

# **PLYMOUTH, VERMONT TOWN PLAN**

Adopted by the Selectboard

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The Plymouth Town Plan was prepared by the Plymouth Planning Commission with assistance from the  
Two Rivers-Ottawaquechee Regional Commission, Woodstock, VT

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## **I. INTRODUCTION**

The Town Plan serves as a guide for the future growth and development of the land, public services and facilities of the community.

Planning is a continuing effort and local planning is a vital and necessary function. It is through local planning that the individual needs of the community are met.

This Plan represents how the citizens of Plymouth feel about growth in their town. It also acts to influence, by means of the goals and recommendations set forth, what forms future growth will take.

This Plan is designed to assist town officials in exercising their duties while ensuring that the desires of Plymouth residents are considered when decisions are made.

The following are objectives of the Plan:

1. To preserve and enhance the special qualities and atmosphere of Plymouth as a traditional small rural community.
2. To provide a pleasant and convenient environment for the people of the town, including residential areas suited to their varied needs, business and consumer services to meet their wants, increased opportunities for employment within the town, and the proper level of public services such as schools, fire protection, utilities, and recreation.
3. To protect the town's environmentally sensitive areas such as the lakes, river, streams, ponds, marshes, floodplains, slopes, and forests and to preserve open space.

Within the framework of these objectives the following planning policies are guides for general proposals for future growth in the town of Plymouth:

1. To protect and enhance the natural resources of the town for their best use for recreation, forestry, and agriculture.
2. To encourage the concentration of new residential development in areas served by existing town services.

3. To encourage, through multi-family and cluster development, the conservation of energy and the preservation of open space.
4. To encourage development of new service and commercial enterprises in appropriate locations to maintain the character of the town.
5. To encourage clean, small-scale industry.

## II. LAND USE

**Town Setting:** The Town of Plymouth comprises an area of 29,861 acres or almost 46 square miles (Listers' figure, 1/2/00). It consists of two physiographic areas separated by the north-south running valley formed by the Black River. To the west of this valley is a section of the Green Mountains, characterized by steep slopes and rugged terrain. To the east are intermountain valleys and low foothills, containing only a few peaks above 2000 feet.

**Existing Land Use:** Table 1 and the attached Plymouth Land-Use Map indicate current land use.

**TABLE 1**  
**LAND USE CHARACTERISTICS**

	1987	1999	2000	#Change 1987-2000	%Change 1987-2000
Residences	118	187	251	+133	112%
Vacation Homes	427	529	502	+75	18%
Mobile Homes	49	24	23	-26	-53%
Total Residences	594	740	776	+182	31%
	1987	1999	2004	#Change 1987-2004	%Change 1987-2004
Commercial Establishments	9	12	41	+32	355%
Industry	0	2	1	+1	100%
Public Utilities	9	3	2	-7	-78%

SOURCES: Listers Form 411 - Town of Plymouth, 1987, 1999, 2004; U.S. Census data, 2000.

Beginning in 2004, all real property in the local grand list books was reclassified as either homestead or nonresidential for tax purposes. Owners of homesteads are assessed at different rate than nonresidents by their towns or cities. A statewide education tax is applied to the two

classes of property and adjusted for the common level of appraisal for each school district. In 2004, 19.2% of the Plymouth Education Grandlist was paid by residents (homesteads), while 80.8% was paid by non-residents. Statewide, the total education listed value for the 2004 tax year increased by 7.0 percent over the 2003 tax year, and there was a 6.6 percent increase from the 2002 to the 2003 tax year. The bulk of this increase can be attributed to two sources - new construction and reappraisals. In 2004, 42 towns and cities conducted reappraisals—slightly more than the 39 conducted in 2003. 2004 marks the fifth year of a strong real estate market throughout the State.

The most apparent trend in land use patterns in Plymouth is the steady increase in vacation or second homes. Between 1987 and 1999 the number of second homes increased by 80%; from 427 to 529. The number of year-round residences increased between 1987 and 1999 by 63% over the last 12 years, a figure that in many cases represents retired people who are now using their second homes as year-round residences. This situation appears to have leveled off since 1999. However, the ratio of second homes to year-round residences remains almost 4:1, which is supported by the tax data cited above. Many unimproved lots are privately held by persons residing outside of Plymouth who intend to build at some future time.

There are four areas of relatively intensive settlement in the town. These are the village of Plymouth Union, the hamlets of Plymouth Notch and Tyson, and the Hawk Inn and Mountain Resort. These areas contain relatively high densities of single family residences as well as most of the town's commercial enterprises. Another large concentration of single family residences is in the southern part of the town around or near Lake Amherst and Echo Lake. The remaining residences are unevenly spaced along the town's road network.

Most of the town's commercial/retail establishments are local or tourist in nature and are located on or near the state highways. The town's two industries are the Plymouth Quarry (Markowski) and Frog City Cheese. The latter is a year-round employer, which ships its products worldwide. Bear Creek ski area (formerly Round Top) has begun to operate after a few years of closure. Farm and Wilderness and Bethany Birches camps are also located within Plymouth.

More than 90% of the land in Plymouth is devoted to forest use. The largest single owner of forestland is the State of Vermont. Table 2 summarizes ownership by State Agencies of lands which are predominantly forested.

The Town of Plymouth has been negatively impacted by recent Vermont legislation on education funding. Property owners have seen taxes increase substantially during the last 5 years, without an increase in the level of services they receive. The Town of Plymouth has historically taken a very fiscally responsible approach to its education and municipal spending, striving for maximum value for every tax dollar collected. The enactment of Act 60 and Act 68 have required that the Town of Plymouth contribute to the education funds of other towns. Townspeople have supported efforts to send a message to State Government that the current methods for funding education are grossly inequitable.

**TABLE 2****LAND OWNERSHIP BY STATE OF VERMONT****Agency of Natural Resources, Forest, Parks, and Recreation:**

Coolidge State Forest	6782.6 Acres	
Camp Plymouth State Park	295.0 Acres	
Miscellaneous Lots	<u>252.4 Acres</u>	
	<b>Total</b>	<b>7,330.0 Acres</b>

**Agency of Natural Resources, Fish and Wildlife:**

Amherst Lake Access	.18 Acres	
Echo Lake Access	.03 Acres	
Colby Pond Access	32.49 Acres	
Woodward Reservoir Access	1.47 Acres	
Arthur Davis Wildlife	2562.22 Acres	
Plymbsbury W.M.A.	288.00 Acres	
Tiny Pond Area	174.3 Acres	
	<b>Total</b>	<b>3,058.69 Acres</b>

**Agency of Commerce and Community Development  
Division for Historic Preservation**

East Mountain/Wilder Meadow Tracts	385.56 Acres	
Johnson Farm	124.00 Acres	
Blanchard Farm	42.5 Acres	
Smaller lots	<u>46.5 Acres</u>	
	<b>Total</b>	<b><u>598.56 Acres</u></b>
	<b>Total all lands</b>	<b>10,915.5 Acres</b>

SOURCES: Agency of Natural Resources &amp; Agency of Commerce and Community Development

The total State-owned acreage (10,915.5 acres) constitutes more than one-third of the area of the town of Plymouth. The Agency of Natural Resources plans to continue to manage its lands for their current uses of forestry, recreation, and wildlife management. The Division for Historic Preservation's management objectives for the Plymouth Notch Historic Site include ongoing operation as a State Historic Site seasonally open to the public, preservation of lands surrounding the village to maintain the rural character typical of Plymouth Notch during Calvin Coolidge's era, and the long-range possibility of reviving a small dairy operation.

Little land in Plymouth is now used for agricultural purposes. Isolated hayfields and pastures are found along the two State highways and Hale Hollow Road, around Plymouth Notch and Colby Pond, and in some upland areas.

The majority of land in Plymouth remains undeveloped. As such, the citizens and policy makers of the Town have the opportunity to manage future growth to protect and enhance what we most value about our town.

**Future Land Use:**

Plymouth's year-round population has increased substantially over the last ten years, from 440 in 1990 to 555 in 2000, a 26% increase. Furthermore, according to U.S. Census figures, the town's population is estimated to have grown to 580 in 2004. The number of vacation homes almost doubled between 1980 and 1990, indicating a significant increase in seasonal population. As the regional ski industry continues to expand and the town's natural and recreational resources continue to attract summer visitors, we need to carefully manage increased second home development.

Traditionally, Plymouth's land use pattern has consisted of small village and hamlet settlements with high densities of residential, commercial, and industrial uses, surrounded by sparsely settled agricultural and forest lands. In the past, this pattern has answered social and economic needs and allowed for the efficient provision of community services. We continue to appreciate the beauty of clustered village houses, isolated farms, and scenic mountain vistas resulting from these traditional land uses.

As our economy has shifted away from agriculture, increasing numbers of residents have entered the service sector or have gone beyond the town's borders to find work. This plan encourages local employment, particularly the growth of clean small-scale industry.

**Village and Hamlet Settlement Areas:**

Areas of concentrated development--Plymouth Union, Plymouth Notch, Tyson, and Hawk Inn & Mountain Resort--are the focal points of the town, providing a sense of place or identity, a center for community interaction, and a contrast to the surrounding rural countryside. As the town grows, this system of village and hamlets must continue to fulfill these important functions.

Today Plymouth Union functions as the town center, with the Town Building, the school, two inns, and commercial/retail establishments. As the town develops, intensive land uses should be related to Plymouth Union as a logical extension of its village area. This would enable it to continue to function as the town center, protecting other lands in the town from unwarranted scattered development and helping prevent strip development along Route 100 and 100A. High-density housing should be encouraged here, both traditional single-family dwellings and multi-family units.

Plymouth Notch and Tyson have lower densities than does Plymouth Union (they are classified as "hamlets"). They should continue to be composed of single family dwellings and a few locally oriented stores. Both contain historic churches, which, it is hoped, will continue to serve an important community function.

Development in rural settlement areas is largely residential and is limited by the capacity of soils to accommodate safe septic systems. This is particularly important in a community in which most household water supplies come from ground water.

Development should be based on such factors as soil type, steepness of slope, depth to bedrock or other impervious material, high ground water table, and flooding hazard. On-site evaluation is essential to determine the exact suitability of each lot. Plymouth has a wastewater disposal ordinance which sets standards for design, construction, and operation of all new or substantially altered systems in town.

Three different rural densities have been identified, based on the soils suitability map:

**High Densities:** Two acres per dwelling unit should be maintained in areas where soils suitability is good to fair, and where the State and local regulations regarding subdivisions are adequately met. Such areas typically have slopes 0-10% in steepness, soils greater than four feet in depth, percolation rates ranging from 46 to 60 minutes, and absence of excessive wetness or a seasonal high water table.

**Medium Densities:** Five acres per dwelling unit should be maintained where suitability ranges generally from fair to poor. These areas have 10% to 15% slopes and soils with moderate limitations.

**Low Densities:** Ten acres per dwelling unit should be maintained where soils suitability is poor. These areas have slopes greater than 15% or shallow depth to bedrock/water table or flooding. Septic systems in these conditions present a potential hazard to public health and environmental quality.

Plymouth's zoning ordinance, approved in February 2005, is compatible with these rural densities. However, in situations where a property owner holds an existing undeveloped parcel of land that is less than the minimum required, by right the owner must be given the opportunity to develop that parcel.

**Rural Development Alternatives:**

Plymouth's landscape is defined by the contrast between steep wooded mountains and narrow open valleys. Planning Commission surveys (1986 and 1999) found overwhelming consensus among residents on the importance of preserving Plymouth's open spaces and undeveloped slopes. The town's scenic rural character is prized by residents and visitors alike and is an important component of our tourist industry. The preservation of large forest tracts and of key agricultural lands is also important to the future of forestry and farming in our town.

**Critical Areas:**

These are areas which, because of their fragile nature, irreplaceable value, and vital function of maintaining the environmental health and quality of the town, require special conservation and protective measures.

**High Elevations:** Areas above approximately 2500 feet in elevation are governed by unique environmental conditions. Rainfall is greater, air and soil temperatures are lower, soils are more shallow, poorly drained, and nutrient poor, slopes are usually steeper, and there are fewer plant species. Steep slopes and increased rainfall make these areas vulnerable to erosion, and the few plant species regenerate slowly once disturbed. In the shallow, ledgy mountain soils, road and building construction are especially detrimental to natural water drainage and sewage disposal is especially difficult. The highest land use and greatest benefit of high elevation lands is as a source of abundant clean water. Mountain soils absorb large quantities of water which come from the high rainfall and fog moisture collections from forest trees. The water filters through the thin soil and adds to stream flows, springs, and eventually ground water supplies in the valleys.

**Steep Slopes:** On slopes greater than 25%, water runoff and erosion are accelerated. These processes hinder soils formation. When steep slopes are cleared for construction severe environmental damage can occur. The proper functioning of septic systems is hindered on slopes greater than 15%. In addition, development on steep slopes can be costly to the town in the maintenance of roads and construction of utilities, or when erosion causes increased sedimentation of streams and lakes.

**Shallow and Wet Soils:** Areas where the depth of bedrock or other impervious strata are less than four feet below the bottom of a leaching trench have severe environmental limitations. In such areas, septic systems usually cannot function effectively. Effluent usually seeps to the surface, creating a health hazard. Shallow soils are also very susceptible to erosion and are slow to regenerate.

Soils that have a seasonal high ground water table within four feet of the surface or are otherwise excessively wet also have severe limitations. Septic systems in such soils are almost guaranteed to pollute ground water. Because of their low bearing capacity, these soils also do not provide adequate strength for the construction of buildings.

**Shorelines and Streambanks:** Our streams, ponds, and lakes play an important part in our recreational economy and are a potential source of water supply. The continued use of surface water is directly related to its quality.

Development must be set back sufficiently from shorelines and stream banks to avoid pollution from effluent seeping from septic systems directly into the water. Also, streams above 1,500 feet in elevation are considered to be "pristine waters" by the Water Resources Board and pollution of such streams is prohibited.

**Wetlands:** Wetlands are important as the spawning, breeding, and feeding grounds of a wide range of wildlife. They also absorb runoff during periods of flooding and provide a more constant supply of water. Plymouth's many types of wetlands are identified on the wetlands map filed at the Town Offices, and are protected by State law.

**Floodplains:** These lands retain excess water during heavy rains and spring thaws, thus impeding the speed of water flow. They are unsuitable for development for many reasons: potential danger to life and property, harmful effects on channel capacity, and the failure of septic systems to function properly when influenced by high water tables. In addition, floodplains are usually locations of good agricultural land. In Plymouth, floodplains are found adjacent to the Black River, Broad Brook, and Pinney Hollow Brook (see Floodplain map) and are protected by special flood hazard area zoning regulations.

**Goal:**

1. To maintain the high quality rural/village character of Plymouth, preserving exceptional scenic beauty and the many natural resources of the town while allowing for moderate growth.

**Recommendations:**

1. Ask the State to monitor water quality for coliform pollution and to identify the source. In addition, prior to any conversion of seasonal homes to year-round residences, septic system functioning must be tested.
2. Update town maps to aid in future planning efforts within the town.

3. Allow for a diversity of uses within the town and encourage an increase in clean small-scale industry. Develop a town committee for economic development.
4. Encourage the voluntary conservation of undeveloped lands.
5. Preserve active farm and forest lands.
6. Revisit Plymouth's Zoning Ordinance to ensure that future growth occurs at a rate not greater than the town's ability to assume additional costs brought on either directly or indirectly as a result of that growth, and to ensure that the ordinance permits development that is compatible with the town's character. Particular attention should be paid to road frontage for individual lots and to major subdivision proposals.
7. Promote creative land use which does not sacrifice value for landowners.
8. Develop an Open Space and Scenic Resources Plan to identify and prioritize key landscapes, corridors, and vistas. This plan could form the basis of an incentives program which would take advantage of some of the following zoning bylaw provisions:

**Planned Residential Development (PRD):** This provides for greater flexibility in the placement of structures on large parcels of land, provided that development respects certain important features of the landscape (see Plymouth Zoning Regulations, section 6.42).

**Cluster Construction:** A compulsory cluster concept could be used where the scale of planned development will have a significant impact on forestry resources, significant wildlife habitats, recreation trails, etc.

**Transfer of Development Rights:** The development rights of parcels containing critical resources could be transferred to less sensitive parcels, where development density potential would then be increased.

9. Create a Town Conservation Commission, as enabled under 24 V.S.A., Chapter 118, to assist the Planning Commission in the inventory of key open spaces and forest areas. In addition, a Conservation Commission could identify the unique qualities of Plymouth Union, Tyson, and Plymouth Notch and develop programs to better manage new development in these areas. It could explore other conservation planning mechanisms and institute educational programs to acquaint citizens with the benefits of conservation planning.

### III. TRANSPORTATION

To discuss transportation in Plymouth is to discuss roadways, for location, topography, and the whims of history have worked against the development of railroads, airports, and other forms of transportation here.

Our roadways perform two distinct roles. They allow us to get where we are going. They also provide us with scenic pleasure, giving us a perspective on the unique rural character of the Town. The following plan aims to satisfy both of these functions.

Given the location of existing development, Plymouth's roads are essentially adequate to meet present needs. Traffic congestion is not an issue in Plymouth. Traffic safety is.

Outlined below is a breakdown of 1999 State and Town highway mileage in Plymouth, followed by an explanation of the classification system. See also the attached highways map.

<b>Class 1</b>	<b>State Highways</b>	
	Route 100A	4.76
	Route 100	9.73
<b>Class 2</b>	<b>Town Highways</b>	3.72
<b>Class 3</b>	<b>Town Highways</b>	37.28
<b>Class 4</b>	<b>Town Highways</b>	<u>13.42</u>
	<b>Total Mileage</b>	<b>68.91</b>

**Class 1** state highways are under the jurisdiction of the Vermont Agency of Transportation. They serve to connect larger population areas outside the town (such as Ludlow and Killington).

**Class 2** town highways serve as inter-town arterial roadways providing for through traffic. The Selectmen with the approval of the State Highway Board determine all Class 2 highways. Plymouth's Class 2 highways are the Kingdom Road, Buswell Road (Crossroads to the Ludlow line), and the road that connects Plymouth Notch to 100A (Coolidge Memorial Road).

**Class 3** town highways are the many collector roads which serve to provide year-round public access. The Selectmen determine these highways after conference with the State Board. Class 3 highways must be negotiable, under normal circumstances, all seasons of the year by a pleasure car of standard manufacture. Minimum standards, as set by the state, include sufficient surface and base, adequate drainage, and sufficient width to permit winter maintenance.

**Class 4** town highways are all other town highways. These are all determined by the Board of Selectmen. Class 4 highways are not maintained during the winter months. Summer maintenance is based strictly upon the availability of funds. This maintenance may include an annual grading, removal of fallen trees, and repair of washouts. It is desirable to keep Class 4 roads open to four-wheel drive vehicles, horseback riding, logging vehicles, and fire-fighting equipment. An example of a Class 4 town highway is the Reading Pond Road across from Colby Pond.

Neither upgrading nor abandonment of any Class 4 roads is proposed. If a developer wishes to build on a Class 4 highway, he must upgrade the road to town specifications (available from the Town Clerk) before the town will maintain the road.

The majority of the Town's roads are Class 3 highways, which have been steadily improved to keep pace with the rapid increase in residential development over the last decade. Some residents have expressed their wish to keep the degree of improvements consistent with the level of traffic. There is concern with the high speeds that some people drive on the Town's Class 2 and 3 highways, which are not posted. There is great appreciation of the scenic quality of our Class 3 roadsides, and the town should seek to encourage preservation of roadside trees, etc., where they do not interfere with maintenance and public safety. There is a high level of satisfaction with the present quality of Town road maintenance--snow plowing, grading, etc.

Both Route 100 and 100A have been the sites of serious accidents in recent years. Seasonally hazardous driving conditions are compounded by the high speeds at which many through drivers travel, particularly at peak periods during skiing season. In the warmer months, these same State highways are frequented by bicyclists, whose safety is also endangered because the roads are not designed for bicycle use.

People who live in Plymouth rely heavily on Routes 100 and 100A to commute to work and to shop. Those who live in the north end of town generally shop in Woodstock, West Lebanon, and Rutland; those in the south end of town are oriented towards Ludlow, Springfield, and Rutland. Because public transportation is lacking, older citizens who do not have their own cars are dependent on neighbors and agencies such as the senior centers, Hospice, and the Visiting Nurses Association. Transportation to Dartmouth-Hitchcock Medical Center can be particularly burdensome to the elderly and those undergoing long-term treatment.

Emergency transportation is provided by ambulance services in Woodstock and Ludlow. At present there is not enough manpower for the Fast Squad to provide the 24-hour coverage that would have to be provided if Plymouth had its own ambulance.

**Goals:**

1. To improve the quality of Plymouth's transportation and road systems in order to promote safety and maintain the scenic quality of roads wherever possible.

2. To encourage vehicles using Plymouth's roadways to travel at safe speeds, so as not to endanger children, adult pedestrians, and animals, as well as other motorists. To encourage respect for speed limits, as posted.
3. To assure that all residents, whether they have personal transportation or not, have access to shopping, medical facilities, etc., as needed.
4. To encourage the Agency of Transportation to improve State Highways 100 and 100A to create safer driving and recreational biking conditions.
5. To ensure that future development does not unnecessarily or unreasonably endanger the public investment in the town and regional transportation systems, including highways, bridges, rail, bike and pedestrian facilities, public transit, and trails.
6. To minimize transportation energy consumption.

**Policies:**

1. It is the policy of the Town that prior to a final decision to proceed with a major capital transportation project, policy makers first analyze the project against reasonable alternatives. In examining the alternatives, investigation shall focus on the environmental, energy, social, and investment costs and the extent to which each meets the goals and policies of this Plan.
2. It is in the policy of the Town to maintain the Town's current highways, bridges, and related facilities as necessary to ensure the current level of service.
3. The Town, as written in 19 V.S.A. Section 310, is not obligated to maintain Class IV Highways, excepting bridges and culverts. It is the policy of the Town that before it adopts a new road or upgrades an existing highway, the developers be responsible for the cost of improving and/or building the road to Town specifications. Final decision regarding the nature of the improvement rests with the Selectboard.
4. Given the interest in and benefits from biking, hiking, snowmobiling, cross-country skiing, and similar outdoor recreational activities, it is the policy of the Town that, as an alternative to complete discontinuance of a highway, full consideration be given to retaining Class 4 roads for recreational use, or downgrading their status to a legal trail, thus retaining the public's interest in them.
5. An integral scenic element of the rural countryside is the network of backroads comprising the town's highway system. These byways are both visually and economically important to the Town. It is the policy of the Town that if improvements are needed to accommodate increased traffic, the relationship of the road to the surrounding features of the landscape be fully evaluated.

6. It is the policy of the Town that remote areas not planned for development, not be planned for upgrades to roads leading into these areas (unless an unsafe situation exists). Road improvements to local roads shall only be conducted on roads leading into areas where the Town desires to encourage development. By keeping remote areas less conveniently accessed, the Town is establishing a clear policy on where future residential development is more appropriate.
7. It is the policy of the Town to minimize new trips and to support existing transportation facilities. Institutional and civic land uses shall remain in or adjacent to the village/downtown area or designated areas adjacent to it. These uses include: post offices, public schools, banks, civic buildings, town offices, senior centers, and retail stores.
8. It is the policy of the Town to control curb cuts to ensure the proper function and performance of a roadway. Concepts that shall be employed in evaluating developments are:
  - restricting or limiting the number of curb cuts per parcel or per linear feet of roadway;
  - ruling out direct access onto a primary road, if a reasonable alternative access exists via a secondary road or shared driveway;
  - provide for separation between curb cuts and public road intersections to ensure efficiency and safety of a roadway; and
  - consolidating or reconfiguring existing curb cuts or access roads to improve or maintain efficiency, safety, and the function of a roadway.
9. It is the policy of the Town that where multiple site development is being planned, access management decisions:
  - require shared access and parking, whenever feasible;
  - require connecting roads between parcels or prohibit direct parking access from a parking space to an arterial or collector road;
  - encourage use of municipal parking areas or flexible parking standards (i.e. shared parking) to reduce the amount of parking required for individual developments;
  - require pedestrian sidewalks or reserve land for future sidewalks along roads in concentrated areas or between buildings and parking areas to ensure pedestrian safety, provide for pedestrian crosswalks and bicycle connections at regular intervals; and
  - make provisions for transit stops or facilities at reasonable intervals, where applicable.

**Recommendations:**

1. Continue to support the Visiting Nurses Association, area senior centers, and other organizations that provide transportation and much-needed services for seniors without individual means of transportation.
2. The state should conduct more frequent and rational maintenance activities on Route 100A due to the increased use of the State Park. Paving, crack sealing, ditching, all contribute to the longevity of a highway.
3. Continue participation in the Regional Transportation Planning Program through the Two Rivers-Ottauquechee Regional Commission.
4. Revisit and tighten access management policies and standards in the Plymouth Zoning Regulations according to authority granted under 19 V.S.A. § 1111, Permitted use of the right-of-way, to ensure better control over developments potentially impacting the function and character of Plymouth's roadways.

## IV. UTILITY AND FACILITY PLAN

### **A: Educational Facilities**

(See section on Education.) Present facilities consist of the Town school (grades K-6), located in Plymouth Union approximately one mile north from the junction of Routes 100 and 100A.

### **B: Recreational Facilities**

1. Coolidge State Park Campgrounds offer camping sites, motor and trailer sites, hiking, fishing and hunting on surrounding lands, both State-owned and private property. On-site water and sewage disposal are available for campers, also shower and toilet facilities.
2. Camp Plymouth on Lake Echo in Tyson is a recreation site offering rental cabins, boats, a swimming area, playground equipment, and picnic areas. A kitchen and large dining room may be rented for group use.
3. Woodward Reservoir has a limited access beach, available for Plymouth residents to use at hours specified by the Farm and Wilderness Camps (usually after 3:30 p.m. on summer weekdays). The State of Vermont maintains a public access for boats near the dam.
4. There are also boat launching/fishing access areas on Lake Amherst, Lake Echo, Lake Rescue, and Colby Pond offered by the State of Vermont.
5. Hawk Inn and Resort offers hayrides, sleigh rides, horseback riding, boating, swimming, and health club facilities to guests and the general public. Various forms of free entertainment are offered in the summer months at their bandstand.
6. The Farm and Wilderness non-profit corporation offers five different camps for children aged 5-17, serving 550 residential campers and 150 day campers each summer. Three of the overnight camps and the day camp are located at Woodward Reservoir; Flying Cloud camp offers a Native American experience for boys on leased land in southwestern Plymouth; a fifth camp is in Mt. Holly. Farm and Wilderness offers outdoor education programs in the spring and fall -- facilities such as their ropes course are available to school groups, alcohol and drug rehabilitation programs, battered women's programs, etc. It also offers retreats in the winter. The Farm and Wilderness trails are open year round for hiking and cross-country skiing, by permission.

7. Bethany Birches Camp Association operates a summer camp on Lynds Hill serving a total of  $\pm$  275 local children in six one-week overnight sessions ( $\pm$  45 children per session). It also offers winter snow camps attended by many Plymouth residents. The Association's land is open to Plymouth residents for hiking and skiing.
8. Gold panning remains a small but viable recreational activity available to residents and non-residents.
9. Round Top Ski area (Bear Creek) has previously provided area residents with ski opportunities. The ski area is in the process of rehabilitating its facilities and is open on a limited basis.
10. VAST snowmobile trails, biking on roadways, and the Catamount hiking trail are other recreational activities available to residents.

**Recommendation:**

1. Given the large amount of trail land in the Town, Plymouth should seek funding to conduct an inventory and to map all trails open to the public and shall publish the information for townspeople.

**C: Medical Facilities**

The Town of Plymouth has no in-town medical facilities. However, there are health clinics in Woodstock and Ludlow and major hospitals in Springfield, Rutland, Windsor, and Lebanon, N.H. Ambulance service and advanced medical treatment by Emergency Medical Technicians is available from Ludlow and Woodstock. Several members of the Fire Department and private citizens have been trained to perform first aid, CPR, and other techniques to help stabilize a patient until medical assistance arrives.

**D: Utilities**

1. Electrical facilities (See section on Energy). Plymouth has no local electrical generation, present or foreseen. Power needs are supplied by CVPS from generating plants in surrounding communities. Various power transmission lines feed necessary power requirements to both residences and businesses. A high power transmission line runs through Plymouth Union from Killington to Hawk Mountain. Power from this line feeds to Plymouth Notch and Pinney Hollow. Sections of Tyson are powered by Ludlow Electric and portions of Pinney Hollow and Plymouth Five Corners are fed through Woodstock. Clearing and the upgrading of transmission lines in recent years has resulted in fewer power outages and more dependable power. However, some areas of the Town of Plymouth have poor power reliability.

2. VTEL and Ludlow Telephone Company provide telephone service. VTEL now offers digital subscriber line service in Plymouth. The upgrading of lines in recent years to cable has improved service and dependability tremendously.
3. Cable television is presently available to homes along Route 100 from Ludlow to Plymouth Union and north on Route 100A to Sailer Construction. Service is provided by Adelphia Cable TV Company, which offers a wide selection of both standard and pay-to-watch channels.
4. The Town of Plymouth does not have at present nor does it foresee a need in the future for any storm drainage, public sewer system, charged public hydrant system, or public water system. The rural nature of the Town and the population density coupled with the Town's topography and geology make it neither economically feasible nor reasonable to attempt such undertakings.
5. The Town of Plymouth has poor cellular phone service and seeks increased tower placement consistent with aesthetic considerations and local placement input.

**E: Public Services**

1. Refuse Disposal: Plymouth belongs to the NH/VT Solid Waste Project for incineration of its refuse. We send two representatives to project meetings. Refuse pick-up is provided by an independent contractor. The contractor charges hauling fees according to the volume of each household's refuse. The Town pays tipping fees directly to the Solid Waste Project. Private contractors provide dumpsters to various businesses and facilities in Town for a fee. Volunteers operate a recycling station at the Plymouth Fire Station on the fourth Saturday of each month.
2. The Fire Department is a volunteer organization funded in part by Town taxes and by fund raising activities which include annual solicitations for donations from tax payers, barbecues, coin-drops, and by donations received for services performed. No members are paid for any time rendered. The Fire Department Station, located in the Town Offices Building on Route 100, contains the following equipment:

<u>Description</u>	<u>Year</u>	<u>Condition</u>
Pumper GMC 750 G.P.M.	1980	Good
Tanker General 4,000 Gal.	2003	Excellent
GMC Utility vehicle	1978	Good
Pumper 1000 G.P.M.	1980	Good
8 Scott Air Packs with 8 spare tanks Portatank - 1,500 Gal.		
Three portable pumps - 250 G.P.M.		
Full turnout gear for 20 men		
Miscellaneous items		

3. The Plymouth Fast Squad is composed of volunteers who respond to vehicle accidents and other emergencies requiring first aid prior to the arrival of an ambulance and EMTs. Both the Fire Department and the Fast Squad in Plymouth are benefiting greatly by completion and implementation of an Enhanced 911 system in Vermont.
4. Plymouth Press is the town's newsletter. It is published 2-3 times a year by volunteers.
5. Tyson Ladies Aid sponsors bazaars, rummage sales, and food sales to collect funds that are used to aid in various projects such as aid for fire victims, college scholarships, support for Plymouth School programs, and aid to needy families.
6. Plymouth Historical Society holds meetings and field trips open to all who are interested in the Town's history.
7. The Plymouth School has an active parent-teacher support group that hosts the annual Strawberry Festival and other community activities and fund raising events.

#### **F: Disaster Prevention, Preparedness and Response**

The Town has completed a Rapid Response Plan (RRP) that covers the procedures for Plymouth's response to a disaster. In brief, the Selectboard will formally declare a state of emergency in the event of a disaster that the Selectboard feels is beyond the Town's scope. This declaration will be faxed to Vermont Emergency Management and a local emergency operation center will be set up in the Town Office. The Town Office should be equipped with backup power so that it can function during an emergency. The Town has an Emergency Management Coordinator and would be assisted by several people who have been identified in the RRP in coordinating the Town's response to a disaster.

In the event that emergency shelters are needed, the Town has identified the elementary school for such use. The school does not currently have backup power and this is needed to properly function during an emergency.

In order to avoid disasters as much as possible, the town should continue to develop an all-hazards plan which will also address mitigation and education needs. In the short term, the Town should ensure that all new private roads and driveways are properly constructed so that they do not contribute to damage on town roads from runoff. The Selectboard should also review their codes and standards policy for improvements to transportation infrastructure to ensure that it is appropriate for the Town and will serve the Town well when applied by the Federal Emergency Management Agency following the next disaster. The proposed density, type and location of future land uses set forth elsewhere in this plan should take into account the predictable consequences of any additional buildings in the floodplain, on steep slopes or on inadequate roads that could further aggravate flooding or require increased efforts and expenditures by the Town for emergency response.

**G: Buildings and Other Facilities Open to the Public**

1. Town Offices Building: The Town building contains the town offices, a large public meeting hall, and the meeting room and garage bays of the fire department and road department. The structure was completed in 1988 and is in sound condition and provided with adequate parking. All Town property should be open and available to the citizens of Plymouth with appropriate rules governing its use in place.
2. Post Office: The post office in Plymouth Notch serves the northern two-thirds of the town. People living in the southern part of town receive their mail through the Ludlow post office. People in the Hale Hollow area get mail through Bridgewater Corners. All roads in Plymouth have now been officially named for E-911 purposes.
3. Library: The Tyson Public Library is operated by the Tyson Ladies Aid Members. It is open on Saturdays and other days as scheduled. It provides a good cross-section of reading and educational material for all ages. Libraries in surrounding towns are also available for residents' use.
4. Churches: The Union Christian Church in Plymouth Notch has historical significance as the former church of President Calvin Coolidge. Services are held on the first Sunday of each month, June through October, with visiting clergy. A Christmas Service is held each year. The church building is open to the public May through October and by appointment. Tyson Congregational Church holds services from Easter until the last Sunday in October and also has a special Christmas service. Pastoral care is available year-round.
5. Cemeteries: The Town has four cemeteries: Plymouth Notch, Tyson-Pollard, Plymouth Kingdom, and Five Corners. There is also the small Archer family cemetery and a Revolutionary Soldier's cairn, both in Tyson. All are maintained without tax money.
6. Historic Sites: The Plymouth Historic District is operated May through October by the State of Vermont, Division for Historic Preservation, and includes the Coolidge Birthplace and Homestead, Cilley Store, Wilder House Restaurant, Wilder Barn, and other structures. The Coolidge Foundation maintains the Union Christian Church and has offices and an archive in the Church basement. The Plymouth Cheese Factory is operated by the State of Vermont as a business making curd cheese and also functions as a year-round tourist attraction adjacent to the Historic District.
7. Motels, Hotels, and Bed & Breakfasts:
  - Echo Lake Inn and Restaurant in Tyson
  - Farmbrook Motel on Route 100A
  - Hawk Inn and Resort on Route 100
  - Salt Ash Inn at junction of Routes 100 and 100A
  - Inn at Water's Edge, Tyson

**Goals:**

1. Buildings: In general, all buildings, utilities, and facilities should be maintained on a regular schedule with energy conservation measures instituted to ensure that we are not postponing repairs today that will be more costly in the future.
2. Equipment: Continue efforts to maintain and replace equipment to ensure that all equipment and vehicles are in safe operable condition. Maintain procedures to purchase equipment and vehicles in the most economical manner.
3. Public Utilities: Maintain close communication with public utilities that provide electric power, telephone service, and television cable to coordinate projects including tree cutting, underground cable laying and installation of new utility poles and lights, to ensure that duplication of efforts and expenditures is avoided.

**Policies:**

1. The Town supports the expansion of 3-phase power in all appropriate areas of the Town to ensure that economic development opportunities are fully exploited.
2. The Town supports the expansion of high-speed fiber optic telecommunication lines throughout Town so as to allow home occupations and businesses to grow and prosper.
3. The Town supports the placement of utility lines under ground when cost are borne privately, or when supported by a town vote, with local public funding.
4. To encourage public investments in governmental facilities, services, and lands which support existing and future development within the village area and other designated growth areas.
5. To foster a partnership between public investment planning and implementation activities and the private sector in a manner which advances the goals and policies of this Plan.
6. To promote effective, efficient, and accessible public services, including school, highways, and recreational facilities.
7. To ensure that the expansion or construction of new utilities and facilities do not impose an undue financial burden on governmental resources.

**Recommendations:**

1. The Town supports the transfer facility in Plymouth as an option for residents and shall look toward more convenient and affordable solutions for waste disposal so as to minimize illegal dumping.

2. The Town seeks and supports last line identity for all residents of Plymouth as a result of E-911 work conducted last year.
3. Given the mediocre level of service residents receive on fire and fast squad services, the Town should explore the possibility of combining the two services into one.
4. The Town shall explore expanded mutual aid arrangements for additional services such as paving, plowing, mowing, and fire response.
5. Capital improvement plans and budgets are effective planning and fiscal management tools. The Town and School District are encouraged to use this tool. Periodic consultation with the Planning Commission on the land use implications of major capital investments is recommended.

**H: Child Care**

In 2003, the Vermont Legislature added a thirteenth goal to Chapter 117. “To ensure the availability of safe and affordable child care and to integrate child care issues into the planning process, including child care financing, infrastructure, business assistance for child care providers, and child care work force development.”

The Utility/Facility Map should locate the licensed day care facilities in Town. Plymouth supports the private development of additional facilities to meet the needs of its residents.

**Recommendations:**

1. Work with the Regional Planning Commission to conduct a needs assessment.
2. Maintain an inventory of all childcare programs.
3. Address barriers to increasing capacity created by zoning regulations.
4. Work with developers to consider the childcare impacts of their developments.
5. Consider seeking grant funds to assist with the development of childcare infrastructure.

## V. TELECOMMUNICATIONS FACILITIES

Telecommunications have become increasingly important to the security and economic needs of residents and businesses in central Vermont. This trend will continue. It will play a key role in our region's economic future, creating new opportunities for the relocation and growth of decentralized business operations and reducing demands for travel by conventional modes. With an improved telecommunications infrastructure, large amounts of information can be conveniently moved over long distances at competitive rates.

The field of telecommunications is undergoing rapid change. Advancements in this technology have and will continue to impact growth in Plymouth. The implications for land use are significant, as this technology has enabled people to move into rural areas of the Town and to "telecommute" to other remote or central offices more readily.

Under present standards, transmission towers are the dominant telecommunications facilities. As land uses, these towers have emerged as planning concerns. Towers may emit electromagnetic radiation, which may affect human health, can conflict with other forms of development, and raise issues of aesthetic impact. To ensure adequate transmission of signals in mountainous areas, towers and related facilities often times need to be confined to hilltops or high elevation points. Thus, due to their higher visibility from multiple vantage points, conflict with scenic landscapes has become an issue.

The Federal Communications Commission (FCC) retains jurisdiction over public airwaves and the telecommunications industry in general. Additionally, the Federal Aviation Administration (FAA) exercises control over the location and height of towers and similar structures to prevent interference with airport operations. Under Vermont law (24 V.S.A. Chapter 117), municipalities may require that certain standards be met prior to the erection of telecommunication facilities. Local bylaws may regulate the use, dimension, location, and density of towers, however, FCC rules are preemptive of local and State law where conflicts exist. In 1997, Act 250 jurisdiction was conferred by the State requiring a permit prior to the construction of a communications tower or similar structure over 20 feet in height.

### **Goals:**

1. To preserve the rural character and appearance of the Town of Plymouth.
2. To protect the scenic, historic, environmental, and natural resources of the Town of Plymouth.

3. To provide standards and requirements for the operation, siting, design, appearance, construction, monitoring, modification, and removal of telecommunication facilities and towers.
4. To minimize tower and antenna proliferation by requiring sharing of existing communications facilities, towers and sites, where possible and appropriate.
5. To facilitate the provision of telecommunication services to the residences and businesses of the Town of Plymouth.
6. To minimize the adverse visual affects of towers and related facilities through careful design and siting standards.
7. To encourage the location of towers and antennas in non-residential areas and away from visually sensitive areas, prominent scenic areas, and historic areas.

**Recommendations:**

1. In order to minimize tower proliferation, it is the recommendation of the Town that applicants exhaust all reasonable options for sharing space on existing towers prior to proposing new towers and related facilities. The principle of co-location is the favored alternative. In making such a determination on the feasibility of co-location, prospective developers shall make every effort to evaluate space available on existing towers, the tower owner's ability to lease space, geographic service area requirements, mechanical or electrical incompatibilities, the comparative costs of co-location and new construction, and regulatory limitations.
2. Existing wireless service providers shall be required to allow other providers to co-locate on existing facilities, subject to reasonable terms and conditions.
3. Some of the Town's principal scenic resources are its ridgelines and mountainsides. These areas are significant contributors to the maintenance and enjoyment of rural character. These ridges are predominately undeveloped and provide an unbroken skyline viewed from the valley floor. It is the recommendation of the Town that use of ridges for telecommunication towers and related facilities needs to be undertaken in a manner that will not detract or adversely affect these scenic values. Accordingly, protection of these areas from insensitive developments are matters of public good. To minimize conflict with scenic values, facility design and construction shall employ the following principles:

- a. be sited in areas minimally visible to the traveling public, from residential areas, historic buildings or sites, public use areas, and public outdoor recreation areas such as hiking trails;
  - b. be located in forested areas or be sufficiently landscaped to screen the lower sections of towers and related ground fixtures from public vantage points, such as trails, roads, or water bodies;
  - c. utilize materials, architectural styles, color schemes, mass, and other design elements to promote aesthetic compatibility with surrounding uses and to avoid adverse visual impacts;
  - d. where construction of access roads is involved , they shall be situated to follow the contour of the land and to avoid open fields or meadows to minimize their visibility; and
  - e. avoid peaks and ridges that are locally significant or regional focal points.
4. Towers shall not be illuminated by artificial means and not display strobe lights, except when required by the FAA.
  5. The height for towers, antennae and tower-related fixtures shall not exceed twenty (20) feet above the average height of the tree line within the immediate vicinity of a wireless communication facility.
  6. In planning for telecommunication facilities, due consideration shall be given to the environmental limitations of any given site. Impacts of the use on wildlife habitats, soil erosion, forestry and agricultural lands, and similar resources shall be carefully addressed. Projects that materially impact these resources are discouraged.
  7. The design plans for telecommunication projects situated on lands owned by the State shall be compatible with current Management Plans for Public Lands adopted by the Agency of Natural Resources.
  8. Towers, antennae, and related fixtures that fall into disuse, or are discontinued shall be removed to retain the values set forth above. Local and State land use permits shall incorporate removal of inactive fixtures as a condition of approval.
  9. The recommendations of this section serve as a clear written community standard intended to preserve the aesthetics or scenic beauty of the Town of Plymouth. Accordingly, it is the intent that this section be utilized by the District Environmental Commission or the Vermont Natural Resources Board as part of an aesthetics analysis for

all wireless communications facilities. These recommendations shall be used, however, not exclusively, to determine whether or not a project fits the context in which it will be located, is highly visible, and results in an adverse impact on scenic resources.

## VI. NATURAL, SCENIC, AND HISTORIC RESOURCES

### Inventory of Special Places

The following inventory of natural, scenic, and historic areas is included as part of this Town Plan because these particular resources have been singled out by the Planning Commission and townspeople as being of special significance. Careful consideration should be given toward preservation of all these "special places" in the overall planning program.

#### **NATURAL AREAS:**

The Vermont Department of Fish & Wildlife has mapped significant natural habitat in Plymouth. The attached map shows winter deer range and rare plant, animal and natural communities and state natural/fragile areas (for example, the Plymouth Caves near Tinker Brook). Their statewide map of bear habitat (1989) is posted at the Town Clerk's office. With the exception of the Tyson area, the entire town of Plymouth contains the type of continuous and relatively remote forestlands that support cub-producing female bears. The southeastern corner of the town provides important year-round bear habitat.

Also available at the Town Clerk's office are the state's wetlands maps, which identify Plymouth's water-related features and rank them, indicating which areas are protected by State wetlands regulations. These wetlands are important to a variety of wildlife, including our growing moose population.

The Natural Resources Conservation Service has systematically mapped soils in Windsor County including Plymouth. Digital soil maps are certified (in final format no longer subject to change) and are also compatible with GIS projects. The town's narrow valleys provide little bottomland for farming. Some of our richest farmland is now occupied by Hawk Mountain Inn and Resort. There is no large-scale commercial farming in Plymouth today, but small-scale commercial crops include maple syrup, blueberries and other small fruits, fiddleheads, Christmas trees, and honey. Several people keep horses, poultry, etc. Many have substantial home gardens and orchards.

Plymouth has an abundance of limestone and gravel and has many historic lime kilns and quarries. Today the town has one active rock quarry (R. J. Colton) and two gravel pits. The granite quarry in the Coolidge State Forest is currently inactive. People still pan for gold in Plymouth's streams.

Most harvestable timber is on State lands. Logging opportunities are not as widespread as one might think. Logging practices are generally conservative in order to encourage regeneration of timber resources.

1. The natural areas, wildlife, and plant life described in this plan are truly an asset to our town. Therefore it is a goal of this plan to provide for the long term management of these valuable resources.
2. Agriculture has had an important role in shaping Plymouth's history and its landscape. This plan recognizes the economic and social benefits of farming, local food production, and open space preservation, and therefore would like to see agriculture, at any scale, continue as an important part of the way of life in Plymouth.

### **Recommendations:**

1. Establish a town conservation commission to be responsible for identifying and planning for important natural areas, wildlife, and plant life.
2. Encourage nature study and local field trips for Plymouth school students. Continue to support Vermont Institute of Natural Science (VINS) programs for the school.
3. Support the Vermont Nature Conservancy in their protection of the Plymouth Caves' bat population.

### **SCENIC AREAS:**

When townspeople were asked what they find most scenic about Plymouth, their first response was most often, "everything." Indeed, Plymouth's scenic quality is one of its richest and most widely appreciated resources.

Personal definitions of scenic beauty vary, but most of us feel that beautiful landscapes are created by nature and man in concert. The automobile has shaped our vision of the landscape -- many of our favorite views are seen from roads. Residents particularly enjoy driving on Plymouth's back roads. We also enjoy the presence of wildlife -- moose, deer, bear, foxes, turkeys, and hawks -- within the landscape. Many of us, including the youngest person polled (age 8), enjoy seeing the large tracts of trees on Plymouth's steep undeveloped slopes.

Favorite scenic areas follow, listed in the order of their popularity:

1. Plymouth Notch Historic District - Most often mentioned were the beauty of this cluster of historic buildings and the views of East Mountain and the other slopes that surround it.
2. Route 100A corridor - Between Bridgewater Corners and Plymouth Union, this state highway follows a narrow valley that occasionally broadens out into pockets of farmland. The highway's many curves may be dangerous but they are also scenic -- people enjoy

passing through the stretches of sunshine and shadow cast by the mountains. A favorite section is the steep portion that descends through the "Notch" into Plymouth Union.

3. Amherst and Echo Lakes - Long recognized for their beauty, these lakes are enjoyed by motorists, boaters, bikers, pedestrians, and the many people who take advantage of the facilities at the State Park and Hawk Mountain Resort.
4. Lynds Hill Road - There are several long vistas from this steep winding road, which extends to the southeast of the Historic District. Other favorite spots include the cemetery at its base and the Five Corners area.
5. Colby Pond and Kingdom Road - Located in Plymouth Kingdom, this pond and its surrounding fields seem like they are at the top of the world.
6. Messer Hill Road - This dirt road has views of woodlands, farmlands, and, at the upper elevations, long-distance views of mountains as far away as New Hampshire.
7. Woodward Reservoir and Black Pond - Bordering Route 100, these bodies of water, surrounded by mountains, are less developed than Amherst and Echo Lakes. Rustic buildings of the Farm and Wilderness Camps on Woodward Reservoir complement their natural settings.
8. CCC Road (Whetstone Brook Road) - Built in the 1930s by the Civilian Conservation Corps, this seasonal dirt road ascends a steep valley to the west of Route 100A. It is a favorite place of some of Plymouth's older residents as well as its snowmobilers.
9. Chapman Road - leading south from the Kingdom and coinciding in places with the Crown Point Military Road, this rural road is bordered by large maples and old farmsteads.

Again, this listing does not cover all the places that people find scenic in Plymouth, but it does describe the ones most commonly enjoyed.

**Goals:**

1. To preserve the town's scenic character, to be enjoyed in the present and in the future.
2. Recognize and encourage the many residents who voluntarily pick up roadside litter. Support annual "Green-up" days.
3. Take scenic areas into account when road improvements and new signage are planned. Where safety permits, choose wood and other unobtrusive materials for guard rail construction.

4. Recognize and encourage property owners who maintain lawns and fields, in order to perpetuate the pattern of alternating open spaces and forest that so many people find pleasing. Encourage timber management practices that create and maintain long-range vistas. Avoid clear-cutting and other unsightly timber management practices along scenic corridors.
5. Locate telecommunications and other types of towers so as to minimize their negative impact on the scenic character of the town as well as on the health and safety of Plymouth's residents. Encourage the shared use of each tower by several antennae, to minimize the number of towers constructed.

#### **HISTORIC AREAS:**

Some four hundred years before Columbus "discovered" America, Native American people occupied agricultural villages in the Connecticut River Valley, including sites at Springfield and Windsor, Vermont. During hunting seasons they traveled up the Black River to traditional hunting grounds in Plymouth. Remains of their encampments are buried along the river and around old river headland areas such as Black Pond.

The first Europeans to see Plymouth were probably the men who constructed the Crown Point Military Road (1759-60), which crosses the southern part of Plymouth at the head of Lake Amherst. After the Revolution, settlers followed this same route. The archeological remains of Plymouth's first homes are along this corridor, in Plymouth Kingdom, Frog City, and the Four Corners area.

Because of its isolation and steep terrain, Plymouth's early growth was slow. Although the town had been chartered in 1761, by 1790 there were only 106 people living here. Most of the early settlers cleared land and established small diversified farms. Small mills were built along Plymouth's many waterways. Plentiful local limestone was burned in kilns to produce lime on a commercial scale.

As the 19th century wore on, many farmers specialized in sheep raising. A marble works was operating on Lake Amherst by 1834. A blast furnace and iron ore mining operation opened in Tyson in 1837. Plymouth's population peaked in the 1840s at 1497, almost four times what it is today. The town contained 17 school districts, each with its own schoolhouse. A local gold rush in the 1850s saw the opening of several mines.

As in many Vermont towns, Plymouth's population began to decline after the Civil War. Many of the more remote farms were abandoned. Sheep pastures reverted to woods. Photographs from the decades around the turn of the century show deteriorated buildings that today are only cellar holes. By August 3, 1923, when Calvin Coolidge was sworn in at the family homestead by his father as the 30th president of the United States, Plymouth appeared to many as a small rural town that had been by-passed by progress. A New York Times article in 1926 noted that half of Calvin Coolidge's hometown visited him at the White House and then amazingly commented that the total Plymouth Notch population was 29.

As the birthplace of a president, Plymouth Notch became a popular tourist attraction. Over the years, the numbers of visitors have increased until today the Plymouth Notch Historic District is the second most visited State Historic Site in Vermont (after the Bennington Battle Monument). Tourism began here before the turn of the century, as summer visitors were attracted to Plymouth's scenic lakes and mountains. Many built lakeside cottages or converted old farmhouses to summer homes. Children came here to summer camp. Farmers took in summer guests to supplement income from what was, until well into the 20th century, essentially an agricultural economy.

Today Plymouth's economic base has shifted away from agriculture, small manufacturing, and extractive industries. Many Plymouth residents commute to work outside of the town. Most of us no longer look on our village and hamlets as primary social and commercial centers. Yet in the midst of this inevitable change, we understand ourselves, in part, through our past. Our imaginations are sparked by stone walls running through the woods, visions of Native Americans fishing our streams, the old houses many of us live in. Through the planning process, we seek to integrate the physical remnants of our past into the present functioning of the town.

A list of types of resources follows:

1. Prehistoric archeological sites: There are two mapped prehistoric sites and many other areas likely to contain evidence of Native American culture. Particularly sensitive areas are found along the banks of the Black River and adjacent to old upland wetlands and headwaters such as Black Pond.
2. Historic archeological sites: To get an idea of the number of historic archeological sites in Plymouth, one can compare the 1859 map in Beers' Atlas with a current map. All the places -- farms, mills, stores, mines, etc. -- that do not appear on today's maps are archeological sites. Not all are of equal significance, however. Particularly important are sites relating to Plymouth's gold mining era and its industrial and extractive past. This includes Five Corners and parts of Tyson. The State has mapped ten early lime kilns in Plymouth and has listed the former Tyson Iron Company property in the State Historic Sites and Structures Survey. A locally significant site is General Amherst's Revolutionary era encampment north of Lake Amherst.
3. National Historic Landmark: The Plymouth Notch Historic Site was named a National Historic Landmark in 1965. This is the highest status that can be bestowed on an American historic site.
4. Historic districts: Tyson & Plymouth Union are both eligible for listing in the State Historic Sites and Structures Survey.
5. Corridors: The Crown Point Military Road is an important early corridor. A sign at the Kingdom Cemetery points to an easy access point. The Crown Point Road Association sponsors hikes, maintains signs, etc.

6. Individual sites: Four properties, in addition to those already mentioned, have been recorded in the State Historic Sites and Structures Survey. These are the Judge Scott house, the Echo Lake Inn in Tyson, and the Julia Messer house in Plymouth Notch. Many more sites are eligible for individual listing.
7. Cemeteries: Plymouth has four large cemeteries, all of which contain graves dating back to the late 18th century. There is also a small family plot and a Revolutionary soldier's cairn. These have been mapped and described in the publication, Burial Grounds of Vermont (Bradford, Vt.: Arthur A. Hyde, c.1991).

**Goal:**

1. To identify sites which are important in our past and to encourage their protection.

**Recommendations:**

1. Encourage members of the Plymouth Historical Society and other interested local people to do a comprehensive survey of our historic sites and structures. In addition to mapping and photographing each site, the surveyors might use the survey as a focus for interviews with long-time residents about the sites. Develop a program that would provide well-researched date markers to interested owners of historic structures.
2. Encourage appreciation of prehistoric and historic resources by our children by incorporating local history and field trips into the elementary school curriculum.
3. Promote appreciation of Plymouth history through the publication of interesting, accessible, well-illustrated books and pamphlets (such as A Plymouth Album).
4. Map archeologically sensitive areas, and consider them in the local planning process.
5. Digging of archeological sites is not recommended. The potential of sites to yield information about the past through technologically advanced archeological methods is easily destroyed by "pot hunters" digging around for old bottles and arrowheads. State law prohibits the digging of archeological sites on state lands without state permission (Title 22 V.S.A., section 762 and 764). There are other ways to begin to locate and record sites. Suggestions follow.
6. Conduct interviews with knowledgeable local people to determine where Native American and other significant artifacts have been found or where long-vanished historic sites were located. Record collections of artifacts. Record oral histories about the historic presence of Native Americans, about early industries, farms, etc.
7. Use maps, deeds, probate records, and other documentary evidence to research archeological sites (for example, Plymouth's gold mines).

8. Plymouth strongly discourages dredging for gold in streams and brooks and recommends that the state assist in eliminating this practice.

## VII. EDUCATION

The Plymouth Elementary School, located in Plymouth Union (see utilities and facilities map), provides instruction for grades kindergarten through sixth. Currently there are 25 students in attendance. Since 2000, enrollment at the elementary school has dropped by nearly 50%. There are three full-time teachers, one being a teaching principal. There are several part-time positions, including Special Ed/Chapter 1, librarian, art teacher, an aide, bus driver, and a music teacher. Other contracted services include a school nurse, guidance counselor, speech therapist, and a school-based health clinic.

Volunteers help to augment the staff by providing the ELF program, hot meals, swimming and cross-country skiing, clerical duties, and many other extras. Through the generosity of Hawk Mountain Resorts, we have been able to enhance our physical education program by providing swimming, cross-country skiing, and hiking. Downhill skiing instruction is provided at Killington. Being part of the Rutland Supervisory District furnishes the opportunity to share resources and activities with other schools, provides Superintendent services, as well as budgetary and clerical assistance. In 1990, the school participated in P.S.A. standards assessment and received high marks.

The school building, located on Route 100, was built in 1961 and consists of three classrooms and one kitchen/storage room. An outside storage shed was added to allow for better use of limited space inside the school. The building is of brick construction, designed to allow for expansion as needed. Several of the parents designed and constructed a stationary play set, including a slide, tire swing, and climbing apparatus, to add to the existing swing set and jungle-gym.

Students from grades 7-12 are tuitioned to neighboring schools, mostly Woodstock Union High School and Black River High School in Ludlow. We have one school bus that provides transportation for all of the students, except those going to Ludlow, but these students are provided transportation through their bus system.

### **Goal:**

1. To provide access to educational and vocational training opportunities sufficient to ensure the full realization of the abilities of all Plymouth residents.

This goal is being met locally through the sixth grade level. Because of the small size of our school-age population, learning needs of older students are met outside the community at regional high schools, the Community College of Vermont, and other institutions.

**Policy:**

1. It is a policy of this Town Plan to advocate for the education of Plymouth students to ensure a healthy community.

## VIII. ENERGY

The electric utility power, supply, transmission and distribution for the town of Plymouth is franchised to Central Vermont Public Service Corporation (CVPS) of Rutland, Vermont, and Ludlow Power Company of Ludlow, Vermont. CVPS electric power enters Plymouth from three districts. The Ascutney district supplies power to the Colby Pond area and to the east side of Lake Amherst and Echo Lake. This area is serviced from the CVPS Springfield Service Center. The Woodstock district supplies power along Route 100A to Killington Snowmobile Tours garage, and is serviced from the CVPS Royalton Service Center. The Rutland district supplies power from Route 4, south along Route 100 to the south end of Lake Amherst, as well as from the junction of Route 100 and 100A to Killington Snowmobile Tours garage. This area is serviced from the CVPS Rutland Service Center. Ludlow Power Company supplies power to Tyson and north to the southern end of Lake Amherst.

The utilities' electric power is provided by primarily hydro and nuclear generating plants. The demand for electricity is higher in winter than in summer. The Vermont Public Service Board continues to support more efficient use of electricity in residential, commercial, and industrial buildings to delay costly investments in electric distribution and transmission infrastructure. Energy conservation should be a high priority in the Town of Plymouth.

The demand for electricity is high in winter and low in summer. CVPS has created a two-rate system. Winter rates, December through March, make CVPS's rates some of the highest in New England. Summer rates are less costly because demand is decreased. The Vermont Public Service Board's position is that this rate system should discourage electric heat and encourage the more efficient use of electricity in residential, commercial, and industrial buildings.

Energy conservation should be a high priority in the Town of Plymouth.

According to the 2000 Federal Census, over 40% of people in Plymouth heat their homes with oil, considered safer than both wood and propane heat. Eighteen percent of those surveyed take advantage of the town's most abundant renewable energy resource by heating with wood, often using another fuel as a backup. Over 36% heat primarily with gas and almost 5% with electricity, which reflects the relative prices of these fuels.

### Goals:

1. To provide energy resources at reasonable costs while ensuring public health, aesthetic quality, and environmental safety.
2. To encourage the conservation of energy resources, as well as the use of renewable and alternative sources of energy.
3. To encourage building design and orientation to maximize solar exposure.
4. To increase public awareness and use of energy conservation practices through educational efforts.

**Policies:**

1. Planning which reduces the dependency and demand for new sources of energy is a matter of public good. Likewise, conservation of energy usage is encouraged. To meet this policy, the following practices are recommended:
  - a. Development of existing and current transportation routes and highways needs to reflect design and location principles that complement the recommended land use and settlement patterns set forth in this Plan. Major public investments, such as schools, public recreational areas, and municipal facilities need to be situated within or in close proximity to the villages or primary highways;
  - b. The rehabilitation or development of new buildings and equipment shall be encouraged where use of proven design principles and practices demonstrates the lowest life cycle costs; and
  - c. Where land development or subdivisions are proposed, design plans shall work toward the goal of locating structures and buildings on sites which reflect sound energy conservation principles, such as solar and slope orientation and protective wind barriers. Use of the cluster planning concept, where buildings are concentrated in one area of a site with a complementing off-set of open space, is an approach encouraging energy conservation and efficiency.
2. Where generation, transmission, and distribution facilities or service areas are proposed, such facilities or areas shall be encouraged only when they complement the recommended land use patterns set forth in this Plan.
3. To reduce the demand for commuter transportation facilities and energy, the development of energy efficient home occupations and small-scale home business is encouraged.
4. To support home scale alternative energy resource development.

**Recommendations:**

1. Suggest that any new building in the town of Plymouth go through a no-charge Vermont Energy Efficiency Utility (EEU) analysis to guarantee electric energy load is most efficient, within economic reason.
2. Have on record at the Plymouth Town Office an up-to-date copy of all energy conservation programs offered by the State of Vermont EEU.
3. Promote a compact, land-efficient form of development by emphasizing development in village and hamlet areas and discouraging energy-wasting strip development.
4. The Town, when undertaking review of its existing bylaws, shall consider enacting provisions that encourage innovation of energy conservation and concentrate development in the best locations (e.g., grant density bonuses to projects that employ advanced energy design and efficiency).
5. The Town, over the next five years, shall conduct an energy audit on all existing town buildings and implement conservation measures where feasible.

## IX. HOUSING

The character of a rural Vermont town is significantly influenced by the quality, availability, and variety of its residential development. During recent years Plymouth has seen substantial growth in vacation home development. Vacation homes numbered 427 in 1987, or 72% of the housing units and in 1992 they number 591, or 75% of the housing stock. By the time of the 2000 Census, only about 65% of housing stock in town is seasonally or occasionally used. Primary residences account for over 32% of the housing stock in Plymouth, a figure that partially reflects the conversion of vacation homes to permanent residences. Single family homes continue to be the predominant housing type in both the rural areas and village areas. The Town also has several condominium dwelling units.

The overall condition of housing in Plymouth is good. The majority of our houses are of recent construction, and most of our older houses have been renovated or restored and are well-maintained.

Housing affordability is a significant problem. Pressures for vacation home development, while creating jobs and improved tax revenue sources for the town, have driven the prices of housing beyond what many residents can afford. The 2000 U.S. Census found that median gross rent in Plymouth was \$875/month and the median housing value was \$157,500. The census also found that in 1999, nearly 30% of Plymouth households had a total annual income under \$25,000 and 50% of households earned under \$44,000.

### **Goals:**

1. To encourage safe, adequate, and affordable shelter for present and future populations.
2. To encourage suitable density and distribution of housing throughout the Town, compatible with existing neighborhoods.
3. To encourage the preservation of historic structures in ways that appropriately serves the need for housing.

### **Policies:**

1. It is the policy of the Town to ensure that the timing and rate of new housing construction or rehabilitation does not exceed the community's ability to provide adequate public facilities (e.g., schools and municipal services).
2. It is the policy of the Town to keep housing affordable by planning for:

- appropriately sized lots;
  - accessory apartments; and
  - clustered developments.
3. It is the policy of the Town to encourage the provision of housing for special needs population, such as the elderly and the physically handicapped.
  4. It is the policy of the Town to encourage and direct the location of future housing so as to complement existing or planned employment patterns, travel times, and energy requirements.

**Recommendations:**

1. Support a regional approach to determine and meet the housing needs of low- and moderate-income residents.
2. The Planning Commission shall review the current zoning bylaws to determine whether or not they hinder the development of affordable housing in Plymouth.

## X. ADJACENT MUNICIPALITIES

Seven towns, two of which share only a small segment of common border (Mendon and Killington), bound Plymouth. The five principal adjacent towns are Bridgewater to the north, Reading to the east, Ludlow to the south, and Shrewsbury and Mount Holly to the west.

Of these, the towns of Shrewsbury, Mendon, Killington, Ludlow, and Reading implement their town plans using zoning. Bridgewater and Mount Holly have no zoning bylaws. There are no incompatibilities between the proposed Plymouth town plan and the town plans of our neighbors. In fact, most neighboring towns have similar goals and policies and similar land uses along our shared borders. Commercial areas in Ludlow are not right on the town line. At this point, Bridgewater, Ludlow and Reading have "approved" plans per 24 V.S.A., Section 4350.

Plymouth participates in the Two Rivers-Ottawquechee Regional Commission which has a mandate to provide support and guidance for the town as plans are developed and rewritten. A member of the Plymouth Planning Commission serves as a Regional Commissioner, providing a liaison for regional issues. The increasing complexity of state, regional, and local planning makes the support services of the Two Rivers-Ottawquechee Regional Commission essential.

### Goals:

1. To plan with neighboring towns to develop solutions to problems that transcend town borders.
2. To plan for harmonious development on a regional scale.

### Recommendations:

1. Continue participating in the Two Rivers-Ottawquechee Regional Commission.
2. Exchange planning information and development trend data with neighboring communities.
3. Continue to send a representative from the Plymouth Planning Commission to act as a regional commissioner on the Two Rivers-Ottawquechee Regional Commission Board.

## XI. IMPLEMENTATION

The Plymouth Town Plan's goals and recommendations can be adopted and implemented through procedures spelled out in the Vermont Planning and Development Act (24 V.S.A., Chapter 117).

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1. Town Plan Adoption. Sections 4384 and 4385 of the Act describe the statutory procedures required for adoption of a town plan. In brief, the plan is prepared by the Planning Commission which, as a group, holds a warned public hearing on their proposal. Following this hearing, the Commission may make amendments before submitting the plan to the Board of Selectmen for their review and comment. At this point, the Selectmen are also free to make changes, but within a 30-90 day period must hold one or more public hearings, after public notice, on the proposed plan. Following the final public hearing, the Selectmen are then authorized to adopt the plan by resolution. The document becomes effective immediately upon adoption.
2. Town Plan Maintenance and Amendments. This plan will be effective for five years from the date of adoption, after which time it shall expire. The Town may, however, readopt the plan as expired or about to expire and therefore have it remain in effect for the next five years. We may also choose to make amendments at any time before this date, following the same procedure as for adoption (Reference: 24 V.S.A., Chapter 117, Section 4387).
3. Tools for Implementation. The Planning Commission has several existing tools for implementing the Town Plan. These include the use of Zoning Regulations and the Official Town Map, also Flood Hazard Area Zoning Regulations. The Town Plan also provides important guidance whenever the town participates in Act 250 proceedings. Continued participation in the regional commission will provide a forum for our input on issues that extend beyond town borders. Education is also an important tool. The more citizens who are informed about and involved in the local planning process, the more likely that our goals for town planning will be achieved.

**Recommendations:**

1. Ensure maximum citizen input into the adoption and implementation of the Town Plan by consulting residents during the updating of the plan and encouraging them to attend public hearings.
2. Update the town's Flood Hazard Area Zoning Regulations to incorporate changes in 24 V.S.A. Chapter 117, include previously omitted federal regulations and provisions, and make them easier to interpret and apply.