

**Dummerston
Vermont**

TOWN PLAN

Planning Commission Public Hearing Draft

This Town Plan was developed with funding from the Municipal Planning Grant Program, administered by the Vermont Department of Housing & Community Affairs, Agency of Commerce & Community Development

TABLE OF CONTENTS

INTRODUCTION	1
PURPOSE OF DUMMERSTON TOWN PLAN	1
HOW THE TOWN PLAN WAS DEVELOPED	1
PROCESS FOR ADOPTION, MODIFICATION, AND UPDATING	1
ORGANIZATION OF THE TOWN PLAN	2
INTERPRETATION OF THE TOWN PLAN	2
GOALS OF DUMMERSTON.....	3
DUMMERSTON COMMUNITY PROFILE	5
SETTLEMENT HISTORY	5
GEOLOGY	5
GEOGRAPHY	6
POPULATION GROWTH AND PROJECTIONS	6
AGE DISTRIBUTION.....	7
HOUSING	8
ECONOMY.....	9
TOWN GOVERNMENT.....	10
LOCAL REVENUE AND FISCAL CONDITIONS	11
LAND USE	13
EXISTING LAND USE.....	13
1. Existing Land Use Pattern	13
FUTURE LAND USE.....	14
1. Land Use Districts	14
2. Focus Areas	16
LAND USE GOALS, POLICIES, AND ACTION STEPS	18
WORKING LANDSCAPE	21
AGRICULTURE	21
1. Dummerston’s Farmlands.....	21
2. Significance of Farmland.....	22
FORESTRY.....	23
USE VALUE APPRAISAL.....	24
WORKING LANDSCAPE GOALS, POLICIES, AND ACTION STEPS.....	24
CONSERVED LANDS.....	27
CONSERVED LANDS GOALS, POLICIES, AND ACTION STEPS	27
NATURAL RESOURCES.....	29
WATER AND WETLAND RESOURCES.....	29
1. Watersheds.....	29
2. Surface Water Resources.....	29

3. Groundwater Resources.....	33
WATER AND WETLAND RESOURCES GOALS, POLICIES, AND ACTION STEPS	33
MINERAL RESOURCES	35
MINERAL RESOURCE GOALS, POLICIES, AND ACTION STEPS.....	36
ECOLOGICAL LANDSCAPE.....	36
1. Forests.....	36
2. Connecting Habitat.....	37
3. Natural Communities.....	37
4. Grassland Habitat and Bird Habitat.....	38
5. Early Successional Forest and Shrub Habitat.....	38
6. Deer Wintering Habitat and Deer Browse.....	39
7. Amphibian and Reptile Habitat	40
8. Threatened and Endangered Species	40
9. Invasive Species	40
ECOLOGICAL LANDSCAPE GOALS, POLICIES, AND ACTION STEPS	41
RECREATION, SCENIC, HISTORIC, AND CULTURAL RESOURCES	44
RECREATION AND SCENIC RESOURCES.....	44
HISTORIC AND CULTURAL RESOURCES	45
RECREATION, SCENIC, HISTORIC, AND CULTURAL RESOURCES VISION	46
RECREATION, SCENIC, HISTORIC, AND CULTURAL RESOURCES GOALS, POLICIES, AND ACTION STEPS.....	46
ENERGY	49
IMPORTANCE OF ENERGY PLANNING	49
ENERGY USE	49
ELECTRICITY	51
CONSERVATION AND ENERGY EFFICIENCY.....	51
POTENTIAL FOR LOCAL ENERGY PRODUCTION.....	53
1. Wood	53
2. Solar	53
3. Hydropower	53
4. Wind	54
ENERGY VISION.....	54
ENERGY GOALS, POLICIES, AND ACTION STEPS	54
TRANSPORTATION	56
EXISTING TRANSPORTATION NETWORK	56
1. Classification of Roads.....	56
2. Traffic and Circulation Concerns	57
3. Bridges.....	57
4. Park and Ride Facilities.....	58
5. Bicycle and Pedestrian Facilities.....	58
6. Bus and Rail Service.....	58
7. Scenic Roads.....	58
TRANSPORTATION VISION	59

TRANSPORTATION GOALS, POLICIES, AND ACTION STEPS	59
HOUSING	62
EXISTING CONDITIONS	62
HOUSING NEEDS.....	63
HOUSING VISION	64
HOUSING GOALS, POLICIES, AND ACTION STEPS.....	65
EDUCATION.....	66
PUBLIC EDUCATION.....	66
1. Facilities.....	66
2. Enrollment History	66
3. Current Educational Services	67
4. School Governance.....	68
5. Education Costs	68
OTHER EDUCATIONAL SERVICES.....	69
1. Childcare.....	69
2. Early Education	69
3. Colleges and Adult Education	70
EDUCATION VISION	70
EDUCATION GOALS, POLICIES, AND ACTION STEPS.....	70
COMMERCE AND INDUSTRY	72
COMMERCE AND INDUSTRY VISION.....	73
COMMERCE AND INDUSTRY GOALS, POLICIES, AND ACTION STEPS	73
COMMUNITY FACILITIES, SERVICES, AND UTILITIES	75
TOWN PROPERTY	75
TOWN GOVERNMENT AND ADMINISTRATION	75
EMERGENCY SERVICES.....	76
1. Fire Protection	76
2. Police Protection.....	76
3. Emergency Management	77
SOLID WASTE DISPOSAL AND HAZARDOUS MATERIALS	78
WATER AND WASTEWATER.....	78
HEALTHCARE AND HUMAN SERVICES	78
LIBRARY SERVICES.....	79
COMMUNICATIONS	79
COMMUNITY SERVICES GOALS, POLICIES, AND ACTION STEPS	79
RELATIONSHIP TO ADJACENT TOWNS, WINDHAM REGION AND THE STATE OF VERMONT	82
COMPATIBILITY WITH TOWN PLANS.....	82
COMPATIBILITY WITH THE WINDHAM REGIONAL PLAN	82

LIST OF FIGURES AND TABLES

FIGURE 1: HISTORICAL POPULATION DATA FOR DUMMERSTON 7
FIGURE 2: POPULATION BY AGE COHORT 8
FIGURE 3: NUMBER OF HOUSING UNITS IN DUMMERSTON, 1970-2000 8
FIGURE 4: HOUSING TYPES IN DUMMERSTON, 2000 9
FIGURE 5: VERMONT ENERGY CONSUMPTION BY SELECTED CATEGORIES, 2006 50
FIGURE 6: DUMMERSTON SCHOOL ENROLLMENT 66
FIGURE 7: FALL ENROLLMENT OF BUHS STUDENTS FROM DUMMERSTON, 2003-2008 67

TABLE 1: POPULATION TRENDS IN NEIGHBORING VERMONT TOWNS (1990-2000) 7
TABLE 2: OCCUPATIONS OF EMPLOYED PERSONS AGED 16 AND OVER WHO LIVE IN DUMMERSTON
..... 10
TABLE 3: DUMMERSTON ANNUAL EXPENDITURES - 1993, 1998, 2003, 2006 12
TABLE 4: ANNUAL ENERGY COSTS FOR TOWN FACILITIES AND SERVICES 51
TABLE 5: MILEAGE SUMMARY OF TOWN HIGHWAY/ROADWAY 56

INTRODUCTION

Purpose of Dummerston Town Plan

The Dummerston Town Plan is designed to provide guidelines for planning the future of the Town of Dummerston so that community actions, whether private or public, will 1) conform to the wishes of its citizens, 2) avoid the adverse and sometimes irreversible effects often associated with purely random development, and 3) be in harmony with the planning measures of the State, the Windham Region, and neighboring towns.

The Town Plan is to be used by public officials, businesses, landowners, and residents in a number of ways:

1. To provide a source of information about the Town.
2. To encourage individual and community actions in all areas covered by the Plan that are in the environmental, economic and social interests of the Town.
3. To recommend future community programs, actions, and studies that will help to ensure a continuous planning program.
4. To provide a framework for zoning and any other bylaws or ordinances the Town may adopt.
5. To guide local decision-making in the review of development proposals, including site plan, conditional use, and subdivision reviews.
6. To serve as a basis for responding to development proposals requiring Act 250 permits or any other similar State or Federal review proceedings.

How the Town Plan was Developed

The Dummerston Planning Commission is responsible for preparing the Town Plan. This plan is an update of the *2004 Dummerston Town Plan*. The Plan is designed to comply with the standards of Title 24 (Vermont Statutes Annotated) Chapter 117 with respect to the content of the Plan, consistency with Vermont's planning goals, and compatibility with the Town Plans of nearby towns and the Windham Regional Plan.

Technical assistance was provided by the Windham Regional Commission. It is important that the plan reflect the wishes of Dummerston residents. For this reason, information gathered from various activities that preceded the writing of this Plan including a public survey, public forums, and community gatherings have been used. Input has also been sought from the Conservation Commission, Housing Advisory Commission, Energy Committee, town officials, and other volunteers.

Process for Adoption, Modification, and Updating

Formal adoption of the Town Plan will take place after public hearings of the Planning Commission and the Selectboard. The Plan is adopted by a majority vote of the Selectboard. A

Town Plan expires five years from the day of adoption.

Planning is an ongoing process. Once adopted, the Town Plan will need review every few years in order to account for new information about the Town and new public needs and desires as expressed by the citizens of Dummerston. This review is one of the main responsibilities of the Dummerston Planning Commission. A Town Plan can be modified and formally amended (through public hearings) at any time during the five-year period.

Organization of the Town Plan

The Dummerston Town Plan is divided into chapters on various topics. Each chapter includes *Goals* which are statements of the end results or conditions desired by Dummerston. They are also expressions of the community's environmental, cultural, and social values. Each chapter also contains *Policies* which help define the direction the Town will take and *Action Steps* which provide the Town a method of implementing the specific policies. The *Action Steps* also indicate the board or commission that is most appropriate for carrying out the action.

Interpretation of the Town Plan

In situations where the interpretation of the Plan is needed or required, it will be the task of the Dummerston Planning Commission, in conjunction with the Selectboard, to conduct the review.

Throughout the text of this Town Plan many of the policy statements and action steps include imperative verbs. "Should" or "may" means that a requirement is encouraged but not mandated, whereas "must" or "shall" means that the Town has strong intentions of ensuring a requirement is accomplished. "Policy" is defined herein as a guideline for achieving short-term and long-term goals.

GOALS OF DUMMERSTON

The following goals shall serve to guide Dummerston in its overall planning process. These goals are statements of the end results or conditions desired by Dummerston. They are expressions of the community's economic, environmental, cultural and social values. In developing this list of goals, the Dummerston Planning Commission included goal statements from previous Town Plans adopted by the community, and considered the Vermont Planning Goals as set forth in the Vermont Municipal and Regional Planning and Development Act (Chapter 117 § 4302). The stated goals shall serve as the foundation of this Town Plan and are further clarified and defined by policies and action steps found in the various chapters.

1. To achieve a balance between development activities, preservation of natural resources, and undeveloped land in Dummerston.
2. To protect the natural environment and its economic, ecological, and aesthetic benefits.
3. To preserve agricultural lands for agricultural use and maintain a strong agricultural economy.
4. To preserve important forest land for sustainable forestry practices and support forest-based industries.
5. To support the continuation of the Use Value Appraisal Program as a way of retaining large tracts of farmland and forest land.
6. To encourage preservation of undeveloped land as an important element in shaping Dummerston development pattern and in preserving its aesthetic and environmental quality.
7. To protect surface and ground water quality and quantity for drinking and other domestic uses, for fish and wildlife habit, and for recreational use.
8. To identify and balance the benefits and uses of sand, gravel and other mineral and earth resources against the impacts associated with the extraction, processing, and transportation of such resources.
9. To protect and enhance biological diversity in Dummerston.
10. To engage townspeople in protecting natural resources.
11. To be stewards for recreational and scenic resources essential to Dummerston's community's character.
12. To preserve and protect historic and cultural properties and sites.

13. To reduce total per-capita non-renewable energy consumption 40% by 2030 from a 2009 baseline.
14. To provide for safe, economical, and energy-efficient transportation systems that respects the integrity of the natural and social environment.
15. To create flexibility and diversity in Dummerston's housing stock.
16. To provide quality education for all people in Dummerston.
17. To ensure that high quality, affordable child care is accessible to all children.
18. To support and promote the town's current economic base to retain existing employment opportunities and increase availability of good quality employment opportunities.
19. To provide for the public health, safety, and general welfare of the community.
20. To provide an efficient system of community facilities and services.

DUMMERSTON COMMUNITY PROFILE

Settlement History

Archeological evidence suggests that pre-historic settlers made their way into the area by following the retreating glacial ice in the Connecticut River valley. As agriculture complemented traditional hunting and gathering practices, established settlements with larger groups of people were formed. Archaeological findings indicate that the Abenaki¹ established extensive villages along tributaries of the Connecticut River.

Europeans came in the mid-1700's as homesteaders, purchasing large tracts of land. They cleared the valley lowlands for pasture and for agriculture. Wood from the forest was primarily used for heating, cooking, and for masts on English ships. At this time, transportation was difficult so town centers were located to be central to everyone. Thus, Dummerston Center became an early town center.

The abundant forest resources in Dummerston led to the proliferation of mills. Slab Hollow became a major settlement area because of the many mills that were located on Salmon Brook. It continued to be as such until the mid-1800s when electricity replaced the need for mills.

The rise of the railroad in the 1800's had a significant impact on Dummerston. Access to rail lines and the ability to transport heavy goods led to the mining of granite from quarries on Black Mountain. A concentration of workers for the quarries led to a new town center known as West Dummerston Village.

Outside of the established areas of Dummerston Center, West Dummerston Village, and Slab Hollow, the settlement pattern evolved as well. Years of clearing and farming upland soils, led to the loss of topsoil. The rocky uplands of Dummerston were no longer productive for agriculture. Agriculture activities moved from the higher elevations and concentrated in the lower valleys. Dairy farming replaced sheep farming, and as refrigeration was introduced, milk production became the primary type of dairy farming. By the mid-1900's, agriculture was consolidated to large farms in the Connecticut River Valley, many of which remain today.

Geology

Metamorphic rock, known as the Waits Formation, underlies Dummerston and extends through West Dummerston, Prospect Hill, and Dummerston Center. It is characterized by mica schist, impure marble, and quartzite. Three hundred fifty million years ago, as the tectonic plate drifted northward, magma surged upward from deep within the earth and began to cool, forming granite. Some of these granite formations are visible along Route 30, and this granite exposed by weathering formed Black Mountain and the quarries along the West River.

Other plutonic rocks (igneous rocks formed deep below the surface of the earth) were folded, pushed, and eroded to form the Standing Ponds Volcanics found just south of Dummerston Center running in a north-south direction. Most of East Dummerston is sitting on a combination

¹ According to *Vermont, The Green Mountain State* by Walter Hill Crockett, the Native American history of Vermont is chiefly concerned with the Abenaki.

of metamorphic rocks including impure marble and slate. The old slate quarries along Route 5 north of Houghton Road are good evidence of these deposits.

One hundred seventy five million years ago, the continents moved into their current locations. The processes of erosion and mountain building continued. Mount Monadnock shows the height of the land before erosion. Then in recent geological past the glaciers came in four separate ice ages. The latest ice age occurred 10,000 years ago and covered Vermont in ice two miles thick. As the ice began to melt, portions of Dummerston became covered with water. The part of Dummerston along the Connecticut River and West River was an ancient lake called Lake Hitchcock. When the lake drained into the ocean, great deposits of sand and gravel (formed by water moving over rock) were left along the West River and Connecticut River.

Geography

The Town of Dummerston, approximately 31 square miles (19,815 acres) in size, is located in Windham County in southeastern Vermont. The Town is bordered by five Vermont towns—Brattleboro, Marlboro, Newfane, Brookline, and Putney—and by Chesterfield and Westmoreland in New Hampshire. Brattleboro is considered the region’s major growth center, providing the bulk of services and employment for Dummerston residents.

The physical characteristics of Dummerston are dominated by two rivers: the Connecticut River, which forms the eastern boundary to the Town, and the West River, which flows through Dummerston before joining the Connecticut River in Brattleboro.

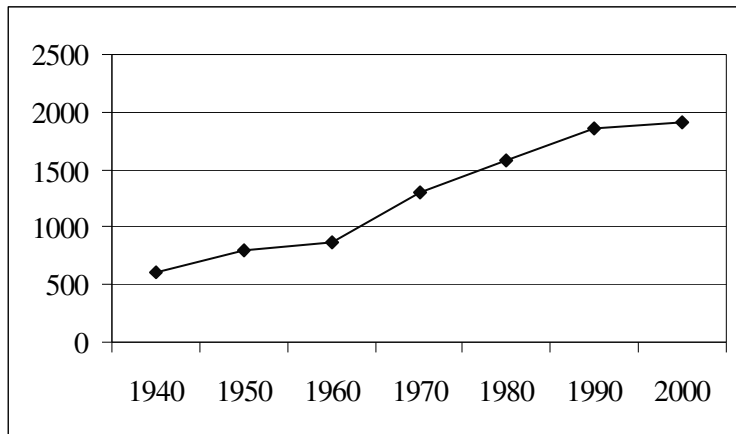
The topography of Dummerston is varied, being relatively flat in the Connecticut River Valley and quite hilly elsewhere in the Town. Black Mountain, at 382 meters or 1253 feet, is a dominant landmark located between the river valleys in the southern part of Town. Other prominent high points include Prospect Hill, Dummerston Hill, and Wickopee Hill.

State Routes 30 and 5 are the main roads serving the community. Dummerston is served by I-91 both at the south and north ends of town (Exit 3 in Brattleboro and Exit 4, which is partly in Dummerston and partly in Putney). Dummerston is located only a few miles north of Route 9, the major east-west corridor linking Brattleboro with Bennington and Keene, New Hampshire. The East-West Road from Route 30 to Route 5 is also an important road used by both local and regional commuters.

Population Growth and Projections

Overall, Dummerston’s population has steadily increased since 1940, as shown in Figure 1 below. The most significant increase in population occurred during the period 1960-1970 (48.51%). The following decade (1970-1980) saw less growth (21.54%). By 2000, the population of Dummerston had grown to 1,915 permanent residents.

Figure 1: Historical Population Data for Dummerston



Source: U.S. Bureau of the Census

While population has increased significantly in Dummerston between 1970 and 2000, the town’s percentage of Windham Region as a whole has hovered around four percent. This is attributable to the fact that many towns in the Region increased at a faster rate than Dummerston. Table 1 compares Dummerston’s growth with that of other neighboring Vermont towns. According to the Vermont Office of Policy, Research and Coordination, this population growth is primarily a result of net migration.

Table 1: Population Trends in Neighboring Vermont Towns (1990-2000)

Town	1990	2000	Actual Change	Percent Change
Dummerston	1,863	1,915	52	2.8
Brattleboro	12,241	12,005	-236	-1.9
Marlboro	924	978	54	5.8
Newfane	1,555	1,680	125	8.0
Putney	2,352	2,634	282	12.0
Brookline	403	469	66	15.9

Source: U.S. Bureau of the Census

The US Census Bureau estimated Dummerston’s 2006 population as 1,952. This is an increase of 37 since the 2000 Census.

Developing population projections for small communities is difficult. Various population projection models differ in their estimates of whether the population will increase or decrease over the next 15 years. In either case, the change in population will likely be very small, if not decrease. Any increase in population will occur incrementally over time and is not predicted to result in a rapid change.

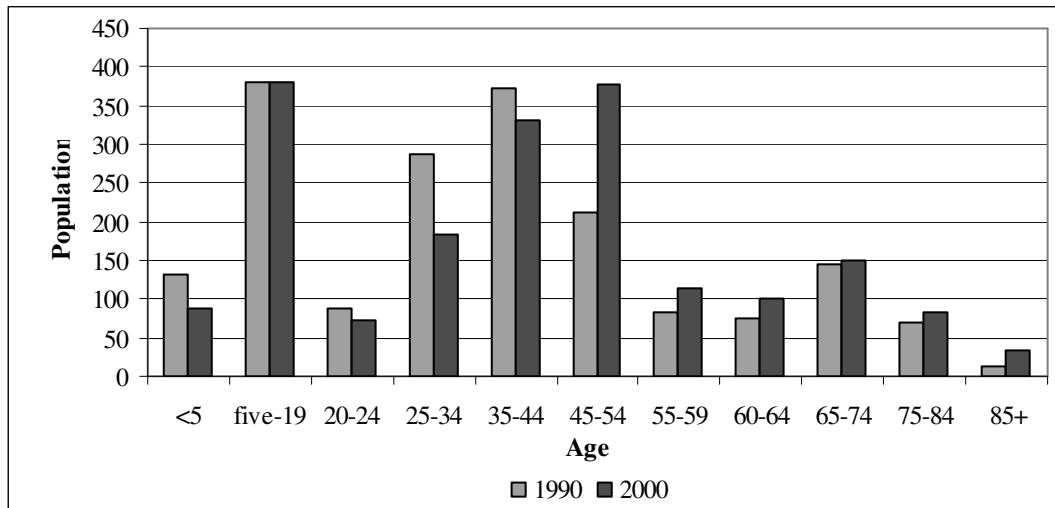
Age Distribution

According to the 2000 US Census, the median age population in Vermont is increasing. This is also true in Dummerston where the median age in 1990 was 36 and 42 in 2000. The State’s median age in 2000 was 37.7.

Figure 3 shows the current distribution of Dummerston’s residents by age. The following observations can be made from the data:

- There has been a significant increase in the population of people who will likely enter retirement within the next ten years (those ages 45-59).
- There has been a decrease in the number of people in child bearing ages.
- The senior population (those over 65) is growing.

Figure 2: Population by Age Cohort

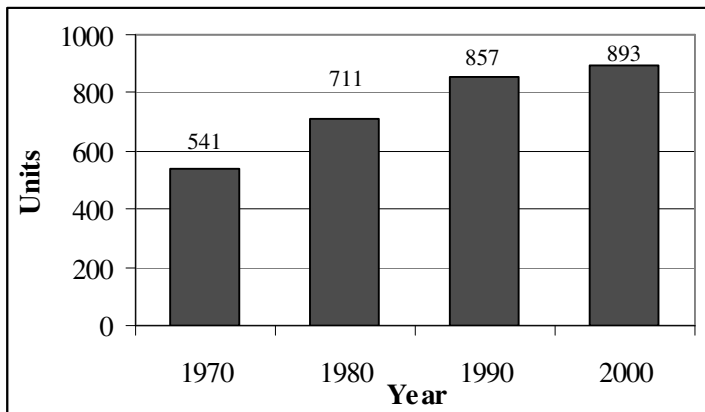


Source: U.S. Bureau of the Census

Housing

As Dummerston’s population has grown, so too has the number of housing units (see Figure 4). During the period of 1970 through 2000, 355 new housing units were built in Dummerston. Between 1990 and 2000, the total number of housing units increased by 36 units, representing a 4% increase over the ten year period. During the same period, neighboring towns had the following percent change in number of housing units: Brattleboro (2%), Putney (3%), Marlboro (5%), Brookline (2%) and Newfane (<1%).

Figure 3: Number of Housing Units in Dummerston, 1970-2000



Source: U.S. Bureau of the Census

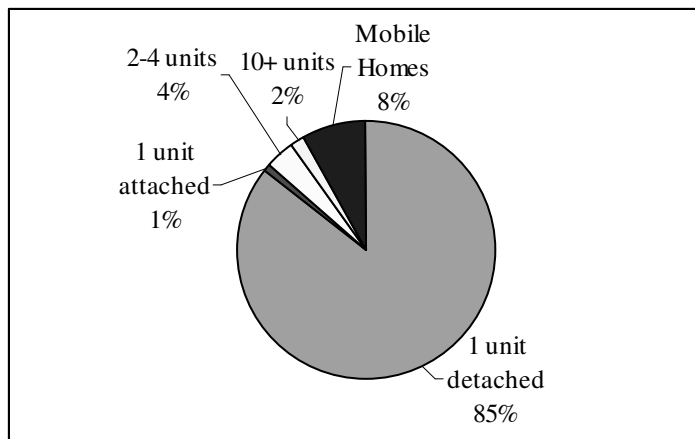
U.S. Census data regarding local permits issued for new housing units suggest that an additional 71 units of housing were granted permits between 2000 and 2007. Twelve of the 71 units were in multi-unit buildings.

Of the 893 housing units at the time of the 2000 Census, 796 were occupied and 97 were unoccupied. Of the occupied units, 642 were owner-occupied and 154 were renter-occupied. Of the 97 unoccupied units, there were: 5 for rent, 8 for sale, 2 rented or sold but not occupied, and 73 seasonal units.

Vacation or seasonal homes account for about 8% of the total housing stock. Dummerston's vacation/seasonal housing supply decreased since 1990. The likely cause of this is the conversion of this type of housing to permanent year-round housing.

Most of Dummerston's residents live in single family detached dwellings (see Figure 5). The total number of mobile homes has decreased from 99 in 1990 to 72 in 2000. There has also been a decrease in the total number of multi-unit structures.

Figure 4: Housing Types in Dummerston, 2000



Source: U.S. Bureau of the Census

The average household size in Dummerston has steadily declined since 1970, as it has across the country. The average household size for the town decreased by 19.7% from 3 persons in 1970 to 2.41 persons in 2000.

Economy

Dummerston has evolved from an agrarian community with the majority of its residents engaged in farming, forestry, mining, and various forms of entrepreneurship with the Town to a community where most residents work in neighboring towns. Brattleboro is an important employment center as well as a provider of necessary services and shopping for Dummerston residents. Some Dummerston residents work locally for the Town, for small commercial enterprises, or are self-employed with either small businesses or home occupations.

According to Vermont Department of Taxes, the median adjusted gross income for families in

Dummerston in 2005 was \$57,306.² Of the employed persons 16 years old and over in Dummerston, 76% are private wage and salary workers, 12% are self-employed, and 12% are either local, state or federal government workers. Table 4 lists occupations and demonstrates a full range of job types in Dummerston.

Table 2: Occupations of Employed Persons aged 16 and over who live in Dummerston

Occupation	Number	Percent (%)
Management, professional and related occupations	453	47
Service occupations	124	11
Sales and office occupations	236	22
Farming, forestry, and fishing	17	2
Construction, extraction, and maintenance operations	104	10
Production, transportation, and material moving occupations	156	14
Total	1,090	100%

Source: U.S. Bureau of the Census

According to the Vermont Department of Employment and Training, Dummerston reported 45 businesses, employing a total of 258 people, with annual average wages³ of \$33,315 for 2006. Since 2000, there has been a 4.7% decrease in the number of jobs in Dummerston. The largest losses occurred in construction of buildings (-28.6%) and state government jobs (-12.1%). Although these figures provide some insight to the employment picture of Dummerston, this data refers to employees and their wages in firms subject to unemployment laws. Workers not necessarily included are the self-employed, elected officials, employees of certain non-profit organizations, unpaid family members, some agricultural workers and railroad workers.

Town Government

The government of the Town of Dummerston derives its authority from its general charter and from the Vermont Constitution. There is a five member Selectboard for the Town. Three serve for three-year terms. Two serve for two-year terms. Selectboard members are responsible for the general supervision of the affairs of the Town and must see that all duties imposed by Vermont State Statutes upon towns and school district are performed. The board's duties fall into three general categories: regulation, general administration, and appointments.

The Town functions through the active participation of its residents and volunteer groups. Residents serve on various boards and committees and either join or financially support various associations in Town. The Town employs four road workers and provides wages to the following elected officials: Town Clerk, Town Treasurer, Selectboard, Auditors, and Listers; and to the following appointed officials: Zoning Administrator and Health Officer. The Emergency Management Director receives a stipend. Below is a sample of some of the boards and commissions that serve the Town with a partial listing of some of their responsibilities.

² The median measure of adjusted gross incomes from the Vermont State tax forms of families, including those filing as Married filing jointly, Civil union filing jointly, Head of household, and Widow(er) with dependent children.

³ Annual Average Wage is a figure computed from total wages and average employment (total annual wages/annual average employment). It is an average of aggregate data.

The Dummerston Town School District employs 43 individuals involved with administration, teaching, support services, and health services. Elementary and middle school education (kindergarten-8) are provided at the Dummerston School. The Dummerston Town School Board, consisting of five elected members, is responsible for many aspects of the school operation including fiscal oversight, budget preparation, maintenance, and negotiating classified staff wages and the administrator's contract. Public high school education (grade 9-12) is provided at Brattleboro Union High School.

The Dummerston Planning Commission consists of eight members who are appointed by the Selectboard. The Commission is responsible for writing the Town Plan and keeping it up-to-date, determining measures to implement the Town Plan, writing bylaws and any changes thereto, and performing any pertinent planning studies.

The Dummerston Development Review Board (DRB), also appointed by the Selectboard, consists of five members and two alternates. The DRB is responsible for hearing zoning appeals of the decisions of the Administrative Officer, variance requests, and applications for site plan approval, conditional use approval, planned residential and planned unit developments, and rights-of-way.

The Dummerston Conservation Commission was established by the Selectboard in 1990. The Commission is comprised of nine members and is responsible for the protection and management of natural resources and cultural resources in Town.

Several other Selectboard-appointed groups address specific issues relevant to the Town. In 2007 both the Housing Advisory Commission and the Energy Committee were formed. The Housing Advisory Commission was formed to address the town's growing need for affordable housing. The Energy Committee monitors locally important energy developments and promoting energy conservation, efficiency, and increased use of renewable resources. The Dummerston Recreation Board, appointed by the Selectboard, manages some of the athletic opportunities offered in the community. The Farmland Protection Committee assists the Selectboard by reviewing applications to the Farmland Protection Fund and making recommendations to the Selectboard. For a complete listing of elected and appointed officials, see the latest Dummerston Annual Report.

A number of ordinances and bylaws are in force in the Town of Dummerston, including: Wireless Telecommunication Facilities Ordinance, Trailer Park Ordinance, Traffic Ordinance (speed limits), Road Acceptance Ordinance, and Zoning Bylaws (including flood hazard regulations).

Local Revenue and Fiscal Conditions

Local revenue is generated through property taxes, state funds, and other miscellaneous reimbursements. Property taxes generated at total of \$2,109,874 in 1993, \$2,498,862 in 1998, \$3,532,840 in 2003, and \$3,912,588 in 2008. The Selectboard sets the Town tax rate to raise the money necessary to pay for the municipal expenditures that were approved at Town Meeting. The school tax rate is determined by the state, which then notifies the Town what that rate will be. Dummerston gains a significant amount of income from other revenue sources including state

highway funds, emergency management reimbursement, fees and charges for services, and permits and licenses.

As is typical for Vermont towns, the largest portion of the property taxes raised goes to funding education. Over half of the funds raised for Town services go towards public works. Highway maintenance costs alone were \$293,350.94 in 2008. Expenditures were disbursed by Town department as shown in Table 4. For more detailed financial information, see the Dummerston Town Report.

Table 3: Dummerston Annual Expenditures - 1993, 1998, 2003, 2006

Town Department	Year Ending			
	6/30/93	6/30/98	6/30/03	6/30/08
General Government	\$86,612	\$124,770	\$148,924	\$225,446
Public Safety	53,814	52,332	83,033	144,980
Emergency Management			24,890	20,462
Public Works	330,541	390,958	438,971	489,924
Health and Welfare	7,528	8,260	8,800	9,550
County Tax ⁴			14,772	15,769
Miscellaneous	12,231	15,909	17,488	11,082
Subtotal	\$490,725	\$592,229	\$736,878	\$917,213
Elementary School	\$1,446,413	\$1,836,366	\$2,837,467	\$2,091,642
Secondary School	471,681	592,897	708,765	728,309
BUHS Assessment & Vocational Ed				1,383,756
Windham SE Sup. Union Assessment	61,819	72,193	103,313	141,046
Subtotal	\$1,979,913	\$2,501,456	\$3,649,545	\$4,344,753
TOTAL	\$2,470,638	\$3,093,685	\$4,386,423	\$5,261,966

Source: Annual Reports, 1993, 1998, 2003, and 2008

⁴ The County Tax is assessed by the Windham Superior Court and is based on the equalized grand list. The funds go towards the operations of the county courts (district, superior, and probate) and the sheriff's department.

LAND USE

Existing Land Use

1. Existing Land Use Pattern

Dummerston covers approximately 19,815 acres of land. The town's pattern of development reflects the influences of the historic settlement pattern discussed in the Community Profile as well as topography and the transportation system.

Physical limitations continue to exert major control on the use of land in Dummerston. Soils and steep slopes have played a dominant role in limiting development in many parts of Town. Where soils are shallow, unstable, and impermeable or subject to wetness or erosion, land development becomes extremely difficult. The result is that development has located along road frontage where, particularly in the central and western part of Town.

The *Conserved and Working Lands with Existing Development* map shows the general pattern of development in Dummerston along with the location of buildings. This pattern has not changed appreciably over the years; development has merely extended along the road frontages in all sections of town. The *Existing Land Use by Parcel* map shows the dominant land use on each parcel. A more detailed description of these land use categories displayed on this map follows.

1. **Residential Development** is primarily located along the town's rural roads. More recently (post 2001); residential development has been spreading into previously undeveloped areas located further off town roads. The densest concentration of residences can be found in West Dummerston, Dummerston Center, Slab Hollow, Little Connecticut, and along Houghton Brook Road near the Putney border.
2. **Commercial Development** is, for the most part, scattered along Route 5 and Route 30. The Commercial uses include retail and automotive services, farm stands, and camping facilities.
3. **Industrial Development** in Dummerston is limited. There is some industrial development associated with Putney Paper in the northeast corner of town. In the southeast corner of town, the Allard Lumber yard located on Old Ferry Road extends into Dummerston. Other industrial uses include the Vermont Agency of Transportation Maintenance Garage and a trucking company, both located on Route 5.
4. **Public Services/Cultural** uses include the following facilities: Town Office, Dummerston School, Lydia Taft Pratt Library, Community Center, Evening Star Grange, Historical Society, Green Mountain Camp, fire stations, churches, and cemeteries. These facilities are primarily located in Dummerston Center and West Dummerston.
5. **Conservation** includes publicly-owned lands, lands owned by a conservation organization, and private lands with a conservation easement⁵.

⁵ A conservation easement is a recorded land use agreement in which the property owner conveys by sale or gift certain development rights to a governmental agency or qualified charitable organization like a land trust. The

6. **Farms** refer to lands that are utilized for the cultivation of crops, dairy farming, raising of livestock and poultry, orchards, and tree farms.
7. **Undeveloped** land represents land not being used for development at this time. A large portion of this area is forestland, most of which is in private, non-industrial ownership.

Future Land Use

1. Land Use Districts

The Future Land Use Plan has realigned the land use districts from previous Town Plans to allow growth but direct it to locations that are more reflective of Dummerston's traditional settlement pattern and unique landscape features. It also provides for the preservation of Dummerston's natural resources, biodiversity, and rural character. The following factors were considered in developing this plan:

- Population and Development trends: Between 1960 and 2000, the population increased 120 percent and housing units by 141 percent, while the average household size declined from 3.14 in 1970 to 2.41 in 2000. Coupled with this population and housing growth, the zoning bylaw has led to increased residential sprawl and strip development throughout the town. Most of the zoning districts were delineated using an arbitrary setback from the road. This method of delineating zoning districts does not respect the physical limitations of the land nor unique cultural and/or natural resources value that may be present.
- Community Input: Over the past several years, the Town has been gathering public input on the goals and values of the community. These activities have included a 2002 Planning Commission survey to discern what the residents wanted the town to be like, Dummerston Y2C in 2007, participation in University of Vermont and Shelburne Farms PLACE program, and community presentations and work sessions on a draft land use plan.
- Biodiversity: Dummerston is fortunate to have a landscape that supports a diverse ecosystem of plants and animals. Conservation Commission efforts to document this biodiversity have been used to help develop a land use plan that will protect the integrity of the town's biodiversity.
- Working Landscape: Unlike many Vermont towns, agriculture activity (dairy, orchards, haying, etc.) and forestry are still very much a part of the landscape. In a time where land prices and the economy make it difficult to convert new land for farming, this land use plan recognizes the importance of the existing working landscape and seeks to maintain it for use into the future.
- Land Capability: Natural features of the landscape can serve as major development constraints. Steep slopes, flood-prone areas, wet soils, and shallow soils all present challenges to development that may be able to be overcome but do not reflect efficient and environmentally sound planning.

The following land use districts were developed to guide growth and conservation efforts in

holder is required to enforce the easement in perpetuity for public benefit. Easements can protect lands, buildings, or both. Another name for a conservation easement is conservation restriction.

Dummerston. The *Future Land Use* map depicts the areas that are described below. They will be used to guide future changes to the land use districts in the Zoning Bylaw.

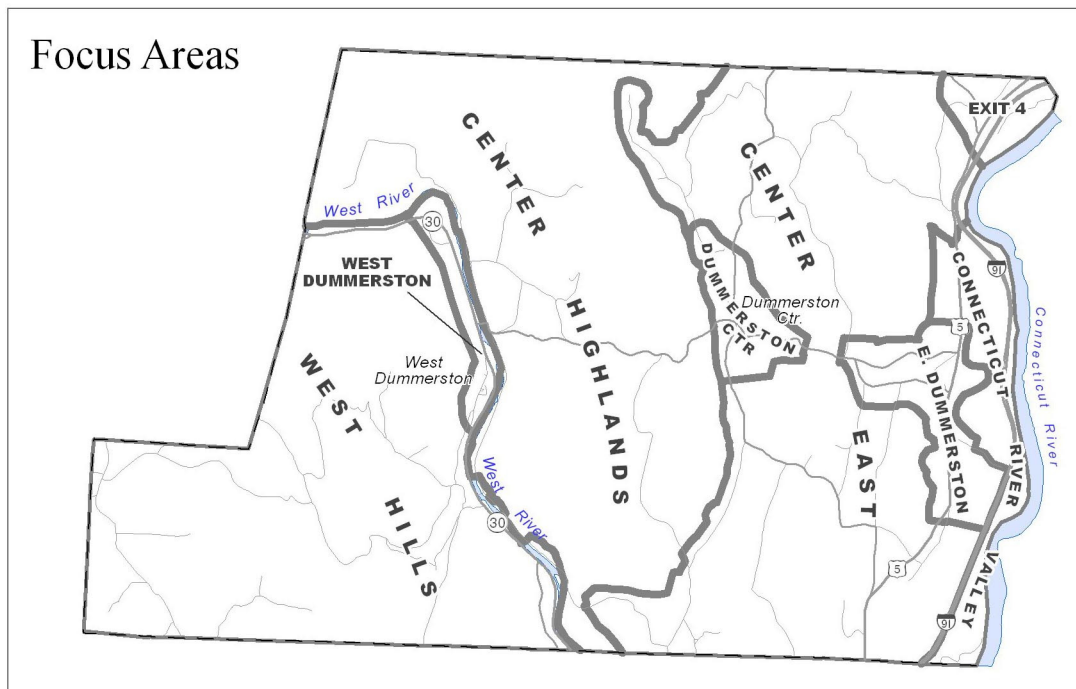
- a. **Conservation:** Conservation areas are so designated because of their special and unique value and to the region's ecosystems. Lands within this area primarily include publicly-owned lands (either town or federal), steep slopes, and critical conservation corridors. The priority in the conservation areas is to maintain undeveloped land and large parcels as well as to protect habitats, watersheds, and conservation corridors.
- b. **Resource:** The resource areas contain lands that currently have or have the potential for productive agricultural or forestry uses. In most locations, undeveloped land, conservation corridors, large parcels, low impact recreation, and habitat protection are maintained. There are some low to very low density⁶ residential areas located in these Resource areas. The purpose of the resource area is to recognize and provide for the continuation of economic values when the land is in productive use. Another purpose is to preserve the rural character of Dummerston which is characterized by extensive woodlands and undeveloped fields, while accommodating low to very low density residential development that avoids the need for new road infrastructure.
- c. **Rural:** The rural areas contain low density development and are generally located at a distance from facilities and services. The rural areas off of Bunker Road and Miller Road tend to be undeveloped fields. The Rural areas in the western part of town tend to be forested. These are areas that can support limited residential growth due to topography and soil conditions. The goal of rural lands is provide for some housing while maintaining moderate levels of forestry and agriculture. Habitat protection and the preservation of the rural landscape are also important.
- d. **Rural Residential:** Rural residential areas are residentially developed areas that are easily accessible by the existing road network. The goal of the rural residential area is to provide for low to moderate density housing while maintaining the rural feel. Both site specific habitat preservation (e.g. streams, wetlands, vernal pools) and, where possible, resource use is encouraged.
- e. **Mixed Density:** Mixed density areas are areas with existing development. The goal is to encourage the most intensive use of land within these mixed density areas. This development would include small scale services and a wide variety of housing options. Future development is meant to be compatible with the existing uses in each mixed density area. Generally, additional infrastructure will not be required in these areas. One possible exception is a centralized wastewater system in West Dummerston where lot sizes are too small to accommodate individual systems.
- f. **Critical Conservation Corridor Overlay District:** Critical Conservation Corridors are areas that provide naturally vegetated linkages to support daily and seasonal wildlife movement. The goal is to minimize activities that block or limit wildlife movement between unfragmented blocks of forest.

⁶ Density is the amount of development per acre. It is typically measured in dwelling unit per acre.

- g. Dummerston Center Historic Overlay District:** The Dummerston Center Historic Overlay District is located at the crossroads of the East West, Middle, and Bunker roads. This area is significant historically and architecturally as representative of the small, mill-oriented communities that characterized much of the region from this date to the mid-19th Century. The focal point are this overlay district is the intersection where the Congregational Church, Grange, and common are located. Residential buildings dating from the late 18th to mid-19th Centuries surround this area, which once served as a town center. The purpose of this overlay district is to establish design review in an area considered worthy of preservation because of its architectural, cultural and historic significance.
- h. Commercial/Light Industrial Overlay District:** The purpose of these areas is to encourage well planned and coordinated development of commercial and light industrial (e.g. manufacturing, warehousing, building trades, storage, etc.) within the Town. Efforts to guide and regulate development in such a way to ensure wise public investment and minimize impacts on the land and surrounding community while supporting a range of economic development and business opportunities in the Town will be taken.

2. Focus Areas

As part of the process to develop the future land use districts, focus areas depicted on the map below were created to evaluate the landscape and unique values of various parts of Town. These focus areas provide a more detailed description of what each part of Town is like. They should be used in conjunction with the land use districts to evaluate the “character of the area” during development review.



a. Exit 4

The Exit 4 focus area is located on Route 5 with easy access to the Interstate 91 interchange. In the vicinity of Houghton Brook Road and Johnson's Curve, the development is residential. Near the Exit 4 interchange there is commercial development, 2-3 establishments which are connected to Putney's sewer/water line. The area east of the railroad tracks is currently undeveloped and includes two boat landings which provide public access to the Connecticut River. There is active farming occurring in this focus area (an orchard and corn field) and it is important to protect this agricultural land as well as other natural resources.

b. Connecticut River Valley

The gentle rolling landscape and fertile soils of the Connecticut Valley have long supported agricultural use of the land in this focus area. The landscape is a patchwork of fields and forested areas. Existing development in this area includes residential development and working farms. There is industrial development on Old Ferry Road, which is accessed by way of Brattleboro.

c. East Dummerston

The East Dummerston focus area stretches from Hidden Acres campground to Dummerston School along Route 5 and up East-West Road and School House Road into the residential area known as Slab Hollow. The town's largest concentration of commercial operations are scattered along Route 5. Slab Hollow is one of three historic compact settlement areas in Dummerston and serves as a single-family residential neighborhood of small lots with development close to the road.

d. Center East

The Center East focus area contains a mixture of scattered development, undeveloped land, and undeveloped areas. Farming has left an imprint on this focus area with fields, some still actively farmed, and forests surrounding the residential development. Most of Dummerston's orchards are found in this focus area. The rising hills to the west provide scenic forested views.

e. Dummerston Center

Dummerston Center typifies the traditional village center of the rural upland farming communities which have historically dominated Vermont's agricultural landscape. Community, religious, and residential structures combine with undeveloped land to form a community center of cultural significance. The built environment has a consistency in form, material, texture, and color. Important landscape features include fields stretching toward the ridge, surrounding woodlands, many large shade trees, and the pond and brook located at the crossroads of Middle Road and East-West Road.

f. Center Highlands

The Center Highlands focus area is comprised of a connecting swath of land that runs north-south through Dummerston. Black Mountain and Prospect Hill are important high elevation landmarks. The dominant feature in this focus area is the forested landscape, much of which is remote and undeveloped. The forested landscape plays an integral role in the town's biodiversity. Large contiguous areas of unfragmented habitat extend beyond the town borders into the neighboring towns. This unfragmented habitat is critical for animal migration.

High elevations and steep slopes in many parts of this focus area constrain development. Several large parcels have already been conserved. There is some low density residential development on Black Mountain Road, East-West Road, and Camp Arden Road. More dense development is located on and around Hague Road, an area known as Little Connecticut. In the areas of residential development there is a peaceful, quiet nature to the area given surrounding forested landscape.

g. West Dummerston

The West Dummerston focus area is situated along Route 30, a major transportation route between Brattleboro and towns along West River Valley. It includes West Dummerston Village, one of Dummerston’s historic village areas. Today, West Dummerston Village is primarily residential with a few public buildings. Lot sizes are generally one acre or less and structures rely on individual wells and septic systems. The combination of small lot sizes and on-site water and waste water systems is a development constraint. Along Route 30, this focus area is defined by the West River and the steep, wooded slopes behind it as opposed to the scattered commercial and residential development. The commercial development that exists is small in scale and is primarily art-related crafts that are located in residences. There are also some auto service garages and a gasoline station. Route 30 is a popular route for bicyclists and for recreation users that take advantage of the parking lot at the covered bridge.

h. West Hills

This focus area is a high elevation area with large, undeveloped tracts of lands. It is largely forested and is part of a greater contiguous forested habitat that extends into neighboring towns. A significant portion of the area has been conserved because it serves as a watershed area for Brattleboro’s water supply. Residential development is scattered along the roads. Known as Dummerston Hill, it was an early settlement abutting the towns of Marlboro, Brattleboro, and Newfane. Existing low density development, steep terrain, and limited access from Dummerston contribute to the remote feeling of this focus area.

Land Use Goals, Policies, and Action Steps

Goal 1: To achieve a balance between development activities, preservation of natural resources, and undeveloped land in Dummerston.
--

Policy 1.1: Designate distinct zoning districts to regulate land use activities to ensure compatibility with the purposes of those respective districts.

Action Steps:

- a. Adopt a Conservation District for the purpose of maintaining undeveloped land, large parcels, and large scale reserves, as well as to protect habitats, watersheds, and conservation corridors. To this end:
 - i. Limit permitted uses within the Conservation District to agriculture, forestry, individual recreational hunting and fishing camps, seasonal or occasional use camps, and accessory uses to the permitted uses on the same lot.
 - ii. Prohibit the creation or extension of new roads through the Conservation District.
 - iii. Maintain a very low density of development (1 unit per 27 acres).

- b. Adopt a Resource District to recognize and provide for the continuation of lands that have economic value when in productive use and to preserve the rural character. To this end:
 - i. Maintain a low to very low density of development (1 unit per 10-27 acres).
 - ii. Resource districts should be used for forestry, agriculture, and low-intensity recreation. Withhold this area from intensive development until there is a demonstrated public need for their development, and until public utilities and community facilities and services can be provided to these areas at a reasonable cost.
 - iii. Allow detached dwelling units to be grouped relatively close together as a means for leaving land undeveloped and protecting natural resources in this area.
 - iv. Conditionally permit agricultural tourism use so that property owners can diversify and bolster income sources.

- c. Maintain a Rural District to provide housing while maintaining modest levels of forestry and agriculture that contribute to the rural character. To this end:
 - i. Maintain a low density of development (1 unit per 10 acres).
 - ii. Allow detached dwelling units to be grouped relatively close together as a means for leaving land undeveloped and protecting natural resources in this area.
 - iii. Continue to permit a mix of rural land uses, including agriculture, forestry, outdoor recreation, and housing.
 - iv. Conditionally permit agricultural tourism use so that property owners can diversify and bolster incomes sources.

- d. Maintain the Rural Residential District to provide for moderate density housing while maintaining a rural feel. To this end:
 - i. Revise the Zoning Bylaw to conditionally permit multi-family housing in the rural residential district.
 - ii. Continue to permit a mix of rural land uses, including agriculture, forestry, outdoor recreation, and housing.
 - iii. Maintain the existing density of 1 unit per 2 acres for residential uses.
 - iv. Review setback requirements and reduce them where the predominant development pattern is contrary to the existing setback requirement.

- e. Create Mixed Density Districts to encourage compact settlement areas consistent with traditional development patterns in Dummerston. To this end:
 - i. Evaluate building setback patterns and create setbacks that are consistent with the existing development patterns in each mixed density district.
 - ii. Evaluate commercial uses and allow them to continue in mixed density areas where they have traditionally been found or are compatible with existing uses.
 - iii. Permit a range of densities within these districts ranging from a high density of 1 unit per ½ acre for residential uses and 1 unit per 1 acre for commercial uses to a moderate density of 1 unit per 2 acres.

- f. Adopt a Critical Conservation Corridor Overlay District to minimize activities that block or limit wildlife movement between unfragmented blocks of forest.

- g. Establish a Local Historic District in Dummerston Center to maintain and improve the aesthetic quality and architectural character of the area.
- h. Investigate the creation of an Agricultural District or overlay district. (Planning Commission)
- i. Investigate the creation of a Recreation Overlay District. (Planning Commission)

Goal 2: To protect the natural environment and its economic, ecological, and aesthetic benefits.

Policy 2.1: Require that development projects integrate natural features and resources so that the losses of these are minimized.

Action Steps:

- a. Revise site plan review standards to ensure that overall site design respects that natural characteristics of the land and enhances the character of the district within which a development is located.
- b. Develop standards in the Zoning Bylaw to restrict development on steep slopes.

Policy 2.2: Create a network of greenspaces and greenways that protects and preserves the environment, wildlife habitats, natural resources, scenic landscapes, and provides recreation.

Action Steps:

- a. Maintain a minimum setback of 50' from rivers and perennial streams. Encourage the establishment of and maintenance of a vegetated buffer along the shoreline for erosion control, filtration, and/or capture of nutrient and chemical runoff.
- b. Prohibit new development in flood hazard areas.
- c. Target conservation efforts on lands in the Conservation District and in critical conservation corridors.

Goal 3: To promote intensive land uses and development only in areas where adequate public services and facilities are available.

Policy 3.1: Limit light industrial development to areas shown as Commercial/Light Industrial on the generalized land use map.

Policy 3.2: Prohibit extension of roads, energy transmission facilities, or other utility services through Conservation lands.

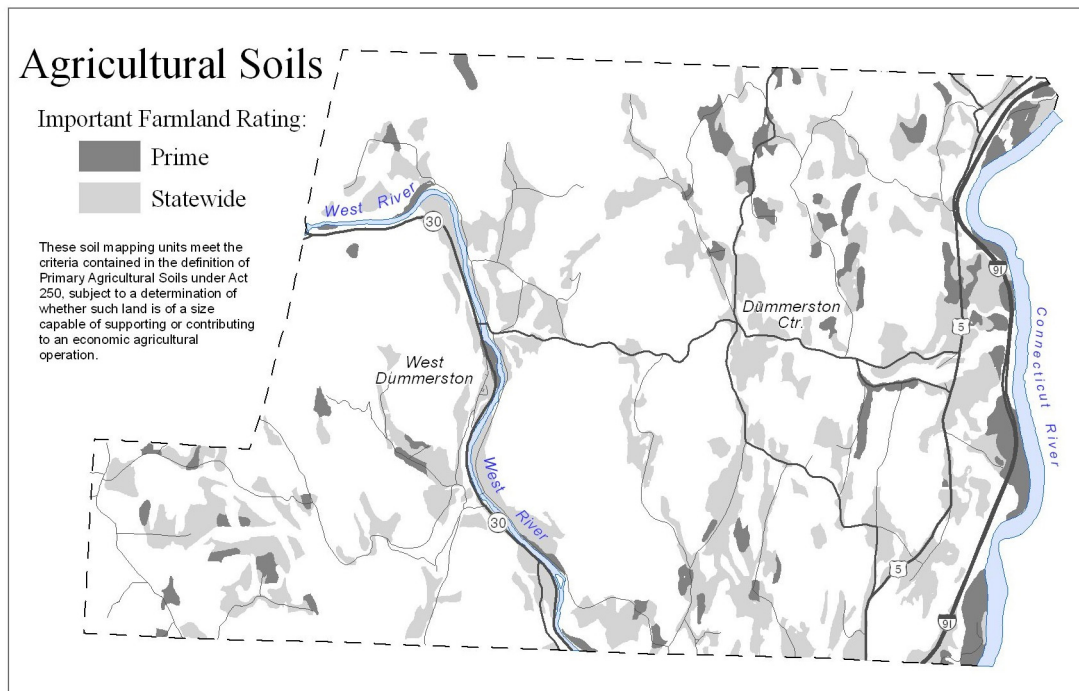
Policy 3.3: Construct corridors for new energy transmission or distribution facilities only when needed, and then only within or adjacent to existing operational energy transmission facility corridors to the maximum extent possible. Minimize their visual impact on ridgelines, slopes, and undeveloped areas, and avoid important natural and historic resources.

WORKING LANDSCAPE

Agriculture

Agricultural land, or farmland, is defined as any land used for agricultural activities⁷ by a farm⁸. Usually farmland is cleared, although some forestry practices are considered agricultural, such as the cultivation of maple sugarbushes. Natural and human-influenced factors determine viability of farmlands, both economically and in the ability to produce crops. Soil, slope, and climate conditions are examples of natural factors. Accessibility by roads, distances to services, development and markets, and proximity to other agricultural land are human-influenced factors.

The US Department of Agriculture Soil Conservation Service has identified soil types that are best suited to crop production based on soil quality, growing season and moisture supply. Important Farmland inventories identify soil map units including Prime Farmland and Farmland of Statewide Importance. Prime agricultural soils are likely to produce the highest crop yields using the least amount of economic resources and causing the least environmental impact. Soils with an Important Farmland rating of 'prime' or 'statewide' have the potential to be Primary Agricultural Soils under Act 250. Dummerston's agricultural soils are mapped below.



1. Dummerston's Farmlands

Dummerston's farmlands are located in both the fertile Connecticut River Valley and the hills. There are relatively few farms, but they do produce a diversity of products, provide fresh food to

⁷ Title 12, Chapter 195 of the Vermont Statutes Annotated defines agricultural activity.

⁸ A farm is an agricultural business with annual sales of \$1000 or more. A farm includes the entire parcel (parcels) of land the contains such farmland, whether leased or owned.

our local community, and add to the beauty of the working landscape. It is estimated that about 10% of the town, or 2000 acres, remains in fields as hay, pastures, and cropland. Orchards and sugarbushes total many more hundreds of acres. Among the most prominent owner-operated agricultural operations in 2009 are Blue Gate Farm, Dwight Miller and Son Orchard, Elysian Hills Tree Farm, Hickens Mountain Mowings Farm, Houghton Farm, Howe Farm, Stoneholm Farm, Scott Farm Orchards, Sweet Tree Farm, Walker Farm, Whitney Lane Farm, and Wickopee Hill Farm. In addition there are numerous rented or leased farmed lands. Dummerston also has a wide variety of maple sugaring operations ranging from backyard hobbyist to larger producers who wholesale their product. In addition, there are several Community Supported Agricultural farms that sell shares of the farm crops to members prior to the start of the growing season.

In the late 1980s, Dummerston undertook a Land Evaluation and Site Assessment (LESA) to evaluate its farmland. A report of its findings was prepared in 1990. This is a technique used by the US Department of Agriculture Natural Resources Conservation Service to objectively rate farmland based on soils and other features. A total of 300 points is possible, the best parcels having the highest scores. The Land Evaluation portion of the total score counts for a possible 100 points. Soil types are given numerical values, up to 100, based on their potential to support agriculture. The Site Assessment can contribute up to 200 points of the total possible 300. Site Assessment criteria used in Dummerston included: acreage of agricultural lands, number of contiguous acres of agricultural lands, adjacent land uses, land use of agricultural land on the parcel, scenic quality, and on-site investments. The system is designed to be flexible, allowing towns or regions to develop individual scoring systems within this framework.

Sixty-six (66) parcels representing about 1,720 acres were selected and scored by a Town Committee. The scores ranged from a high of 273 to a low of 129. LESA scores are presented on the Important Farmland and Forest Land Map. The information provided from the LESA is a first step in cataloging the quality and extent of Dummerston's agricultural base.

2. Significance of Farmland

The Connecticut River Valley contains some of the best agricultural soils in Vermont. Dummerston's location within this Valley gives statewide significance to some of its farms. The preservation of our farmland is important for producing local foods and maintaining the rural landscape.

Farmland is a non-renewable resource; once gone it cannot easily be recovered. Dummerston's farmland is critical to maintaining a sustainable and diversified local food supply. This is especially important given that the global food chain is sensitive to rising population, water shortages, climate change, and the rising costs of fossil fuels. All of these affect the price and quality of food we eat. Another benefit of local foods is that it is good for the local economy - buying food directly from our local farmers helps them stay in business.

Dummerston's farmland plays a significant role in defining the town's rural landscape. It is a landscape of fields, wooded hillsides, and uncluttered hilltops and ridges. This landscape creates a "sense of place" that helps define Dummerston and once lost, it cannot be recreated. Farmland is especially vulnerable to conversion to non-farm uses. Characteristics of best farmlands (level topography and well drained soils) make them highly desirable for development.

Dummerston is committed to conserving land for agricultural use. A Farmland Protection Fund has been established to help protect the town's farmland from residential and commercial development. Uses of the fund include, but are not limited to, purchase or assistance in the purchase of rights of first refusal, options to purchase conservation restrictions (purchase of development rights), and purchase by the town of land through bargain sales or land in fee. Applications for use of the Fund are evaluated by the Farmland Protection Committee who makes a recommendation to the Selectboard.

Increasingly, farmers are finding it necessary to diversify their operations to stay in business. It is important that we encourage this diversity if we want to sustain our farms. One way is to promote farm-related businesses and other non-traditional enterprises to their farming operations. Many of our farms already operate roadside markets and pick-your-own operations. Permitting additional uses (e.g. recreational and educational, retail trade, agricultural services, agri-tourism⁹, and the processing and manufacturing of value-added goods) on agricultural properties will benefit farmers by opening new opportunities for them to increase annual income and benefit the town by continuing to preserve undeveloped land and the rural lifestyle.

Forestry

Historically, forests have played a vital role in Dummerston, from the making of potash to the sawing of shingles, and as a source for firewood and lumber. Many sawmills were located along Dummerston's small streams. Today, those mills are gone, but the forest continues to have a significant role in the economy and culture of Dummerston as a source of timber products and maple syrup. Forests also contribute substantially to Dummerston's quality of life and well-being. These benefits include recreation, scenic beauty, wildlife habitat and the role forests play in the natural cleaning of the air and as a vital component in the natural water cycle.

Most forestland is in private non-industrial ownership. The condition of Dummerston's forests and woodlots varies from poor to excellent. Years of "take the best and leave the rest" have left some forestland with an abundance of low quality trees. Insects such as gypsy moth, pear thrips, and hemlock looper have taken their toll. The American chestnut blight and beech bark disease have also affected forest species composition. High deer population is also a threat to forest health as they can lead to shorter trees and fewer species.

Dummerston currently has ten official Tree Farms as designated by the American Tree Farm System. These are actively managed forestlands. To qualify for Tree Farm certification, a tree farmer must 1) own 10 or more acres of forestland, 2) manage for the production of timber and other forest products, and 3) protect the forest from fire, insects, disease, and destructive grazing. These lands also must be inspected every five years to ensure the property is being properly managed.

An important regional resource forest owners in Dummerston is the Woodland Owners Association, Inc., an organized group of woodland owners in Windham County that provides

⁹ Agri-tourism involves attracting travelers or visitors to an area or areas used primarily for agricultural purposes (e.g. overnight stays, special events and festivals, recreation activities and events, tourism enhanced direct marketing, education).

forest tours, guest speakers and a newsletter promoting good forest management.

Use Value Appraisal

Since 1980, Vermont's Use Value Appraisal Program (commonly referred to as Current Use) has given farming and forestry some continuity. This program taxes farm and forestland according to use value, instead of fair market value. According to the Vermont Department of Taxes, the primary objectives of the program were to keep Vermont's agricultural and forest land in production, help slow the development of these lands, and achieve greater equity in property taxation on undeveloped land. The State of Vermont reimburses communities for municipal property tax revenue that is lost due to enrollment of land in the Program. Participating landowners must pay the balance of property taxes due to the community. The program includes a Land Use Change Tax as a disincentive to develop land.

Parcels enrolled in the program generally must have a minimum of 25 contiguous acres (not counting the 2 acres surrounding any dwelling). Forestland is required to be managed according to the provisions of a 10 year forest management plan that is approved by the County Forester. To qualify for as agricultural land, one of the following must be met: 25 contiguous acres in active agricultural use; or smaller parcels generating at least \$2,000 annually from the sale of farm crops; or actively used agricultural land owned by or leased to a farmer. Two most significant changes to the program over the years has been the inclusion of conservation land owned by qualifying nonprofit organizations and the exemption from all property taxes of eligible farm buildings.

In 2009 there were 1,366.99 acres of agricultural land and 7,177.41 acres of forest land in a total of 99 parcels in Dummerston enrolled in the Use Value Appraisal Program. This amounts to 43% of the Town's 19,815 acres.

While Use Value Appraisal reduces the burden for participating landowners, land can be taken out of the program with payment of a penalty. Therefore, it does not provide absolute assurance of continued undeveloped land. Other criticisms of the program include the fact that the reduced use value figure is used for school funding purposes. However, by maintaining our forests through long term management plans, we are preserving habitat, ensuring a long term supply of high quality timber products, and supporting local jobs that contribute to the local tax base. The maintenance of agriculture lands preserves our capability to produce local foods and protect our rural landscape.

Working Landscape Goals, Policies, and Action Steps

Goal 1: To preserve agricultural lands for agricultural use and maintain a strong agricultural economy.
--

Policy 1.1: Preserve agricultural land for agricultural uses and activities.

Action Steps:

- a. Review and update the Land Evaluation and Site Assessment (LESA) scores and evaluate whether the individual scores are still appropriate. (Farmland Protection Committee)

- b. Consider land use regulations that require residential development to be located off or away from important agricultural lands. (Planning Commission)
- c. Investigate the creation of an Agricultural District or overlay district. (Planning Commission)
- d. Encourage farmers and owners of other qualifying agricultural land to participate in the State's Use Value Appraisal Program. (Farmland Protection Committee)
- e. Work with farmers, landowners, private land trusts and governmental agencies to conserve important agricultural land by purchase, conservation easements or other means, making use of the Town's Farmland Protection Fund whenever appropriate. (Farmland Protection Committee)

Policy 1.2: Support and encourage farming and agricultural activity.

Action Steps:

- a. Reduce the potential for conflict between farmers and non-farming neighbors by promoting understanding of the State's right-to-farm law.
- b. Revise the Zoning Bylaw to permit farm-related businesses, such as farm markets and production of value added items, to be established on farm property in conjunction with agricultural operations. (Planning Commission)
- c. Encourage diversification of agricultural activities but establish clear and reasonable limits in the Zoning Bylaw on activities that are not directly farm-related. (Planning Commission and Farmland Protection Committee)
- d. Encourage new farmers and the establishment of new farm operations. (Farmland Protection Committee)

<p>Goal 2: Preserve important forest land for sustainable forestry practices and support forest-based industries.</p>
--

Policy 2.1: Preserve important forest land for sustainable forestry practices.

Action Steps:

- a. Identify the Town's most important forest land. (Conservation Commission)
- b. Assist landowners with the following: (Conservation Commission)
 - Encourage forest management consultation with the Windham County forester, Woodland Owners Association, Inc., Vermont Converts, Inc. or private consulting foresters;
 - Provide names of professionals capable of helping landowners 1) assess forest land access sites and 2) avoid subdivision and development that will cause unnecessary fragmentation of forest property.
 - Provide information on Use Value Appraisal Program, the Tree Farm Program, and FSC-based certification
- c. Work with landowners, private land trusts and governmental agencies to conserve important forest land by purchase, conservation easements or other means. (Conservation Commission)

Policy 2.2: Support forest-based industries and enterprises.

Goal 3: To support the continuation of the Use Value Appraisal Program as a way of retaining large tracts of farmland and forest land.

CONSERVED LANDS

Dummerston contains a wide variety of conserved and publicly owned undeveloped land. As seen on the *Conserved and Working Lands with Existing Development* map, these areas are distributed throughout Town. In addition to showing land owned by the Town that is managed for conservation purposes, this map also shows private land in Vermont's Use Value Appraisal Program (also referred to as Current Use).

The Nature Conservancy has conserved 553 acres of land on Black Mountain through a combination of ownership and conservation easement. This land, known as the Nature Conservancy Preserve, is accessible to the public via hiking trails. The Vermont Land Trust holds conservation easements on many parcels in town. These lands have a formal, legal restriction on future development and are generally not open to the public.

Publicly-owned lands in Dummerston include Dutton State Park and Prospect Hill. Dutton State Park consists of 12 acres along Route 5. Prospect Hill is a 37-acre wooded hillside with cleared land at the top. The property is managed by trustees with the Conservation Commission providing stewardship.

As indicated on the map, many parcels in current use either abut or are in close proximity to conservation and undeveloped land owned by the Town. Given the importance of large forest and habitat blocks for wildlife, groundwater recharge, and the preservation of rural character, it may be worthwhile for the Town to work with private owners of land in current use to afford them more permanent protection.

Conserved Lands Goals, Policies, and Action Steps

Goal 1: To encourage preservation of undeveloped land as an important element in shaping Dummerston development pattern and in preserving its aesthetic and environmental quality.

- Policy 1.1:** The Town will give high priority to maintaining undeveloped land that:
- Protects the water, wetland, and ecological resources discussed in this Town Plan
 - Is adjacent to or within the important wildlife corridors
 - In agricultural use or which contain prime farmland soils;
 - Provides space for active and passive recreation
 - Protects scenic views
 - Provides public access to the waterfront
 - Provides buffers between compact settlement areas and the rural countryside

Action Steps:

- a. Work with conservation land trusts and other conservation organizations to educate landowners about land conservation options. (Conservation Commission)

- b. Use multiple strategies and means to protect and preserve land and resources including for example direct acquisition, conservation easements, and a natural heritage registry. (Conservation Commission)
- c. Consider establishment of a Town Conservation Fund, perhaps through expansion of the Town Farmland Protection Fund. (Conservation Commission, Farmland Protection Committee)

Policy 2.2: Use multiple strategies to preserve land and resources including conservation easements, purchase of development rights, and direct acquisition.

NATURAL RESOURCES

Water and Wetland Resources

1. Watersheds

A watershed, also known as a drainage area, is a land area which collects precipitation and contributes runoff to a receiving body of water or point along the watercourse. Watersheds are delineated by identifying the highest topographic points in a given area, and determining the direction in which water will flow from these points. Land uses within a watershed can affect water quality.

The entire town of Dummerston is located within the greater Connecticut River watershed. As with most large rivers, the Connecticut River has numerous subwatersheds. Dummerston is divided into three subwatersheds: Lower West River, Connecticut-River Dummerston, and the Whetstone Brook. For planning and management purposes, Vermont Agency of Natural Resources has divided the state into basins. Dummerston lies in Basin 11 (West River Watershed) and Basin 13 (Connecticut River Direct). A draft Basin 11 Management Plan has been developed and was released for public comments. The Vermont Agency of Natural Resources is currently reviewing the draft plan. The plan was drafted by the Natural Resource Conservation District, Windham Regional Commission, and a representative from the Agency of Natural Resources. However, it relied on extensive public participation to inventory uses and problems and to develop strategies for maintaining or enhancing water quality and remedy the problems. Issues such as water quality, erosion control, stormwater runoff, deforestation and buffer loss, and flow regulation and flood control are addressed within the Plan. In Dummerston, numerous projects were undertaken at the Covered Bridge to address water quality including the Park and Ride, rain garden, and steps to the West River.

The watershed for the Brattleboro Water Department, which serves as the drinking water source for the Town of Brattleboro, extends into Dummerston. Surface water source protection areas have been developed around Brattleboro's water supplies and extend into Dummerston.

2. Surface Water Resources

Surface water resources include lakes, ponds, streams, rivers, and wetlands. These resources serve many important functions in a community, including water storage, aquifer (groundwater) recharge, water supply, wildlife habitat, and recreational opportunities.

a. Rivers and Streams

Dummerston's most prominent surface water resources are the Connecticut River and the West River. The Connecticut River forms the entire eastern boundary of the Town and serves as a regional recreational resource. The West River bisects Dummerston in the western part of Town and is also an important resource, particularly for recreation and wildlife habitat. Other important watercourses include Stickney Brook, Falls Brook, Salmon Brook, Crosby Brook, and Canoe Brook.

Water Quality in our rivers and streams is dependent to a large extent on the landscape directly

influenced by the watercourse, the riparian areas. The vegetation in a riparian area mitigates erosion and provides shade. Riparian areas also contribute leaves, fallen branches, and tree trunks to streams, providing important components to aquatic habitat. These areas also serve as important travel corridors for wildlife, and because of the dynamic nature of rivers and streams, riparian areas host a high diversity of plants, animals, and natural communities. The West River and its riparian area is considered a Priority Aquatic Feature by the Vermont Department of Environmental Conservation. There are a number of plants here that are not found elsewhere in the state, and several significant natural communities occur next to the river as well.

Both the West River and Connecticut River, each with about five miles of riverbank, are part of the Connecticut River Atlantic Salmon Restoration Program. Salmon parr, the result of West River stocking, have been found in recent years in several brooks entering the West River in Dummerston.

Warm water sport fishes inhabiting the two rivers include smallmouth and largemouth bass, sunfish species, yellow perch, walleye, chain pickerel, northern pike, brown bullhead and white perch.

Cold water fisheries supporting native populations of brook, brown and rainbow trout include Stickney Brook, Salmon Brook and Canoe Brook and numerous other smaller brooks. Generally, brook trout are more numerous in the upper reaches where water temperatures are colder and contain more dissolved oxygen. Brook trout serve as indicators of the health of the watersheds they inhabit. Well established native populations, such as those in Dummerston, demonstrate the stream ecosystem is healthy and the water quality is excellent. Trout habitat is significantly degraded when trees shading the water are removed, and stream banks are not stabilized by vegetation. This results in high temperatures that brook trout cannot tolerate, and erosion and stream sedimentation that destroy fish spawning and nursery areas. Brown trout and rainbow trout, which are more tolerant of higher water temperature and lower oxygen content, are found in the middle and lower sections of Dummerston brooks, with rainbows concentrated in the lower sections adjacent to the Connecticut River.

The West River, Connecticut River (where it flows by Dummerston), and most streams in Dummerston are classified by the State of Vermont as Class B waters. This classification means “suited for bathing and recreation, irrigation and agricultural uses; good fish habitat; good aesthetic value; acceptable for public water supply with filtration and disinfection.” Stickney Brook is Class A from its headwaters to where water is diverted to Pleasant Valley Reservoir. This watershed in Dummerston serves as Brattleboro’s public water supply.

The most significant regulatory mechanism to safeguard Dummerston’s surface water resources is the designation of Shoreland Areas in the Zoning Bylaw. Shoreland areas are defined as lands falling within 500 feet of the West and Connecticut Rivers, within 250 feet of larger brooks (Fall Brook, Stickney Brook, Canoe Brook, Crosby Brook, and Salmon Brook), and within 100 feet of smaller brooks that flow year-round. The regulations feature a 50 foot building setback from the normal mean watermark and limitations on septic locations.

Adjacent to the watercourses are floodplains, relatively flat areas that experience occasional or

periodic flooding. The Federal Emergency Management Agency (FEMA) has mapped flood hazard areas, areas with a one percent chance of flooding in any given year. The most recent maps became effective September 28, 2007. The Town participates in the National Flood Insurance Program and has adopted and enforces a Flood Hazard Bylaw. By doing so, property owners in Dummerston are able to obtain federal insured flood insurance at affordable rates and flood disaster assistance. The Flood Hazard Bylaw regulates development within the FEMA-defined flood hazard areas by imposing design standards that are intended to minimize property damage during flood events.

Due to the importance of these surface waters, it is critical that they are protected. Protecting surface water quality includes stream bank management, overseeing point source discharges of wastes, and controlling non-point sources of water pollution (for example, agricultural run-off, illegal dumping and erosion from logging or construction). Failure to do so will result in stream degradation.

There are two particular areas of concern in Dummerston that have been noted to date. Improperly installed culverts are making several brooks and streams inaccessible or unlivable to fish and other species. In addition, Crosby Brook, with headwaters in Dummerston, has been identified by the State as being of immediate concern. When it enters the Connecticut River in Brattleboro, it is essentially dead. The pollution sources have yet to be determined; however river stewards are looking at possible sources in both Brattleboro and Dummerston.

The Rain Garden at the Dummerston Covered Bridge is a good example of a project that seeks to divert stormwater run-off from the parking lot and Route 30 to a special pool so that particles can settle out. The pool is designed with a special bio-retention mix of soils that are perfect for native plants that like fairly wet conditions. The plants use the water and help the evaporation process to prevent most of the storm water from reaching the West River. Ensuring that development has appropriate stormwater controls can help prevent degradation of local water quality and prevent harm to fish habitat. The use of rain gardens and other low-impact development techniques during site planning is an environmentally friendly and cost effective way to handle stormwater.

Historically, salmon ascended the West River to spawn. For the past six years, groups of Dummerston middle school students have worked to restore Atlantic salmon to the Connecticut River watershed by participating in Southern Vermont Natural History Museum's "Adopt-a-Salmon" program. Students chart the growth of salmon from egg to fry prior to releasing them into the wild in April or early May.

b. Waterbodies

Waterbodies include ponds and lakes. There are many small ponds scattered throughout Town, most of which are connected to the streams and rivers which form the Town's drainage pattern. They are not large enough to support the type of seasonal residential development associated with larger waterbodies across the State, nor are they significantly utilized for recreation.

c. Wetlands

Wetlands are biologically productive ecosystems and serve a variety of functions: retaining storm water runoff, reducing flood peaks, delaying flood crests, protecting groundwater quality,

improving surface water quality by storing organic materials, chemically breaking down or removing pollutants, filtering eroded sediment, and providing habitat for a wide diversity of plants and animals, including waterfowl, birds, mammals, amphibians, and reptiles. These areas are an indispensable and fragile natural resource. They also contribute to overall scenic landscape of Dummerston.

According to the US Fish and Wildlife Service's National Wetlands Inventory maps, there are approximately 56 wetlands in Dummerston that are 3 acres or larger in size. Most of the wetlands are located near rivers, streams, or brooks, although several small isolated wetlands also exist.

The most effective way to ensure the continuation of wetland values is to protect those areas that remain. Several state and federal laws and regulations (including U.S. Army Corps of Engineers permits) provide protection for wetlands. The Vermont Wetland Rules require state review (Conditional Use Determination) of Class 1 and 2 wetlands¹⁰ prior to the issuance of a local zoning permit. Currently, Dummerston relies on the state's regulations to protect the Town's wetlands.

d. Vernal Pools

There are many ways to define "vernal pool." It has been common to classify a wetland as a vernal pool based upon the presence of one or more "vernal pool obligate" species; species believed to depend upon fish-free habitats for breeding success in the long-term. Vernal pools can also be defined as a wetland type meeting specific criteria: wooded location, isolated from other water bodies, small, shallow, and seasonal. The Dummerston Conservation Commission inventory of vernal pools included all waterbodies where obligate amphibians breed. These species are: the wood frog, the spotted salamander, the Jefferson's salamander, the blue-spotted salamander, and the Jefferson's complex, a group of hybrids resulting from crosses of Jefferson's and blue-spotted. Both Jefferson's and blue-spotted are classified as species of "special concern" in Vermont. Jefferson's have a state ranking of S2 (rare; at high risk of extinction or extirpation), blue spotted are S3 (Uncommon; at moderate risk of extinction or extirpation). According to road crossing data gathered by the Bonnyvale Environmental Education Center, Jefferson's salamanders are more populous in Dummerston than any other town in southeastern Vermont, and, as a species approaching the northern extent of its range, may be more abundant here than anywhere else in the state. Any wetlands that host breeding populations of Jefferson's salamanders can qualify for Class II Wetland status.

Preliminary field investigation by the Dummerston Conservation Commission has shown that there are at least 130 vernal pools in Dummerston that support amphibian species, including

¹⁰ As determined by the Vermont Wetland Rules, Class 1 Wetlands are determined to be exceptional or irreplaceable in their contribution to Vermont's natural heritage and therefore so merit the highest level of protection under the rules. Class 1 wetlands must be specifically designated by the Water Resources Panel of the Natural Resources Board. A 100-foot protected buffer zone is designated adjacent to Class 1 wetlands which helps protect the functions and values of the wetland. Class 2 Wetlands include most palustrine wetlands shown on the National Wetland Inventory (NWI) maps and those wetlands contiguous to mapped wetlands. A contiguous wetland is a wetland which shares a boundary with or touches a mapped wetland. A 50-foot protected buffer zone is designated adjacent to all Class 2 wetlands.

some relatively rare salamanders including blue-spotted and Jefferson's. Both of these species are regionally threatened by habitat destruction. While this inventory and mapping effort included ponds that might not fit all definitions of "vernal pool," the Dummerston Conservation Commission gathered descriptive data for each occurrence that will allow further classification of these pools.

3. Groundwater Resources

Groundwater provides the primary supply of potable water for Dummerston residents and businesses through individual, drilled wells. There are approximately 8 small-scale public water systems permitted in Dummerston. A public water system can either be a Public community system which serves residents on a year round basis (for example, that which serves the mobile home park on Route 5) or Public Non-Community which serve non-residential groups of people (for example, Dummerston School). Public water supplies are regulated by VT DEC, as required by the US EPA.

Each public water system has an accompanying source protection area. The current Vermont Water Supply Rule defines a source protection area as the surface and subsurface area through which contaminants are likely to move toward and reach a collection point that supplies a public water system. Within the 200-foot radius of this primary collection area, contamination impacts are likely to be immediate and certain. Beyond that radius, source protection areas are tested and mapped to determine further sources of probably and possible contamination. Where there has been no mapping the DEC assumes a circular area with a 3,000-foot radius around the water source. Jurisdiction over the protection of public water supply sources rests with DEC.

Sources of groundwater include the unconsolidated sediment of streams and buried valleys, bedrock fractures, and aquifers in the impure marble beds and in lesser amounts in surrounding units. Potential groundwater sources can be determined by sand and gravel deposit maps, but detailed groundwater mapping is the only way to determine precisely areas of recharge, storage and transmission. No mapping of this sort is currently available.

Threats to the quality of groundwater in Dummerston include septic tanks and leaching fields, along with hazardous cleaning products, paints, lawn and garden products, and automobile products. Even properly functioning septic systems typically introduce nutrients (nitrogen and phosphorous) into the groundwater. Other potential sources of groundwater degradation include, but are not limited to: acid rain, pesticides, contaminated runoff from roads and driveways, salt storage areas, road salting, fuel-storage tanks, and illegal dumping.

Water and Wetland Resources Goals, Policies, and Action Steps

Goal 1: Protect surface and ground water quality and quantity for drinking and other domestic uses, for fish and wildlife habit, and for recreational use.

Policy 1.1: Maintain or enhance the chemical, physical and biological quality of Dummerston's surface waters.

Action Steps:

- a. Support surface water classification and management strategies that will maintain or enhance existing water quality. (Selectboard)
- b. Use road maintenance methods and materials such as those described in the *Vermont Better Backroads Manual*. (Highway Department)
- c. Conduct visual surveys of streams to gather baseline data on indicators of possible degradation and study general water quality. (Conservation Commission)
- d. Require retention of vegetation or effective re-vegetation of areas vulnerable to erosion during Site Plan review. (Planning Commission, Development Review Board)

Policy 1.2: Provide long term stewardship of riparian habitat.

- a. Development occurring on lands that have degraded riparian habitats will require restoration of these areas through natural regeneration of native riparian vegetation¹¹ by designating “no mow zones” and/or by requiring active planting of native woody species appropriate to the site in “planting zones.” The developer shall guarantee plantings with a performance bond for a minimum of five years. No mow zones and planting zones shall be described and designated as protected riparian habitat in common-land covenants, easements, and other appropriate legal documents in the riparian area. (Planning Commission, Development Review Board)
- b. High quality riparian areas will be protected with a minimum setback and vegetated buffer of 100 feet or the 100 year floodplain, whichever is greater. (Planning Commission).
- c. Activities that alter the natural form and function of a surface water, such as filling, dredging, damming, channelization, removal of riparian vegetation, and removal of large woody debris shall be prohibited in all developments subject to review. (Development Review Board)

Policy 1.3: Minimize impervious surfaces in future development.

Policy 1.4: Protect vernal pools, pool-breeding amphibians, and their upland habitats.

Action Steps:

- a. Continue to inventory vernal pools and evaluate the biological value of the breeding pools and adjacent terrestrial habitat to rank the pools and create a conservation plan based on the values. (Conservation Commission)
- b. Seek to reclassify highly significant vernal pools as Class II wetlands so that they are protected by the Vermont Wetland rules. (Conservation Commission)
- c. Map forested dispersal corridors that connect adjacent significant pools. (Conservation Commission, Planning Commission)

¹¹ Riparian vegetation is a strip of land with plant ground cover bordering surface water, whether still or flowing, that acts as a protective strip between the body of water and any adjacent land use and that, at optimum, contributes to the well-being of the biota both in the and adjacent to the body of water.

Policy 1.5: Protect public water supplies.

Action Steps:

- a. Consider creating an overlay district to protect public drinking water sources. Prohibit industrial uses, bulk storage of toxic or hazardous materials or wastes, and other uses that have processes that can impact the water supply. (Planning Commission)
- b. Work with residents and businesses to encourage individual water resource protection measures such as water conservation, proper septic system maintenance and proper waste disposal practices. (Planning Commission)

Policy 1.6: Retain wetland areas in their natural state for wildlife habitat protection, as retention areas of surface runoff, and for habitat and scenic values.

Action Steps:

- a. Establish a reliable wetlands inventory by verifying the National Wetlands Inventory. (Conservation Commission)
- b. Revise the Zoning Bylaw to protect Class II wetlands by maintaining an undisturbed vegetated buffer strip around the wetland edge, sufficient to ensure the integrity of the wetlands. A 100 foot buffer zone is recommended, with a minimum of 50 feet. (Planning Commission)

Mineral Resources

Granite, slate, and marble were once quarried in Dummerston. However, they are not presently being excavated. Today, sand and gravel deposits, important as current or potential sources for fill, aggregate, and road construction materials, are Dummerston's major mineral resources. Significant clay deposits exist in the Connecticut River Valley, and material is occasionally removed from these sites.

With a high number of unpaved roads in town, sand and gravel materials are essential to the town. In 2006, Dummerston and Putney entered into a 20-year lease agreement with a landowner to operate a sand and gravel pit from a 41.3 acre site located on Clark Road. Operation of the site is expected to result in substantial savings over market prices. Both sand for winter road maintenance and gravel for general road maintenance are excavated from the property.

There are other notable sources of sand and gravel in Dummerston, though the town no longer relies on them. The Moore Farm pit is approximately 6 acres in size and is projected to provide sand and gravel for the next 10-15 years. Another sand and gravel pit is located east of the Moore Farm location on the east side of Interstate 91. This pit is approximately 16 acres in size. This sand is excavated and sold to surrounding towns. There is also a 5 acre pit on Station Road.

Exploration and discovery of future sources is of paramount importance to the town. Of special concern is gravel, where deposits containing significant material appear to be rare. Likely sources along the Connecticut and West rivers, as well as local high-level sources, should be studied for possible development with special attention given to the environmental impact of any such development.

Mineral Resource Goals, Policies, and Action Steps

Goal 1: To identify and balance the benefits and uses of sand, gravel and other mineral and earth resources against the impacts associated with the extraction, processing, and transportation of such resources.

Policy 1.1: Investigate potential new sources of sand and gravel resources for the town.

Policy 1.2: Require that proposals for new earth extractions demonstrate that efforts have been made to minimize noise and any adverse impacts to air quality, surface waters, wetlands, adjacent properties, traffic on local roads and bridges, wildlife habitat, and the character of the area.

Policy 1.3: Prohibit mining and mineral extractions in critical conservation corridors.

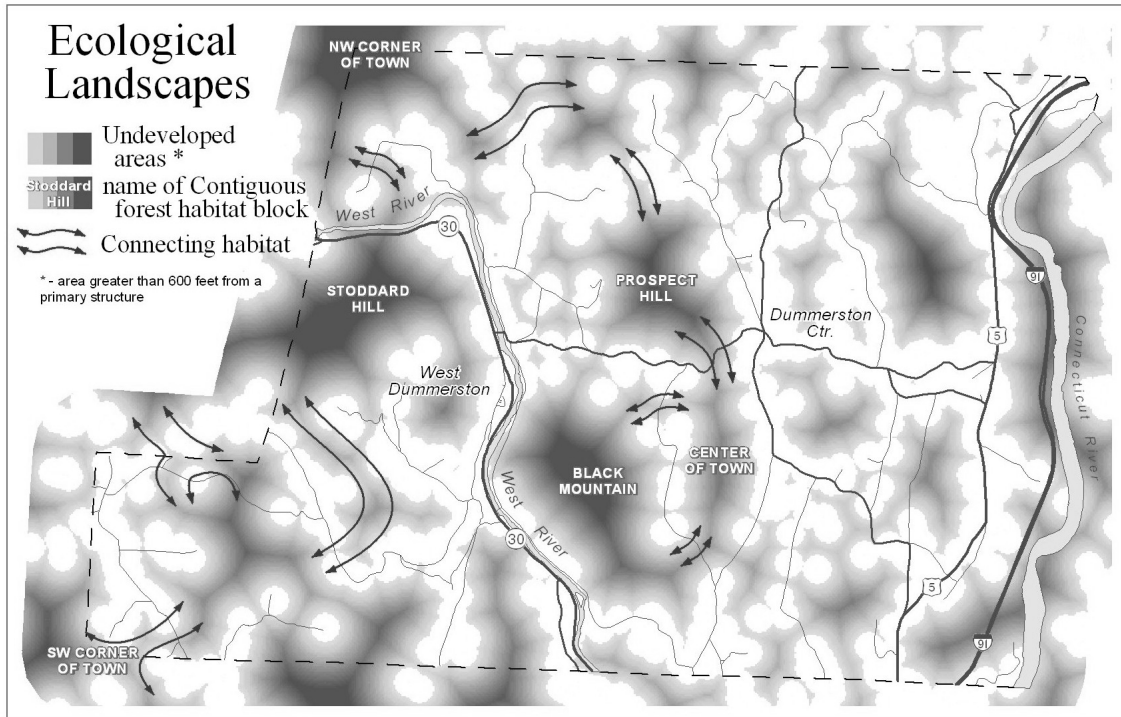
Ecological Landscape

1. Forests

Forests and woodlots comprise close to 80% of the land cover in Dummerston. Forest types include northern hardwoods, hemlock, eastern white pine, black birch-oak-hickory, a native red pine forest on Black Mountain, and mixed woods consisting of hemlock or white pine with mixed hardwoods.

Contiguous forest habitat provides a significant contribution to Dummerston's interests in its natural heritage, identity, and working landscape. These lands represent much of what makes life in Dummerston unique and enjoyable. These lands provide a myriad of ecological functions for fish, wildlife, plants, and the natural processes that sustain them. Further, they provide extremely valuable connections for people to enjoy and appreciate the land and its abundant resources. Important ecological landscapes and contiguous forest areas that are a priority for conservation efforts are mapped on the *Ecological Landscapes* map below and include:

- Stoddard Hill, where Maple Valley is located, connects forested areas of Marlboro and Newfane is important for bear travel;
- The terraces and floodplains along the Connecticut River;
- Black Mountain;
- The Southwest corner of Town that connects to Marlboro and Brattleboro;
- Prospect Hill;
- Silver Maple forests along the Connecticut River;
- The area south of East West Road between Middle Road and Black Mountain Road (center of Town);
- The northwest corner of Town with connections to the Putney Mountain ridge.



2. Connecting Habitat

Connecting habitat provides valuable links between larger unfragmented portions of the landscape. Connecting lands allow wildlife to travel safely across the larger landscape, disperse into new territories, find mates, and shift their ranges to adjust to climate change. Undeveloped segments of rivers and streams, or any forested or brushy area, such as a fenceline or hedgerow, can serve as a wildlife corridor. Different species have different requirements for connecting habitat, so a variety of types of connecting habitat should be maintained. Important corridors for wildlife movement are shown on the *Ecological Landscapes* map and include the following:

- The area between Hague Road and Evans Road;
- The Connecticut and West rivers;
- South Branch of Canoe Brook;
- Salmon Brook; and
- Stahl-Scott Farm corridor.

3. Natural Communities

A natural community is an interacting assemblage of plants and animals, their physical environment, and the natural processes that affect them. They recur across a landscape under similar environmental conditions, where natural processes, rather than human disturbances, prevail. Natural communities can be small, such as a vernal pool community, or large, like the Northern Hardwood Forest community that forms the matrix community of Dummerston. Maintaining examples of all of Dummerston's natural communities, in sizes that will enable them to remain viable, will help us ensure that we have adequate habitat for all of the Dummerston's wildlife.

The Conservation Commission has mapped examples of twelve types of natural community in

Dummerston. The Vermont Nongame and Natural Heritage Program has identified and evaluated sites where 8 exemplary natural communities occur in Dummerston. They include a Rivershore Grassland, Riverside Outcrop, Pitch Pine-Scrub-Oak Barrens, Mesic Maple-Ash-Hickory-Oak Forest, Pitch Pine-Oak-Heath Rocky Summit, Red Pine Forest, Red Maple-Black Ash Seepage Swamp, and Silver Maple-Ostrich Fern-Riverine Floodplain Forest. With the exception of the floodplain forest, all of the sites are associated with the West River or Black Mountain. These exemplary communities represent intact examples of Vermont native flora, fauna, and vegetation.

4. Grassland Habitat and Bird Habitat

Dummerston is host to a diversity of birds. Recent fieldwork to update *The Atlas of Breeding Birds in Vermont* indicates that there are approximately 90 breeding or potentially breeding bird species recorded in blocks that were surveyed in Dummerston (each block is 25 square kilometers). Dummerston also supports some breeding species that are relatively uncommon elsewhere in Vermont including the Carolina wren, the red-bellied woodpecker, and blue-gray gnatcatcher. This survey work has indicated that a number of species' populations have declined significantly over the past 30 years. Among these are the American kestrel, brown thrasher, eastern towhee, woodcock, whip-poor-will, and eastern meadowlark. Some of these species depend upon undeveloped grassland habitats. Most grasslands in town are managed for hay production, which often conflicts with the nesting of these species. Fields that are not mowed until after July 15 allow these species to fledge their young. Two important areas field-nesting areas are the Bunker Farm (kestrels) and the Falk property fields (bobolinks). Other species that benefit from maintaining grasslands are some snake species, meadow voles, and the hawks and carnivores that feed on the small mammals and insects that flourish in grasslands. Maintaining a small percentage of Dummerston in grasslands will increase the health of these wildlife populations.

5. Early Successional Forest and Shrub Habitat

According to *Conserving Vermont Natural Heritage*, young trees and shrubs, often occupying disturbed sites and areas such as abandoned farm fields, provide unique and important habitat for many species of wildlife. Some species that depend on these habitats (such as the American woodcock, the ruffed grouse, the New England cottontail, and the golden-winged warbler) are in decline throughout Vermont, and probably in Dummerston as well. Whereas forest can be preserved by being left alone, early succession habitats must be maintained in that condition or they will become forests. Important early succession habitats in Dummerston include:

- The summit of Prospect Hill;
- The pond and swamp on Middle Road;
- McDermet property off of Butterfield Road (maintained as early succession)
- The old ski slopes on Maple Valley.

Before European settlers arrived, these habitats were created by disturbances like storms and fires. Others were maintained by beavers. During the time this Plan has been drafted, there are no known beaver colonies active on the streams of Dummerston. Sites that had active beaver habitats in the past include the pond on Black Mountain, Anthes/Copeland property on East-West Road, Connecticut River, and on Beaver Pond Road. While beaver activities often conflict with human use of the land, simple technologies are available to regulate the level of water in a

beaver pond.

6. Deer Wintering Habitat and Deer Browse

The deer population in Dummerston has fluctuated over time due to landscape changes. Annual *White-Tail Deer Harvest Reports* from the Vermont Department of Fish and Wildlife (2003-2007) indicate that Dummerston has a large deer population. Foresters and many woodland owners in Dummerston have observed that the deer population is now so high that deer browse is affecting the ability of the forest to regenerate sugar maple, oak and ash. Seedlings and saplings of these high value hardwoods often show signs of intense browsing, year after year. As a result, forest regeneration in the understory is often dominated by two hardwood tree species that are not preferred by deer, beech and black birch.

Over time, selective browsing can lead to a reduction in species composition and diversity as browse resistant species become more dominant. In addition to reducing the tree populations of maple, oak and ash, deer browse also impacts the diversity of herbaceous and woody plants. As understory habitat on the forest floor changes, an expected result is a decline in the diversity of wildlife, invertebrate species and insect life.

By creating more open habitat, browsing also encourages the growth of invasive plants and spreading ferns that displace native species. In some cases, dense populations of invasive plants, such as barberry, and spreading ferns (New York and hay-scented), reduce or prevent the germination of tree seedlings and create understory monocultures. These changes in forest habitat can prevent regeneration long after a deer population has been reduced.

Efforts by foresters to stimulate hardwood maple, oak and ash regeneration usually have limited success. These efforts include small clear cuts of one acre and larger to create early successional habitat and ample “deer food,” leaving dots of tops on the ground after logging to make it more difficult for deer to feed on seedlings and saplings, and growing oak trees in tubes until they are out of reach of deer.

The Woodland Owners Association in Windham County in recent years has increased its efforts to convince the State Legislature and the Vermont Department of Fish and Wildlife to change its management of deer herds by permitting more harvesting of does in an effort to reduce deer populations throughout the County.

While the deer population may need to be reduced, these animals are an important part of our natural and cultural landscape. Deer wintering areas may be an important part of maintaining a stable deer population in the long term. These hemlock glades provide relief from harsh climatic conditions by providing protection from deep snow, cold temperatures and wind chill. These habitats are characterized by a high degree of softwood cover, a favorable slope, south or westerly aspects, generally moderate elevation and low levels of human disturbance in the winter. Thirteen known deer winter ranges are located in the Town, involving 12% of the Town’s total land base. An individual wintering area may provide shelter for deer that come from a summer or fall range ten or more times its size. Consequently, changes in the winter range may affect deer population not only in Dummerston but also adjacent towns. The Camp Arden deer wintering area is believed to be of regional significance.

7. Amphibian and Reptile Habitat

Of the 40 species of reptiles and amphibians known to occur in Vermont, 24 are likely to occur in Dummerston. This includes eight salamanders, one toad, six frogs, three turtles, and six snakes. In “The Atlas of the Reptiles and Amphibians Vermont,” 14 of these have been documented with a photo or a specimen. It is also possible that the rarest snake in Vermont, the eastern racer, occurs in Dummerston, since a road killed specimen was found on Depot Road in Newfane. Suitable racer habitat exists in adjacent parts of Dummerston. There has also been a report of an eastern box turtle in Dummerston. This is a species that is listed as a “hypothetical species” in the Atlas, since the few individuals that have been seen might be escaped pets.

Reptiles and amphibians are especially vulnerable to habitat fragmentation since they often move between different types of habitat in different seasons. Roads pose a high risk to slow moving species. Snakes, especially, often pause in roads to warm themselves.

Important habitat for reptiles and amphibians includes vernal pools and other wetlands, streams and riparian areas, undisturbed sandy areas for egg laying, and, in the case of the eastern racer, undeveloped areas that are not mowed frequently.

8. Threatened and Endangered Species

The Vermont Nongame and Natural Heritage Program, a program of Vermont Fish and Wildlife Department’s Wildlife Division, tracks rare plants and animals and exemplary natural communities in the State. Using a ranking system, the inventory assesses the rarity of species on a global and statewide level. There are approximately 18 plant occurrences that are listed as species of special concern. Of these, the State has classified as threatened (T) or endangered (E) the three-bird orchid (E), the barbed-bristled bulrush (E, also federally listed), plains frostweed (T), harsh sunflower (T), scrub oak (T), and Greene’s rush (E). The Brook floater, a freshwater mussel, is the only animal species identified as endangered. The Jefferson’s salamander is a species of special concern. There are several other localities known for rare species that are not recorded. Future conservation efforts should include creating an exhaustive listing of sites.

9. Invasive Species

Invasive plant species have become common in many forests, wetland, and riparian areas. They can out-compete native plants for space, nutrients, and light. An “invasive species” is defined as a species that is 1) non-native to the ecosystem under consideration and 2) whose introduction causes or is likely to cause economic or environmental harm (Executive Order 13112). Human actions are the primary means of invasive species introductions.

There are scattered populations of Japanese Knotweed, mostly found along the West River. This invasive species presents water quality concerns due to the fact that it out-competes other vegetation and dies back in the winter, leaving shorelines susceptible to erosion because there is no other vegetation stabilizing the stream bank (Basin 11 Management Plan, Preliminary Draft 2007). Purple loosestrife is commonly seen in many riparian and wetland habitats in the region. Other species such as Oriental bittersweet, certain species of honeysuckle, Japanese barberry, yellow flag iris, and glossy buckthorn have become well established in many locations. Garlic mustard has been found along roads in Dummerston.

Elevations generally below 1,500 feet are most susceptible to invasive species, though any land with some sort of major disturbance (from wind, water, logging, or land clearing and development) could potentially host them. It may be possible to slow down or even halt the spread of these species by identifying and removing plants as soon as they appear. Early detection is the key. This detection can be aided by educating residents about the identification of and problems caused by invasive species. Several landowners have put control programs in place.

Ecological Landscape Goals, Policies, and Action Steps

Goal 1: Protect and enhance biological diversity in Dummerston.

Policy 1.1: Protect ecosystems of and habitat of threatened and endangered species.

Action Steps:

- a. Provide landowners and resource managers who own or are responsible for the stewardship of lands that support rare species with a map and list of such species on their land. (Conservation Commission)
- b. For each rare species, in consultation with the NNHP, develop management plans with interested landowners or managers. (Conservation Commission)

Policy 1.2: Require a habitat evaluation as part of site plan review and conditional use review.

Policy 1.3 Encourage the conservation and stewardship of existing contiguous habitat. Avoid subdivision and parcelization of that habitat.

Action Steps:

- a. Amend the Site Plan Review process to minimize the loss of existing native trees. (Planning Commission)
- b. Develop and implement zoning regulations to encourage creative site planning that allow structures to be grouped together to minimize fragmentation of forestlands. (Planning Commission)

Policy 1.4: Ensure that animals and plants are able to move freely between conserved lands and lands under long-term stewardship, contiguous forest habitat, and other important habitats, land features, and natural communities to meet all their requirements for survival by maintaining critical connections and by increasing the acreage of connecting lands.

Action Steps:

- a. Adopt town road management standards to conserve wildlife corridor functions by avoiding the installation of guardrails in corridor zones, avoiding the removal of roadside vegetation, or avoiding roadside ditching in existing corridor areas. (Highway Department, Conservation Commission)

- b. Encourage landowners to maintain vegetated habitat along fencerows, streams, and other connecting features. (Conservation Commission, Planning Commission)
- c. Incorporate development setbacks from mapped corridors into town zoning regulations. (Planning Commission)

Policy 1.5: Ensure the conservation and proper stewardship of significant natural communities found within Dummerston.

Action Steps:

- a. Complete inventory of natural communities in Dummerston, and map all significant communities. (Conservation Commission)

Policy 1.6: Maintain and protect the functional integrity of all deer wintering areas.

Action Steps:

- a. Protect deer wintering areas from development and other uses that threaten the ability of this habitat to support deer. (Planning Commission, Development Review Board)

Policy 1.7: Maintain grasslands, early successional forest, and shrub habitat and, where appropriate, increase the acreage of this habitat within Dummerston.

Action Steps:

- a. Provide guidelines to private landowners for the management of grasslands for breeding birds. (Conservation Commission)
- b. Pursue alternatives to beaver and beaver dam removal. (Highway Department, Conservation Commission)

Policy 1.8: Undertake efforts to remove invasive species.

Action Steps:

- a. Map the distribution of invasive species “hot spots.” (Conservation Commission)
- b. Provide landowner education on how to identify and remove invasive species. (Conservation Commission)
- c. Work with the highway department and road crew to identify and remove invasives along the roadsides. (Conservation Commission)
- d. Consult with and hire experts to remove invasive species that are the most difficult to control. (Conservation Commission, Selectboard)

Goal 2: Engage townspeople in protecting natural resources.

Policy 2.1: Update existing natural resources information and studies using the best available and most reliable sources of data.

Action Steps:

- a. Continue to conduct a systematic survey of Dummerston in order to update the community’s inventory of special natural features. (Conservation Commission)

- b. Adopt a Conservation Plan based on the inventory work of the Conservation Commission. (Conservation Commission, Selectboard)

Policy 2.2: Provide townspeople with information about environmentally sound management of land and ways individuals can assist in protecting natural resource.

Action Steps:

- a. Recruit volunteers to assist when collecting data for Natural Resource inventories. (Conservation Commission)
- b. Work with experts from local environmental organizations, land trusts, etc. to provide workshops and other opportunities for landowners to learn about and discuss topics such as natural resource protection, farm and forest management, and land preservation. (Conservation Commission)

RECREATION, SCENIC, HISTORIC, AND CULTURAL RESOURCES

Recreation and Scenic Resources

Dummerston typifies the scenic, rural character that is found and valued throughout much of Vermont. Our outdoor environment is appreciated by residents and visitors alike. We find satisfaction in the “feel” of our town. Surveys by the Planning Commission have found that residents like our town the way it is—and for the most part, they want it to stay as it is. This rural character also attracts visitors to Dummerston, who enjoy these resources. Protecting Dummerston’s scenic views, starlit night skies, and quiet, rural character are high priorities for the town.

The mix of recreational opportunities available to Dummerston residents and its visitors is varied and rich. They range from highly organized commercial enterprises to informal bike riding. Two campgrounds, KOA and Hidden Acres, are located in the eastern part of Town. A miniature golf course, open to the public, is located at Hidden Acres. The Green Mountain Girls Camp, located in the western part of Dummerston, is available, at no cost, to eligible girls living in Town. Fruit and vegetable picking is also an important recreational activity for some families during the summer and early fall.

Since most of Dummerston is comprised of forest land, it is not surprising that the forest is used for recreation throughout the seasons. In the winter, cross-country ski trails exist on many private lands. They often merge to form a loosely defined network. The Black Mountain Snowmobile Club has developed a more organized network of trails for its members. During appropriate seasons, hunting for deer, turkey, and grouse are enjoyed by many. Prospect Hill Pasture (which is owned by the Town) and Black Mountain are good hiking and picnicking areas. Prospect Hill Trail, located off of Park Laughton Road, provides access to Prospect Hill Pasture. A Trails Committee is working to connect trails in Dummerston to Putney and Windmill Hill-Pinnacle Mountains. Dutton Pines State Park, a 12 acre parcel along Route 5, is mainly used by nearby residents for walking and by motorists as a rest and picnic area.

Dummerston residents have access to several main streams and two rivers that provide opportunities for recreation in the warmer months. There are two boat landings in Dummerston that provide access to the Connecticut River. Dummerston Landing (14 acres) is for non-motorized boats while Putney Landing is for motorized boats. Another access point, Old Ferry Road Landing, is located just south of the Town line in Brattleboro. From these points recreationists can go fishing, water skiing, rowing, or paddling. Along the West River there are numerous swimming holes and two public access points: the utility substation lands and Vermont Department of Fish and Wildlife lands south of the Covered Bridge. In addition, others enjoy the river for canoeing, kayaking, fishing, tubing, and rafting. These activities are dependent upon water levels and therefore upon timing of water releases from the Townshend Dam. Stickney Brook provides opportunities for picnicking and swimming as well as sightseeing. Falls Brook offers excellent hiking opportunities.

Public recreational facilities in Dummerston are scattered throughout the Town. The Dummerston School has a wonderful playground. There are extensive sport fields at the school

that are used for soccer, softball, and baseball, and the gymnasium is used for basketball, square dancing and teen dances. The Dummerston Community Center has a smaller playground, and in recent years residents have built an ice skating rink in the winter. The Dummerston Center Grange Hall is used for annual suppers, theater productions, and private functions. The Historical Society hosts lecture programs and gallery shows. The Congregational Church also host suppers and the traditional Apple Pie Festival. The Common is used widely by various groups.

Dummerston roads, many of which are scenic, are used by runners and cyclists. Public safety is a concern with all these recreational uses on local and state roads. Other recreational opportunities exist for exploring and photographing historical sites such as villages, buildings, bridges, cemeteries, stone walls, and old cellar holes.

The Dummerston Recreation Board organizes a variety of athletic activities and programs for all ages. The Dummerston Trails Committee maintains trails on Prospect Hill and is working to expand the trail system.

Historic and Cultural Resources

Dummerston is fortunate to have individuals and groups take on local preservation and historical activities, including the collection and dissemination of valuable information about our history. The earliest documented effort is *History of Dummerston* written in 1884 by David Lufkin Mansfield. In 1986, the Dummerston Historical Society published *Dummerston, An Equivalent Lands Town (1753-1986)*. As part of the Town's 250th anniversary of the signing of the town's charter, Vermont Theater Company produced the play *The Equivalent Lands* written by Joe Greenhoe. A DVD of the production is available through the Historical Society.

The Dummerston Historical Society was organized in 1977. The historic one-room schoolhouse in Dummerston Center is operated by the Historical Society as a museum. The Historical Society hosts walkabouts and exhibits to explore the Town's heritage.

There are 4 structures listed on the National Register of Historic Places. These are Naulakha, Green Iron Bridge (listed on the Register as the Rice Farm Road Bridge), Scott Farm Historic District, and the West Dummerston Covered Bridge.

Of special importance to the Town are buildings, structures and areas of historical, educational, cultural, scientific, architectural and archaeological value. The following areas and sites are representative of the diversity of cultural resources in Dummerston. Most of these areas are privately owned, and permission to use them may be required. There are also many significant historic residences throughout Town that are not included on the list.

- 1) Historic settlements of West Dummerston, Dummerston Center, and Slab Hollow and their approaches;
- 2) Dummerston Center Schoolhouse (Historical Society)
- 3) Dummerston Center Grange (Evening Star)
- 4) Rudyard Kipling House (Naulakha)
- 5) Congregational Church, Dummerston Center
- 6) Alexander Kathan House (Sweet Tree Farm, formerly the Ranney Farm)

- 7) Camp Arden
- 8) Green Mountain Camp
- 9) Covered Bridge
- 10) Iron Bridge
- 11) Scott Farm
- 12) Prospect Hill Pasture
- 13) All Cemeteries

Of historical significance is the fact that the first maple tapping in Vermont by white settlers, many people believe, took place at what is now the Sweet Tree Farm on Route 5.

Route 5 is designated as part of the Connecticut River Byway. While being located on the Byway does not afford any protection, the recognition it offers brings attention to the cultural resources on the Byway.

Recreation, Scenic, Historic, and Cultural Resources Vision

Dummerston's unique scenic quality and sense of place is derived from the interrelationship between rural farmland, areas of undeveloped land, and village centers. This rural character, graced with significant natural and historic resources is the quality that makes it an attractive place to live, work, and play. Similarly, the historic and cultural past of Dummerston is important to its sense of place and sense of community. The scenic, cultural and historic identity of Dummerston will be recognized and interwoven into the fabric of future development in Town.

Recreation, Scenic, Historic, and Cultural Resources Goals, Policies, and Action Steps

Goal 1: To be stewards for recreational and scenic resources essential to Dummerston's community's character.

Policy 1.1: Maintain and enhance convenient public access to public lands.

Action Steps:

- a. Work with appropriate local officials and groups to:
 - Identify heavily used public recreational areas and recommend actions for improvements;
 - Explore more extensive use of Dutton Pines State Park;
 - Design a display area(s) for Town and regional recreational events;
 - Provide information to landowners on the range of options available for controlling recreational use of private land;
 - Identify any new recreation areas that could be purchased by the Town or acquired by gift. (Recreation Board)
- b. Encourage annual clean-ups of the most popular recreational areas in Town. (Recreation Board)

Policy 1.2: Develop an integrated greenway system by linking trails and scenic roads with connections to undeveloped land and recreational areas.

Action Steps:

- a. Support extension of new Town trails to Black Mountain and the Putney Mountain/Windmill Ridge Trails. (Trails Committee)
- b. In conjunction with affected landowners, explore the possibility of greenway trails. (Planning Commission, Conservation Commission, Selectboard)

Policy 1.3: Minimize visual impacts of ridgeline development by ensuring that development is located and designed in a manner that protects the uninterrupted skyline and minimizes adverse visual impact.

Action Steps:

- a. Investigate options to control the design and siting of development on ridgelines. (Planning Commission)

Policy 1.4: Protect views of the night sky, eliminate glare, and minimize light pollution.

Action Steps:

- a. Modify Dummerston's Zoning By-law or establish a separate outdoor lighting ordinance to establish strict limits on outdoor lighting. (Planning Commission)
- b. Modify Dummerston's Zoning By-law or incorporate into a new Sign Ordinance regulation to more clearly limit light pollution and light trespass from signage. (Planning Commission)

Policy 1.5: Minimize community exposure to excessive noise.

Action Steps:

- a. Adopt a noise ordinance. (Selectboard)

Goal 2: To preserve and protect historic and cultural properties and sites.

Policy 2.1: Support historic preservation activities.

Action Steps:

- a. Establish site planning standards to protect historic resources when development is planned on or near historic properties. (Planning Commission)
- b. Conduct a historic assets survey. (Historical Society, Planning Commission, Conservation Commission)

Policy 2.2: Protect exemplary areas of historic resources.

Action Steps:

- a. Investigate the value of and impact of nominating Dummerston Center to the State and National Registers of Historic Places (Planning Commission with assistance from the Historical Society)

- b Designate Dummerston Center as a local historic district. (Planning Commission)

ENERGY

Importance of Energy Planning

Energy is an important factor in the economic, environmental, and social well-being of Dummerston. The cost of energy in Dummerston, including residential, commercial, and governmental use (heating, electricity, transportation, etc.) is estimated to be more than \$1 million per year. Because a large majority of this energy is imported from outside of the Town and Windham Region, most of the money spent on energy does not directly benefit the local economy. Efforts to reduce use of energy sources from outside the Town or shift reliance to locally produced energy can strengthen the local economy.

From an environmental standpoint, energy is the root cause of many of our most significant problems, both short and long-term. Any efforts to reduce the use of energy and shift to environmentally benign energy sources will benefit the Town's environment.

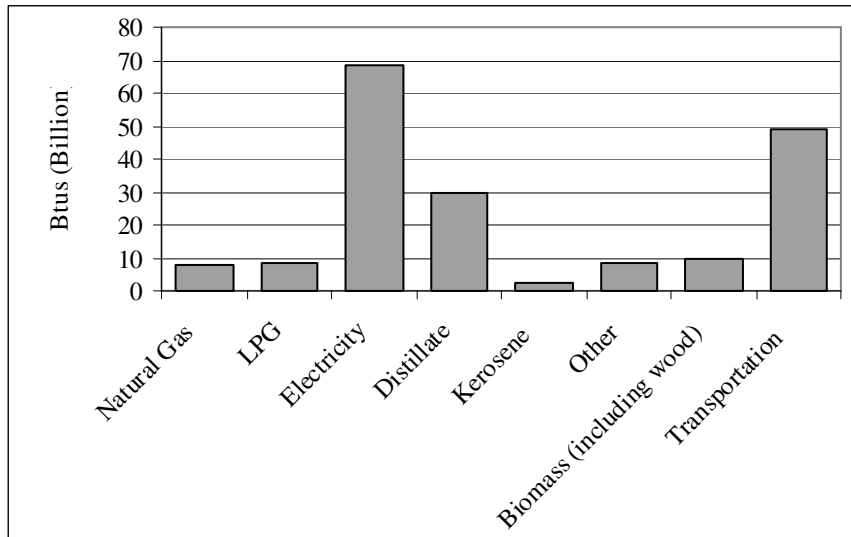
Energy policies have traditionally been the responsibility of State, Federal and international bodies, with relatively little role for local governments. While Dummerston can do little to shift these broader policies, we can influence energy use and production on a local level. We hope here to address actions for reducing energy use that can be taken on a local level.

The vulnerability of Vermont homeowners has been illustrated over and over when ice storms, flooding, and other problems have resulted in extended power outages. When power is lost, not only are residents left without lighting, appliances, and electric heat, but most fossil fuel heating equipment and even pellet stoves cannot function without AC electricity. In the future, this vulnerability may not be limited to power outages. Some experts predict that in the not too distant future, there may be shortages in heating oil, or rising oil prices may cause effective shortages for low-income residents. For these reasons, houses should be built or remodeled to provide "passive survivability," that is, the ability to maintain livable conditions in the event of an extended power outage or loss of heating fuel. Such houses will never become so cold that they will put their occupants at risk or allow pipes to freeze. Achieving passive survivability requires highly energy-efficient construction, with insulation levels far above average and top-performance windows.

Energy Use

Dummerston's energy use patterns closely match those of Vermont, which are shown in Figure 5. In Dummerston, natural gas is not available, so the proportion of oil, propane, and electricity might be slightly higher than that shown for the entire state. According to the *Vermont Draft Energy Plan (2008)* the per capita demand for energy in Vermont has shown steady growth. Between 1990 and 2004, per capita energy demand rose roughly 30%.

Figure 5: Vermont Energy Consumption by Selected Categories, 2006



Source: Energy Information Administration

Home heating and automobiles account for the greatest energy use. Dummerston property owners use a variety of energy sources for home heating. According to the 2000 Census, the majority of housing units were used fuel oil (64.8%) as the primary heating fuel. The remaining heat fuel sources include wood (21%), propane (10.9%), electricity (1.9%), coal or coke (0.6%), solar energy (0.4%), and other fuel (0.4%). These figures only represent the primary heating source and do not illustrate whether or not there are multiple fuel sources being used.

In 2000, there were 893 occupied housing units in Dummerston, and average energy use per home in Vermont was \$861. Since that time, fuel prices have shown a steady increase giving way to record growth in prices beginning in late 2007 continuing into 2008 where gasoline reached its highest national average retail price.¹²

As a rural state, Vermont continues to show a reliance on petroleum based fuels with a high number of vehicle miles traveled. The U.S. Department of Transportation estimated the per capita vehicle miles traveled in Vermont was 12,379 in 2005. Because there are very few industries or businesses in Dummerston, nearly all workers who live in the Town commute to work. Most commute a minimum of six miles each way (to Brattleboro); some travel much further (to Keene, Greenfield, etc.) According to the U.S. Bureau of the Census (2000), 885 people commute to work alone and 119 carpool, for a total of 1,004 commuting vehicles.

Energy use for the Town government is much easier to quantify, since the Town budget includes energy line items. Energy line items for selected recent years are shown in Table 4. Increase in the price of heating and transportation fuels has accounted for a close to doubling of energy costs in five years.

¹² *Utility Facts 2008*, Vermont Department of Public Service

Table 4: Annual Energy Costs for Town Facilities and Services

Energy Line Item	FY98	FY03	FY08
Elec – Municipal Bldg.	\$1,413	\$1,887	1,407
Oil – Town Garage	664	529	1,500
Elec – Town Garage	1,044	1,179	2,098
Equipment – gasoline	1,931	0	63
Equipment – diesel	9,779	16,069	44,557
Subtotal	\$14,831	\$19,664	\$49,625
Dummerston School			
Electricity	\$10,854	\$25,308	\$29,100
Fuel Oil	13,504	15,236	38,500
Subtotal¹³	\$24,358	\$40,544	\$67,600
TOTAL	\$39,189	\$60,208	\$117,225

Source: Town Reports

Electricity

Nearly 40 percent of the energy consumed in Vermont comes from electricity. Both Green Mountain Power Corporation and Central Vermont Public Service Corporation provide electricity to Dummerston. Power is brought into Dummerston via three electric transmission lines. A 69 kv National Grid Transmission line runs in the vicinity of Route 5 from Bellows Falls to the Vernon Dam. Central Vermont Public Service (CVPS) maintains the “Southern Loop,” a 46kv transmission line which runs from Brattleboro to Bennington up the West River Valley. A 345 kv Vermont Electric Power Company (VELCO) transmission line runs through the western part of Town from Vermont Yankee to Cavendish, Vermont.

Recently, there have been proposals to improve the reliability of all three transmission lines. Of major concern to residents is land clearing within the easements of these lines. Any new clearings, regardless of whether or not they fall within the easement area can result in significant environmental and aesthetic impacts. These transmission corridors run through important habitat blocks which are vulnerable to forest fragmentation and the introduction of invasive plant and animal species. In addition, new clearings may impact the water quality in wetlands and water. It is imperative that the Public Service Board consider and address these issues when reviewing new or improved energy generation, transmission, and distribution projects.

Conservation and Energy Efficiency

With total energy expenditures in the Town in excess of \$1 million, there is considerable opportunity for savings from various energy conservation and improved efficiency measures. Because most of the energy use in Dummerston is for private uses (home heating, commuting, etc), savings would accrue primarily to residents and Town policies to bring about those savings

¹³ This subtotal does not account for school transportation costs as it is contracted out and fuel costs are a part of the overall fee

would be difficult to implement. Public education is one of the most effective strategies to bring about savings through energy conservation and improved efficiency, though there are some specific policies that can also help.

Most new construction in Dummerston is required to meet or exceed the Vermont Residential Energy Standards through the use of insulation, heating systems, and weatherproof windows and doors. Current building codes provide basic energy efficiency requirements for buildings; however, technology advancements have generated higher standards such as zero energy construction standards in which buildings generate as much energy as they consume. Green construction and LEED Construction (Leadership in Energy and Environmental Design) standards promote the use of natural, recycled, and durable building materials as well as energy efficiency. These efficiency standards are also applied to landscaping, advocating for native plantings that are low maintenance.

Energy savings can be realized by retrofitting existing buildings with insulation, installing high-performance windows and doors to reduce heat loss, weather-stripping, replacing incandescent lights with fluorescent, and using energy efficient appliances. The following programs are available to residents of Dummerston:

- Southeastern Vermont Community Action (SEVCA). SEVCA is the service provider in Windham County that runs the Weatherization Assistance Program. Weatherization services, which include an energy audit, diagnostic tests, analysis, and installing measures, are available at no cost to income-eligible homeowners and renters. SEVCA is also available to help in the event of a heating emergency. They can help purchase oil, kerosene, propane, or wood. In addition, they also work with electric companies in order to prevent disconnection and help negotiate payment plans.
- Efficiency Vermont. Efficiency Vermont is the State's provider of energy efficiency services. They provide technical and financial assistance to electrical consumers for the purpose of improving the efficiency of existing and new facilities.
- ENERGY STAR Home Rebates. Energy Star Homes meet strict energy efficiency guidelines set by the U.S. Environmental Protection Agency and U.S. Department of Energy. Efficiency Vermont provides free financial, design, and technical to help build an ENERGY STAR qualified home. Benefits of being an ENERGY STAR home include financial incentives such as product rebates; utility savings; higher resale value; increased comfort and air quality; and other environmental benefits.
- Vermont Housing Finance Authority's Energy Saver Loan Program. Administered by Windham Housing Trust, this program offer low interest loan funding for homeowners for an energy audit and improvements specified in the audit.

Initiatives to reduce transportation costs are also viewed as energy conservation measures, especially within a State where the transportation sector is the major consumer of energy. Changes such as ride-sharing, combining trips, and using alternative transportation will conserve fuel and reduce wear and tear and maintenance costs on individual vehicles. Fuel efficient cars will use less gasoline and emit less pollution.

Effective land use planning can promote energy conservation. Targeting new development

towards areas located close to the community's major roads and existing settlements, as detailed in the Land Use Chapter of this Plan, will minimize the energy consumed by residents commuting and will reduce the energy required to deliver essential services to residents and businesses.

The siting, design, and construction of buildings strongly influences the amount of energy needed for heating as well as the amount of electricity needed for lighting. Proper subdivision design, building orientation, construction and landscaping provide opportunities for energy conservation such as less vehicular travel, and by designs incorporating passive solar space and domestic hot water heating, natural lighting and photovoltaic electricity production.

Potential for Local Energy Production

Energy resources within Dummerston are all renewable resources: wood, solar, hydro, and wind. In order to reduce dependence on conventional energy sources, of which the costs and availability are outside residents' control, the use of alternative energy sources is encouraged. Net metering is one way for a customer to realize savings from their individual energy production. Under net metering, the customer is permitted to connect suitable generating equipment to the public power grid. During periods when more energy is generated than the property is using, the metered amount of electrical energy provided to the grid reduces electric bills. In order to net meter, the customer must receive a Certificate of Public Good from the Public Service Board. Dummerston supports net metering, and does not view it as a commercial use.

1. Wood

Currently, only wood is used on a relatively wide scale; the US Census Bureau estimated that 167 housing units used wood as the primary heating source in 2000, down from 231 housing units in 1990. While burning wood does create air pollution, wood-burning technology has improved and emission requirements have been implemented. If all residents using wood heat were to switch to state-of-the-art wood stoves that meet U.S. Environmental Protection Agency emission limits or to pellet stoves (most pellet stoves operate with emissions lower than even the best wood stoves), wood heating could increase with no increase in pollution.

2. Solar

Of the energy sources available in Dummerston, solar energy offers the greatest untapped, long-term energy potential. Solar energy can be used in a number of different ways, but the most likely for widespread use are passive solar heating, natural daylighting, and solar electric generation (photovoltaics). In new home design, passive solar can decrease heating requirements by more than 50 percent. There are several homes in Dummerston that are not connected to the utility grid and rely solely on photovoltaics for electricity.

3. Hydropower

Early Dummerston settlers relied on hydropower to operate grist and lumber mills. Dummerston also had a hydroelectric facility on the West River that operated from 1903 to 1968. During the last ten years of operation, the facility generated approximately 1.5 million kWh per year.

Given the past use of our rivers and streams, the possibility of developing hydroelectric in Dummerston is real. Micro-hydro systems, generating between 5 and 100 kWh, do not dam rivers or streams and therefore are more preferable. The utility of a micro-hydro system depends on the dynamic head, amount of water flow, and the efficiency of the turbine.

4. Wind

There are a few wind energy systems known to be installed in Dummerston, and these are small wind-energy systems owned by residents. In general, high costs have limited the popularity of small, individual wind-energy systems. The most cost-effective wind-electric systems are so-called “wind farms”—groups of many windmills installed in one location. Generally, there are several factors that contribute to the siting of large scale wind-farm: elevations greater than 2,000 feet, proximity to electric transmission lines, ridgeline locations, and wind speed. At this time, it is not believed that wind speeds are favorable for Dummerston to host a wind farm. A sizeable wind farm is located in Searsburg and operated by Green Mountain Power.

Energy Vision

Long-term projections of energy production and use foresee dramatic changes in the way we use energy. Petroleum production in the United States peaked around 1970, and world petroleum production will peak by the mid-21st century. As supplies dwindle, costs will almost certainly continue to rise. Perhaps more significantly, there is a trend toward factoring the “societal costs” into the price of energy. Society pays for health costs associated with pollution, environmental clean-up, military protection of petroleum sources, and disposal of radioactive wastes.

These pressures may significantly increase the cost of conventional energy sources within the next ten to twenty years. As a result, Dummerston will seek to establish reliable energy resources for townspeople and municipal operations, to hedge against the increasing volatility of petroleum prices and to reduce the environmental impact of our energy use. The role of clean, alternative energy sources will be expanded.

Energy Goals, Policies, and Action Steps

Goal 1: Dummerston will reduce total per-capita non-renewable energy consumption 40% by 2030 from a 2009 baseline.

Policy 1.1: Recognizing that there is relatively little new construction in Dummerston, focus on energy-saving opportunities for existing homes.

Action Steps

- a. Identify incentives to encourage the construction of highly energy-efficient homes --for example, through sliding-scale building permit fees in which fees are lower for more energy-efficient houses. (Energy Committee)
- b. Develop financial incentives, revolving loan funds, and other measures to facilitate energy conservation retrofits. (Energy Committee)
- c. Examine strategies to encourage the reporting of energy consumption, or energy performance ratings, by buildings whenever they are sold. (Energy Committee)
- d. Increase public awareness of weatherization programs. (Energy Committee)

- e. Promote the sale of compact fluorescent light bulbs. (Energy Committee)

Policy 1.2: Enforce compliance with the Vermont Residential Building Energy Standards by ensuring that certificates are filed upon completion of construction.

Policy 1.3: Support renewable energy technologies for heating and cooling purposes.

Action Steps

- a. Promote high levels of energy conservation and solar design features in new construction projects that come under review. (Development Review Board)
- b. Encourage the use of facilities that employ renewable energy sources, such as solar water heaters (as defined in 32 VSA §3845), by exempting such facilities from real and personal property tax. (Selectboard)

Policy 1.4: Use site planning, landscaping, and structure design to maximize the potential for energy conservation by reducing the demand for artificial heating, cooling, ventilation, and lighting, and facilitating the use of solar and other energy resources

Policy 1.5: Encourage the use of forest resources for heating and energy generation in a manner that sustains the resource base, maintains proper safety standards, and has minimum impact on the environment.

Policy 1.6: Reduce outdoor lighting by requiring energy efficient lighting and fixtures and the use of timing devices during Site Plan Review.

Policy 1.7: Reduce transportation energy use.

Action Steps

- a. Develop an anti-idling ordinance. (Energy Committee)
- b. Identify and implement strategies for reducing commuting energy use--through such measures as additional park-and-ride facilities, ridesharing programs, and bicycle lanes and pathways. (Planning Commission, Energy Committee)

Policy 1.8: Keep up-to-date on regional energy planning issues and activities.

TRANSPORTATION

Existing Transportation Network

1. Classification of Roads

Dummerston’s network of roads consists of town roads and state and federal highways (see the *Transportation and Community Facilities* map). State Routes 5 and 30 serve as Dummerston’s main arteries for both daily commuting and through-traffic. Both routes run generally in a north-south direction. Some residents in the southwestern corner of Dummerston use Route 9 to gain easier access to Brattleboro.

Town roads are classified as either Class 1, 2, 3, or 4. This information is represented on maps that are updated annually based on information supplied by towns on an annual Mileage Certificate. The chief purpose of these maps is to document classification and mileage of town roads for calculating payment to towns of State Aid for highway maintenance. The Vermont Agency of Transportation (VTrans) Highway Map classifies Dummerston’s public roads as shown in Table 5.

Interstate 91 passes through Dummerston following the Connecticut River Valley, providing direct access to the town’s road network near the Putney town line at the Exit 4 interchange. Other interchanges are located south in Brattleboro. Routes 5 and 30 are State Highways. In accordance with state law they are exclusively maintained by VTrans. Class 2 roads are the responsibility of the town. There are several Class 2 roads including East-West Road, Middle Road, School House Road, and Upper Dummerston Road. Class 3 roads are comprised of secondary town roads that are passable year round by standard vehicles. These roads are the town’s responsibility.

Table 5: Mileage Summary of Town Highway/Roadway

Class	1	2	3	Interstate	Non-Interstate	Total Mileage
Town Roadways	0	12.37	49.07			61.44
State Highways				5.931	10.384	16.315
Total						77.755

Source: VT Agency of Transportation Highway Map, 2003

All other town roads are Class 4. Typically these dirt roads are seasonally functional for normal vehicular traffic. Like many Vermont communities, Dummerston has many Class 4 roads and legal trails that are not mapped on the VTrans Highway Maps.

In response to Act 178 which requires municipalities to identify “ancient roads”¹⁴ and formally map them if the town wishes to retain them, Dummerston assembled a group of residents to research whether there were any ancient roads in Dummerston. As of the writing of this Plan, this work is still ongoing.

¹⁴ An ancient road is a right-of-way not otherwise clearly observable by physical evidence of their use as a highway or trail.

Funding for the maintenance and infrastructure improvements comes from Federal, State, and local sources. Transportation needs exceed and will continue to exceed available funds for the foreseeable future. Dummerston is fortunate to have a local source of sand and gravel. It is estimated to provide six years worth of gravel and twenty to twenty-five years worth of sand. The Town is looking to secure long-term local supplies and is investigating other potential sites based on expected areas of gravel deposits. Finding a sustainable source of gravel is imperative to controlling road maintenance costs.

2. Traffic and Circulation Concerns

Travel speed through Dummerston is an ongoing concern and problem. Recent traffic counts taken on East-West Road, Middle Road, and School House Road confirm this issue. East-West Road was recently categorized as a High Risk Rural Road. The road is frequently used as a cut through for traffic traveling from Route 5 to Route 30 or vice versa. The High Risk Rural Roads program allocates federal funds to mitigate safety issues on rural roads that have a history of crashes distributed throughout the traveled corridor. In 2009, new signs will be installed to improve safety along East-West Road from the covered bridge to Dummerston Center and from the Center to the intersection of School House Road.

A citizen Traffic Committee has also identified West Dummerston Village as a place where speeding is a concern. The density of development and lack of sidewalks make this a high priority area. The Town will continue to work with the Windham Regional Commission to obtain reliable traffic counting information and evaluate the need for traffic calming.

There are several areas where existing conditions present traffic safety concerns. Based on the popularity of a local swimming hole, the area south of the intersection of Route 30 and Depot Road (Newfane) continues to be a place with high seasonal pedestrian movement. The vehicles are parking along the shoulder of the southbound lane and in an informal parking area on the northbound side. The Town supports controlling the access for the informal parking area and banning parking for 200' feet south on the southbound lane as a means of improving the safety of this area. Another safety concern is at the Walker Farm on Route 5 where cars back out of parking spaces directly onto Route 5. During projected busy periods, Walker Farm has arranged for traffic control but an analysis of other access management options would be warranted.

3. Bridges

Dummerston has a total of 44 bridges, of which 12 are maintained by the State and the remaining 32 are owned and maintained by the Town. Many of these bridges are structurally deficient and in need of repair. Two of Dummerston's significant historic bridges, both listed on the National Register of Historic Place, are slated for repairs in the coming years.

The Dummerston Covered Bridge is the second longest covered wooden bridge located wholly within Vermont. The last major restoration was during 1997 and 1998. The bridge is in need of new decking. In order to be listed on Vermont's Statewide Transportation Improvement Program (STIP), the Town will need to undertake some preliminary engineering to evaluate the options available for repair.

The Green Iron Bridge, spanning the West River, is a rare intact quadruple intersection Warren truss bridge. The bridge is currently closed and is slated for repairs that will make it capable of

handling a load of 12,000 pounds. It is critical that repairs to this bridge be completed by the time the Covered Bridge decking project is undertaken because traffic will likely need to be rerouted to this bridge.

4. Park and Ride Facilities

The Town operates and maintains the park and ride lot at the Covered Bridge on Route 30. The State owns several parking sites in Town that are principally used for recreational access to the Connecticut and West Rivers. There is a plan to build a Park and Ride facility at the Putney Fire Department property which is located on the town line.

5. Bicycle and Pedestrian Facilities

There are no sidewalks in Dummerston. Most of the rural roads, both paved and unpaved, have little or no shoulder. Nonetheless, these roads are popular routes for recreational users such as walkers, hikers, mountain bikers, horseback riders, and cross-country skiers. Bicycle traffic is particularly heavy along Route 30 and Route 5, especially during the spring and summer months.

There is a significant amount of pedestrian movement across Route 30 on the town border with Newfane. People park on Route 30 and cross the heavily traveled road to access a trail leading to the Rock River and popular swimming holes. Efforts to obtain funding for a feasibility study to determine whether or not a pedestrian walkway under Route 30 is realistic are ongoing.

6. Bus and Rail Service

Connecticut River Transit (CRT) operates daily bus service that can link Dummerston to various parts of the region. A commuter bus runs from Bellows Falls to Brattleboro along Route 5. It operates in each direction, twice in the morning and twice in the afternoon. There are no dedicated stops in Dummerston. Stops at Putney Meadows and Old Ferry Road/C&S are the closest. Current options are to either wave down the bus or to call CRT and to request a scheduled stop. Dial-A-Ride bus service is available for destinations along Route 30 from Brattleboro to Jamaica. Dial-A-Ride medical appointment service is also for riders who have Medicaid, are over 60, or have an ADA-defined disability.

The New England Central Railroad Company operates an active rail line that runs along the western shore of the Connecticut River. The rail bed is used to move freight. Amtrak also uses the rail for passenger service. There is daily northbound and southbound passenger rail service available from rail stations located in Bellows Falls and Brattleboro.

7. Scenic Roads

Routes 5, 30, and Interstate 91 constitute Dummerston's main travel corridors. Located along the roadsides of these travel corridors are certain amenities such as the Connecticut and West Rivers, active farmland, and forested slopes and ridge tops. Residents and visitors derive enjoyment from these natural and pastoral landscapes. The scenic beauty of rural Dummerston is vital to tourism and the recreation industry. These industries are playing an increasingly large and important role in the economic base of this region. Route 5 is part of the Connecticut River Byway which was designated a National Scenic Byway in 2005 by the US Department of Transportation, Federal Highway Administration. This designation recognizes roads for their archaeological, cultural, historic, natural, recreational, and scenic qualities.

Transportation Vision

It is the intention of Dummerston to have a transportation system that encourages the safe and convenient movement of people and goods by both motor vehicle as well as by bike and by foot. The transportation system should continue to be a multimodal one that provides different types of transportation options. A dedicated stop along the CRT bus route from Brattleboro to Bellows Falls is desired. Having a predictable pick-up and drop-off location may enhance the service for Dummerston residents. A desirable location would be in the vicinity of Charette's Mobile Home Park.

Transportation is the single largest use of energy in Vermont, and almost all of that is highway transportation. As a rural town, Dummerston will strive to increase energy efficiency. Implementing zoning districts that discourage dispersed settlement patterns will help to reduce expansions of the transportation system and help contain maintenance costs to existing bridges and roads. At an individual level, choosing fuel efficient vehicles and reducing vehicle miles traveled by ridesharing or taking advantage of alternate modes of transportation will help reduce energy consumption.

There are over 52 miles of dirt roads in Dummerston, crisscrossing diverse geological, ecological, and aesthetically appealing landscapes. It is imperative to preserve these roads along with the historic structures that remain alongside them. Retaining the existing features of these roads, which include narrow traffic lanes and curves, can help decrease speed and preserve Dummerston's rural character.

The Covered Bridge is one of Dummerston's most visible landmarks. Maintaining it as a one lane covered bridge is important to preserving our rural character and controlling traffic on the East-West Road. The inconvenience of having to wait for cars from the opposite direction to pass over the bridge is minor compared to the benefits of keeping truck traffic off East-West Road.

Transportation Goals, Policies, and Action Steps

Goal 1: To provide for safe, economical, and energy-efficient transportation systems that respects the integrity of the natural and social environment.
--

Policy 1.1: Maintain a safe and functional public road system.

Action Steps:

- a. Properly grade and seed all road cuts and embankments to minimize erosion and to maintain their rural character. (Road Crew)
- b. Review and update road and bridge condition status annually to reflect the priority of needed improvements. Make recommendations for short and long-term improvements. (Road Foreman and Selectboard)

Policy 1.2 Coordinate with local, regional, and state entities to plan for Dummerston's transportation needs in a comprehensive manner.

Action Steps:

- a. Support the efforts of Connecticut River Transit. (Selectboard)
- b. Continue to work on regional transportation planning with the Windham Regional Commission. (Windham Regional Commission Representatives)
- c. Continue to work with the Windham Road Foreman's Network to bulk purchase culverts, fuel, and other transportation materials and equipment. (Road Foreman)
- d. Coordinate with the Agency of Transportation and neighboring towns in planning for road and bridge improvements along Routes 30 and 5, the Interstate, and all bridges, to ensure adequate road and bridge capacities without damage to the rural environment of Dummerston. (Road Foreman, Selectboard)

Policy 1.3: Make more efficient use of existing road capacity without significantly expanding roads or highways.

Action Steps:

- a. Provide traffic calming where warranted for enhancing or restoring livability of neighborhoods through reduction of cut-through traffic and excessive speed. Traffic calming should be provided for safety of all street users including pedestrians, children, bicyclists, and those who wish to congregate along the street. (Selectboard)
- b. Avoid widening existing Town highways and avoid the construction of new roads. (Road Foreman)
- c. Where it helps retain and enhance character, adopt a policy such that unpaved roads remain unpaved. (Selectboard)
- d. Classify Dummerston's local roads by function (collector, minor arterial, rural local road, etc.) and create context-sensitive roadway design standards to maintain their character. Utilize the Vermont State Design Standards (1997) as a guideline. (Planning Commission, Selectboard, Highway Department)
- e. Promote the development of pedestrian and bicycle paths or lanes as alternative and safe modes of travel. (Planning Commission)
- f. Find a sustainable source of gravel. (Road Foreman, Selectboard)

Policy 1.4 Preserve the character of Town roads.

Action Steps:

- a. Conduct an inventory of scenic roads in Dummerston and establish management guidelines to protect the distinctive features located in the right-of-way, such as road surface and width, canopy trees, and stone walls. (Planning Commission)
- b. Determine whether Dummerston should designate scenic roads (either local or State) under the Scenic Highway Law (19 VSA §1019), to ensure that future road maintenance and construction activities are carried out in a manner that is consistent with the scenic quality of the area. (Planning Commission, Traffic Committee)

Policy 1.5 Retain Class 4 road and legal trails for recreational use.

Policy 1.6 Maintain the Covered Bridge to preserve its historic character and structural integrity.

Policy 1.7: With any road improvements along Route 5 and 30, make provisions for

cyclists and pedestrians.

HOUSING

Existing Conditions

The Community Profile chapter of this Town Plan provides background data on Dummerston housing statistics, including housing growth and change in housing stock. The *Dummerston Housing Needs Assessment*, prepared by John Ryan of Development Cycles dated February 2008, analyzed Dummerston's demographic, economic, and housing conditions in great detail, as well as focused on affordability issues. That document provides the basis for this chapter. The following data from the report details the housing conditions in Dummerston.

- Rental Housing: Nearly 60 percent of Dummerston's existing rentals are single-family homes. As a result, rentals are more likely to have three or more bedrooms. Despite the larger size of rentals, one or two persons occupy 74 percent of all rental units.

In terms of cost, median market rents in Dummerston are about \$50 per month higher than in Windham County. There are seldom more than a few rentals available on the market at any given time. There is a wide variety of working people who cannot afford to rent a one-bedroom unit in Dummerston based on a single person's earnings. In Dummerston and in Vermont, rents have increased much faster than wages. Since 2000, the average wage for local jobs in Dummerston increased by 22 percent but median rents has increased by 44 percent. There are no subsidized housing rental units in town despite the fact that as many as 60 current renter households would qualify for subsidized housing if it were available.

- Affordability: Home ownership in Dummerston is expensive, but not significantly more so than it is in neighboring communities or in Vermont generally. The median priced home is beyond the reach of at least 80 percent of the town's first time buyers, but a quarter of the homes do continue to see at prices affordable to households earning under \$50,000. The effective buying power of first time buyers has declined sharply over the past several years as wages failed to keep pace with home prices. The result leaves Dummerston's potential first-time buyers with a limited range of smaller, older or less well-maintained properties.
- Senior Housing: Dummerston is home to roughly 275 persons aged 65 and over living in 180 households. Ninety percent of these seniors own their home. There are no subsidized independent rental housing for seniors, no assisted living or residential care facilities, and no age-appropriate ownership housing for seniors in Dummerston. There are six senior housing developments with a total of 294 units located within 12 miles of Dummerston Center. All of these projects are at or near full occupancy.

In 2000, the median household income for residents 65 and over was 20 percent higher than for seniors in the rest of Windham County. An estimated 60 senior households could be eligible for housing aimed at low and moderate-income residents.

- Special Needs Housing: Dummerston has a population with a range of disabilities

according to the 2000 US Census data. In 2000, 125 residents identified themselves as having a physical disability, half of whom were seniors. A total of 35 residents reported having a self-care disability. There are no special needs or supportive housing in Dummerston. There is an assisted living facility in Townshend.

Affordable housing is primarily addressed by area non-profit agencies. The following programs/organizations are currently available to Dummerston households:

- The **Southeastern Vermont Housing Rehabilitation Loan Fund** provides low interest-loans to income eligible homeowners to address health and safety issues, repair or replace septic and wells, correct code violations, and/or to provide access modification for elderly or disabled homeowners. The fund also has special monies available for energy related capital improvements for all income levels.
- **Windham Housing Trust (WHT)** provides education, counseling, and access to affordable mortgage products that assist first-time home-buyers buy a home. They also provide counseling on foreclosure prevention. WHT is a partner in the Southeastern Vermont Housing Rehabilitation Loan Fund.
- **Southeastern Vermont Community Action Agency (SEVCA)** provides referrals to area shelters, landlord lists, and assists in completing applications for affordable housing possibilities. SEVCA also operates weatherization and fuel assistance programs for income-eligible homeowners and renters.

Housing Needs

Dummerston is a uniform community in terms of its housing – it is characterized by single-family homes with primarily ownership options only. Life transitions (aging, retirement, divorces, entering the work force, etc.) require a housing change, and Dummerston currently lacks choices. The *Housing Needs Assessment* indicates that Dummerston would benefit from creating flexibility and diversity in the housing stock by adding the following:

- Rental housing for households with a gross household income that does not exceed 50 percent of Windham County’s median gross household income for households of the same size (6-8 units) and seniors (3-4 units);
- Smaller-sized, market rate rental units (6-8 units) to meet the needs of newly forming households, low wage local workers, households in transition, and seniors no longer able to maintain their owned homes;
- Young family homeownership opportunities for less than \$150,000 (3-4 units per year);
- Housing that meets accessibility, maintenance and social needs of independent senior households (3-4 units);
- Support to make existing homes handicap accessible (6-8 units).

In total, these 27-36 units would significantly ease the burden of aging seniors, newly forming households, local workers, households headed by young adults, households dealing with divorce and separation, single parents, and those with disabilities. These units would represent 3-4 percent of the town’s housing stock.

Creating strong neighborhoods is an important component to meeting Dummerston’s housing needs. The following are important design and location criteria that must be respected while

trying to increase the diversity of housing in Dummerston.

- **Smart locations.** Locating affordable housing close to bus service can actually be more affordable for lower income homeowners and renters. Transportation costs consume a large portion of household budgets and with volatile gasoline prices, homeowners and renters can save on transportation and monthly expenses if their housing is located where they can take advantage of alternative transportation, such as Connecticut River Transit.

Additional savings come from developing in areas that already have infrastructure and services. Taking advantage of public water and sewer infrastructure can help increase density in turn helping make a project more cost effective for a developer with the savings hopefully passed on to the homeowner or renter.

For these reasons, a priority location to locate housing is along the Route 5 near the Putney or the Brattleboro town line where public transit exists, access to public water and sewer system may be possible, and at least near Putney there are goods and services in walking distance.

- **Energy Efficient Design.** Housing must not only be affordable to live in, but to operate as well. Constructing or remodeling existing housing with energy efficiency in mind is an important component in keeping housing affordable over time. Important considerations for any project must include: designing to an appropriate scale, utilizing appropriate insulation, energy efficient lighting and appliances, taking advantage of direct sun for daylighting and heating, and utilizing solar hot water and photovoltaic uses.
- **Universal Design.**¹⁵ The intent of universal design is to simplify life for everyone by making the built environment more usable by as many people as possible at little or no extra cost. Universal design features can easily be incorporated into new homes and some can readily be retrofitted to existing homes.

Housing Vision

We would like to be a community where people who grew up in Dummerston can live and where people who choose to live in Dummerston can remain as they age. In order to accomplish this, we will offer a variety of housing types to meet the lifestyle, demographic and economic needs and social needs. We are committed to preserving our established existing settlements and neighborhoods through housing rehabilitation and the infill development of small-lot single family homes and small-scale (2-3 units) multifamily residential units. New housing developments will make creative and efficient use of vacant land to help maximize sustainability and maintain our natural environment.

¹⁵ Universal design is the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design. A universal design feature is one that can be used by everyone regardless of their ability or disability (e.g. electrical receptacles placed higher than usual above the floor, standard but wider doors, and elimination of steps at the entrance).

Housing Goals, Policies, and Action Steps

Goal 1: To create flexibility and diversity in Dummerston’s housing stock.

Policy 2.1 **Promote the creation and preservation of housing that is and will continue to be affordable.**

Action Steps:

- a. Investigate sites for a small affordable housing project (2-3 duplexes, 6-8 units). (Housing Advisory Commission)
- b. Publicize the Southeast Vermont Housing Rehabilitation Loan Fund to expand housing rehabilitation in Dummerston. (Housing Advisory Commission)

Policy 2.2 **Provide Dummerston residents with information about housing needs, issues, and choices.**

Action Steps:

- a. Study the trend of second homeownership in Dummerston. (Housing Advisory Commission)

Policy 2.3 **Promote accessory dwelling units as a way to increase the rental supply of housing.**

Action Steps:

- a. Amend the Zoning Bylaw to permit the creation of an accessory dwelling within an accessory building on a single-family lot. (Planning Commission)
- b. Provide outreach and technical support to residents interested in creating an accessory dwelling unit. (Housing Advisory Commission)

Policy 2.4 **Form public and private partnerships to help identify potential sites for new affordable housing development and to provide grant and funding support.**

Policy 2.5 **Promote sustainable living through high quality design, energy efficient construction, and proximity to existing transportation corridors.**

Policy 2.6 **Encourage the use of “Universal Design” in new or rehabilitated housing units in Dummerston to enable households or individuals to age in place.**

Policy 2.7 **Encourage the use of innovative housing formats such as intergenerational housing and youth lots.**

EDUCATION

Public Education

1. Facilities

The Dummerston School provides public education for grades K-8. The school is located on School House Road off Route 5 (see the *Transportation and Community Facilities* map). It was originally built in 1951 as a three-room building. The most recent addition to the building occurred in 1994. The building has been well maintained and is in excellent condition.

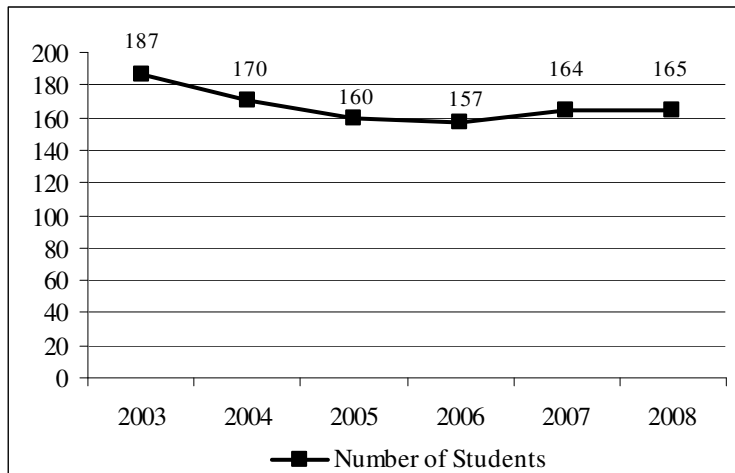
Dummerston School has excellent playing fields that are used by the school and the greater community for a variety of sporting activities. The playground was recently upgraded with a grant from Entergy Vermont Yankee to include new play equipment and a concession stand. A gymnasium would be an asset to the school and the greater community. The current gym is a multipurpose space for lunch, gym, and large group events.

Students in grades 9-12 are served at Brattleboro Union High School and the Windham Regional Career Center located at a common site on Fairground Road in Brattleboro.

2. Enrollment History

The school enrollment and attendance rate for the period 2003-2008 is shown in Figure 6.

Figure 6: Dummerston School Enrollment



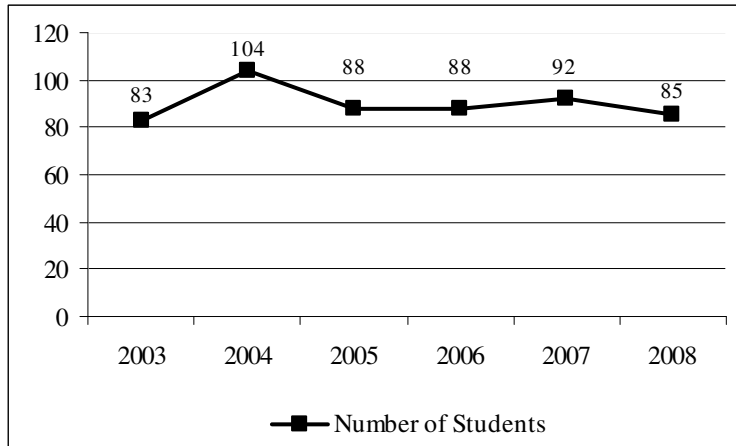
Source: Dummerston Town Report, 2008

Projections for the short term indicate that enrollment will be 158 in 2009 and 167 in 2010. Should enrollment increase significantly, additional space may be required.

Brattleboro Union High School provides public education to students from Dummerston, Brattleboro, Putney, Vernon, and Guilford and accepts tuition students from other towns. For the 2007-2008 school year, there were approximately 1,010 students. BUHS recently completed a construction and renovation project to help address space needs for both students and programs.

Dummerston’s enrollment at BUHS is shown in Figure 7. Projections indicate that enrollment should stay roughly the same in the immediate future with an increase as class sizes in the longer term.

Figure 7: Fall Enrollment of BUHS Students from Dummerston, 2003-2008



Source: Windham Southeast Supervisory Union

3. Current Educational Services

Dummerston teachers provide a scholastically challenging and educationally enriched environment based on the collaboration of faculty, staff, School Board Directors, parents and community volunteers. The core curriculum is coordinated through the Windham Southeast Supervisory Union and is aligned with Vermont State Standards. There is a focus on traditional literacy (reading, writing, and comprehension), mathematics, science, and technological literacy. Dummerston School also has a strong arts and music program and offers a variety of sports and extracurricular activities. Some of the popular programs offered at the school include:

- The **Winter Activities program** has been a long standing tradition at Dummerston School that teaches life long, healthy skills to students for 6 afternoons in January and February. Past and present activities include skiing, snowboarding, snowshoeing, skating, bowling, jump and climb (gymnastics, trampoline work, and rock wall climbing), yoga, theatre, and pottery.
- The Dummerston School Friends of the Library offers a weekly **preschool story hour** to welcome and introduce young children and their families to the Dummerston School.
- **Girls on the Run** is a program for girls in grade three through five that trains girls to participate in a 3.1 mile run/walk event while emphasizing health, exercise, and self-image awareness.
- Students in kindergarten through grade 4 participate in **Environmental Learning for the Future (ELF) Program** by volunteers trained by the Vermont Institute for Natural Science.

Windham Southeast Supervisory Union’s Intensive District Program is located at the Dummerston School. This program assists elementary aged students (grade k-6) with multiple handicaps or disabilities in increasing functional life skills. This is the only site for this program in the Supervisory Union.

Home schooling has been an option used by some families in recent years. The exact number of students being home schooled is not known so it is difficult to track changes. Parents interested in home schooling their children must have a plan approved by the state. Although the town school district does not receive funding to help educate home-schooled students, Dummerston School works to assist their efforts through access to services and resources such as music, the library, and extracurricular activities.

4. School Governance

The Dummerston School Board is responsible for developing the budget and overseeing the administration of Dummerston School. The School Board is comprised of five board members that are elected at Town Meeting. All members of the School Board sit on the Windham Southeast Supervisory Union Board but only three are voting members.

Similarly, the Brattleboro Union High School District #6¹⁶ School Directors are responsible for overseeing the budgets and administration of the Brattleboro Union School District #6. There are 9 seats on the board, of which Dummerston has one seat, which is elected at Town Meeting for a three-year terms.

5. Education Costs

Education funding is distributed on a per-pupil basis from Vermont's education fund. Money for the fund comes principally from a state-share education property tax that is assessed on both residential and non-residential properties. The residential property tax rate varies depending on per-pupil spending approved by residents. The non-residential rate is a uniform rate. Excess revenues collected on local tax rates are redistributed throughout communities through the state education fund.

According to the Vermont Department of Education *FY2008 Per Pupil Spending by School Type* report, Dummerston ranked highest in the state ranking of education spending per equalized pupil (\$14,113.81) and has done so since 2006.¹⁷ Like many towns across the state, Dummerston had to increase local taxes in order to cover the difference between operational costs and the amount of funding received from the state education fund in order to maintain educational services. The teaching staff at Dummerston School is highly qualified with the least experienced teacher having over 10 years experience at the School. In addition, as the education tax is a state tax every property in the state needs to be valued correctly so that property owners are taxed fairly. Therefore, the state sets a Common Level of Appraisal (CLA)¹⁸ for each town. This rate is set outside of the school budget process but can have a significant impact on the education tax. As a community, Dummerston residents value and support the education of its students in a rural, smaller school setting despite external pressures from legislation and realize that the arbitrary number used by the state does not reflect the true cost of educating our children.

Under the funding changes enacted via Act 130 all support for the Brattleboro Union High

¹⁶ This school district includes Brattleboro Area Middle School, BUHS, and the Windham Regional Career Center.

¹⁷ Education spending is the part of the expenditure budget without a specific funding source. It includes the portion of special education costs not covered by federal aid and the state categorical grant, transportation costs not covered by the state categorical aid, as well as any tuition owed by the district, general payroll and operation costs that do not have specific funding sources.

¹⁸ The CLA is an adjustment to the listed value of properties to reflect fair market value as nearly as possible.

School is raised via direct taxation to residents of the five member towns. The district's education tax rate is split; with a portion allocated to the Dummerston School (pre-K through grade 8) and a portion allocated to the Brattleboro Union High School. Despite Dummerston enrollment figures hovering around 90 students over the last couple of years, the assessment has generally increased since 2003.

Bus service is provided for students in Dummerston attending Dummerston School. This service is provided by a private contractor. The School Board recently implemented a transportation plan with centralized, group stops (similar to the high school) with significant cost savings to the taxpayer. Bussing for high school students is provided through the Brattleboro Union School District #6. Transportation is provided to and from central locations in Dummerston.

Dummerston School Endowment, Inc., a non-profit corporation, was recently set up to enrich the education opportunities of students attending Dummerston School. Its purpose is to supplement academic programming at the Dummerston School in areas such as foreign language and technology instruction.

Other Educational Services

1. Childcare

Safe and affordable child care is important to local residents. Dummerston's Zoning Bylaw provides for both family child care homes and child care facilities. There is a variety of state-regulated child care facilities, both family-and center-based located in Dummerston and in nearby towns. A Business Directory of the Town compiled in the summer of 2007 listed 5 child care providers in Dummerston.

One of the most significant contributions to local childcare came as a result of the Dummerston Y2C event. Starting in the Fall 2008, the School Board opened up Dummerston School to host the YMCA ASPIRE program which offers affordable after school child care up until 6:00 pm. There are over 16 students registered in the program.

The local demand for childcare services is difficult to measure. In 2002, the Windham Regional Commission conducted a county-wide needs assessment. Amongst the findings are the following:

- Even though there has been a decrease in the number of children under the age of 5 between 1990 and 2000, state and national trends suggest that there may have been an increase in the number of working parents resulting in an increased need for child care.
- There is a particular need to increase the availability of high-quality child care for infants and toddlers (ages birth to 2 year olds).

2. Early Education

Dummerston School District participates in Vermont's Public Preschool Partnerships Program and collaborates with six qualified preschool programs in the area. The programs that the School District has contracted with to date are: Brattleboro Nursery School, Neighborhood Schoolhouse, West Bee Nursery School, Winston-Prouty Center, Hilltop Montessori, and Timson Hill. Under this program, children participating in one of the qualified preschool programs are counted

towards the resident student count (average daily membership) under the school financing formula. Seventy percent of the funds received are passed on to the preschools while the remaining funds are retained by the school district. Per the contract, the funds that are passed on must be used in three ways: tuition reduction, program development, and/or staff development. The School Board did look into starting a preschool program at the Dummerston School but concluded that it would be too expensive to the taxpayers.

Early Education Services in Brattleboro operates an Early Head Start program. Head Start is a national program that promotes school readiness by enhancing the social and cognitive development of children through the provision of educational, health, nutritional, social, and other services to enrolled children and families. The income eligibility of families is 130 percent of the federal poverty level.

3. Colleges and Adult Education

The Community College of Vermont (CCV) has a campus in Brattleboro which offers Associate degree programs and workshop. Several private and public colleges including and universities are located within commuting distance of Dummerston.

Opportunities for adult education include:

- various programs offered through community libraries and individual groups;
- career-related certificate programs and non-credit programs offered through CCV;
- work readiness and literacy programs available through Adult Learning in Brattleboro; and
- learning opportunities for people 50 and older at the Osher Lifelong Learning Institute which is located on Route 5 in the former Southeast Regional Library.

Education Vision

The educational programs and facilities in Dummerston are important components of Dummerston's social and economic well being. Dummerston will continue to provide a solid educational foundation for its students to ensure educational and personal success. All young children in Dummerston will have access to affordable, quality child care and educational experiences.

Education Goals, Policies, and Action Steps

Goal 1: Provide quality education for all people in Dummerston.
--

Policy 1.1: Maintain or enhance the level of excellence in our schools.

Policy 1.2 Seek creative methods to improve public education without increasing expenditures.

Action Steps:

- a. Evaluate on an ongoing basis the transportation policy for Dummerston students. (School Board)

- b. Encourage community involvement and seek funding sources for the newly created Dummerston School Endowment, Inc. (School Board)
- c. Develop a policy for long term energy management at Dummerston School. (School Board and Dummerston Energy Committee)

Policy 1.3: Make school facilities available to community groups for evening or weekend programs, for recreational programs, and for adult educational programs throughout the year.

Policy 1.4: Promote lifelong learning.

Goal 2: Ensure that high quality, affordable child care is accessible to all children.

Policy 2.1 Support the provision of safe and affordable child care.

Action Steps:

- a. Maintain an inventory of all child care programs in the town and their capacity. (Selectboard)
- b. Investigate the possibility of providing a property tax abatement for child care providers. (Selectboard)

Policy 2.2: Ensure that land use regulations do not place unreasonable limitations of child care homes and facilities.

Action Steps:

- a. Consider permitting child care facilities as an accessory use for education institutions, churches, and places of employment. (Planning Commission)

COMMERCE AND INDUSTRY

While it is common to think of Dummerston as primarily a labor pool for Brattleboro, Dummerston has a wider diversity of employment opportunities and greater number of employers than is generally appreciated. The local economy is based primarily on services, small businesses, tourism, agriculture, forestry, and home occupations. The Economy section of the Community Profile provides some income and occupation data.

Home occupations are those activities that can be carried on within a minor portion of a residence. They continue to serve an important role in Dummerston by allowing for local economic development, encouraging the creation of new businesses, and providing flexible or accessible working conditions for residents. The Town recognizes the need of some residents to use their place of residence for limited non-residential activities. However, this must be balanced with the need to protect the character of its residential areas and to protect neighborhoods from nuisance. Many home occupations that were once traditional or customary have evolved into commercial enterprises that are no longer compatible with residential areas.

State economists predict that most job growth in the next decade will come from service and trade industries, which will benefit from tourism as well as growth in resident population. Manufacturing industries are projected to show slight improvement. This will be led by smaller manufacturers that have been able to specialize in products less susceptible to import competition.

Service and retail sectors of the economy tend to be lower paying and may be dependent upon stimulants Dummerston may not wish to encourage. Population growth is required to sustain certain service-based industries, and such growth can put a strain on community services, resulting in increased property taxes to enlarge schools or build and maintain new roads. Overdependence on tourism makes the Town dependent upon the vagaries of the economy, climate, and the tourist population.

Dummerston must, however, provide employment for its residents in order to remain a thriving community. Citizens cannot complacently rely on Brattleboro and other towns to provide the majority of employment opportunities. If they did, Dummerston would suffer the same deprivation as Brattleboro, should one of that town's major employers go out of business. The Town supports agriculture, forestry, and other forms of light commercial and industrial, institutional, or recreational endeavors. The Town should also support small-scale businesses which meets the needs of local residents and the traveling public.

Telecommunications technology provides one opportunity to sustain relatively full employment for residents without undue dependence on the lower paying and more volatile sections of the economy. Vermont, because of earlier far-sighted regulatory decisions, is poised to become one of the first states with a fully developed telecommunications network, which would enable it to be a leader in an industry that is growing at a rate five times faster than the overall U.S. economy. It would be wise to maintain the momentum created by the 1984 regulatory agreement, and to extend the early advantage in development of communications infrastructure. Many large

employers are finding that it is cost-effective to encourage employees to work from their homes, linked to the office and customers via computer and/or communications networks.

Commerce and Industry Vision

Dummerston will have a number of healthy businesses, including home occupations, small-scale retail, and agriculture-related businesses. Economic growth will occur with the broader notion of community development as the underlying theme. This will focus on rural-based businesses and services that will enhance the community-well being and the quality of life for residents.

Commerce and Industry Goals, Policies, and Action Steps

Goal 1: To support and promote the town's current economic base to retain existing employment opportunities and increase availability of good quality employment opportunities.

Policy 1.1: Encourage home occupations that do not disrupt neighborhood character.

Action Steps:

- a. Expand the home occupation provisions in the Zoning Bylaw to set additional thresholds for occupation activities that would potentially cause disruption to the neighborhood character. (Planning Commission)
- b. Address parking, lighting, signage, noise, and daily business activity to avoid impacts on nearby residential properties. (Planning Commission)

Policy 1.2: Encourage appropriate new businesses to locate in Dummerston.

Action Steps:

- a. Focus recruitment efforts on companies providing jobs that are stable and year-round, that provide competitive wages and skills training programs, that are environmentally conscious, and that support efforts to provide childcare, maternity and paternity leave, and flex time. (Selectboard)

Policy 1.3: Provide assistance and support to Dummerston's existing businesses.

Policy 1.4: Limit commercial development to the scale and character necessary to protect Dummerston's small town atmosphere.

Action Steps:

- a. Establish a maximum square footage requirement for retail establishments. (Planning Commission)

Policy 1.5: Encourage tourism activity that takes advantage of Dummerston's farmland, natural resources, history and culture.

Action Steps:

- a. Encourage adaptive reuse of unique farm buildings for specialized, commercial

- operations to help preserve them and encourage appropriate tourism.
- b. Permit and promote accessory farm businesses to capitalize on their tourism potential.
(Planning Commission)

Policy 1.6: Encourage development of high-speed internet service to all properties.

COMMUNITY FACILITIES, SERVICES, AND UTILITIES

Community facilities are those either owned or maintained by the Town of Dummerston, and include structures and lands. Community services are those provided either directly by the Town or by others under contract with the Town. (Transportation facilities are described in their own chapter, which follows.) Community utilities are those services that are being provided by companies outside of Town such as electric companies, telephone and cable companies. A *Transportation and Community Facilities* map has been prepared to complement this chapter. For a more in depth account of information relating to community facilities and related information, residents can consult *The Dummerston Handbook*.

Town Property

The Dummerston Town Offices, located in Dummerston Center, house the Town Clerk, Zoning Administrator, Town Treasurer and Emergency Management Director. It includes a meeting room shared by the Selectboard, Planning Commission, Conservation Commission and other Town boards and civic groups including the Energy Committee and Affordable Housing Committee. Adjacent to the Town Offices is the Dummerston Historical Society building, which was originally a one-room schoolhouse. It is now used for Historical Society meetings and displays.

The basement of the Congregational Church in Dummerston Center serves as the Town Hall. This arrangement dates back to the 1700's when the town reserved a lot of land to be used for town meetings and worship. Though the building is now owned by the Congregational Church, the space is still used for public functions, such as polling, and community meetings.

The Town Garage, also located in Dummerston Center, provides storage for all highway department equipment, including sand and salt for roadwork. The Town jointly leases a sand and gravel pit with the Town of Putney which is located on Clark Road. The Town is responsible for maintaining Town cemeteries, Town roads, bridges, and trails.

Recreation facilities owned and maintained by the Town consist of the parking area adjacent to the Covered Bridge, Prospect Hill, a playground at the Dummerston School, the old West School playground at the Dummerston Community Center, a town trail (Prospect Hill Trail), and Class 4 roads.

The Dummerston Community Center, located in West Dummerston, is a handicapped accessible town-owned building leased to a group of volunteers who maintain the building for use by town committees, local groups, area residents, Dummerston Cares, and the Lydia Taft Pratt library.

Town Government and Administration

The legislative authority of the Town is vested in the voters at Town Meeting, but the Selectboard is the governing body responsible for the general supervision of Town business. The five member Selectboard is elected at Town Meeting and serve staggered terms. The Board's duties include the broad categories of regulation, general administration, and appointments. Other elected town officials consist of the Town Clerk, Town Treasurer, Town Moderator,

Auditors, Listers, and Justices of the Peace. These officials provide various services, acting as town staff, presiding over public meetings, handling town accounts, determining the value of real and personal property, and working election polls and counts ballots for office.

The Planning Commission is charged with formulating the Town's long range planning goals largely through creation and adoption of the Town Plan. The Planning Commission also creates zoning and other land use regulations to conform to the existing Town Plan. The Development Review Board focuses on reviewing development applications and hearing appeals of zoning administer decisions.

The Conservation Commission promotes community awareness of, and responsibility for, conservation needs. The Conservation Commission is currently dealing with a range of issues such as culverts and stream degradation, land fragmentation¹⁹, wildlife habitat protection, stewardship of Prospect Hill, invasives control, and an ongoing natural resources inventory known as the "Biodiversity Project".

The Energy Committee is dedicated to the promotion of environmentally responsible energy conservation and energy efficiency strategies to help residents cut energy costs and support the usage and development of renewable energy sources. The Committee is involved in advocacy work as well as information and awareness activities towards these ends.

The Housing Advisory Committee is working to address housing affordability and providing greater options in housing stock. As with the Energy Committee they are working on both advocacy and information awareness activities.

There are several other committees and boards that serve the Town including the Farmland Protection Committee, Traffic Calming Committee, and Recreation Board.

Emergency Services

1. Fire Protection

The West Dummerston Volunteer Fire Department, formed in 1949, serves the entire Town. There are two fire stations: one in West Dummerston and one in Dummerston Center. Volunteer firefighters respond to many different emergencies including house and brush fires, traffic accidents, medical emergencies, and downed power lines. The fire department also assists surrounding towns as part of a mutual aid agreement.

2. Police Protection

Two enforcement services maintain law and order in Dummerston: the Vermont State Police and the Windham County Sheriff's Office. The Vermont State Police provide general law enforcement services out of their West Brattleboro barracks. The Selectboard contracts with the Windham County Sheriff's Office for traffic and animal control. The contract for animal control expires in June 2009, at which time the Sheriff's Office will cease offering the service. The

¹⁹ Fragmentation is the division of habitats that formerly occupied large, contiguous areas into smaller areas by roads, fields, housing developments, and other human activities.

Town will need to arrange its own animal control services. There are also two Town Constables in Dummerston, but their roles have largely been symbolic and they do not participate in law enforcement activities.

There has been recurring concern in Town about speeding occurring on less traveled back roads as well as more frequented corridors such as the East West Road. The Selectboard has been working with the Sheriff's Department to increase enforcement measures and find cost effective ways to reduce speeding on Dummerston's roads. A citizen committee continues to explore how traffic calming²⁰ techniques can be implemented to help supplement ongoing efforts by law enforcement.

3. Emergency Management

The purpose of Emergency Management is to provide timely warning and assistance to town residents in the event of emergencies. An emergency management team with a director appointed by the Selectboard coordinated emergency preparedness and response for the Town. The primary method of emergency notification is weather-alert radios. The system is enhanced by two emergency sirens, one at the Town Highway Garage and the other at the West Dummerston Fire Station.

An Emergency Operations Center, located in the Town Office and served by a backup generator, is the command center for town officials and emergency operations staff. Backup generators are also available at West Dummerston Fire Department and Dummerston School if there is a need to shelter residents.

A portion of the southeast corner of Town lies within Vermont Yankee Nuclear Power Station's Emergency Planning Zone (EPZ), an approximate 10-mile area around the nuclear power plant. Dummerston emergency responders are active participants in planning and emergency evacuation drills associated with the facility. In the event of an evacuation incident, public safety officials would direct residents to a reception center located outside the EPZ. Reception centers in Vermont are located at Twin Valley High School in Wilmington and at the Bellows Falls Union High School in Westminster.

Important components of a town's emergency management program are a Rapid Response Plan and a Pre-Disaster Mitigation Plan. Dummerston maintains a Rapid Response Plan, a guide that identifies key emergency personnel contact numbers, locations, tasks, and an evacuation plan. The town is currently without a pre-disaster hazard mitigation plan (PDM). The PDM Plan identifies potential disasters, potential impacts from these disasters, vulnerable sites, and mitigation projects that would prevent, reduce, and recover from impacts of disasters. Dummerston is particularly vulnerable to flash flooding, hazardous material incident, structural fires, and winter storm/ice storms. Having an approved and adopted local PDM plan is important for Dummerston because is required in order to apply for certain FEMA mitigation grants.

²⁰ Traffic Calming is the combination of primarily physical measures that reduce the negative effects of motor vehicle use, alter driver behavior, and improve conditions for non-motorized street users.

Solid Waste Disposal and Hazardous Materials

Dummerston belongs to the Windham Solid Waste Management District (WSWMD), consisting of 19 towns, each with a representative on the district's board of supervisors. The district facility offers full services including trash disposal, recycling, household hazardous waste collection, a swap shed, and commercial organic waste composting. Dummerston does not provide refuse collection. Residents, businesses, and public facilities may contract with a private waste hauler or bring their refuse to the WSWMD Convenience Center on Old Ferry Road in Brattleboro. Recycling must be taken to a WSWMD drop-off center. There are drop-offs in Dummerston Center next to the Town Garage off East-West Road and on Old Ferry Road, Brattleboro.

WSWMD's transfer station is located on Old Ferry Road in Brattleboro, at the site of the Brattleboro's capped landfill. Materials managed by WSWMD include daily trash, batteries, tires, appliances, metals, bicycles, lawn mowers, yard waste, glass, newspaper, cans, bulky goods, recyclable plastic, and other nonresidential wastes. WSWMD also operates the SWAP program, in which people can drop off or pick up reusable products (televisions, furniture, lumber, etc.).

The Federal Emergency Planning and Community Right to Know Act requires a facility to report to state and local officials when they are storing certain quantities of hazardous materials. According to the 2008 list of Vermont's Tier II sites, there are five sites in Dummerston. These include gas stations and garages.

Water and Wastewater

The Vermont Department of Environmental Conservation regulates both onsite and centralized water and wastewater systems. The goal of regulating potable water supplies and wastewater disposal systems is to protect groundwater, the environment, and public health.

There are no municipal water or wastewater systems in Dummerston. As discussed in the Natural Resources chapter, there are several public water supply systems.²¹ Most residents rely on private wells for water and septic systems for wastewater disposal.

Water supplies in areas of dense development are especially vulnerable to contamination due to the cumulative effects of building on small lots with septic systems and drinking water wells in close proximity to one another, many of which was designed prior to the establishment of State-level standards. Siting systems to meet the state regulations is a particular challenge in West Dummerston Village where small lots make it difficult to meet isolation zones.

Healthcare and Human Services

Most of the health and medical needs of Town citizens are met through the Brattleboro Memorial Hospital, Grace Cottage Hospital, Cheshire Medical Center/Dartmouth- Hitchcock Keene, or private medical professionals. Social service agencies are funded annually by the voters of Dummerston on Town Meeting day.

²¹ A public water supply in Vermont is defined as a water supply system, owned or developed by the same person, having fifteen or more connections or regularly serving an average of at least 25 individuals daily at least 60 days out of the year (Vermont Water Supply Rule).

Library Services

The Lydia Taft Pratt Library is located in the Community Center in West Dummerston. Although there is a part-time paid librarian, most of the work is done by volunteers, and all services are free of charge and available to any Dummerston resident. The library provides services and sponsors programs for all ages.

The Windham County Bookmobile operates May through October and stops at Dummerston School weekly. Anyone can use the bookmobile as there are no residency requirements. Books are available for all ages, no card is needed, and no fines are charged. Many Dummerston residents also use Brooks Memorial Library in Brattleboro and the Putney Library. Both libraries require an annual fee for non-residents.

Communications

There are numerous ways that information and communication about ongoing issues in Dummerston can be shared. There are several newspapers available to residents such as the regionally read *Brattleboro Reformer* as well as the local papers such as *The Original Vermont Observer* (published weekly), and *The Commons* (published monthly), and the *Views of Dummerston* (published quarterly). There are two town websites available for residents; one is official (<http://dummerston.org>) and the other is privately funded (<http://dummerston.com>). [Dummerston.org](http://dummerston.org) is the official town website that posts information about municipal government and contact information for board members. Forms for licenses, permits, and registrations are on this website.

Broadband internet service is an important topic not only in Dummerston but in many neighboring rural communities. In 2005, the Selectboard conducted a town-wide survey with the assistance of the Vermont Rural Broadband Project, a group tasked with assisting rural communities in acquiring affordable broadband service. The results revealed that 78 percent of residents use the internet in their homes but only 30 percent had access to high-speed internet services. As of this writing, the Town has only been able provide wireless internet “hot spots” where people can have high speed connections to the internet for free. These “hot spots” are currently located at the Dummerston Community Center and the Town Office.

Fairpoint Communications provides landline phone service in Dummerston. Since 2000 there has been phenomenal growth in cell phone usage. Cell phone coverage fluctuates throughout Dummerston with some areas getting better reception and some getting none. There is a Telecommunications Ordinance in effect that establishes a process, performance standards, and guidelines for siting and constructing wireless telecommunications facilities.

Community Services Goals, Policies, and Action Steps

Goal 1: To provide for the public health, safety, and general welfare of the community.
--

Policy 1.1 Maintain a quality level of police, fire, and ambulance services.

Action Steps:

- a. Continue to provide financial support to both fire departments so that an effective fire

- protection and fire prevention system can be maintained. (Selectboard)
- b. Periodically review the police protection available to residents. (Selectboard)
- c. Hire an animal control officer. (Selectboard)

Policy 1.2: Maintain a high standard of emergency preparedness.

Action Steps:

- a. Develop, implement, and maintain effective hazard mitigation programs and response plans to include Rapid Response Plans and Pre-Disaster Mitigation Plans. (Emergency Management Director, Selectboard)
- b. Identify hazards facing Dummerston and identify strategies to begin reducing risks from identified hazards. (Emergency Management Director)
- c. Continue to provide training opportunities for paid staff and emergency response volunteers (Selectboard)
- d. Continue to be active participants in drills and exercises related to Vermont Yankee Energy Nuclear. (Emergency Response Volunteers, Town Officials)

Policy 1.3: Provide for efficient and environmentally sound solid waste disposal and maximize opportunities for recycling usable goods.

Action Steps:

- a. Increase public awareness of the environmental benefits and cost savings of recycling. (Energy Committee, Selectboard)

Policy 1.4 Protect Dummerston's water supplies so that they remain clean and potable.

Action Steps:

- a. Support collaborative wastewater planning efforts. (Planning Commission)
- b. Explore money for a wastewater capacity study in West Dummerston Village. (Planning Commission, Selectboard)

Policy 1.5: Require all facilities which store, process or use hazardous materials or generate or treat hazardous wastes in their operations be sited in compliance with state and local laws, best management practices for the protection of groundwater, surface waters, and air quality and be periodically monitored for compliance with such laws and practices.

Goal 2: To provide an efficient system of community facilities and services.

Policy 2.1: Any construction or expansion of facilities should support development in West Dummerston or Dummerston Center so as to minimize growth in outlying areas and development along Dummerston's roadways.

Policy 2.2: Make the most effective and efficient use of existing services, buildings, utilities and facilities before adding new capacity or initiating new construction.

RELATIONSHIP TO ADJACENT TOWNS, WINDHAM REGION AND THE STATE OF VERMONT

Vermont's Growth Management Law, Title 24 VSA Chapter 117, passed in 1988, set up a system for communities to work in concert with their neighbors, and with agencies of State government, to shape the future. As envisioned, decisions on local growth issues are to be made by the local communities, and decisions of regional significance are to be made by the region's communities acting in concert. Each State agency action and program that affects land use is to be based on agency plans developed in consultation with communities and regions.

To achieve a unified vision for the future, plans at all levels are to be consistent with the Vermont planning goals and compatible with one another. Town Plans are to be compatible with the regional plan and with approved plans of other municipalities in the region. As defined in the law, for one plan to be "compatible with" another, the plan in question, as implemented, will not significantly reduce the desired effect of the implementation of the other plan.

Compatibility with Town Plans

Dummerston shares boundaries with Brattleboro, Marlboro, Newfane, Brookline, and Putney. The Connecticut River separates Dummerston from Chesterfield and Westmoreland, New Hampshire. The status of Town Plans for Vermont towns is as follows:

- Brattleboro – Town Plan adopted 2008
- Marlboro – Town Plan adopted 2008
- Newfane – Town Plan adopted 2006
- Brookline – Town Plan adopted 2005
- Putney – Town Plan adopted 2006

This Plan strives to support the goals and policies of the neighboring towns as well as strengthen the relationships with those towns to work on issues that are a common concern. The Dummerston Town Plan is compatible with the town plans of neighboring towns. The future land use districts do not conflict those in the neighboring towns. The lands on the border are similarly designated to perpetuate the rural land uses that currently exist and where applicable, protect the value natural resources and physical constraints of the landscape. Along Route 5 at the Putney border, the land is designated to support growth in Putney Village and to maximize existing infrastructure.

Compatibility with the Windham Regional Plan

The Windham Regional Plan (adopted October 24, 2006) is intended to provide guidelines for the planning and coordination of change and development which will, in accordance with present and future needs and resources, best promote the health, safety, and welfare of the citizens of the region. The Dummerston Town Plan supports and complements the land use and development goals of the Regional Plan.

There are some differences between the proposed land use plan in the Windham Regional Commission's Plan and the future land use districts in the Dummerston Town Plan. We have classified several areas a mixed density areas Plan while the Regional Plan categorizes these

areas as Rural Residential. In the context of Dummerston, these areas are some of the more compact development areas. However, on a regional scale, they are not compact areas when compared to the villages and downtowns that serve the region. Despite this difference, we do not find this difference to be an incompatibility because at the local level they help create compact settlement areas separated by countryside and provide for intensive residential development in areas related to community centers, one of the planning goals of the State of Vermont.