

# **Lowell Town Plan**

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# ***LOWELL TOWN PLAN***

## ***I. GOALS AND OBJECTIVES***

The primary goal of this town plan is to provide for Lowell's residents: to further their opportunities to maintain an adequate and satisfying livelihood, to foster harmony among neighbors and to protect and maintain the rural lifestyle we all enjoy. It is to these ends the following objectives are set out.

- ❖ Allow for the development of light industrial uses.
- ❖ Allow for the development of more restaurants, recreational/ tourist facilities and other commercial uses that will provide services for residents and tourists alike.
- ❖ Maintain the Town's beautiful rural character as much as possible.
- ❖ Encourage development that will protect and strengthen the Town's tax base.
- ❖ Reduce or eliminate the pollution of surface waters from failed or failing septic systems and/or surface run-off.
- ❖ Have junkyards and other necessary but unsightly land uses screened.
- ❖ Provide for safe and convenient pedestrian access between the village and the town hall/library by building a sidewalk on the west side of Route 100.
- ❖ Provide for orderly growth to prevent or reduce negative impacts on the Town.
- ❖ Encourage clustered development, using the planned unit development process, in those areas that can support such development as a means of protecting the Town's environment.
- ❖ Protect Lowell's forests, wildlife, and other natural resources.
- ❖ Town officials should continue to maintain an awareness of the needs of both full and part time residents.
- ❖ Encourage open farmland for agricultural purposes.
- ❖ Allow for and encourage housing to meet the needs of low and moderate-income residents.
- ❖ Maintain that part of the Bayley-Hazen Military Road between Lowell and Albany, that is no longer maintained for vehicular use, for recreational uses.
- ❖ Encourage the development of more town owned and operated parks and other recreational uses and maintain the ones the Town already has.
- ❖ Encourage the maintenance of the roads in Lowell in such a manner as to allow for safe passage and to prevent traffic congestion.
- ❖ Allow development along Routes 58 and 100 that compliments and does not distract from the scenic qualities of these two highways.
- ❖ Encourage adequate off-street parking for non-residential land uses that is safe and easily accessible.
- ❖ Create a safer intersection at Routes 58 and 100.

During the Spring of 2000 the Lowell Planning Commission conducted a public opinion survey and held a public information meeting to determine the needs and desires of Lowell's residents with regard to the Town's future. The above goals reflect that survey and meeting.

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## ***II. LAND USE PLAN***

### ***A. Existing Land Use***

#### ***1. Forests***

Lowell is a rural community where forestry is, without a doubt, the predominate land use. While this is especially true along the ridges that flank the west, south, and east sides of town it is also true throughout much of the rest of the Town. These forests are made up of a variety of species of trees.

#### ***2. Recreation***

While the Town of Lowell does not have an organized recreation program, recreational opportunities abound for those who enjoy the outdoors. Lowell's forests offer opportunities for upland game, deer and moose hunting, snowmobiling, cross-country skiing, snowshoeing, and hiking while the Town's streams and pond provide some opportunities for fishing. Lowell's main and backroads also provide ample opportunities for both road and mountain bicycling. Neighboring towns also provide ample opportunities for the above mentioned activities and more. Both downhill and cross-country skiing are available at nearby ski areas and nearby lakes and ponds provide opportunities for boating, swimming, and fishing. Finally, for the young at heart there is the playground at the Lowell School.

For those who enjoy indoor activities, other opportunities are available in both Lowell and the nearby communities of Derby and Newport City. Within the Town of Lowell there is a business that offers both bowling and dancing. Indoor activities available in Derby and Newport City include different forms of entertainment and an indoor ice skating rink.

#### ***3. Agriculture***

There are approximately **10** active **dairy** farms in Lowell. Most of the land used for agricultural purposes is located adjacent to Routes 58 and 100 with some located along some of the side roads. These **dairy** farms are very important to the community and the surrounding area, as good agricultural land is becoming increasingly scarce due to the demand for undeveloped land for new homes and other uses.

#### ***4. Residences***

Along with agriculture and forestry, residential land use is also predominate in Lowell. Most if not all of these residences are single family dwellings. A good number of the residences in Lowell are located in the Village area, near the intersection of Routes 58 and 100, providing a cluster of homes for which municipal services can be easily and efficiently provided. However, just as many, if not more are scattered through out the Town along Routes 58, 100, and the side roads. This type of

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development does not provide for the efficient use of land or the efficient provision of municipal services.

## ***5. Commerce and Industry***

Today in Lowell commercial uses include recreational (ie. campground, bowling, dance hall), retail (ie. auction business, convenience store), restaurants (including a snack bar and a bar), small engine repair, automotive repair, building contractors and excavation and septic contractors. There are also many Home Occupation businesses in Lowell; computer and internet related, woodworking, arts and crafts and art studios, education, forest and wildlife management consulting, etc.

Lowell also has an abandoned asbestos mine which has been closed for some time. This mine is located on the Mines Road near the Lowell/Eden town line.

## ***6. Public & Semi Public Uses***

Semi-public uses in Lowell include three churches. Two are located on Route 58 in the Village (St. Ignattious Catholic Church and the Lowell Baptist Church) and one on Route 100 (the United Church of Christ). One of these churches is located in the Town's old town hall, which they purchased from the Town after the Town built its new town office building.

Public uses in Lowell are limited to 1) the elementary school, 2) the town office building (which includes the Lowell Public Library), and 3) the town garage. Both the elementary school and the town office building are located on the west side of Route 100 just a short distance north of the intersection of Routes 58 and 100. Detailed descriptions of the school and town office building can be found in the Education and Utility and Facility sections, respectively, of this plan.

## ***7. Open Spaces Reserved for Conservation Purposes***

The former Lowell Town Plan, adopted on December 12, 1989, contains wording to authorize a Conservation Mountain district to limit development in those areas of Town least suited for development. Such a district was established in the current Lowell Zoning Bylaw, adopted March 6, 1990, and the objective for this district designates those areas over 2,000 feet in elevation as being in the Conservation Mountain district. These areas are generally forested, are inaccessible and have moderately steep to very steep slopes. It should be noted that those areas in Lowell that are above 1,500 feet also possess many of the same characteristics as those areas above 2,000 feet in elevation. These areas can be found along the Town's eastern, southern, and western boundaries.

## ***8. Present Land Use Map***

The existing land use/land cover map is on file in the Lowell Town Clerk's office and can be viewed there.

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## ***B. Proposed Land Use***

### ***1. Forests***

Any land area in Lowell that has steep slopes and/or shallow soils should have a very low intensity of development. This land is generally suitable only for forest purposes. Some agricultural uses, and, at a very low-density, seasonal and year-round dwellings, which should be permitted only if the site can support a well and septic system and there is adequate public access to the site.

This plan recommends that all lands above 2,000 be designated as being in this district.

The minimum density for the Conservation Mountain district should be one family per ten (10) acres.

### ***2. Recreation***

As recreational opportunities abound in Lowell and the surrounding towns, the Planning Commission does not see the need at this time to recommend any kind of an organized recreation program. However, because Lowell's recreational opportunities are dependent on the quality of Lowell's environment, it is necessary to protect and maintain Lowell's wonderful natural resources from development. Any development away from the Village that will involve a structure should be carefully sited to reduce negative visual impacts and on lots large enough to provide adequate water supply and sewage disposal.

Fishing, hiking, and hunting on non-posted lands has always been accepted in Lowell. Since motorized vehicles can harm the land and cause great annoyance and inconvenience, permission (preferably written) should be secured before entering private land.

### ***3. Agriculture***

Farms are important for Lowell. Areas with good agricultural soils should be given preferential consideration when that when that can encourage the continued operation of farms in these areas.

### ***4. Residences***

Residential land use is by far the most predominant man made land use in Lowell. As such, dwellings should be permitted in most areas of town. However, the density of development should be dependent upon the availability of access and the ability of the soil to handle on site water and sewer systems without creating water quality problems.

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## ***5. Commerce and Industry***

The Village of Lowell should continue to function similarly as it does today with some moderate growth in those areas that can support growth. The types of land use found in the Village are residential homes, usually of year round residents; public and semi-public buildings such as the school, town office and churches; and commercial operations that are needed to serve the people of Lowell. These include stores and some commercial-recreational type facilities. Generally, the new residential growth should be allowed to continue as long as it meets minimum requirements. Other types of growth in the Village should be allowed only as conditional uses. This would allow a decision to be made by the Board of Zoning Adjustment concerning the desirability of a particular use. Guidelines set forth for the review of conditional uses would allow the Board to place conditions on zoning permits that would reduce or eliminate any negative impacts a particular use might have on the area.

Light, non-polluting industries can significantly add to a town's tax and employment base, and, in most cases, could do so without placing an undue burden on the Town's services or natural resources. While there are no uses of this nature in Lowell at the present time, the Town may want to provide for this type of use to offset Lowell's present nature as a bedroom community. Limited industrial development may provide the revenue necessary to provide the services required by a growing population. That area to be set-aside for industrial uses should have good access to Route 100. The minimum lot size in this district should be sufficient to allow for industrial structures, parking, and on lot water and sewer systems.

Light, non-polluting businesses can add to the Town's employment and tax base. However, such development needs to be carried out without placing an undue burden on the Town's services or natural resources. Businesses that serve the community with goods and services should be given priority.

As Lowell is relatively far from major centers of employment and industry it is important to realize some residents will wish to build their own businesses here. This should not be discouraged. Allowing retail business and light industry in the Village and Rural Residential districts should not be a cause of disruption or disharmony if the equal rights of all the residents of Lowell can be kept in mind and respected. While this plan may not discourage medium and large businesses from moving to Lowell from other towns and/or states, it should be recognized that these businesses are not as valuable to Lowell as the home grown businesses are.

Detailed Economic Characteristics for Lowell from the 2000 Census are available in Table DP-3 in the Appendix.

## ***6. Public & Semi Public Uses***

Generally, sufficient land area exists for public purposes. Sites for existing public buildings are adequate. It would be desirable to obtain additional property to expand the Town Forest at some point in the future to assure a sizable public holding of undeveloped land within the community.

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## ***7. Open Spaces Reserved for Conservation Purposes***

Any of the land in Lowell that is remote with steep slopes and shallow soils should have a very low density of development. In addition, this plan discourages the filling of wetlands for development. Therefore, major wetlands in the community should be recognized and protected from filling and development.

The Planning Commission is very concerned about agricultural runoff and the negative impacts it can have on water quality. Lowell's farmers should be encouraged to take whatever measures are necessary to prevent the pollution of ground and surface waters caused by agricultural runoff.

## ***8. Proposed Land Use Map***

The proposed land use map is on file in the Lowell Town Clerk's office and can be viewed there.

## ***9. Uncontrolled Development***

Development and growth that comes too quickly puts an undue strain on the schools and roads and may adversely effect water resources and sanitation. Growth in Lowell, therefore, must be slow enough and controlled enough not to lower the quality of life the town residents now enjoy.

# ***LOWELL TOWN PLAN***

## ***III. TRANSPORTATION PLAN***

### ***A. Present***

#### ***1. Highways & Streets***

Lowell, as a rural community, depends entirely on its highway system and private vehicles for transportation purposes. Thus, the highway system is of the utmost importance to the Town of Lowell. Table 1 shows the highway mileage in Lowell broken down by classification and who is responsible for maintenance.

Within the Town of Lowell there are two State highways. Route 100 is a north/south highway providing access to Newport City to the north and Morrisville, Stowe, and Interstate 89 to the South. Route 58 is the east/west highway and it provides access to Barton and Interstate 91 to the east and Montgomery and other points to the west. Route 58 to the west of Route 100, however, is a town road with a gravel surface. This portion of Route 58 passes through Hazen's Notch and is closed during the winter months.

<b><u>1. MILEAGE SUMMARY</u></b>		
Town Roads:		
Class 1	0.000	
Class 2		
No. 1	4.150	
No. 2	0.500	
No. 3	5.200	
Class 3	23.71	
Total		33.56
Class 4		
State Highways:		
Route 58	5.096	
Route 100	7.031	
Total		12.127
Total mileage		<u>44.927</u>
Mileage as of 2004.		

Route 100, classified as a rural minor arterial, passes through the Missisquoi River valley and is generally in good repair, it has paved shoulders that are two feet wide, and has relatively few problems. The problems that do exist include an unsafe segment between mile markers 5.6 and 5.9 (see Summary Report of the VT 14/100 Corridor Study, page 49), poor pedestrian access to the Lowell Graded School, and a dangerous intersection with Route 58. To the north of the Village is a segment of Route 100 (between mile markers 5.6 and 5.9) with an "S" curve that makes it difficult for northbound drivers to see the farm and cattle crossing to the north (this farm is not currently in operation and therefore not a hazard at this time). The intersection of Routes 58 and 100 is hazardous due to the fact that Route 58 enters Route 100 on a hill. This hill prevents southbound drivers on Route 100 from seeing cars turning onto or crossing Route 100 and it prevents drivers on Route 58 from having a clear line of sight to the north along Route 100. The Town of Lowell strongly encourages the State of Vermont to correct the line of sight problem at the intersection of Routes 58 and 100 to make this a safer intersection.

Route 58 to the east of Route 100, which is classified as a major collector, passes over the ridge that forms the northern end of the Lowell Mountains and therefore provides many scenic vistas to the west and north. This highway needs to be repaved but it has not yet been included in the State's repaving program. That portion of Route 58 west of Route 100 is an unpaved Class 2 town road that is eligible for State and/or Federal funds for maintenance

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## ***2. Parking Facilities***

While there is no public off-site parking in Lowell, some parking is provided on-site for many, if not all, properties. In many cases, however, parking is not adequate, especially in the village.

## ***3. Transit Routes***

The main transit routes in Lowell are Routes 58 and 100. These routes, described above in the Highways and Streets subsection, connect Lowell with the surrounding towns, other parts of the state, and areas outside of the state. These routes are of primary importance to the residents of Lowell for transportation to other parts of town as well as areas outside of Lowell.

## ***4. Terminals***

At the present time, the nearest bus routes (Rural Community Transit) are in the Newport City – Derby and St. Johnsbury – Lyndon areas. These routes do not serve Lowell. Service to areas outside the State of Vermont is also available in White River Junction.

## ***5. Bicycle and Pedestrian Routes & Trails***

At the present time there are no bicycle trails or routes in Lowell. However, there is a considerable amount of bicycle traffic on Routes 58 and 100. This, combined with the increase in traffic during the summer months, could cause traffic flow and safety problems for both cyclists and motorists.

Routes 58 and 100 within the Village also lack sidewalks, thus making pedestrian travel hazardous as well. This would be especially true along Route 100 between the Route 58/100 intersection and the Lowell Town Clerk's office. The Town of Lowell has a number of side roads, and some trails (including the Long Trail) for people who like to hike. The Long Trail passes over the ridge along Lowell's western boundary.

## ***6. Scenic Roads***

Route 58 is perhaps the most scenic road in Lowell. This highway passes over some of the higher elevations in Lowell and therefore offers some spectacular views. That section of Route 58 between Irasburg and Route 100 crosses an elevation of almost 1,700 feet above sea level. The spectacular views from this section of Route 58 are to the north and west and include the ridge of mountains that make up the western wall of the Missisquoi River (East Branch) Valley. At the height of land in Hazen's Notch, about 1,900 feet above sea level, the views, although limited, are primarily to the east and west and include the Missisquoi River valley on both sides of the ridge.

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## ***7. Airports***

The State of Vermont owns a network of 10 airports around the State. Two of these airports are located within a 20-mile radius of the Town of Lowell. One is the Newport State Airport located in Coventry and the other is the Morrisville-Stowe State Airport.

The Newport State Airport, located in Coventry, was constructed in 1941 and has two paved runways that are 4,000 feet long. The runways are designed for aircraft weighing less than 12,500 pounds and with wingspans less than 79 feet. Visual and navigational aides are available which allow for non-precision approaches for aircraft equipped with electronic navigational instruments.

The Morrisville-Stowe State Airport, located in Morristown, was also constructed in the 1940's and has one paved runway that is 3,700 feet long. The design specifications for this runway are similar to the specifications for the runways at the Newport State Airport. Visual and navigational aides are available which allow for non-precision approaches for aircraft equipped with electronic navigational instruments.

Both of these airports provide a number of activities that are beneficial to the surrounding areas. Perhaps the most important are the search, rescue, and law enforcement services that are available. From an economic perspective, there are a number of business uses that are available as well. These services include shipping, education, and training, aerial inspections, photography, and advertising, and other business related activities. Finally, these airports also provide an opportunity for recreational pilots to enjoy their hobby.

For traditional commercial service one must travel to Burlington; Rutland; Lebanon, NH; Manchester, NH; Boston, MA; Portland, ME; or Montreal, Que.

## ***8. Railroads***

The nearest railroad terminals are located in Newport City and Orleans. Freight service is available from these two points; however, there is no passenger service available. The nearest passenger terminal is located in Montpelier.

## ***10. Map of Present Transportation & Circulation Facilities***

The existing transportation and circulation facilities map is on file in the Lowell Town Clerk's office and can be viewed there.

# ***LOWELL TOWN PLAN***

## ***B. Proposed***

### ***1. Highways & Streets***

In small towns like Lowell, problems with roads perhaps revolve more around maintenance and improvement of existing roads rather than the need for new roads. In particular, the Planning Commission would like to suggest that the Town use more sand and less salt on the roads during the winter months. This will, in the long run, improve the water quality in Lowell.

Upgrades that will improve safety for all users should also be considered. Suggested projects include the posting, by the Town and/or State, of reduced speed limits along Route 100 in the vicinity of the Village, and additional guardrails along the back roads where needed. These improvements are absolutely necessary to make Lowell's roads safer. Corrections are needed to make the intersection of Routes 58 and 100 safer.

### ***2. Parking Facilities***

Due to Lowell's rural nature and limited number of businesses, Lowell does not need any public parking facilities to serve the Town's businesses. However, due to the fact that more than half of the Town's residents commute to work in other towns, the Planning Commission does recommend the creation of a small public parking lot for the benefit of those who car pool. Such a parking lot should also include one or more bicycle racks. The Town could consider buying some undeveloped property in the Village area on which could be constructed a parking lot.

### ***3. Transit Routes***

Residents of the Town of Lowell, as well as non-residents, who own land in Lowell, are most dependent on Routes 58 and 100, as these two routes are Lowell's main connection with the rest of the world. Therefore, the Lowell Planning Commission would like to stress to the Vermont Agency of Transportation how important it is that these roads are well maintained and/or improved when appropriate. In particular, the Planning Commission would like to see the State repave that portion of Route 58 between Lowell and Irasburg.

### ***4. Terminals***

The Lowell Planning Commission is very much in favor of the availability of mass transit in the area. Therefore, the Planning Commission hopes that those companies providing public transit services will consider service to Lowell residents as they make their future service plans.

### ***5. Bicycle Routes & Trails***

During the summer months there is a considerable amount of bicycle traffic on Routes 58 and 100. The combined bicycle and automobile traffic creates a situation that is hazardous for all concerned.

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The ideal solution to this problem would be the building of a bicycle trail that runs parallel with these routes. Such a trail would totally separate automobile and bicycle traffic. However, the Lowell Planning Commission realizes that the addition of bicycle lanes on both sides of Routes 58 and 100 would be a more practical solution. Therefore, the Planning Commission would like to encourage the State to consider the addition of bicycle lanes in any future improvements to these two routes. Equally important for bicycle traffic are turn outs located at scenic spots to give bicyclists, and motorists as well, the room they need to stop and enjoy the view without causing hazards by blocking vehicular traffic.

In addition to the recommended improvements for bicycle travel, the Planning Commission would also like to recommend the construction of a sidewalk along the western side of Route 100 from the Route 58/100 intersection to the Lowell Town Clerk's office. Such an improvement would greatly improve pedestrian safety along this segment of Route 100

## ***6. Scenic Roads***

Route 58 is one of the most scenic roads in Vermont and any development along this corridor should not detract from the enjoyment of views from this corridor. Therefore the Planning Commission would like to see this scenic corridors maintained for all to enjoy.

## ***7. Airports***

At the time this plan was being written, a number of improvements were being planned and/or considered to the Morrisville-Stowe and Newport State Airports. These improvements may have been completed by the time this plan is adopted. In the next two paragraphs these improvements will be presented.

At the Morrisville-Stowe State Airport the State is looking at four possible improvements. These include a runway extension, removal of a small hill near the runway, the installation of a lighting system to help guide pilots into the airport at night, and the improvement of airplane radio to telephone communications. These improvements will greatly improve the utility and safety of this airport.

At the Newport State Airport the State is looking at three possible improvements. These include the rebuilding and resurfacing of runway 18-36, improvements to the existing ramp area and the installation of an automatic weather observation system. Finally, for some time there have been those who feel that at least one of the runways at the Newport State Airport needs to be lengthened by at least 1,000 to 1,500 feet to allow small jets to use the airport. However, it is unlikely that this improvement will be made in the near future.

The Lowell Planning Commission favors the improvement of these local airports as it is felt that the improvement of these airports will greatly benefit Lowell and many of the towns in the surrounding areas.

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## ***8. Railroads***

While the Lowell Planning Commission realizes that rail service in and near Lowell has little or no benefit for most of the residents of Lowell, the Planning Commission does realize that such service may benefit the region. Therefore, the Planning Commission encourages the continuation of freight service in the area.

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## ***IV. UTILITY & FACILITY PLAN***

### ***A. Present***

#### ***1. Educational***

For information regarding educational services for the residents of Lowell, please turn to the Educational Facilities Plan.

#### ***2. Recreational***

Recreational opportunities, both organized and unorganized, abound in Lowell. Located at the Lowell Graded School is the school playground and Gelo Park. These areas, which include ball fields and basketball courts as well as the traditional playground equipment, provide opportunities for both children and adults.

There are also areas for hiking, biking, snowshoeing, and Nordic skiing. The Long Trail passes through the western part of Town and the Town's roads provide ample opportunities for both road and mountain biking. In addition to the Long Trail, approximately 8.6 miles of the Catamount Trail also passes through Lowell. Some of the Catamount Trail follows the Bailey Hazen Military Road between Albany and Lowell. This trail, like the Long Trail also runs the length of the State, but it is designed for snowshoeing and Nordic skiing. Summer use of the Catamount Trail is generally not permitted. Lowell's wilderness areas and many streams and rivers should also provide ample opportunities for hunting and fishing.

The Vermont Association of Snow Travelers (VAST) also maintains trails in Lowell. One of these trails coincides with the Catamount Trail on the Bailey Hazen Military Road between Albany and Lowell.

In the area surrounding Lowell there are also ample recreational opportunities. Jay Peak is located about 15 miles away and offers both alpine and Nordic skiing in the winter and hiking, mountain biking, tennis and basketball in the summer. Burke Mountain is a little further away and offers both alpine and Nordic skiing. Kingdom trails is located near Burke Mountain and offers hiking and mountain biking. Many of these same activities are also available south of Lowell in the Stowe area. For those who prefer the water, there are many lakes in the area that offer swimming, boating, and fishing. In addition to those opportunities listed here there are numerous other opportunities in the area.

#### ***3. Hospitals***

Due to Lowell's rural nature, residents of Lowell must travel to surrounding towns for health care. There are three hospitals located in the area. These include the North Country Hospital (NCH) in

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Newport City, which has a staff of 380 people and 80 beds, the Copley Hospital in Morrisville, which has a staff of 350 and 53 beds, and the Northeastern Vermont Regional Hospital (NVRH) in St. Johnsbury, which has a staff of 325 and 100 beds. NCH and Copley are both about 20 miles from Lowell while NVRH is about 45 miles away. Other hospitals available to the residents of Lowell include the Dartmouth-Hitchcock Medical Center in Lebanon, NH, and Fletcher Allen Health Care in Burlington.

Ambulance service is provided in Lowell by the Missisquoi Ambulance Service. This cooperative service is owned by the Towns of Jay, Lowell, Troy, and Westfield. The ambulance is housed at the Jay Town Garage and staffed by volunteers. Lowell's share of the annual cost of this service is \$3,000.00. Patients are generally taken to the North Country Hospital in Newport City. During those times when the Missisquoi Ambulance Service is unavailable to assist those in need of such services, the Newport Ambulance Service covers for the Missisquoi Ambulance Service.

## ***4. Libraries***

The Lowell Library was started about 65 years ago in a private home and latter moved to the old Town Hall on Route 58 in the village. At one time the library had an annual budge of only \$100 and was very dependant upon private donations for its operation. In addition, the library was open only during the hours the Town Clerk's office was open. It was during those hours that the heat was on and at other times the library was too cold to be used comfortably. With the completion of the new town office building, the library has been moved from the old town hall into the new building.

At the present time the library has approximately 4,000 volumes (with room for approximately 8,000), a small reference section, and seven magazine subscriptions. Five of these subscriptions are for adults and 2 are for children. One of the seven magazine subscriptions is provided by donation. Funding for the library is provided by the Town of Lowell. Appropriations for the years 2008 and 2009 equaled \$5,500 for each year. The library's hours at this time are on Tuesday from 4:00 to 6:00 PM and Saturday from 10:00 to 12:00 AM.

## ***5. Power Generating Plants***

Within the Town of Lowell there is a small hydroelectric generating system which is privately owned.

## ***6. Transmission Lines***

Unlike some towns in the Northeast Kingdom, Lowell does not have its own electric department. Electrical power is provided to Lowell's residents by the Vermont Electric Cooperative (VEC). The VEC is currently serving approximately 359 customers in Lowell.

At this time the VEC has almost 48 miles of power line in Lowell. This mileage is made up of slightly more than 2 miles of transmission line and slightly more than 45 miles of distribution line. Approximately 1.5 miles of VEC's lines have been upgraded during the past year by replacing the

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existing wires with new wires. Finally, only 11% of the total line capacity is being utilized at this time.

The substation, which is at capacity, has a total capacity of 1 million volt-amps and needs to be upgraded.

## ***7. Water Supply***

Only seven buildings in Lowell are served by a water system that serves more than one building. This system is privately owned and the buildings it serves are located in the Village on Route 58 west of Route 100. The remaining buildings that have water are served by privately owned individual on-site systems.

## ***8. Sewage Disposal***

The Town of Lowell does not have a municipal sewage disposal system. All sewage disposal is handled by individual on-site systems.

## ***9. Refuse Disposal***

Solid waste in Lowell is picked up by private contractors and hauled to the Waste USA land fill in Coventry. The cost for pick up is paid for on an individual basis by the Town's residents.

Where recyclables are concerned, the Town of Lowell has entered into an agreement with the Towns of Albany and Irasburg as a means of dealing with these materials. Every Saturday a trailer is made available at the Irasburg Town Clerk's office as a drop off place for recyclables.

## ***10. Storm Drainage***

The Town of Lowell has very little in the way of storm drainage, all of which can be found in the village area along Route 58 west of Route 100. At this time these drains function properly with no known problems.

## ***11. Other Similar Facilities & Activities***

The completion of the new town office building represents a significant improvement over and above the old town hall. The new building houses the Town Clerk's office, the Lowell Library, and the Lowell Historical Society.

The new Town Clerk's office includes a large vault for the storage of the land records and other important town records. This is one of the biggest improvements over the old building in that the old Town Clerk's office did not have a vault. Instead the Town Clerk used four to six large safes with limited capacity. In addition to the vault, the new building offers a working environment that is brighter and much more pleasant than the old Town Clerk's office.

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## ***12. Map of Present Utilities & Facilities***

The existing utilities and facilities map is on file in the Lowell Town Clerk's office and can be viewed there.

### ***B. Proposed***

#### ***1. Educational***

For information regarding educational services for the residents of Lowell, please turn to the Educational Facilities Plan.

#### ***2. Recreational***

The Planning Commission recognizes the importance of the Town's recreational facilities and strongly urges the Town to budget the monies necessary to maintain these facilities. These facilities include the roads as well as the playground and sports fields at the school.

#### ***3. Hospitals***

As it is very unlikely that Lowell will ever have its own hospital, Lowell's residents will have to continue to use the hospitals and clinics located in surrounding areas. Therefore, the Lowell Planning Commission encourages the governing bodies of these health care facilities to monitor, maintain, and, when appropriate, increase the quality of service provided by these facilities. The Planning Commission would also encourage the town to continue its support of those health care facilities for which support has been provided in the past.

#### ***4. Libraries***

Everything about the new library (funding, hours, number of volumes, etc) has been deemed adequate to meet the current demands at this time. However, while the Planning Commission is pleased with and recognizes the library's adequacy, it strongly encourages Lowell's Selectboard and voters to take whatever actions are necessary during the time that this plan is in effect to insure that the Lowell Library continues to meet the needs of the Town's residents.

#### ***5. Power Generating Plants***

While the Town of Lowell has little or no influence over the operation of the privately owned hydroelectric generating plants in Lowell, the Planning Commission does encourage the continued operation and maintenance of these sites as they are seen as a benefit to the Town of Lowell.

# ***LOWELL TOWN PLAN***

## ***6. Transmission Lines***

The Lowell Planning Commission would like to encourage the Vermont Electric Cooperative to take the necessary steps to upgrade their substation to insure that the Town's electrical needs are adequately met in the future. For the protection of our environment, residents and wildlife, transmission line rights-of-ways should not be sprayed with herbicides.

## ***7. Water Supply***

At this time there is no need for nor is it feasible to build a municipal water supply system in Lowell. However, the development of public water and sewer systems may be required for greater development in the Village area. Development in this area should be carefully monitored so that the Town can determine the need for public water and sewer systems if and/or when such a need arises. Possible water sources for a public water system may exist in the hills just south of the Village.

In addition, the Town may want to consider making information available regarding the maintenance of a private water supply and on-site sewage disposal system. This would be a beneficial service to help residents find and maintain a quality water supply and establish and maintain an on-site sewage system that will not pollute any water supply system or the Town's surface waters.

## ***8. Sewage Disposal***

At this time there is no need for nor is it feasible to build a municipal sewage disposal system. However, the Lowell Planning Commission is concerned about on-site sewage disposal and therefore recommends that before a site is developed it be carefully examined and tested before a septic system is installed. The Planning Commission also recommends that any new septic systems be installed in compliance with the isolation distances set forth in the Vermont Health Regulations. In addition, the Town should consider making information available to the Town's residents regarding the installation and maintenance of on-site sewage disposal systems. Educating the Town's residents may help prevent some serious problems.

## ***9. Refuse Disposal***

While the current system of dealing with solid waste and recyclables has been working well for the Town, the Planning Commission encourages the Town to look at ways these systems can be improved. At the current time Lowell residents must travel to Irasburg to drop off recyclables. This setup could perhaps be improved by parking the recycling trailer in a different town each week.

## ***10. Storm Drainage***

The Planning Commission encourages the Lowell Selectboard and Road Commissioner to monitor and maintain the current storm drains to provide a level of drainage that will prevent damage due to storm runoff.

# ***LOWELL TOWN PLAN***

## ***11. Other Similar Facilities & Activities***

With the completion of the new town office building, the Town of Lowell now has a modern facility that is more than adequate to meet the Town's needs for some time to come. The Lowell Planning Commission encourages the Lowell Selectboard to take the steps necessary to insure that this building is properly maintained so that it will meet the needs of the Town for many years to come.

## ***12. Map of Proposed Utilities & Facilities***

The proposed utilities and facilities map is on file in the Lowell Town Clerk's office and can be viewed there.

# ***LOWELL TOWN PLAN***

## ***V. PRESERVATION PLAN***

### ***A. Rare & Irreplaceable Natural Areas***

Within the Town of Lowell several natural areas need to be considered in this Plan. These areas include wetlands, surface waters, and forests.

There are at least 2 major wetlands in Lowell. The larger of these 2 wetlands is located to the west of the Mines Rd and north of Potter Brook Rd. The other wetland is located on the town line between Lowell and Irasburg near the southwest corner of Irasburg. Surface waters in Lowell include 4 small ponds & many miles of streams and rivers including the East Branch of the Missisquoi River, which begins in Lowell.

Approximately 90% of Lowell is covered with forests with some of this area being made up by the mountains on west side of town. Along the tops of these mountains is the Long Trail.

All of the features described above provide important benefits for the wildlife and people that reside in Lowell. These areas provide an important and sensitive habitat for the plant and wildlife these areas support. They also provide numerous recreational benefits for the residents of Lowell. These areas shall be protected from over development so as to maintain the current pristine status of these areas so that they will continue to provide the habitat necessary for the Town's plant and wildlife and the recreational benefits to the Town's residents.

### ***B. Scenic Features***

Route 58 from the top of Lowell Mountain to Hazen's Notch is one of the most varied and beautiful six miles in Vermont. Therefore, this plan encourages the establishment of this stretch of road as a scenic corridor. While it is not the Town's intention to prohibit or unduly restrict development on this road the Planning Commission feels it is in the best interests of everyone in Lowell, those who own property on this road and those who do not, to be very sensitive to its scenic quality and the pride and benefit it gives the Town. If there ever was a road in Lowell where everyone should wish for sound aesthetic judgement to be exercised in the siting and building of structures, it is here.

### ***C. Historic Features***

The Town of Lowell was founded in 1787 and at that time was called Kelleyvale. The Town's name was changed in 1831 to Lowell. Since Lowell was incorporated, several historic features have developed that are discussed below.

The first of these historic features is the village on Route 58 west of Route 100. While none of the buildings in this village have been placed on the Historic Register, several features warrant discussion. The Naramore General Store, which has remained essentially unaltered over the years,

# ***LOWELL TOWN PLAN***

and the Baptist Church. These two buildings and many of the others in the village contribute to the quaint New England atmosphere found in the Village of Lowell. This atmosphere should be preserved.

The original Bayley-Hazen Military Road, laid out and used so many years ago, passes through the Town of Lowell and is of great historical interest. About half of that part of this road between Route 100 and the Town of Albany has been abandoned for all but trail usage. However, nearly all of that part of the Bayley-Hazen Military Road that extends west from Route 100 is currently being used for Route 58. The building of this road was ordered by George Washington but it was never completed nor was it used for military purposes. Reasonable right of way over this road must be preserved.

Finally, there is the old asbestos mine on the Mines Road near the Lowell/Eden town line. While asbestos mining goes back to the beginning of the twentieth century in Lowell, the Vermont asbestos group mine began in the fifties. At the height of the mine's operation in the 1950's and 1960's, the mine employed 240 people. In the 1970's the mine was threatened with the possibility of a shut down. However, it was taken over and operated by the employees for a few years. By the 1990's production had declined significantly and the mine was closed in 1996. The asbestos mine has played an important role in the life of the Town of Lowell, and the surrounding towns as well, and while it may not be important to preserve the site of the mine, it is important to preserve the history relating to the mine. It is the Planning Commission's desire that the local historical society continue to maintain information about this important history.

# ***LOWELL TOWN PLAN***

## ***VI. EDUCATIONAL FACILITIES PLAN***

This section of the Lowell Town Plan was prepared with the assistance of Scott Boskind, principle of the Lowell Graded School, Nanette Bonneau, Lowell Town Clerk and the staff of the North Country Union High School and Orleans - Essex North Supervisory Union. The Lowell Planning Commission would like to express their gratitude for their assistance. **Additional Education and Social Characteristics for Lowell can be found in Table DP-2 in the Appendix.**

### ***A. Present***

#### ***1. Statement of uses***

##### **Lowell Graded School**

The Lowell Graded School opened in 1987 with 4 multi-graded classrooms for grades 1-8. Other rooms at that time included a library that was also used as a kindergarten, a gymnasium/cafeteria, a kitchen, and several small offices. The building had a design capacity of 75 students and when the building opened the actual enrollment exceeded 75 students.

<b><u>2. ENROLLMENT</u></b>	
<b>Lowell Graded School</b>	
<i>Year</i>	<i>Enrollment</i>
1989-90	87
1990-91	82
1991-92	95
1992-93	100
1993-94	92
1994-95	106
1995-96	112
1996-97	113
1997-98	109
2008-09	116
2009-	122
Source: Lowell Town Clerk's Office	

Then in 1994 the school was enlarged to include a number of new rooms and a new K-8 multi-dimensional program. The list of new rooms includes a kindergarten room, a multipurpose classroom, a resource room, a Title One room, and a technology room that now houses 10 computers. This addition more than doubled the size of the school and increased the building's design capacity from 75 students to 120 students. With the completion of this addition, the school's staff was increased by 15 individuals so that the school could best make use of this new enlarged facility. These new staff members included mostly support staff necessary for the efficient daily operations of a school

The playground contains both homemade and commercial equipment like slides, swings, jungle gym, and others. The grounds are level and well maintained and include a nice softball/little league diamond and a separate soccer field.

In most ways the building is very adequate. It is well maintained and cared for. The classrooms are large with built in coat racks, teaching supply closets and book shelves. The playground, parking lot, and grounds are excellent and well maintained. Finally, in recent years the school has added new equipment, furniture, and supplies, which has greatly improved this facility.

# ***LOWELL TOWN PLAN***

Despite the adequacies of this building, inadequacies do exist and they include the following. The gymnasium lacks bleachers - thus seating for basketball games is inadequate. More classrooms and office/conference rooms are needed. This is because of high student/teacher ratios and often need to divide groups. On those days when art, music, and/or physical education are scheduled it is very difficult to separate classes to work in more than one location. Likewise, it is very difficult to find private locations for the school psychologist, psychological testing, speech pathologist, etc. When the school was built there was no consideration given for a guidance area or a time-out room. The addition of two classrooms and two office/conference rooms would ease these problems. Additional storage space is also needed.

## **North Country Union High School**

In 2008-09, 53 high school aged (grades 9-12) Lowell students attended school at the North Country Union High School in Newport City. For 2009-10, this number is only 48 students. This building was erected in 1967 and was designed for about 1,000 students. With a present enrollment of 1,000 to 1,100 students, the building is not considered overcrowded, however, the administration is aware of the fact that enrollment is above design capacity. In addition, over the last few years, enrollment at NCUHS has remained relatively stable.

The course of study at North Country has been designed to meet the needs of both the college bound student and those who desire to enter a career right out of high school. The college preparatory course of study includes the usual high school courses in English, social studies, mathematics, science, foreign languages along with options in art, music, business, and extracurricular activities. For those seeking to enter a career right out of high school, NCUHS offers the North Country Career Center. This program prepares students for careers in automotive technology, building trades, commercial art, office technology, computer-aided design and drafting, culinary arts, graphic arts/photography, the medical field, marketing, and metal fabrication. The North Country Career Center is also available to adults who are seeking new career skills.

In addition to the regular use of the building as a high school, the community also uses the building for other things as well. Both the Community College of Vermont and North Country offer adult education classes. Finally, local sports teams use the gymnasium and grounds for their games.

Staffing and textbooks are not a problem at this time. The school is adequately staffed and textbooks are kept up to date through an annual review process.

Computer technology plays an important roll at NCUHS. At this time the school has one computer network with approximately 250 workstations, 220 of these workstations are for academic use while 30 are dedicated to administrative use. This new network represents a major improvement over and above the 2 networks that were in use just a few years ago. The first of these older networks was used by the students and had 25 to 30 stations. The second network was used by the administration and had 18 stations.

# ***LOWELL TOWN PLAN***

During the summer of 1998 a number of improvements were made to the building. These included improvements to the ventilation system and the science labs. The improvements to the science labs brought these labs up to what is considered state of the art.

At this time the Town of Lowell does not have an active member on the Board of Directors for NCUHS. In light of the fact that Lowell is currently paying in excess of \$300,000 per year to educate its high school aged students, this is a serious problem.

## ***2. Map***

The existing educational facilities map is on file in the Lowell Town Clerk's office and can be viewed there.

## ***B. Proposed***

### ***1. Statement of uses***

#### **Lowell Graded School**

The Lowell School Board and Administration are no strangers to planning. These individuals are constantly looking at the Lowell Graded School with an eye towards identifying and solving problems and setting goals for the future of the school. The current goals include the following:

- ❖ First and foremost - To become recognized as being among the best K-8 schools in Vermont.
- ❖ To improve students academic performance through the development and implementation of action plans. Currently, the action plan deals with the improvement of students understanding of math through the adoption of the Mathland and Math Thematics curriculum.
- ❖ To improve the alignment between student academic performance and the assessment results for all academic subjects.
- ❖ To strengthen every student's foundation in reading and math.
- ❖ To maintain a warm and nurturing school climate that will reflect the needs of all children and the ideals of the community.
- ❖ To maintain an atmosphere that is responsive to all members of the community.
- ❖ To continue to develop and expand our technology program.
- ❖ For the faculty and staff to gain the professional development necessary to bring about the realization of the goal of being recognized as being among the best of Vermont's schools.

The Lowell School Board has been involved in several projects relating to program improvement and expansion. These projects include the current action plan, which deals with revisions of the School's K-8 math curriculum to meet the new State standards, the creation of a block scheduling format for this year's students in grades 5-8, finally, the school board is studying the feasibility of offering a half day pre-school program.

Orleans-Essex North Supervisory Union Superintendent will be working with the Lowell School Board to expand the after hours programming and use of the school. Many new programs, including

# LOWELL TOWN PLAN

drama, photography, volleyball, and technology programs have already been discussed with a great deal of interest. The Saturday evening Teen night will continue and be expanded this year with new offerings that are still being worked on. Tentative plans call for every other Saturday evening for teen basketball, volleyball, and other activities. The grant that funds the Saturday Teen nights is already in place.

The Lowell School Board has addressed many physical improvements in the last few years and is committed to staying on top of the school's needs. The board is currently discussing future expansions and researching the means to fund such expansions. Possible expansions being considered at this time include additional classroom and office space as well as seating in the gymnasium. The projected enrollment figures presented here support the need for such expansions as the Lowell Graded School's enrollment may exceed the School's design capacity within the next six years.

The demands for programs, improvements, and standardization are continuing. The school has made enormous strides in developing quality programs by using assessment results to drive action planning and programs. The stability of the professional staff is allowing the school to move forward without the regression caused by employee turnover. Efforts will continue to improve upon the quality of education received by Lowell's children.

<b><u>3. ENROLLMENT</u></b>			
<b><u>Lowell Graded School</u></b>			
<i>Year</i>	<i>Enrollment</i>	<i>Year</i>	<i>Enrollment</i>
2000-01	106	2005-06	118
2001-02	109	2006-07	120
2002-03	111	2007-08	122
2003-04	113	2008-09	124
2004-05	115	2009-10	127
Projections based on historic enrollment trends.			

## **North Country Union High School**

In the 1999 Annual Report, Robert McKenney, NCUHS Principal, made the following statement "... we shall seek to maintain the many fine programs we have, to improve those programs that may be improved and to implement new programs and procedures which will enable us to achieve our goal". That goal is "To educate all students to be self-motivated, life-long learners who respect and appreciate the world around them as responsible, productive members of society."

The Lowell Planning Commission encourages the administration and staff of the North Country Union High School, the Orleans - Essex North Supervisory Union, and the school board for this district to take the necessary steps to carry out the goal stated above. This will insure a quality education at NCUHS that prepares students for life in an ever-changing world. The Lowell Planning Commission is also concerned about the fact that Lowell does not have active representation on the NCUHS Board of Directors and encourages Lowell's adult residents to consider filling this spot on the Board of Directors.

The current action plan for NCUHS is being reviewed and discussed at this time, however, no further improvements have been planned.

# ***LOWELL TOWN PLAN***

## ***2. Map***

The proposed educational facilities map is on file in the Lowell Town Clerk's office and can be viewed there.

# ***LOWELL TOWN PLAN***

## ***VII. IMPLEMENTATION PROGRAM***

The Vermont Transportation Enhancement Activities Program makes funds available for transportation related projects. This grant program is administered by the Agency of Transportation and the funds can be used for projects such as sidewalks and the rehabilitation of roads. In the context of the Town of Lowell, the Planning Commission urges the Selectboard to apply for such a grant to build the sidewalk from the Town Hall to the Village and to support the recreational use of the Bayley-Hazen Road between Lowell and Albany and to fix the dangerous intersection at Routes 58 and 100. Possible corrections include a blinking red and yellow light and or correct sight lines.

Revise the Lowell Zoning Bylaw to better reflect both current and desired land use patterns and to set aside areas for commercial and industrial development that will contribute to the Town's economic well being. The revision of the Lowell Zoning Bylaw should also include provisions that will protect Lowell's natural, scenic, and historic resources for the future benefit and enjoyment of all of Lowell's residents, both human and otherwise!

Equally important to the adoption and revision of zoning and other provisions to implement this plan is an effort by the Planning Commission and Selectboard to insure that this plan is responsive to the needs of the Town of Lowell. Therefore as circumstances change in Lowell, this plan should, when necessary, be amended to address the changes that occur. It is also important to update and readopt this plan promptly upon expiration five years after it is adopted or amended.

Failed or failing septic systems as well as run-off from roads and construction areas can be a significant source of water pollution. The Dept. of Environmental Conservation regulates all on-site sewage disposal systems and potable water supplies in Vermont. Steps should also be taken at the local level to protect the Town's surface waters from run-off from construction sites.

# ***LOWELL TOWN PLAN***

## ***VIII. ADJACENT TOWNS & THE REGION***

The Town of Lowell is bordered by seven towns. These include Albany, Eden, Irasburg, Montgomery, Newport Center, Troy, and Westfield. At the time this section of the Lowell Town Plan was written only three of these seven towns had Town Plans in effect.

### **A. Albany**

The Town of Albany does not have a town plan at this time. However, it is unlikely that the lack of a town plan in Albany will have any impact on Lowell. That area along both sides of the Lowell/Albany town line is remote and inaccessible. In addition, the ridge formed by the Lowell Mountains is only about a mile from this town boundary and forms a natural barrier to development. For the same reasons, it is unlikely that development in Lowell will have any impact on Albany.

### **B. Eden**

Eden, like Albany, also does not have a town plan. However, once again the topography along the Lowell/Eden town line should be a deterrent to development in Eden that will impact the Town of Lowell. The only exception might be along Route 100, which joins Lowell and Eden.

### **C. Irasburg**

Irasburg has many similarities with Albany and Eden. Irasburg does not have a town plan. Irasburg and Lowell are separated from Lowell by a ridge, and like Eden there is only one major highway, Route 58, connecting Irasburg and Lowell. Except for the land right along Route 58 most of the land along this town boundary is inaccessible. Therefore, any impact on Lowell by development in this area of Irasburg would most likely be along Route 58.

### **D. Montgomery**

At the time this section of the Lowell Town Plan was written Montgomery had a town plan that was about to expire. However, the Montgomery Planning Commission was working on a new town plan. This new town plan, if and when adopted, along with the topography along the Lowell/Montgomery town line, should significantly reduce, or even eliminate any impacts that development in Montgomery will have on Lowell. Both the old and new Montgomery Town Plans call for development in this area that is compatible with the topography of this area and development in Lowell.

# ***LOWELL TOWN PLAN***

## ***E. Newport Center***

Unlike the other towns discussed so far, Newport Center does have a town plan. Newport Center's Town Plan is written to be sensitive on the impacts that development in Newport Center will have on neighboring towns. Their plan also points out that the southern portion of Newport Center is essentially undeveloped. The wording of the Newport Center Town Plan, along with the fact that there are no through roads from Newport Center into Lowell, should serve to reduce or eliminate any impacts that development in Newport Center will have on Lowell.

## ***F. Troy***

The Troy Town Plan indicates that the more intense development, such as commercial, industrial, and high density residential, should occur around and between the Villages of Troy and North Troy. This, combined with the fact that vehicular access to the southern part of Troy is limited, would indicate that development in Troy would have little or no impact on Lowell.

## ***G. Westfield***

At the current time the Town of Westfield does not have a town plan but is in the process of creating one. Therefore, this section of the Lowell Town Plan will examine new Westfield Town Plan even though it is not yet adopted.

The new town plan has been written to encourage the maintenance of the open agricultural land with limited residential and small commercial development along 100 south of the Village of Westfield. The plan also states that this is an area to be monitored. The new plan also appears to encourage residential development along Buck Hill Road which connects Route 58 in Lowell with Route 100 in Westfield. Therefore, it appears that the new Westfield Town Plan has been written with intent of reducing or eliminating impacts on Lowell cause by development in Westfield.

However, the topographical and access barriers that exist between Lowell and most of the other surrounding towns do not exist between Lowell and Westfield. This fact would seem to indicate that development in Westfield could have more of an impact on Lowell than any of the other surrounding towns.

## ***H. Regional Plan***

The regional plan for the Northeast Kingdom recommends village types of development for the Village of Lowell and development of a more rural nature for areas outside of the Village. This scenario is compatible with this Municipal Plan.

# ***LOWELL TOWN PLAN***

## ***IX. ENERGY PLAN***

### ***A. Energy resources***

Energy for the heating, lighting, and hot water needs is available from a variety of sources. Heating oil and LP Gas is available from several distributors and dealers in Orleans County. Electricity is provided in Lowell by the Vermont Electric Coop in Johnson. Finally, fuels for the propulsion of motor vehicles are available in Lowell and some of the surrounding communities.

### ***B. Needs***

The needs of Lowell's residents for energy products are presently being met by dealers in the local area.

### ***C. Scarcities***

At this time the Planning Commission does not know of any scarcities of energy products.

### ***D. Costs***

At one time, electricity was a relatively inexpensive source of energy. This, however, is no longer true as electricity prices have been on the increase. In addition, Lowell's remoteness from the area's energy suppliers could have an impact on the price of energy in Lowell.

### ***E. Problems***

While there does not seem to be any problem with regard to the supply of energy, rising energy costs could be a very real problem for some of Lowell's families. Therefore, the Lowell Planning Commission would like to encourage energy suppliers to do as much as possible to either keep costs down or, to reduce the rate at which costs are increasing. In addition, if energy suppliers are not already doing so, the Planning Commission would also encourage these businesses to establish budget payment plans that spread energy costs out over the year.

The Town Clerk's office and the Lowell Graded School are new buildings and should already be well insulated and equipped with energy efficient systems. Therefore, these buildings should not present a problem for the Town of Lowell from the point of view of energy usage.

# ***LOWELL TOWN PLAN***

## ***F. Conservation of energy***

The Planning Commission strongly advocates the conservation of energy. This plan recommends the use of energy saving products such as insulation, efficient appliances, and, when necessary, the use of winter weatherization products such as weather stripping, window plastic, and water heater wraps. New construction and the replacement of old appliances, doors, and/or windows should always be done with energy efficient products. In addition, energy efficient behavior (shutting lights off when leaving the room, turning the thermostat down at night, etc.) should be taught and used, at school, home and in the workplace.

The Planning Commission also recommends that an energy audit be conducted in the town garage. Then the necessary improvements should be made to this building to make it more energy efficient.

## ***G. Development of renewable energy resources***

The Planning Commission recommends the development of renewable energy resources. These would include the use of wood, solar, wind, and hydro energy.

## ***H. Land Use & Energy Conservation***

Several development techniques are likely to result in the conservation of energy. Building on south facing slopes will generally make a house less expensive to heat. Earth sheltered homes may also be less expensive to heat.

# ***LOWELL TOWN PLAN***

## ***X. HOUSING ELEMENT***

This section of the Plan looks at housing in Lowell. Data concerning occupancy, persons in occupied units, numbers of bedrooms and bathrooms, rent paid, and mortgage and monthly costs will be presented and discussed. This section will also attempt to determine future housing needs in Lowell. The data used in this section was taken from the 2000 Census of Population and Housing. Some of the data presented in this part of the plan will be medians. The median of a group of data is that point where half of the data fall below that point and half are above that point. For example, with the median value of houses, half of the houses are valued less than the median and half are valued more than the median. **For detailed Housing Characteristics in Lowell, see Table DP-4 in the Appendix.**

### **A. Present Housing Data**

As of April 1, 2000, there were 403 dwelling units in Lowell. Of these 403 units, 270 were occupied and the remaining 133 were vacant. All but 22 of the 133 vacant units were held for seasonal, recreational, or occasional use.

Occupied housing units in Lowell seemed to have ample room for the occupants **(see Appendix: Table DP-1 for Household and Occupancy Data)**. The 270 occupied units housed 738 persons for an average of 2.73 persons per unit.

Lowell's housing stock is relatively young. Only 117 units of the 403 units in town were built prior to 1940. Ninety-one units have been built since 1990.

Most of housing units (139) rely on fuel oil or kerosene for heating. Fifty-one homes relied on bottled, tank or LP gas, while 84 units utilized wood as a heating source.

### **B. Affordability**

The objective of this section is to determine whether housing in Lowell is affordable. For housing to be affordable, mortgage or rental payments should not exceed 28% of the occupant's gross income.

**Table DP-4 (Appendix)** presents specific data on housing costs as a percentage of household income for both renter and owner occupied units. 22.6% of the owner-occupied units spent more than 35% of their household income on housing. 59.1% of renter-occupied units spent more than 35% of their household income on gross rent.

The data for the owner occupied units includes the costs of taxes, insurance, and utilities as well as the cost of the mortgage if one exists. Hence, only those households paying in excess of 35% of the household's income have been counted as paying too much per month for housing. In this instance, 21 households were paying in excess of 35% of their household income.

# ***LOWELL TOWN PLAN***

If rental housing units are added, there were 34 households that were paying too much for housing in 2000. This represents nearly 13% of the 270 households in the town. It appears that housing affordability may be an issue for some in the community.

## ***C. Projected Housing Needs***

Generally, when calculating any type of projection it is necessary to make one or more assumptions. The process used here to project the number of housing units necessary to house the Town's projected population assumes that the Town's population will continue to grow at a constant rate of 7.4 persons per year (the average annual change from 1970 to 2000). This is an assumption that may or may not remain true.

Before one can project the Town's housing needs, it is necessary to project the town's population growth. If the average annual change of 7.4 persons per year continued through 2020, the 2010 population would be 812 persons and in 2020 figure would be 886 persons. The estimated population in 2007, however, was only 719 persons (Appendix: VT Indicators Online). Therefore, the 7.4 person per year increase may be too high. There are many factors influencing growth in a community – cost of living, employment opportunities, desirability of community, etc. – and these must be considered in future growth projections.

Lowell, like many of the towns in Orleans County has seen growth in the number of second homes. Up until the current economic downturn – in part due to the collapse of the housing market, the region was attractive to many second home buyers. Housing was relatively affordable, and the scenic beauty of the area was appealing to many.

The reader should note that the Town of Lowell is not and will not be in the business of providing housing for the residents of Lowell. The purpose of the housing element is only to help the Town understand the existing housing situation and the Town's future needs.

# ***LOWELL TOWN PLAN***

## ***XI. POPULATION STUDY***

### Historic Trends

The population of Lowell was first determined by the Bureau of the Census in 1890. The results of that census indicated there were 1,178 people residing in Lowell. Table 1 shows the population for the Town of Lowell as determined in each of 12 Census counts conducted by the Bureau of the Census. In addition, Graph 1 presents a graphical interpretation of the data shown in Table 1.

**Table 1: Total Population  
1890 - 2000**

Universe: Total population

Year	Population	Change	
		Actual	Percent
1890	1,178		
1900	982	-196	-16.6%
1910	1,086	104	10.6%
1920	1,005	-81	-7.5%
1930	725	-280	-27.9%
1940	615	-110	-15.2%
1950	643	28	4.6%
1960	617	-26	-4.0%
1970	515	-102	-16.5%
1980	573	58	11.3%
1990	587	14	2.4%
2000	738	151	25.7%

Source: Bureau of the Census

Following the 1890 Census, the population of Lowell declined steadily, with only two minor increases between 1900 and 1910 and then again between 1940 and 1950, until the 1970 Census when Lowell's lowest population was determined (515 persons). During this 80 year period, Lowell's population declined by 663 persons or 56.3% of the 1890 population.

Following the 1970 Census, Lowell's population started to increase with the 1980 Census indicating 58 new residents and the 1990 Census indicating only a very slight increase of 14 more new residents. Between the 1990 and the 2000 Census counts, however, Lowell's population increased by 151 persons. This was Lowell's largest positive population change in the 110 year history of the Census. Between 1890 and 1970 people left Lowell

at an average rate of 83 people per 10 year period. Since 1970, however, Lowell's population has increased at an average rate of 74 people per 10 year period.

This trend of municipal populations decreasing dramatically following the 1890 or 1900 Census counts only to rebound following the 1960 or 1970 Census counts has been consistent though out the Northeast Kingdom. During the first half of the 20<sup>th</sup> Century, as farming become less and less attractive, people were leaving the rural areas and moving to the urban areas for the opportunities that were available. During the last 10 to 30, however, as the urban areas have been losing their attractiveness; with problems of congestion, fast paced lifestyles, and crime; people are now looking for simpler and quieter lifestyles and have started to move back to the rural areas.

For the detailed General Demographic Characteristics in Lowell, see Table DP-1 in the Appendix.

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## Present Population

Like other towns in Orleans County, the average age of the population of Lowell is getting older. The median age, that age where half of the population is younger and half is older, increased by 4.6 years during the 1990's. In 2000, 11% of the population was age 65 or older. Just over 23% of the population was under 20 years of age. The median age is now 35.4 years of age.

As of April 1, 2000, Lowell had a population of 738 persons. Table DP-1 (Appendix) presents a detailed age, gender, and race breakdown of the Town's population.

Table DP-3 (Appendix) presents selected economic characteristics from the 2000 census. This data applies only to those persons who are 16 years of age or older.

The number of people age 16 and over was 525 persons. 322 (61.3%) persons were in the labor force, while 203 (38.7%) persons were not. The unemployment rate was 4.4%. Approximately 70% of the labor force commuted to work in single occupant vehicles, while nearly 20% carpooled. The average travel time to work was nearly 35 minutes. Five percent of individuals worked from home.

Table DP-3 (Appendix) also presents data on income in Lowell. The data in this table are for households and families. A household is defined by the Bureau of the Census as follows: A household includes all of the people who occupy a housing unit. (People not living in households are classified as living in group quarters.) A housing unit is a house, an apartment, a mobile home, a group of rooms, or a single room occupied (or if vacant, intended for occupancy) as separate living quarters. Separate living quarters are those in which the occupants live separately from any other people in the building and that have direct access from the outside of the building or through a common hall. The occupants may be a single family, one person living alone, two or more families living together, or any other group of related or unrelated people who share living quarters. (Census Bureau, Summary File 3 Technical Documentation, page 1014).

In addition, this data presents the median income for the Town of Lowell. The median divides the income distribution into two equal parts: one-half of the cases falling below the median income and one-half above the median. For households, the median income is based on the distribution of the total number of households including those with no income. The median income for individuals is based on individuals 15 years old and over with income. Median income is rounded to the nearest whole dollar. (Census Bureau, Summary File 3 Technical Documentation, page 1019).

## Population Projections

As was indicated earlier in the housing section, accurately projecting the population of any municipality, large or small, is always difficult. When calculating projections, there are assumptions that must always be made which may or may not prove to be correct. Looking at past population growth in Lowell, it was noticed that the average annual growth rate was about 7.4 persons per year.

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At this rate, the 2010 population would be 812 persons and in 2020 the total figure would be 886 persons. However, we have seen that the estimated population in 2007 was only 719 persons (Appendix: VT Indicators Online). Therefore, the 7.4 person per year increase may be too high. The 2010 Census will provide more up-to-date information and these figures should be used along with other information (Grand List data, school enrollment data, etc.) for making more accurate growth projections. Projections are important for planning for future community needs – school capacity, fire protection, and public facility needs, etc.

Lowell, like other communities in Orleans County and the Northeast Kingdom, can probably expect to see the median age of the population growing older according to NVDA (the regional planning commission). Youth continue to leave the area to pursue educational and employment opportunities. The area continues to attract second home buyers, many who are nearing retirement age. Although activity in the second home / vacation home has slowed greatly, by examining property transfers where sales prices continue to exceed listed prices for many properties, the area appears to remain relatively affordable.

As the population grows older, it is important to monitor local school enrollment data. State and region-wide, there have been declining school enrollments. If school enrollments are increasing, there are likely more employment opportunities attracting families to the area. Housing affordability and the quality of local education also play a role, but they also related to employment opportunity.

With the recent, national economic downturn, local and regional employment has suffered. Larger businesses, particularly in manufacturing, have seen layoffs and closures. Small businesses haven't seen any significant growth and many are struggling to stay in business. Some economists project that the economy may remain relatively stagnant at least through 2011. This would seem to indicate that Lowell won't see any short-term increases, unless there is a significant turnaround in the economy.