



2003

CALAIS TOWN PLAN

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PART I

A. PREFACE

Why should Calais have a town plan? An approved town plan enables the citizens of Calais to have significant influence over development within their town. State statutes grant that plan great weight in determining whether development projects subject to Act 250 within the town are approved. A town plan also offers guidance to town boards and commissions in their review of development projects and serves as the basis for evaluating and revising the town's development control ordinances. However, the town plan should be more than just a legal document for use in hearings about developments. It should be a statement of who we are as a community and it should express our vision for the future of our town.

Building on its 1997 predecessor, this plan makes policy statements, which are likely to form the basis for judgments involving Act 250 and local permits, and presents strategies to achieve the goals so that it will be possible in five years to measure our progress.

This plan looks at what we have in common, what we agree on, and our diversity. It discusses who we are, what our resources and our challenges are, and what our aspirations are for the future of our community. The aspirations are expressed as "Goals." Strategies that might lead to the achievement of the goals are listed under each goal as a "Plan of Action." The Commission recognizes that all of the goals will be not reached during the 5-year life of this plan and that the action plans are only today's ideas of how to start moving toward the goals. The Commission is also aware that this plan does not completely characterize the community or accurately reflect the aspirations of all Calais residents.

The policies and goals in this plan are meant to be the basis for updating the town's regulatory bylaws and the standards for reviewing projects before the Development Review Board, district environmental commission and environmental board.

B. A SHORT HISTORY¹

For thousands of years before European settlers came to the area, Native American inhabitants almost surely lived, hunted and traveled through what is now Calais. On October 1, 1780, the township of Calais was granted to seventy men by the General Assembly of the State of Vermont for 1479 Pounds 14 Shillings and 14 Pence. The majority of the "proprietors" were from Charlton, Rehoboth, and Brookfield, Massachusetts

In early 1787, Francis West settled just northeast of today's Adamant, however, he thought he was clearing land in (East) Montpelier. Abijah, Asa and Peter Wheelock arrived in June, 1787. They left their wagon in Montpelier where the road ended, cleared their land and returned to Massachusetts for the winter. They built the first house in Calais, southeast of Kents Corners.

In 1793, a sawmill was built by Colonel Davis in Gospel Hollow. He built a corn mill the same year and named the land around his mills "Calais Center." By 1828, there were nine sawmills, enterprises producing wooden clocks, axes, scythes and casting bells, blacksmith shops, corn and

¹Based on an article in *The Vermonter* by Dorman Kent Oct 1914, *Hemenway's Gazetteer of 1882*, *While the Sun Shines* by Allen Yale, Jr. and a few interviews conducted by Peter Harvey.

grist mills, a distillery, harness makers, shoe & boot makers, starch mills, and a wool carding factory.

By the middle of the 19th century much of the land had been cleared and tured to crops. Farmers were starting to use horses with mechanized equipment. Farms were larger and produced cash crops with hired hands. In 1850, the first Agricultural Census listed every farm in Calais, along with acreage, value, number of hands, number of milk cows, working oxen, other cattle, sheep, swine, value of the livestock, production of wheat, rye, Indian corn, oats, wool, peas & beans, potatoes, buckwheat, orchard butter, cheese, hay and maple sugar.

The population of Calais declined with the expansion of western United States. Gradually, Calais farmers turned from sheep to dairy cows and began producing cheese because it stored well. Later, butter was also made for sale. Buyers from the eastern cities came around to farms by wagon. Also, a market developed for maple sugar (syrup came later) and Calais exported such things as: potato starch, leather boots, granite, and even pianos. Walton's Directory of 1899 shows that Calais had 4 post offices, 2 creameries, 6 mills, 12 stores selling everything from feed to millinery, 1 hotel, 3 granite works, 3 active churches, and 2 doctors.

Around 1900, the refrigerated boxcar made it possible to ship milk to southern New England, but Calais roads were too poor to enable farmers to get their milk to the trains. In the 1930's, the state began improving roads so more milk could be shipped. After World War II, commuters required even better roads. In 1946, Route 14 was paved from East Calais to Hardwick. In 1959, Calais started paving the County Road in pieces from the East Montpelier line. East Montpelier also began paving the road from the Montpelier line. It took years to fill the gaps between Montpelier and Maple Corner.

In the 1970's, after nearly a century of population decline, Calais started experiencing population growth. Abandoned houses and camps were turned into year-round houses. New houses were built. Now, at the beginning of another century, it is apparent that Calais is still changing.

C. WHO WE ARE

Introduction

Calais is more than just a place; it is a community of people. Data from the 1990 and 2000 Census gives us a snapshot of that Calais community. In 2000 Calais had 616 households and 1529 residents with age, education, income and residence characteristics as shown in the accompanying charts.

We are relatively young: 28% of us are 19 years old or less, while only 10% are 65 or older. Most of us work elsewhere -- our town is a bedroom community. In 2000, 80% percent of the resident workforce worked outside of Calais. Almost all of our commuters work within Washington County, most of us traveling less than 30 minutes to go to work. At work, Calais residents perform a wide range of occupations, many requiring considerable skill. In 2000 almost 50% of us report working in managerial or professional positions, and although Calais residents of the past may have once earned their living from the land, fewer than 1% do so today. Most of us have a moderate income. Only a few households reported exceptionally high incomes in 1999, and about 6.5% of town residents have incomes below the poverty level.

Historically, Calais' population has lived and socialized within villages and hamlets -- North Calais, East Calais, Kents Corner, Adamant, and Maple Corner -- which had industries, schools, churches and stores. However, most of the rapid population growth since 1970 occurred along roads, outside of the villages and hamlets.

A Statistical Profile

Calais is rural, population has been stable. Calais is rural, both in appearance and according to statistical conventions. Throughout the 1980's, our rate of population growth exceeded the regional average by a factor of six and the State average by more than two and one half times. During the 1990's population growth stopped. Our population in 2000 increased by only 8 people since 1990. However we believe this pause in growth is temporary and that as the economy recovers from its recent downturn, our growth rate will increase again.

Table 1 Population 1960 - 2000

	Calais	Wash. County	Vermont
1960	684	42,860	389,881
1970	749	47,659	444,732
1980	1,207	52,895	511,456
1990	1,521	54,928	562,758
2000	1,529	58,039	608,827

Source: U.S. Census

Our planning assumptions continue to be based on increases in population. Because of Calais' proximity to regional job centers, continued growth is likely. Population projections by the Central Vermont Regional Planning Commission ("CVRPC") suggest that the town will soon surpass the historical high. Since Calais' land area will not change, this means that our population density will continue to increase. Also, because much of the growth consists of people of child rearing age, there may be greater growth than predicted.

Table 2 Age Distribution 1970-2000

Year	<5	5-17	18-64	>65
1970	81 (11%)	218 (29%)	375 (50%)	75 (10%)
1980	105 (9%)	281 (23%)	720 (60%)	101 (8%)
1990	119 (8%)	353 (23%)	927 (62%)	122 (8%)
2000	70 (5%)	346 (23%)	958 (63%)	155 (10%)

Source: U.S. Census

Despite low population growth in the past decade residential development in Calais has continued at a rate of 13.8%. The town is among the fastest growing in the region in terms of new housing units and number of households.

Table 3 Housing Units

	1970	1980	1990	2000	Percent Change 1990 to 2000
Calais	324	573	679	773	13.8
County	16258	22113	25328	27644	9.1
State	165063	223199	271214	294382	8.5

Continued population and housing growth will present interesting challenges. Demands for municipal services will increase as will impacts on natural resources. Careful planning will be needed for Calais to accommodate this growth while retaining its rural character and identity.

Calais is a middle class "bedroom community": In earlier times, Calais' economy relied on the land and other natural resources. Until the second half of the 20th century, mill-powered manufacturing, agriculture, mining, and forestry were the town's employment mainstays and most residents made their living in town. Several retail establishments catered to the population. Now, with only a few retail establishments, and no large employers, Calais has evolved into a "bedroom community". According to 1990 and the 2000 census, approximately 80% of Calais workers drive to another community to work.

Table 4 Employment 2000

	Calais		Washington Co.	
	#	%	#	%
Employed 16 years and over	819	100.0	31276	100
OCCUPATION				
Management, professional, and related occupations	392	47.9	12246	39.2
Service occupations	77	9.4	4629	14.8
Sales and office occupations	152	18.6	8308	26.6
Farming, fishing, and forestry occupations.....	7	0.9	189	0.6
Construction, extraction, and maintenance occupations	84	10.3	2668	8.5
Production, transportation, and material moving occupations	107	13.1	3236	10.3
INDUSTRY				
Agriculture, forestry, fishing and hunting, and mining	17	2.1	655	2.1
Construction	69	8.4	1989	6.4
Manufacturing.....	81	9.9	3219	10.3
Wholesale trade.....	16	2.0	1016	3.2
Retail trade	61	7.4	3465	11.1
Transportation and warehousing, and utilities	20	2.4	844	2.7
Information	30	3.7	1030	3.3
Finance, insurance, real estate, and rental and leasing	53	6.5	2173	6.9
Professional, scientific, management, administrative, and waste management services	73	8.9	2289	7.3
Educational, health and social services	224	27.4	7298	23.3
Arts, entertainment, recreation, accommodation and food services	49	6.0	2527	8.1
Other services (except public administration)	43	5.3	1604	5.1
Public administration.....	83	10.1	3167	10.1

Source US Census

Table 5 Place of Work, 1990, 2000

	1990		2000	
	#	%	#	%
Calais workers 16 and over	716	100	803	100
Worked in Calais	127	17.7	168	20.9
Worked outside Calais	589	82.2	635	79.1

Source US Census

Table 6 Employment by Organizational Category, 2000

	Calais		Wash Co.		Vermont	
	#	%	#	%	#	%
Private Wage and Salary	508	62.0	21981	70.3	238678	75.3
Government WORKERS	162	19.8	6268	20.0	45010	14.2
Self Employed	147	17.9	2960	9.5	32546	10.3
Unpaid Family	2	0.2	67	0.2	900	0.3

Source: U.S. Census

Calais residents are well educated (see Table 7) and the work force is dominated by managerial and professional occupational categories (see Table 4). Although our median family income is about average for Vermont, our poverty rate is relatively low (see Tables 8 and 9).

Table 7 Highest Grade Achieved for Persons 25+ years of age, 2000

	<9 th	9-12	H.S.	Coll.	AA	BA	Grad.	total
Calais #	35	78	248	148	71	225	223	1028
% of total	3.4	7.6	24.1	14.4	6.9	21.9	21.7	100
Wash. Co	1757	2783	12353	6503	3157	7789	4825	39167
% of total	4.5	7.1	31.5	16.6	8.1	19.9	12.3	100
Vermont #	20769	34127	130804	68440	31058	74124	44901	404223
% of total	5.1	8.4	32.4	16.9	7.7	18.3	11.1	100

Source: U. S. Census

Table 8 Median Family Income 1979, 1989, 1999

	1979	1989	1999
Calais	\$18,384	\$38,315	\$49,107
Washington Co.	\$16,785	\$35,395	\$51,075
State	\$17,206	\$34,780	\$48,625

Source: U. S. Census

Table 9 Persons Below Poverty Level

	1979	1989	1999
Calais	9.7%	7.2%	6.5%
Washington Co.	10.9%	7.9%	8.0%
State	11.5%	9.0%	9.4%

Source: U. S. Census

**FIGURE 1
FUNCTIONAL CLASSIFICATION
OF ROADWAYS**



TOWN OF CALAIS

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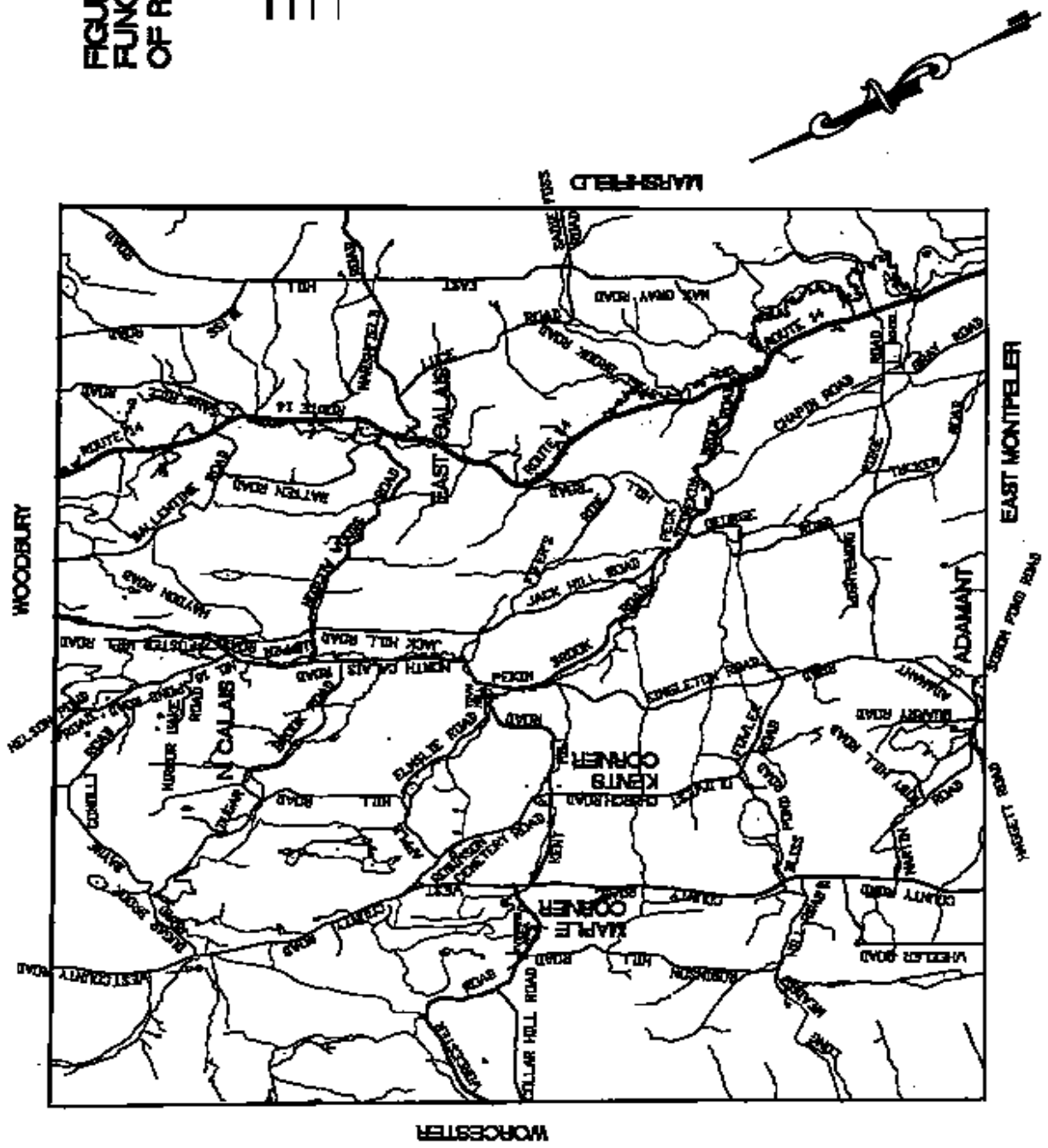


Figure 1

PART II

A. SENSE OF COMMUNITY

Introduction

It is our sense of being in this together and a willingness to work with each other, which makes Calais a community. It is also what makes a successful town plan possible.

Current Conditions

Calais is a very different place to live than it has ever been before. No longer is Calais the small town where everyone knows everyone else. While our population has always been in flux, the number of households remained relatively constant until the 1970's. Between 1970 and 1980 the number of housing units increased dramatically and then the rate of increase stabilized at about 100 new houses per decade or an average of 10 new houses per year. The population increased by 300 people between 1980 and 1990 and by 8 people between 1990 and 2000. Even though the number of residents has not changed in recent years, in a five year period, about 30% of the population are new to the town or living in a new house².

Today the overwhelming majority of our work force works outside of the community and we do almost all of our shopping out of town. Today we are more apt to meet our neighbors at the Berlin Mall, or in downtown in Montpelier or Barre. We socialize with co-workers but, today, they are likely to live in neighboring communities. With fewer residents at home during the day, we have fewer connections in town. Some local groups, like the Maple Corner Grange, have disappeared, while others, particularly those organized around sports, have grown.

Local organizations continue to bring people together and they are important in fostering a community spirit. We currently have three churches in the Town of Calais: the Old West Church, built in 1825, has Sunday services in August and a Christmas Eve Candle Light service; the East Calais Church, built in 1848, has regular Sunday services seasonally rotating with South Woodbury & Woodbury; and the Adamant Church, built in 1915, has regular Sunday services. We have three community clubs, two operating out of old school houses (the Adamant Community Club - 1962 -- and the Calais Community Recreation Association - 1966) and one out of an old Grange Hall (the Maple Corner Community Club - 1950).³

And our village centers have survived. Despite the Post Office wanting to consolidate by closing its smaller branch offices, we have managed, through the efforts of citizens, to keep all three of our post offices: the East Calais Post Office - 1830; the Adamant Post Office - 1893; and the Maple Corner

² From the 1999 census: 30.4% of Calais residents did not live in the same house they lived in in 1995.

³ There are many other organizations in Calais:

- Ladies Home Mission - 1810
- Woodbury Lake Association - 1949
- Calais Historical Society - 1962
- Calais Swim Program - 1972
- Calais Youth Sports - 1985
- Calais Neighbors Helping Neighbors - 1991
- Curtis Pond Association - 1994
- Women's Relief Corp - 1895
- Calais Little League - 1961
- Mountain Tamers - 1970
- Nelson Pond Association -
- Calais Recycling - 1991
- Friends of Curtis Pond - 1994

Post Office - 1906. We still have three stores in Calais today: the Adamant Co-operative - 1936; the East Calais Store - 1850; and the Maple Corner Store – 1906. The Moscow Mills Feed Store, which opened in 1900, closed in July 2002. It is with these village areas that many people identify and it is these that they often refer to as home rather than the town of Calais. In addition, our sense of community is enhanced by an annual town event, Fall Foliage Weekend.

We have an active town government primarily made up of volunteers, elected and appointed, through which we run our town. Town boards & commissions put in many hours carrying the burden of traditional Vermont self-government. These groups also provide many opportunities to become acquainted with our fellow townspeople.

- Selectboard
- School Board
- Listers
- Development Review Board
- Historic Design Review Board
- Calais Conservation Commission
- Cemetery Commission
- Planning Commission
- Town Constables

The East Montpelier and the Woodbury volunteer Fire Departments serve us. Calais residents have served on both departments.

The Calais Elementary School is also a major community focus for the families with children in pre-K thru 6th grades. The school is available to groups for meetings and sports and it has numerous parent involvement programs including: the PTNO (Parents, Teachers & Neighbors Organization); ELF (Environmental Learning for the Future); and volunteer coaching (soccer, basketball, baseball, down hill ski, and ice skating).

Issues

What kind of community do we want Calais to be? To what degree are we willing to be involved with each other? Can we keep the "community" of our villages alive? What "old ways" do we want to hang on to and what new ways do we want to embrace? What can be done to foster more involvement in Town Meeting and in running our town?

Goal: Foster involvement in local government and enhance the sense of all residents of belonging to a community.

Plan of Action:

- a. Ensure that current and new residents are aware of opportunities to become involved in local government;
- b. Continue to support existing community clubs in Town;
- c. Actively encourage participation of town residents in activities and organizations which assist and help other residents or which further the goals of this plan.

B. TRANSPORTATION

Introduction

Transportation allows us to be a community and enables many townspeople to live in Calais while working or participating in other communities.

Current Conditions

There are more than 90 miles of public roads within the town of Calais (See the table below). Except for the seven miles of State Route 14, the Town has the responsibility to maintain all public highways in town. The roads designated as Class 2 and Class 3 are maintained for year round passenger car travel. Class 4 roads receive little or no regular maintenance.

Roads in Calais	<u>Classification</u>	<u>Miles</u>
	State Highway	6.9
	Class 2 & 3	72.4
	Class 4	11.0

The Functional Classification of Roadways Map is attached to this plan. Route 14 is classified by the State as a "rural minor arterial" roadway. Collectors gather traffic from local roads and convey it to arterials and may also provide through traffic within the town and between Calais and adjacent towns. Ideally collectors allow traffic to pass with a minimum amount of friction from intersections, driveways and roadway conditions. "Local roads" form the balance of the network. The purpose of local roads is to provide access to adjacent land. Generally, they are intended for low daily volumes of traffic at slow speeds. The majority of the roads within Calais fall into this category.

Not all of the roads in town fit neatly into such a classification scheme. Collectors also serve as local roads for residents living on them. Even Route 14, which has a relatively high volume of traffic, has many driveways. This multiplicity of functions can also produce problem areas. A 1993 study of the town's roads, by professional planning and road engineering consultants, pointed out several major problem areas within the road network. Not all of the areas of conflict arise for the same reason. The authors of the study identified issues of safety, capacity, congestion, and confusing traffic patterns as well as substandard roadway conditions as factors that contribute to the listed areas of conflict. The Route 14-Marshfield Road and Route 14-Lightening Ridge Road intersections raise the greatest safety concerns. Other areas were identified for lesser problems, such as inadequate bridge and culvert conditions.

Because Calais is a bedroom community, the condition and quality of town roads play an important part in our daily lives. 88% of our workers commute to employment either within or outside of Calais. Despite this and the fact that many begin their commutes at about the same time each day, 83% of all commuters drive alone, only 12.6% report that they participate in a car pool, and the remaining 4.3% use other means such as a bicycle, public transportation or walking. These statistics suggest that there are many opportunities for reducing traffic and other problems that are not being exploited.

Issues

The Planning Commission believes that issues raised in the 1993 study of town roads are still valid. The following should be discussed and worked on during the time period of this plan.

What additional roads or sections of roads, if any, should be paved or otherwise improved? Some residents believe that paving, widening, regrading or rerouting certain roads is desirable; others do not. Some residents believe that such changes are inevitable; others think the town can, and should, decide which roads we want to "improve" and which roads we want to leave tree-lined, narrow, and unpaved -- essentially unchanged for the foreseeable future.

What, if anything, can be done by the Town, to address the two most serious problem intersections? There is widespread agreement that the intersections of Lightning Ridge Road and of Marshfield Road with Route 14 are the most serious problems in town. However, because Route 14 is a State-Aid Highway, there is also the widespread belief that the Town has little or no ability to produce solutions, in whole or in part. This belief must be carefully and creatively re-examined. Are there signage or traffic flow measures that could be taken on town roads that would make the intersections safer? Are there signage, warning devices or other mechanisms that the town could encourage the state to put in place? Are there effective ways to influence and encourage the state to begin making whatever major improvements are needed?

What should the town's policies be towards Class IV Roads? As in the past, the upgrading and throwing up of Class IV Roads continues to be a topic of concern to town residents. There are varied views on whether, if ever, and under what conditions such roads should be upgraded. There seems to be much agreement that Class IV Roads should never be given up entirely. In the rare situations when there is good reason to terminate use as a road, the needs of future generations to have recreational trails require that, at most, such roads should be downgraded to town trails.

What other transportation related activities should the town engage in or encourage? While it seems unnecessary for the Town to put effort in this planning period into ideas for air, rail or other means of mass transit, it may not be too early for some exploration of how we might encourage car-pooling or ensuring that those without reliable transportation might be assisted.

Goal 1: Promote a safe, year round system of town roads.

Plan of Action:

- a. Take some action to address each of the major areas of conflict identified in the 1993 study of town roads: (i) the intersection of Route 14 and Lightning Ridge Road, (ii) the intersection of Marshfield Road and Route 14 around the East Calais Church, and (iii) the other major areas of conflict;
- b. In order to reduce the hazard to children and adults using the Calais Recreational Field on Route 14, petition the Regional Planning Commission and the Vermont Agency of Transportation to extend the 35 mph village speed limit to a point north of the recreational field parking lot entrance and to paint and maintain a pedestrian crosswalk from the general store to the opposite side of the road;
- c. Annually, the Road Commissioner will prepare a list of all significant road projects that might need to be undertaken with some indication of priorities.

Goal 2: Develop support systems for alternate forms of commuting.

Plan of Action:

- a. Identify and promote appropriate alternate transportation options, including the development of park and ride lots, van pooling and greater use of CVTA;
- b. Develop recommendations for alternative forms of transportation to be included in the Regional Transportation Plan.

Goal 3: Encourage preservation of scenic roads and their historic and aesthetic qualities.

Plan of Action:

- a. Inventory the town's scenic roads for inclusion in the Vermont Scenic Roads Program or protection through local ordinance;

- b. Develop policies and programs for the preservation and enhancement of town roads, such as programs to encourage the planting trees along appropriate stretches of town roads, as well as zoning, development and historic preservation guidelines that preserve and enhance the scenic beauty of town roads.

Goal 4: Develop capital improvement planning for transportation.

Plan of Action:

- a. Annually prepare the transportation element of the capital improvement and equipment plan that is consistent with the Town Plan and develop a budget to implement the plan;
- b. Significantly alter roads only after public hearing and a clear showing that the alterations are necessary.

Goal 5: Preserve and maintain Class 4 Roads and Town Trails as public rights of way and discourage their being upgraded for future maintenance at the town's expense while respecting the needs of residents on such roads.

Plan of Action:

- a. If the Selectboard, changes the class 4 road policy, it should consult with the Planning and Conservation Commissions prior to adoption;
- b. Identify and inventory all private roads.

Regulatory Guidance:

No new development may unduly burden the transportation system or worsen existing problem areas of that system.

C. UTILITIES/WATER/SEWER

ELECTRICITY AND COMMUNICATIONS

Introduction

Adequate and reliable electric and communication services are indispensable to a healthy and prosperous community.

Current Conditions

The vast majority of residents are served by three electric utilities although some form of alternative energy system powers a number of households. The Washington Electric Cooperative lines serve most of the town with single-phase distribution. Three-phase power is available along the County Road corridor up to the Maple Corner substation area and in the immediate vicinity of the Calais School. While the Coop has no plans to extend three-phase service to new areas, it is giving consideration to rebuilding some existing single-phase distribution circuits, depending on future load conditions. If and when these lines are rebuilt the Coop may try to relocate them closer to town highways to make them more accessible for maintenance and repair. The Coop believes that the inaccessibility of many lines that run through wooded areas away from roads has led to major delays

in restoring service following some storm related power outages.

Green Mountain Power serves the Route 14 corridor from East Montpelier to East Calais village and the Hardwick Electric Department serves a narrow area on either side of Route 14 from the Woodbury town line to just north of East Calais village. Neither Green Mountain Power nor the Hardwick Electric Department provide any three-phase service within Calais.

Efficiency Vermont, the statewide energy efficiency utility, provides an array of energy efficiency services. Under these "demand side management programs" electricity customers may receive a variety of energy efficient appliances and conservation services at reduced prices. These programs allow eligible customers to lower energy bills and the utilities to avoid purchasing expensive new power sources.

The telecommunications industry continues to change rapidly worldwide. New Internet, wireless and broadband services are enabling Calais residents the ability to "telecommute" and run home businesses more effectively and give us enhanced access to people and information from our homes, schools and businesses.

Issues

The town's ability to control developments in the area of telecommunications is limited because the state Public Service Board regulates public utilities. Nevertheless, the town may well be able to find ways to influence the decisions of service providers and could seek to work with utilities regarding any areas that are not being adequately served and areas of likely growth and development so that the utilities can take our concerns into consideration when they do system planning. The town should also participate in cases before the Public Service Board that affect the town, such as the location of electrical substations.

Location of utility poles can affect the scenic quality of an area and is of concern to Calais residents. Relocation of utility lines to the roadside raises issues of possible adverse impact to the aesthetic and scenic qualities of our rural back roads. Occasionally the power company erects a new pole and does not remove the old pole. In some cases, the telephone cable remains on the old pole and the electric service wire is moved to the new pole.

The absence of three-phase power in most sections of town may be a deterrent to business development. What, if anything, the town could do to affect the utilities decisions regarding both of these matters should explored.

Goal: To have electrical and communication service throughout the town adequate to meet the business and residential needs of the town in a manner that is sensitive to the existing natural beauty of the town.

Plan of Action:

- a. As the need arises, represent the town's general goals as expressed in the Calais Town Plan in actions before the Public Service Board and actions under Act 250 that significantly affect the town;
- b. Explore the possible ways the town could affect the provision three-phase power and of enhanced communication services;
- c. Continue to work with power companies on siting of poles;
- d. Work with the power and telecommunications companies to encourage maximum use of existing

utility poles and removal of unnecessary poles.

Regulatory Guidance:

No location or relocation of utility lines may have undue negative environmental or aesthetic impact, especially if lines are to be located alongside Calais' scenic roadways or in designated historic districts.

PUBLIC WATER SYSTEMS

Current Conditions

Any water system serving over 25 persons is regulated under the Safe Drinking Water Act as a public water system. East Calais Village is served by a public water system owned and operated by the East Calais Fire District #1. The elementary school system is also a public water system. The rest of Calais has individual or shared dug wells, drilled wells or springs. There is little data available regarding the adequacy or quality of the water from these individual or shared systems.

The East Calais system dates back to the early 1900's. In the 1940's the water system was sold to the proprietors of a local furniture factory who operated the system as a private Water Company until 1966 when the Fire District was formed.⁴ The water system currently serves approximately 51 connections. The system's source consists of a series of six springs located in an upland groundwater discharge area northeast of the Village.

Water quality is generally excellent and the springs have historically provided sufficient quantities of water but their actual capacity is not known. A 1993 engineering study concluded that the district's existing springs would meet the future needs to 2032, however during the dry summers of 2001 and 2002 the system was forced to ration water. Based on meter readings conducted as part of the 1993 study, the usage was approximately 10,000 gallons per day. Long term daily monitoring would be necessary to establish a better estimate of the reliable yield of the springs. Based on the current number of connections, State regulations require a reliable yield of 10,970 gallons per day. Therefore, the water system may not be able to receive approval for additional connections without further analysis of the yields of the springs. Between 1980 and 1990 the system grew by three new connections. Between 1990 and 2000 there have been no new connections.

Issues

A sufficient supply of potable water is critical to our community. Without it, new development cannot occur and existing development is valueless. In Calais, we rely almost entirely on groundwater for potable water and the most common threats to groundwater are from failed septic systems, agricultural runoff, leaking residential and commercial underground storage tanks, and the improper disposal of hazardous materials.

Because East Calais Village is served entirely by on-site septic systems, many of which are on small lots, the public water system serving the village is critical. The protection of the system's source springs from any contamination is, therefore, very important.

⁴ Fire Districts are special purpose municipal districts sanctioned by the state. They carry all the powers of a municipality, including the ability to tax the residents and properties located within the district boundaries. Town governments do not regulate and are not legally responsible for the actions of Fire Districts.

A strong and well-enforced sewage ordinance is crucial to the protection of all of the individual or shared sources serving the remainder of Calais. In light of the changes made by the Vermont Legislature in 2000 - 2002 session, Calais will need to review and update its sewage ordinance.

Goal 1: Support the continued operation of the public water system by the East Calais Fire District to insure public health and the future viability of the Village.

Plan of Action:

- a. Encourage and support public education efforts by the Fire District regarding importance of protecting the wellhead protection area;
- b. Support any efforts by the fire district to develop additional sources of water supply.

Goal 2: Protect all groundwater in town which is serving, or is reasonably expected to serve homes and businesses by individual or shared wells or springs.

Plan of Action:

- a. New commercial activities in town should be carefully reviewed to insure adequate setback from adjacent water supplies, adequate sewage disposal and adequate hazardous materials disposal;
- b. Enforce Calais' sewage ordinance, which requires that all new, modified or replacement systems meet the established standards;
- c. Review and if necessary, update Calais' sewage ordinance and Land Use and Development Regulations to ensure protection of its groundwater and surface waters as an uncontaminated, high quality drinking water source;
- d. Encourage residents to remove old underground fuel tanks.

SEWAGE

Introduction

Adequate disposal of sewage is critical to the protection of public health and our natural resources.

Current Conditions

Presently, all sewage in Calais is disposed of by individual, on-site systems. Calais adopted a sewage ordinance in 2000. The ordinance contains standards for septic system design as well as minimum site and soil standards. Inspection of new and replacement systems prior to covering is also required.

Since Calais adopted its ordinance, the State of Vermont adopted an on site sewage ordinance (Act 133) which establishes statewide standards for disposal. Under act 133 towns have until July 1st 2007, to plan for the implementation of the new state technical standards. The Planning Commission will need to review the law and possibly update Calais' ordinance in the next few years.

The State does not monitor for failed individual systems. Failures are usually only noticed by owners or neighbors. Other than some history of septic problems in Adamant village, noted in the records of the Barre DEC District Office, there is very little information available regarding the condition of individual septic systems in Calais. There is no record of sanitary surveys by the Department of Environmental Conservation based on a report of a sewage discharge to a stream.

Issues

The Resource Limitations and Zoning Districts Map indicates that large portions of Calais may be unsuitable for on-site septic systems due to slope or soil characteristics. (These limitations were experienced first-hand when the school expanded and encountered problems with approval of an on-site system. The system ultimately constructed and approved cannot be enlarged, severely limiting the ability of the elementary school to meet the needs of an expanding population.)

The lack of public sewer systems will lead to continued scattered, large-lot residential development within Calais. Future commercial or light industrial development opportunities for Calais will be extremely limited without availability of public sewer facilities.

In some areas of town there are apparently adverse impacts to surface waters from septic system leachate. This may be due to the expansion and conversion of camps to year-round residences and to the density of camps and village residences on small lots.

Goal: To ensure safe, adequate treatment of sewage for new and existing structures.

Plan of Action:

- a. The Planning Commission shall review the septic and zoning ordinances to deal with the implications of Act 133 before July 1st 2006;
- b. Any expansion or conversion to year-round use of structures located on the shores of surface waters must include a review of the septic system capacity, condition and compliance with design guidelines and appropriate standards;
- c. Prior to establishing any new growth center or commercial or light industrial district within town, feasibility of a public sewer and wastewater treatment facility for that area should be evaluated. Where the town determines such a facility not feasible, standards shall be developed;
- d. In existing areas of concentrated development, inspection of water supplies and septic systems should be encouraged and information supplied to residents promoting adequate care and maintenance of the septic systems. If contaminated water supplies or several failed septic systems are identified in such areas, community sewer and water systems should be considered.

D. LAND USE

Introduction

The land is the stage and source for all human activity. However, what the land can provide is finite and vulnerable. This is particularly true during periods of rapid growth and development. It is in Calais' long-term best interest to sensibly govern the use of land so that the land may continue to

provide opportunities for future generations. To accomplish this, the town encourages efficient and thoughtful growth and settlement patterns which take advantage of those lands capable of supporting development.

Land use in Calais has changed dramatically. Fifty years ago the town contained four small villages surrounded by working farms. Most land was under cultivation or used as pasture. Now, these farms have been replaced by residential development or by woodlands. The town is primarily a bedroom community with most of its residents working in Barre and Montpelier. Today, Calais continues to change and the goal of this section is to ensure that this change will occur in a way consistent with the desires of the Calais community.

Calais still possesses an attractive rural character despite the fact that the number of houses has more than doubled in the last 30 years. The town remains a patchwork of woods and fields with small villages. It is our goal to guide growth in Calais in a way that preserves this rural character while enabling a reasonable amount of growth and enabling landowners to realize a fair return for their investments in land.

Current Conditions

Land Use: The Town of Calais is located in Washington County in north-central Vermont. It is bounded by the Towns of Worcester, Woodbury, Marshfield, and East Montpelier and contains 26,240 acres of land.

The Town's landscape is still largely defined by a harmonious blend of forested hills, meadows, small villages, farmland, lakes and ponds and streams. In fact, Calais remains over 90% undeveloped and over 75% forested. The Land Cover/Land Use Map (can be seen in the town office) shows the current land use in town. It is this natural setting that is partly responsible for the character of our community. The landscape offers recreation, solitude, aesthetic pleasure, and economic opportunity to residents and visitors alike. Accordingly, judicious use of natural areas, surface and groundwater, flood plains, prime forest and agricultural lands, important wildlife habitats and other vulnerable resources is necessary. (See the Natural Resources Section of this Plan).

With just under 1,500 feet of topographic relief, Calais is hilly, but not mountainous. It is part of physiographic region known as the Vermont Piedmont - a plateau that has been eroded by streams and subdued by glaciation. Generally, slopes are moderately steep. From an elevation of about 700 feet along the shores of the North Montpelier Pond the land climbs to almost 2200 at Hobart Mountain in the northwest corner of Town.

The more fertile, lower elevations near Calais' streams and lakes have historically been the site of the most human activity. However, growth in Calais has been more widespread in recent decades. Settlement patterns are now expanding into upland areas, particularly along the upper County Road, Bayne's Road, Jack Hill and Lightening Ridge Roads. With the exception of the four villages, residential development is scattered throughout the Town, with growth extending linearly along all roads. Such growth is likely to continue if there are no incentives to alter the pattern.

Soils: The majority of Calais' soils belong to a group known as the Glover-Calais association. This group is comprised primarily of soils that have formed in upland glacial tills. They are usually on steep slopes with shallow depth to bedrock and are not suitable for most forms of development. They are generally better suited to forest production. Other upland soils occurring in Calais include the Lyman-Marlow-Peru and Calais-Buckland Associations. The former occurs in the highlands

along the eastern boundary of Town and is generally not capable of supporting development. The latter exists in several scattered pockets and is more favorable for development.

Windsor association soils dominate in the valley of the Kingsbury Branch. These soils were formed in water deposited materials along river and creek terraces and are deep, level and well drained. They are generally well suited to development and agriculture, although septic suitability may be a problem in excessively drained or flood-prone pockets. They are not good soils for forest production due to their sandy texture and low soil moisture. Hartland-Belgrade soils are similar to Windsor soils. They are good agricultural soils and are generally capable of supporting modest development. They occur along Pekin Brook and the Southern reaches of the Kingsbury Branch.

A small area of Peru-Marlow soils occur along Worcester Brook. These soils are generally deeper, with better drainage than soils of other associations. Peru-Marlow association soils could support low density use in some areas where it can be demonstrated that on-site septic systems are practical.

Along the Southern stretches of the Kingsbury Branch Hadley-Winooski-Limerick Soils occur. These soils are deep and level, but occur in areas subject to flooding. While problematic for development, they are generally favorable for agriculture. A small area of Muck and Peat-Peacham Association Soils occurs in the vicinity of Long Meadow Brook. They too, are deep and level, but too wet for development.

Forests and Farms: Agricultural and forestlands provide many benefits - economic, aesthetic, recreational, and environmental. Both land uses provide habitat for game and non-game wildlife, area for flood water storage, watershed protection, scenic vistas, open spaces for a variety of outdoor pursuits, and increased self-sufficiency as local sources of food, wood products, and energy. In addition, these lands play an important part in Calais' economy, providing many jobs.

According to a 1981 survey⁵ of the town's 26,240 acres, 75% or approximately 19,680 acres at that time were forested. In recent decades, the percentage of the forestland has grown while agricultural land has been lost⁶. Today, 5 dairy farms remain although Calais residents raise and sell horses, beef, lambs, poultry, eggs, garlic, blueberries, flowers, Christmas trees, vegetables and other products. In addition, the consumer demand for organic foods is increasing the economic potential of small family farms that choose to farm sustainably and organically. This trend has the potential to increase the number of acres of Calais farmland in production.

A variety of development and economic forces are threatening our ability to maintain farming and forestry as important and traditional uses of our land. Agricultural lands are particularly vulnerable to encroachment and conversion because they are generally level, cleared and on good building soils. Fortunately, Calais appears to have many landowners committed to the preservation and good management of their resource lands. This is demonstrated by the high participation in Vermont's Use Value Appraisal Program and the deeding of conservation easements to the Vermont Land Trust. The Use Value program provides that landowners, who choose agriculture or forestry as long term uses of their property may have that land taxed accordingly. In 2000, 104 parcels totaling 10,770 acres (or 41% of the town's total land area) are in the program. In addition 9 landowners have deeded conservation easements on 1,523 acres to the Vermont Land Trust.

⁵ Forest Resource Estimate for Washington County, Vt. Department of Forests, Parks and Recreation, 1981

⁶ The Report of The Calais Agricultural Study Committee 2002.

Both the town's Tax Stabilization Program and the State's Use Value Appraisal Program have been important factors in enabling farms to stay in business and owners of former farms and open land to avoid development pressure due to high property taxes. The Use Value Program is effective for this purpose, although the Homestead tax, which is exempt from the Program, can impose a burden on large landowners. The town tax stabilization program has diminished in importance over time because the town has not updated the restrictive requirements for participation in the program to reflect the changing circumstances of farming in town.

The town also has not taken full advantage of other strategies available to promote long-term farm viability and to aid landowners in more capable long-term planning. The Agriculture Tax Force established by the previous Town Plan identified two such strategies: Purchase of development rights and the establishment of "buy-local" programs. Other strategies include a combined tax stabilization and business planning program, and the provision of intergenerational and estate tax counseling made available through grant funding. The Agricultural Task Force cataloged the town's significant agricultural properties, both those that are currently used for farming operations and those which have potential for farming. It is our hope that this information will help us to identify and use some of these creative strategies to preserve and use our best farmland.

Floodplains: The 100 year flood has been adopted by the Federal Insurance Administration as the base for floodplain management. The 500-year floodplain indicates areas of lesser flood risk, but it is still in a zone of potential hazard. Calais' principal flood hazard zone occurs along the entire length of the Kingsbury Branch Valley. Some of the smaller tributaries are also subject to flash flooding. The most frequent flooding occurs in early spring as a result of snow melt and heavy rains, but flooding has historically occurred in every season. Flooding has also occurred as a result of ice jams, heavy thunderstorms, hurricanes, and debris collection.

Encroachment by development on floodplains reduces their water storage potential, increasing flood levels and thus damage to downstream areas. In addition, development of these areas and the resulting effect on floodplain mechanics is disruptive of river ecology. Finally, the economic benefit of locating a structure in a flood hazard zone is usually outweighed by the risks of damage to or destruction of that building.

Through its participation in the Federal Flood Insurance Program, Calais has acknowledged the functional importance of its flood prone areas. This Program provides flood damage relief to communities foresighted enough to enact ordinances regulating floodplain plan land use.

Goal 1: Open Land

- a. Protect agricultural soils of outstanding quality so they are neither built upon nor permanently excluded from the production of food and fiber;
- b. Thoughtfully use land which is not built upon and which is not necessarily outstanding agricultural or forest soils in order to maintain the quality of our rural landscape, conserve the town's water and wildlife resources and hold property taxes to an acceptable level;
- c. Maintain the viability of the town's agriculture and encourage a diversity of agricultural uses.

Goal 2: Historic Preservation

Preserve recognized historic sites, structures, and districts, consistent with their historic character

Goal 3: Residential Growth

Promote residential development in or near existing village settlements which harmonizes with the physical constraints of land forms and soil capabilities and preserves agricultural soils and open space.

Goal 4: Woodlands

- a. Protect high quality woodlands so they can continue to be a source of logs, pulpwood, and cordwood;
- b. Promote sound management of other woodlands in order to provide wood products, clean water, wildlife habitat and recreation.

Goal 5: Wetlands and Water Resources

- a. Protect wetlands so as to preserve their ability to moderate floods, reduce water pollution, and provide essential habitat for fish and other wildlife;
- b. Protect lakes, streams, flood plains and groundwater to insure potable water supplies as well as good fishing and safe swimming now and in the future.

Goal 6: Natural Areas

Protect areas containing rare, remnant or unique species of flora or fauna for the use and enjoyment by future generations and for the preservation of biological diversity.

Goal 7: Scenic Areas

Protect the rural character of Calais through identification and protection of scenic areas including open spaces, ridgelines and the working landscape.

Goal 8: Agricultural Land

- a. Promote the long-term viability of existing and potential farming operations in town;
- b. Assist with long-term land use planning by landowners of significant properties in town.

Goal 9: Continued Study

Ensure that the Calais community will continue to work to understand the forces that are changing our town and causing growth so that we can control or, at least, guide them.

General Policies and Regulatory Guidance

Soil Conditions

Compaction of soil near shorelands reduces the ability of the soil to attenuate water from septic systems or surface runoff from impermeable surfaces such as driveways. Therefore revision to the Zoning Ordinance shall contain setback and vegetative buffer requirements suitable for each variety of shorelands (e.g., a flat shoreland may require a smaller setback than a very steep shoreland).

Accessibility

Any permanent land use development must have access to the existing town highway network of class 2 and 3 roads. Areas that are inaccessible because of excessive slope or other topographic features are excluded from permanent development. A developer receiving permission from the town to extend the road system in order to make inaccessible land accessible shall, at the developer's expense, build a road that is at least up to class 3 standards. However, this policy shall not obligate the town to accept a developer's proposal to deed a road to the town. As it has been for the last eleven years, it shall continue to be the policy of Calais not to accept new roads or to upgrade class 4 roads unless there is great benefit to the town from such action.

Pre-existing Lots

Any non-affiliated lot created prior to October 24, 1973, which is smaller than that allowed in the zoning ordinance for development, may be developed for the purposes permitted in that zoning district provided that the development meets the town's general land use conditions and sewage disposal requirements.

Rural Character

Whenever possible, the rural character of Calais is to be preserved. Rural character means the historic development pattern of densely built village centers clearly delineated from the surrounding low density rural residential area. The village centers should contain residences as well as businesses and public buildings (grocery stores, hardware stores, service stations and recreational facilities) sized to provide services to the Calais community. The rural residential district should contain open spaces, farms and forests as well as residences, home based businesses and a few small scale commercial and industrial establishments built in a way that is in scale with and respects the scenic rural character and working landscape of Calais.

Therefore, those designing new development outside the village must attempt to site buildings at the edges of open spaces and below ridge lines and to site road access so that a minimum of open space is consumed and road entrances are shared where possible. Large scale residential, commercial or industrial development is not consistent with the rural character of Calais.

Planned Unit Development and Planned Residential Development

Definitions: Planned residential development (PRD) means development of an area of land controlled by a landowner as a single entity for more than one dwelling unit; the plan for which does not correspond in lot size, bulk, or type of dwelling, density, lot coverage and required open space to the regulations established for any district or districts in which such land is situated.

Planned unit development (PUD) is the same as a PRD except that the proposed development also includes commercial and industrial uses and, in addition to the standards listed above, the plan may not correspond in commercial or industrial use established for any district or districts in which such land is situated.

Purpose of PUDs and PRDs:

PUD and PRDs may be established in any zoning district provided that they:

- a. Take advantage of land areas suitable for clustered building sites and preserve land areas not suitable, or less suitable, for development;
- b. Integrate commercial or industrial uses with appropriately clustered residential use, and separate them from agricultural lands, wetlands, shorelands, streams or from the view from public highways or recreation areas.

Conditions for Approval: All PUDs and PRDs shall be subject to approval, with appropriate conditions, or disapproval by the Development Review Board after public hearing. PUDs and PRDs shall meet the following criteria:

- a. The development shall not fundamentally alter the land use character of the district in which it is located;
- b. The development shall be planned to prevent soil erosion and contamination of ground and surface water, or damage to wildlife habitats and unique natural areas;
- c. The agricultural, forestry, recreational or scenic value of any agricultural lands, open spaces, ridge lines or prime woodlands shall be preserved to the maximum extent feasible;
- d. To the maximum extent possible, the architectural, landscaping, siting and access characteristics of the development shall be consistent with the rural character of the town and the surrounding area;
- e. The development shall not create undue burdens on the traffic and roadway system of the town or other municipal services.

Land Use Districts and Overlay Districts

Village District: The purpose of the village district is to support the role of the villages as the foci of social, residential and some economic activities of Calais. The village should contain relatively high density residential development as well as businesses and public buildings sized to provide services to the Calais community and environs and compatible with the needs of the town. Lot sizes should be as small as possible provided that sewage and water needs can be accommodated. However, the soils and the lack of sophisticated sewer and water systems do not enable the kind of village density that we might like to encourage. As septic technology develops these areas should be developed more densely than current soil conditions allow.

Buildings in the village district should be built at a scale and orientation that is compatible with current development in the village. Multi-unit residential and non-residential development may be permitted as conditional uses if the board of adjustment is assured that the general land use conditions will be satisfied. Such development, including any associated lights and signs, should be scaled and in keeping with the traditional social and physical character of the village.

Plan of Action

1. Reduce village district standards in the zoning ordinance to allow greater density in the villages;
2. The Planning Commission should keep informed about new sewage treatment systems that would allow greater density development in the village districts.

B. Rural Residential District: The purpose of the rural residential district is to provide for development of residences and home businesses in ways that minimize impact on open spaces, ridge lines, wetlands, wildlife habitat, prime woodland and agricultural soils, ecologically sensitive areas and scenic areas. To this end, development should be clustered at the edges of open spaces and agricultural lands in a way that leaves the open land available for farming or recreational uses. Development should be below rather than on ridge lines in order to protect the scenic quality of our

rural landscape. Driveways should be shared when possible and located close to edges of open spaces to minimize visual impact, erosion and entrances onto the public road. Buildings should be oriented to the road to maintain the historic development patterns in Calais. Large buildings and parking lots, which are not in keeping with the scale of development in Calais, are allowed only when screened to minimize visual impacts.

Development in the rural residential district shall continue to be permitted at an overall density of one unit per three acres. Some non-residential uses will be conditionally permitted if the Development Review Board is assured that the general land use conditions will be satisfied.

Plan of Action

The Planning Commission will consider developing a proposal for a Scenic Areas Overlay District.

It should begin by using the techniques described in Vermont's Scenic Landscapes: A Guide for Growth and Protection to inventory Calais' scenic areas and scenic roads and to rate them in order of scenic value. Then, if the commission determines that such a district might be a good idea, it will take the proposal to the community to determine if the town wishes to consider further refinement of the ratings and adoption of a district or other mechanism for maintaining scenic landscapes or roads in Calais.

Resource Recreation District: The purpose of the Resource Recreation District is to protect the natural resource value of those lands which are essentially undeveloped, are important because they contain wildlife and wildlife habitat, could have high potential for commercial forestry use or other extractive enterprise, are unsuitable for commercial, industrial or agricultural development, or are necessary to protect groundwater and aquifers, a fragile ecology or significant natural recreational or scenic resources. Low density residential development of no more than one family unit per 10 acres will be permitted. Limited outdoor recreation, conservation and forestry uses will also be permitted. No additional class 2 or 3 highways will be built in this district.

Upland District: The purpose of the upland district is to protect sensitive and remote upland areas from the adverse effects of inappropriate or high-density development. These areas are generally characterized by steep slopes, rock outcrops and shallow soils, and include important headwater and aquifer recharge areas, large tracts of unbroken wildlife habitat, valuable timber and recreational land, and scenic hills and ridgelines. The district includes all areas over 1500 feet elevation above mean sea level.

Only agriculture, forestry, public parks, and some uses of residential buildings such as home child care shall be permitted without review by the Development Review Board. Residential and seasonal dwellings, home industry and a few other low impact uses will be conditionally permitted if the Development Review Board is assured that the development will have minimal impact on this sensitive area. Development in the upland district should be at an overall density of one unit per 25 acres.

Shoreland District: Our lakes and ponds are valuable and irreplaceable resources. In the water resources section of the natural resources element of this plan, one of the goals is to preserve the water quality of the town's open waters sufficient for swimming and the support of aquatic life. To this end, the Shoreland District is designed to reduce pollution and over-development through safeguards such as set back and vegetative buffer requirements and measures to minimize soil compaction and the creation of impermeable surfaces. This district consists of an 800 foot distance from the shoreline (normal mean watermark) of all lakes or ponds 20 acres or more (Bliss Pond, Curtis Pond, Nelson Pond, North Montpelier Pond, Mirror Lake or Number 10 Pond, and

Woodbury Lake). The distance may vary in either direction in order to utilize landmarks such as roads or ridges to clearly delineate the district. Residential development of no more than one unit per three acres will be permitted in the district.

Plan of Action

- a.Redraw the shoreland district boundaries so that easily identifiable landmarks are used to identify the district's boundaries;
- a.Develop setback and vegetative buffer requirements suitable for each variety of shorelands (e.g., a flat shoreland may require a smaller setback than a very steep shoreland);
- a.Propose zoning regulations to minimize soil compaction and the creation of impermeable surfaces in the district.

Design Control District Overlay: The Design Control District has been in place since 1976. The guidelines have not been revised in 27 years and need to be reviewed and updated. The Town has recently created an Historic Preservation Commission to inventory historic resources and recommend policies to the Selectboard. One of the first duties of the commission should be to review and revise the Design Control District Guidelines. The language of the last plan regarding this district is incorporated into this town plan without change as follows:

The purpose of the Design Control District is to ensure the protection of the historic and architectural integrity of the Kent's Corner - Old West Church Historic District. This area is regarded as an important asset both to the town and the state. Much of the design control district is included in the Kent's Corner Historic District listed in the National Register of Historic Places. The district was added in 1979 to the Vermont Historic Sites and Structures Survey administered by the Vermont Division for Historic Preservation.

The district was initially created under the provisions of 24 V.S.A. § 4407(6) by an amendment to the town of Calais zoning regulations passed at the 1976 town meeting. In establishing this district, the town provided that the Planning Commission would "have the authority of prior approval of plans of any land development within the ... district", and that such land development or commercial uses would be permitted only if they did "not adversely affect the historic, rural, and scenic character of the district." The "Design Control Plan" for the district was revised on October 10, 1976, setting forth a design plan for the area, including recommended planning and design criteria to guide development and establishing, under the statute's provisions, a design review board. The design control district guidelines were revised and adopted by the Planning Commission on April 4, 1989.

The design control and review requirements of the Town of Calais Land Use and Zoning Ordinance of 1986 and the Design Control Plan of 1976, including any subsequent revisions, are hereby incorporated in this town plan. In addition to the restrictions placed on the broader land use districts within which the design control district is located, the design control plan shall be implemented by:

Plan of Action

- a.The Historic Preservation Commission shall work with Calais residents to review and revise the Design Control District Guidelines;
- b.The Development Review Board shall continue to utilize the design review board. "The Calais Design Review Board shall have not less than three nor more than five members. Members must be residents of the town of Calais and a majority shall be residents of the historic district. Members shall be selected based on some combination of the following: interest in the town of Calais; knowledge of architectural design; familiarity with the historic era represented by the district. The members shall be appointed by the Selectboard with the

advice of the Planning Commission." (Calais Design control district Guidelines, Section IV, parts B and C and the first sentence of part D) The purpose of the Design Review Board is to advise the Development Review Board on both the content and application of the design control plan;

- c. The Planning Commission and Design Review Board shall encourage and assist, as much as is feasible, the efforts of town residents who seek nominations to the national Register of Historic Places for additional districts and individual structures.

Flood Hazard District Overlay: Certain areas of town have been mapped by the National Flood Insurance Program as in danger of flooding at least every 100 years. The maps are available at the town clerk's office. Development in these areas shall be designed and constructed to minimize the potential for flood damage.

Plan of Action:

The Planning Commission shall revise the application for a zoning permit to ensure that each applicant reviews the National Flood Insurance maps and checks off whether the proposed project is in a flood hazard area

E. NATURAL RESOURCES

Introduction

Natural resources include the plant, animal, aquatic, geologic, mineral and scenic resources in the Town of Calais. Many of these natural resources have a crucial role in the quality of our lives, our children's lives and those of future generations.

Calais has an abundance of natural resources. Almost three quarters of the Town is forest that provides a variety of benefits to residents: income from forest products; habitat for wildlife species; recreational opportunities for residents; and clean water by filtration of surface waters and recharge of groundwater aquifers. Plentiful wildlife also provides many benefits to the people of the town. Some people enjoy hunting and fishing; some enjoy watching and tracking animals. Many enjoy just knowing that we are sharing the town with other living creatures. In town, there are several identified "natural areas" which are known to contain rare, threatened or endangered species of plants or animals or are considered, for other reasons, to support significant natural communities of plants or animals. There are several ponds and associated streams that provide opportunities for water recreation, wildlife observation and peaceful contemplation. Currently, our groundwater is plentiful, accessible and potable. The town also has the physical geography and human development patterns that make it a scenic place to live.

Current Conditions

Lakes, Ponds and Streams: Some fifteen ponds of five or more acres are contained within, or partly within, the Town. The largest are Bliss Pond (46 acres), Curtis Pond (103 acres), Number 10 pond (77 acres), Nelson Pond (131 acres), and North Montpelier Pond (53 acres). Many of the ponds are accessible to the public and provide recreational opportunities in the form of swimming, fishing, canoeing, boating, and wildlife observation. Recognizing their importance, Calais has adopted shoreland zoning to protect the aesthetic and ecological qualities of its lakes and ponds. The Calais Conservation Commission initiated a study of the Calais Lakes and Ponds in 2002.

Calais has numerous streams and brooks. The Kingsbury branch is the most significant, traversing

the Town, from north to south. Other noteworthy streams are Pekin Brook, Dugar Brook, Still Brook, Carr Brook, Worcester Brook, Long Meadow Brook, and Beaver Meadow Brook. All of these are in the Winooski River Watershed and all of them have been designated by the State as "Class B" waters based on a 1988 study by the Agency of Natural Resources (ANR), Department of Environmental Conservation. Class B streams should "consistently exhibit good aesthetic value and provide high quality habitat for aquatic biota, fish and wildlife" and should be suitable for use as a public water supply with filtration, for irrigation and agriculture, and for swimming and recreation.

Wetlands: Wetlands are inhabited by a unique variety of plants and animals and purify surface and groundwater, store floodwaters during wet periods and replenish water supplies in dry weather. Wetlands are also important for the survival of waterfowl and other birds, mammals and fish. Wetlands are often threatened or destroyed by building and other human activity. While there are many wetlands in Town that show up on the federal wetland inventory maps, there are fifteen surveyed wetlands in Town. They are:

Hawkins Pond	Little Mud Pond
Blue Pond	Curtis Pond
Nelson Pond	Watson Pond
Wheelock Pond	Bliss Pond
Number 10 Pond	Sodom Pond
Woodbury Lake	Chickering Bog
Little Pond	North Montpelier Pond
Bliss Pond Cedar Swamp	

In addition shrub swamps form an important wildlife corridor along the Kingsbury Branch and Pekin Brook.

Groundwater: The protection of our groundwater resources is crucial. The community is dependent on underground sources for domestic water supply. Pollution or significant depletion of groundwater aquifers would be a hardship for many years to come and would adversely effect streams and aquatic biota.

Major groundwater deposits in the region are most often found in areas underlain by stratified drift deposits (permeable sand gravel of glacial origin) along watercourses in valley areas. In Calais, the areas of greatest potential yield occur along the length Kingsbury Branch and Pekin Brook.

Vital to the protection of groundwater resources is the proper use of recharge areas. Aquifer recharge areas contribute to subsurface supplies and consists, not only of the land area directly above the aquifer through which precipitation percolates, but also of upland areas from which runoff drains towards the aquifer. Because land uses which have the potential for spills of toxic substances may pollute the groundwater aquifer, the regulation of land uses in recharge areas is necessary for aquifer protection.

The Land Use map associated with this plan shows the wellhead protection areas (WHPA) in town that have been designated by the State. Vermont's groundwater protection law (10 V.S.A., Chapter 48) sets forth general policies for WHPAs and the ANR's Water Supply Division has published recommended land use guidelines for WHPA's. It is the policy of the Town that such policies and guidelines be followed.

Mineral Resources: Historically several quarries operated in Adamant. These yielded granite, quartz, epodite, apatite, calcite, graphite, limite, and zircon.

Although there haven't been any active quarries in town for many years, a wall stone quarry off the County Road has been granted all the necessary permits to begin operation in the spring of 2003. There are also a few sand and gravel extraction operations existing along Route 14 in the northern part of town.

Sand and gravel deposits in Calais are glacial in origin and generally follow the courses of streams and rivers. While these deposits may yield important and needed materials for road and building construction, Calais' coincidental development patterns render their extraction a matter of some sensitivity. In addition, it is important that care be taken in the siting and operation of development so that future extraction of resources is not foreclosed.

Wildlife Resources - Critical Wildlife Habitat: Viable habitat is the single most important survival need for many species. Residents value native wildlife for a variety of reasons - hunting, aesthetic appreciation, and indirect income. The most important wildlife species are generally thought to be those which yield significant economic returns, provide for sport and subsistence hunting, are symbolic of wilderness values, or face the threat of extinction.

White-tailed deer wintering ranges and Black Bear production zones which have been identified and mapped by the Vermont Fish and Wildlife Department are critical habitat. So are vernal pools and other areas necessary to support the food, shelter or breeding needs of rare, threatened or endangered species. Winter deer ranges are generally located in coniferous stands in valleys offering food and relief from icy winds and deep snows. These areas are often desirable sites for development. Calais contains many "deer yards", the largest of which runs parallel to Route 14 for nearly its entire length in Town.

A small area in the extreme northeast corner of town has been identified as a "black bear production zone". Other areas in the northeast and northwest corners have been designated as "seasonal habitat" for bears.

Natural Areas: A natural area is an area of land or water that retains or has reestablished its natural character and retains unusual or significant flora, fauna, geological features or similar features of scientific interest. Such places, often remote, quiet and beautiful, are of great, but unquantifiable value to local residents and visitors.

There are currently six natural areas identified by the state Agency of Natural Resources within Calais which are known to contain rare, remnant or unique species of flora and/or fauna. These areas are:

Chickering Bog
Little Mud Pond
Curtis Pond
Watson Pond
East Hill Wetlands
Bliss Pond
Cedar Swamp

Public Lands: The Town of Calais owns three forest lots comprised of approximately 154 acres. The Conservation Commission completed forest management plans and inventory reports in 1985 on the Bliss Pond and Chapin lots, completing, in part, the recommendations for the Town's forests set forth in the 1983 Town Plan. The Conservation Commission will complete an update of the forest management plans by 2003.

The Bliss Pond lot is the largest of the three lots covering approximately 120 acres and is bounded by the County Road, Bliss Pond Road, West Church and Kent Hill Roads. In 2001 a 1.5 acre parcel was acquired by the Town of Calais to provide public access to approximately seven hundred feet of bliss pond shoreline and protect the natural values of this shoreline. This lot is primarily northern

hardwood and hemlock-hardwood forest. Parts of the lot are mapped as deer yards. This parcel contains a significant northern white cedar swamp with rare plants and an important vernal pool.

The Chapin lot covers approximately 29 acres and is situated in the approximate center of a tract of land bounded by George Road, Lightening Ridge Road, Route #14 and the Pekin Brook Road. It has a wetland area of between two and three acres that the management plan recommends be maintained as a wildlife habitat. The lot includes calcareous cliffs and a rich northern hardwood forest.

The Gospel Hollow lot covers approximately 19 acres and is situated along the east side of Pekin Brook Road at the intersection of Kent Hill Road (Gospel Hollow). The old town garage was removed from this lot in 2002.

Issues

The Planning Commission believes that Calais residents agree that these natural resources should be conserved. However, there are issues on which there is disagreement. How much, if at all, should resources which are privately owned be protected through regulation? How much of each resource is appropriate for the town? How best can the town, as government or as individuals, preserve and protect the resources that are deemed worthy of protection?

This Plan does not try to answer all these questions. It has set some goals that are believed to be consensus goals at this time and to represent current policy of the town; it also sets out procedures for achieving those goals, to some extent, and for resolving some of the remaining questions related to them.

FOREST RESOURCES

Goal 1: Attain sound management and stewardship of all private woodlands in town

Plan of Action:

- a. The Conservation Commission will develop measures to encourage the conformance of all forest harvesting operations in town to the state's Acceptable Management Practices;
- b. The Conservation Commission will establish a way for the town to officially recognize persons who set an example of good management and stewardship of woodlands.

Goal 2: Manage the town forests so as to provide residents with the maximum recreational and educational opportunities consistent with a healthy and productive forest and so as to be an example of sound woodland management

Plan of Action:

- a. The Conservation Commission shall periodically inventory each town forest lot, and update the management plan for each town forest;
- b. The town should look into establishing nature trails in each town forest.

WILDLIFE RESOURCES

Goal 1: Identify, protect and maintain areas of critical habitat for deer, bear

and moose

Plan of Action:

- a. The Conservation Commission shall identify and rank significant areas in town of critical habitat for these species;
- b. The Conservation Commission shall establish measures to: (1) regularly contact landowners (and lessees) whose land contains significant areas of critical habitat for deer, bear and moose; (2) make them aware of the resources on their property; and (3) provide them with information on habitat management techniques.

Goal 2: Identify, protect and maintain areas of critical habitat, for other important wildlife species

Plan of Action:

The town should identify any other important wildlife species that it wants to maintain and, then, identify and rank significant areas in town of critical habitat, including vernal pools, for other important wildlife species.

WATER RESOURCES (SURFACE WATERS)

Goal 1: Have the water quality of all of the town's open waters sufficient for swimming and the support of aquatic life

Plan of Action:

- a. Establish buffer zones around all open waters sufficient to protect them from contamination (See the recommendations under shoreland district in the land use section);
- b. As soon as practical, ensure that the water quality of each major pond and stream in town is monitored regularly;
- c. Encourage septic system surveys on lakes and ponds used for swimming.

Goal 2: Preserve the present level of the lakes and ponds in town

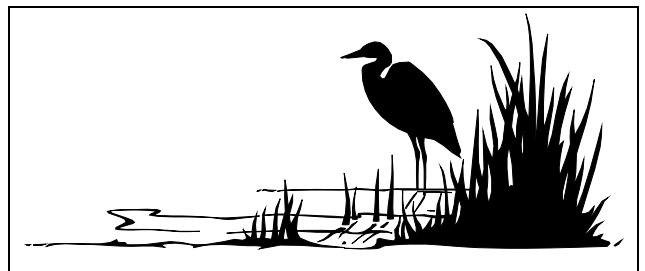
Plan of Action:

- a. As soon as practical, determine who currently has the responsibility to maintain and repair the major dams in town and ensure that all such dams have been inspected;
- b. Investigate options for obtaining necessary repairs and continuing maintenance of each dam;
- c. Improve our understanding of the natural values and threats to Calais' lakes and ponds through the Calais Lakes and Ponds Study initiated in 2000.

Goal 3: Preserve existing wetlands

Plan of Action:

The town should explore the possibility of evaluating and correcting the state's maps that delineate the town's wetlands for the purpose of helping the zoning officer, and the Development Review Board with state and federal wetland regulations.



WATER RESOURCES (GROUNDWATER)

Goal: Maintain the quality of groundwater sufficient for use as drinking water

Plan of Action:

Consider whether measures such as adoption of town ordinances that regulate fuel storage tanks, and land application of sludge, are necessary to achieve this goal.

SCENIC RESOURCES

Goal: Preserve the important scenic resources of the Town

Plan of Action:

The Planning Commission should consider developing a proposal for a scenic areas overlay district.

It should begin by using the techniques described in Vermont's Scenic Landscapes: A Guide for Growth and Protection to inventory Calais' scenic areas and to rate them in order of scenic value. Then the commission should take the proposal to the community to determine if the town wants further refinement of the ratings and eventual adoption of techniques for maintaining scenic landscapes.

EARTH RESOURCES

Goal: Identify the Town's Earth Resources

Plan of Action:

The town should inventory the earth resources (gravel, slate, granite, etc.) available in town and develop ideas to promote the sound use and management of them and to ensure that their future availability is not compromised.

AGRICULTURAL RESOURCES

Goal: To improve the viability of the town's existing farms

Plan of Action

The Planning Commission will develop strategies for the town to support the long-term viability of existing and potential farming operations in town and to assist with long-term land use planning by landowners of significant properties in town. These will include update and revision of the town tax stabilization program, possible revisions to the current use program to minimize the impact of the homestead tax, purchase of development rights, a buy-local program, and a farm viability business planning and intergenerational transfer counseling assistance program.

Regulatory Guidance

Subdivisions and developments, under Act 250, and major subdivisions and conditional uses, under town ordinances, shall:

- a. Use techniques such as clustered housing to protect natural resources and farmland if reasonably feasible;
- b. Not adversely impact wetlands, important natural areas, or viable farmland;
- c. Be designed and landscaped to minimize significant impacts on scenic areas and identified historic resources;
- d. Be designed and maintained to minimize significant impacts on water resources and critical wildlife habitat.

F. HISTORIC RESOURCES

Introduction

An important part of the character of Calais is our heritage. That heritage influences and contributes to the physical, social and personal landscapes in which we live. While the present must not be focused solely on preserving the past, efforts should be made to retain evidence of our heritage for ourselves and for future generations.

Current Conditions

The 1979 Vermont Historic Sites and Structures Survey for Calais lists 87 sites and structures as "historic". Nineteen of the buildings (1-19) are found in the Kent's Corner Historic District and are included on the National Register of Historic Places. However, many other sites evidencing our past exist throughout town -- cellar holes, foundations, bridges, stone walls, quarries, dams, abandoned roads, remnants of orchards or gardens, old trees, our six town cemeteries and much more. The vast majority of this evidence of our past has not been inventoried, described and evaluated.

On May 18, 1973, the Kent's Corner Historic District and Old West Church were entered on the National Register under the provisions of the Historic Preservation Act of 1966, following designation by the State as an historic district.

The present zoning ordinance specifies a Design Control District. The District was created at the 1976 Town Meeting and establishes design standards and design review procedures for structures, modifications of structures and certain other work within the District.

In addition to the Kent's Corner-Old West Church Historic District, the Vermont Historic Sites and Structures Survey for Calais also recommended historic districts at Maple Corner, North Calais, and East Calais. These, however, have not been nominated for entry on the National Register.

Issues

Should the town designate one or more additional Design Control Districts or enlarge or modify the present one? How can we best inventory our remaining historic heritage, encourage its voluntary preservation and increase public awareness of our historic heritage?

Goal 1: Prevent undue impact on important historic sites and their surroundings

Plan of Action:

- a. Examine current requirements and procedures to determine if they should be improved;
- b. The Historic Preservation Commission should hold a hearing on whether to expand or modify the district or designate additional districts and make a recommendation before the end of this plan.

Goal 2: Inventory and evaluate the other historic sites, determine which are important to preserve and find ways to encourage their preservation

Plan of Action:

The Historic Preservation Commission should begin an inventory and evaluation of the remaining historic sites in town, develop a plan to encourage their voluntary preservation and present it to the community for discussion.

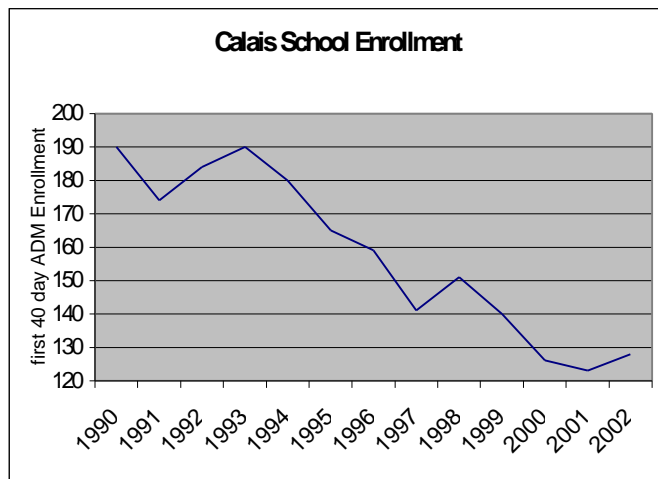
Regulatory Guidance

- a. The design control requirements of the Town of Calais Land use and Zoning Ordinance are incorporated into this plan and no development should occur in the Design control District that is inconsistent with those requirements.
- b. Any development in town must not have an unnecessary adverse impact on historic resources on site or in the immediate vicinity. This means that to the extent that such adverse impacts can be simply avoided, they must be.

G. EDUCATIONAL FACILITIES

Enrollment at Calais Elementary School:

1990	190
1991	174
1992	184
1993	190
1994	180
1995	165
1996	159
1997	141
1998	151
1999	140
2000	126
2001	123
2002	128



Source "First 40 day ADM numbers"

Enrollment at Calais Elementary School has declined precipitously from its all time high in 1990. The decline appears to have reached a plateau, and projections for the near future (the next 5 years) maintain enrollment at its current level.

The school facility was last renovated in 1990, enabling it to serve an estimated capacity of 200 students. Since enrollment is considerably lower, the school has excess capacity. Some of the extra school space has been filled by expanded programs. The school now supports a preschool and foreign language instruction. Both have dedicated rooms. So while the number of children in each room is fewer, more rooms are being used. The school board's current policy is to maintain a

maximum student teacher ratio of 18:1 in the pre-K through 3rd grades, and a ratio of 20:1 in the upper grades. In 2002, the overall school ratio will be 15:1. The physical facility is in excellent shape.

Calais is currently operating as part of a six town, seven school, three year federal Community Connections grant. The grant encourages community building through the schools by offering after school, evening and summer programming for all community members. The goal is to make the schools centers for their communities. The grant is funding many popular activities that meet this goal. To what extent these activities will persist after the grant expires is unknown, but if present trends are extrapolated into the future, the school should become a more popular meeting and activity place. In addition, the building of a new playground, scheduled for completion for the 2002 school year, will also attract community kids and parents. In recent years Calais students playing team sports have reached the playoff level several times. Sports always draw parents and families to the school, as well as to the East Calais recreation field.

In addition to the school's use as an educational and recreation facility, many groups and organizations within the community use the building for meetings. These include Community Connections classes: yoga, dance, photography, arts and crafts, dog training, computer usage, Scouts, Planning Commission, some political parties, sports sign-ups, basketball groups, parenting groups, and others.

U-32 Junior-Senior High School

U-32 has just completed a 3-year, \$15 million renovation project. The school is now safe and attractive.

Enrollment at U-32 has begun to decline. The decline is gradual. Three of U-32's feeder schools (Calais, Middlesex and Worcester) are experiencing declining enrollment, and those declines will pass through to U-32. As a result, the new facility is not likely to be outgrown for many years.

The vision statement for the Washington Central Supervisory Union (WCSU) states:

WCSU is a community of learners – adults and students working and learning together to create a teaching and learning environment that reflects a deep optimism in the competence, compassion, and integrity of our students as they prepare for their role in the larger world. Our vision is one of equity, evidenced by students' attainment of the standards, and of excellence, evidenced by students' passionate pursuit of knowledge in programs of distinction.

The programs of distinction referred to in this vision statement refer principally to those at the high school level. The supervisory union would like to see U-32 be a school known for distinctive programs in the arts, language arts, and the environment.

Issues

The Calais elementary school has adequate facilities, except for some storage space need, for the foreseeable future. However, if Calais were to experience a dramatic population increase or change that necessitated expansion of the school, we would need to consider a different site because there is little room for expansion on the existing site. The community would need enough time to consider its options and make a plan.

Goal 1: Insure that we are prepared to handle future elementary school growth

Plan of Action:

Each year the Calais school board shall set a number as the capacity of the school, state the school enrollment and declare how much unused student capacity is available and project those number for the next two years.

Goal 2: The school board will continue its policy of encouraging interaction between the school and Calais community and of making school resources available to community members

Plan of Action:

- a. The school board shall continue to allow the community to use school facilities including the library, recreation facilities and other resources;
- b. The school board shall continue to make facilities and programs available to Calais children who are home-schooled or who attend other schools;
- c. As much as possible the town should support renewal of the Community Connections grant.

Regulatory Guidance:

No proposed development or subdivision project should cause more than 15% of the declared or projected available capacity of the school to be used in any given year. If a project or combination of projects is proposed that would surpass the declared or projected capacity, the project or projects shall be phased or delayed to ensure that there are at least 30 months to plan and provide school capacity.

H. MUNICIPAL SERVICES & FACILITIES

Introduction

The primary municipal services and facilities are schools and roads. These are discussed in the Educational Facilities and the Transportation sections of this plan. Several other types of services and facilities are provided by the town or other local governmental units. They are also mentioned elsewhere in this plan: water and sewer services (in the Public Utilities section), recreational services and facilities such as the town forests, the Curtis Pond swim area and swim program and the schools' recreational facilities (in the Natural Resources and Recreational Resources sections); fire, ambulance, and solid waste services and various social and public services which are provided or supported by the town (in the Regional Issues Section). Municipal services and facilities discussed in this Section are those related to the town office, the town hall, cemeteries, police, and zoning administration.

Current Conditions

The town office is currently in the residence of the town clerk. While this has been satisfactory throughout the history of the town, space is limited, there are limitations on access by disabled persons and the continued viability of such an arrangement is in doubt.

The Town Hall is revered by the people of the town and has recently been renovated (with an enclosed fire escape and propane heat for the ground floor. The building is used for meetings of the Selectboard (all year) and the Planning Commission (in the summer). It continues to be used for town meetings. There appears to be consensus in town to preserve and to use the Town Hall.

The existing town garage is adequate for the town's current needs. However, the Selectboard is considering the purchase of additional equipment that may require expansion of the garage space. This equipment may include a chipper to facilitate the removal of brush from the roadsides and/or an excavator for road ditching and other maintenance tasks. Other equipment may be acquired based on the requests from the Road Commissioner.

There are six town cemeteries (Ainsworth, Fairview, Janes, Old West Church, Robinson and Shortt). The cemetery commissioners manage the cemeteries. It appears that the cemeteries may not be adequate for the Town's future needs.

Calais citizens need and expect local recycling facilities. The East Calais recycling center, located on the Moscow Woods Road, is open on Saturdays from 9 to 12. Residents can drop off trash for \$3.00 per bag and recycle materials at no cost. The recycling is commingled so that residents need only sort it into two categories: containers such as glass, plastic and aluminum; and paper products. The center is privately run and the town supports the effort by allowing the trash and recycling hauler to use the land free of charge. This system appears to be working well. People are using the center and the town no longer has the burden of finding volunteers to staff it.

Currently, Calais has a three tiered approach to police protection: 1) the town constable, 2) the town annually contracts with the Washington County Sheriffs Department which provides a part-time deputy for traffic enforcement and patrol of designated areas, and 3) full-time law enforcement is available through the State Police which assigns an officer to the town. This system seems to provide adequate response to serious crime but rather minimal police presence.

The town currently has an unpaid zoning administrator⁷, and a town clerk. Calais has no town manager or administrative assistants. Our system seems to be adequate for the present but, since the current Clerk performs many of the administrative duties that could be assigned to other administrative officers, the system may need to be examined when there is a new clerk.

Issues

- a. The town needs a new town office.
- b. Cemetery capacity may not be adequate.
- c. We need to ensure that sufficient recycling facilities are available in town
- d. We need to support town officers and employees

Goal: Ensure that Municipal Facilities are adequate for the period of the plan

Plan of Action:

- a. The Selectboard shall investigate acquiring additional cemetery capacity;

⁷ Other towns handle the duties of zoning administration as follows: East Montpelier pays \$3,196 for 8 hrs/wk; Danville pays \$3,500 for 4 hrs/wk; Middlesex is like Calais; and Plainfield pays \$700 /yr. Waterbury and East Montpelier have part time paid administrative assistants.

- b. The Selectboard shall continue to support training for town officials and employees board members;
- c. As development pressures in Calais increase the Planning Commission should consider clarifying and strengthening the job of Zoning administrator and providing a salary for the person performing the duties of the office.

I. HOUSING

Introduction

The availability, cost, and location of housing within a community affects land use, land value, employment and transportation patterns, as well as the social and economic mix and vitality in town. Calais recognizes that a full range of housing alternatives must be available to ensure that it remains a socially diverse and economically viable community. Calais also recognizes that it is a difficult challenge for the town to ensure an adequate supply of decent and affordable housing. Affordability of housing can be a problem for individuals who are looking for housing in Calais or for current residents who may find it more and more difficult to afford to stay here.

All Calais residents share the need for appropriate housing, whether they are homeowners or renters, young families or senior citizens, wealthy or poor. At town meeting in 1989 a survey on housing in Calais indicated:

- Those who live in Calais today hope that the ability to continue living here will not be taken away by forces beyond their control.
- Calais families hope that their children will be able to live here if they choose.
- Senior citizens hope that taxes and living costs will not force them to leave the town if they wish to stay.
- Calais residents hope people wanting to move to Calais will be able to find a home in Calais, regardless of their circumstances,

The federal government defines housing as affordable when a household with an income at or below the county median pays no more than 30% of its gross income on housing costs. In 1999, the median household income in Washington County was \$40,972. 280 Calais households, or 47.8%, of the 586 households in Calais reported incomes lower than \$40,000 in 1999.

Current Conditions

The housing stock in Calais is primarily single-family, owner occupied units, and very few multi-family rental units. Further, with average household size decreasing, we need more housing units to house the same number of people.

Table 10 Calais Housing Stock, 2000

Number	Percent
Total Unit	773 100
Occupied Units	616 79.6
Vacant Units*	157 20.3
Of Occupied units	
Owner occupied	523 84.9
Renter occupied	93 15.1

Source: U.S. Census, 2000

(* Includes 135/17.5% seasonal)

In 2000, the median value of an owner occupied home in Calais was \$121,300. Median monthly rental payments were \$438, while the median household income was \$46,083. In applying the standard definition of “affordability” to these statistics, the average household in Calais can afford the average house or apartment in Calais, although a few Calais residents reported paying more than 30 percent of income for rent or mortgage payments.

Issues

Many of the factors that affect the affordability of housing are beyond the control of the town government, however, there are some that can be addressed. Calais needs to develop policies that will keep Calais an affordable place to live and a place where decent housing can be found by a broad and diverse range of townspeople. We note that the age of our population is increasing (see Table 2). We need to explore housing for the elderly.

Goal: Support the creation of new housing and the preservation of existing housing for moderate and low income and elderly households. This housing should be safe, affordable and consistent with current land use and settlement patterns

Plan of Action

- a. Appoint at least one person with particular interest and skills in affordable housing issues to the Planning Commission or the Conservation Commission;
- b. Include measures to encourage provision of moderate and low income housing in all appropriate new and revised policies and regulations;
- c. Adopt regulations that encourage high-density housing within existing villages and other identified growth areas;
- d. Adopt no regulations (except for those directly affecting health and safety of residents) restricting manufactured housing;
- e. Investigate creation of elderly housing.

Regulatory Guidance and Policy

- a. Support the renovation (for health, safety, and operating costs) of existing affordable housing;
- b. Encourage conservation of existing rental housing units and other forms of affordable and elderly housing;
- c. Promote diversity in housing types and avoid concentration of moderate and low income housing;
- d. Developments or subdivisions, must include the maximum feasible number of units affordable by the thirty percent lowest income households in Calais.

J. RECREATIONAL RESOURCES

Introduction

Calais has a number of publicly and privately owned recreational resources. Our residents also use both public and commercial resources in neighboring towns.

Calais owns the school playground, with its swings, climbing structures, and a soccer field. The Calais Elementary School provides a number of after school sports and allows non-student residents to use the gym and other school facilities. Parents volunteer to coach the school's soccer, softball, baseball and basketball teams. Residents also run a downhill ski program for students, adult

basketball, ice-skating and a swim program at Curtis Pond. The swim program usually focuses on teaching young beginning swimmers, but it has, when a need was shown, conducted adult classes.

Calais also owns lands that may be used for hiking, swimming access and other low impact recreation. These include our three town forests, town trails, the Curtis Pond swimming area and our town roads that many use for biking, jogging, horseback riding and walking.

The State of Vermont provides public access to area lakes and ponds in the form of boat ramps on Curtis Pond, Number 10 Pond, Nelson Pond and Woodbury Lake.

Privately owned and/or operated facilities include:

- a. Calais Community Recreation Association's recreation field on Rt 14 in East Calais which has two baseball fields a soccer field and an outdoor, hard top basketball court;
- b. The VAST (Vermont Association of Snowmobile Travelers) network of trails on private & public land throughout Calais which are maintained for use by snowmobilers by the Mountain Tamers chapter of VAST;
- c. Many walking, hiking and cross-country ski trails maintained by individual property owners on their land.

Issues

Residents have reported littering, excess noise making and harassment at local swimming areas. At this point, our town constable is not in a position to control these problems and the Vermont State Police have been the main regulators at swim areas.

Speeding on all of our roads endangers recreational use. This is a growing problem for the town of Calais. The Selectboard has contracted with the Sheriff's Department to patrol our roads during the past several years. The contract has worked well and will likely be continued for the foreseeable future.

Goal: Ensure fair and safe access for Town residents to recreational resources for various outdoor recreational activities

Plan of Action:

- a. Preserve all existing town rights-of-way, particularly our trails and class 4 roads, and post them as open for recreational use;
- b. Encourage private landowners to allow residents access to their lands for recreational purposes;
- c. Encourage the users of publicly and privately owned recreational resources to use the resource only in a manner that is safe, cooperative and respectful of the resource;
- d. Develop a plan for acquiring or maintaining access to an extensive trail system in town and to all town forests for recreational use;
- e. Maintain the use and availability of facilities owned by the school for public use as consistent with the school's needs;
- f. Obtain more effective enforcement of regulations regarding the recreational use of the ponds in town.

K. ENERGY SECTION

Introduction

The energy we use comes from many parts of the United States and the world and how we use

energy affects our neighbors. One community alone cannot ensure that energy will be generated and consumed in a wise, efficient manner, but Calais intends to do its part. Therefore, it is our intent to identify ways in which our community can further Vermont's statewide energy goals of increased energy efficiency and providing for our energy needs in a cost effective and environmentally sound manner.

These goals have been identified and articulated several times by the Vermont Legislature.⁸

As Calais works to further these goals, we should keep our real objectives in mind: when we plan for transportation needs we should remember that it is not gasoline we want, but inexpensive, convenient transportation; instead of more landfills, we really want to dispose of the waste that we generate in a way that will ensure the health of ourselves and our children; and it may not be heating oil that we need, but warm houses. The challenge is to provide these services inexpensively and in a sustainable manner.

Current Conditions

Different forms of energy are used in different ways by Calais residents, businesses and by the town

⁸ In Act 250 of 1969 the Vermont Legislature declared in criterion 9f that a development permit should only be granted:

"...when it has been demonstrated by the applicant that, in addition to all other applicable criteria, the planning and design of the subdivision or development reflect the principles of energy conservation and incorporate the best available technology for efficient use or recovery of energy."

In 1973 in Sec. 7 of Act 85, An Act Relating to Land Capability and Development, in its statement of intent and findings, the Legislature adopted the following statewide energy policy:

"In order to provide general and uniform policies on land use and development to municipal, regional and state governmental agencies ...the general assembly hereby finds and declares as follows:

(13) Conservation of Energy --Energy conversion and utilization depletes a limited resource, and produces wastes harmful to the environment, while facilitating our economy and satisfying human needs essential to life. Energy conservation should be actively encouraged and wasteful practices discouraged."

In Act 200 of 1987, the Legislature directed municipalities, regional planning commissions and state agencies to make plans that would "encourage the efficient use of energy and the development of renewable energy resources." And, in Sec. 1 of Act 259 of 1991, An Act Relating to Increasing Energy Efficiency in the Operations of State Government and in the Consumption of Energy within the State, the Vermont General Assembly declared that:

"It is the general policy of the state of Vermont:

(1) To assure, to the greatest extent practicable, that Vermont can meet its energy service needs in a manner that is adequate, reliable, secure and sustainable; that assures affordability and encourages the state's economic vitality, the efficient use of energy resources and cost effective demand side management; and that is environmentally sound.

(2) To identify and evaluate on an ongoing basis resources that will meet Vermont's energy service needs in accordance with the principles of least cost integrated planning; including efficiency, conservation and load management alternatives, wise use of renewable resources and environmentally sound energy supply."

In Act 60 of 1999 the legislature authorized the Public Service board to appoint an entity to provide gas and electric energy conservation programs to gas and electric customers. The PSB then appointed Efficiency Vermont as the Statewide efficiency utility which provides an array of energy efficiency services.

of Calais itself. The energy usage and energy cost of a representative family (based on 1997 costs) are illustrated below.

This family consists of two adults and two children. To heat its home the family burns four cords of wood in a wood stove and 300 gallons of oil in a central furnace. The family has an electric water heater and the normal appliances, lights and other electric uses. The parents both work, in Montpelier and Waterbury, and drive their two cars a total of 25,000 miles a year. The children ride the bus to school. Using 1997 cost estimates the family's direct energy costs are:

Heat	\$ 740	27%
Hot Water	\$ 465	17%
Other Electric	\$ 340	12%
Gasoline	\$1,220	44%
Total Energy Cost	\$2,765	100%

The family may think of the \$2,330.00 property tax on its \$100,000.00 home as a burdensome cost while paying very little attention to its \$2,765.00 energy bill.

Our representative family requires 295 million BTU's of source energy each year. Most of the energy, about 71%, comes from non-renewable sources: gasoline for transportation, fuel oil for space heat and the 64% of its electricity which is generated by burning oil and other non-renewable fuels. Renewable energy sources are cordwood for heating and the 46% of its electricity which comes from hydroelectric dams.

There are many Calais families with lower incomes for whom energy bills are a great burden. Energy bills of \$2,000.00 per year are a problem for a family with an income of \$20,000.00. Even though less affluent Calais residents have pressing energy needs, state programs to help are not utilized as fully as they might be. For example, during the winter of 2000-2001 the state Low-income Weatherization Program served only 5 Calais homes. Efficiency Vermont, created by the legislature to help Vermonters conserve energy, is somewhat better used. It has served 130 Calais residents since March 2000

Issues

- a. Improving older homes. We need to help homeowners retrofit or renovate our older housing stock for energy efficiency. Most homes built before 1970 were not built with energy efficiency in mind and there are few programs in place to help and encourage owners of these homes to incur the expense involved in upgrade of this sort. For example many area banks offer an "energy efficient mortgage" program, to provide homebuyers extra money to make energy efficiency improvements when they purchase a house. The additional mortgage payment is more than paid for by the reduction in energy bills.
- b. New Construction: Many people who built homes in the last two or three decades took advantage of modern materials and techniques to make these homes more energy efficient than their older counterparts. Many homebuilders consider these measures to be cost effective and are very willing to use them. However, many builders and owner builders could use some help in understanding and learning about energy efficient materials and siting or building techniques. There are several programs in place that these homeowners could, and we believe would, use if they were made aware of them.
- c. Large-scale development: A person who builds several houses and does not intend to live in the housing might be more interested in saving on installation and capital costs and less

interested in long term costs. Currently, Act 250 is the only regulatory mechanism that tries to ensure that homes are built in a way that ensures less consumption of energy and lower long-term costs.

d. Transportation: The majority of our working population commutes to work. We do most of our shopping outside of Calais and most services such as health care, secondary education and much of our recreation is provided in other communities. Calais residents do not have access to public transportation so, except for school buses and a few community service vans, we are dependent on personal autos to make almost daily trips, for most of us, outside of Calais. For most of us, this is our greatest and least efficient use of energy resources.

e. Renewable resources: Calais may have the potential to generate more of its energy within the community using renewable resources such as wood, wind, solar and water power. However, we have never done an inventory of these resources, nor thought as a community about how we might develop and use them.

Goal 1: Ensure that builders and owner builders of new homes and people doing major renovation to existing homes are aware of techniques and programs that will help them to build energy efficiency into their homes. Encourage builders to use these techniques and programs

Plan of Action:

- a. The Selectboard should direct the town energy coordinator to prepare annually a brief handout, which describes programs and resources available, to be provided to all applicants for building permits and should also direct the town energy coordinator to contact applicants for building permits to offer help in using these programs and resources;
- b. The Zoning Administrator, or Development Review Board, when reviewing a building application, should inquire about, inform and encourage the use of available energy programs and energy efficiency measures;
- c. Whenever an Act 250 or subdivision application is received, the Planning Commission should review and comment, with advice from the energy committee, on the energy efficiency of the project.

Goal 2: Conserve energy and non-renewable resources through reduction of the waste stream

Plan of Action:

The Selectboard should continue to support town-wide recycling

Goal 3: Develop a structure and process for better data collection and development of programs to further state and town energy objectives.

Plan of Action

The Selectboard should appoint an energy committee, chaired by the energy coordinator, to:

- a. Determine what information would be useful for future energy planning (including planning for recycling) and devise and implement a plan for collecting the information;
- b. Provide support for the recycling program;

- c. Report on its activities in the town report;
- d. Recommend town energy policies and help with any rewrite of the energy section of the town plan or relevant portions of town regulations;
- e. Develop an annual action plan for presentation to the Selectboard. The first plan should describe how the following would be addressed over the next five years:
 - i) Development and implementation of techniques for upgrading older housing stock and municipal buildings in town;
 - ii) Development and implementation of techniques for decreasing our dependence on personal automobiles and consumption of gasoline;
 - iii) Work with the Calais and U-32 school boards to increase and improve teaching of energy conservation;
 - iv) Study the potential for development of renewable energy sources within the town and if feasible, create a plan to use the resources.

L . ECONOMIC DEVELOPMENT

Introduction

In the early 1800's Calais had numerous businesses and industries within the community. Most towns, including Calais, were relatively self-sufficient communities with a stable population base. Calais' peak population, in 1830, was 1,709 residents. From the mid-1800's through the late 1960's Calais lost population, businesses and industries. Since then, Calais has experienced residential growth without an increase in retail businesses and industries.

Current Conditions

The town is no longer an independent economic unit to the extent it has been in the past. Most Calais residents work and shop outside of Calais. As shown in Table 5, in 1990 only 18% of Calais' employed residents worked in town. This number increased in 2000 to 21%.

Today, the local economy consists of the general stores, post offices, several bed and breakfast operations, logging and maple operations, and many home occupations and small businesses. Agriculture, while changing from a base of dairy farming, is still an important part of our local economy. While it is apparent that more than a few jobs are provided in Calais for local and regional residents, most residents find employment outside of Calais. There is no accurate information on the total commercial/business activity going on within Calais at the present time.

Large scale commercial or industrial development is most likely to occur in other parts of the Central Vermont region that have the necessary infrastructure to support it. At present, Calais has no single area that provides the infrastructure (transportation, water, sewer and power) to support such development

Issues

Calais Residents would like our community to prosper economically without the threats posed by unplanned and unmanaged growth. Medium and large scale development should be planned for on a regional basis. Calais should support such development in other growth centers in the region and support the implementation of a fair regional or statewide tax structure to fairly spread and share the benefits and burdens of such development.

Goal 1: Assist and support existing local businesses, including agricultural enterprises, and encourage development of additional small local enterprises

Plan of Action:

- a. Assess the existing agricultural tax stabilization program and recommend appropriate changes;
- b. Re-issue a directory of Town Businesses and encourage residents to support Calais businesses;
- c. Survey local enterprises and determine ways the town could provide support;
- d. Recommend appropriate changes in the conditional uses allowed in zoning districts of the Town Zoning Ordinance needed to encourage development of appropriate enterprises.

Goal 2: Actively support regional economic development

Plan of Action:

- a. Inform and encourage those organizations, which Calais is in a position to influence, to support a fair regional or statewide tax structure;
- b. Support the efforts of Central Vermont Economic Development to stimulate economic development in the region's growth centers;
- c. Continue to support Central Vermont Revolving Loan Fund for small business lending in the region.

M. REGIONAL ISSUES

Introduction

Although it is an independent community, Calais relies on its neighboring communities and regionally based organizations for many of the essential services its residents receive.

Current Conditions

Many social services are provided to Calais residents by regionally based not-for-profit organizations. Annually, the town appropriates amounts for support of these organizations. Descriptions and amounts are published in the Town Report.

At present, Calais contracts with the Barre Town ambulance service to provide ambulance services.

Both the East Montpelier Volunteer Fire Department and the Woodbury Fire Department provide fire protection to Calais. The East Montpelier Volunteer Fire Department provides Emergency Medical Services. The town supports both departments through annual appropriations for both operating and capital expenditures.

The Washington Central Supervisory Union serves Calais, Berlin, East Montpelier, Middlesex and Worcester by providing administrative support to the elementary school and special education services.

Calais also provides monetary support to and maintains active membership in two regional municipal organizations, the Central Vermont Solid Waste Management District (CVSWMD) and the Central Vermont Regional Planning Commission (CVRPC).

CVSWMD was formed in 1985 to protect the interests and meet the waste management responsibilities of its member communities. Each member community has one voting representative to the District, with voting weighted by population. Each community, including Calais, provides an annual appropriation to the District, however, the majority of the District's budget is funded via surcharges on waste disposal fees at landfills.

CVRPC serves 23 towns in Washington and western Orange counties. CVRPC provides a forum in which towns can work together to address regional issues and opportunities. Regional Planning Commissions serve as the coordinating agency for transportation planning and ultimately for the disbursement of state and federal funds for transportation projects. CVRPC also provides planning and technical assistance to its member towns.

- Goal 1: To continue to communicate, cooperate and coordinate with neighboring communities on issues of mutual interest**
- Goal 2: To continue membership in the CVRPC and CVSWMD and to maximize the benefit of Calais' membership in these regional organizations**
- Goal 3: Provide continued support to regional providers of support services that are not provided by the town or organizations within the town**
- Goal 4: Consider expanded services through regional organizations or affiliations where appropriate and cost effective (example: 911 emergency service, a regional middle school or economic development)**

Plan of Action:

- a. The Selectboard and Planning Commission should meet annually with their counterparts in neighboring communities;
- b. The Selectboard should insure that Calais maintains active representation in the CVSWMD and CVRPC.