significant and should be targeted for protection.

Implementation 4.2.2.3. Review zoning regulations in light of the Open Space Plan.

**Goal 4.3. Engage townspeople, developers, and other organizations with an interest in protecting natural resources, and encourage the management of open lands for farming, forestry, recreation, and conservation.**

Strategy 4.3.1. Cooperate with local, regional, and state organizations

Implementation 4.3.1.1. Continue to add to Jericho’s Open Space Fund. Funds will be used to maintain and improve existing open space and to purchase additional open space lands.

Implementation 4.3.1.2. Support initiatives such as the Chittenden County Upland Project.

Implementation 4.3.1.3. Provide cooperation to the Conservation Commission, Jericho Underhill Land Trust and other ad hoc committees.

Strategy 4.3.2. Encourage the active use of options available in the Zoning Regulations, land trusts, and tax abatement programs.

Strategy 4.3.3. Establish management plans for open space areas conserved through regulatory measures or acquisition to ensure that the natural resource values of the sites are retained.

## **5. CULTURAL AND HISTORIC RESOURCES**

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Jericho has an abundance of historically significant buildings and features. These features promote a sense of identity and provide an historical backdrop for the community. Several historic buildings have been restored to host important community functions. Additionally, many Jericho residents have maintained or restored historic structures as homes and businesses. The Jericho Historical Society has developed a Multi-Volume “History of Jericho.” The final volume of this series is under development and will include the years 1963 to 2013.

### **HISTORIC LANDSCAPE**

Through the 19th century, Jericho followed the typical pattern of many Vermont towns. The economy was based on logging, a profusion of mills on Browns River, and farms spread throughout the town. Three distinct village areas developed to serve the mills and the farms. Tree-lined roads linked the outlying areas to the villages. Later in the century, the railroad tied Jericho to Essex Junction and Cambridge and beyond, providing an outlet for Jericho's products.

Jericho Center, Jericho Corners, and the Riverside area of Underhill Flats have been the centers of commerce, culture, and community for the town. Each of these three locations is listed as an historic district on the State Historical Register. The majority of historic sites in Jericho are within the historic districts, but a number of individual historic buildings lie outside district boundaries. Historic sites and districts in Jericho that are on the State Historical Register are shown on Map 9. These areas generally retain an architectural character that constitutes a valuable and unique part of Jericho's cultural heritage. Jericho Corners and Jericho Center are on the National Register of Historic Places.

In addition to the buildings themselves, the character of the villages is defined by the relationship of the structures with one another, with the roads, and with open land. Generally, large setbacks with parking in front of the building are not compatible with the historic pattern. Likewise, multi-story, mixed use structures are more appropriate than single-story buildings (particularly commercial structures) as most buildings in the villages are two or more stories high. New structures that are substantially larger than nearby buildings can be designed to be compatible with the historic village patterns by using architectural features to interrupt building bulk (i.e. appearing as a series of smaller structures, exhibiting a variety of roof forms, or featuring changes in the location and treatment of the horizontal plane of the walls, etc.)

In 2003, Jericho Corners became an official “Designated Village Center” through the Vermont Downtown Program, making it one of the first Designated Village Centers in Vermont. Since 2003, both Jericho Center and Riverside/Underhill Flats have also received Village Center Designation. Through this designation, building owners in the designated area may be eligible for certain tax credits to preserve and to make code and safety improvements to historic buildings. In addition to these benefits to land

owners, Village Center Designation has also improved Jericho's competitiveness when applying for a host of State and Federal grants.

The historic and cultural value of significant buildings like meeting houses, mills, and mansions is readily apparent, but more modest structures also play an important role in defining the town's identity and heritage. Other perhaps less-recognized historic features such as barns, silos, stone walls, cellar holes, sugarhouses, etc. can be found outside of the villages throughout Jericho's rural areas. These features contribute to Jericho's rural landscape and offer a sharp contrast to the suburbanization in towns closer to Burlington.

As agriculture has changed over the years, many farm buildings have outlived their original purpose. Finding new uses for these historic structures can help maintain these components of the town's rural character and agricultural heritage.

The rural landscape itself – with its pattern of fields, meadows, woodlots, and forested uplands – is an historic and cultural resource that tells the story of the generations of farming families who shaped this landscape through their labor. As evidenced by nearby suburbanizing towns, this landscape is more at risk of being lost to poorly planned development than the town's major historic structures.

## **HISTORIC STRUCTURES**

Power derived from Browns River fueled much of Jericho's economy in the 19th century. The many mills built along its length shaped Jericho as it is today. Although most of the mill buildings have been lost, the sites remain as important historic areas. One of the mills, the Chittenden Mill (or Old Red Mill as it is more commonly known), has been restored through the efforts of the Jericho Historical Society. The mill building is now being used as an educational center, providing information about the history of the town and about Snowflake Bentley. The building also contains a public meeting room and a craft shop operated by the Historical Society.

Many of Jericho's historic structures have found new life as public buildings and meeting areas. In 2008, Jericho voters approved a bond vote to renovate Jericho's Town Hall, which is located in a 19<sup>th</sup> century school house. Through this renovation, the interior of the building was completely renovated and modernized, while the historic exterior was maintained. The Jericho Town Library, located in Jericho Center, is housed in the original Jericho Academy building, which was constructed in 1825. Another building, originally built as a Unitarian Universalist meeting house and later used as the Jericho High School gym, is now owned and maintained by a citizen group as the Community Center in Jericho.

## **ARCHEOLOGICAL RESOURCES**

Two locations near the Winooski River were the subject of recent archeological studies. While archaeological resources are seldom identified until a site is planned for development, it is possible to predict where certain kinds of prehistoric Native American

sites would be more likely found based on environmental characteristics. Results from archaeological investigations around Vermont in recent decades suggest that prehistoric sites are typically located within 300 to 500 feet of an existing or relict water source, on gently sloping land, or adequately drained soils with a southeast-south-southwest exposure. These lands provided essential resources that attracted human populations who then left behind archaeological remains of their activities at these locations. Archaeological resources are not only pre-historic, but include the buried remnants from the historic era of the town's early settlement and development. Potential locations of historic archeological resources can be identified through documents such as deeds, directories, and maps. Federal laws protect many prehistoric Native American sites, while historic era sites are protected primarily through Act 250.

## **GOALS, STRATIGIES, AND IMPLEMENTATION**

### **Goal 5.1: Protect and preserve important historic, archeological, and architectural features of Jericho.**

Strategy 5.1.1: Encourage and promote the private and public preservation, rehabilitation, and enhancement of important historic structures and areas through voluntary and non-regulatory programs.

Implementation 5.1.1.1: Allow the Adaptive Use regulations to include a wide range of eligible historic structures.

Implementation 5.1.1.2: Write regulations to allow the continued association of barns and outbuildings and farmhouses separated by a public road.

Implementation 5.1.1.3: Pursue historic preservation grants for publicly owned buildings. Publicize historic preservation grants and tax credits that are available for the preservation of private buildings.

Strategy 5.1.2: Support efforts to preserve historic and archeological features and/or sites.

Implementation 5.1.2.1: Provide technical assistance to property owners seeking grants and/or tax credits for historic preservation.

Implementation 5.1.2.2: Work with the Jericho Historical Society to increase awareness of existing historic preservation grants and to raise funds for matching such grants.

Implementation 5.1.2.3: Work with property owners and developers to encourage preservation or minimal disturbance of historic landscape features such as stonewalls and hedgerows.

Strategy 5.1.3: Conserve and enhance historic features and elements of Jericho's roadways.

Implementation 5.1.3.1: Coordinate with the MPO in planning road improvements that complement village and historic character.

Implementation 5.1.3.2: Work to maintain or develop a tree line along public roads. This may include replacement of trees removed through road maintenance.

**Goal 5.2: Strengthen and enhance the three historic Village Centers.**

Strategy 5.2.1: Ensure the economic viability of Jericho's three Village Centers.

Implementation 5.2.1.1: Encourage expanded mixed uses within Village Center areas

Implementation 5.2.1.2: Increase potential housing density in Village Center areas, such as expanded multi-unit housing and dense single family housing, through use of regulatory tools and incentives provided for by the Land Use and Development Regulations. Particularly in Village Centers, an increase in the total number of dwelling units and/or housing density in comparison to neighboring properties shall not in and of itself be considered detrimental to the character of the neighborhood.

Implementation 5.2.1.3: Require public uses such as schools, libraries, and town offices to be located in traditional village centers

Implementation 5.2.1.4: Pursue and maintain Village Center Designation for each village center

Strategy 5.2.2: Develop a village scale streetscape which encompasses the historic character of each village center.

Implementation 5.2.2.1: Implement "pedestrian-friendly" design concepts for traffic calming.

Implementation 5.2.2.2: Allow on-street and shared parking to improve the appearance and accessibility of village businesses and public spaces.

Implementation 5.2.2.3: Require public facilities such as utility lines, guardrails, and streetlights to be compatible with village character. Require all new and relocated utilities to be placed underground and pursue opportunities to bury existing above ground utilities.



## **6. ECONOMIC DEVELOPMENT**

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### **JERICHO AND THE REGIONAL AND STATE ECONOMY**

Jericho's economic health is inextricably linked to that of the State and Region. Most of the region's major employers are located in the core of Chittenden County, with the outlying towns serving primarily as bedroom communities. Currently the majority of Jericho's residents work outside of Jericho, and most existing businesses in Jericho are small in comparison to the regional scale. Approximately 12% of Jericho residents work in Jericho, with the rest commuting primarily to the core Chittenden County Towns. Many of Jericho's local businesses are reliant on the economic health of the region's larger employers.

Jericho and other outlying towns of Chittenden Country, as well as portions of Franklin and Lamoille Counties, house much of the region's work force. The lack of affordable, work force housing has posed a challenge for some regional employers seeking to expand or locate in the greater Burlington area. Providing a diverse housing stock, as prescribed in the Housing Section of this Plan, will help to strengthen the Regional Economy.

Jericho is located on, or close to, two major regional transportation routes. Route 15 serves as one of the primary arteries connecting the Greater Burlington Area with rapidly growing communities located in Lamoille County. Jericho is also located in close proximity to Route 117, Route 2, and I89, which connect the Greater Burlington Area to Washington County. The Burlington International Airport in South Burlington and Amtrak Station in Essex are located less than 20 minutes drive time from Jericho, and connect the Greater Burlington Area to national markets. This location not only enhances Jericho's attractiveness as a "bedroom community," but also creates opportunities for local businesses serving local residents and commuters.

Jericho's high quality K-12 Education system is also an attractive feature of the Jericho Community. The National Association of Realtors estimates that 17% of home buying decisions are based upon the local school's reputation and that home buyers pay a higher premium in areas with high quality schools. The quality of a region's educational resources and the educational attainment of the workforce is also often an important factor companies consider in selecting locations for facilities. Furthermore, Mount Mansfield Union High School is a major local employer and draws students, staff, and faculty from neighboring towns into Jericho.

Jericho has numerous other assets that can strengthen its role in the Regional economy. Each of the three Village Centers remain hubs of culture, community, and commerce and offer unique opportunities for residents and local businesses. These Village Centers contain most of the Town's important civic structures, as well as iconic businesses such as Joe's Snack Bar, Snowflake Chocolates, The Old Red Mill Museum, and the Jericho Center Country Store – the oldest continually operating country store in Vermont. Jericho contains several publicly accessible open spaces,

such as the Old Mill Park, Mills Riverside Park, and Mobbs Farm that are open to the general public, as well as an expanding network of trails. Jericho also offers striking views of Mount Mansfield that rival those found in prominent resort communities. These factors enhance the quality of life in Jericho and provide a solid foundation for future economic development.

## BUSINESS ASSOCIATIONS

Several associations serve businesses in the Greater Burlington Area, including the Lake Champlain Regional Chamber of Commerce, the Greater Burlington Area Industrial Corporation and Vermont Businesses for Social Responsibility. There are also several smaller business associations, such as the Richmond Area Business Association, serving local communities. While a Town sponsored Economic Development Committee was active in the late 1990s, there is not currently a local association serving Jericho businesses. Some of the economic development strategies discussed in this plan may be better implemented by such an association rather than by Town Government. A local businesses association would help to market Jericho and Jericho business, provide networking opportunities for local businesses, and advocate on behalf of local businesses.

## INFRASTRUCTURE

One potential barrier to local economic development in Jericho, particularly in Village Centers, comes from infrastructure limitations. Lack of wastewater capacity can inhibit development of the Village Centers. However, certain commercial uses, such as offices and retail stores, require significantly less wastewater capacity than residential uses, making commercial use of existing structures on small village lots a viable option for village redevelopment (see table 6.1 below). Expanded wastewater capacity would allow for increased development potential in each village center.

**Table 6.1: Wastewater Capacity for Residential and Non-Residential Uses**

<b>Business Type</b>	<b>Use equivalent 1-bedroom</b>	<b>Use equivalent 3-bedroom</b>
Office	9 employees	28 employees
Day Care Facility (no meals)	2 care providers, 7 children	4 care providers, 24 children
Day Care Facility (1 meal)	1 care provider, 6 children	3 care providers, 18 children
Doctor's Office	2 staff, 7 patients	4 staff, 28 patients
Post Office	9 employees	28 employees
Retail store	9 employees	28 employees
Tavern or café	4 seats	12 seats

Jericho Corners and Riverside are currently served by public water, while Jericho Center and the Commercial District rely on public wells. The limitations caused by lack of public water are explained further in the Utilities, Facilities, and Services Section of this Plan. Expansion of public water lines to these areas could facilitate infill development and allow for a more diverse range of businesses.

Many modern businesses rely on high speed internet access, telecommunications, and three phased power. Three phased power is currently available along the Route 15 corridor in Jericho. Three phased power also extends to Mount Mansfield Union High School and the Ethan Allen Firing Range, but is not available in Jericho Center. High-speed internet access and telecommunications are currently unreliable in some parts of Jericho. Expanding coverage, particularly around Village Centers, should be an economic development priority for the town.

## **VILLAGE CENTERS**

Jericho's three Village Centers have been hubs of economic activity throughout the Town's history. The villages may serve as incubators for new small businesses and former home businesses that require additional space. Larger businesses may also provide a solid "anchor" for economic activity in the Village Centers. Economic development of each Village Center will provide a local source of goods and services for Jericho's residents as well as increase employment opportunities within Town.

Jericho Corners and Riverside are strategically situated on Route 15 halfway between the Greater Burlington Area and several rapidly growing communities in Lamoille County. This location makes these Village Centers ideal for businesses that require high visibility and commuter traffic. Similarly, this location makes these Village Centers attractive locations for businesses located in the Greater Burlington Area seeking to open branch offices closer to the growing population base to the north.

While Jericho Center is not located on a state highway, its location may provide opportunities for recreational, natural resource based, and agricultural businesses. Jericho Center is easily accessible to Interstate 89, and is located in close proximity to Mobbs Farm and numerous local trails. As development in central Chittenden County is consuming former recreational land, some residents of these towns are seeking recreational opportunities in outlying towns, including Jericho. Existing and future businesses in Jericho Center may benefit from this trend.

Lack of parking can inhibit economic development in the Village Centers. By allowing flexible parking regulations, and encouraging offsite, shared, and on-street parking, new parking can be incorporated into the existing fabric of the Village Centers.

Each of the three Village Centers has received "Village Center Designation" from the State of Vermont. This designation provides tax credits for repairs and code improvements to historic, non-residential properties located within the Village Centers. Utilization of these tax credits could create an incentive for businesses to refurbish existing structures and locate in a Village Center rather than an outlying area. Further marketing of these incentives is needed to inform area residents and businesses of their availability.

## **COMMERCIAL DISTRICT**

Jericho's Commercial District is located on Route 15 between Raceway Road and Browns Trace. Clark's Truck Center, located on the Corner of Browns Trace and Route 15, is one notable business located in the Commercial District. The primary purpose of this district is to provide a location for businesses that may not be suitable within the Village Centers. Generally, this refers to light industrial, warehousing, or commercial uses that rely on trucks and/or heavy equipment that would come into conflict with pedestrians and/or residential uses in the Village Center District. This should not be confused to mean that "large businesses" should be located in the Commercial District and "small businesses" should be located in the Village Centers, as many, larger buildings, including restaurants, offices, and stores can and should be located in the Village Centers.

The North Main Street area of the Commercial District contains several contractor yards and other facilities. However, the South Main Street portion of the commercial district has evolved to contain many single family homes, limiting the area available for new commercial uses to locate and existing ones to expand.

## **HOME BUSINESSES**

Numerous home based businesses are located in Jericho, including small catering companies, home offices, vehicle repair shops, and a newly formed independent microchip design firm. In addition to providing local employment, home businesses also provide a cost effective way to start a new business. In general, a home business is defined as a business operating out of an existing home which is operated by the resident of the home, and employs up to three outside workers.

If successful, a business may outgrow the definition of a "home business" and need to expand at a different location. Ideally, these businesses would find a suitable location within Jericho to expand. By providing infrastructure and flexible regulations in Jericho's Village Centers, these areas can serve as a prime location for growing home businesses to relocate and expand.

## **LOCAL SERVICES**

Jericho's growing population base, coupled with the growing population of nearby communities, is increasing the demand for local goods and services, such as medical offices, grocery and household goods, pharmaceutical products, home, garden and hardware supplies, restaurants and caterers, professional services, and similar businesses. Jericho's Village Centers provide ideal, central locations for these businesses. A critical mass of locally based businesses will provide Jericho residents and residents of nearby communities an alternative to the regional chains located in the County Core, as well as create opportunities for local employment and grow the Town's Grand List.

## **AGRICULTURE AND LOCAL FOOD BASED BUSINESSES**

Jericho's rural areas contain a vibrant working landscape. While the number and amount of land dedicated to traditional dairy farming has decreased over the last half century, new agricultural operations focused on specialized and high value products have taken root. There are numerous local enterprises, including traditional dairy farms, vegetable growers, beef farms, maple sugar producers, nurseries, and Christmas tree farms located in Jericho.

The increased population in Jericho and surrounding communities has created new opportunities for direct marketing of agricultural products to consumers through farm stands, farmers markets, and CSAs. By focusing new development into Jericho's three Village Centers, a stable customer base for local foods can be created, while agricultural land in rural areas is maintained. As new businesses locate in the Village Centers, they should be encouraged to showcase local food products. In rural areas, planning techniques can be used to concentrate development away from the most viable agricultural lands to allow for continued use of these fields.

As with any sector of the economy, a predictable and efficient permitting process can help to foster growth of agriculture and food based businesses. Current Land Use and Development Regulations allow the roadside sale of agricultural products as an accessory use and farmers markets as a permitted use in all zoning districts

One potential barrier to further utilization of local foods is the lack of facilities to prepare and package larger quantities for distribution. This can sometimes be inhibited by local land use regulations. For example, farmers producing milk or cheese onsite are not considered "agriculturally exempt" from local zoning if they receive more than 50% of their raw product from off-site. Some facilities may be considered commercial or industrial and not be permitted in rural areas.

The capital cost of some processing equipment can also be prohibitive for many start-up ventures. Development of incubator facilities, such as the Vermont Food Venture Center in Hardwick, can help to nurture the growth of local food and agriculture-based

enterprises. Village Centers or adaptive use of historic agricultural structures may be appropriate locations for incubator space.

## **INSTITUTIONAL PROPERTIES**

Jericho contains two large institutional properties – the UVM Research Forest and Ethan Allen Firing Range. The Ethan Allen Firing Range has evolved into an important mountain warfare training facility as well as an equipment testing facility for General Dynamics. The US Military is in the process of expanding barrack capacity at the Range, which will further increase the number of service members on site. The Range provides some employment for local residents. Further, many service members training on the site frequent local businesses, particularly those in close proximity to the Range.

While the UVM Research Forest currently has limited facilities, it serves as an important laboratory for natural resource based education and research. As interest in this subject increases, it is likely that more activity will occur at the Research Forest. Eventually, the University may seek to develop more modern classroom and laboratory facilities at the Research Forest. Increased use of the Research Forest may provide an opportunity for Jericho businesses to provide goods and services to students, staff, and faculty. In addition to this immediate benefit, the Research Forest could serve as a local anchor for private firms engaged in natural resource conservation and research.

## **ART BASED BUSINESSES**

Numerous small galleries and studios are located in Jericho. Not only do these establishments help define Jericho's character, they also provide local employment and bring visitors to Town who may frequent other local businesses. For example, the Jericho Center Green is decorated in anticipation of the annual Open Studio Weekend. This event draws Jericho residents as well as visitors to local galleries and studios. As the number of studios and galleries grow, so will the demand for local sources of supplies. Again, this creates an opportunity for other local businesses. Jericho's Land Use Regulations allow small galleries to be located in all districts except the Forestry and Open Space Districts, and larger galleries in the Commercial and Village Center Districts.

## **WILDLIFE AND NATURAL RESOURCE BASED RECREATION**

As noted in the Natural Resources Section, Jericho contains several large blocks of unfragmented forestland which provide critical habitat for a diverse range of wildlife. According to a recent federal survey, wildlife based recreation, including activities such as wildlife observation, bird watching, fishing, and hunting, adds approximately \$400 million annually to the Vermont economy. Given the impact of these activities on the Vermont economy, conservation and protection of important wildlife habitat should be considered an economic development strategy as well as a natural resource conservation strategy.

## TRAVEL, TOURSIM, AND HOSPITALITY

While hospitality and tourism already play a role in Jericho, they have the potential to increase. Tourism is traditionally thought of as visits from residents of other states or regions. However, the current economic downturn, coupled with increased gasoline prices, has resulted in an increasing number of people vacationing close to home – sometimes referred to as a “stay-cation” Jericho’s location on the periphery of the greater Burlington area, as well as its abundant local attractions and natural features make it an ideal “stay-cation” destination.

Jericho’s strategic location between the Burlington area and Mount Mansfield places it on the direct route of many tourists traveling from the airport or interstate to Mount Mansfield and related attractions such as Smugglers Notch and the Underhill State Park. Anecdotal evidence suggests that many tourists stop at Old Red Mill on-route to and from Mount Mansfield. However, this has not widely translated into visits to other businesses or locations in Jericho.

Jericho’s three Village Centers each contain well preserved historic structures and features, as well as local businesses selling services and “Vermont” products. Recent investment in pedestrian infrastructure has made it possible for tourists to leave their cars and enjoy the Villages safely on foot. In order to encourage this activity, marketing materials describing self-guided “walking tours” of each Village could be developed in collaboration with local businesses, the Historical Society, and economic development interests. The loss of the pedestrian bridge over the Brown’s River in Jericho Corners effectively isolates the Old Red Mill from much of the Jericho Corners and presents a significant barrier to this strategy.

The Village Centers could also become an alternative for visitors seeking accommodations close to the attractions near Mount Mansfield. Several hospitality based businesses are currently located in the Village Centers. Growth of support businesses such as restaurants and small retail stores, as well as streetscape improvements and upgrades to pedestrian infrastructure, could enhance the attractiveness of Jericho for additional hospitality based businesses.

In rural areas, the traditional landscape pattern of open fields surrounded by wooded hedgerows with a backdrop of wooded hillsides has the potential to attract visitors to Jericho. The numerous parks and trails located in Jericho are particularly attractive to stay-cationers. Maps similar to the “Village Center Walking Tours” which identify parks and trails and roadways with particularly attractive scenic roadscapes, as well as nearby businesses, could be developed and distributed to market these features.

For Jericho to capitalize on its historic village centers and scenic rural landscapes as a tourism resource, their unique character and identity must be respected and taken into account as new development occurs. Poorly located and designed development that detracts from Jericho’s scenic and historic resources could limit the Town’s ability to attract visitors and expand its tourism sector.

While tourism is often measured by the immediate impact of income for local businesses, it is worth noting that the executives of several employers in Chittenden County, notably IBM and Husky Injection Molding, were first introduced to the area while vacationing in Vermont. Many high-tech firms place a premium on quality of life when considering new locations. The same attributes that attract tourists may also serve as low cost marketing to potential employers. This is especially important, given that Jericho, and Vermont as a whole, lacks the resources to compete with larger, more populous areas in traditional economic development marketing. Marketing materials about incentives to do business in Jericho, such as the Village Center tax credits, should be provided at Town Hall as well as areas likely to draw large numbers of visitors.

## **GOALS, STRATEGIES, AND IMPLEMENTATION**

### **Goal 6.1: Foster mixed use, economic development in Jericho's Village Centers.**

Strategy 6.1.1: Provide an efficient and predictable permitting process for development within the Village Centers.

Implementation 6.1.1.1: Continue to allow mixed uses within Village Centers.

Implementation 6.1.1.2: Evaluate regulations for ambiguous standards or unclear requirements and make appropriate amendments.

Implementation 6.1.1.3: Evaluate the success of the 2009 Land Use and Development Regulations in fostering appropriate development within the Village Centers.

Strategy 6.1.2: Provide infrastructure necessary to support economic development in each Village Center, including but not limited to water and wastewater, telecommunications, three phased power, and natural gas.

Implementation 6.1.2.1: Determine and recommend infrastructure improvements needed to foster economic development in each village Center, as prescribed in the Utilities, Facilities, and Services Section of this Plan.

Implementation 6.1.2.2: Evaluate current telecommunications and high-speed internet service within each Village Center.

Implementation 6.1.2.3: Work with service providers to achieve 100% telecommunication and high-speed internet access within each Village Center.

Implementation 6.1.2.4: Work with utility companies to increase the availability of three phased power, natural gas, and similar infrastructure. Priority should be given to the Village Centers and the Commercial District.

Implementation 6.1.2.5: Participate in Public Service Board proceedings related to utility expansions and extensions within Jericho. Request that the Public Service Board require extension of utilities to unserved



areas of the Village Centers and Commercial District when reviewing applications for extensions elsewhere within Jericho or neighboring communities.

Strategy 6.1.3: Design parking in keeping with the pedestrian character of the Village Centers.

Implementation 6.1.3.1: Continue to allow and encourage flexible alternative parking arrangements, such as shared, off site, and on street parking.

Implementation 6.1.3.2: Evaluate village streets for public, on street parking, and implement in suitable locations.

Implementation 6.1.3.3: Encourage mixed use development that reduces overall parking demands.

Strategy 6.1.4: Use public resources to foster economic development in the Village Centers.

Implementation 6.1.4.1: Upgrade pedestrian infrastructure and make streetscape improvements to each village center. Replace the pedestrian bridge over the Browns River in Jericho Corners.

Implementation 6.1.4.2: Locate public and quasi-public facilities, such as schools, post offices, public offices, libraries, and other community facilities in Village Centers to provide a stable anchor for village businesses

Implementation 6.1.4.3: Interview existing Village Center businesses regarding new amenities that would improve the business climate and attract additional customers and businesses.

Strategy 6.1.5: Develop a diverse housing stock to provide workforce housing for local and regional businesses.

Implementation 6.1.5.1: Implement the tasks prescribed in the Housing Section of this Plan to foster the development of a broad range of housing options in Jericho's Village Centers.

Strategy 6.1.6: Leverage existing and new incentives for businesses to locate in the Village Centers.

Implementation 6.1.6.1: Promote greater utilization of Village Center Tax Credits by existing and potential village businesses.

Implementation 6.1.6.2: Investigate the applicability of other incentive programs offered by the State of Vermont, such as the Growth Center and Vermont Neighborhoods programs.

Implementation 6.1.6.3: Research market potential for new businesses to locate in the Village Centers.

Implementation 6.1.6.4: Investigate programs and incentives to promote economic development offered by similarly sized communities in Vermont and other parts of the country.

## **Goal 6.2: Promote growth and development of a diverse local economic base**

Strategy 6.2.1: Encourage growth of home businesses in Jericho

Implementation 6.2.1.1: Continue to allow low impact home businesses as a permitted use in all single family dwellings

Implementation 6.2.1.2: Periodically evaluate existing home business provisions.

Strategy 6.2.2: Identify the needs and challenges faced by existing Jericho businesses

Implementation 6.2.2.1: Evaluate the interest of local businesses in the formation of a local business association. Provide assistance in the initial organization of such an association if desired.

Implementation 6.2.2.2: Catalog and survey current businesses to identify the attributes they find most and least attractive about doing business in Jericho.

Implementation 6.2.2.3: Revisit boundaries and uses of the Commercial District, since much of it has developed residentially.

Implementation 6.2.2.4: Consider whether additional provisions for commercial uses utilizing heavy equipment are needed elsewhere in town.

Strategy 6.2.3: Encourage the development of agriculture and local food based commercial enterprises.

Implementation 6.2.3.1: Promote the protection of important agricultural and forestry land through use of Planned Unit Development provisions and voluntary land conservation

Implementation 6.2.3.2: Continue to allow roadside sale of agricultural products and farmers markets in all zoning districts.

Implementation 6.2.3.3: Review current regulations to determine their impact on farm based-value added endeavors. Consider revising regulations to allow for on-farm processing that may not fall under the State definition of "agriculture."

Implementation 6.2.3.4: Develop standards to reduce conflicts between existing and future agricultural operations and new residential development, such as requiring new developments in rural areas to include "right-to-farm" language in deeds, use of vegetative buffers, or other similar measures.

Implementation 6.2.3.5: Partner with local retail stores and restaurants to feature local agricultural and food products in their selections.

Implementation 6.2.3.6: Evaluate the need and feasibility of incubator space for agriculture and local food based businesses. Identify potential sites for such a facility.

- Implementation 6.2.3.7: Provide Jericho residents with information on responsible methods of local food production, including guidance on mitigating impacts to neighboring properties.
- Strategy 6.2.4: Encourage the development of art based businesses.
- Implementation 6.2.4.1: Continue to allow galleries, studios, and museums in a broad range of zoning districts.
- Implementation 6.2.4.2: Foster further development of the arts and cultural community through development of festivals, gathering spaces, galleries, and/or artists' cooperatives.
- Implementation 6.2.4.3: Encourage new creative economy industries and support industries and suppliers, such as retailers and professional offices, to locate in the Village Centers.
- Strategy 6.2.5: Encourage the development of wildlife and natural resource based recreation and industries.
- Implementation 6.2.5.1: Maintain important wildlife habitat as prescribed in the Natural Resources Section of this Plan
- Implementation 6.2.5.2: Take advantage of the numerous public lands located in Jericho, and the scenic resources provided by Mount Mansfield, the Browns River, and Jericho's rural landscape.
- Implementation 6.2.5.3: Open a dialogue with the University of Vermont regarding its long term plans for the UVM Research Forest and opportunities that growth of this facility may provide for Jericho businesses.
- Strategy 6.2.6: Encourage the development of travel, tourism, and hospitality based businesses.
- Implementation 6.2.6.1: Continue to allow commercial lodging of various sizes in a broad range of zoning districts.
- Implementation 6.2.6.2: Encourage new hospitality based businesses and support businesses such as restaurants and specialty retail stores to locate in the Village Centers.
- Implementation 6.2.6.3: Ensure access to Jericho's public and quasi-publicly owned open lands for residents and visitors. Develop a network of trails, including on road bike and pedestrian facilities, connecting these amenities.
- Implementation 6.2.6.4: Market Jericho's amenities to local residents and residents of neighboring communities.
- Implementation 6.2.6.5: Develop promotional materials marketing Jericho businesses, Village Centers, and rural areas, such as "Village Walking Tours," trail maps, and other similar materials.

Strategy 6.2.7: Cooperate with Regional and State partners that promote economic development.

Implementation 6.2.7.1: Train local officials about various economic development resources available through programs such as the Vermont Small Business Administration Community Business Connections.

Implementation 6.2.7.2: Provide regional and state agencies and organizations with marketing materials which clearly describe Jericho's assets, sites, amenities, and long-term vision.

Implementation 6.2.7.3: Work with regional marketing entities, such as the Greater Burlington Industrial Corporation (GBIC) and the Lake Champlain Regional Chamber of Commerce to promote and market Jericho properties, particularly those located in the Village Centers, to firms making regional inquiries.

Implementation 6.2.7.4: Develop partnerships with tourism industry representatives to market Jericho as a good place to visit and do business.

Implementation 6.2.7.5: Develop promotional materials for tourist and business development touting the scenic, historic, and rural characteristics of the Town, and other attributes that make Jericho a desirable location.

## 7. HOUSING

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### JERICO'S EXISTING HOUSING STOCK

Census data (Table 7.1) suggest that nearly nine out of ten homes in Jericho are single-family structures, and that this proportion remained essentially unchanged from 1970 - 2000. Property tax records (Table 7.2) indicate that in 2010 single-family homes made up 91% of the dwelling units in town, or approximately the same percent as in the 2000 census, suggesting that the ratio of single to multiple family dwelling units has remained unchanged. (In looking at these tables, it should be understood that condominiums are, by definition, a form of multiple-family unit, even though they are individually owned).

**Table 7.1. Housing Inventory**

Type	1980		1990		2000	
Single Family	953	88.3%	1319	88.6%	1578	90.0%
Multiple Family	97	9.0%	139	9.3%	132	7.4%
Mobile Homes	20	1.9%	21	1.4%	54	3.0%
Seasonal	9	0.8%	10	0.7%	10	0.6%
Totals	1079		1489		1774	

Source: U.S. Census

**Table 7.2. Number and Type of Dwelling Units: 2010**

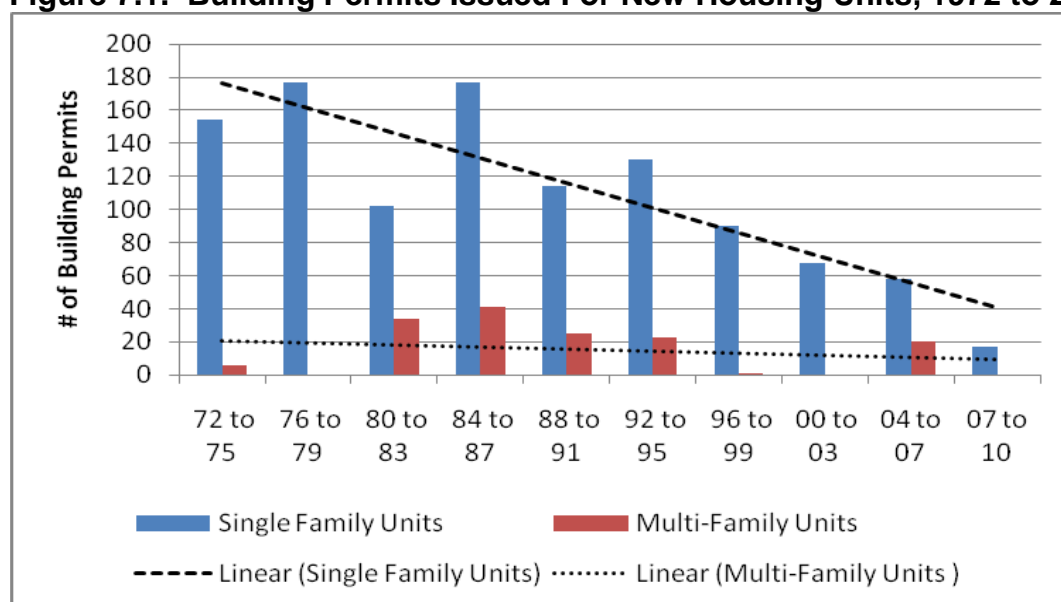
Type	Number	Percent
Single Family	1,680	91.5%
Multifamily (1)	131	7.1%
Mobile Homes	21	1.1%
Vacation Homes	5	0.3%
Totals	1,837	

(1) CA and 0 grand list codes. Includes 24 units of housing for senior citizens,

Source: Jericho 2010 Grand List

Figure 7.1 below shows a trend toward a steady decline in the number of new single-family and multi-family homes permitted since a peak in 1984-1987. Permits for new multi-family dwellings peaked between 1984-1987 with 10 units permitted per year, and fell to an average of 3 multi-family units per year for the period 1988-2010. The number of single-family homes permitted fell from a high of 43 permits per year from 1984-1987 to an average of 21 single-family homes per year since 1988.

**Figure 7.1. Building Permits Issued For New Housing Units, 1972 to 2010**



Source: Jericho Planning and Zoning

Note: Previous Town Plans differentiated between Single Family Units and Mobile Homes. Due to changes in Vermont State Law, following 2003, building permits no longer differentiate between mobile homes and conventional single family dwellings. As a result, the two fields have been combined.

Housing in Jericho is primarily owner-occupied. While there has been a steady increase in the total number of rental units, renter occupied housing has accounted for only slightly more than 10% of the total housing stock since 1980.

**Table 7.2. Housing Occupancy**

Occupancy	1980		1990		2000	
Owner-occupied	932	86.4%	1,244	83.5%	1,551	86.9%
Renter-occupied	120	11.1%	192	12.9%	200	11.2%
Vacant	27	2.5%	53	3.6%	23	1.3%
Total Units	1,079	100.0%	1,489	100.0%	1,774	100.0%
Units w/o complete plumbing	12	1.1%	7	0.5%	9	0.5%

Source: U.S. Census

Table 7.3 shows the distribution of residential property values on the 2010 grand list. 70% of single family homes are valued between \$200,000 and \$400,000. 15% of single family homes are valued at less than \$200,000, leaving approximately 15% valued at more than \$400,000. While currently less than one percent of Jericho's total housing stock, the number of single family homes valued at more than \$1,000,000 is growing. 82% of condominiums and 91% of mobile homes are valued at less than \$200,000.

**Table 7.3. Assessments Of Residential Property - 2010**

Range	Single Family		Condominium		Mobile Home	
	#	%	#	%	#	%
Under \$100,000	5	0.3%	1	0.9%	6	28.6%
\$100,000 - \$199,999	248	14.8%	87	81.3%	13	61.9%
\$200,000 - \$299,999	769	45.8%	4	3.7%	1	4.8%
\$300,000 - \$399,999	414	24.7%	14	13.1%	1	4.8%
\$400,000 - \$499,999	167	9.9%	1	0.9%		
\$500,000 - \$599,999	51	3.0%				
\$600,000 - \$699,999	10	0.6%				
\$700,000 - \$799,999	6	0.4%				
\$800,000- \$899,999	4	0.2%				
\$900,000- \$999,999	1	0.1%				
\$1,000,000+	4	0.2%				
<b>TOTAL</b>	<b>1,570</b>	<b>100.0%</b>	<b>77</b>	<b>100.0%</b>	<b>21</b>	<b>100.0%</b>

Source: 2010 Jericho Grand List

Assessments are based on housesite value including 2 acres of land with buildings. The value of any area of land above 2 acres is not included in the assessments.

## HOUSING AFFORDABILITY

Housing affordability is determined by the cost of purchasing or renting a home, and the personal income available to acquire it. Housing is considered affordable when monthly housing costs do not exceed one-third of a person's income. For homeowners this includes mortgage, property tax, and property insurance payments; for renters it includes rent and utilities. An income of 80%-100% of the area median is considered to be moderate, 50%-80% is low, and below 50% is considered very low. Jericho's Land Use and Development Regulations define "affordable housing" as housing which is affordable to a household earning 100% of median income or less. Table 7.4 details affordable home value for different income levels.

**Table 7.4. Income Level and Housing Affordability**

	2X Median Income		Median income		80% of median		50% of median	
	Family	Indiv.	Family	Indiv.	Family	Indiv.	Family	Indiv.
Income	\$147,600	\$103,400	\$73,800	\$51,700	\$56,400	\$39,500	\$36,900	\$25,850
Affordable Home Value	\$493,000	\$345,500	\$246,500	\$163,500	\$188,000	\$131,500	\$122,000	\$84,500

Source: [www.housingdata.org](http://www.housingdata.org) Home Mortgage Calculator; US Department of Housing and Urban Development FY2010 Income Limits Summary

## Homeownership

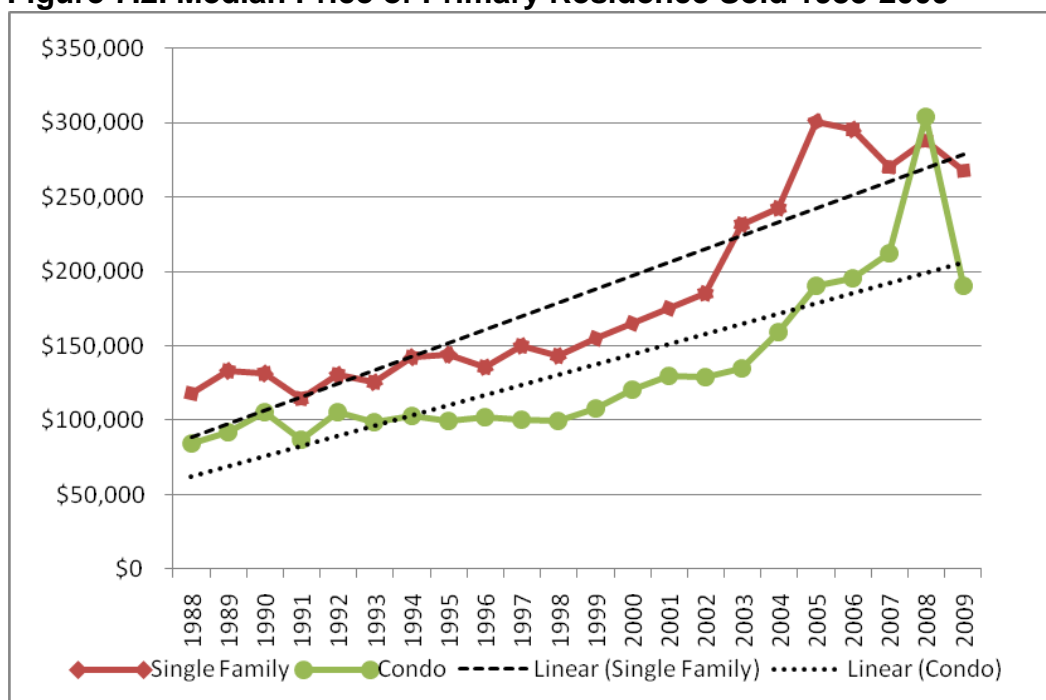
In 2009, the median sale price for a single family home in Jericho was \$267,000 compared to \$190,000 for a condominium. Note that these figures are slightly higher than the median sale prices for Chittenden County, which were \$255,000 for a single family home and \$186,500 for a condominium. (Source: VT Dept. of Taxes, from VT Housing Data web site, [www.housingdata.org](http://www.housingdata.org)). Based on this information, a household would need an income of \$79,935 to afford a median priced single family home, or \$57,073 to afford a median priced condo. (Source [www.housingdata.org](http://www.housingdata.org) Home Mortgage Calculator)

A median priced single family home sold in Jericho would be considered "unaffordable" for a family of four earning the county median income, while a median priced

condominium would be considered affordable for such a household. Neither a median priced single family home nor condominium could be considered affordable for an individual earning the county median income.

Figure 7.2. below compares median sales prices for condominiums and single family homes over the last two decades. This chart shows an overall trend of increased housing prices over time, with a sharp increase in housing prices starting in the late 1990's and early 2000's. There has been a slight decline in the median price for both single family homes and condominiums since their peak in the mid 2000's. However, housing prices still remain significantly higher than at the start of the decade. Note that the sharp peak in the median condominium price in 2008 is the result of the sale of several new, high-end retirement condominiums. Whether this represents a changing trend in the type of housing constructed in Jericho or a one year anomaly bears monitoring over the next five year planning cycle.

**Figure 7.2. Median Price of Primary Residence Sold 1988-2009**



Source: Vermont Department of Taxes

## Rental Housing

The affordability of rental properties is often measured based on Fair Market Rent, or the dollar amount below which 40 percent of the standard-quality rental housing units are rented (including rent plus the cost of all utilities, except telephones). Table 7.5 below shows fair market and median rents for various sized apartments and the income needed to afford these rents. Note that these figures are for the entire Burlington/South Burlington MSA, as Jericho Specific Data is not available.



**Table 7.5. Rental Housing Costs**

Unit Type	Fair Market Rent (FMR)	Median Rent	Income Needed to Afford FMR	Affordability					
				Individual			Family of 4		
				AMI	80% AMI	50% AMI	AMI	80% AMI	50% AMI
Efficiency	\$804	\$833	\$32,160	Yes	Yes	No	Yes	Yes	Yes
1-Bedroom	\$889	\$929	\$35,560	Yes	Yes	No	Yes	Yes	Yes
2-Bedroom	\$1,116	\$1,177	\$44,640	Yes	No	No	Yes	Yes	No
3-Bedroom	\$1,428	\$1,543	\$57,120	No	No	No	Yes	No	No
4-Bedroom	\$1,601	\$1,858	\$64,040	No	No	No	Yes	No	No

Based on Table 7.5 above, an efficiency apartment could be considered affordable for an individual earning median income or 80% of median income. A four bedroom apartment would be considered affordable for a household earning median income, but not for a household earning 80% or less of median income.

Much work has been done to encourage affordable housing; however, housing costs continue to be an issue.

## HOUSING TARGETS

At the regional level, the Chittenden County Regional Planning Commission Housing Targets Task Force has been reviewing housing policy for the entire county.

A report entitled “Recommended Housing Targets” was prepared by the Housing Targets Task Force and endorsed by the Chittenden County Regional Planning Commission (CCRPC) on November 22, 2004. CCRPC requested that each municipality in the county review and respond to these housing targets as part of its Comprehensive Plan readoption process. The Jericho Planning Commission subsequently reviewed the report in light of recent Jericho growth patterns and future planning goals.

In general, the Town of Jericho supports the CCRPC goals of providing sufficient housing to meet reasonable growth needs and locating such housing in suitable areas. The Town also supports use of housing targets as goals to help guide a community’s planning rather than being used as quotas.

After reviewing the eight factors used in the formula for determining housing targets, the Town feels that Jericho’s target of 30.8 dwelling units per year may be unreachable. Based on CCRPC’s 2003 Regional Build-Out Analysis, Jericho’s residential redevelopment capacity is only 712 dwelling units, one of the lowest numbers in the county. This low redevelopment capacity likely is caused by extensive development of suitable soils to date leaving limited available acreage with good soils. Municipal wastewater collection and treatment is not currently available in Jericho.

Other historical factors, such as a high rate of housing starts in the 1980s, contributed to Jericho’s relatively high target of 30.8 dwelling units per year. However, these historical factors are no longer in place. In recent years, building permits have declined rapidly as the amount of developable land has diminished (see Figure 7.1).

The ten-year target of 308 dwelling units represents 43% of Jericho's build-out capacity, the highest such rate in the county. Many landowners with buildable land may not choose to make their land available for development within the next 10 years. A development rate of 43% may not be reachable.

Although the annual CCRPC housing target for Jericho appears high, several recent and possible future actions may improve the Town's ability to approach that target. Most notably, in 2009, the Town adopted regulations which expanded the boundaries and increased allowed density in the Village Center District and created density bonuses and other incentives for affordable and elderly housing. These actions may increase Jericho's build-out capacity above that in the 2003 CCRPC analysis. However, the rate of development in Jericho would have to increase significantly to achieve the target of 30.8 new dwelling units per year.

## **STRATEGIES TO ENCOURAGE HOUSING OPTIONS**

The availability of affordable and reasonably priced housing is a problem not confined to Jericho; all communities in Chittenden County are grappling with this issue.

One of the most direct ways Jericho can influence housing is through its land use regulations. In 2009, Jericho adopted Land Use and Development Regulations which encourage housing diversity in several ways.

- These new regulations allow increased residential density in the Village Center District.
- Within the Village Center District, affordable and elderly housing is governed by lot coverage rather than minimum lot size. This will allow more, small units to be located within a single structure or series of structures than would be allowed based on a traditional unit-to-lot-size basis.
- Density bonuses are offered for the development of affordable and elderly housing in all districts.
- Multifamily housing is allowed as a permitted or conditional use in all but the Forestry and Open Space Districts, and is regulated at a rate of 2 units per minimum lot size. Again, this encourages the creation of a more diverse housing stock.
- In an effort to encourage accessory apartments, the Land Use and Development Regulations contain significantly relaxed regulations regarding accessory apartments.

## **GOALS, STRATEGIES, AND IMPLEMENTATION**

### **Goal 7.1: Housing will be available and accessible for a socio-economically diverse population**

Strategy 7.1.1: Encourage affordable housing and elderly (senior) housing through municipal regulations and ordinances.

Implementation 7.1.1.1: Encourage adoption of a fee structure that reduces or waives application and impact fees for affordable housing. Consider reducing fees for all units within a Development that contains a certain percentage of affordable units.

Implementation 7.1.1.2: Encourage adoption of a fee structure that reduces or waives application and impact fees for elderly housing. Consider reducing fees for all units within a Development that contains a certain percentage of elderly units.

Implementation 7.1.1.3: Continue to provide for variable lot sizes within Planned Unit Developments (PUDs), with a density bonus for affordable/ elderly housing.

Strategy 7.1.2: Cooperate with affordable housing non-profits and other affordable housing developers.

Implementation 7.1.2.1: Encourage developers to take advantage of the incentives now in place.

Implementation 7.1.2.2: Support applications, such as Community Development Block Grants, for funding of affordable housing

Implementation 7.1.2.3: Facilitate partnerships between interested land owners and local affordable housing providers such as Green Mountain Habitat for Humanity and the Champlain Housing Trust.

Implementation 7.1.2.4: Inventory publicly owned properties to determine if any would be appropriate locations for affordable housing. Identify and contact landowners whose property may support elderly or affordable housing, particularly in the Village Center District.

## **Goal 7.2: Encourage a mix of housing types located in mixed use Village Centers**

Strategy 7.2.1: Evaluate needs and develop plans to create infrastructure necessary to support increased housing density in the Village Center Districts.

Implementation 7.2.1.1: Inventory and evaluate infrastructure needs in each Village Center

Implementation 7.2.1.2: Include necessary infrastructure upgrades in the Capital Plan and Budget.

Implementation 7.2.1.3: Pursue innovative methods of improving infrastructure in the Village Centers, such as Special Assessment Districts, Tax-Increment Financing, Public-Private Partnerships, etc.

Strategy 7.2.2: Consider “Vermont Neighborhood” and/or “Growth Center” designation for Jericho Corners and Riverside and surrounding environs.

Implementation 7.2.2.1: Research the benefits and requirements of “Vermont Neighborhood” and “Growth Center” designation.

Implementation 7.2.2.2: Apply for “Vermont Neighborhood or “Growth Center” designation for Jericho Corners and/or Riverside if it is determined that these programs will further the goals of this Plan.

## **8. EDUCATION AND CHILD CARE**

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### **EDUCATION**

Education is one of the most important community services provided by the Town when viewed in terms of social impact and is the most significant in terms of cost. The schools function as a social focal point for the community, deeply involving most students and their families and significantly affecting all students for the rest of their lives. The schools are among the largest employers in Jericho. Data on educational indicators for Jericho is available from the Vermont Department of Education (<http://www.education.vermont.gov/>)

There are four schools operating in Jericho. The Jericho Elementary School serves most Jericho children, kindergarten through grade four. The Underhill Incorporated District ("the Underhill I.D.") serves Jericho children, kindergarten through grade four, who live in the northeast part of Jericho, as well as children in the same grades living in the Underhill Flats area of Underhill. Browns River Middle School, also located in Riverside/Underhill Flats serves grades five through eight, and Mount Mansfield Union High School serves all children in grades nine through twelve from the towns of Jericho, Underhill, Richmond, Bolton, and Huntington. Jericho is a member of the Chittenden East Supervisory Union, whose offices are in Richmond. Public schools located in Jericho are depicted on Map 12. With projected declines in statewide school enrollments (see Section 2), school boards within Jericho are considering sharing services or consolidating schools. The district is also considering reconfiguring the grades at the schools.

Vocational training opportunities are available for Jericho high school juniors and seniors through the Center for Technology at Essex or the Burlington Technology Center. Some adult technology programs also are available at those locations.

### **EDUCATION-RELATED TRANSPORTATION**

Mount Mansfield Union School District owns and operates a fleet of school buses, which transports the children of Jericho to their schools.

Through the nationwide Safe Routes to School (SR2S) program, students, particularly at Jericho Elementary School (JES), are encouraged to walk or bike to school. SR2S includes two key areas— programmatic activities and infrastructure improvements. An example of a programmatic activity includes the JES “walking school bus” program through nearby neighborhoods. The Town of Jericho is largely responsible for planning SR2S infrastructure improvements designed to encourage children and families walking and biking to school. Jericho is investing in streetscapes and sidewalk infrastructure intended to promote walking and biking that will likely be used by students and their families to get to school.

## EARLY EDUCATION

Two private preschool programs operate in Jericho. These include:

- Good Sheppard Preschool which serves 3-5 year olds and **has 28 slots with 2 current vacancies**. The program operates from 9-12 in the morning. Three year olds attend on Tuesday and Thursday. Four and five year olds attend on Monday, Wednesday, and Friday. The program is closed in the summer. In 2005, this program offered only 16 slots.
- Saxon Hill School, which serves children ages 3-6 and has **17 slots with 1 current vacancy**. Three year olds generally attend on Tuesday and Thursday in the morning. Younger four year olds generally attend Monday, Wednesday, and Friday in the morning. Older four and five year olds generally attend Monday Wednesday and Friday in the afternoon. The program is closed in the summer. The number of available slots remains unchanged since 2005.

Jericho Elementary School operates a part-day Early Essential Education Program for Jericho children with developmental delays.

## AFTER SCHOOL AND SUMMER PROGRAMS

Jericho Elementary School and the Underhill ID School have after school programs managed by the YMCA. The former has 50 slots and the latter has 25 slots. The total number of slots is unchanged since 2005.

The Jericho Recreation Program operates a 6-week full-day summer program for children ages 5 to 14. Younger children attend camp at Jericho Elementary School. Older children attend camp at Browns River Middle School. Saxon Hill School operates several part-week camp sessions, some for children up to age 9, during the summer months.

## CHILD CARE

Jericho has the highest percentage of children under 6 with all parents in the work force in Chittenden County. Specifically, in Jericho, 77% of children under six have all their parents in the workforce. For comparison, Shelburne is the county low with 46% and Williston is the next with 69%. (Source: US Census Bureau)

As of [April 2010], three family based child care providers were operating in Jericho. These providers have a total of **24 slots, with 6 current vacancies**, for a vacancy rate of 25%. This is divided into 6 infant slots with 1 opening, 12 preschool slots with 3 openings, and 6 school age slots with 4 openings. This represents an overall decline from 2005, when there were 5 family based providers with available 44 slots and a vacancy rate of only 7%.

There are no full day, full year child care programs in Jericho.

As shown by the numbers above, there has been a decline in the total number of family based child care slots over the last five years, and vacancy rates have increased significantly. This may be due to a decline in the number of families with young children in Jericho, parents choosing providers outside of town, or the increased number of children attending center based preschool programs.

It appears that care for infants and toddlers is the most difficult to find in Jericho. Of the 47 seeking referrals for childcare between January 2008 and December 2009, 61% of these families were looking for care for a child under the age of 3, while only 21% of the children in the county fall in this age bracket. (Source: Child Care Resource Referral Database)

Cost may be a barrier for some families seeking child care; however the percentage is smaller in comparison with other areas of Chittenden County communities. As of March 2010, 30 children in Jericho from 26 families were receiving subsidy assistance for child care. Based on population estimates for 2010, that is 30 out of 783 children age 0-12 where both parents are in the work force, or 3.8%. The estimated percentages for surrounding towns as of March 2010 are: Underhill (4.5%), Richmond/Bolton (4%), Essex (5.8%), and 19-23% in the Burlington/ Winooski area. (Sources: U.S. Census Bureau, Population Division, Interim State Population Projections, 2005; Bright Futures information System Reports, March 2010)

Under Jericho's Land Use and Development Regulations family based day-cares are permitted in all districts, and center based child care and preschools are permitted in the Village Center District and conditional in the Agricultural, Rural Residential, Commercial, and Village Districts.

## **GOALS, STRATEGIES, AND IMPLEMENTATION**

### **Goal 8.1: Provide high quality education opportunities for Jericho residents.**

Strategy 8.1.1: Ensure that school district facilities are adequately planned to absorb the impacts of new development.

Implementation 8.1.1.1: Maintain the schedule of impact fees to mitigate capital expenditures necessary to support school facility needs.

Implementation 8.1.1.2: Require that approval of future development be based on the demonstrated ability of the affected school district to provide the necessary services.

Strategy 8.1.2: Provide and maintain for recreation facilities that serve the needs of the school district and the general community.

Implementation 8.1.2.1: Coordinate construction, maintenance, and use of school recreational facilities and town recreational facilities.

Implementation 8.1.2.2: Improve communications regarding usage of school recreational facilities by the general public.

**Goal 8.2: Provide safe and accessible transportation for high quality education opportunities in Jericho.**

Strategy 8.2.1: Encourage access to the school facilities by pedestrians and cyclists

Implementation 8.2.1.1: Support programmatic activities by schools such as “the walking school bus.”

Implementation 8.2.1.2: Interconnect the schools with other important town facilities through the creation of alternate transportation paths.

Implementation 8.2.1.3: Construct and upgrade sidewalks and bicycle facilities serving Jericho schools.

Implementation 8.2.1.4: Remove barriers to safe pedestrian access and improve circulation of students to school grounds.

Strategy 8.2.2: Encourage students not within walking or cycling distance of the schools to use school buses

Implementation 8.2.2.1: Investigate opportunities to retrofit school buses to reduce children’s exposure to diesel emissions.

Implementation 8.2.2.2: Encourage the installation and use of seatbelts on school buses. Encourage school bus routes which result in reasonable ride times for children.

**Goal 8.3: Increase high quality childcare opportunities in Jericho**

Strategy 8.3.1: Investigate the barriers or challenges to owning/operating high quality daycare in Jericho.

Implementation 8.3.1.1: Conduct a formal study or obtain information about Jericho childcare needs and barriers/challenges to owning or operating high quality daycare in Jericho.



## **9. TRANSPORTATION**

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### **COMMUTE SHED**

Much of this section will relate to the physical aspects of Jericho's Transportation Network. However, a critical component of Transportation is having an understanding of how the transportation network is being used. This includes who is using it, user destinations and origins, and the purpose of various trips on the network. Different groups may place different demands on the network. For example, children walking to school require different considerations than commuters in automobiles.

One way to analyze how the network is being used is by looking at an area's "Commute Shed," which refers to the various locations where residents of a municipality travel for employment. A high percentage of Jericho residents are employed in the Burlington area. Approximately 50% of Jericho residents are employed in Burlington, Essex Junction, South Burlington, or Winooski. The commute shed also includes concentrations in Richmond, Waterbury, Montpelier, and Barre, all locations along the I89 corridor. 12% of Jericho residents work their primary job in Jericho (Source: US Census Bureau, LED OnTheMap Origin-Destination Database, beginning of Quarter Employment, 2nd Quarter 2008, 2007, 2006, 2005, 2004, 2003, and 2002). It is worth noting that this information does not delineate the different modes of transportation residents use to get to and from work, and does not account for trips for other purposes.

This data highlights that the Route 15 and I89 Corridors are an important piece of the statewide transportation network utilized by Jericho residents. Given the high percentage of Jericho residents traveling in this direction, this may suggest opportunities to facilitate carpooling/ridesharing, van pooling, or possibly transit. It is notable that several of the destinations located on the I89 corridor are currently connected by the CCTA Montpelier Link express. Given that the nearest stop is the Richmond I89 exit, it may be worth considering developing a rideshare or vanpool to connect to the Link.

### **TRANSPORTATION STUDY**

In 2004, Jericho commissioned a transportation study which analyzed the transportation network for intersection performance, capacity analysis, safety, and suitability for pedestrians and bicyclists. This study also evaluated roadway segments and intersections based on projected conditions in the year 2015 (approximately five years from the drafting of this Plan). Much of the data in this section is derived from this study, and many of the implementation steps identified in this Section were derived from this study.

### **ROADS**

Jericho has seventy miles of public roads, as shown in Table 9.1. State Route 117, a two-lane road, extends along the southwestern edge of the town, parallel to the

Winooski River. State Route 15, also a two-lane road and a major artery between Burlington and the north-central and northeast part of the state, reaches about four miles across the northern tip of the town. It carries substantial volumes of through traffic as well as providing access to a major portion of Jericho. Jericho has a total of 58 miles of year round Town Highways. 26 miles are paved, and 32 are gravel. All the Class 2 town highways except Nashville Road are paved. The discrepancy between these figures and the numbers in the table below is due to the recent reclassification of Snipe Island Road as being closed to year round through traffic.

**Table 9.1. 2004 Jericho Highway Mileage**

Highway Class	Miles	Roads
State Highway	6.7	State Routes 15 and 117
Town, Class 1	None	None
Town, Class 2	20.5	River Road, Lee River, Barber Farm, Nashville, Browns Trace
Town, Class 3	40.7	All others
Town, Class 4	2.9	All others

Class 1: Highways that are extensions of state highway routes and carry state highway route number.

Class 2: Highways that secure truck lines of improved highways from town to town.

Class 3: Traveled town highways other than Class 1 or 2 that are negotiable under normal conditions all seasons of the year by a standard manufactured pleasure car and have sufficient surface and base, adequate drainage, and width sufficient to permit winter maintenance.

Class 4: Untraveled town highways, trails and pent (gated public) roads, town highways classified as Class 1, 2 or 3.

Source: 2004 VTrans Mileage Report

Traffic volumes are a key measure of roadway conditions. Traffic volumes are measured by Annual Average Daily Traffic (AADT). Table 9.2 below compares traffic volumes for various roadway segments in Jericho based on 2005 counts and 2015 projections.

**Table 9.2: Traffic Volumes**

Roadway Segment	AADT 2005	AADT 2015 (projection)
<b>VT-117</b>		
Essex town line to Skunk Hollow Road	6600	7800
Skunk Hollow Road to Barber Farm Road	6450	7500
Barber Farm Road to Richmond town line	5600	6550
<b>VT-15</b>		
Essex town line to Lee River Road	11600	14650
Lee River Road to Browns Trace	9200	13000
Browns Trace to River Road	11700	15200
River Road to Underhill town line	8000	10900
<b>Browns Trace</b>		
Richmond town line to Governor Peck Road	2500	3300
Governor Peck Road to Nashville Road	3700	4900
Nashville Road to Barber Farm Road	3700	5000
Barber Farm Road to Lee River Road	4850	6800
Lee River Road to VT-15	3300	4900
<b>Governor Peck Road</b>		

West of Tarbox Road	2500	3350
Tarbox Road to Browns Trace	3300	4250
<b>Lee River Road</b>		
West of Browns Trace	1800	2800
East of VT-15	3200	4500
<b>Packard Road</b>		
VT-15 to Orr Road	800	950
Orr Road to Browns Trace	650	750
<b>Orr Road</b>		
South of Packard Road	100	115
North of Packard Road	300	350
<b>Barber Farm Road</b>	1750	2250
<b>Raceway Road</b>	700	850
<b>Skunk Hollow Road</b>	1550	1950
<b>River Road</b>	3500	4600
<b>Plains Road</b>	200	325
<b>Nashville Road</b>	1100	1500

These figures show that as Jericho and surrounding towns grow, additional stress will be placed on Jericho's road infrastructure.

The use of each road is an important consideration when planning future improvements. The various functions of roads impact their use and maintenance. For example, Route 15 is a major corridor between Lamoille County and the Burlington Area, and also serves as the "Main Street" for Riverside and Jericho Corners. It is especially important on Route 15 that any future improvements consider the needs, safety, and wellbeing of pedestrians, residents and business owners as well as commuters. Since Route 15 is a state highway, Jericho's authority over issues such as speed, maintenance, and improvements is limited. Some roads, including Browns Trace, Barber Farm, Governor Peck and Skunk Hollow, are evolving into corridors to neighboring communities and interstate 89. Other roads serve as local connectors, while others accommodate mostly local traffic.

The ability of the Town to accommodate new development will be dependent in part on adequate maintenance and eventual upgrade of its roadways. Developers should be expected to contribute toward the upgrade of roads serving their development, so the full cost of these upgrades is not borne by property taxpayers alone.

Jericho's Public Works Specifications provide standards for new road construction. However, many of Jericho's roads, in particular low volume gravel roads, do not meet this specification. Upgrading all existing roads to meet the Specifications would represent a significant financial undertaking, and could also result in detrimental impacts on the environment and character of some rural neighborhoods. The extent of upgrades should in part be dependent on the actual function of the roadway. The Jericho Selectboard is currently developing a policy related to upgrades to these rural roads. While this policy is under development, the Minimum Width and Shoulders for Rural

Local Roads may serve as a useful guideline.

**Table 9.3. Public Works Specifications**

Standard	Travel surface (ft)	Shoulder (ft)	Grade (%)
Private Driveway	12	0	15%
Shared Driveway	15	0	15%
Residential (curb)	24	-	10%
Residential (non-curb)	22	2	10%
Commercial (curb)	24	-	8%
Commercial (non-curb)	22	2	8%

Source: Jericho Public Works Specifications Ordinance, Amended 1/22/2009

**Table 9.4. Lane and Should Widths for Local Roads**

Design Traffic Volume	ADT 0-25(a)	ADT 25-50	ADT 50-100	ADT 100-400	ADT 400-1500	ADT 1500-2000	ADT Over 2000
Design Speed	Width of Lane/Shoulder (ft)						
25	7/0	8/0	9/0	9/2	9/2	10/3	11/3
30	7/0	8/0	9/0	9/2	9/2	10/3	11/3
35	7/0	8/0	9/0	9/2	9/2	10/3	11/3
40	7/0	8/0	9/2	9/2	9/2	10/3	11/3
45	-	-	9/2	9/2	9/2	10/3	11/3
50	-	-	9/2	9/2	10/2	10/3	11/3

(a) Minimum Width of 8/0 whenever there is guard rail.

Source: (Table 6.3, Vermont State Standards for the Design of Transportation Construction, Reconstruction, and Rehabilitation on Freeways, Roads, and Streets, Vermont Agency of Transportation, October 1997.)

As future road upgrades are considered, it is important to remember that Jericho's roads serve not only as a transportation network for commuters, but are an essential element of local neighborhoods. In addition, Jericho's roads have many scenic, cultural, and historic features which contribute to Jericho's rural character. It is important that roadway upgrades and improvements consider impacts on surrounding neighborhoods, natural, scenic, and historic resources, changes in transportation patterns and speed, and potential impacts on land use in addition to cost and convenience for commuters. Previous surveys in 1988 and 2000 indicate support for plans that would upgrade the roads without paving them. A majority was opposed to the widespread paving of gravel roads and a larger majority was opposed to widening of the roads and concerned about excessive speed. In 2009, the Town of Jericho conducted an assessment of scenic features on Jericho's roads.

## INTERSECTIONS

All intersection control on Jericho's roadway network relies on stop and yield signs. There are currently no traffic signals or roundabouts in Jericho. One rating of intersections is Level of Service (LOS) which is a measure of delay at intersections. LOS is graded on a Scale of A (less than ten seconds delay) to F (greater than 50 seconds delay). An LOS of C or better is generally considered acceptable for rural intersections, while LOS D or better is considered acceptable in urban or village center settings. LOS E or F may be permitted in urban areas or village centers if the remedy,

such as adding new lanes, would significantly impact the surrounding natural or built environment. The table below compares LOS in 2005 with projected LOS in 2015. (Note that the 2015 projections assume no changes in the geometric design of the intersection.)

**Table 9.5. Intersection Level Of Service**

Intersection	2005		2015 (projection)	
	AM LOS	PM LOS	AM LOS	PM LOS
<b>VT-15/Lee River Road*</b>				
Eastbound	A	A	A	A
Westbound	A	A	A	A
Northbound Left Turn	F	B	F	F
<b>VT-15/Browns Trace</b>				
Eastbound	A	A	A	A
Westbound	A	A	A	A
Northbound	B	C	C	F
<b>VT-15/River Road</b>				
Eastbound	A	A	A	A
Westbound	A	A	A	A
Northbound	D	C	F	E
<b>Browns Trace/Lee River Road</b>				
Eastbound	A	A	A	A
Westbound	A	A	A	A
Southbound	A	A	A	A
<b>Browns Trace/Barber Farm Road</b>				
Eastbound Left Turn	C	B	C	B
Eastbound Right Turn	A	B	B	B
Northbound	A	A	A	A
Southbound	A	A	A	A
<b>Browns Trace/Nashville Road</b>				
Westbound	B	B	B	B
Northbound	A	A	A	A
Southbound	A	A	A	A
<b>Browns Trace/Governor Peck Road</b>				
Eastbound	B	B	B	C
Northbound	A	A	A	A
South Bound	A	A	A	A
<b>VT-117/Skunk Hollow Road</b>				
Eastbound	A	A	A	A
Westbound	A	A	A	A
Southbound	B	B	B	B
<b>VT-117/ Barber Farm Road</b>				
Westbound	B	B	B	B
Northbound	A	A	A	A
Southbound	A	A	A	A

\*analysis conducted before modification to intersection alignment,

It is important to note that LOS only addresses one aspect of an intersection – delay for motor vehicles. There are numerous other factors that impact the quality of an intersection, such as safety, accessibility for various uses, including pedestrians and cyclists, intersection site distance, and the quality of the surrounding natural and built environment. The Transportation Study also identified potential safety concerns at major intersections, which are summarized in the table below:

**Table 9.6. Intersection Safety Concerns**

<b>Intersection</b>	<b>Safety Concern</b>
VT117/Skunk Hollow Road	Intersection sight distance
VT117/Barber Farm Road	Intersection sight distance
VT15/Lee River Road*	Possible confusion for motorists
VT15/River Road	Visual obstruction of stop sign. Possible intersection sight distance constrains due to structure on northeast corner
Browns Trace/Lee River Rod	Possible confusion for motorists

\*analysis conducted before modification to intersection alignment,

In addition to these intersections, modifications to the VT-15/Lawrence Heights intersection have been considered to improve site distances and safety.

Based on the information above, each of the three major intersections on Route 15 have documented safety concerns and are projected to experience unacceptable delays by 2015 projections. Upgrades, realignment, or other changes to traffic flows may be needed at each intersection to address these issues.

Following the Traffic Study, the VT-15/Lee River Road intersection was redesigned to retain the existing “flat iron” green, and create a dedicated northbound left turn lane. There has also been discussion of creating a left turn lane from Route 15 onto Lee River Road, though formal engineering designs have not been developed. Note that the projections above do not take into account the changes made to this intersection.

Another intersection which is projected to have poor LOS in 2015 is the Route 15/River Road intersection. Based on a series of design Charrettes focused on development in the Riverside/Underhill Flats Village Center, the Town is considering rerouting through traffic from River Road to Dickinson Street. In 2006, the Town and CCMPO conducted a study to investigate alternative alignments to accomplish this goal. (*See Dickinson Street Alternatives Analysis*)

VTrans is currently scoping upgrades to the VT-15/Browns Trace intersection, which was recently identified as a “High Crash Location.” (A high crash location is an intersection where the number of accidents are greater than 5 per year or the rate of accidents exceeds a critical ratio known as the critical rate, measured in accidents per million vehicles). This scoping will likely result in the creation of a left turn lane from Route 15 onto Browns Trace. However, to date formal plans have not been drafted.

The Browns Trace/Lee River Road has received attention due to its unique alignment. The intersection retains its historic “Y” pattern and small flat iron green. Southbound traffic exiting Lee River Road has free movement, while southbound traffic on Browns Trace must stop. This is somewhat unusual, as traffic volumes are significantly higher on Browns Trace, and the higher volume road is usually given preference at an intersection. The unique alignment has also been identified as a barrier to pedestrians and cyclists traveling from Jericho Center to MMU. This intersection was the subject of a Rural Roads Safety Audit in 2008, which recommended signage improvements, relocation of the stop sign to Lee River Road, and potential realignment of the intersection.

## **BRIDGES AND CULVERTS**

The Town of Jericho maintains nine bridges and 315 culverts. In addition, there are 20 bridges and five culverts maintained by the State of Vermont in Jericho. Maintenance of bridges and culverts requires consistent up keep. In order to ensure proper maintenance and plan for necessary upgrades of these structures, Jericho maintains an inventory of all bridges and culverts in Town. In addition to providing information for town staff, these inventories also make Jericho eligible to receive state funds for repair/maintenance from the Vtrans Structures Program.

Proper sizing and installation of culverts is critical to the proper function of a roadway as well as natural resources. Culverts that are improperly sized and installed may create barriers to the migration of fish and other aquatic species and result in downstream channel bed scour which destabilizes stream beds and banks and may eventually change the structure and path of the stream. Culverts not sized large enough for the stream may cause water to pond close to the road. This can undermine the roadbed and surface and increase the velocity of water leaving the culvert, damaging the stream bank and neighboring properties. For these reasons it is essential that new culverts be properly sized and existing undersized culverts be replaced.

## **TRANSIT**

More Vermonters are considering alternatives to the single occupancy automobile as gasoline prices increase and awareness of the environmental and social costs of automobile dependence is growing. While public transportation is currently unavailable in Jericho, the Chittenden County Transit Authority is considering a commuter link between Essex Junction and Jeffersonville as part of its long range plans. Such a link would likely travel on Route 15 and contain at least one stop in Jericho. By identifying sites and planning for future transit stops now, the Town can increase the likelihood that CCTA will provide service to Jericho in the future. Since extension of public transit service can require significant local investment, the Town should consider the costs and benefits of extending service to Jericho.

Car pooling/ridesharing is an often overlooked transportation option for rural communities such as Jericho. One way to encourage carpooling is to establish centrally located, secure park-and-rides/commuter lots. While such lots are often owned and

maintained by state or local governments, another, sometimes less expensive option, is to negotiate agreements with property owners to utilize existing overflow/off-hour parking areas for this purpose. In considering sites for a local park-and-ride, accessibility and coordination with the potential CCTA link discussed above should be considered.

## **PEDESTRIAN AND BICYCLIST MOBILITY**

Safe pedestrian access and mobility is a critical component of a successful Village Center. Jericho Corners, Jericho Center, and Riverside/Underhill Flats each serve as vital centers for cultural, commercial, and civic activity. The 2015 projections above show that traffic volumes are expected to increase by between 35 and 40% on the main roads (Vermont Route 15 and Browns Trace) through each Village Center by 2015. As the 2004 study notes, *“The main road through a village is a public space where members of the community meet and greet. A well designed main street provides community identify, brings members of the community together, and supports neighborhood cohesion. As traffic volumes increase, this function deteriorates quickly and the road divides rather than unites the community.”*

The potential negative impacts of increased traffic volumes can be mitigated by providing safe infrastructure for pedestrians and traffic calming. Since the 2004 Transportation Study, Jericho has actively pursued this goal. The Jericho Corners Streetscape Project, constructed in 2010, provides a continuous sidewalk system from Griswold Street to Lawrence Heights (minus a gap over the Brown’s River) as well as traffic calming measures such as access management, landscaping, and streetlights. Using a mix of state, federal and local funds, sidewalks have been added to almost all the major streets through Riverside, though gaps in the network exist on the south side of VT Route 15, and there are no connections to the Underhill portion of this Village Center. Sidewalks have been constructed through the core of Jericho Center using local funds, and the Town is currently investigating a pedestrian connection to MMU.

In addition to sufficient infrastructure, the pattern and layout of buildings is a critical component of a pedestrian friendly village. In order to facilitate bicycle travel, it is important that bicycle parking be available at public establishments and businesses. Buildings and uses separated by large distances are generally less accessible to pedestrians than areas where buildings are more tightly packed and uses are mixed. Similarly, large parking areas and deep front yard setbacks can create barriers to pedestrians if improperly designed. Particularly in the Village areas, it is important that pedestrian access and circulation be given equal consideration with vehicular traffic.

There is growing interest in using bicycles as a means of transportation as well as recreation. For some Jericho residents, particularly children too young to drive, cycling is a primary means of transportation. As with pedestrians, bicycle travel along local roadways will become less safe and desirable as traffic volumes increase, unless improvements such as paving or widening roadway shoulders are made.

There are three general types of bicycle facilities. The first is a formal bike or multi-use



path. These paths are usually designed for pedestrians as well as cyclists. Multi-use paths are physically separated from a road and are designed for two-way traffic. As a result, multi-use paths are usually between 8 and 12 feet wide.

The other two types of bicycle facilities are both designed for on-road application. These include dedicated “bike lanes” and “bicycle routes”. A bike lane is a widened, paved shoulder dedicated to bicycles. VTrans refers to these as “Paved Shoulder Bicycle Facilities.” The Vermont Pedestrian and Bicycle Facility Planning and Design Manual recommends shoulder widths of between 3 and 5 feet for dedicated bike lanes, depending on road conditions and motor vehicle speed. VTrans recommends the establishment of dedicated bike lanes when traffic volumes exceed 1,000 AADT

The “bicycle route,” referred to by VTrans as “Shared Travel Lanes”, is a roadway in which there is no delineation between vehicular traffic and bicycles. Signage and pavement markings alerting motorists to the presence of cyclists, as well as public education, can greatly enhance the use of “bicycle routes.” VTrans only recommends shared travel lanes where traffic volumes are less than 1,000 AADT. However, they have been established successfully in some areas with higher traffic volumes. Speed plays a role in the applicability of shared travel lanes as well, as higher volume roads with low speeds may be safer for shared lanes than high-speed rural roads.

The 2004 Transportation Study identified the following roads as proposed for on-road bicycle facilities. In addition to these routes, the Study noted the potential of creating a shared use path across the old railroad bed running approximately parallel to Route 15.

**Table 9.7. Proposed On Road Bicycle Facilities**

<b>Roadway</b>
Vt Route 15
VT Route 117
Lee River Road
Browns Trace
Barber Farm Road
Skunk Hollow Road*
Governor Peck Road
Ethan Allen Road

\*Dirt portion may be unsuitable for road bikes.

Each of the roadways identified for an on-road bicycle facility has a traffic volume of greater than 1,000 AADT, meaning dedicated bike lanes are needed. While traffic volumes for Ethan Allen Road were not analyzed, the high volumes of heavy vehicle traffic from the Ethan Allen Firing Range may justify dedicated bike lanes for that road. None of the roadways identified above currently have sufficient shoulder width to accommodate a dedicated bike lane. The situation is most critical on Route 15, Browns Trace, and Lee River Road, as these roads connect the three Village Centers. By 2015, traffic volumes are expected to increase by between 30 and 50 percent on segments of these roads.

Given that it may be difficult to establish dedicated bike lanes on each of these roads, another strategy to improve safety for cyclists may be to establish “bike routes” on lower volume rural roads that follow similar routes as higher volume connectors. For example, Plains Road runs parallel to Lee River Road and has significantly less traffic, and may serve as a possible alternative route for cyclists and pedestrians. Given that Plains Road is currently unpaved, this route may be more suitable for mountain bikes and hybrids than road bikes. Another alternative, particularly in Village Centers, is to develop a network of interconnected streets and paths between new and existing subdivisions. By doing so, Jericho may create safe routes for cyclists and pedestrians that do not rely on high volume roads.

## **GOALS, STRATEGIES AND IMPLEMENTATION**

### **Goal 9.1: Jericho’s transportation network will be appropriately maintained, managed, and upgraded to accommodate new growth.**

Strategy 9.1.1: Plan for adequate use, construction, and maintenance of existing roadways.

Implementation 9.1.1.1: Maintain and update a schedule for capital expenditures related to the maintenance and upgrading of the roads on a priority basis.

Implementation 9.1.1.2: Maintain and update a schedule of impact fees to mitigate the effect of new development on the cost of improving affected roads.

Implementation 9.1.1.3: Participate in hearings on the actions of neighboring towns that will affect traffic volumes on Jericho's roads and share traffic data with neighboring communities.

Strategy 9.1.2: Provide viable, safe, and pedestrian friendly intersections.

Implementation 9.1.2.1: Upgrade the VT-15/River Road intersection or redirect traffic as recommended in the Dickinson Street Alternative Analysis

Implementation 9.1.2.2: Evaluate different design alternatives to address projected poor LOS at the VT-15/Browns Trace Intersection.

Implementation 9.1.2.3: Periodically evaluate LOS and safety at major intersections. Prioritize improvements based on safety rather than Level of Services. Service Levels lower than C can be acceptable in Village Centers when the delay provides for traffic calming and/or improves pedestrian safety, or where upgrades would negatively impact the surrounding built or natural environment.

Implementation 9.1.2.4: Formulate an Official Map identifying right-of-way needs for future intersection improvements.

Strategy 9.1.3: Develop a network of interconnected roads and streets.

Implementation 9.1.3.1: Formulate an Official Map for a road and pedestrian network in the Village Center and Village Districts.

Implementation 9.1.3.2: Require continuation of roads in new developments and subdivisions. Rights-of-way in new developments should be reserved for future extension/connection of dead-end roads. Dead-end turn-arounds should be designed to allow for continuation of the road in future phases of development, or when adjacent properties are developed.

Implementation 9.1.3.3: In general, the Town of Jericho should not accept additional dead-end roads as public roads. Only roads which contribute to a network of interconnected roads and streets should be accepted as public roads.

Strategy 9.1.4: Maintain up-to-date data on Jericho's Transportation network.

Implementation 9.1.4.1: Update the projections in the 2004 Transportation Study based on increased density allowed by the recently adopted Land Use and Development Regulations.

Implementation 9.1.4.2: Every ten years, conduct traffic projections using similar methodology to the 2004 Transportation Study. Compare these projections against actual traffic counts.

**Goal 9.2: Facilities for alternative modes of transportation such as bicycling, walking, and car-pooling are provided.**

Strategy 9.2.1: Develop a system of pedestrian and bike paths connecting key points throughout Jericho, such as the Village Centers and Schools.

Implementation 9.2.1.1: Include funds in the Capital Plan for shoulder widening on roadways proposed for on-road bicycle facilities in the 2004 Transportation Study. Priority should be given to roadways which connect Village Centers such as Lee River Road, and Browns Trace. Shoulder widening should occur in conjunction with other planned roadway improvements.

Implementation 9.2.1.2: Work with VTTrans to ensure that upgrades to Route 15 and Route 117 include creation of shoulder widths sufficient to accommodate a paved shoulder bicycle facility meeting the requirements of the Vermont Pedestrian and Bicycle Facility Planning and Design Manual

Implementation 9.2.1.3: Whenever median lines are repainted, ensure that the fog lines receive similar treatment. Fog lines should be located to provide sufficient shoulder widths for bicycles and to encourage motor vehicle travel at safe speeds. Consider methods for keeping shoulders clear for cyclists.

Implementation 9.2.1.4: Identify and fill any gaps within the pedestrian infrastructure in each Village Center. In general, sidewalks should be available on both sides of the main road through each Village Center (Route 15/Browns Trace) and on at least one side of other streets.

Implementation 9.2.1.5: Replace the pedestrian bridge over the Browns River in Jericho Corners.

Implementation 9.2.1.6: Provide greenways, pedestrian/bike paths, or sidewalks when constructing new roads or when performing major upgrades such as paving or road realignment. These alternative transportation paths may be placed at a different location than the primary construction.

Strategy 9.2.2: Consider pedestrian and bicycle safety and access when reviewing new developments.

Implementation 9.2.2.1: Secure easements and rights-of-way for new pedestrian and bicycle facilities through the development review process, especially along three-rod roads in the Village Centers or proposed for on-road bicycle facilities, or where existing trails connecting important facilities or neighborhoods are present.

Implementation 9.2.2.2: Require that common land in subdivisions, public land, and open space be arranged to enhance interconnections and require public rights-of-way where appropriate.

Implementation 9.2.2.3: Develop and enforce standards that ensure that the layout of new developments is conducive to pedestrian access.

Implementation 9.2.2.4: Require the installation of bicycle racks as a condition of approval for new developments.

Implementation 9.2.2.5: Require the construction of sidewalks in new subdivisions and developments.

Strategy 9.2.3: Support alternatives to the single occupancy vehicle.

Implementation 9.2.3.1: Identify locations that could be utilized as a local park-and-ride, including existing establishments with excess overflow parking during weekdays that may serve as a leased local park-and-ride. Work with the CCMPO to identify funding sources and mechanisms to support a local park-and-ride.

Implementation 9.2.3.2: Identify and work to eliminate barriers to the formation of informal park-and-ride arrangements between private parties, including but not limited to liability and maintenance/safety concerns.

Implementation 9.2.3.3: Work with the CCTA to identify stop locations along the proposed Essex/Jeffersonville Link. Coordinate these locations with the development of local park-and-rides.

Implementation 9.2.3.4: Provide Jericho residents with information on existing state programs that support and facilitate car pooling.

Implementation 9.2.3.5: Encourage municipal and school employees to seek alternative means to commute to work, such as walking/bicycling, car pooling, or ridesharing.

Implementation 9.2.3.6: Work with major local and regional employers to facilitate car pooling, ridesharing, and or transit use among their employees.

Implementation 9.2.3.7: Encourage school children to travel to school by use of the buses or walking/cycling. Educate parents as to the benefits and availability of these options.

**Goal 9.3: Jericho's roads are designed to be sensitive to their natural and historical context and to promote the safety and livability of surrounding neighborhoods.**

Strategy 9.3.1: Standards for new roads will take into account aesthetic and economic values as well as the present or anticipated level of service

Implementation 9.3.1.1: Amend the Public Works Specifications to encourage road designs that reflect the location, use, and context of the site. Include special standards for village streets and low volume rural roads. New roads shall comply with the standards for the appropriate designation.

Implementation 9.3.1.2: Narrow, whenever possible, new paved roadways in developed areas, providing curbs and/or a green strip between roads and sidewalks.

Strategy 9.3.2: Ensure that upgrades to existing roads are compatible with the surrounding neighborhood and context of the road.

Implementation 9.3.2.1: Solicit vigorous public input including warned public hearings prior to undertaking significant road alterations.

Implementation 9.3.2.2: When reviewing possible road upgrades, including paving, the Selectboard shall consider impacts on (a) the safety of alternative transportation, including pedestrian and bicycle traffic, (b) the average speed of traffic, (c) the volume of through traffic, and (d) the aesthetics of the area,

Implementation 9.3.2.3: In general, upgrades to gravel roads shall consist of improvements to the road base rather than paving.

Implementation 9.3.2.4: Give due consideration to the impacts on and opinions of property owners, residents, and tenants on a road prior to undertaking major upgrades.

Implementation 9.3.2.5: Work with Vtrans to mitigate impacts of increased commuter traffic on Route 15, and to implement measures to reduce residual vehicle noise, control vehicle speed, and improve safety for pedestrians and residents. Ensure that upgrades to Route 15 consider pedestrian safety and circulation, the mixed use character of the Jericho Corners and Riverside Village Centers, and the safety of residents living on the corridor.

Implementation 9.3.2.6: Investigate the benefits and costs of methods to increase local authority over management and upgrades to Route 15, such as assuming management of Route 15 as a Class I town Highway.

Strategy 9.3.3: Consider the environmental impacts of roadway construction and maintenance.

Implementation 9.3.3.1: Continue to work with organizations such as the “Vermont Better Back Roads” to reduce erosion and runoff from Jericho’s roadways and to replace undersized bridges and culverts.

Implementation 9.3.3.2: Investigate use of new erosion control techniques, such as “compost filled filter socks” for use in road maintenance and construction.

Implementation 9.3.3.3: Investigate potential road salt alternatives. Consider safety and cost when evaluating potential alternatives.

Strategy 9.3.4: Use roadway design to encourage travel at safe speeds

Implementation 9.3.4.1: Examine and implement strategies for road layout and design, roadside landscaping, and other traffic calming measures that encourage travel at safe speeds.

Implementation 9.3.4.2: Design and construct “village gateways” to calm traffic entering each Village Center.

Strategy 9.3.5: Maintain and enhance the rural character of Jericho’s roadways.

Implementation 9.3.5.1: Formulate a plan for the planting of trees in or along all rights-of-way both public and private. Establish a policy for the replacement of trees removed from the right-of-way through road maintenance. Do not remove trees within the right-of-way without contacting tree warden and holding public meeting as required by law.

Implementation 9.3.5.2: Retain and restore Y-type “flat iron” intersections outside village and village centers. Improve safety at these intersections by clearly delineating travel lanes.

Implementation 9.3.5.3: Research, develop, and encourage alternate designs for bridges based on scale of use and aesthetics.

Implementation 9.3.5.4: Formulate and adopt a Scenic Road Plan.

## **10. UTILITIES, FACILITIES AND SERVICES**

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### **WATER SUPPLY**

Jericho Corners and Riverside are both served by public water supplies. Riverside is served by the Jericho-Underhill Water District, which also provides water in Underhill. Jericho Corners is served by the Jericho Village Water District, which obtains water from the Champlain Water District (CWD). The Village Water District waterlines extend down Packard Road to Mount Mansfield Union High School and then to the Ethan Allen Firing Range. Boundaries of these two public water service areas are shown on Map 12.

The availability of public water greatly enhances development opportunities in these two Village Centers. For one, public water alleviates the need for each property to provide its own water supply. In areas with public water, more area can be devoted to structures, septic fields, parking, and other infrastructure due to the lack of conflicting setbacks from private wells. This enables greater development densities and a more diverse range of uses. The availability of public water also greatly enhances fire protection.

The remainder of Jericho is served by either private or community wells. Unlike the other two Village Centers, Jericho Center is not served by a public water system. This reduces the potential for new, village scale development in this area. It has also been reported that some wells in this area have been contaminated. The close proximity of many existing structures in Jericho Center coupled with the lack of public water also raises concerns regarding fire protection. As noted above, the Champlain Valley Water District water lines extend to Mount Mansfield Union High School, which is located approximately one mile north of Jericho Center. These lines could be expanded to Jericho Center in the future. As an alternative, some properties could be connected to a community system serving this area.

Another area that could potentially benefit from connection to a public water supply is the Commercial District along Route 15. While portions of this area are currently served by the Jericho East Community Water District, connection to the CWD system could allow increased water pressures, enable a more diverse base of businesses, and reduce concerns related to ground water contamination.

The benefits of any waterline expansion should be weighed against potential unintended consequences, such as diverting appropriate development away from the Village Centers and contributing to strip development along corridors served by the water district. Appropriate planning tools should be in place to prevent these adverse consequences prior to undertaking any waterline expansion.

## **SEWAGE DISPOSAL**

No central sewage disposal system is available to Jericho residents. Private systems, including both community systems serving major subdivisions and individual dwelling systems, process all of the sewage in Jericho. Soil Septic Suitability is depicted on Map 11. Soils in Jericho Corners and Riverside are generally favorable for onsite sewage disposal. These favorable soils, coupled with new technologies, increased allowed density in the Jericho Land Use and Development Regulations, and regulatory changes discussed below will allow more dense development to occur in these two Villages.

While some soils favorable to onsite sewage disposal exist in Jericho Center, the presence of neighboring wells greatly reduces their availability for this function. It is likely that some type of community solution will be necessary for the densities and uses envisioned for the other Village Centers to occur in Jericho Center on a village wide scale.

In 1997, the Town of Jericho commissioned a feasibility study of community wastewater disposal systems for Jericho Corners, Jericho Center, and the Jericho East commercial area. The study analyzed failure rates, identified potential sites for community systems, and provided cost estimates for construction and operation of a community system in each study area. Given advances in sewage treatment technology and recent changes in state regulations related to wastewater disposal, it is likely that much of the information contained in this study is now out of date. This study was followed up with the development of a Wastewater Management Plan in 1999, which primarily focused on educating residents about proper maintenance of their septic systems and discussed the possibility of creating a revolving loan fund for the replacement of failed systems.

As noted above, recent changes to state wastewater regulations and new wastewater treatment technology may allow additional development in some areas. "Pretreatment technologies" can be used on poor soils and in areas with high groundwater tables that are otherwise undevelopable. Even in areas with soils well suited for onsite wastewater treatment, pretreatment can be used to increase wastewater flows or reduce the size of the wastewater disposal field. In a similar vein, the new state wastewater regulations eliminated the requirement for a replacement area for mound systems and, in some cases reduced the size of the replacement area required for conventional systems. Together, these changes will likely contribute to increased development density, particularly in Jericho's Village Centers. These changes may also have the effect of allowing development in rural areas that were previously thought undevelopable.

## **GAS, ELECTRICITY, CABLE TV, AND TELECOMMUNICATION SERVICES**

Electric power to Jericho is provided by the Green Mountain Power Corporation, Central Vermont Public Service, and the Vermont Electric Cooperative. Three phased power is currently available within Jericho Corners and Riverside, but not available in Jericho Center. Extension of three phased power to Jericho Center would increase that Village Center's ability to support mixed use development. Both cable and wireless TV services are offered by private companies, one of which maintains facilities on the town



land at Mobb's Farm.

High-speed internet connection is currently available in parts of Jericho. Jericho recently participated in a tri-town partnership with Underhill and Westford to bring high-speed internet to all areas of each of these three towns. This effort resulted in a stalemate since no provider could be found to meet the needs of the three municipalities.

Although utilities are buried in new developments, there are still many lines along Jericho's roads and a number of major transmission lines running through the woods and fields. Although provision for these facilities is vital for a safe and productive society, the poles, wires, and the destruction of roadside vegetation are among the most unfortunate impacts to the landscape. Over time, existing lines should be buried and new lines shall be placed underground unless there are clear environmental constraints to doing so.

In 2007, Vermont Gas began expanding service into Jericho. These new gas lines primarily serve Route 15 and the Village Centers of Jericho Corners and Riverside. This added piece of infrastructure enhances the viability of these Village Centers. Natural gas is not currently available in Jericho Center and portions of the Commercial District. Expansion of natural gas lines to these areas would enhance their ability to support the land uses envisioned by this Plan.

The Town of Jericho adopted Telecommunication Regulations in 2003. Telecommunication Towers provide important services and are a necessary component of modern infrastructure. Nevertheless, given that towers by necessity often must be placed on undeveloped ridgelines, the siting of new towers and associated facilities must take into account factors such as visual impacts, wildlife habitat, erosion, and potential impacts on headwaters. Collocation of new antennae on existing towers shall be preferred over the construction of new towers whenever feasible.

## **FIRE PROTECTION**

Fire protection is provided by a volunteer organization, the Underhill-Jericho Fire Department, Inc (UJFD), a primarily volunteer organization. The Department is staffed by one fulltime (40 hours per week) "Administrator/Firefighter/EMT" and approximately 45 volunteers, all of whom live in the service area, serving as Firefighters, Fire Police, Dispatcher, and Auxiliary. The UJFD operates two stations with the headquarters being located at 420 Vermont Route 15 in Underhill Flats. That station houses one engine, one tanker, one heavy rescue, one water supply pumper, and one utility/brush truck. A substation is located at 288 Browns Trace and houses one engine and one tanker. The service area for the Department is the Towns of Underhill and Jericho. The Department has mutual aid agreements with surrounding communities to provide additional and specialized equipment when needed.

Emergency calls are answered by the Vermont State Police in Williston. Each Department member carries a radio and is alerted by emergency calls dispatched by

the Vermont State Police. All members that are available respond to each alarm.

The Department is financed by a contract with the two towns, with Jericho currently assuming 60% of the total annual budget. An annual budget is prepared by the Department and reviewed by the two Selectboards. The budget includes a capital plan for the regular replacement of equipment. Fire Department members receive a small hourly stipend for emergency calls and weekly training.

The Fire Department faces a number of challenges in providing adequate service to a growing and changing community. Three primary considerations are availability of Firefighters, availability of water, and access to the structure or area. At one time most members worked in the service area, but now all but a few members work outside the service area. It is increasingly difficult for the Department to respond to alarms occurring on weekdays. The Fire Department faces a growing challenge of finding qualified people who are willing to make the commitment of time necessary to maintain a volunteer department and of retaining them in membership beyond the first few years. As the rate of alarms has increased in excess of 250 emergency calls annually, it may be necessary to employ a second full-time professional at some point in the future.

In areas served by public water, water supply for fire protection is provided through pressurized hydrants. In areas not served by public water, the Fire Department relies on a “tanker shuttle” or “large diameter hose lay” to provide water for fire suppression. These techniques remove Firefighters from the fire ground, requiring more manpower to control fires. Alternative water sources such as cisterns or ponds connected to a dry hydrant can alleviate some of these pressures and increase the likelihood of successfully extinguishing a fire in a timely manner.

The Insurance Services Office (ISO) rates communities based on their ability to suppress fire through the Public Protection Classification program (PPC). Communities are rated on a scale of 1 to 10, with 1 representing superior fire protection and 10 essentially meaning an area has no fire protection. This rating is based on equipment and personnel (50%), water supply (40%), and alarm response rate (10%). Jericho is rated Class 5 in areas served by public water and Class 9 in all other areas. Approximately 50% of fire departments in Vermont are rated Class 9, while less than 10% are rated Class 4 or better. The PPC provides an objective, countrywide standard that helps in planning and budgeting for facilities, equipment, and training. The PPC is also used by insurance companies to set fire insurance premiums, particularly for commercial properties, with lower ratings generally translating into lower premiums.

Regarding access, the Fire Department will continue to provide recommendations during the review of all proposals for new development.

## **POLICE**

While major crime does not appear to be a significant problem in Jericho, there has been an increase in property related crimes in Jericho and other rural Chittenden County Towns in recent years. Many town residents have also expressed concern

about speeding and other traffic offenses.

Jericho currently contracts with the State Police for local law enforcement services, including speed control. While the Town supports the continuation of this arrangement, a study commissioned by the Vermont State Legislature recently recommended that the State Police cease contracting with Towns for Law enforcement. Other options would include a new local or regional police force.

## **HEALTH, RESCUE, AND SOCIAL SERVICES**

Jericho's location on Route 15 has made it an attractive location for health care practitioners looking to expand beyond the immediate Burlington area. Two chiropractors operate offices in Jericho. Momentum Physical Therapy recently opened a branch office in Jericho, and the Rehab Gym is investigating opening a facility in Jericho. In keeping with the goals of this Plan, many of these offices are located within Jericho's Village Centers.

The greater Burlington area offers a full array of practitioners representing virtually all specialties, so that Jericho residents have ready access to health care. Fletcher Allen Health Care facilities in Burlington and Colchester offer inpatient, emergency room, and immediate care services.

The Visiting Nurse Association, Inc. provides home care, hospice, maternal and child health, and homemaker services to Jericho residents in their homes. Reimbursement for these services by health insurance payments and patient fees is supplemented by an annual appropriation of town funds.

Social service, counseling, and mental health services are available to Jericho residents through a wide variety of public, voluntary, and proprietary organizations and services located throughout Chittenden County but concentrated in Burlington. Among these is Howard Mental Health Services, Inc., which receives an annual appropriation of town funds.

Ambulance service for most of Jericho is provided by Essex Rescue, Richmond Rescue, and St Michael's Rescue. These organizations are primarily staffed by volunteers, some of whom live in Jericho. Most members are qualified Emergency Medical Technicians and all receive ongoing training through area hospitals and the state Emergency Medical Services.

Several local organizations are offering charitable services. These include the Jericho-Underhill Ecumenical Ministry, a cooperative ministry of local churches that sponsors a local food shelf; and Meals on Wheels, which provides meals to persons who are house-bound or invalid.

## **SOLID AND HAZARDOUS WASTE DISPOSAL**

The Jericho town landfill has been closed since the early 1990s. The Town is a member

of the Chittenden County Solid Waste District which operates a landfill and recycling center in Williston. It also operates several drop-off sites for waste and recyclables, the most convenient of which is in Richmond. Most town residents, though, employ private haulers to pick up their trash and recyclables. A number of private haulers provide this service. There have been discussions about having the Town contract with haulers to reduce wear and tear on town roads.

Recycling of certain materials became mandatory in 1993 by vote of the residents of the district. The recycling center also accepts many other materials for recycling. For economic reasons the materials eligible for recycling varies from time to time. The Waste District also operates a mobile unit for the drop-off of certain hazardous waste materials.

## **LIBRARIES**

Jericho is served by two libraries. The Deborah Rawson Memorial Library is located in Riverside and funded by both Jericho and Underhill. The Jericho Town Library is located on the Jericho Center Green. The locations of both libraries are depicted on Map 12.

The Deborah Rawson Memorial Library is operated under the Jericho-Underhill Library District by a Trustee Board comprised of residents of both towns. Each library offers a wide ranging collection, special programs on a variety of topics for all ages, computers for patrons' use, and outreach programs for community needs. Both libraries are located within one of Jericho's Village Centers.

## **RECREATION AND OPEN SPACE**

Recreation and open space land, which is sometimes referred to as "Green Infrastructure," is an important component of a community

Each of Jericho's three Village Centers is served by a system of green infrastructure. Jericho Center Common is the focal point of Jericho Center. Many of the community institutions in Jericho Center are located around the Common. The Common consists of grassy area interspersed with shade trees, picnic tables, and benches and serves as a community gathering spot. An informal network of trails also connects many properties in Jericho Center.

In Jericho Corners, the Winooski Valley Park District owns 12 acres of land behind the Old Mill. This land, known as Old Mill Park, provides access to the Browns River for fishing and swimming, picnic areas, and a network of nature and hiking trails. The former Water District lands in Jericho Corners are also sometimes used for recreation, though their uses are not clearly defined and could be expanded. An informal network of footpaths connects many neighborhoods within Jericho Corners. A network of mountain bike trails overseen by the Fellowship of the Wheel extends from Essex into Jericho behind Skunk Hollow Road and may be extended further in coming years.

Riverside contains the 200 + acre Mills Riverside Park managed by the Jericho Underhill Park District. The Park includes a pavilion, improved playing fields, hiking trails, open areas, the banks of the Browns River, as well as forested hillside. During the summer months, Mills Riverside Park also hosts the Jericho Farmers Market and a concert series. The Jericho/Underhill Common located on Park Street provides a small green focal point for a busy intersection in this village.

Mobbs Farm, a 500 acre Town owned property located on Browns Trace, is a significant piece of green infrastructure located outside of the Village Centers. In 2007 the Town appointed a committee to develop a management plan for Mobbs Farm. This plan was presented and adopted in 2009.

Kikas Valley Farm is 280 acres of working farm land and forest which the Jericho Underhill Land Trust acquired in 2005. The land includes trails for walking and cross-country skiing, as well as a portion of the Vermont Association of Snow Travelers (VAST) trails.

Wolfrun Natural Area includes 189 acres in Jericho acquired by the Jericho Underhill Land Trust in 2003. The land is home to black bear, moose, bobcat, and many other wildlife species and includes some walking trails. In 2009, the land trust acquired an additional 123 acre parcel called the Gateway (located in the town of Bolton) which provides better access to Wolfrun.

The UVM Jericho Research Forest is open to public use for hiking, horseback riding, cross-country skiing, and approved research and educational activities. All-terrain vehicles and mountain bikes are not allowed, but snowmobiles are permitted. VAST maintains an extensive set of snowmobile trails. There are also two stream accesses, the State Fish & Wildlife access to Mill Brook on Nashville Road and the canoe launch on Route 117 near Skunk Hollow Road, which is located on private property but made available for public use. Open space lands associated with residential subdivisions are also scattered throughout Jericho. However, these areas tend to primarily serve the residents of the subdivision and are not generally open to the wider public.

Numerous community recreational activities include aerobics lessons, Jericho Youth League baseball and softball, gymnastics programs, several ski programs for children and adults, soccer, the Jericho Recreation summer program for children K-8, swimming lessons, tennis lessons, track and field training, volleyball leagues, girl and boy scouts, 4-H clubs, art classes, karate and tae-kwon-do classes, yoga, story hours, and book discussion groups. The Community Center in Jericho, located in Jericho Center, is also available to all members of the community for a wide variety of activities.

The five school facilities in the town all offer basic services to the community, including parking areas, playing fields, a gymnasium and auditorium, and kitchen/cafeteria facilities. In addition, Mount Mansfield Union High School offers cross-country running trails, a circuit training course, and a river access. Major upgrades to the Mount Mansfield Union athletic fields were recently completed.

Public parks in Jericho are depicted on Map 12.

## **CEMETERIES**

Jericho has four cemeteries, Castle, Lowry, Pleasant View, and Jericho Center Cemetery.

Castle Cemetery is located next to the Good Shepherd Lutheran Church on Vermont Route 15, and contains the grave sites of Dezier (Hawley) Castle whose death was the first in Jericho (1786), David Castle, Jericho's first selectman (in 1776) and his wife Phebe Sanford, and several members of the Brown family, Jericho's first settlers. Many of the grave markings in the Castle Cemetery are in need of repair and/or restoration.

Lowry Cemetery, located on Raceway Road, was given by the Lowry family in 1801. Together with Castle and Brown families, the Lowrys were among Jericho's earliest settlers.

Castle and Lowry cemeteries are no longer in use, and are maintained by the Town.

Pleasant View Cemetery, located in Jericho Corners, is operated by the Jericho Cemetery Association; in it are buried members of many families prominent in Jericho's past, among them Day, Galusha, Howe, Whitcomb, Williams and Wilbur.

The Jericho Center Cemetery is partly owned by the Town and partly privately held by the Jericho Center Cemetery Commission. This cemetery contains the final resting place of Wilson "Snowflake" Bentley.

While Jericho Center Cemetery recently expanded to include an adjoining three acres, there is limited cemetery space in Jericho. As the Town's population ages there may be an increased need for this resource. In some areas, this may be an appropriate use of PUD Open Space that does not have high natural resource or recreation value, provided appropriate agreements can be reached by the applicant/homeowners association and the Selectboard.

Cemeteries in Jericho are depicted on Map 12.

## **TOWN GOVERNMENT**

Town political and governmental functions are carried out by a team of elected and appointed Jericho residents supported by a paid staff.

### **Elected**

The three elected members of the **Selectboard** are responsible for overall town operations. They are elected at Town meeting for three year terms.

The **Town Clerk** provides many services such as the issuance of Dog Licenses, Marriage Licenses, filing Vital Records including Birth, Death, and Marriage Certificates, recording real estate transactions, processing Motor Vehicle renewals, preserving all documents for the Town, and providing Notary Public services. This position is an elected position serving a 1 year term.

The **Treasurer** maintains oversight of all accounts and investments. This position is an elected position serving a 1 year term. The Treasurer also collects tax payments three times a year and deals with resulting delinquent tax matters.

## **Appointed**

The **Planning Commission** is a 7-member board primarily responsible for updating the Town Plan every 5 yrs, and updating and revising the Land Use and Development Regulations. These positions are appointed by the Selectboard to 3-year terms.

The **Development Review Board** is a 5-member board with 3 additional alternate positions. It is primarily responsible for reviewing development proposals, which include conditional uses, site plans, subdivisions, appeals, and variances. These positions are appointed by the Selectboard to 3-year terms.

The **Conservation Commission** is a 9-member board, under the direction of the Selectboard. They are available for conducting studies, applying for grants, and providing input for the various Boards in regards to the natural resources within Jericho. These positions are appointed by the Selectboard to 3-year terms.

The **Animal Control Officer** is the contact for all issues related to domestic/wild animals. This position will assist with lost/found animals, unlicensed dogs, some wild animal concerns, and animals-at-large.

The **Town Health Officer** is appointed by the Selectboard and is responsible for all public health issues in town including enforcing the rental housing code and any animal bites.

The **Tree Warden** provides assistance to the Selectboard in determining the health of trees and identifying potentially hazardous trees within the public right-of-way.

Several arcane appointed positions include the **Fence Viewers, Weigher of Coal and Inspector of Lumber and Shingles**. These positions are largely ceremonial in nature, and are a memorial of Jericho's past.

## **Hired**

The **Town Administrator** appointed by the Selectboard is responsible for the day-to-day general administration issues, not covered by one of the other departments. This position currently has a full-time administrative assistant.

The **Planning and Zoning Office** provides support to the Planning Commission and Development Review Board. Duties include preparation of Town Plans and Land Use Regulations; oversight of planning studies; review of subdivision, conditional use, site plan and other development applications; and issuance of building permits and certificates of occupancy. Currently the office is staffed by a full time **Town Planner** and part time **Zoning Administrator**.

The **Listers Office** provides and manages property assessment information. Annual inspections are conducted on properties where improvements have been made, and any town wide reappraisals are managed out of this office. Most questions regarding the value of one's property can be answered here. The three lister positions are appointed by the Selectboard for a 3 year term. The **Assessor** position is a contract position approved by the Selectboard.

A part-time **Assistant Town Clerk** assists the elected Town Clerk. A part-time **Financial Coordinator** is responsible for the daily management of our accounts payable and payroll issues.

The **Summer Recreation Director** is responsible for overall administration and management of the 6-week children's program and is supported by two seasonal Assistant Directors and a number of counselors. Outside of the actual program dates, the Summer Recreation Director has limited office hours.

Most Town government activity takes place at the Jericho Town Hall, a former schoolhouse on Route 15 in Jericho Corners, originally erected in 1893. The Town Hall includes offices for the Town Clerk, Treasurer, Listers, Town Planner, and Zoning Administrator and storage for maps and records. It provides space for meetings of Town officers and boards. In 2008, the Town completed a major renovation of the Town Hall, which completely reconstructed the interior of the building and resulted in all three levels of the building being available for public use.

## **GOALS, STRATEGIES AND IMPLEMENTATION**

**Goal 10.1: Jericho will maintain a high quality level of services and facilities and provide for new or expanded public facilities and services that support the goals of this Plan, such as compact, mixed use development in Village Centers.**

Strategy 10.1.1: Ensure that new users and new development contribute their proportion of the costs for infrastructure improvement and maintenance.

Implementation 10.1.1.1: Maintain and update a schedule for capital expenditures related to the maintenance and upgrading of the services described within this section of the Plan.

Implementation 10.1.1.2: Maintain and update a schedule of impact fees to mitigate the effect of new development on the cost of improving affected utilities, facilities, and services.



Strategy 10.1.2: Provide for an adequate and safe supply of water for present and future Jericho residents and ensure the adequate and safe disposal of wastewater.

Implementation 10.1.2.1: Encourage appropriate mixed use development within areas currently served by public water.

Implementation 10.1.2.2: Evaluate expansion opportunities for Champlain Water District, particularly to include Jericho Center and the Commercial District. This assessment should include investigation of both the benefits and adverse consequences of a waterline expansion. Appropriate planning tools should be in place to prevent undue adverse consequences prior to undertaking a waterline expansion.

Implementation 10.1.2.3: Implement expansion opportunities for Champlain Water District which advance the goals of this Plan. Appropriate planning tools should be in place to prevent undue adverse consequences prior to undertaking a waterline expansion.

Implementation 10.1.2.4: Investigate methods for the protection of the potability and availability of water for private wells, such as the development of a Water Resources Plan as described in the Natural Resources Section of this Plan.

Implementation 10.1.2.5: Educate Jericho residents and property owners about proper management of septic systems and new technologies for wastewater treatment.

Implementation 10.1.2.6: Investigate methods for funding a revolving loan plan to help Jericho residents pay for necessary maintenance and upgrades to inadequate septic systems.

Implementation 10.1.2.7: Keep current on emerging technologies for sewage disposal and their impact on the goals of this Plan.

Implementation 10.1.2.8: Investigate the feasibility of a decentralized community wastewater system serving Jericho Center.

Strategy 10.1.3: Provide for adequate power and communications services with minimal compromise to the attractiveness of roadsides, hilltops, and the landscape generally.

Implementation 10.1.3.1: Implement and enforce regulations pertaining to the placement of wireless telecommunications towers.

Implementation 10.1.3.2: Require that all new and relocated utilities be located underground and pursue opportunities to bury existing above ground utilities.

Implementation 10.1.3.3: Develop a plan to progressively reduce the number of overhead power and communications lines with a goal of complete elimination.

Strategy 10.1.4: Provide Jericho residents with adequate fire protection, police, and emergency medical services.

Implementation 10.1.4.1: Review and consider the Fire Department's assessment of its ability to provide adequate protection in the approval of future developments.

Implementation 10.1.4.2: Evaluate the adequacy of the Public Works Specifications for driveways to new home sites against the Fire Department's recommendations for access.

Implementation 10.1.4.3: Identify areas which lack adequate water supply for fire protection and develop plans to improve the water supply in rural areas. Require new developments to provide facilities such as fire ponds, cisterns and/or hydrants in accordance with this Plan.

Implementation 10.1.4.4: Include standards for dry hydrants, fire ponds, and cisterns in the Public Works Standards.

Implementation 10.1.4.5: Work to improve the Town's ISO PPC rating in areas not served by public water through improved emergency response planning, equipment and water supply upgrades, and better training/documentation.

Implementation 10.1.4.6: Maintain or improve the Town's current arrangement with the State Police and consider alternatives to the state police, such as a local or regional police force.

Implementation 10.1.4.7: Provide informational resources to Jericho residents interested in forming Neighborhood Watches.

Implementation 10.1.4.8: Review and strengthen arrangements with area rescue squads.

Strategy 10.1.5: Provide environmentally and economically sound systems for managing the disposal of solid and hazardous waste. Reduce the volume of material entering the waste stream.

Implementation 10.1.5.1: Maintain membership in the Chittenden Solid Waste District.

Implementation 10.1.5.2: Consider development of a town-wide contract for trash/recycling pick up.

Implementation 10.1.5.3: Retain regulations for the management and disposal of hazardous waste materials.

Implementation 10.1.5.4: Support waste reduction and recycling efforts and provide residents with educational materials on waste reduction methods and resources.

Implementation 10.1.5.5: Promote the use of drop off centers and encourage all town residents to recycle materials as specified by the solid waste district.

- Implementation 10.1.5.6: Implement recycling, composting, and other solid waste reducing measures in all municipal and school buildings.
- Implementation 10.1.5.7: Evaluate paper purchased by the Town and Schools. Consider purchasing high post-consumer recycled content and non-bleached brands.
- Implementation 10.1.5.8: Encourage composting by individual households, condo associations, neighborhoods, and businesses.
- Strategy 10.1.6: Provide for adequate “Green Infrastructure” such as open space, trails, recreational facilities, and park land.
  - Implementation 10.1.6.1: Investigate ways to encourage public use and available activities in existing parks such as Mills Riverside Park, Old Mill Park, Mobbs Farm, Kikas Valley Farm, and Wolfrun Natural Area.
  - Implementation 10.1.6.2: Evaluate potential recreational uses for the Village Water District parcels located in Jericho Corners.
  - Implementation 10.1.6.3: Use town resources and development incentives to obtain parcels contiguous to existing open spaces and/or greenways to connect natural areas and to protect outstanding water features. Develop walking/hiking trails and bike paths through these connected open spaces.
  - Implementation 10.1.6.4: Evaluate the immediate and future need for community and neighborhood parks. Investigate opportunities for creating new parks of various size and type throughout the town.
  - Implementation 10.1.6.5: Work with other community groups to create and implement an “Open Space Plan” that would increase the number of places and facilities available in town for recreational use.
  - Implementation 10.1.6.6: Formulate an Official Map identifying potential locations for new parks, trails, and other recreation facilities.
- Strategy 10.1.7: Maintain and improve important community buildings located within Jericho.
  - Implementation 10.1.7.1: Establish a plan for capital expenditures to improve the maintenance and use of space in municipal buildings such as the Jericho Town Hall, Town Library, and Highway Garage.
  - Implementation 10.1.7.2: Locate future public and community buildings within the Village Centers to enhance and stimulate the activities occurring there.
- Strategy 10.1.8: Provide for adequate cemetery facilities in Jericho.
  - Implementation 10.1.8.1: Town administrative staff and funds will be made available to provide mapping, planning, historical research support, and land space design for future growth.

Implementation 10.1.8.2: Maintain the grounds and fencing of all public cemeteries in Jericho.

Implementation 10.1.8.3: Restore and repair grave markings in the Castle Cemetery.

Implementation 10.1.8.4: Consider adopting regulations that will allow the use of PUD open space for cemeteries in appropriate situations.

**Goal 10.2: Governmental functions are open and easily accessible to Jericho Residents.**

Strategy 10.2.1: Foster the informed participation of town residents through additional methods of communication.

Implementation 10.2.1.1: Utilize online methods of communication such as Front Porch Forum, Two Towns Online, and the Municipal Website to inform residents of official meetings and events.

Implementation 10.2.1.2: Investigate the creation of a Town Newsletter.

Strategy 10.2.2: Seek creative means of increased participation in Town Government.

Implementation 10.2.2.1: Provide opportunities for citizens to directly participate in the organization and implementation of the special projects noted in this Plan.

Implementation 10.2.2.2: Enlist the aid of volunteer, civic and youth organizations, such as the Lions Club, 4-H, and the Girl Scouts and Boy Scouts in implementing the special projects noted in this Plan.

Strategy 10.2.3: Increase coordination and cooperation among the various groups and organizations serving Jericho residents.

Implementation 10.2.3.1: Conduct periodic joint meetings of various Town boards and committees.

## 11. ENERGY

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### OVERVIEW OF ENERGY SOURCES

Electricity is provided through the state-wide electric utility grid with a current majority of the power supplied by either imported energy from Hydro-Quebec or an in-state nuclear plant, Vermont Yankee in Vernon, Vermont. The future mix of power sources is uncertain as contracts for both sources are up for renewal within the next 1 to 3 years and Vermont Yankee's state license is up for renewal in 2012. In March, 2010 the Vermont State Senate voted not to renew Vermont Yankee's operating license. Also In March 2010, Hydro-Quebec offered the State a contract to continue providing power past 2012.

Most energy sources for heating and transportation in Jericho are fossil fuel-based, except for the use of wood for supplemental heat. Fossil fuel-based energy use is costly from an economic and environmental perspective. Vermont Gas recently installed pipelines to serve some areas of Jericho along the Route 15 corridor. Table 11.1 below shows home heating fuel by source.

**Table 11.1 Home Heating Fuel**

House Heating Fuel	2000	
	Number	%
Utility Gas	39	2.1
Bottled, tank, or LP Gas	533	28.3
Electricity	35	1.9
Fuel Oil, kerosene, etc.	1,091	57.8
Coal or coke	0	0.0
Wood	188	10
Solar Energy	0	0.0
Other fuel	0	0.0
No Fuel Used	0	0.0

Source: US Census

This Town Plan seeks to move Jericho toward energy sources that are secure, affordable, and have minimal environmental impact. The Vermont Sustainable Jobs Fund has created a state-wide renewable energy resource inventory which identifies areas suitable for various kinds of renewable energy generation. This data will help to identify the most viable sources of renewable energy in Jericho. This inventory may also be used to determine whether any public or quasi-public properties or buildings have the potential to develop renewable energy resources.

Once collected, renewable energy is usually stored or distributed in one of three ways. In some cases, electricity generated is used onsite, and excess energy is stored in batteries for future use. Excess energy may also be distributed within a small group or co-op. The co-op then works with their local electricity provider to coordinate billing

within the co-op community. More commonly, excess energy is sold back into the electric grid, or “net metered.” Under Vermont State Law, net metered facilities are regulated by the Public Service Board rather than the local permitting process. The Public Service Board considers the policies of local Town Plans when reviewing applications for new net metered facilities.

Jericho and surrounding areas have an abundant wood supply. While much of the new growth is of low value for timber production, it is nonetheless valuable for energy. As noted above, some residents utilize wood as a supplemental heat source. Mount Mansfield Union High School and Browns River Middle School currently utilize a woodchip burner to generate heat. Replacement of old furnaces with newer, cleaner burning furnaces should be considered in order to reduce the air quality impacts of woodchip burning. There has also been consideration of the use of pelletized wood and grass for thermal energy production. Similarly, “waste-to-fuel” methane digestion can be used to generate both heat and electricity. Several Chittenden County Towns, including Jericho, recently received a grant from the Chittenden County Regional Planning Commission, to study the feasibility of expanding the use of biomass energy in and to study the feasibility of expanding biomass production in the region.

Private solar collectors and solar hot water heaters are growing in popularity in Jericho and Vermont as a whole. While rare in Vermont, large solar arrays, sometimes called solar farms or orchards, have been developed in other parts of the country. While not energy generation in the traditional sense, passive solar, or the direct use of sunlight for heat and light, can reduce energy use and costs. The full utilization of solar potential requires careful site planning and design and is discussed in greater length in “Land Use Planning and Site Design” below.

Jericho once received much of its energy from local hydrological sources, as evidenced by the numerous mills that were built beside its rivers. Today, no power is derived from these sources. However, there is some potential for further development of this resource. For example, one old mill slue still remains and could be utilized in the future. Development of this resource is currently impeded due to the fact that state and federal regulations are tailored for the potential impact and needs of larger facilities. Provided appropriate measures are taken to avoid undue adverse impacts to aquatic wildlife habitat, further development of this resource should be encouraged.

The development of wind energy has been controversial in other areas of Vermont. This is due to the fact that ridgelines which are most suitable for wind energy also contain important wildlife habitat, and some residents perceive wind energy as having a negative impact on aesthetic values. With some appropriate measures, wind energy development should be encouraged to expand to Jericho. When feasible, service and access roads should utilize existing woods roads and trails in order to limit the amount of forest fragmentation, and clearing around turbines should be limited to what is necessary to provide for safe operation of the facility.

This Plan supports the expansion of clean renewable energy use in Jericho.

## **ENERGY EFFICIENCY AND CONSERVATION**

Energy conservation and energy efficiency play important roles in energy planning. Simple actions such as improving building insulation and weather-stripping and caulking of windows can lead to measurable reductions in energy use. Insulation and weatherization improvements alone can reduce energy consumption by more than 25%. Replacement of inefficient lighting, heating systems, and appliances can further reduce energy consumption.

Town government can provide leadership by considering energy efficiency in new construction projects and making energy efficiency retrofits at municipal buildings. The 2008 renovation of the Jericho Town Hall included installation of modern windows, improved insulation, and energy efficient lighting and HVAC systems. These measures were large enough to receive incentive paybacks from Efficiency Vermont. The Deborah Rawson Library was designed as a “green building” and has been used as a case study in presentations on energy efficiency. Energy efficiency retrofits based on comprehensive energy audits are currently underway at the Jericho Town Library, Jericho Highway Garage, Mount Mansfield Union High School, and the Jericho Elementary and Underhill I.D. Schools are both in the process of installing more efficient outdoor lighting. These retrofits are scheduled for completion in early 2011.

Resources are also available to encourage energy efficiency at private homes and businesses. The Jericho Energy Task Force was formed in 2009 to help promote energy efficiency and conservation. In the spring of 2010, the Jericho Energy Task Force offered free home “energy visits” to identify opportunities to save energy. More detailed information can be obtained through a professional energy audit. Efficiency Vermont, Vermont’s energy efficiency utility, offers rebates and incentives for the purchase and installation of energy efficient products. Efficiency Vermont will also work with commercial and non-residential property owners to plan and implement energy conservation strategies.

One barrier to energy efficiency and conservation is that some measures have high upfront costs that may deter homeowners and businesses from making improvements. In order to address this issue, the Vermont Legislature enabled towns to create “Clean Energy Assessment Districts” (CEAD) in 2009. A CEAD allows a property owner to finance a loan for an energy conservation measure through a surcharge on his/her individual property tax.

## **LAND USE PLANNING AND SITE DESIGN**

Land use planning can have a significant impact in reducing energy consumption. Directing development toward Jericho’s three Village Centers can reduce Jericho’s energy consumption in several ways. By placing residential uses closer to local services, the need to commute by automobile is reduced. In a similar vein, transit service is more viable when populations are concentrated rather than spread out over

wide distances. Natural gas lines are more likely to be expanded to areas with higher population density. In some areas, increased density may create opportunities to develop district heating.

The type of development planned to occur in the Village Centers will encourage the efficient use of energy. Multi-family dwellings and mixed-use structures are often more efficient than single family dwellings due to increased insulation provided by common walls and central heating. Even in the case of single family residential development, the small lot sizes allowed in the Village Center will likely result in smaller dwellings, which require less energy for heating, air conditioning, and lighting than large dwellings.

Site design can also play an important role in reducing energy use and costs. Southern exposure for building sites provides immediate energy savings as well as potential future benefits. The orientation of streets sets the stage for lot and building layout. In Vermont, streets that run east-west maximize southern exposure for buildings. Including large window areas on the southern side of a building allows passive solar heating in the winter months. Similarly, designing construction to include large south facing roof areas can allow a property owner to retain the opportunity for future solar development. Planning clearing areas with solar access in mind can enhance opportunities for both active and passive solar utilization in the future.

Landscaping can also help to reduce energy consumption. The use of planted or existing shelterbelts or tree rows can be an effective means of reducing energy use. Shelterbelts located on the north side of a building can serve as buffers against cold winter winds, while shelterbelts on the south side of a building can provide cooling shade in the summer. Often, native varieties will require less water and maintenance than non-native varieties. Shorter, wider trees provide more beneficial shade in the summer and better wind protection in the winter than taller, narrower trees.

## **LOCAL FOOD PRODUCTION**

As noted in the other sections of this Plan, there is a growing interest in locally produced food in Jericho and other Vermont communities. Local food includes production on small farms, farm stands, CSAs, community and neighborhood gardens, and family gardens. Local food requires less energy for transportation, preparation, and storage. In some cases, local food may also be grown using less energy-intensive techniques. Jericho's current Land Use and Development Regulations allow the roadside sale of agricultural products as an accessory use and farmers markets as a permitted use in all zoning districts. This provides for a predictable and efficient permitting process for small scale agricultural operations.

## **TRANSPORTATION**

Transportation represents a large portion of Jericho's energy use. Many Jericho residents commute to work outside of town or travel to regional centers for most goods



and services in single-occupancy vehicles powered by fossil fuel (gasoline and diesel). Transportation represents a major use of fossil fuel, and is the single biggest source of greenhouse gas emissions in Vermont. Approximately 44% of greenhouse gas emissions in Vermont are attributable to transportation. Measures that reduce the use of the single-occupancy vehicle include planning for compact, mixed use development in Village Centers, developing pedestrian and bicycle friendly roadways, local park-and-ride facilities, carpooling, and public transit. These measures are discussed at greater length in the transportation section of this Plan.

## **JERICO ENERGY TASK FORCE**

The Jericho Energy Task Force was formed in April 2009 with the goal of promoting energy awareness and efficiency. The Energy Task Force held three community-wide events in the fall of 2009. These included hosting a booth at the Underhill Harvest Market, conducting an “Energy Tour” which highlighted energy efficiency and renewable energy at fifteen homes and public buildings in Jericho and Underhill, and holding a “Button-Up Workshop” focused on opportunities for saving energy in homes. As a result of these activities, the Jericho Selectboard declared October “Energy Awareness Month.” In the spring of 2010, the Energy Task Force conducted free home energy visits in conjunction with the Underhill Energy Committee and Efficiency Vermont. For the next year, the Task Force has identified four broad areas to focus on, including energy efficiency, transportation, food production, and renewable energy.

## **GOALS, STRATEGIES, AND IMPLEMENTATION**

### **Goal 11.1: Promote energy conservation through municipal example and by encouragement of appropriate actions by other public and private entities.**

Strategy 11.1.1: Reduce energy use and costs in municipal and school facilities.

Implementation 11.1.1.1: Identify cost effective improvements to reduce energy consumption and cost at public and quasi-publicly owned buildings through professional energy audits.

Implementation 11.1.1.2: Include low cost energy efficiency retrofits as part of the annual building maintenance budget, particularly those with a payback period of two years or less.

Implementation 11.1.1.3: Include higher cost energy efficiency retrofits in the Capital Budget. Pursue resources such as grants, bonds, and low interest loans to fund such retrofits.

Implementation 11.1.1.4: Upgrade or replace street lights and lighting fixtures in public parking areas with new, energy efficient models.

Strategy 11.1.2: Encourage energy efficiency and conservation by private entities.

- Implementation 11.1.2.1: Provide Jericho residents with informational materials, including pamphlets, interactive tours, and workshops regarding energy audits, weatherization, and energy efficiency. Educate residents about programs and incentives currently available.
- Implementation 11.1.2.2: Investigate opportunities to collaborate with neighboring towns and work with organizations and programs such as 10% Challenge and Way-to-Go Week to encourage energy efficiency and reduce energy consumption.
- Implementation 11.1.2.3: Evaluate the creation of a Clean Energy Assessment District including Jericho and other neighboring municipalities.
- Implementation 11.1.2.4: Consider adopting minimum energy efficiency guidelines for new construction, such as requiring that all new residential and commercial construction demonstrate that the Vermont State Energy Code is met or exceeded prior to the issuance of a certificate of occupancy.
- Strategy 11.1.3: Improve the fuel efficiency of public and quasi-publicly owned vehicles to reduce costs and conserve energy.
  - Implementation 11.1.3.1: Establish and employ fuel efficiency standards as an important consideration in the acquisition of new vehicles.
  - Implementation 11.1.3.2: Consider the cost-effectiveness of diverse fuel-types, such as biodiesel and natural gas, when purchasing new vehicles.
  - Implementation 11.1.3.3: Maintain a regular schedule of vehicle maintenance to ensure efficient operation and minimum emissions.
  - Implementation 11.1.3.4: Educate municipal and school employees on energy efficient driving techniques by providing materials and workshops such as the “eco-driving” seminars developed by the UVM Transportation Research Center.
  - Implementation 11.1.3.5: Develop a policy limiting idling of municipal and school vehicles, as well as private vehicles when on school or municipal grounds.
- Strategy 11.1.4: Encourage private fuel efficiency and use of alternative fuels by private entities.
  - Implementation 11.1.4.1: Provide educational materials and workshops about “eco-driving techniques,” fuel efficiency, and alternative fuels.
  - Implementation 11.1.4.2: Work with the Mount Mansfield Union High School to incorporate energy efficient driving techniques into the drivers’ education curriculum.
  - Implementation 11.1.4.3: Consider adopting a town-wide no-idling ordinance.

## **Goal 11.2: Promote Development of Renewable Energy Resources.**

Strategy 11.2.1: Encourage use of solar, wind, hydro, wood and other biomass, and other renewable energy sources.

Implementation 11.2.1.1: Explore, document, and map Jericho's potential energy resources including solar, wind, hydro, and wood/biomass.

Implementation 11.2.1.2: Maintain the current height exemption for small renewable energy generation facilities found in the Land Use and Development Regulations. Evaluate this exemption against advances in renewable energy technology and amend as necessary.

Implementation 11.2.1.3: Continue to offer density bonuses for developments which include "green building" techniques.

Implementation 11.2.1.4: Provide Jericho residents with information regarding existing incentives for renewable energy and consider additional local incentives for the voluntary use of renewable energy for new residential and commercial buildings.

Strategy 11.2.2: Encourage use and development of renewable energy at public and quasi-public lands, buildings, and properties

Implementation 11.2.2.1: Consider purchasing programs, such as Central Vermont Public Service "Cow-Power" for electricity at public buildings.

Implementation 11.2.2.2: Inventory public and quasi-publicly owned lands, buildings, and properties and evaluate their potential in regards to renewable energy, including but not limited to solar, wood/biomass, and carbon sequestration.

Implementation 11.2.2.3: Investigate the potential of "waste-to-energy" generation in Jericho.

Implementation 11.2.2.4: Implement cost-effective renewable energy generation projects that are compatible with the uses of individual properties.

## **Goal 11.3: Establish land use patterns and densities that will result in the conservation of energy**

Strategy 11.3.1: Establish land use patterns and implement bylaws that will encourage energy efficient building and neighborhood design and reduce dependence on the automobile.

Implementation 11.3.1.1: Encourage the concentration of residential and mixed use development in the Village Centers. Provide opportunities for local commerce in these areas.

- Implementation 11.3.1.2: Work with utility companies to plan for the efficient location of infrastructure necessary to support denser, mixed use land use patterns.
- Implementation 11.3.1.3: Provide communications such as phone and high speed Internet service which support home businesses.
- Implementation 11.3.1.4: Work with utilities and other sectors of government to pursue implementation of technologies which support the development and transmission of renewable energy such as the development of a “smart grid.” Offer Jericho as a pilot town for implementation of smart grid technologies.
- Strategy 11.3.2: Encourage building design standards that maximize solar exposure and promote building construction standards that incorporate measures for energy conservation.
- Implementation 11.3.2.1: Provide educational materials about energy efficient site design.
- Implementation 11.3.2.2: Consider adopting subdivision and site plan standards that promote solar gain and utilization of other renewable energy resources.
- Implementation 11.3.2.3: Consider adopting landscaping standards that promote the efficient use of energy.
- Strategy 11.3.3: Actively consider energy efficiency in all future transportation planning. Transportation planning shall encourage ridesharing, public transportation, and use by pedestrians and cyclists and should discourage single occupancy vehicle use.
- Implementation 11.3.3.1: Evaluate and implement improvements to infrastructure for bicycles and pedestrians.
- Implementation 11.3.3.2: Work to develop a local park-and-ride, or system of small local park-and-rides, in coordination with the CCMPO and CCTA.
- Implementation 11.3.3.3: Evaluate the demand for rideshare or vanpooling services and implement if feasible.

## 12. IMPLEMENTATION

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The purpose of this Section is to provide an organized framework for undertaking the numerous implementation tasks listed in prior sections of this Plan. The spreadsheet below organizes individual tasks by timeline, responsible party, and type of project. Use of this Section over the next five year planning cycle will help to ensure that the tasks listed in the Plan are considered when various segments of Town Government undertake their regular duties.

### **TIMELINE**

Each task is listed as On-going, Short Term, or Long Term. **On-going** tasks are those that relate to on-going tasks of various boards, and do not have a clear completion date. **Short Term** tasks are those that can reasonably be expected to be completed in the next five year planning cycle. **Long Term** tasks are those tasks which will likely require more than five years to fully implement. However, groundwork and background research on many of these tasks should occur within the next five year planning cycle.

### **RESPONSIBLE PARTIES**

This field lists the various Town boards that will be responsible for implementing the various tasks. Town boards are encouraged to consult the spreadsheet when developing their work plans.

Note that some tasks are classified under “Other.” These include tasks that may be beyond the purview of existing Town boards. Implementation of these tasks may require creation of special, ad-hoc committees, or may by nature require action or collaboration with groups unaffiliated with Town government.

### **TYPE**

Each task has been categorized by type or types of projects. In some cases, different phases of the same task may fall under different types of projects. This field should be consulted when various projects are undertaken. For example, when the Selectboard considers updates to the Capital Budget/Plan, it should sort the spreadsheet by “Capital Budget/Plan” to identify this Plan’s recommendations for the Capital Budget.

Project Types include:

**Land Use and Development Regulations** –The Land Use and Development Regulations govern all development within Jericho. The Planning Commission envisions annual housekeeping updates to the Land Use and Development Regulations as well as periodic amendments based on larger tasks. Some tasks listed under this project type relate to amendments to the regulations, while others relate to the implementation and interpretation of existing regulations.

**Capital Budget/Plan** – The Capital Budget and Plan provides long term allocation of funds for major infrastructure investments and improvements, and is also used to set

impact fees due from new developments. The 2010 Town Plan includes specific recommendations for the Capital Budget and Impact Fee Ordinance.

**Public Works Specifications** -- The Public Works Specifications set standards for new infrastructure construction within Jericho.

**Policy/Ordinance** --Some tasks call for or will require new or modified town policies and/or ordinances

**Official Map** – Under Chapter CH117 (Section 4421) Towns are given the authority to adopt an “Official Map” which identifies future utility and facility improvements, such as road and recreational path rights-of-way, parkland, utility rights-of-way, and other public improvements, and allows the Town to purchase the area if development is proposed on the parcel. Jericho does not currently have an adopted Official Map; though it is envisioned as a step to implement the goals and strategies of this plan.

**Annual Budget** – Refers to tasks that specifically require funding from the Town’s annual budget.

**Special Projects and Studies** – Several tasks call for special projects or studies that do not fall under other project types.

**Town Government** --Tasks which would be implemented primarily through the operation of Town government.

Task #	Task	Timetable	Responsible Parties											Type				
			Planning Commission	Selectboard	DRB	Conservation Commission	Energy Task Force	Town Staff	School District	Other	Land Use and Dev. Regulations	Capital Budget/Plan	Public Works Specs	Policy/Ordinance	Official Map	Annual Budget	Special Project	Town Government
03.1.1.1	Conduct an updated build-out analysis based on the revised Land Use and Development Regulations and determine projected population growth over the next twenty years.	short term	x					x									x	
03.1.1.2	Evaluate whether, under current regulations, at least fifty percent of Jericho's projected population growth could occur within the Village Center and Village Districts.	short term	x					x									x	
03.1.1.3	Consider infrastructure investments and/or zoning incentives/revisions that will increase the likelihood that development will occur in these districts.	short term	x	x				x			x	x					x	
03.1.1.4	Evaluate if Growth Center Designation would be appropriate and beneficial for certain areas of Jericho.	short term	x					x									x	
03.1.2.1	Pursue grant and other funding opportunities to enhance infrastructure improvements that support additional development within the Village Centers.	on-going		x				x				x				x	x	
03.1.3.1	The Rural Residential District should not be expanded beyond its boundaries as they presently exist.	on-going	x								x							
03.1.3.2	Identify areas that are adjacent to the Village Centers or Village Districts that may be appropriate for inclusion in the Village District. Areas to be considered shall have pedestrian access to one of the Village Centers and be served by appropriate infrastructure, or areas where appropriate capital planning could provide necessary infrastructure in the near future.	short term	x								x							

<b>03.1.3.3</b>	Consider the impacts of the I89 Interstate exit on development patterns along the Route 117 corridor and the surrounding road network and evaluate zoning revisions and other planning techniques appropriate for this area	short term	x				x	
<b>03.1.4.1</b>	Promote the use of Planned Unit Developments as a tool to cluster residential development and maintain critical natural resources and open space.	on-going	x		x		x	
<b>03.1.4.2</b>	Work with local and regional conservation organizations such as the Vermont Land Trust and Jericho Underhill Land Trust to afford landowners the opportunity to conserve their property	on-going					x	x
<b>03.1.4.3</b>	Continue funding the Open Space Fund for conservation opportunities.	on-going		x				x
<b>03.1.4.4</b>	Consider adopting incentives and programs to promote the protection of scenic areas and wildlife corridors.	short term	X				X	
<b>03.1.4.5</b>	Consider amendments to the Land Use and Development Regulations to protect wildlife corridors, such as the creation of a wildlife corridor overlay, "maximum setback" in certain areas, or other regulatory standards.	short term	x				x	
<b>03.2.1.1</b>	In keeping with the Regional Land Use Plan and ACT 200 goals, work closely with the Regional Planning Commission and State agencies to preserve Jericho's natural, historic, and recreational resources, provide continued opportunities for agriculture and forestry, and provide for residential and mixed uses in Jericho's Village Centers.	on-going		x		x		x
<b>03.2.1.2</b>	Communicate with adjacent towns through participation in regional meetings.	on-going		x		x		x
<b>03.2.1.3</b>	Provide responsible input to Jericho's representatives on regional planning groups, particularly the Metropolitan Planning Organization (MPO) and the Chittenden County Regional Planning Commission (CCRPC).	on-going	x	x		x		x
<b>03.2.2.1</b>	Continue joint planning efforts with the Town of Underhill related to the Riverside/Underhill Flats Village Center.	on going	x	x		x	x	x



<b>03.2.2.2</b>	Monitor development along the I89 exit in Richmond, and coordinate transportation and facilities upgrades necessitated by such development with the Town of Richmond. Work with developers in this area to ensure that adequate protection for residential properties is provided when commercial or industrial development occurs across the town line	on-going	x	x		x							x
<b>03.2.3.1</b>	The Selectboard and Planning Commission should seek to meet annually <i>in</i> public session with Range and University officials.	on-going	x	x					x				x
<b>03.2.3.2</b>	Consider revisions to the Land Use and Development Regulations to allow educational and research facilities within the Open Space District, subject to appropriate standards.	short term	x									x	
<b>04.1.2.1</b>	Monitor changes in state septic regulations and keep up-to-date on new technologies as they become available.	short term					x						x
<b>04.1.2.2</b>	Continue to enforce regulations that will prevent development (including but not limited to structures, filling, or substantial grading) within the 100 year floodplain and Fluvial Erosion Hazard Areas. Update these existing regulations based on best practices determined by local, state, and federal authorities.	on-going	x		x							x	
<b>04.1.2.3</b>	Protect the groundwater recharge (Wellhead Protection Areas) areas for active public water supplies by limiting development in the immediate wellhead and providing appropriate standards and guidelines for development in the larger recharge area.	on-going	x		x							x	
<b>04.1.2.4</b>	Assess and map other major aquifers in Jericho and evaluate regulatory mechanisms for their protection.	long term	x			x				x	x		x
<b>04.1.2.5</b>	Maintain undeveloped, vegetative buffer zones along the boundaries of streams, wetlands, and ponds.	on-going	x		x	x				x	x		x

<b>04.1.2.6</b>	Continue to require stormwater management and erosion control practices for developments that fall under the threshold for State stormwater permitting. Evaluate the effectiveness of the current local regulations.	on-going	x	x			x			
<b>04.1.2.7</b>	Develop and implement a "Water Resources Plan" with the help of the Conservation Commission, schools, and other concerned groups and citizens. The plan shall address issues such as availability of potable water, erosion, stream sediment, fisheries habitat, and other water quality subjects, on a watershed basis.	long term	x		x		x	x		x
<b>04.1.3.1</b>	Encourage development in or adjacent to Village Centers. Study, plan, and develop additional planning tools to focus growth in Village Centers.	on-going	x			x		x	x	
<b>04.1.3.2</b>	Cluster development away from prime agricultural and unfragmented forest land.	ong going	x		x			x		
<b>04.1.3.3</b>	Investigate and implement incentive and disincentive programs, such as TDRs (Transferable Development Rights), mandatory PUDs (Planned Unit Developments), and density bonuses.	long term	x					x		
<b>04.1.3.4</b>	Utilize non-regulatory mechanisms such as tax stabilization plans to mitigate the costs of maintaining undeveloped land	on going		x					x	x x
<b>04.1.4.1</b>	Avoid development on land with extreme slopes, and minimize impacts from development on more moderate slopes. Standards for various slopes will be defined	on-going	x		x			x		
<b>04.1.4.2</b>	Review regulations requiring conditional use approval for development on slopes of 25% or greater, and consider if similar review should be required for slopes between 8 and 24%.	short term	x					x		
<b>04.1.4.3</b>	Continue to enforce regulations regarding extraction of sand, gravel, topsoil, and ledges to prevent undue environmental harm and to maintain town character and avoid its defacement.	on-going	x		x			x		
<b>04.1.5.1</b>	Continue to protect deer wintering areas under the Natural Resource Overlay District. Consider including additional habitat areas within this overlay, including but not limited to black bear	short term	x		x			x		

habitat and mast stands.

<b>04.1.5.2</b>	Develop and implement regulatory standards and non-regulatory programs to prevent or reduce fragmentation of large forest blocks.	short term	x		x			x		
<b>04.1.5.3</b>	Consider amendments to the Land Use and Development Regulations to protect wildlife corridors, such as the creation of a wildlife corridor overlay, maximum setbacks in certain areas, or other regulatory standards.	long term	x					x		
<b>04.1.6.1</b>	Examine regulations that pertain to light pollution for applicability to the latest lighting technology. Ensure that outdoor lighting is designed in a manner that minimizes glare, sky glow, and adverse impacts on adjacent property owners	long term	x	x				x	x	x
<b>04.1.6.2</b>	Review existing noise performance standards to determine if they meet the needs of the community and consider adopting a noise ordinance or implementing other regulatory measures.	long term	x	x				x		x
<b>04.1.6.3</b>	Consider regulatory standards to protect ridgelines, such as the creation of a ridgeline protection overlay and/or ridgeline development standards.	short term	x					x		
<b>04.1.6.4</b>	Consider regulatory standards to protect and preserve identified scenic resource, such as subdivision siting standards, density bonus provisions, screening standards, or access management policies	short term	x					x		
<b>04.2.1.1</b>	Identify critical habitats and corridors between habitats that harbor wildlife, fish, and plant species, including but not limited to mast stands, vernal pools, and critical core habitat	short term				x				x
<b>04.2.1.2</b>	Provide for the update and maintenance of the LESA (Land Evaluation and Site Assessment) program.	long term				x	x	x		x
<b>04.2.1.3</b>	Provide for the update and maintenance of the FLESA (Forest Land Evaluation and Site Assessment) program	long term				x	x	x		x

<b>04.2.1.4</b>	Develop and/or update a map of local wildlife sightings.	short term		x		x			x
<b>04.2.2.1</b>	Conduct a detailed inventory and assessment of all land parcels	long term		x		x			x
<b>04.2.2.2</b>	Objectively rank and choose which open spaces, farmland, natural areas, wildlife habitat, scenic roads, vistas, ridge tops, and recreation areas are significant and should be targeted for protection	long term		x		x			x
<b>04.2.2.3</b>	Review zoning regulations in light of the Open Space Plan.	long term	x				x		
<b>04.3.1.1</b>	Continue to add to Jericho's Open Space Fund. Funds will be used to maintain and improve existing open space and to purchase additional open space lands.	on-going		x					x
<b>04.3.1.2</b>	Support initiatives such as the Chittenden County Upland Project.	on-going		x					x
<b>04.3.1.3</b>	Provide cooperation to the Conservation Commission, Jericho Underhill Land Trust and other ad hoc committees.	on-going		x	x	x	x		x
<b>05.1.1.1</b>	Allow the Adaptive Use regulations to include a wide range of eligible historic structures.	On-going	x				x		
<b>05.1.1.2</b>	Write regulations to allow the continued association of barns and outbuildings and farmhouses separated by a public road.	Short Term		x			x		
<b>05.1.1.3</b>	Pursue historic preservation grants for publicly owned buildings. Publicize historic preservation grants and tax credits that are available for the preservation of private buildings.	On-going				x			x
<b>05.1.2.1</b>	Provide technical assistance to property owners seeking grants and/or tax credits for historic preservation.	On-going				x			x
<b>05.1.2.2</b>	Work with the Jericho Historical Society to increase awareness of existing historic preservation grants and to raise funds for matching such grants.	On-going				x			x
<b>05.1.2.3</b>	Work with property owners and developers to encourage preservation or minimal disturbance of historic landscape features such as stonewalls and hedgerows	long term	x				x	x	x
<b>05.1.3.1</b>	Coordinate with the MPO in planning road improvements that complement village and	On-going		x				x	x

[illegible]

development within the Village Centers										
<b>06.1.2.1</b>	Determine and recommend infrastructure improvements needed to foster economic development in each village Center, as prescribed in the Utilities, Facilities, and Services Section of this Plan.	Long Term	x	x			x		x	x
<b>06.1.2.2</b>	Evaluate current telecommunications and high-speed internet service within each Village Center.	Short Term	x	x			x			x
<b>06.1.2.3</b>	Work with service providers to achieve 100% telecommunication and high-speed internet access within each Village Center.	Long term	x	x			x			x
<b>06.1.3.1</b>	Continue to allow and encourage flexible alternative parking arrangements, such as shared, off site, and on street parking.	On-going	x		x			x		
<b>06.1.3.2</b>	Evaluate village streets for public, on street parking, and implement in suitable locations.	Long Term		x		x			x	x
<b>06.1.3.3</b>	Encourage mixed use development that reduces overall parking demands.	On-going	x		x			x		
<b>06.1.4.1</b>	Upgrade pedestrian infrastructure and make streetscape improvements to each village center. Replace the pedestrian bridge over the Browns River in Jericho Corners.	Long Term		x					x	x
<b>06.1.4.2</b>	Locate public and quasi-public facilities, such as schools, post offices, public offices, libraries, and other community facilities in Village Centers to provide a stable anchor for village businesses	Long Term	x	x	x		x	x	x	x
<b>06.1.4.3</b>	Interview existing Village Center businesses regarding new amenities that would improve the business climate and attract additional customers and businesses.	short term				x	x			x
<b>06.1.2.4</b>	Work with utility companies to increase the availability of three phased power, natural gas, and similar infrastructure. Priority should be given to the Village Centers and the Commercial District.	Long term	x	x						x
<b>06.1.2.5</b>	Participate in Public Service Board proceedings related to utility expansions and extensions within Jericho. Request that the Public Service Board	Long term	x	x						x

	require extension of utilities to unserved areas of the Village Centers and Commercial District when reviewing applications for extensions elsewhere within Jericho or neighboring communities									
<b>06.1.5.1</b>	Implement the tasks prescribed in the Housing Section of this Plan to foster the development of a broad range of housing options in Jericho's Village Centers.	Long Term								
<b>06.1.6.1</b>	Promote greater utilization of Village Center Tax Credits by existing and potential village businesses.	Short Term				x		x		x x
<b>06.1.6.2</b>	Investigate the applicability of other incentive programs offered by the State of Vermont, such as the Growth Center and Vermont Neighborhoods programs.	short term	x			x				x
<b>06.1.6.3</b>	Research market potential for new businesses to locate in the Village Centers	short term	x			x		x		x
<b>06.1.6.4</b>	Investigate programs and incentives to promote economic development offered by similarly sized communities in Vermont and other parts of the country.	short term	x			x		x		x
<b>06.2.1.1</b>	Continue to allow low impact home businesses as a permitted use in all single family dwellings	on going	x	x				x		
<b>06.2.1.2</b>	Periodically evaluate existing home business provisions.	on going	x	x				x		
<b>06.2.2.1</b>	Evaluate the interest of local businesses in the formation of a local business association. Provide assistance in the initial organization of such an association if desired.	Short Term	x			x				x
<b>06.2.2.2</b>	Catalog and survey current businesses to identify the attributes they find most and least attractive about doing business in Jericho.	short term				x		x		x
<b>06.2.2.3</b>	Revisit boundaries and uses of the Commercial District, since much of it has developed residentially.	Long Term	x					x		
<b>06.2.2.4</b>	Consider whether additional provisions for commercial uses utilizing heavy equipment are needed elsewhere in town.	Long term	x					x		

<b>06.2.3.1</b>	Promote the protection of important agricultural and forestry land through use of Planned Unit Development provisions and voluntary land conservation	On-going	x		x	x	x		x	x		x
<b>06.2.3.2</b>	Continue to allow roadside sale of agricultural products and farmers markets in all zoning districts.	On-going	x		x					x		
<b>06.2.3.3</b>	Review current regulations to determine their impact on farm based-value added endeavors. Consider revising regulations to allow for on-farm processing that may not fall under the State definition of “agriculture.”	Short Term	x							x		
<b>06.2.3.4</b>	Develop standards to reduce conflicts between existing and future agricultural operations and new residential development, such as requiring new developments in rural areas to include “right-to-farm” language in deeds, use of vegetative buffers, or other similar measures.	Short Term	x							x		
<b>06.2.3.5</b>	Partner with local retail stores and restaurants to feature local agricultural and food products in their selections.	on-going				x	x		x			x
<b>06.2.3.6</b>	Evaluate the need and feasibility of incubator space for agriculture and local food based businesses. Identify potential sites for such a facility.	long term						x		x		x
<b>06.2.3.7</b>	Provide Jericho residents with information on responsible methods of local food production, including guidance on mitigating impacts to neighboring properties.	short term				x	x					x
<b>06.2.4.1</b>	Continue to allow galleries, studios, and museums in a broad range of zoning districts.	on-going	x		x					x		
<b>06.2.4.2</b>	Foster further development of the arts and cultural community through development of festivals, gathering spaces, galleries, and/or artists’ cooperatives.	on-going	x						x	x		x
<b>06.2.4.3</b>	Encourage new creative economy industries and support industries and suppliers, such as retailers and professional offices, to locate in the Village Centers.	on-going	x		x				x	x		x



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Centers, to firms making regional inquiries.									
<b>06.2.7.4</b>	Develop partnerships with tourism industry representatives to market Jericho as a good place to visit and do business.	short term				x		x	
<b>06.2.7.5</b>	Develop promotional materials for tourist and business development touting the scenic, historic, and rural characteristics of the Town, and other attributes that make Jericho a desirable location.	Long Term					x		x
<b>07.1.1.1</b>	Encourage adoption of a fee structure that reduces or waives application and impact fees for affordable housing. Consider reducing fees for all units within a Development that contains a certain percentage of affordable units.	short term	x	x				x	
<b>07.1.1.2</b>	Encourage adoption of a fee structure that reduces or waives application and impact fees for elderly housing. Consider reducing fees for all units within a Development that contains a certain percentage of elderly units.	short term	x	x				x	
<b>07.1.1.3</b>	Continue to provide for variable lot sizes within Planned Unit Developments (PUDs), with a density bonus for affordable/ elderly housing.	on-going	x		x			x	
<b>07.1.2.1</b>	Support applications, such as Community Development Block Grants, for funding of affordable housing	on-going		x		x			x
<b>07.1.2.1</b>	Encourage developers to take advantage of the incentives now in place.	on-going			x		x	x	
<b>07.1.2.3</b>	Facilitate partnerships between interested land owners and local affordable housing providers such as Green Mountain Habitat for Humanity and the Champlain Housing Trust.	on-going				x		x	
<b>07.1.2.4</b>	Inventory publicly owned properties to determine if any would be appropriate locations for affordable housing. Identify and contact landowners whose property may support elderly or affordable housing, particularly in the Village Center District.	long term				x		x	

<b>07.2.1.1</b>	Inventory and evaluate infrastructure needs in each Village Center	short term	x	x		x					x
<b>07.2.1.3</b>	Include necessary infrastructure upgrades in the Capital Plan and Budget.	long term	x	x					x		
<b>07.2.1.3</b>	Pursue innovative methods of improving infrastructure in the Village Centers, such as Special Assessment Districts, Tax-Increment Financing, Public-Private Partnerships, etc.	long term	x	x		x	x	x		x	x
<b>07.2.2.1</b>	Research the benefits and requirements of “Vermont Neighborhood” and “Growth Center” designation.	short term	x			x					x
<b>07.2.2.2</b>	Apply for “Vermont Neighborhood or “Growth Center” designation for Jericho Corners and/or Riverside if it is determined that these programs will further the goals of this Plan.	long term	x	x		x					x
<b>08.1.1.1</b>	Maintain the schedule of impact fees to mitigate capital expenditures necessary to support school facility needs	on-going	x	x					x		
<b>08.1.1.2</b>	Require that approval of future development be based on the demonstrated ability of the affected school district to provide the necessary services	on going			x			x			x
<b>08.1.2.1</b>	Coordinate construction, maintenance, and use of school recreational facilities and town recreational facilities	on-going		x			x		x		x
<b>08.1.2.2</b>	Improve communications regarding usage of school recreational facilities by the general public	On-going		x		x	x				x
<b>08.2.1.1</b>	Support programmatic activities by schools such as “the walking school bus.”	on-going					x				x
<b>08.2.1.2</b>	Interconnect the schools with other important town facilities through the creation of alternate transportation paths	long term		x	x				x	x	
<b>08.2.1.3</b>	Construct and upgrade sidewalks and bicycle facilities serving Jericho schools	long term		x						x	
<b>08.2.1.4</b>	Remove barriers to safe pedestrian access and improve circulation of students to school grounds	long term		x			x			x	
<b>08.2.2.1</b>	Investigate opportunities to retrofit school buses to reduce children’s exposure to diesel emissions	long term				x	x		x		x

<b>08.2.2.2</b>	Encourage the installation and use of seatbelts on school buses. Encourage school bus routes which result in a safe ratio of children to seats on each school bus.	long term			x		x			x
<b>08.3.1.1</b>	Conduct a formal study or obtain information about Jericho childcare needs and barriers/challenges to owning or operating high quality daycare in Jericho.	short term	x			x				x
<b>09.1.1.1</b>	Maintain and update a schedule for capital expenditures related to the maintenance and upgrading of the roads on a priority basis.	on-going	x	x			x			
<b>09.1.1.2</b>	Maintain and update a schedule of impact fees to mitigate the effect of new development on the cost of improving affected roads	On-going	x	x			x			
<b>09.1.1.3</b>	Participate in hearings on the actions of neighboring towns that will affect traffic volumes on Jericho's roads and share traffic data with neighboring communities.	on-going		x		x				x
<b>09.1.2.1</b>	Upgrade the VT-15/River Road intersection or redirect traffic as recommended in the Dickinson Street Alternative Analysis	short term		x		x		x		x
<b>09.1.2.2</b>	Evaluate different design alternatives to address projected poor LOS at the VT-15/Browns Trace Intersection.	long term		x		x		x		x
<b>09.1.2.3</b>	Periodically evaluate LOS and safety at major intersections. Prioritize improvements based on safety rather than Level of Services. Service Levels lower than C can be acceptable in Village Centers when the delay provides for traffic calming and/or improves pedestrian safety, or where upgrades would negatively impact the surrounding built or natural environment.	on-going		x		x		x		x x
<b>09.1.2.4</b>	Formulate an Official Map identifying right-of-way needs for future intersection improvements.	short term	x						x	
<b>09.1.3.1</b>	Formulate an Official Map for a road and pedestrian network in the Village Center and Village Districts	short term	x						x	

<b>09.1.3.2</b>	Require continuation of roads in new developments and subdivisions. Rights-of-way in new developments should be reserved for future extension/connection of dead-end roads. Dead-end turn-arounds should be designed to allow for continuation of the road in future phases of development, or when adjacent properties are developed.	on-going	x		x			x		x	
<b>09.1.3.3</b>	In general, the Town of Jericho should not accept additional dead-end roads as public roads. Only roads which contribute to a network of interconnected roads and streets should be accepted as public roads.	on-going		x						x	x
<b>09.1.4.1</b>	Update the projections in the 2004 Transportation Study based on increased density allowed by the recently adopted Land Use and Development Regulations.	short term					x				x
<b>09.1.4.2</b>	Every ten years, conduct traffic projections using similar methodology to the 2004 Transportation Study. Compare these projections against actual traffic counts.	Long Term					x				x
<b>09.2.1.1</b>	Include funds in the Capital Plan for shoulder widening on roadways proposed for on-road bicycle facilities in the 2004 Transportation Study. Priority should be given to roadways which connect Village Centers such as Lee River Road, and Browns Trace. Shoulder widening should occur in conjunction with other planned roadway improvements.	short term	x	x					x		
<b>09.2.1.3</b>	Work with VTrans to ensure that upgrades to Route 15 and Route 117 include creation of shoulder widths sufficient to accommodate a paved shoulder bicycle facility meeting the requirements of the Vermont Pedestrian and Bicycle Facility Planning and Design Manual	long term		x			x		x		x x
<b>09.2.1.4</b>	Identify and fill any gaps within the pedestrian infrastructure in each Village Center. In general, sidewalks should be available on both sides of the main road through each Village Center (Route 15/Browns Trace) and on at least one side of other	Long term	x	x	x			x	x		



to liability and maintenance/safety concerns										
<b>09.2.3.3</b>	Work with the CCTA to identify stop locations along the proposed Essex/Jeffersonville Link. Coordinate these locations with the development of local park-and-rides.	long term	x			x	x		x	x
<b>09.2.3.4</b>	Provide Jericho residents with information on existing state programs that support and facilitate car pooling.	short term				x	x			x
<b>09.2.3.5</b>	Encourage municipal and school employees to seek alternative means to commute to work, such as walking/bicycling, car pooling, or ridesharing.	short term	x			x	x	x		x
<b>09.2.3.6</b>	Work with major local and regional employers to facilitate car pooling, ridesharing, and or transit use among their employees.	on-going				x		x		x
<b>09.2.3.7</b>	Encourage school children to travel to school by use of the buses or walking/cycling. Educate parents as to the benefits and availability of these options.	on-going				x		x		x x
<b>09.3.1.1</b>	Amend the Public Works Specifications to encourage road designs that reflect the location, use, and context of the site. Include special standards for village streets and low volume rural roads. New roads shall comply with the standards for the appropriate designation	short term	x	x					x	
<b>09.3.1.2</b>	Narrow, whenever possible, new paved roadways in developed areas, providing curbs and/or a green strip between roads and sidewalks.	on-going	x	x	x			x	x	x
<b>09.3.2.1</b>	Solicit vigorous public input including warned public hearings prior to undertaking significant road alterations.	On going		x			x		x	x
<b>09.3.2.2</b>	When reviewing possible road upgrades, including paving, the Selectboard shall consider impacts on (a) the safety of alternative transportation, including pedestrian and bicycle traffic, (b) the average speed of traffic, (c) the volume of through traffic, and (d) the aesthetics of the area.	on-going		x			x		x	x
<b>09.3.2.3</b>	In general, upgrades to gravel roads shall consist of improvements to the road base rather than paving.	on-going		x			x		x	x

<b>09.3.2.4</b>	Give due consideration to the impacts on and opinions of property owners, residents, and tenants on a road prior to undertaking major upgrades.	on-going	x			x				x			x		x
<b>09.3.2.5</b>	Work with Vtrans to mitigate impacts of increased commuter traffic on Route 15, and to implement measures to reduce residual vehicle noise, control vehicle speed, and improve safety for pedestrians and residents. Ensure that upgrades to Route 15 consider pedestrian safety and circulation, the mixed use character of the Jericho Corners and Riverside Village Centers, and the safety of residents living on the corridor.	on-going	x			x				x	x	x			x
<b>09.3.2.6</b>	Investigate the benefits and costs of methods to increase local authority over management and upgrades to Route 15, such as assuming management of Route 15 as a Class I Town Highway	Long term	X			x								x	x
<b>09.3.3.1</b>	Continue to work with organizations such as the “Vermont Better Back Roads” to reduce erosion and runoff from Jericho’s roadways and to replace undersized bridges and culverts.	on-going	x			x				x				x	
<b>09.3.3.2</b>	Investigate use of new erosion control techniques, such as “compost filled filter socks” for use in road maintenance and construction.	short term	x		x	x	x							x	x
<b>09.3.3.3</b>	Investigate potential road salt alternatives. Consider safety and cost when evaluating potential alternatives	short term	x		x	x	x							x	x
<b>09.3.4.1</b>	Examine and implement strategies for road layout and design, roadside landscaping, and other traffic calming measures that encourage travel at safe speeds.	long term	x	x						x	x			x	
<b>09.3.4.2</b>	Design and construct “village gateways” to calm traffic entering each Village Center.	short term	x			x		x		x				x	
<b>09.3.5.1</b>	Formulate a plan for the planting of trees in or along all rights-of-way both public and private. Establish a policy for the replacement of trees removed from the right-of-way through road maintenance. Do not remove trees within the right-of-way without contacting tree warden and	short term	x			x								x	x x



holding public meeting as required by law.									
<b>09.3.5.2</b>	Retain and restore Y-type “flat iron” intersections outside village and village centers. Improve safety at these intersections by clearly delineating travel lanes.	long term	x			x		x	
<b>09.3.5.3</b>	Research, develop, and encourage alternate designs for bridges based on scale of use and aesthetics.	long term	x			x		x	x
<b>09.3.5.4</b>	Formulate and adopt a Scenic Road Plan	long term	x	x	x		x		x
<b>10.1.1.1</b>	Maintain and update a schedule for capital expenditures related to the maintenance and upgrading of the services described within this section of the Plan.	on-going	x	x				x	
<b>10.1.1.2</b>	Maintain and update a schedule of impact fees to mitigate the effect of new development on the cost of improving affected utilities, facilities, and services.	on-going	x	x				x	
<b>10.1.2.1</b>	Encourage appropriate mixed use development within areas currently served by public water.	on-going	x		x			x	x
<b>10.1.2.2</b>	<b>Evaluate</b> expansion opportunities for Champlain Water District, particularly to include Jericho Center and the Commercial District. This assessment should include investigation of both the benefits and adverse consequences of a waterline expansion. Appropriate planning tools should be in place to prevent undue adverse consequences prior to undertaking a waterline expansion.	short term	x	x			x		x
<b>10.1.2.3</b>	<b>Implement</b> expansion opportunities for Champlain Water District which advance the goals of this Plan. Appropriate planning tools should be in place to prevent undue adverse consequences prior to undertaking a waterline expansion.	long term	x	x			x		x

<b>10.1.2.4</b>	Investigate methods for the protection of the potability and availability of water for private wells, such as the development of a Water Resources Plan as described in the Natural Resources Section of this Plan.	short term	x		x			x	x				x
<b>10.1.2.5</b>	Educate Jericho residents and property owners about proper management of septic systems and new technologies for wastewater treatment.	on-going			x	x		x					x x
<b>10.1.2.6</b>	Investigate methods for funding a revolving loan plan to help Jericho residents pay for necessary maintenance and upgrades to inadequate septic systems.	long term	x	x				x					x
<b>10.1.2.7</b>	Keep current on emerging technologies for sewage disposal and their impact on the goals of this Plan.	on-going					x						x
<b>10.1.2.8</b>	Investigate the feasibility of a decentralized community wastewater system serving Jericho Center.	short term					x	x					x
<b>10.1.3.1</b>	Implement and enforce regulations pertaining to the placement of wireless telecommunications towers.	on-going	x		x				x				
<b>10.1.3.2</b>	Require that all new and relocated utilities be located underground and pursue opportunities to bury existing above ground utilities.	on-going	x		x				x				
<b>10.1.3.3</b>	Develop a plan to progressively reduce the number of overhead power and communications lines with a goal of complete elimination	long term	x	x						x	x		x
<b>10.1.4.1</b>	Review and consider the Fire Department's assessment of its ability to provide adequate protection in the approval of future developments.	on-going			x		x		x				
<b>10.1.4.2</b>	Evaluate the adequacy of the Public Works Specifications for driveways to new home sites against the Fire Department's recommendations for access.	short term	x	x				x		x			
<b>10.1.4.3</b>	Identify areas which lack adequate water supply for fire protection and develop plans to improve the water supply in rural areas. Require new developments to provide facilities such as fire ponds, cisterns and/or hydrants in accordance with this Plan.	long term	x	x	x			x	x	x			x x

<b>10.1.4.4</b>	Include standards for dry hydrants, fire ponds, and cisterns in the Public Works Standards.	short term	x	x				x		x		
<b>10.1.4.5</b>	Work to improve the Town's ISO PPC rating in areas not served by public water through improved emergency response planning, equipment and water supply upgrades, and better training/documentation.	long term						x			x	x
<b>10.1.4.6</b>	Maintain or improve the Town's current arrangement with the State Police and consider alternatives to the state police, such as a local or regional police force.	on-going		x			x					x
<b>10.1.4.7</b>	Provide informational resources to Jericho residents interested in forming Neighborhood Watches.	short term					x	x			x	x
<b>10.1.4.8</b>	Review and strengthen arrangements with area rescue squads.	on-going		x			x	x			x	x
<b>10.1.5.1</b>	Maintain membership in the Chittenden Solid Waste District.	on-going		x			x					x
<b>10.1.5.2</b>	Consider development of a town-wide contract for trash/recycling pick up.	long term		x			x				x	x
<b>10.1.5.3</b>	Retain regulations for the management and disposal of hazardous waste materials.	on-going		x						x		
<b>10.1.5.4</b>	Support waste reduction and recycling efforts and provide residents with educational materials on waste reduction methods and resources	on-going				x	x				x	
<b>10.1.5.5</b>	Promote the use of drop off centers and encourage all town residents to recycle materials as specified by the solid waste district.	on-going				x	x				x	
<b>10.1.5.6</b>	Implement recycling, composting, and other solid waste reducing measures in all municipal and school buildings.	short term		x		x	x	x	x		x	x
<b>10.1.5.7</b>	Evaluate paper purchased by the Town and Schools. Consider purchasing high post-consumer recycled content and non-bleached brands.	short term				x	x	x			x	x
<b>10.1.5.8</b>	Encourage composting by individual households, condo associations, neighborhoods, and businesses	on-going				x	x				x	
<b>10.1.6.1</b>	Investigate ways to encourage public use and available activities in existing parks such as Mills Riverside Park, Old Mill Park, Mobbs Farm, Kikas	on-going		x				x	x			x

Valley Farm, and Wolfrun Natural Area.

<b>10.1.6.2</b>	Evaluate potential recreational uses for the Village Water District parcels located in Jericho Corners	long term	x	x	x	x						x
<b>10.1.6.3</b>	Use town resources and development incentives to obtain parcels contiguous to existing open spaces and/or greenways to connect natural areas and to protect outstanding water features. Develop walking/hiking trails and bike paths through these connected open spaces.	short-term	x	x	x			x	x			x
<b>10.1.6.4</b>	Evaluate the immediate and future need for community and neighborhood parks. Investigate opportunities for creating new parks of various size and type throughout the town.	long term	x	x								x
<b>10.1.6.5</b>	Work with other community groups to create and implement an “Open Space Plan” that would increase the number of places and facilities available in town for recreational use.	long term	x	x		x		x				x
<b>10.1.6.6</b>	Formulate an Official Map identifying potential locations for new parks, trails, and other recreation facilities.	long term	x								x	
<b>10.1.7.1</b>	Establish a plan for capital expenditures to improve the maintenance and use of space in municipal buildings such as the Jericho Town Hall, Town Library, and Highway Garage.	short term	x	x					x			
<b>10.1.7.2</b>	Locate future public and community buildings within the Village Centers to enhance and stimulate the activities occurring there	on-going	x	x	x			x	x		x	x
<b>10.1.8.2</b>	Town administrative staff and funds will be made available to provide mapping, planning, historical research support, and land space design for future growth.	on-gong					x				x	x
<b>10.1.8.2</b>	Maintain the grounds and fencing of all public cemeteries in Jericho.	on-going		x			x	x			x	
<b>10.1.8.3</b>	Restore and repair grave markings in the Castle Cemetery	long term		x				x			x	x
<b>10.1.8.4</b>	Consider adopting regulations that will allow the use of PUD open space for cemeteries in appropriate situations.	long term	x					x				



reduce energy consumption.

<b>11.1.2.3</b>	Evaluate the creation of a Clean Energy Assessment District including Jericho and other neighboring municipalities	long term	x	x	x				x
<b>11.1.2.4</b>	Consider adopting minimum energy efficiency guidelines for new construction, such as requiring that all new residential and commercial construction demonstrate that the Vermont State Energy Code is met or exceeded prior to the issuance of a certificate of occupancy.	long term	x				x		
<b>11.1.3.1</b>	Establish and employ fuel efficiency standards as an important consideration in the acquisition of new vehicles	short term			x	x	x	x	x
<b>11.1.3.2</b>	Consider the cost-effectiveness of diverse fuel-types, such as biodiesel and natural gas, when purchasing new vehicles.	short term	x		x	x	x		x
<b>11.1.3.3</b>	Maintain a regular schedule of vehicle maintenance to ensure efficient operation and minimum emissions.	on-going				x			x
<b>11.1.3.4</b>	Educate municipal and school employees on energy efficient driving techniques by providing materials and workshops such as the “eco-driving” seminars developed by the UVM Transportation Research Center.	short term			x	x			x
<b>11.1.3.5</b>	Develop a policy limiting idling of municipal and school vehicles, as well as private vehicles when on school or municipal grounds.	short term	x			x		x	
<b>11.1.4.1</b>	Provide educational materials and workshops about “eco-driving techniques,” fuel efficiency, and alternative fuels.	on-going			x				x
<b>11.1.4.2</b>	Work with the Mount Mansfield Union High School to incorporate energy efficient driving techniques into the drivers’ education curriculum.	short term			x	x			x
<b>11.1.4.3</b>	Consider adopting a town-wide no-idling ordinance.	short term	x					x	
<b>11.2.1.1</b>	Explore, document, and map Jericho’s potential energy resources including solar, wind, hydro, and	short term			x	x			x

[illegible]

<b>11.3.1.4</b>	Work with utilities and other sectors of government to pursue implementation of technologies which support the development and transmission of renewable energy such as the development of a “smart grid.” Offer Jericho as a pilot town for implementation of smart grid technologies	long term	x			x				x
<b>11.3.2.1</b>	Provide educational materials about energy efficient site design	short term				x	x			x
<b>11.3.2.2</b>	Consider adopting subdivision and site plan standards that promote solar gain and utilization of other renewable energy resources.	short term	x						x	
<b>11.3.2.3</b>	Consider adopting landscaping standards that promote the efficient use of energy.	short term	x						x	
<b>11.3.3.1</b>	Evaluate and implement improvements to infrastructure for bicycles and pedestrians.	long term	x	x					x	
<b>11.3.3.2</b>	Work to develop a local park-and-ride, or system of small local park-and-rides, in coordination with the CCMPO and CCTA.	long term	x	x	x	x		x	x	x
<b>11.3.3.3</b>	Evaluate the demand for rideshare or vanpooling services and implement if feasible.	long term		x	x	x		x		x