3. Ticonderoga Today

3.1. Community Profile

With information about Ticonderoga's population, housing stock and economy the town can better understand its present condition, growth trends and the need for services and facilities. This information affects planning for housing, economic development, schools, recreation, emergency services, utilities, energy, transportation and land use.

A. Population

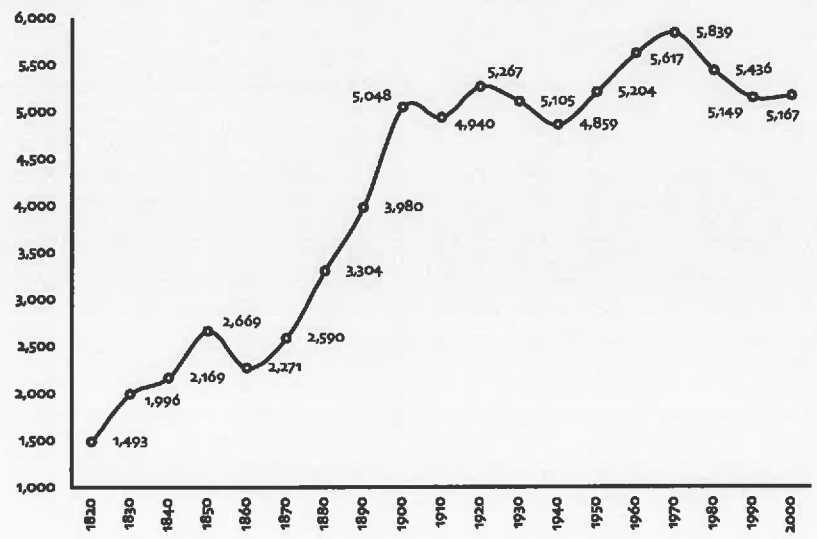
This section of the plan describes population trends, the demographics of Ticonderoga's current population and projections to help plan for the community's future. The heart of a town is its people, and much can be learned from examining the characteristics of present and past populations living in a community.

1. Population Trends

Past trends in Ticonderoga's population mirror the changes described in the town history section of this plan. As economic activity has expanded or contracted, so too has the town's population. Figure 1 shows Ticonderoga's population from the 1820 census, the first federal census count that reported the total number of town residents.

Ticonderoga's population was relatively stable at around 5,000 people for much of the first half of the 20th century. From a low in 1940, the population grew to a peak of more than 5,800 in 1970 as economic opportunities expanded. This trend reversed during the 1970s and '80s as the town's population declined back below 5,200 people. This largely reflects the slow reduction in employment levels as the town lost manufacturing jobs and some downtown businesses. During this time, the number of employees at the International Paper Ticonderoga Mill decreased as the new modern mill, which replaced the older downtown plant, became more automated over

Figure 1: Ticonderoga's Population, 1820 - 2000



Source: U.S. Census Bureau

time and required fewer employees. The number of workers was reduced slowly, mainly though attrition. As the number of jobs stabilized, so too did the town's population. Throughout the 1990s, Ticonderoga's population remained fairly steady at around 5,150 people. The Census Bureau estimated Ticonderoga's population to be 5,150 people in 2004, down slightly from 5,167 counted in the 2000 Census.

Rustic-style camp near Lake George.

2. Non-Resident Population

Due to its location in the Adirondacks along the shores of both Lake Champlain and Lake George, any discussion of population in Ticonderoga must reflect not only the resident population, but also the seasonal population. Much of Ticonderoga's seasonal population consists of second-home owners who spend the summer months in the community, largely around Lake George, although there are seasonal homes elsewhere in town as well. As of 2004, Ticonderoga's summer seasonal resident population was estimated to be about 900 people.

The town has an overnight lodging capacity of approximately 100 rooms, and special events such as encampment weekends at Fort Ticonderoga, Americade week in Lake George and championship fishing tournaments, commonly draw larger crowds than can be accommodated in local establishments. Approximately 100,000 tourists each year visit Fort Ticonderoga during its five-month season from May through October. While most of these are day visitors, some stay in town for a longer period. The number of winter tourists is small by comparison, but activities like snowmobiling and ice fishing do draw visitors in the winter.

Ticonderoga is also an employment and service center for surrounding communities. Approximately 2,700 people work in Ticonderoga, nearly half of whom live outside of town. Ticonderoga's public schools serve children from the neighboring towns of Hague and Putnam and St. Mary's Catholic School draws students from throughout the region. Facilities like Inter-Lakes Health/Moses-Ludington Hospital, North Country Community College, retail stores, restaurants and other commercial and cultural establishments bring people living throughout the area into Ticonderoga as well.

3. Population Characteristics

Perhaps more important to effective planning than the basic numbers, are the characteristics of Ticonderoga's population. Factors such as age distribution, household size and composition, level of education and income affect a population's need for future facilities and services, and a community's economic development potential.

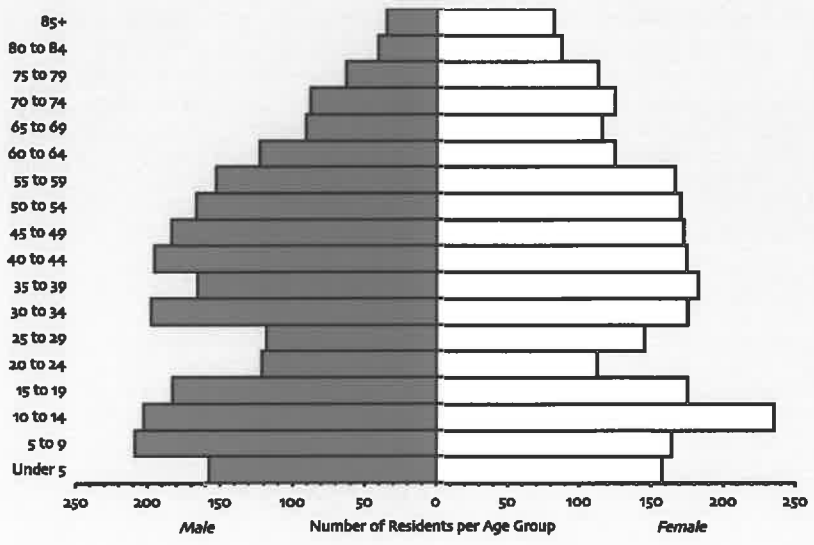
Age

The age distribution of Ticonderoga's population is in many ways similar to that found in communities throughout upstate New York. As Figure 2 shows, a large segment of the town's population was in the 35 to 55 age group (the baby-boomers) in 2000. Baby-boomers are growing older and will create an aging work force over the next 15 years. The aging of the baby-boom generation will affect Ticonderoga, as it will impact communities across the nation. The baby-boomers are expected to be in better health and live longer than preceding generations of elders. While recognizing this, communities will also be challenged to assist those older residents most in need of economic and health supports to maintain their quality of life.

Due to its role as a regional center, Ticonderoga currently has a larger elderly population than is typical. Within the hamlet there are approximately 175 people living in elderly housing – including Heritage Commons Nursing Home, the Inter-Lakes Adult Home, Lord Howe Estates and Montcalm Manor Adult Home. The town also has an unusually large proportion of elderly women, many of whom are living alone and outside the hamlet. Access to needed services, including medical care and shopping, is more difficult for elderly residents living in rural areas especially if they are not able to drive.

The smallest portion of the town's population is in the 20 to 29 age group. This is a trend that is typical of non-college communities throughout upstate New York as teens leave town after high school to attend college or find jobs. Approximately 70 percent of Ticonderoga high school students continue on to some type of higher education after graduation. Some young adults begin to move back

Figure 2: Ticonderoga's Population Pyramid, 2000



Source: U.S. Census Bureau

to town in their late 20s and early 30s, but the town is still losing a large percentage of its younger population. Of the cohorts of children born in Ticonderoga during the 1970s and 1980s, only around 60 percent were still living in town in 2000.

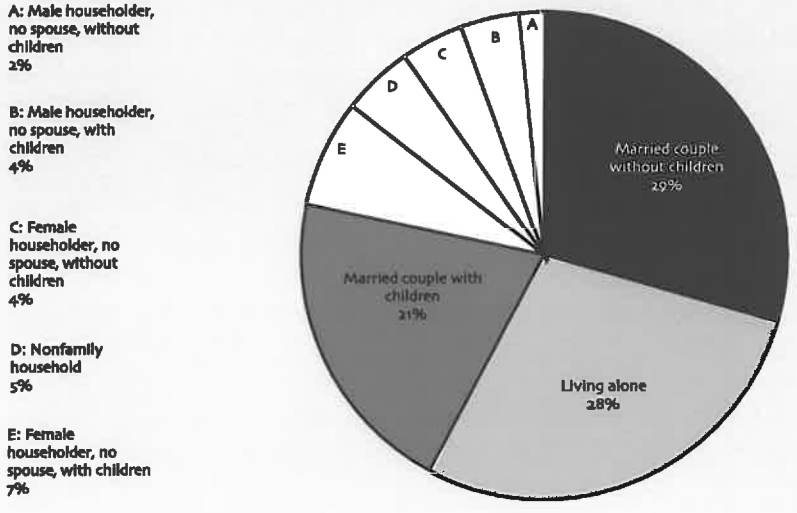
The population pyramid also shows a noticeable decrease in the number of children under age five counted by the Census in 2000. This trend, too, is common in communities around the state and represents a declining birthrate as the baby-boomers move out of their childbearing years. This reduction in births is expected to continue due to the smaller population of women of childbearing age and a trend of couples starting their families later and having fewer children than previous generations.

Households

Household size has been declining in Ticonderoga as it has been in communities around the state. In 1970, the average household size was 3.34 people; while in 2000, the town averaged 2.49 people per household. If current trends continue, it is likely that Ticonderoga's average household size will decline further. In 2000, there were approximately 2,030 households in Ticonderoga, which was an increase of about five percent since 1990 despite the fact the town's population remained virtually unchanged over the same period. A declining household size means that even if the population does not increase, there will be an increase in the number of households and therefore demand for housing, facilities and services.

As suggested by declining household sizes and lower birthrates, families with children are no longer the most common type of household in Ticonderoga. In 2000, nearly 60 percent of households were composed of individuals living alone or married couples without children at home. Of people living alone, over 25 percent were age 75 or older and another 20 percent were between the ages of 65 and 74. Around 30 percent of households had children under age 18, about one-third of which were headed by a single parent. As with the age distribution of the population, the composition of households is useful in determining the types of housing, facilities and services likely to be needed by town residents.

Figure 3: Ticonderoga's Household Composition, 2000

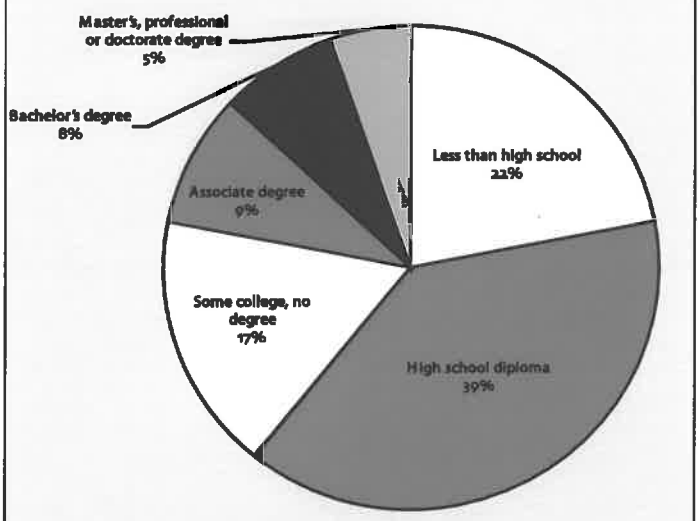


Source: U.S. Census Bureau

Education

The level of education of a town's residents is directly related to their income levels and the economic potential of the community as a whole. As with many communities around the state, Ticonderoga saw dramatic increases in the education level of its residents during the second half of the 20th century. In 1960, less than one-third of residents over age 25 had a high school diploma and less than 10 percent had attended college. Forty years later, nearly 80 percent of residents over age 25 had a high school diploma, 40 percent had attended college and 20 percent had a college degree.

Figure 4: Education Level of Ticonderoga Residents, 2000



Source: U.S. Census Bureau
Universe: Population over age 25

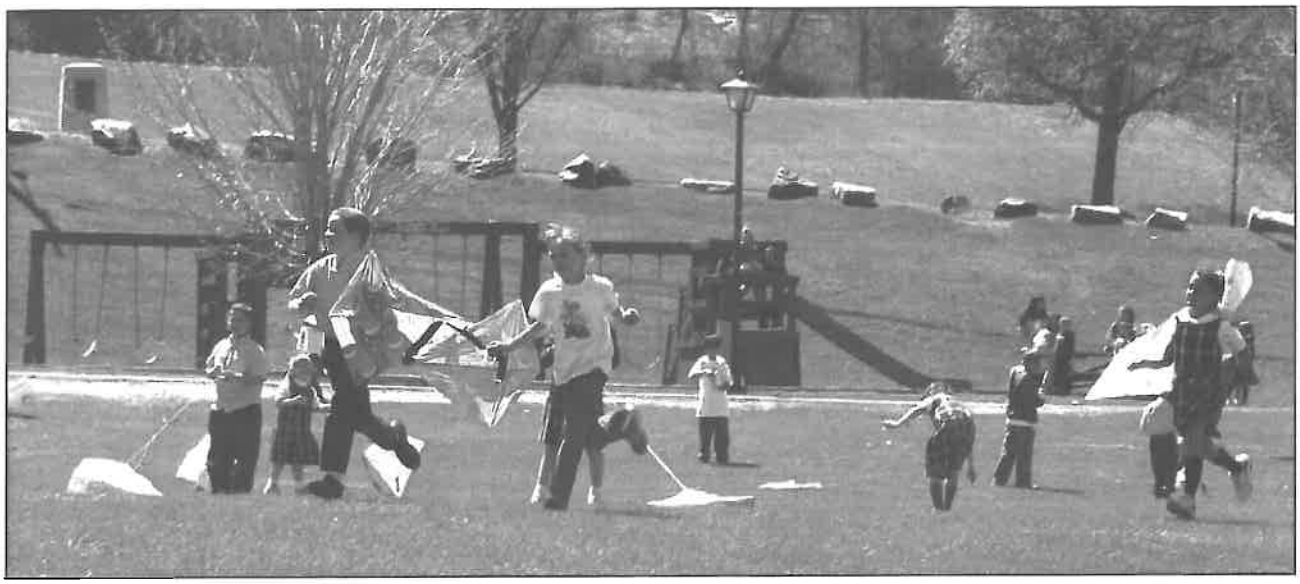
Over this same period, the definition of a basic education has changed to the point where nearly all employers are expecting new hires to have a high school diploma and further education beyond high school is required for many entry-level jobs. Ticonderoga, like other communities in upstate New York, sends a large percentage of its high school students on to higher education. In order to attract those young adults back to town after they complete their education, Ticonderoga needs to offer job opportunities that match their skills.

Income

According to the 2000 Census, the median household income in Ticonderoga was around $34,000. The town's median income has declined somewhat, after adjusting for inflation, since 1980 when the median income was around $38,000 (in 2000$). Much of this decrease is likely due to the demographic shift in the town over the past 20 years as the number of retirees on fixed incomes has increased. Comparing adjusted income levels for households over the past 40 years shows a larger percentage of households at both the upper and lower end of the income scale with a smaller percentage in the middle.

It is also important to remember that household size has been declining, so that each household's income is supporting fewer people today than in previous years. The per capita (per person) income in Ticonderoga has increased when adjusted for inflation nearly $2,500 between 1980 and 2000.

The percentage of the population calculated by the Census Bureau to be below the poverty level in Ticonderoga has increased slightly from 14.5 percent in 1980 to around 15.5 percent (or 780 people) in 2000. In 2000, the poverty threshold for a two-person household was around $11,000 and for a four-person household it was about $17,000. Since the 1960s, the Census Bureau has used a formula, based largely



Children flying kites in Bicentennial Park.

on the cost of food, to establish income thresholds for households of various sizes. The reliance of this methodology solely on food costs (without considering housing costs) has led to concerns that it does not accurately measure the real income needed for households to afford food, shelter and other basic needs.

If asked to describe someone living in poverty, most town residents would likely think first of an elderly widow living on her husband's social security benefits. Indeed the 2000 Census counted approximately 70 households in Ticonderoga headed by a person age 65 or older with incomes below the poverty level; the vast majority of which were composed of single women.

Of town residents calculated to be living below the poverty level in 2000, however, about 37 percent were children under age 18 while less than 10 percent were people age 65 or older. Additionally, more than one-third of households headed by women under age 45 were below the poverty line. The results of these figures is that more than 20 percent of all children in Ticonderoga are living in households with incomes below the poverty level and a significant number of those households are headed by a single parent. These numbers have a direct impact on the community, such as in the connection between household income and how prepared children are to learn when they enter school.

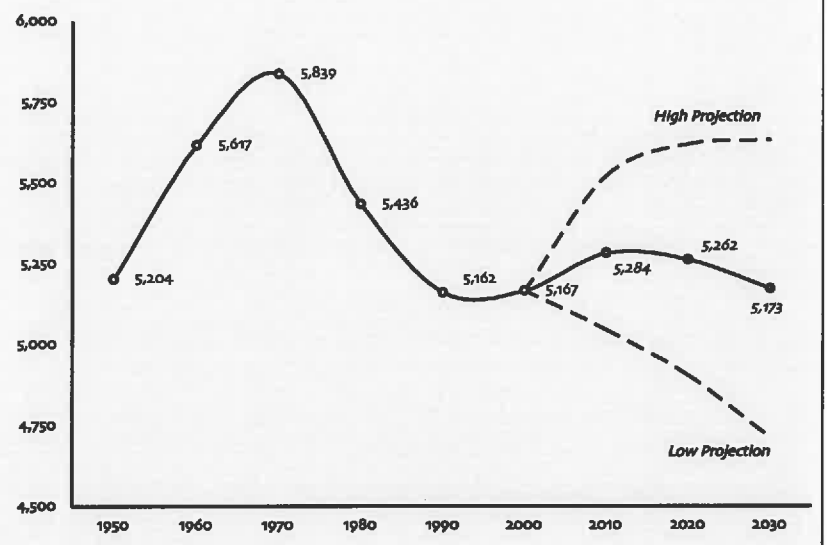
4. Population Density

Approximately 54 percent of Ticonderoga's population lives within the former village limits. In addition to the former village, there are two other traditional settlements – Chilson and Streetroad – in Ticonderoga with populations of around 250 and 150 people respectively. These settlements and the area around Lake George are where most of Ticonderoga's residents live. A large percentage of the town's area is undeveloped forestland (a significant portion of which is state-owned) and the remainder is characterized by low-density rural development.

5. Population Projections

Accurately projecting population growth over several decades is difficult due to the complex web of factors that affect where and at what rate growth will occur. Availability of employment opportunities and housing are two of the key determinants of population change. Other variables related to quality of life, community character and proximity to services, as well as cultural or recreation resources, also influence people's decision on where to live.

Figure 5: Population Projection



Source: U.S. Census Bureau

The increasing ability of residents to do certain types of work from home due to new technology and communication systems is beginning to weaken the linkage between employment growth and population growth, especially in areas like the Adirondacks that offer an attractive lifestyle, comparably affordable property and access to recreational resources. Similarly, as the baby-boomers begin to retire some are moving to places like Ticonderoga that offer recreational, cultural or similar resources. These two trends are already evident in Ticonderoga and will likely become even more important factors affecting how the town will grow in future decades.

The New York State Statistical Information System (NYSSIS) out of Cornell University has prepared age-group based population projections for counties through 2030. Their projection for Essex County shows a 17 percent increase in population over the next 25 years. The model suggests that the county will see an in-migration of residents in their 30s through 50s over the next several decades. There is not expected to be significant growth due to natural increase (births).

Assuming Ticonderoga's population grows at the same rate as the county as a whole, the NYSSIS model indicates that the town's population will be increasing. This would require economic expansion that would create jobs and attract new residents. If one assumes no change in current conditions leading to increased in-migration, the town's population could actually decline as birthrates remain low and a significant percentage of the town's young people leave the community after high school. In between these two alternatives, Ticonderoga's population would remain stable increasing only slightly from current levels.

B. Housing

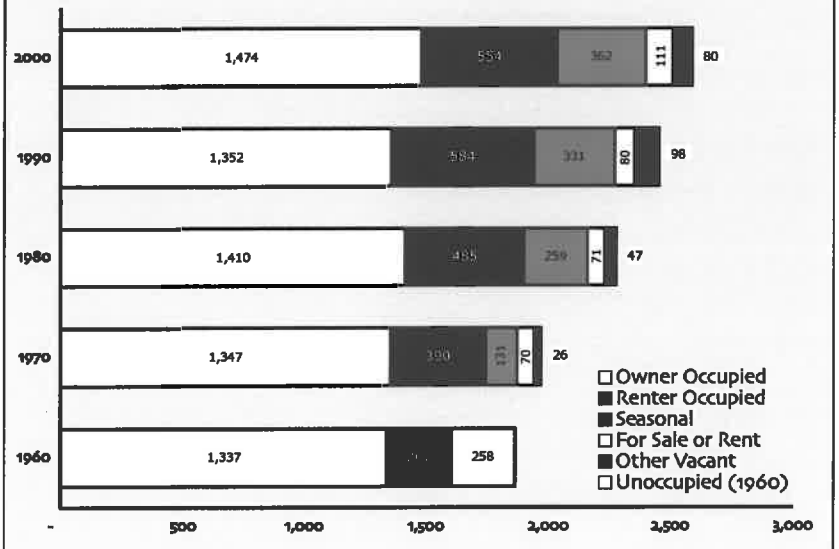
This section of the plan describes the quantity, characteristics and costs of housing in Ticonderoga. Provision of adequate and affordable housing is a basic requirement to support a high quality of life in a community, and attract employers and new residents into town. The diversity of housing types and costs is important for sustaining businesses and encouraging economic growth, since companies are unlikely to expand or relocate to an area where their employees cannot find housing or afford to live.

1. Year-Round Housing Stock

Ticonderoga's tax roll listed approximately 2,000 residential parcels in 2004, nearly three-quarters of which were single-family homes. The approximately 1,450 single-family homes make up around 40 percent of the town's tax base with the median home assessed at $65,000 in 2004. About half of the residential parcels in town are located within the former village limits on lots generally smaller than one acre.

According to the Census Bureau, there were nearly 2,600 housing units in Ticonderoga in 2000. About 45 percent of the housing units in town were built before 1940. Since the 1950 census count of housing, the number of homes in Ticonderoga has increased by approximately 1,500 units. A significant amount of housing was built in Ticonderoga during the 1950s as part of the postwar housing boom seen across the country; the overall number of units in town increased by 73 percent in 10 years. During the 1950s, nearly half of the new homes built in Essex County were in Ticonderoga. In the decades since, the rate of new home construction has generally been modest.

Figure 6: Housing by Tenure in Ticonderoga, 1960 to 2000



Source: U.S. Census Bureau

As with rural communities across upstate New York, most of Ticonderoga's housing units are single-family homes (see Figure 5). However, the town does have a somewhat larger percentage of two-unit structures and significantly more multi-unit structures than neighboring towns. Most of the town's multi-unit structures and apartments are located within or near the former village limits, where they are supported by public water and sewerage. How structures are used for housing is not static; conversions are continuously occurring, most commonly with single-family homes

being divided up into multiple units, but also less frequently in the other direction with small units being combined into larger units.

The mix of owner-occupied, rental and seasonal housing in Ticonderoga is different from that of neighboring communities. In the towns of Hague, Putnam and Schroon over half of homes are seasonal, while in Ticonderoga seasonal residences comprise less than 15 percent of the housing stock, according to Census figures. As listed in the 2004 tax roll, the percentage of structures that are classified as seasonal (not winterized) is even smaller. Ticonderoga has more rental properties than any of its neighbors, at around 20 percent, compared to 10 percent or less in Hague, Putnam or Schroon. As illustrated in Figure 5, much of Ticonderoga's increase in housing over the past 40 years has been in rental units and seasonal housing.

Rental Housing

The 2000 Census counted around 550 renter-occupied housing units in Ticonderoga. The amount of rental housing in town has been increasing at a faster rate than owner-occupied units. From 1960 to 1990, the number of units increased nearly 120 percent with around 100 units being added each decade. This trend shifted during the 1990s, however, when the number of rentals decreased by 30 units.

A significant amount of Ticonderoga's rental housing has been converted from older single-family homes in the former village or built in the upper stories of downtown buildings. Additionally several apartment complexes were built in town during the 1980s, including the 20-unit Mountain Vista Apartments and the 38-unit Lord Howe Estates for senior citizens.

The "Pad Factory" is a formerly industrial building converted to rental housing.

Recognizing that no single housing solution will fulfill everyone's needs, it is important for a community to provide a range of housing options. An essential element for Ticonderoga's future vitality is diversity. However, subsidized rental units and affordable apartment complexes are currently not well integrated into the town's residential neighborhoods. This is partly due to factors such as location and architectural style, but it is also a result of such units being clustered together in specific parts of the community. A significant

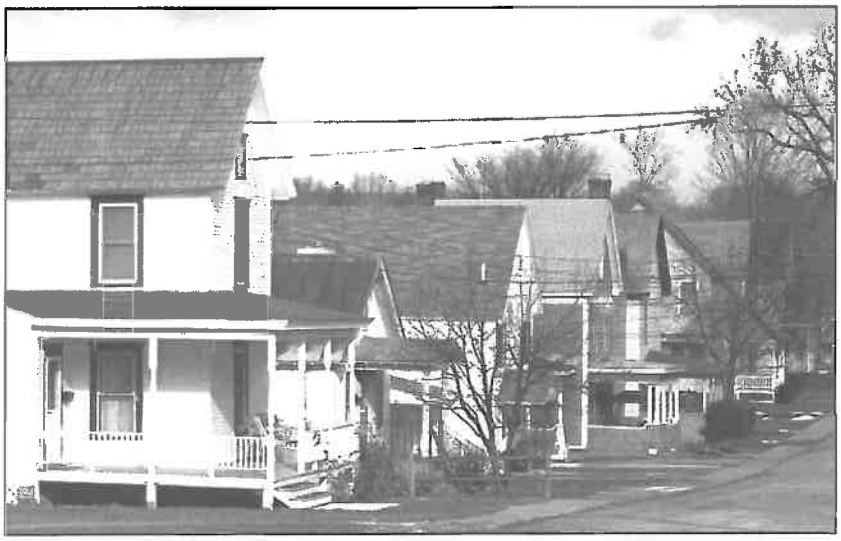
percentage of the residential units located in the upper stories of the commercial buildings on Montcalm Street are subsidized rental units with relatively short-term tenants. This has led to an environment in Ticonderoga's downtown that is not conducive to the town's goal of revitalization.

2. Housing Costs and Quality

Perhaps more critical than the quantity and types of housing available in Ticonderoga is how affordable the housing is for residents. In addition to being a basic need for individuals and a building block of communities, housing is usually the single largest expense for most households. For homeowners it is often a family's most valuable asset, and for a town it forms a significant proportion of the tax base.

Housing is typically considered affordable when a household is spending less than 30 percent of its gross income on housing costs. Housing costs include rent and utilities for renters, while for homeowners it includes mortgage payments, insurance and property taxes. Given Ticonderoga's 2000 median household income of around $34,000, that household could afford to spend approximately $850 per month for housing. According to the 2000 Census, one-third of renting households and one-quarter of home-owning households in town had housing costs that exceeded 30 percent of their income.

First time home buyers have typically been able to purchase affordable, single-family homes in Ticonderoga. However since the mid-1990s, housing prices have been rising faster than household income, thus reducing affordability. Between the 1990 and 2000 Census, the number of homeowners who were paying more than 35 percent of their income on housing increased significantly. The number of homeowners with a mortgage whose housing costs were 35 percent or more of their income went from around 30 to nearly 150. Most of this increase is due to households who purchased homes during the 1990s. Currently the median sale price for a single-family home in Ticonderoga is approximately $78,000, but prices range considerably.



Homes along Amherst Avenue in Ticonderoga hamlet.

According to the 2000 Census, the median gross rent in Ticonderoga was around $470 per month. The Department of Housing and Urban Development set the 2005 fair market rent for Essex County at $550 a month for a two-bedroom apartment. In 2000, the median household income for renters was about $24,500, which translated to affordable housing costs

of around $600 per month. While the affordability of rental housing in Ticonderoga improved significantly during the 1990s, in 2000 there were 150 renting households spending more than 35 percent of their income on housing.

Given the age of most of Ticonderoga's housing stock, rehabilitation, regular maintenance and energy efficiency must be addressed to maintain safe and affordable housing for residents. For a number of years, efforts have been ongoing by PRIDE and other organizations, to assist property owners with these issues and improve the condition of housing in Ticonderoga.

3. Seasonal Housing

Homes along the eastern shore of Lake George.

While Ticonderoga may have a smaller percentage of its housing stock in seasonal use, these homes are still significant in absolute numbers. The 2000 Census counted over 360 seasonal homes in Ticonderoga, while the town's 2004 tax roll listed 121 seasonal (non-winterized) residential parcels. There were approximately 1,360 STAR property tax exemptions for primary residences in 2000 suggesting that around 30 percent of the town's residential properties are seasonal or rental units.

The seasonal home segment of Ticonderoga's housing stock, much of it built on the shores of Lake George, has been growing over the past several decades and it has significant implications for the fiscal condition of the town, demand for infrastructure and services, community character, and environmental quality. Due to the desirability of waterfront property, most of the homes along the Lake George shoreline have assessed values greater than $250,000, which is significantly more than homes elsewhere in town.

Despite being viewed generally as a fiscal boon to the town, in recent years there has been increased demand for improvements to or extensions of infrastructure to shoreline residences around Lake George from some property owners. Concern over increased development has led other shoreline property owners to oppose extensions of public water and sewerage. As infrastructure is brought to the lakeshore, it could support higher density development and might encourage further construction in areas with developable land, or the conversion of existing seasonal homes into year-round homes. While there is little additional waterfront property available for development, there is significant potential for new housing to be constructed in areas near the lake, largely to the west of Baldwin Road.

As the number of and intensity of use of homes around the lake continues to increase, so too do concerns over water pollution from inadequate or failed onsite septic systems. Despite the high cost, competing interests and current lack of consensus about infrastructure extensions, it is likely that in the long-term the entire Lake George shoreline in Ticonderoga will be served by public water and sewerage. If the town wishes to limit additional development around the lake, it will ultimately need to do so through its land use regulations rather than relying on a lack of infrastructure to control growth.

4. Future Need for Housing

As described in the population section of this profile, the size of households is declining and the number of senior citizens is growing as a percentage of the town's population. Additionally, there is a need for Ticonderoga to provide housing that would support and attract young adults to maintain a vital, diverse community. Multi-family housing in various forms has been traditionally sought to meet the needs of these types of households. The continued availability of affordable rental housing in Ticonderoga provides homes for people including:

- Residents who have raised their families and no longer wish to maintain their own single-family home, but would like to continue living in the community.
- Retired people and other residents wishing to remain in the community who, due to changes in their income, can no longer afford to maintain a single-family residence.
- Newly married couples, young families or single adults who have grown up or come to work in Ticonderoga, but cannot yet afford or do not want a single-family home.
- People who are working in town, but whose incomes are not sufficient to afford the purchase of a single-family home at current prices.

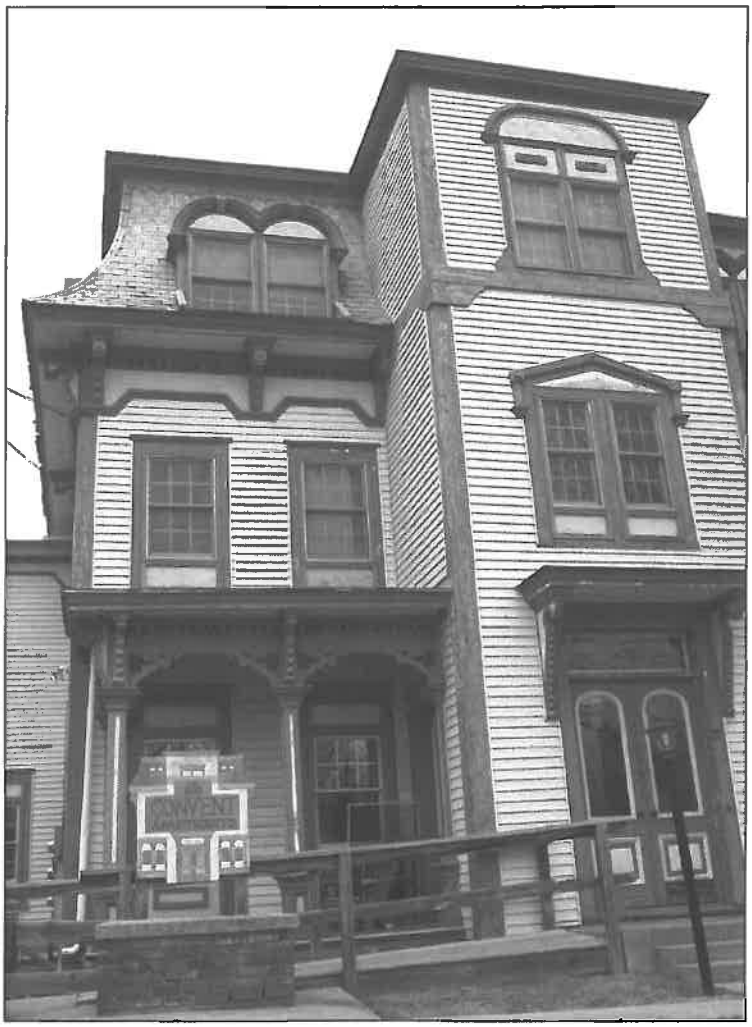
The development of smaller apartments within or associated with single-family homes is probably the most cost-effective way of providing affordable rental housing in the town. Such units can allow elderly or disabled residents to be cared for by family members, while still providing separate living quarters for each household. Elderly residents who own single-family homes may find such apartments provide them both

Senior citizen housing at Lord Howe Estates.

extra income and a greater sense of security than they had living alone in a large house. Accessory units are cost-effective for the town as well since they more fully utilize existing structures and require little infrastructure expansion.

As with communities around the country, Ticonderoga will be facing an increased demand for housing that meets the needs of elderly residents over the next several decades. As a regional center that provides medical care, convenient access to stores, and greater amounts of rental housing, the town should expect that older residents in surrounding communities might look to Ticonderoga for housing in future decades.

Housing that meets the needs of older residents should be accessible – both within the home for people with varying levels of mobility or disability and outside the home to allow people to remain active and engaged in the community. Elderly housing should be sized appropriately for one or two-person households and ideally should have limited maintenance requirements. As elderly residents are more likely to be on fixed incomes, affordability is also a key consideration.



The Convent Apartments on Father Jogues Place.

Nationally, the demand for elderly housing is being met by several approaches: (1) one- or two-bedroom single-family cottages, townhouses or condominiums with recreational amenities geared to meet the demands of a healthy, active retired population; (2) one- or two-bedroom units with congregate dining facilities and social spaces, and associated support with daily activities; or (3) nursing home facilities. Currently in Ticonderoga, there is housing in each of these categories and future elderly housing development will likely incorporate more than one approach in order to provide a range of housing types and varying levels of assistance or care.

As important as building new housing to meeting future housing demand is maintaining the town's existing housing stock. It is important for the town's existing rental units, especially the most affordable units, to be managed and kept up to ensure safe and healthy living conditions for tenants. Keeping the town's historic homes well maintained, especially within the hamlet, is key to preserving Ticonderoga's character.

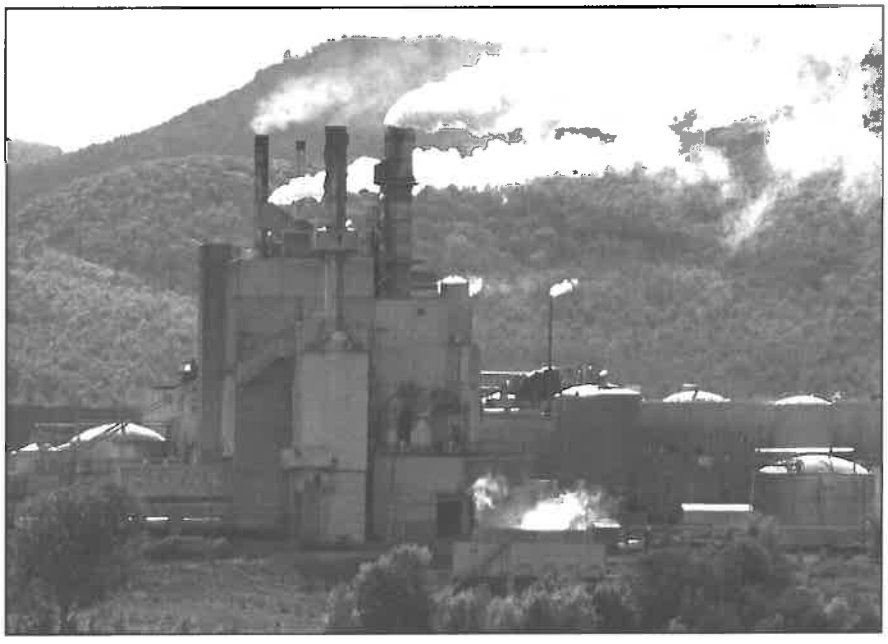
C. Economy

Planning for Ticonderoga's economic future is important for a variety of reasons. The town's economy is the engine that drives people to move in (or out) of the community. Demand for housing, transportation and infrastructure are linked to the local economy. Economic vitality also supports municipal services and the town's education system. This section of the plan examines the trends and characteristics of Ticonderoga's economy.

1. Current Economic Condition

Ticonderoga is, and has been for nearly 100 years, heavily dependent on a single industry – paper. The first pulp and paper mill began operation at the Lower Falls in 1878. By 1900, there were five pulp and paper mills along the LaChute River. By the 1890s, the complex that was to become the "downtown" paper mill was largely formed and it remained in operation for the next 80 years. That mill was taken over by International Paper in 1925; in 1971, the company moved its operation out of downtown to its current location north of the hamlet on Lake Champlain.

According to a 2005 presentation by mill management, International Paper employs around 700 people directly at its Ticonderoga Mill and supports around 600 independent loggers, truckers and other contractors. The mill's employees and contractual workforce represent around 50 percent of the town's jobs. In 2003, its annual payroll was $38.7 million, which was around 55 percent of the total annual payroll in the 12883 zip code (this and all data below referenced to Ticonderoga's zip code are from Census Bureau's County Business Patterns unless otherwise noted). In 2004, IP comprised 22 percent of the town's assessed property value, making it the largest single contributor to income raised through property taxes for the school and town. The town's level of dependency on a single industry increased throughout the second half of the 20th century as other manufacturing operations in town ceased operation; a trend that continues through the present.



The International Paper Mill as seen from across Lake Champlain in 2003.

After IP, Ticonderoga's next three largest employers include the Moses-Ludington Hospital, Heritage Commons Nursing Home and Wal-Mart SuperCenter, each of which employs more than 100 people. Most of the town's private employers are in the retail trade (20%), healthcare and social assistance (15%), accommodation

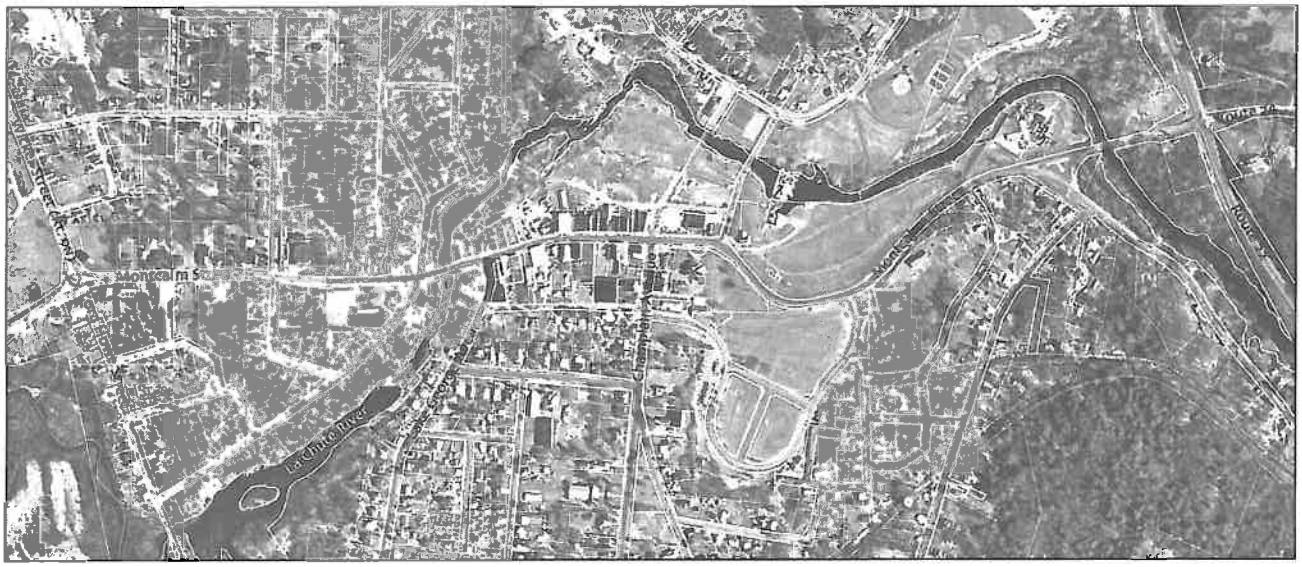
and food services (15%), and construction (10%) sectors. For the past decade, the number of private sector employees covered by unemployment insurance working in the 12883 zip code has fluctuated within 100 jobs above or below 2,000. The number of "establishments," which in Ticonderoga are generally equivalent to businesses, has actually declined since 1994 from 155 to 142 in 2002. Average annual wages over the same period have increased about $2,000 after being adjusted for inflation. According to the Census Bureau, the average annual wage paid by Ticonderoga's employers was around $35,000 in 2002, which was about $10,000 above the county average, largely due to employment at IP.

The school district and town are the fourth and fifth largest employers in Ticonderoga. In Essex County, the public sector provides more than 20 percent of all jobs (Bureau of Economic Analysis Regional Economic Information System 2000). In fact, the county's largest employer is not the Ticonderoga International Paper Mill, but the state Department of Environmental Conservation. The rate of public sector employment has remained fairly steady in the county since the 1970s.

A view of industrial activity at the Lower Falls in 1891.

Most of the town's employers are small businesses; 80 percent of employers in the 12883 zip code had fewer than 10 employees in 2002. Within Essex County, the Census Bureau counted around 1,100 employer establishments in the 2002 Economic Census and more than 2,600 non-employer establishments (self-employed individuals and partnerships). These individuals and small businesses reported around $83 million in gross receipts on their annual business income tax returns, which was about one-third of the annual payroll of the county's private sector employers. Over 250 Ticonderoga households reported some self-employment income on the 2000 Census. For many, self-employment is likely a supplement to income from other sources. These small businesses represent one of the town's most promising opportunities for diversifying its economy.

As described in the history section of this plan, the close proximity to raw materials like timber and graphite, waterpower on the LaChute River, and the access to water and then rail transportation combined to make Ticonderoga an industrial and commercial center from early 1800s on. In the 21st century, however, Ticonderoga is struggling to diversify its economic base, revitalize its downtown and attract new businesses to the community.



An aerial view of Ticonderoga's downtown in 2003.

2. Downtown Ticonderoga

Downtown Ticonderoga formed as an industrial and commercial center around the LaChute River. While the industrial activities have moved out of downtown, commercial activities continue along Ticonderoga's main street – Montcalm Street – and intersecting streets including Schuyler Street, Lake George Avenue and Champlain Avenue. Ticonderoga's central business district runs one block deep along both sides of Montcalm Street from Wiley Street east to the Tower Avenue intersection. There is over 300,000 square feet of building space within the one- to three-story commercial buildings that line the street. In many of the buildings, the upper floors have been converted to residential use. As of 2002, there was approximately 195,000 square feet of commercial space with a 20 percent vacancy rate (Town of Ticonderoga Strategic Revitalization Plan).

Nearly all of the historic buildings in these commercial blocks date from after 1875 when a devastating fire destroyed most of Ticonderoga's downtown structures. There has been some additional redevelopment with new buildings replacing older structures that were razed or destroyed by fire over the past 125 years. There is currently a single vacant lot, to the west of the Rite-Aid Pharmacy, which was the site of the State Theater that collapsed in 1994. The open lot at Tower Avenue is currently used as a parking lot. In the mid-1990s, PRIDE of Ticonderoga administered a Commercial Revitalization Program designed to improve the appearance of downtown commercial buildings. Façade improvements were completed on seven buildings.

Although retail square footage as a percentage of downtown commercial space has remained relatively constant over the last few decades, there has been a dramatic change in make up of Ticonderoga's downtown. In the early 1970s, the retail mix along Montcalm Street included Sears, Montgomery Ward's, Newberry's, three local pharmacies, two grocery stores, Pearl's (a locally-owned department store), and an apparel store.

Thirty years later, all these stores are closed and many have been replaced by non-retail uses or by retailers selling non-essential specialty items. The shift in the downtown business mix can be attributed to a number of factors including:

- The relocation of International Paper out of downtown in 1971 and the resulting reduction in pedestrian traffic (many employees lived in the hamlet, walked to work, and ate lunch at downtown restaurants and lunch counters).
- Construction of the Route 22/74 bypass in 1974, which reduced the amount of traffic passing through downtown, including tourist traffic.
- Commercial development at the Route 22/74/9N intersection, which began in the early 1970s and continues through the present. The Grand Union grocery store (now closed) and Ames department store (now closed and replaced with video rental, dollar, and auto parts stores) were built in 1975, a McDonald's restaurant opened in 1984, followed by a Super-8 Motel in 1990, the Wal-Mart SuperCenter (which includes a grocery store) in 1998, a Subway in 1999, and a Dunkin Donuts in 2006. A Lowe's home improvement store is likely to open in 2007 and the downtown Rite-Aid is planning to move out to the Four Corners as well.
- A decline in Ticonderoga's population base during the 1970s and 1980s that diminished consumer spending.
- Changes in consumer shopping patterns and habits away from downtown retailers towards large, "one-stop," chain stores typically located in shopping centers out of downtowns along main highways, then to malls and now to "big-box" stores and Internet retailers.

The remaining well-established commercial "anchors" in Ticonderoga's downtown are in jeopardy as well. The likely construction of a big-box home-improvement store at the Four Corners will mean greater competition for the downtown Aubuchon Hardware and Agway stores, as well as local lumberyards. Other mainstays have owners nearing retirement and may not be able to transition successfully from one generation to the next.

A downtown is the most visible indicator of community pride, along with the economic and social health of a town. It is either an asset or a liability in the effort to recruit new residents, new businesses and industries, retirees, tourists, and others to the community. Quality of life is what separates successful towns from declining communities, and a vital downtown plays a key role in creating an attractive environment. A downtown is the visual representation for the community's heritage and its architecture is a physical expression of the town's history. Ticonderoga has been striving to revitalize its downtown into a place that would provide residents with needed goods and services, while also attracting visitors and generating economic activity.

The annual 4th of July parade on Montcalm Street, 2004.

3. Tourism

Ticonderoga has a wide variety of resources to offer visitors. Fort Ticonderoga currently attracts around 100,000 visitors each year. Fishing tournaments on Lake Champlain bring hundreds of participants and their families into town. Returning summer residents come to their homes or rentals on Lake George and Eagle Lake each year. Thousands of motorcyclists pass through the community for a week each year as part of the Americade rally based in Lake George village. People come to camp at Putts Pond State Campground and enjoy the outdoor splendors of the Adirondacks.

Despite this wealth of potential, Ticonderoga has not yet been successful in its efforts become a "destination" and turn its tourism resources into significant economic benefits for the community. This is especially true in its downtown, which as described above does not have the strong retail and dining components that would attract tourists. Historically, Ticonderoga's downtown was an industrial center. Although the relocation of the mill in 1971 ended that era, in the 30 years since the downtown has not been able to transition from a "blue collar" to a "touristy" character.

Street trees being planted on Montcalm Street in 2000.

That change has and is continuing to require more than opening stores and restaurants; it has required changes to the town's culture in the way residents, businesses owners and local officials think about their community. In the 1990s, the town began to make positive changes to the appearance and physical character of downtown buildings with façade renovations, landscaping and other such improvements. These investments and the support for downtown revitalization from a broad range of interests are positive indications of the community's commitment to becoming more of a "destination" by creating an environment that will attract visitors.

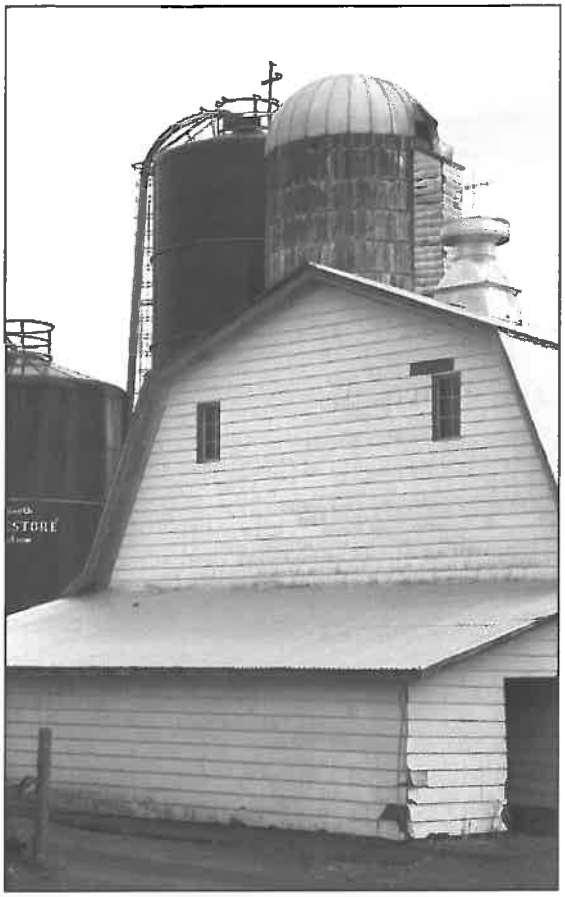
There is another significant limiting factor that is preventing Ticonderoga from successfully using its tourism resources for economic development – the lack of accommodations. More than 100,000 people visit town each year, but the town has only 100 rooms available in the summer and fewer year-round. Over the past several decades, there has actually been a decline in the number of hotels and motels operating in town. Ticonderoga is a place that visitors drive through; even if more of them wanted to stay overnight, the lack of rooms would prevent most from doing so. Numerous studies have demonstrated that visitors who spend the night in a community contribute proportionally more to the local economy than those who just pass through.

Ticonderoga's 1977 Comprehensive Plan called for both a downtown campground and a hotel; if either of those had come to pass, it is almost certain that the downtown would be economically stronger than it is today. Unfortunately, neither of the properties that the 1977 plan envisioned for those uses are now available for development and there is little open or underutilized land that would be suitable. The construction of the 39-room Super 8 Motel along the bypass in 1990 increased the town's overnight capacity, but a hotel located beyond walking distance of the downtown simply has not had the same level of benefit to the local economy as a downtown facility.

One potential solution is to support and encourage conversion of existing homes into bed-and-breakfasts. Within the hamlet, there are many historic homes large enough to be operated as B&Bs. It is also important that the town's existing lodging facilities remain open and are not converted to rental housing.

Additionally, the town could actively seek appropriate property, financing and a developer willing to build and operate a hotel in the vicinity of downtown Ticonderoga. A 2003 feasibility study conducted by the Technical Assistance Center of the State University of New York at Plattsburgh concluded that Ticonderoga could support a 100-room hotel. The report further recommended that the facility be located in downtown; however, it suggested a location between McCormick Street and the LaChute River as the preferred potential site. While this land is owned by the town and is undeveloped, it is part of the lands given to the town by International Paper and likely is subject to stipulations requiring company approval for any subsurface disturbance. Previous proposals for development on these lands have been turned down by IP. A more thorough study should be undertaken to identify and assess the feasibility of developing or redeveloping properties within walking distance of the downtown as a hotel site.

Each year at Fort Ticonderoga's Grand Encampment weekend, reenactors pitch tents to recreate an 18th century military camp on the grounds .



Huestis Farm in Streetroad.

4. Agriculture

Agriculture is one of the traditional components of Ticonderoga's local economy and a major contributor to the town's rural character and quality of life. Open agricultural land has created the scenic, pastoral landscape that distinguishes Ticonderoga from other Adirondack communities. Currently, there is a mix of dairy, orchard, berry and vegetable farms operating in town.

While the percentage of the population engaged in farming declined sharply throughout the 20th century, much of the town's prime farmland remains in active production and the number of farms has actually been increasing in recent years. In 1960, five percent of the town's employed population reported to the Census that they worked in agriculture; that figure dropped below one percent on the 2000 Census. Approximately 8,300 acres of land were included in Ticonderoga's Agricultural District in 2004. The 2002 Agricultural Census counted six farms in the 12883 zip code that were less than 50 acres in size and two that were larger than 1,000 acres. In 2002, there were 28 farms in the 12883 zip code, 22 of which were the principal occupation of their operators. Fifteen farms reported that the total market value of agricultural products sold in 2002 was less than $50,000 and five sold more than $250,000 in agricultural products.

Ensuring that the town's agricultural land remains in production maintains not only a traditional component of the local economy and protects scenic views, it can save the town money. Studies conducted around the country have shown that farmland pays more in taxes than it costs local government in services, while residential development does not pay its own way.

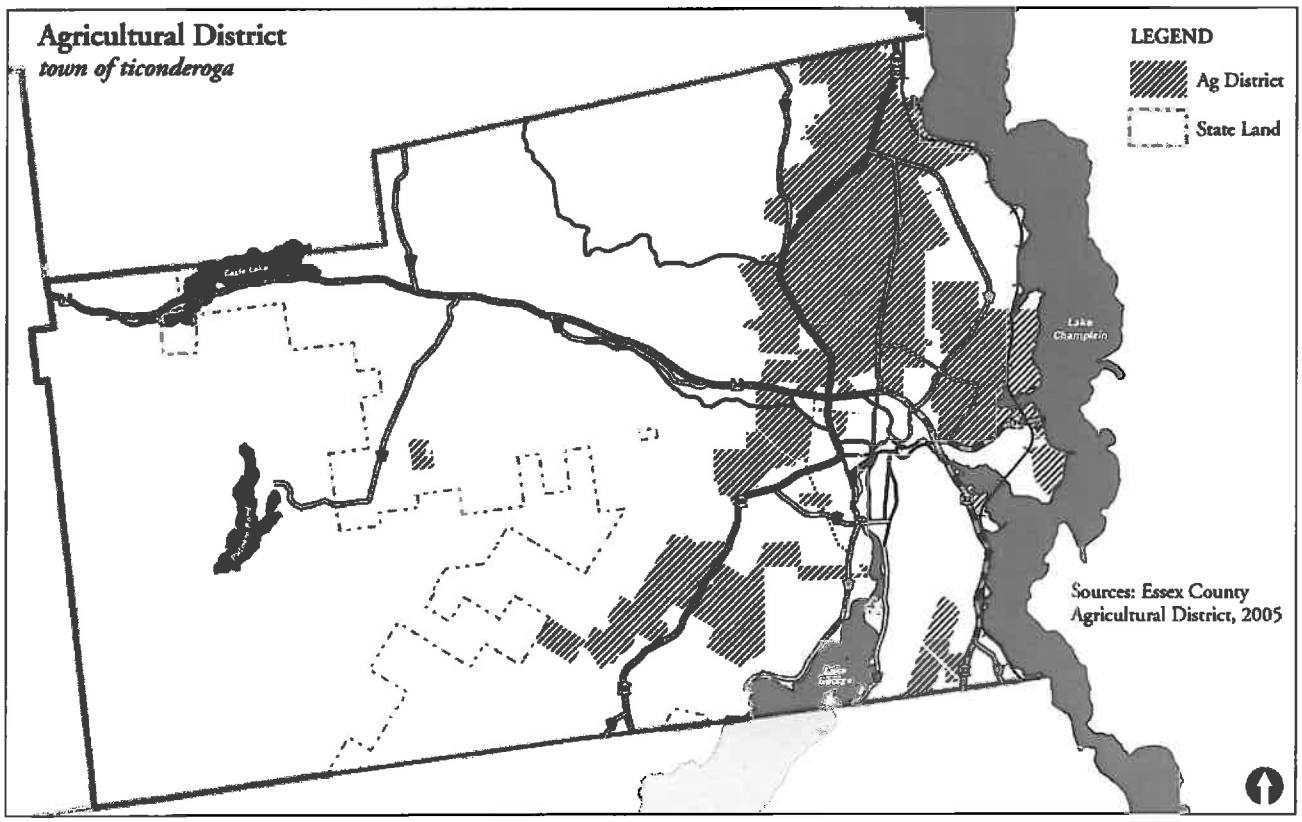
Most of Ticonderoga's farmland is classified as Resource Management in the Adirondack Park Agency's Land Use Plan. While the extremely low density (42.7 acres per dwelling) required has largely protected this land from residential development, it is important for the town to promote the business of farming to ensure continued productive use of the land. If the land is protected, but the farmers go out of business, Ticonderoga will lose an important industry and contributor to its tax base.

As the with the town's economy as a whole, diversification of economic activity on Ticonderoga's farms and orchards will increase their viability. Local farmers are competing in a national and international market, which has put the traditional "family farm" once common throughout the Northeast at a disadvantage. Ticonderoga can assist its farmers by supporting efforts to supplement their farm income.

Pick-your-own operations, roadside stands, farmers markets, wineries, greenhouses, processing facilities, inns, bed-and-breakfasts, horse stables, and other similar endeavors can increase the profitability of an agricultural operation. Accessory recreational uses that are related to agriculture or the enjoyment of nature, such as hunting, fishing, cross-country skiing, snowmobiling, camping, and other such activities also have the potential to strengthen the financial viability of farming. Many of these types of activities have been grouped under the term, "agri-tourism," and encouraging their development would also help the town in its attempts to become a year-round tourist destination.

Ticonderoga should also encourage the owners of historic barns to take advantage of New York State's investment tax credits for barn rehabilitation. The town could also allow farmers greater flexibility in the use of accessory farm structures, both to supplement farm income and to preserve the farm structures that help define Ticonderoga's agricultural heritage. Warehousing, processing and packaging of agricultural products, and lodging are potential uses for historic farm structures. The relocation of the IP mill out of downtown brought industrial activities to the town's main agricultural area. Industrial and agricultural activities often can coexist with each other better than either can with residential uses.

Current trends in agriculture point to two paths for farms to remain viable – small, specialty farms serving niche markets or the tourist economy or large farms that are more like factories with a high degree of mechanization – and Ticonderoga should support both options for local farmers.



Home businesses at the western end of Montcalm Street.

5. Home-Based Businesses

With the advent of telecommuting, more and more people are working out of their homes. Others operate small service and retail businesses, or produce goods from their residential property. Such activity has been a traditional element in rural economies where one of the principal occupations, farming, could be described as a home-based business.

According to the 2000 Census, there were nearly 70 people working from their homes in Ticonderoga. In the 2002 Economic Census, the Census Bureau counted over 80 businesses in the 12883 zip code that employed four or fewer employees, which represented nearly 60 percent of the total number of business in town. Many successful small businesses begin as home occupations with a single employee and grow from there. As the local economy continues to shift, the number of home-based businesses in Ticonderoga will likely increase.

Home-based businesses can provide numerous benefits for both workers and the community. They provide useful services and encourage business start-ups by eliminating the initial need for some small businesses to rent commercial space. Working from home also saves people time and money by eliminating their commute, reduces traffic congestion and wear-and-tear on local roads, and lowers demand for childcare. It can also provide many people who might be unable to work outside the home, such as single parents, the elderly or disabled, an opportunity to earn a living.

Most people agree that home-based businesses are a good thing for a community as long as they do not disturb the residential character of neighborhoods. By clearly defining home-based businesses and establishing performance standards for them, this type of economic activity can flourish while protecting the quality of life in neighboring residences. Since the impact of home-based businesses is more important than their use, performance standards should be developed to provide clear guidance to town officials and residents interested in starting a business. If a successful home-based business outgrows the owner's residence and needs to expand, the performance standards would ensure that the use no longer is classified as a home-business and it would need to relocate to a district zoned for commercial or industrial uses.

The town should consider implementing a two-tier structure for regulating home businesses that distinguishes between intensities of use that would require review as a special use and those that could be permitted administratively. Two use definitions should be established – home occupation and home-based business. Home occupations would include those activities that are virtually invisible from outside the residence; they

occur entirely within the home, do not result in increased traffic, visitors, noise, light or odors, have no or a very limited number of non-resident employees, and do not store equipment, materials or goods outside the home. Home occupations would be considered a permitted use in most zoning districts. Home-based businesses would be more broadly defined allowing a wider range of activities and impacts. However, they would be considered a special use and require review under the town's Site Plan Review Law.

6. Commerce Park

In 2001, Ticonderoga Commerce Park, a 60-acre industrial park operated by the Essex County Industrial Development Agency, was established near the Four Corners intersection of Route 9N/22 and Route 74. The park currently houses a National Grid facility, Adirondack Waste Management and Dockside Landing boat repair and storage business. The park is served by municipal water and sewer, has convenient access to the state highway, and has potential for expansion.

Ticonderoga Commerce Park.

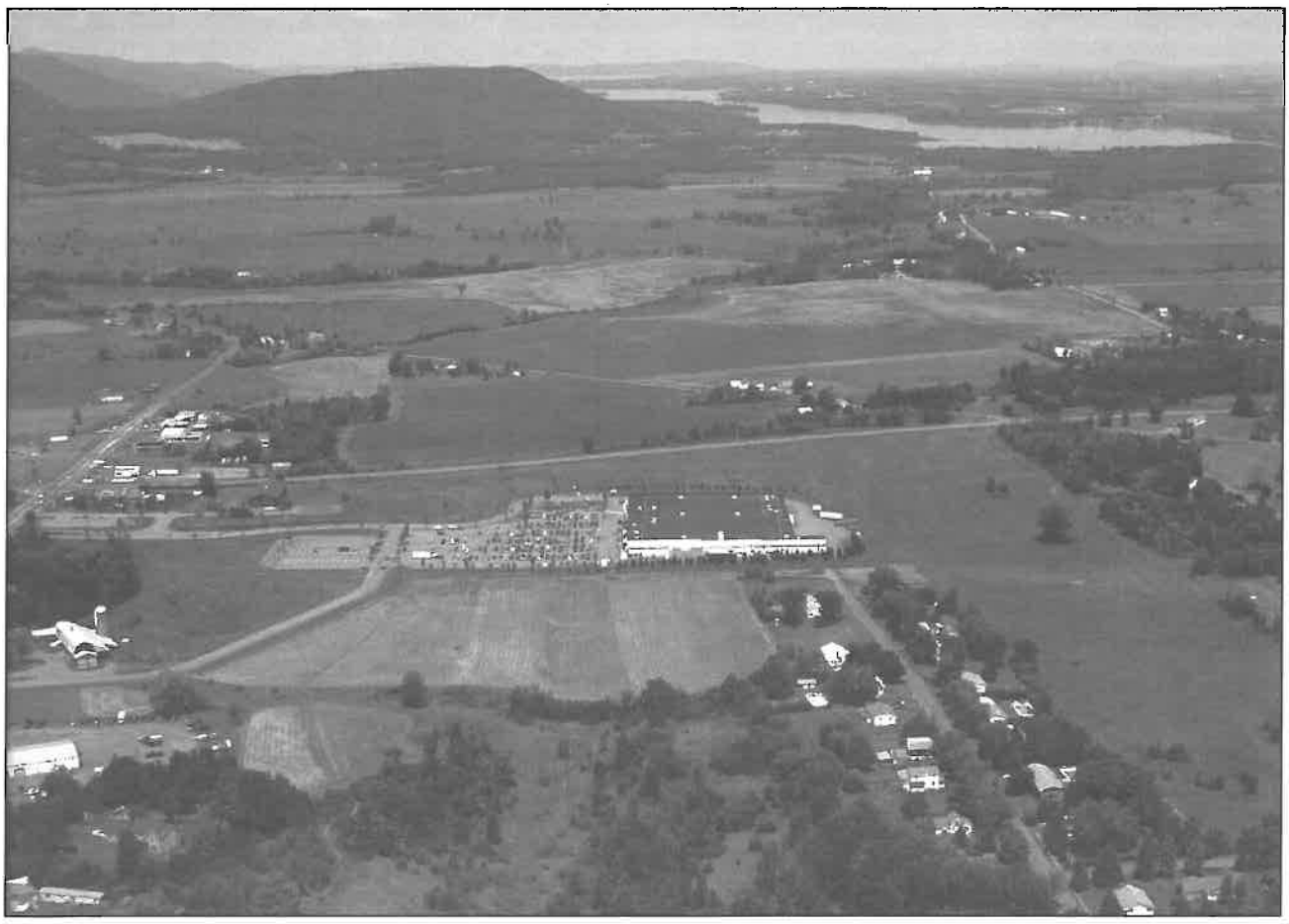
7. Economic Development

Ticonderoga's economic future depends on its ability to diversify its economic base. The town's reliance on a single, large manufacturer has put it in a precarious situation. If International Paper were to significantly reduce its workforce or close the Ticonderoga Mill, the effects on the town and the larger region would be devastating. Local residents, officials and business owners have seen firsthand the effects of plant closure or downsizing in other "single-employer" communities in northern New York. Beginning to broaden the town's economy though downtown revitalization, increased tourism, and small business development and expansion will put Ticonderoga in a stronger position for the future.

The town currently has an Economic Development Committee that is actively working to attract businesses into Ticonderoga. The Ticonderoga Chamber of Commerce also supports efforts to grow the local economy by providing services to existing businesses and marketing the community. The town also participates in or has representation on the boards of a number of organizations such as the Workforce Investment Board, the Essex County Empire Zone, Champlain Valley Heritage Network, and Lakes-to-Locks Passage, which focus on economic development and tourism in the region. Coordinating these efforts and ensuring that their objectives are compatible will be important if Ticonderoga is to develop a vital local economy.

It is also essential that Ticonderoga recognize that not all economic development is necessarily good for the town, and target its efforts to attracting development that will have long-term benefits for the community as a whole. If the town attracts large-scale retail development at the expense of its historic and scenic character thus limiting its tourism potential, the goals of this plan and the community will not be well served. The town should require that businesses locating in Ticonderoga fit into the character of the community. Protecting that character will over the long-term be beneficial for everyone by making Ticonderoga an attractive place to live, work and visit.

Ticonderoga has historically been an industrial and commercial center in the region. While Ticonderoga is not likely to be a manufacturing center in the 21st century as it was in the 19th century, the town can still capitalize on its rich array of resources to sustain a vital local economy.



A view of the Four Corners area and over the adjacent agricultural fields to Lake Champlain in 2004.

3.2. Community Infrastructure, Facilities and Services

A community's facilities – the town's buildings, parks, schools, roads, public services, infrastructure, etc. – are important in shaping its quality of life. Ticonderoga, as all communities, faces ongoing challenges to provide the facilities and services that residents need and expect, that will attract and support economic development, and that are affordable for local taxpayers.

A. Education

A community's education system is one of the key factors, along with job opportunities and housing, that many people consider when determining where to live. This is especially true for younger residents with children or about to start families – a demographic group that the town needs to attract and retain. The following section provides information about educational facilities, programs and opportunities in Ticonderoga.

1. Ticonderoga Central School District

Ticonderoga Central School District is the public school system for students from the towns of Ticonderoga and Hague, plus Putnam (grades 6-12) on a tuition basis. The school district is approximately 145 square miles with a population of roughly 6,000 year-round residents. The district's 2004-05 enrollment was around 1,000 students.

Facilities

The Ticonderoga Central School District comprises three facilities, Ticonderoga Elementary School (grades K-5), Ticonderoga Middle School (grades 6-8), and Ticonderoga High School (grades 9-12). The elementary and middle schools are housed in a single building located on Alexandria Avenue, while the high school is located on Calkins Place. The high school was originally constructed in 1925 (and rebuilt after a fire in 1933) and has been in continuous operation as a school since that time. The elementary and middle school was built on a 45-acre piece of property in 1978. The district's athletic facilities, including a track and fully lit sports field, are located adjacent to the elementary and middle school.

The district would like to add a swimming pool and additional classroom space at the High School, as well as a larger gymnasium. Despite lower enrollment numbers than a decade ago, the space at the district's buildings is reaching full capacity. This is due to changes in state and federal regulations that have required the school to change how it uses its facilities.

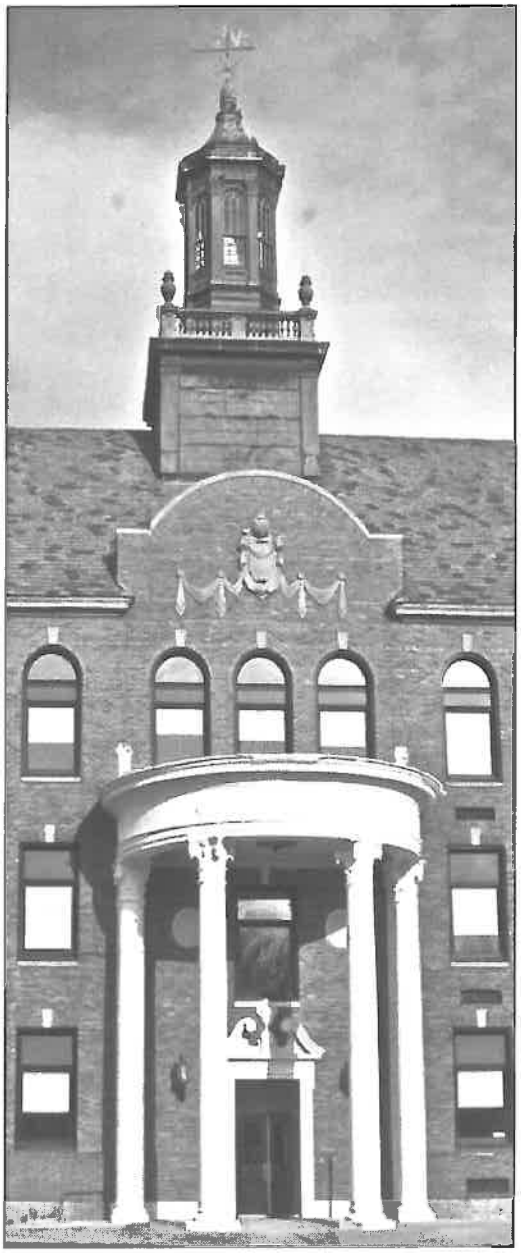
Enrollment

The Ticonderoga Elementary School enrollment was 406 students during the 2004-05 school year; the Middle School had 253 students; and the High School had 269 students for a total district enrollment of 1,038 students. The district has been experiencing declining enrollments in recent years and projects that trend to continue for the next several years before the student population stabilizes. As discussed in the population

section of this plan, the number of births in Ticonderoga has been decreasing as the demographics of the community have shifted. School enrollments are unlikely to reach the peak levels seen in the early 1990s again in the near future unless the population dynamics of the town change significantly.

Funding

One of the largest challenges facing the public education system across the country is school funding. In most municipalities, education is the single largest expense to local taxpayers and in recent years education costs have been increasing rapidly. New York's state-aid education funding formula is based on two factors – the total assessment of property in the district and the poverty rate of the district based on the percentage of students that qualify for free or reduced-price lunches.



Ticonderoga High School.

Ticonderoga School District's total assessed value is significantly higher than similarly sized districts in northern New York. The higher value is attributable largely to two sources – International Paper and lakefront property on Lake George in both Ticonderoga and Hague. Therefore, the district receives a lesser percentage of its budget from state-aid funding, resulting in a need to raise greater amounts from property taxes. There is also a large amount of land in the district – public, non-profit and religious properties, forestland and farmland – that pays no property taxes or is assessed based on its use value rather than development value.

2. St. Mary's School

St. Mary's Parochial School is a K-8 private Catholic school located in Ticonderoga. The school serves students from Ticonderoga and surrounding communities from a facility on Amherst Avenue.

3. Early Childhood Education

A pre-K is currently operated through the Headstart program from the Ticonderoga Armory Community Center. The program generally enrolls around 20 children ages 3 or 4. The school district has considered developing a pre-K program in recent years, but has never begun one. This issue may be revisited by the district in the near future due to the closure of the Silver Bay daycare facility in Hague, which was the only large-scale daycare facility operating in the area. Childcare is provided in Ticonderoga and neighboring communities largely through family daycare homes, which generally care for six or fewer children out of the operator's residence.

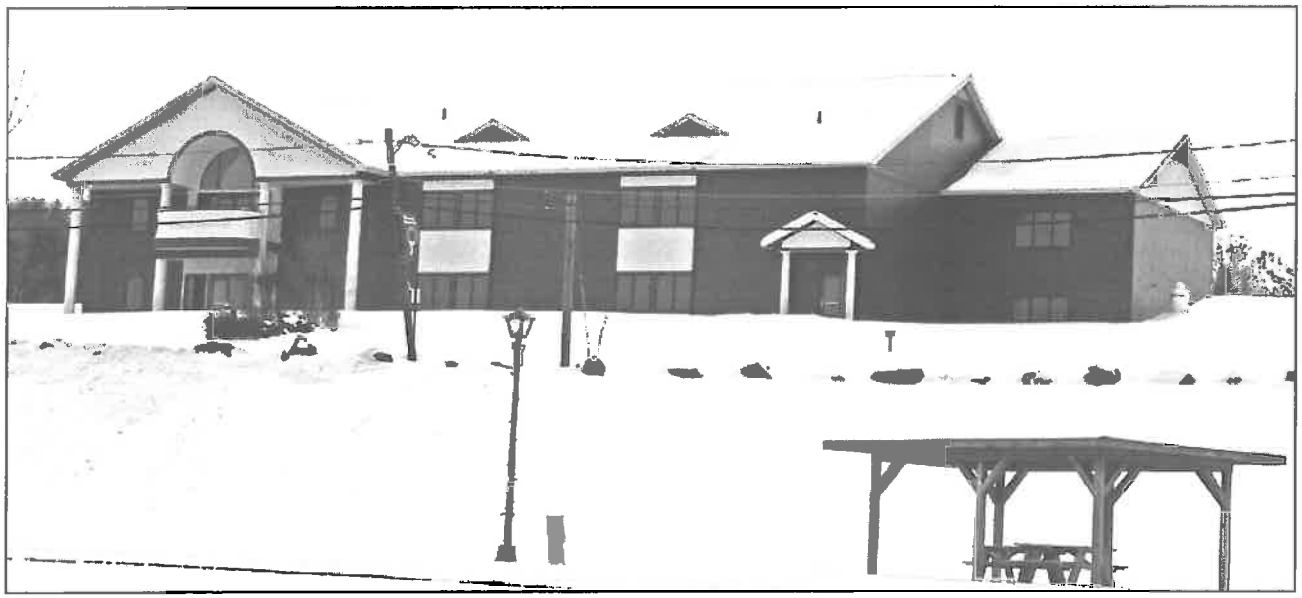
4. North Country Community College

North Country Community College (NCCC) is a public institution offering post-secondary and continuing education opportunities to students throughout Essex and Franklin counties. The college has one of its two branch campuses in Ticonderoga; its main campus is located in Saranac Lake. NCCC has the largest service district of any New York State community college, responding to the educational needs of residents in a 3,500 square-mile area. In addition to serving Ticonderoga residents, the branch campus attracts students from surrounding communities.

In 2005, the college constructed a new 18,000-square foot building on land adjacent to the Parkview housing development, overlooking the Lower LaChute Falls and Percy Thompson Bicentennial Park. The new campus has six classrooms, complete science and computer labs, distance learning and a video-conference center. Day and evening classes are offered, and in-service training is provided to serve major employers in the area.

NCCC Ticonderoga offers an Associate in Arts degree in Humanities and Social Science for those wishing to transfer to a four-year program. Also available are an Associate in Applied Science degree in Individual Studies and a Community Residence Aide Certificate. A nursing program is planned for the 2006-07 school year offering a licensed practical nurse certification.

There were approximately 150 students enrolled in NCCC classes at the Ticonderoga branch campus during the spring 2005 semester. Enrollment is projected to be 250 to 300 students in three years. The main campus in Saranac Lake has about 800 students and there are about 550 at the Malone site.



View of North Country Community College from Bicentennial Park.

B. Healthcare

Providing convenient, local access to quality healthcare services is an issue faced by many rural communities. Ticonderoga has historically served as a regional center providing healthcare services to residents in surrounding towns. Yet it has been, and continues to be, an ongoing challenge to maintain a full range of providers and offer high-quality, state-of-the-art healthcare services in town.

1. Moses-Ludington Hospital and Associated Facilities

Ticonderoga's first hospital, Shattuck Memorial Hospital, opened in June 1908. At that time, the hospital offered basic nursing, physician, surgery and lab services. In 1946 a new wing, funded by the generosity of Horace Moses, was added to accommodate the growing needs of the community. In 1974, a 40-bed skilled-nursing home was built to provide professional care to the region's elderly. In 1981, a new hospital was constructed just northwest of the old facility. In 1984, Lord Howe Estates was constructed to provide senior citizen apartments adjacent to the hospital and nursing home. In 2001, a $13 million renovation and expansion project was completed that modernized and improved the hospital and nursing home. These ongoing efforts have made a continuum of health services, now operated as Inter-Lakes Health, available in Ticonderoga:

- Moses-Ludington Hospital, a 15-bed critical access hospital with a 24-hour emergency room and helicopter transport capability, outpatient clinic, new physical and occupational therapy centers, new cardiac rehabilitation center, outpatient surgical services, and early prevention center;
- Heritage Commons, formerly Moses-Ludington Nursing Home, an 84-bed residential healthcare residence with a 10-bed Alzheimer's Care unit;
- Lord Howe Estates, 38-units of income-adjusted apartments for independent seniors;
- Inter-Lakes Dental, a family dental center accepting Medicaid payment; and
- Inter-Lakes Medical Supply, a local durable medical products outlet for personal care.

The New York State Department of Health and Services recognizes Moses Ludington as the most remote hospital in New York State. The hospital has invested in distance learning and telemedicine programs in order to improve the quality of care it can provide patients. A related challenge facing Inter-Lakes Health is the attraction and retention of doctors and other medical professionals.

Ticonderoga Health Center.

2. Ticonderoga Health Center

Ticonderoga Health Center (THC) provides primary care and specialty services to area residents. THC is based out of a facility located on Racetrack Road that was built in the 1980s. The practice was started by two local physicians but has been operated by Hudson Headwaters Health Network (HHHN) of Warrensburg since 1993. HHHN is a network of community health centers providing care in the southeastern Adirondacks and the greater Glens Falls area.

3. Other Healthcare Providers

There are also medical, dental and mental health practitioners with private offices in Ticonderoga. Planned Parenthood has a clinic in downtown. Home healthcare assistance is available from North Country Home Services, which is located in Ticonderoga, and from the Essex County Department of Public Health Services. The Department of Public Health Services provides a range of healthcare services for county residents.

4. Needs Assessment

The Southeastern Adirondack Health Care System (SAHCS), a coalition of providers serving residents of the greater Ticonderoga area, held a series of community workshops to learn what local citizens consider to be the major healthcare service priorities in their communities in 1999. Community members in Crown Point, Hague, Moriah, Putnam and Ticonderoga were invited to participate in the workshops. The goal of the workshop sessions was to clearly identify priority healthcare service needs in each community.

That assessment found that area residents were concerned about a lack of mental healthcare and dental care providers. The need to travel for specialized healthcare services and the difficulty of providing high quality volunteer ambulance services were also cited as important concerns. Participants noted that physician's assistants, not doctors, were the main healthcare providers, and that there is a high turnover rate for professionals leading to a lack of continuity of care for patients. Services that the groups identified as needed in the area included: pediatrics, geriatrics, mental health, sports medicine, dental care, and drug and alcohol counseling. Inter-Lakes Health's 2001 renovation and expansion provided a partial response to these concerns, but some likely still remain to be addressed.

Main entrance to Moses-Ludington Hospital.

C. Public Safety

Public safety services are provided in Ticonderoga through a mix of governmental and volunteer organizations.

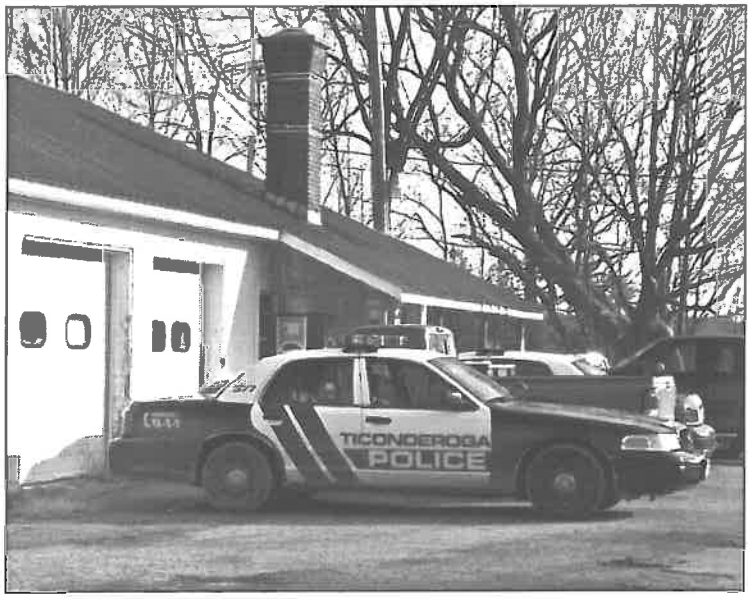
1. Law Enforcement

Ticonderoga has a town police force, but also receives law enforcement services from the State Police and Essex County Sheriff's Department. The town owns a Public Safety Building on Mount Hope Avenue, although the department is considering relocating to Montcalm Street. The building currently houses the town police and emergency dispatchers; Ticonderoga's local dispatch center will go offline when the county's 911 center begins operation in 2007.

Crime rates in Ticonderoga have been falling in recent years. According to the state's Uniform Crime Incident-Based Reporting system, the number of index crimes reported by the Ticonderoga Police Department dropped from 155 in 2000 to 79 in 2004 (index crimes include the violent crimes of murder, rape, robbery and aggravated assault, and the property crimes of burglary, larceny, and motor vehicle theft). The State Police and Sheriff in Essex County reported similar reductions. The vast majority of index crimes occurring in Ticonderoga are property crimes rather than violent crimes.

2. Fire Protection and Emergency Medical Response

There are two local volunteer fire departments – Ticonderoga Fire Department and Chilson Fire Department – based in Ticonderoga. These local departments are part of a larger mutual-aid system in which departments from neighboring municipalities will respond to assist each other when needed. The 65-member Ticonderoga Fire Department responds to approximately 200 to 250 calls annually, the largest percentage of which are motor-vehicle related.



Cruiser parked outside the Ticonderoga Police Department.

The Ticonderoga Emergency Squad responds to medical emergencies. The volunteer squad is certified at the Advanced EMT-Critical Care level. Lamoille Ambulance, a Vermont-based private ambulance service, also has an office in Ticonderoga and provides hospital-to-hospital and hospital-to-home transfers.

International Paper has its own fire, hazardous materials and emergency medical teams that can quickly respond to incidents at the mill.

D. Utilities and Infrastructure

Ticonderoga has municipal water and sewer facilities, which serve areas of town generally in the vicinity of the hamlet. Private utilities and companies provide other services to residents and have infrastructure located in the town.

1. Water

Ticonderoga has a municipal water system that serves homes and businesses in the greater hamlet area. In the remainder of town, water is supplied from private wells.

Ticonderoga's water system served approximately 2,100 residential and 560 non-residential customers in 11 districts in 2005. The municipal water system is supplied from two sources – Lake George and Gooseneck Pond. Both water-treatment facilities are certified by New York State Department of Health to ensure clean, safe water.

2. Sewer

Ticonderoga's municipal sewer plant (jokingly called Fort Sewerage locally due to its design meant to mimic the architecture of a fort, which confuses at least a couple of tourists each year who stop for a tour) is located off the east end of Montcalm Street near the LaChute River. The plant is permitted to discharge 1.7 million gallons of treated effluent per day into the LaChute and as of 2005 the actual discharge rate was slightly above one million gallons. The plant serves approximately 1,000 residential and 200 nonresidential customers.

The Wastewater Treatment Plant.

TMDL

Section 303(d) of the Federal Clean Water Act requires states to identify waters for which wastewater effluent limitations normally required are not stringent enough to attain water quality standards, and to establish total maximum daily loads (TMDLs) for such waters for the pollutant of concern. The TMDL establishes the allowable pollutant loading from all contributing sources at a level necessary to attain the applicable water quality standards. Phosphorus enters Lake Champlain from multiple points (mainly wastewater treatment plants) and non-point (such as urban and agricultural runoff) sources in Vermont, New York and Quebec. A process was begun in 1996 to develop a TMDL for phosphorus in Lake Champlain and in 2002 the states of New York and Vermont adopted the final TMDL. The TMDL establishes how much phosphorus can enter the lake each year and divides that total load between point and non-point sources.

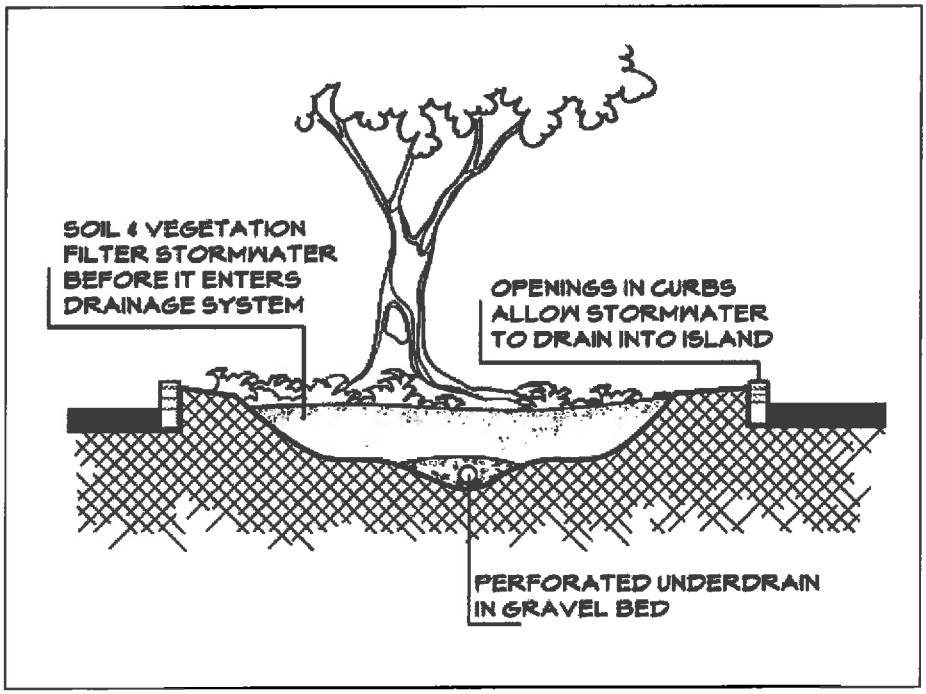
The TMDL directly affects Ticonderoga's wastewater treatment system because it, along with all other such systems that release treated effluent into the lake, has been allocated a specific annual phosphorus load. Under the TMDL, Ticonderoga's municipal wastewater treatment system can discharge 1.47 metric tons of phosphorus per year or 8.9 pounds per day. In 2000, the facility's annual load was at 8.9 pounds

per day and in 2005 it continues to operate at close to its maximum load. The TMDL load allocation does not change with the permitted flow of the system. So while the treatment plant has excess capacity in terms of how much wastewater its equipment can treat, the phosphorus cap is a limiting factor that will prevent significantly increasing the flow without upgrading the plant to make it more efficient at removing phosphorus from the effluent.

CSOs

Another problem facing Ticonderoga's wastewater treatment system, and most other older systems, is combined sewer overflows (CSOs). When the system was initially built in the early 1900s, septic waste and stormwater runoff were designed to flow together through the system's pipes directly into the river. The combined flow became an issue after the construction of the treatment plant, when during heavy rains the amount of stormwater entering the system exceeds the capacity of the plant to treat incoming waste. The result of such conditions is that untreated wastewater may be directly released into the LaChute River.

Over the past several decades, the town has been taking steps to prevent CSOs, including disconnecting stormwater drains from the wastewater system as pipes need to be repaired or replaced, increasing the storage capacity of the system, and operating the plant more efficiently during wet weather. Ultimately, the town should be able to prevent CSOs by removing stormwater flows from the system. Stormwater, especially from roads and parking lots, still poses pollution hazards to surface waters. So as the systems are separated, it may become necessary to develop additional stormwater storage and treatment systems to address those concerns.



Parking lot island incorporated into the stormwater management system.

New development with large areas of impermeable surfaces such as roofs and parking lots should be required to store and treat their stormwater onsite. Stormwater management techniques and infrastructure such as retention basins and settling ponds can be designed as attractive elements of new development, protect the quality of the town's surface water and prevent unnecessary increases in the amount of runoff being piped into the town's treatment plant.

3. Electricity

Power Supply

Electric service is provided in Ticonderoga by National Grid, a European firm that purchased the Niagara Mohawk Power Corporation.

Infrastructure

In addition to distribution lines, National Grid has a number of other facilities in Ticonderoga including two substations and several transmission line corridors.

Power Generation

There are two hydroelectric generating plants located along the LaChute River – at the Upper and Lower Falls – in Ticonderoga. Consolidated Hydro of Andover, Massachusetts, constructed the plants in 1987 and formed a local corporation, LaChute Hydro Inc., to sell the power it produces to National Grid.

The LaChute below the Upper Falls.

The Upper LaChute Project uses the headwater formed by the Lake George Outlet dam, also known as "A" Mill dam. "A" Mill dam was deeded to the New York State Department of Environmental Conservation (NYSDEC) and has been operated by them since 1974. "A" Mill dam is the control structure for the water surface level of Lake George, and the lake serves as the headpond for the Upper LaChute Project. The project operates as a modified run-of-the-river facility, using releases from the lake, which are set by state statute and NYSDEC guidelines, to generate power. A power intake canal was constructed to convey water to a buried penstock leading to the powerhouse.

The Lower LaChute Project uses the headwater formed by the "D" Mill dam on the river. The dam is the fourth in a series of six dams along the river and is located about 4,100 feet downstream of the Lake George Outlet dam. The project has little storage capacity and uses flows from Lake George Outlet and Trout Brook to operate by run-of-the-river. Flows from the "D" Mill dam are conveyed by a 10-foot-diameter tunnel to the powerhouse, located below the falls at "F" Mill dam.

The Upper Falls Project has a single generating unit rated at 5,200 kW and the Lower Falls Project has a single serviceable unit rated at 3,800 kW. In a typical year, the two powerhouses together generate about 8.5 megawatts or enough electricity to power approximately 2,500 homes.

4. Telecommunications

Telecommunications technology has the potential to dramatically improve the quality of life and the rate of economic development in rural communities. Access to advanced telecommunications technology

has the potential to eliminate the need to be physically located in proximity to urban areas, allowing a wide variety of workers and economic activity to become location neutral. But while development of new communications technology continues at a very rapid pace, the market forces providers to invest where the greatest profit is, in dense urban and suburban areas. Thus, while a modern and effective telecommunications infrastructure is crucial for rural economic development, financing its development has proved to be challenging.

Land-Line Phone Service

Land-line telephone service in Ticonderoga is provided by Verizon.

A fiber optic cable passes through Ticonderoga, buried in the rail corridor, but there is no hub that would allow a connection to this cable in town. The line passes from Albany to Montreal and the nearest hub is located in Crown Point.

Cellular Phone Service

There is a Verizon cell antenna located on Mt. Defiance that provides service throughout the hamlet, in much of Ticonderoga's Champlain Valley and up to the top of Chilson Hill. There is limited to no service in the Lord Howe Valley and the outlying areas of town. Cell phone service is not consistent, however, even in those areas that theoretically have coverage from the Mt. Defiance tower. This situation is typical throughout Essex County and in the Adirondacks in general.

The Adirondack Park Agency has largely prevented the construction of new telecommunications towers within the park. This ban not only prevents cell phone service from being improved, it has been a challenge for emergency response agencies working to improve their radio communications systems. While a proliferation of unsightly towers could negatively impact the town's scenic character, it is also desirable to provide access to modern telecommunications to most homes and along major transportation routes. These competing interests need to be balanced and the Park Agency should work more cooperatively with public and private entities to ensure adequate cellular and radio communications coverage.

Internet Service

Dial-up internet connections are available throughout Ticonderoga from a variety of regional and national providers. Verizon offers DSL (digital subscriber line service) in some areas of town, including in the hamlet and around Lake George. Cable modem service is available through Time Warner Cable in the hamlet and limited areas along the main roads.

Television

Over-the-air television reception is limited in Ticonderoga. The hamlet and areas of the town along the main roads has access to cable from Time Warner. Satellite service from several national companies is available throughout town.

E. Transportation

Ticonderoga's transportation system includes highways and streets, an airport, a rail line, a ferry and other marine facilities, limited public transportation options, as well as sidewalks and trails. Most Ticonderoga residents drive private vehicles to work, to shop within and outside the community, and for recreation. Most of the town's visitors travel by automobile as well, although the airport, rail service and marine facilities offer additional modes of transportation for travelers. Ticonderoga is included in a number of larger tourism networks including the Lake Champlain Byway, Lakes to Locks Passage, Lake Champlain Bikeways and Lake Champlain Paddlers' Trail.

1. Roads

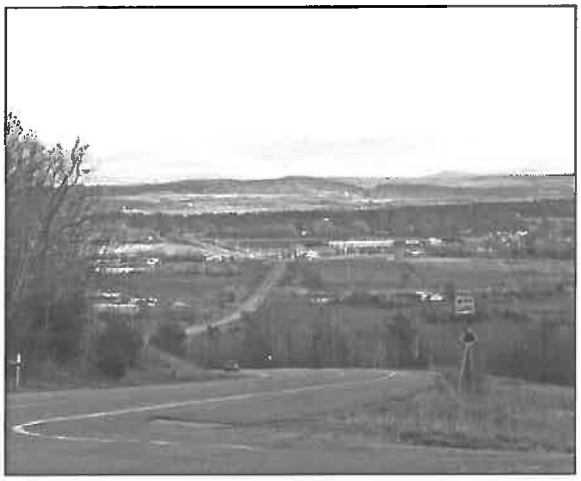
Ticonderoga is served by three state highways – Routes 22, 9N and 74 – and a well-developed network of county and town roads. There are approximately 27 miles of state highways, 25 miles of county routes, and 47 miles of town roads in Ticonderoga, along with three miles of private roads.

The state highways serve as arterials linking Ticonderoga to neighboring communities and to Interstate 87, approximately 17 miles to the west in the Town of Schroon.

Route 74

Route 74, despite extensive straightening and widening from Eagle Lake east down Chilson Hill in the 1980s, is still a narrow, winding road from Eagle Lake through Paradox and on into Schroon. Given the terrain, the location of the lakes and the development around them, it is unlikely that this segment of the road could be significantly improved. Route 74 is an important truck route for Ticonderoga's businesses including International Paper and retail outlets. This difficult access to the interstate remains a constraining factor for economic development in the town.

When eastbound on Route 74, travelers at the top of Chilson Hill are treated to a spectacular view as the forest opens up to reveal the Champlain Valley stretched below. From this vantage point, Ticonderoga hamlet is visible nestled into the valley and the view continues across open farmland on both sides of Lake Champlain to Vermont's Green Mountains. The impact of commercial development at the Route 9N/22/74 intersection on this view should be considered when reviewing development proposals. The all-night lighting, signage and buildings at the intersection are visible in the foreground and additional commercial development has the potential to further degrade the quality of this vista. A location on top of Chilson Hill would be ideal for a formal scenic overlook, which could also provide tourist information to direct visitors to the town's attractions and businesses.



View from the top of Chilson Hill.

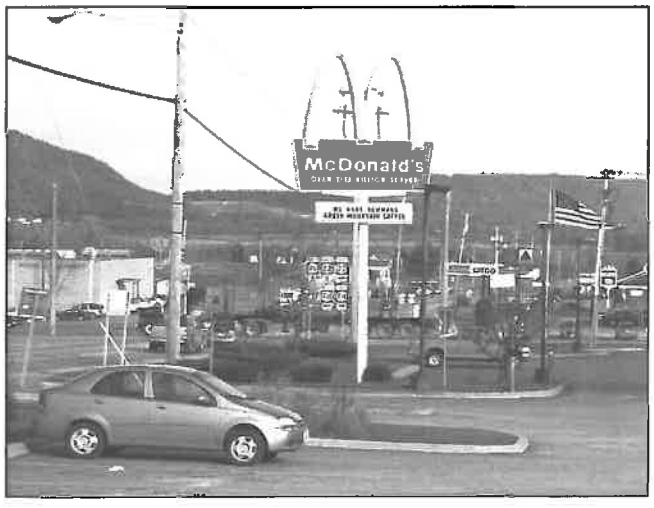
Routes 22 and 9N

State Route 22 connects Ticonderoga south to Whitehall in Washington County and on towards Glens Falls. There are few constraints to travel on this highway, which passes through generally level terrain and agricultural land around the narrow southern end of Lake Champlain.

State Route 9N passes from Ticonderoga to Hague and then over Tongue Mountain towards Lake George. This highway is heavily used by tourists driving from Lake George into the Adirondacks. Travel along this route is constrained by the steep and windy section that passes over Tongue Mountain and traffic moves relatively slowly due to level of development in the Lake George communities. The drive is scenic with many opportunities for views of Lake George. Routes 9N and 22 join at the intersection in Ticonderoga and continue north through the Champlain Valley to Westport, where they again diverge.

The construction of the Route 22 bypass in 1974 took the state highway out of Ticonderoga's downtown. This reduced truck traffic along Montcalm Street, which has benefited the town. However, the bypass has also made it possible for tourists to pass through Ticonderoga – even stopping at the Fort – without driving through downtown. The reduction in through traffic has been a constraint on the town's efforts to revitalize its downtown.

Recently, there have been efforts to create an "entry" to the downtown at the Fort Ti intersection of Montcalm Street and Routes 22/74. A "Welcome to Historic Downtown Ticonderoga" sign and tourist kiosk have helped direct visitors to downtown. Continued efforts to mark this intersection as a gateway to town may bring additional through travelers and visitors to the Fort down Montcalm Street. From the western end of Montcalm Street, the traffic circle with its recently refurbished monument and the adjacent Hancock House provide a striking gateway to the hamlet.



The Four Corners intersection of Routes 9N, 22 and 74.

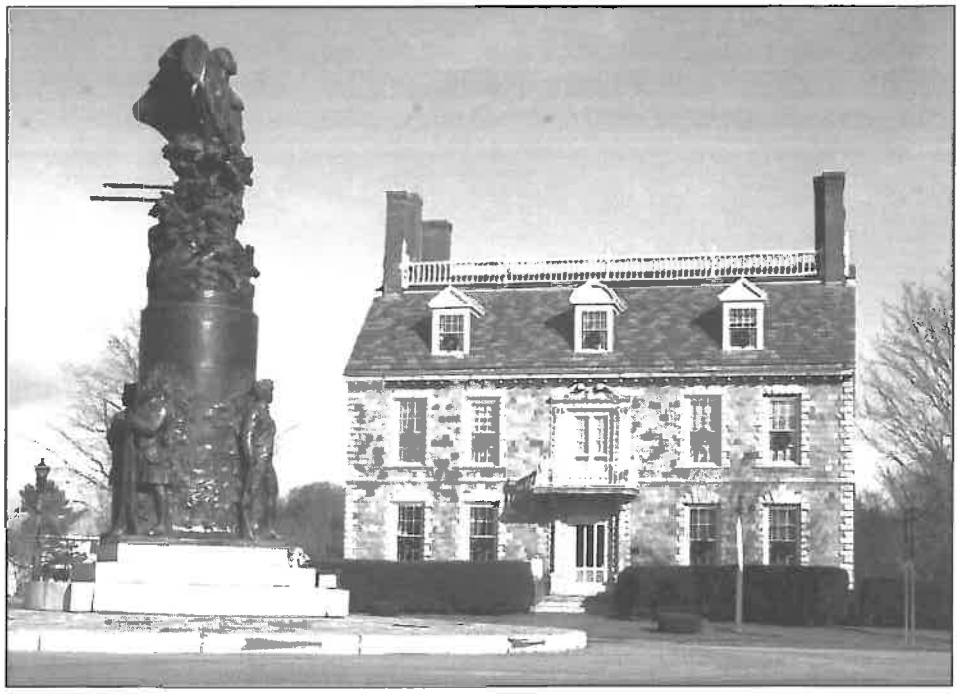
Other Principal Roads

The following county roads generally serve as connectors to the state arterials in Ticonderoga – Shore Airport Road and Vineyard Road (County Route 7).

Shore Airport Road passes by the International Paper Mill, which is the origination or destination of much of the town's truck traffic. Shore Airport Road connects to 9N/22 north of the hamlet and to Route 22 east of the main intersection. It also serves as an alternative route for north-south through traffic.

Vineyard Road, County Route 7, is the principal route for traffic between Elizabethtown and Ticonderoga. This route is steep, narrow and winding, passing through Crown Point, Moriah Corners and Lincoln Pond.

There are two other county roads in Ticonderoga – Black Point Road and Baldwin Road, which serve homes and other development on the east and west sides of Lake George respectively. While not through roads, these routes are heavily traveled by local traffic in the summer due to the density of development around the lake.



A view of the Liberty Monument and the Hancock House.

Local Roads

Ticonderoga's local roads, both town-owned and private, provide access to individual properties and settlement areas. Outside the hamlet, there are relatively few roads and many are on difficult terrain and terminate in dead-ends. Within the hamlet is a well-developed road network of interconnecting streets and blocks. Some of the newer development in Ticonderoga is served by private roads, which have not been taken over by the town.

Whether local roads are town or private, it is essential that all roads be built and maintained to basic standards that will allow for adequate access by emergency vehicles. Proper road construction and maintenance practices also reduce erosion and prevent reductions in water quality due to run-off. While building roads to basic standards can be more expensive initially, over the long-term better quality roads cost less to maintain and are less likely to washout during severe storms.

Traffic Levels and Access Management

The amount of traffic on Ticonderoga's roads – especially the main routes – has been on the rise in recent years. Traffic counts are helpful in determining how a community's road network functions and in monitoring use trends and capacity. The numbers below are average daily traffic counts giving traffic volumes moving in both directions over a 24-hour period, which were obtained from the New York State Department of Transportation.

In 2003, there were nearly 4,800 vehicle trips per day on the section of state Route 9N between the Warren County line and the monument, which represented a more than 100 percent increase in traffic since the early 1990s. On Wicker Street (Route 9N) between the monument and the Four Corners intersection, there

were more than 8,000 trips per day on average in 2003. North of the intersection to the town line, there were around 4,600 vehicles per day on Route 9N/22. On Route 22 from the Washington County line to the intersection, traffic was approximately 2,900 vehicles per day in 2003. The traffic levels were similar on Route 74 from the intersection west to the town line.

As the numbers above indicate, the most heavily traveled section of road in Ticonderoga is Wicker Street between the monument and the intersection. As development around the Four Corners continues to intensify, traffic levels will certainly increase. Care should be taken to ensure that additional development with access points to the highways does not result in increased congestion or reduced safety. Curb cuts onto the highways should be limited and developments should be required to use shared drives and access roads Rights-of-way that could connect a parcel of land being developed to adjacent properties that might be developed in the future should be required as conditions of approval for commercial developments where the site conditions make such access connections feasible.

Planes parked on the apron at the Ticonderoga Airport.

2. Airport

Ticonderoga Municipal Airport is located approximately one mile north of downtown Ticonderoga off Shanahan Road. It is a general aviation airport and does not offer scheduled air service. The airport is certified for small planes, generally those with 10 or fewer passenger seats.

The airport currently consists of a single runway, 60 feet wide and approximately 4,000 feet long, which was constructed in 1969 and paved in 1984. In 2005, a federal grant was obtained to repave the runway. A taxiway and aircraft tie-down apron was added in 1995; the apron provides tie-downs for 28 planes. Runway edge lights were installed in 1990 and taxiway lights were put in place in 1995. The airport has a rotating beacon light available to assist pilots traveling at night, and the runway lights can be turned on by VHF radio by pilots landing at night. The airport has a 17-car parking lot, but does not currently offer hangars, covered aircraft storage space, fuel, a terminal building or other amenities. This lack of facilities likely restricts personal, business and charter use of the airport.

According to the Ticonderoga Municipal Airport Master Plan, there were eight planes based at the airport year-round in 2004, with around 20 additional aircraft kept at the facility on a seasonal basis. There are approximately 11,000 operations (takeoffs or landings) at the airport each year, or approximately 15 each day. The airport could safely accommodate up to 46 operations per hour and an annual service volume of more than 56,000 operations.

The Airport Master Plan calls for a number of improvements to the facility over the next 15 years including 5,700 square feet of conventional hangar storage space and an eight-unit T-hangar. The plan also recommends construction of a 500-square foot terminal office and a self-serve, 5,000-gallon tank for aviation fuel.

In order to construct additional facilities and fully meet FAA rules regarding control of property within an airport's Runway Protection Zone, the airport needs to acquire additional land. The Master Plan proposes that the airport acquire 55 acres outright and seek aviation easements on an additional 24 acres. The plan offers several alternatives for development at the airport based on cost and availability of adjoining land for purchase. Due to the airport's location within the Adirondack Park Agency's Resource Management Land Use Classification, development is limited to one primary structure per 42.7 acres. The airport property is currently 97 acres and therefore should be allowed two primary structures. If additional property cannot be acquired, it may be possible to purchase development rights from neighboring agricultural property in the Resource Management area that would allow further development on the existing airport property.

3. Rail

As described in the Ticonderoga Yesterday section of this plan, railroads played an important role in Ticonderoga's history and development. Over the course of the 20th century, the importance of rail as a mode of passenger and freight transport declined throughout the United States. At the start of the 21st century, as the cost of energy is rising, there is renewed interest in rail.

The only rail line still in place and operating in Ticonderoga is the line that runs north-south along the shore of Lake Champlain. That rail corridor is currently owned by Canadian Pacific Railway, which acquired the line when it bought the Delaware and Hudson Railway company in 1991. The line continues to be used to ship freight and there is Amtrak service on the "Adirondack" route, which runs daily in each direction between New York City and Montreal with stops in Ticonderoga.

Since 1978, New York State has subsidized Amtrak's operation of the Adirondack route. From Ticonderoga, passengers can arrive in either New York City or Montreal in about 5½ hours. The Amtrak train station was relocated from alongside Route 22 across from the Fort View Inn to Fort Ticonderoga Road (Route 74) near the state boat launch and ferry landing in the early 1990s. This move and the construction of improved facilities were called for in the 1977 Ticonderoga Plan and have made passenger service more pleasant for those boarding or disembarking in town. Continued work is needed to ensure that the Ticonderoga facilities promote Amtrak ridership, both for local residents and tourists. The availability of rail is an

Ticonderoga Train Station.

opportunity for further promoting the town as a destination, but more transportation and tourist services need to be coordinated so that when visitors step off the train in Ticonderoga they can conveniently access downtown, get to their accommodations, visit the town's attractions, etc.

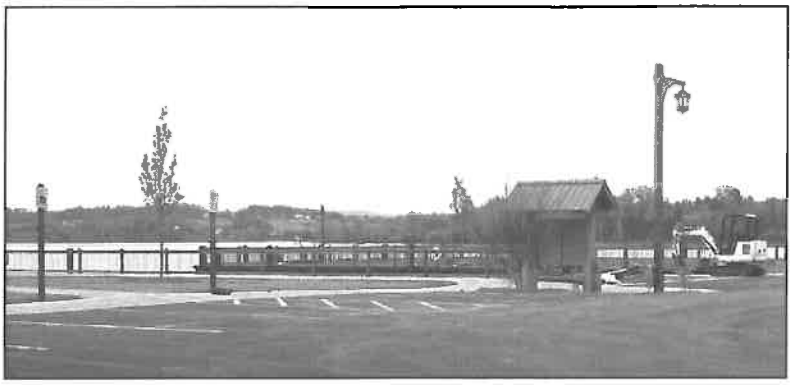
The rail line's main purpose, however, remains the shipping of freight. CP Rail is currently working to increase the height clearance of the tunnel that runs under the grounds of Fort Ticonderoga. This will allow double-stacked oceanic shipping containers to pass through the tunnel. As of 2005, approximately 70,000 rail cars travel through Ticonderoga each year and after the tunnel improvements CP Rail estimates an additional 20,000 cars will pass through town annually.

Shipping containers, which can be loaded onto train cars or hauled by tractor-trailers represent an increasingly large portion of the freight shipped via rail. Tanker cars of chemicals and petroleum products are also common (much of northern New York's petroleum products are shipped via rail from the Port of Albany); this makes the corridor, which runs directly along Lake Champlain throughout most of Ticonderoga, a potential threat to public safety and water quality should an accident occur.

Vehicles are transported between Shoreham, Vermont and Ticonderoga via the Fort Ti Ferry.

4. Water

Ticonderoga – the place between the waters – has approximately 14.5 miles of shoreline on Lake Champlain and about nine miles on Lake George. These two lakes were once major transportation routes for freight and passenger travel, and a wide range of barges, sailing vessels, steamboats and ferries plied their waters docking in Ticonderoga.



The rehab of Ticonderoga's boat launch nears completion in 2005.

Lake Champlain

Currently, the Fort Ti Ferry continues to operate across Lake Champlain between Ticonderoga and Shoreham, Vermont; one of the oldest ferry operations in the country, it has been in continuous use as a public ferry since 1799. The ferry was first established in 1759, when Lord Jeffrey Amherst used it to connect British forts on Lake Champlain with those off on the Connecticut River. The original 1759 ferry was probably a large rowboat, but a double-ended 30-foot sail ferry was in use by 1800. It became a cable ferry in 1946, using a pair of thick steel cables to pull the boat back and forth across the narrow section of the lake. The current ferry is a steel barge that can hold up to 18 vehicles. The ferry operates from May to October each year.

Adjacent to the ferry landing, is a state boat launch on Lake Champlain. The boat launch was reconstructed for the 2005 season. The refurbished site offers parking for vehicles with boat trailers and rest rooms, in addition to the boat ramp. The site is regularly used for fishing tournaments, including half a dozen bass tournaments annually. International Paper and Fort Ticonderoga both have docks on the lake as well, although they are not in active use.

There are no private marinas on Lake Champlain in Ticonderoga. Given the characteristics of the lake, current land ownership patterns and the location of the rail line along the shore, there are limited opportunities for new shoreline development. A potential site would need to have access from an existing railroad crossing and the most promising locations are owned either by Fort Ticonderoga or International Paper.

It is, however, possible for small boats to come into downtown Ticonderoga from Lake Champlain on the LaChute River to the Lower Falls. The fishing access in Bicentennial Park provides limited space for boats to dock. Given the amount of river frontage owned by the town, more extensive facilities could be developed that would bring boaters into downtown. Ticonderoga should consider how the City of Vergennes, nine miles inland on the Otter Creek from the Vermont side of the lake, has enhanced its formerly industrial Otter Creek Basin with municipal docks and a boat launch to facilitate water access. Ticonderoga, which has considerably more public waterfront than Vergennes and is much closer to the lake, could better utilize its shoreline resources.

Lake George

Nearly all the transportation infrastructure on Lake George in Ticonderoga has been removed. Remaining on Lake George is another state boat launch at Mossy Point, a private marina on Black Point Road and the modern docks of the Lake George Steamboat Company at Baldwin Landing.

The Lake George Steamboat Company, which operates three tourist boats on the lake, makes one regular stop at its Ticonderoga docks daily during its summer season. It also uses the docks periodically for charters, special events and the like. The company has also used the docks for building, renovating and repairing its ships. The steamboat docks offer the town an opportunity to connect with Lake George Village, a summer tourism destination at the south end of the lake. If there were better access between Lake George and downtown Ticonderoga and there were more activities to attract tourists, the Steamboat Company might consider stopping more frequently.

Historically, tourists arrived in Ticonderoga from the south via Lake George and were then transported downtown first by a horse-drawn stage and later by rail. Ticonderoga should continue its efforts to revitalize this connection. Work on the LaChute Trail, which follows the historic "portage" from Lake George into downtown, is ongoing with plans to install additional directional and interpretive signage along the route. The Delaware and Hudson rail bed, which also runs from Lake George through downtown could provide another opportunity to re-establish those historic connections and encourage more boaters to disembark in Ticonderoga.

Historic Lake George steamboat landing.

5. Public Transportation

There are limited public transportation options available in Ticonderoga. Essex County runs a public transit bus system that stops in Ticonderoga twice daily on a route that runs between Ticonderoga and Keeseville. Several human service agencies and organizations offer van and ride service to their clients and the town operates a "senior bus" that transports elderly residents to medical appointments, shopping, social activities, meals, etc. There are two private taxi services in Ticonderoga as well. One identified need in town is regular access to a long-distance bus service such as Greyhound or Trailways. Year-round bus service in Ticonderoga ceased in the mid-1990s and the nearest communities with such service are Bolton Landing and Schroon Lake. As of 2005, Trailways buses were stopping in Ticonderoga only during the summer season.

F. Town Government and Facilities

A community's public facilities and services are important in shaping the quality of life for residents. As a town's population changes, the demand for facilities and services may shift, making it an ongoing process for local government to ensure that it is providing facilities and services at appropriate levels to meet community needs. The following briefly assesses the current state of Ticonderoga's town facilities and services, and identifies their needs.

1. Ticonderoga Community Building

The Ticonderoga Community Building, constructed in 1926, is located on Montcalm Street just east of the intersection with Champlain Avenue on a 2¾-acre lot overlooking Bicentennial Park and the LaChute River. The building is used for a variety of functions including the Town Supervisor's and Clerk's offices, a Department of Motor Vehicles satellite office, Town Justice Court and offices for other town officials. The building's three levels are fully utilized with space in the basement rented to a Cartoon Museum and a large auditorium on the second floor that is used for a variety of community events.

Ticonderoga Community Building.

2. Black Watch Memorial Library

Ticonderoga owns the red brick, single-story Black Watch Memorial Library on Montcalm Street, which was built in 1926 as an Andrew Carnegie Foundation gift to the community. This was one of the earliest Carnegie libraries and one of the only such structures without his name because Andrew Carnegie was an admirer of the Scottish Black Watch Regiment. The library has internet access and other electronic resources, local history collections, children's books and programs, current fiction and non-fiction, inter-library loan capability, audio and video tapes, and popular magazines.

There has been an identified need to expand the library for more than 30 years. Ticonderoga's 1977 Comprehensive Plan called for adding on to the library to create a community center. More recently, in 2001, an architectural firm was hired to research alternatives for renovating and enlarging the historic library. The parcel of land on which the library is located is small and irregularly shaped. Given that the building is on the National Register of Historic Places, maintaining the integrity of the original building and satisfying the requirements of the New York State Historic Preservation Office will be required for any renovations or additions. There is also a need to make the building accessible. Despite these constraints, the

Ticonderoga Armory Community Center.

architects were able to develop a plan for making the needed improvements. While a lack of funding has kept the project from moving forward, it remains highly desirable and the Library Trustees are continuing to work towards its implementation.

3. Heritage Museum

The Heritage Museum is also located off Montcalm Street, adjacent to Bicentennial Park. The two-story brick building was constructed in 1888 and served for many years as office space for the paper mill. When the mill moved out of downtown, International Paper gave the building to the town and the local history museum that interprets the town's industrial history opened in the 1970s.

4. Hancock House

The Hancock House was a gift to The New York State Historical Association from Ticonderoga native and philanthropist Horace Moses. He built the house as a repository for perpetuating "American Traditions in History and the Fine Arts," and it served in this capacity for many years. The imposing Georgian mansion, located at Moses Circle, is a replica of Thomas Hancock's (uncle to John Hancock) Beacon Hill 18th century residence. The Hancock House Museum and Research Library was dedicated in 1926.

Currently, the Ticonderoga Historical Society manages the Hancock House as a regional museum and reference library. There are permanent exhibits on all four floors of the building and temporary art and

The Hospital Pavilion and currently vacant original Moses Ludington Hospital.

history exhibits are presented periodically as well. The library houses a large collection of regional material and has one of the largest collections of genealogical resources in the area.

The Heritage Museum.

5. Armory

Ticonderoga acquired the State Armory from the State Office of General Services in 2003 with plans to operate it as a community center, with services for youth and the elderly, along with storage space for town equipment, etc. The Armory, a large, three-story brick building on Champlain Avenue, has its own gymnasium, commercial kitchen, offices, vault and parking lot.

6. Old Hospital and Pavilion

The Old Hospital, while not owned by the town, remains an important building for the town and a potential resource if it could be successfully redeveloped. Since the hospital ceased using the building in 1980, there have been a number of proposals for the structure but none of the projects have moved forward. The adjacent Pavilion has been serving as office space for Inter-Lakes Health. The building, however, is not being utilized to its potential.

The two-story Old Hospital building is rapidly deteriorating and if it is not rehabilitated soon, the community may loose this impressive piece of its architectural heritage. The location of the building is prominent atop a hill overlooking the monument. Any plans for new construction on the site should respect historic character of this location and its importance as a gateway to the community.

G. Recreation

With its unique combination of mountains, lakes and public facilities, Ticonderoga offers residents and visitors a wide variety of recreation opportunities in all seasons. The nearly one-third of the town's land area in the New York State Forest Preserve is available for recreational activities such as hiking, fishing and paddling. In addition to the state-owned Putnam Pond State Campground, and boat launches on Lake Champlain and Lake George, the town owns around 135 acres of public parks and recreational facilities. Combined, these resources offer residents and visitors a multitude of recreation opportunities and contribute to the natural beauty, character and quality of life in Ticonderoga.

1. State Forest Preserve Land

There are approximately 15,000 acres of State Forest Preserve land in Ticonderoga. An act of the New York Legislature in 1885 created the Forest Preserve by declaring that state-owned lands in the Adirondacks

should "be forever kept as wild forest lands." In 1892, the Adirondack Park was created to encompass both the Forest Preserve and private lands in the region. The State Constitution of 1895 redefined the Forest Preserve, adding, "nor shall the timber thereon be sold, removed, or destroyed."

State land in Ticonderoga is classified into one of nine use categories under the Adirondack Park State Land Master Plan, which establishes guidelines for the management and use of all state land within the blue line. There are approximately 13,800 acres of state land classified as "Wilderness" in Ticonderoga. There are two developed recreational areas classified as "Intensive Use" - Putnam Pond Campground and Mossy Point State Boat Launch – that comprise 630 acres of land. The remaining state land is categorized as either "Primitive" or "Wild" forestland.

There are more than 26 miles of trails in Ticonderoga that are part of the extensive network of trails maintained by the state Department of Environmental Conservation on state land in the Adirondacks.

2. Putnam Pond State Park

Putnam Pond, or "Putts Pond" as it is commonly called, is a 185-acre water body, located entirely within the State Forest Preserve. The state operates a campground with more than 70 sites, beach, picnic pavilion and boat launch on the pond. The campground began operation around 1960. Motorized boats are allowed on Putnam Pond and around 10 of the state's campsites are accessible only by water. Rowboats and canoes can also be rented at the launch area. Fish in the pond include small mouth bass, yellow perch, northern pike. The Bureau of Fisheries annually stocks the pond with Tiger Muskellunge. A number of state hiking trails are located near Putnam Pond including trails into the Pharaoh Mountain Wilderness Area and up Treadway Mountain.

3. Town Parks

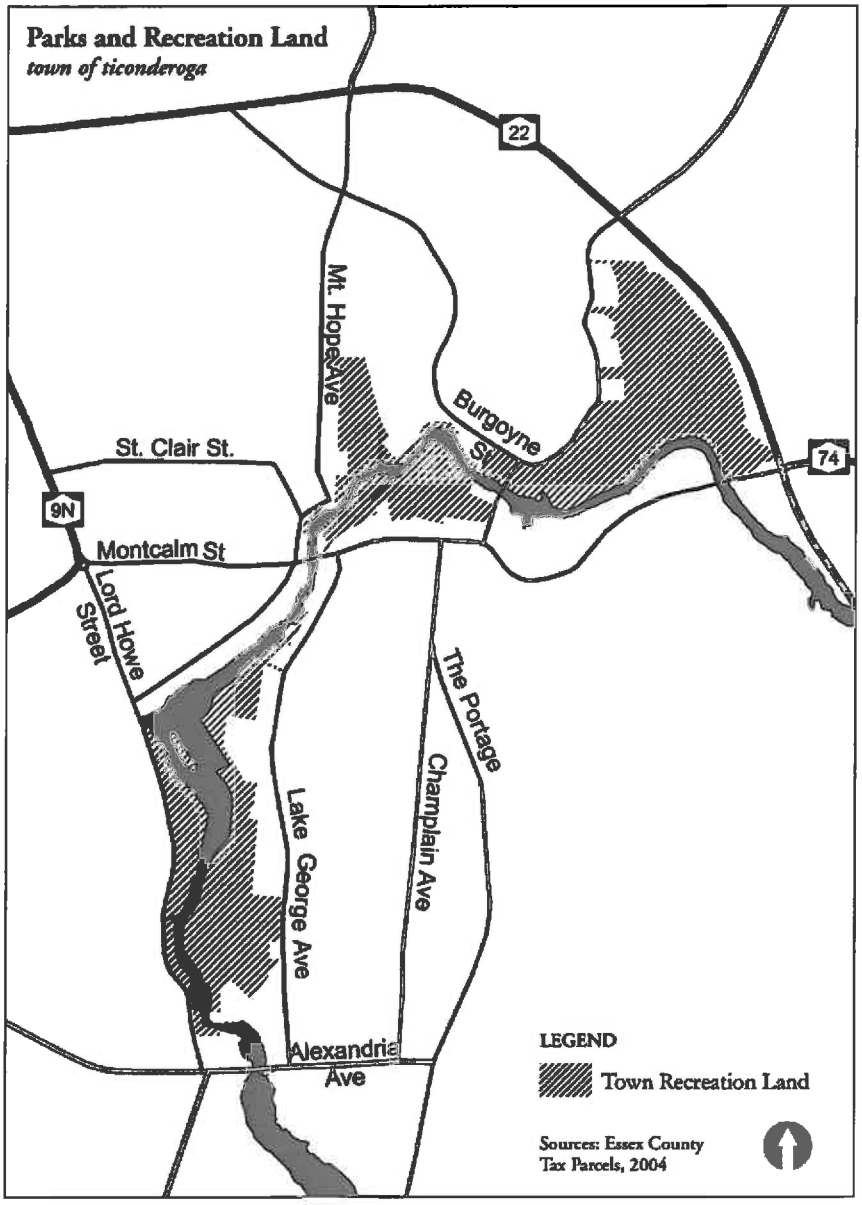
Ticonderoga offers residents and visitors access to an extensive system of town parks, comprising approximately 135 acres. When International Paper left the downtown in the early '70s, it handed over its property along the LaChute to the community. This and other property has been developed with sports fields including baseball and softball fields, tennis courts and basketball courts. Bicentennial Park has a playground, picnic areas, fishing access, and an excellent hillside for winter sledding. The town's Beautification and Recreation Committees are involved in ongoing efforts to improve the parks, their aesthetic character and recreational uses.

4. Town Beach

Ticonderoga's only public access on Lake George is its 2.5-acre town beach off Black Point Road. The site has a playground and sandy beach, which is monitored by lifeguards during the summer months. However, the beach currently no potable water and the only sanitary facilities are a pair of "port-o-johns." There is a critical need for a new beach building that would provide modern sanitary facilities, changing rooms, shelter space and potable water.

5. Town Trails

The town's recreation lands are interconnected through a system of trails and paths. The town has been actively working to complete work on the LaChute Trail, which follows the river from the Lower Falls to the Lake George outlet. The trail is currently not well-marked, and further directional and interpretive signage is planned along the route. Development of trail systems that would link downtown Ticonderoga to resources – such as the lakes, Fort, state land, and campgrounds – would enhance the community's tourism potential by encouraging visitors and residents to explore the town by foot, bike or recreational vehicle.



6. Winter Trails

A local group, the Adirondack Trail Riders Snowmobile Club, is working to promote Ticonderoga as a "winter trail" destination. This membership organization holds fund-raising events, and plans, builds and maintains trails in the greater Ticonderoga area. The frozen waters of the lakes also provide a convenient route for snowmobiling and races are regularly held on the ice.

Snowmobiling is seen as an essential component of the winter tourism economy in northern New York, but there has ongoing debate about snowmobile access on State Forest Preserve land throughout the Adirondacks. Other communities in the Adirondacks have worked together to create extensive trail systems off state land that attract a significant number of winter tourists. The town should actively participate in such efforts and support the responsible use of snowmobiles as part of its strategy to become a year-round tourist destination.

7. Hunting and Fishing

Ticonderoga with its mix of forested mountains and miles of lakeshore provides excellent habitat for a wide range of game and fish. Public land and access points offer residents and visitors the opportunity to hunt, fish and enjoy the town's natural beauty. Seasons for various species and hunting methods are set by the state Department of Environmental Conservation. White-tail deer and waterfowl hunting are popular activities in Ticonderoga from September through December, with the town offering some of the best deer hunting in the Northeast. Fishing occurs nearly year-round; Lake Champlain is known for bass fishing and the town regularly hosts national bass tournaments. Lake George also offers excellent opportunities for catching bass in the summer and fall, as well as for perch and lake trout. Ticonderoga should further promote its hunting and fishing activities as a way to diversify and lengthen its tourist season.

8. Recreation and Tourism

Trailhead sign at Putts Pond.

Ticonderoga's recreation resources are a vital component of the town's efforts to become a tourist destination. Currently, much of the recreation-oriented tourist activities are focused on the summer season. For visitor-dependent businesses to thrive, the town must extend its tourism season to attract travelers year-round.

Interestingly, Ticonderoga was once a center for winter sports enthusiasts. From the earliest days of passenger rail service, the Delaware and Hudson Railroad Company marketed the Adirondacks as a "Summer Paradise." In the 1930s, the company attempted to have the area become equally famous as a "Winter Playland," and began operating a "Snow Train" in 1934 that traveled north from Schenectady. The Delaware and Hudson railroad advertised Ticonderoga as "the new winter sports center," providing skiing, snowshoe trails, toboggan slide, ice fishing, and a municipal skating rink. The trails were located a short distance from the Delaware and Hudson station and patrons took buses from the station to the top of the mountains. The "Snow Trains" included coaches, a dining car, and a baggage car for carrying winter sports equipment. The train remained at the station all day, a virtual "hotel on wheels." It was available for lunch, lounging and resting as the cars were kept heated.

With the installation of lifts, skiers moved to higher mountains and steeper slopes than those found in Ticonderoga. Yet the town still offers many other winter activities, such as ice fishing, cross country skiing, snowshoeing and snowmobiling. What is currently lacking is the coordination and marketing of the winter recreation opportunities in the area. Promoting the town's winter activities will be a necessary component of turning Ticonderoga into a year-round tourist destination.

3.3. Community Resources and Character

This section of Ticonderoga's Comprehensive Plan defines the unique blend of natural and cultural resources that shape the town's character and support its economy. It also recognizes threats to those resources and identifies appropriate strategies for their use and protection. Ticonderoga's natural landscape is enhanced by its built environment. This integration of natural and cultural features forms a distinct "sense of place" that is easily recognized and valued by residents. Preserving, enriching and celebrating Ticonderoga's unique qualities is vital to maintaining the community's character and quality of life, and to transforming the town into a tourist destination.

A. Environment

Through planning for its environment, the town can decide how best to use its natural resources, financial capital and people to achieve and maintain a healthy community and high quality of life. Environmental planning also involves avoiding problems before they occur. This section inventories and analyzes Ticonderoga's natural resources and recommends strategies for ensuring a sustainable future for the town. While these environmental resources are discussed individually, it is important to remember that Ticonderoga's natural resources are interdependent, linked through a continuous cycle of interactions.

1. Climate

Climate is the average weather conditions of an area over time. Weather patterns are important planning and design considerations because of their effect on such things as soil erosion, plant growth, air quality, stormwater runoff, flooding, groundwater supplies, road maintenance, energy demand and the viability of weather-dependent industries (such as tourism).

The climate in Ticonderoga varies geographically (based largely on elevation) and is affected by four main factors: the town's location near the eastern edge of the continent; air masses traversing the town from other regions; the Adirondack Mountains; and the moderating influence of Lake Champlain. Ticonderoga receives approximately 37 inches of rain annually, although amounts vary with more precipitation on the higher elevations to the west than along the eastern lakeshore. When the prevailing westerly winds are forced up and over the mountains, the air is cooled often causing rain in summer and snow in winter. Near Lake Champlain the growing season is nearly 150 days, while in the mountains it is closer to 110. Average temperatures in Ticonderoga range from around 20 degrees Fahrenheit in January to about 70 in July and August, although highs above 90 and lows below zero are common on an annual basis.

2. Air Quality

Air is a resource that is often taken for granted because it surrounds us, but is largely imperceptible. Since the 1970s, however, there has been heightened public awareness of air quality as smog and other indicators of poor air quality have become increasingly common, especially around urban areas. Air quality has a direct

impact on human health and through the greenhouse effect, air pollution is changing the earth's climate and raising average temperatures. While rural communities like Ticonderoga still enjoy comparatively clean air, the effects of pollution are measurable everywhere.

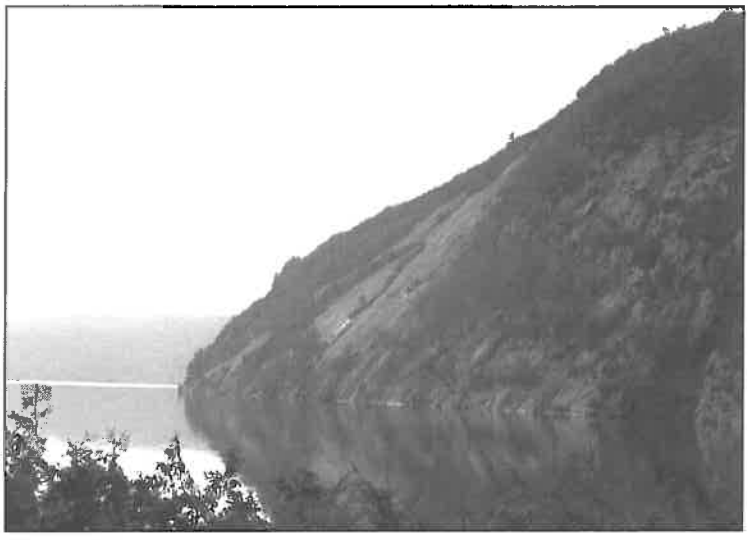
The northeastern United States has been experiencing phenomenon like acid rain for several decades. Many studies have shown that acid rain, which is largely caused by the emissions from coal-burning industries in the Midwest, is negatively affecting the health of Adirondack forests. Numerous lakes and ponds have become "acidified" to the point where they can support little to no aquatic life. Acid deposition is also harmful to many building materials.

While the town's air quality is generally high, there may be specific locations where, or days of the year when, air quality is reduced. Motor vehicles are a major source of emissions that affect air quality. Heavy traffic and slow moving or idling vehicles can lower air quality to dangerous levels in a limited area. Many schools are beginning to reduce the amount of time students spend on or near idling school buses due to evidence of increased respiratory problems such as asthma in children.

3. Geology

Geologic events of the distant past have affected Ticonderoga's topography, soils and drainage patterns. The town's bedrock and surficial geology have been created and altered by geologic forces over the millennia, a process that continues through the present.

The bedrock geology of the Adirondacks is generally composed of igneous and metamorphic rocks. These rock types were transformed from pre-existing igneous and sedimentary rocks under high temperature and pressure when they were deep within the earth's crust beneath ancient mountain ranges. The Adirondack Mountains are very different in shape and content from other mountain systems. Unlike elongated ranges like the Rockies and the Appalachians, the Adirondacks form a circular dome, 160 miles wide and 1 mile high. This dome emerged about five million years ago, but it is made of ancient rocks more than a billion years old. Hence, the Adirondacks are "new mountains from old rocks."



The sheer face of Rogers Rock at the Lake George shoreline.

A skin of soil and other loose material generally covers bedrock. This cover material results as weathering breaks down the surface rock. The loose materials may remain in place or be eroded, transported and deposited by water, wind or glacial ice. The present day landform and surface is largely the result of a glaciation

process that began 250,000 years ago, when the earth was a few degrees cooler and the snow that fell in the winter did not melt entirely in the cool summers. As it accumulated over millennia, its enormous weight compressed the lower layers of snow into ice, eventually becoming thousands of feet thick. The increased pressure softened the lower ice, causing it to flow like thick molasses.

As the ice advanced southward into the Adirondacks, soil and rock were scraped from the land and embedded in the ice like sand in sandpaper. Alternately scratching and smoothing the earth's surface, the glacier pulverized boulders into pebbles, carrying the debris as it moved. As it thickened, the glacier crept over hills and, eventually, over the highest mountains, breaking and lifting rocks as it rounded their summits.

The surficial deposits across most of New York State are several feet thick and were left as the continental glacier's ice sheet receded at the end of the last ice age some 10,000 years ago. When the ice sheet melted, these large rocks, called erratics, were deposited throughout the Adirondacks, where they can be seen today in fields, along forest trails, and scattered on mountaintops.

The view atop Treadway Mountain.

As the glacier thawed, iceberg-sized chunks of ice broke off and were buried beneath accumulating sand and gravel washed from the ice. When these ice blocks melted, they left depressions - kettle holes - in the landscape. When a kettle hole went below the water table, a kettle pond was established as the steady supply of water remained in the basin. Many of the small, circular ponds and wetlands in the Adirondacks were created in this fashion.

Meltwater streams, flowing under and within the glacier through tunnels in the ice, built their own streambeds from rock material embedded in the glacier. After the glacier melted, these riverbed sediments were deposited on the landscape as winding ridges called eskers. When sediment-laden water flowed over the glacier's surface, it filled depressions with sand and gravel. As the glacier melted, material from circular depressions was deposited on the landscape as mounds called kames.

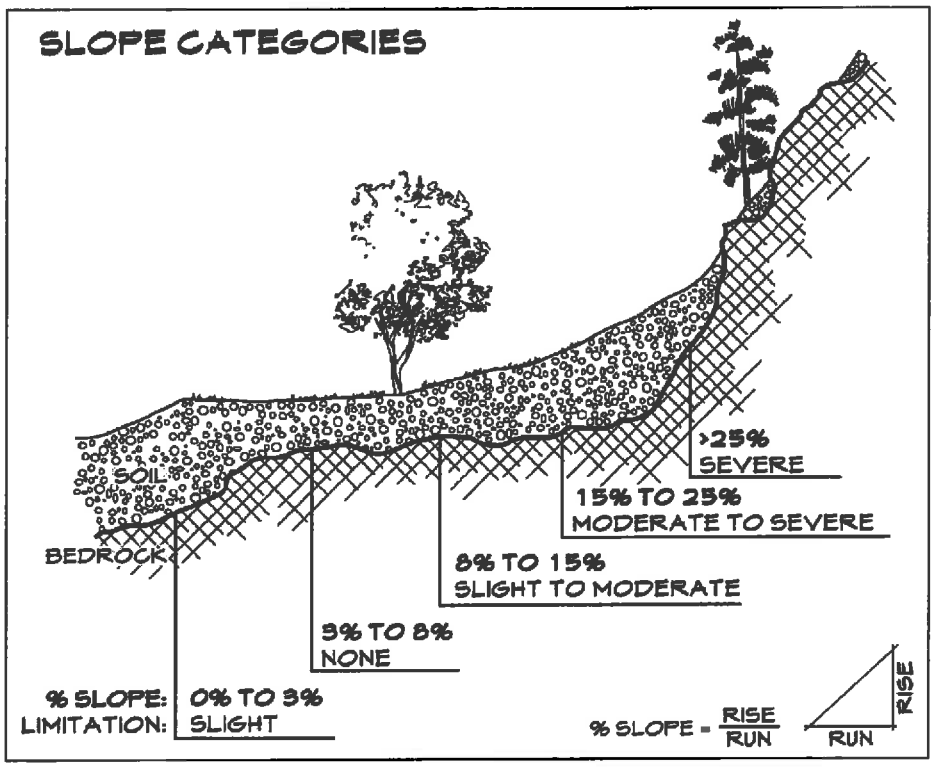
There are two types of surficial materials that cover much of Ticonderoga – glacial till in the uplands and lacustrine deposits in the eastern lowlands that accumulated at the bottom of Lake Vermont, the precursor to present day Lake Champlain and Lake George. Till is the most abundant glacial deposit. It is an unsorted mixture of mud, sand, gravel, cobbles and boulders that the glacier spread across the landscape.

4. Landform

Ticonderoga's landform with its configuration of mountains in the west and the Lake Champlain and Lake George valleys in the east plays a key role in creating the town's distinct character. The topographic relief in Ticonderoga is one of the greatest among Adirondack communities with its elevation ranging from 95 feet above sea level at the Lake Champlain shore to a height of 2,240 feet above sea level atop Treadway Mountain.

Fernett, Potter and Skiff mountains dominate the Eagle Lake area with slopes well over 25 percent. Easterly from Eagle Lake, Putnam Creek forms a flat, low wetland area south of Penfield Lake and along the creek. The large central section of Ticonderoga is a mixture of topography ranging from small pockets of flat or gently sloping land to the severe slopes of the Three Brothers Mountains just west of the hamlet. The Lord Howe Valley, paralleling Trout Brook, consists mainly of gently rolling slopes. Between Bear Mountain and Mount Defiance lies the upper Lake George Valley, which connects in the hamlet with the larger Lake Champlain Valley, forming a large flat area on the eastern side of town.

Landform presents obvious natural constrains to land development. Slope, often expressed as a percentage incline measured as vertical change over a horizontal distance, provides a way to classify landform in terms of its level of constraint for development. Areas with slight slope are generally better suited for development, while those with steep slopes are typically difficult and expensive to develop. As slopes become steeper, soil erosion and stormwater run-off become greater challenges to manage in a cost-effective and environmentally acceptable manner.



Slope information can be used as a basis for determining the most suitable use of land in terms of existing topography and minimizing extensive cut-and-fill operations. Development sited with consideration to slope will be able to minimize its adverse impacts on soil stability and erosion, water quality, stormwater run-off and site aesthetics. Such projects are also more likely to blend in with their surroundings and reduce their engineering and site preparation costs.

5. Soil

The soils found throughout northern New York are largely composed of materials carried from other areas and deposited by glaciers. These soils are young, having developed only since the glacial retreat about 10,000 years ago. There is a wide variation in soil deposits due to how the materials were laid down.

Soil is made up of four components: mineral and rock particles, decayed organic matter, live organisms, and space for air and water. The mineral component of soil ranges from fine clays to rocks. The upper mineral layer - topsoil - may have organic matter incorporated into it. The lower mineral layers, or horizons, are collectively called the subsoil. Dead plants and animals and their waste products, in varying stages of decomposition, provide the organic component of soil. These horizons exist near the top of most forest soils. Soil organisms such as bacteria, fungi, protozoa and earthworms, aid in the essential enrichment of soil by destroying plant residues, decomposing the dead bodies of all organisms, and mixing and granulating soil particles. Healthy soil promotes the recycling of nutrients from mineral and organic material to live organisms. Growing conditions are ideal when soil pore space holds equal parts of air and water, allowing room for root expansion, diffusion of nutrients, and movement of soil life.

The Natural Resources Conservation Service first inventoried Ticonderoga's soils in 1975 and around 40 different soil associations were identified in the town. This inventory provides a key to the general characteristics of the town's soil. The classification of soils and their ability to support varying land uses are directly related to individual soil characteristics. Soil characteristics are key to determining land capability to sustain use and development. Soils underlie the foundation of buildings; they are used as roadbeds; and are used to treat septic waste.

The soil survey information can be used to analyze an area's potential for agricultural or forest production, septic treatment or development, for example. While a useful planning tool at a town or regional level, this information is not detailed enough to provide site-specific information and it should not be relied upon to determine the soil characteristics of individual parcels of land.

Outside the area served by Ticonderoga's municipal wastewater system, residences and businesses require septic systems to treat waste, so examining the generally suitability of soils for waste treatment is a good first step to determining the capacity of the land for development. Conventional soil-based septic systems rely on two factors to ensure adequate treatment of waste – time and air. Wastewater must be able to percolate through soil at certain rates; the waste will drain too quickly though light sand for treatment to occur. There must also be air pockets that will allow for the aerobic process that removes harmful bacteria; heavy clay does not have the air pockets necessary for treatment to occur. Characteristics like slope also influence how well soils can treat waste. The town's different soil types vary in their ability to support septic systems. Much of the clay lake-plain soils in the eastern part of the town have limitations to their ability to treat waste.

A brook in the vicinity of Putnam Pond.

6. Surface Water

Ticonderoga is rich in valuable surface water resources. These rivers, streams, lakes and ponds are necessary for drinking and domestic use, agricultural, commercial and industrial uses, and fish and wildlife habitat. In addition, the town's waterways provide opportunities for recreation, transportation, education and aesthetic appreciation. Ticonderoga's surface waters have a long history of social, economic and military use.

Water flows in an endless cycle through the landscape. Continually replenished in flakes of snow, drops of rain and dew, or moisture condensed into clouds and fog, water links plant and animal communities. Wherever it falls to earth, water moves downhill in response to gravity. Rivulets and trickles join brooks, which combine to form streams and rivers. These rivers and their networks provide habitat for fish and wildlife, and they have served as the trade and travel corridors that established the town's settlement pattern.

Today, these resources are no less important, although their dominate uses have changed. More than ever the lakes and streams of Ticonderoga have become important recreational and aesthetic attractions for residents and visitors. The quality and availability of water resources in Ticonderoga play a major role in the well-being of the community.

LaChute River

The LaChute River was formed during the final stages of the last ice age. As the Wisconsin glacier retreated, the river carved a two-mile channel draining Lake George northwards into glacial Lake Vermont, which occupied the Champlain Valley 12,000 years ago. As the lake that covered the valley floor shrank into the current water body of Lake Champlain, water continued to cascade from Lake George down into Lake Champlain via the LaChute River.

The two lakes served as a highway for native people, who carried their canoes along a portage between the lakes. French and British troops and traders followed the pathway at Ticonderoga, which had served Native Americans for thousands of years. It was the French who originally gave the river its current name, which translates as "The Falls," although it was officially known as Ticonderoga Creek until fairly recently.

The LaChute River became a natural source of power for many early industries in Ticonderoga. It falls 230 feet on its three-mile course as it drains the waters of Lake George into Lake Champlain, over a series of six waterfalls, a drop equal to the height of Niagara Falls. This waterpower has driven mills since French soldiers built the first sawmill on the river in 1755. Currently, the river's series of six dams are used to regulate water height in Lake George, as well as to generate power from two hydroelectric plants.

Most of the river's shoreline is highly developed and its water quality is classified as Class D according to the New York State Department of Environmental Conservation (NYSDEC), their lowest water quality classification. Class D surface waters are defined as waters that will not support fish propagation, although they are suitable for fish survival. The waters are required to be of suitable quality for primary and secondary contact recreation, although there may be other factors that limit such uses.

The LaChute River was the receiving water for waste from the downtown paper mill and other industries along its banks for more than 150 years, resulting in serious degradation of water quality. Since the 1970s, with the relocation of the paper mill and the start of environmental regulation, water quality in the LaChute has improved immensely. The only facility currently discharging into the river is Ticonderoga's municipal wastewater treatment plant. For nearly a century, the river and its magnificent falls had not been accessible or even very visible to residents. With the removal of mill buildings, the Lower Falls are again visible from downtown and the river has become a recreation and aesthetic resource for the entire community.

Other Streams

In addition to the LaChute, there are several larger streams in Ticonderoga including Trout Brook, Fivemile Brook and Putnam Creek. These major streams begin within the town's high, mountainous terrain and drain into Lake Champlain (with the exception of Trout Brook which originates in Hague). Including smaller creeks, there are approximately 90 miles of streams in Ticonderoga.

In their mountainous headwater reaches, most streams fall steeply through narrow v-shaped channels in the shallow soil and bedrock, developing swift-running riffles that alternate with deeper, more sluggish pools. Riffles, places of high energy where air and water freely mix, charge stream water with oxygen. Pools are quieter areas where organic materials tend to collect and decompose, consuming oxygen in the process. This allows the recycling of nutrients necessary for living organisms in the stream. As they merge, streams join forces, forming rivers that link the mountains with the sea. Streams carry sediments eroded from the hills down to level terrain, where, as they slow and meander, they deposit some of their sediment load in the slack water of bends or along the floodplain.

In Ticonderoga, all surface waters drain into one of two major basins or watersheds – Lake Champlain or the Schroon River (which is part of the larger Hudson River watershed). The Lake Champlain Basin, which comprises nearly 90 percent of the town's land area, can be further divided into three sub-basins in Ticonderoga – the Lake George and LaChute, Putnam Creek, and Lake Champlain Direct Drainage - based on how water from the area flows into the lake.

Watersheds are nature's boundaries; they are an area of land where all the water that flows under or drains off it goes to the same place. Watersheds can be defined at different scales; so land in Ticonderoga that drains into the Schroon River is part of that river's watershed and, since the Schroon River flows into the Hudson River, it is also part of the larger Hudson River Watershed.

Human activities and land uses within a watershed have a direct impact on water quality and the health of aquatic ecosystems. Since the mid-1990s, research, planning, management and regulation aimed at improving or maintaining water quality, preventing erosion and reducing flood hazards nationwide has shifted its focus from individual water bodies to watersheds. A considerable amount of attention in recent years has been given to the Lake Champlain Basin resulting in significant research, planning and education efforts related to improving water quality in the lake and throughout the watershed.

Lakes and Ponds

There are more than 60 lakes and natural ponds in Ticonderoga including Lake Champlain, Lake George, Eagle Lake, Putnam Pond, Rock Pond, Berrymill Pond, Clear Pond, Bear Pond, Worcester Pond, Buck Mountain Pond, Lily Pad Pond, Heart Pond, Grizzle Ocean and other smaller water bodies. Ticonderoga's three largest lakes – Lake Champlain, Lake George and Eagle Lake – are discussed in detail in Section 3.3.B of this plan. The major three have a total area within the town boundaries of approximately 3,700 acres while the remaining smaller water bodies total around 640 acres. Of the smaller ponds in Ticonderoga, more than half (accounting for 82 percent of the acreage) are located within the Forest Preserve and many are accessible from the state trail system in the Pharaoh Mountain Wilderness Area.

Ticonderoga's lakes and ponds are relatively young, resulting from the retreat of the last glacier. Each lake and pond is a separate ecosystem composed of a community of plants, animals and microbes living together in a still-water environment. Ponds are typically shallow enough for sunlight to reach across their entire bottom; lakes usually fall off into darkness, where rooted aquatic plants cannot grow. Cold-water lakes are often deep and clear, with steep sides and rocky or sandy bottoms. Because light does not penetrate all the way to the bottom, relatively little plant growth takes place. Warm-water ponds are typically shallower, with gently sloping sides and thicker, organic-rich sediments. Their shoreline offers a fertile environment for aquatic plant growth.

Flooding

Flooding occurs naturally in most rivers and streams due to spring snow melt, torrential storms or prolonged periods of rainfall. In a relatively undisturbed environment, the floodwaters are normally contained within level areas adjacent to the water body known as the floodplain. Floodplains range from narrow bands along small, swift flowing streams to broad flats along slow, meandering rivers. Floodplains provide an important water storage function during flood events. When development occurs within a floodplain, its ability to store floodwater is diminished.

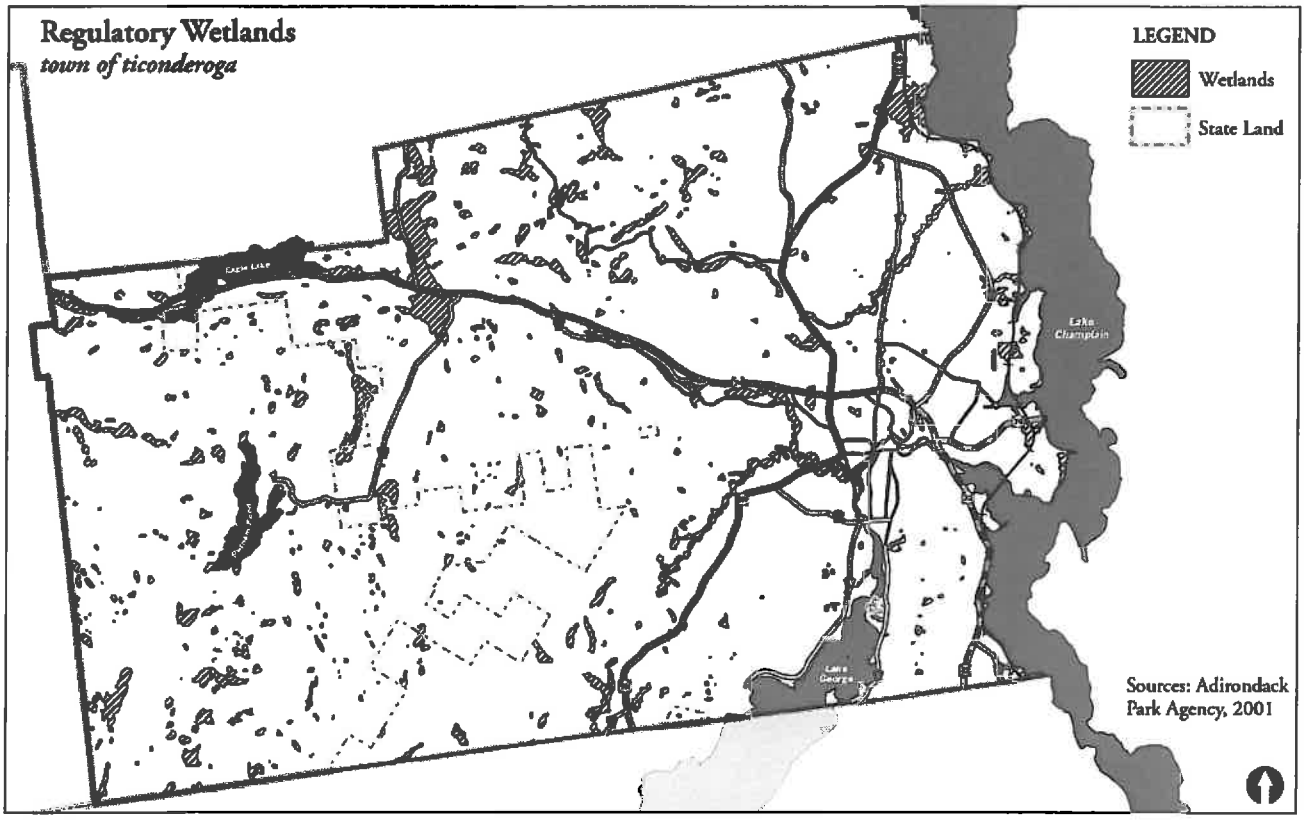
Flood frequency and severity may be amplified by human activities such as clearing forest vegetation, building structures, roads and parking lots, or altering the natural course of a stream. The stormwater impacts of development and changes in land cover need to be carefully managed to prevent downstream flooding, erosion and reduction in water quality.

7. Wetlands

Ticonderoga has a range of wetland communities including marshes, bogs, swamps and shallow vegetated lakeshores. There are several large wetland areas in town including Cranberry Marsh, Miller Marsh, the wetlands along Haymeadow Brook and the wetlands along Putnam Creek. In total, there are approximately 1,300 acres of wetlands in Ticonderoga. The town's wetlands have been mapped and categorized by the state as part of an Adirondack Park wetland inventory.

Whenever water is stopped, allowed to accumulate or made to move slowly, a wetland will form. The many kinds of wetlands - marshes, bogs, swamps or wet meadows – can be identified by characteristic plants. All are aquatic, semi-aquatic, or at least, tolerant of inundated conditions. The depth and persistence of water are the most important factors determining wetland type. Wetlands range from deep-water marshes to emergent marshes to shrub swamps to wooded swamps and wet meadows. The depth of water in each of these wetland types varies in frequency and duration and even changes with the seasons. Seldom do these wetlands exist in an isolated state; many are part of larger wetland complexes that contain overlapping types of wetlands.

The role of wetlands in the balance of nature is a crucial one and considerable attention is given to regulating development that could potentially impact wetlands due to the fragility of wetland ecosystems and the important ecological functions wetlands perform. Wetlands provide critical storage capacity to



retain water from snow melt and storm events, reducing downstream flooding. Wetlands often intercept runoff from roads and other impervious surfaces, catch sediment and other pollutants before they enter streams and impair water quality and aquatic habitat. Wetlands offer habitat for a variety of plants and animals and their high productivity is the base of the aquatic food chain, providing spawning, feeding and nursing grounds for birds, amphibians, fish and other aquatic species. Wetlands also provide open space for recreation, outdoor education, scientific research and aesthetic enjoyment.

Impacts to all waters of the United States, including wetlands, are regulated by the Army Corps of Engineers under Section 404 of the Clean Water Act and require a permit. In New York State, impacts to "Article 24" wetlands (those larger than 12.4 acres including a 100-foot buffer around their perimeter) require a Freshwater Wetlands Permit from the Department of Environmental Conservation. Within the blue line, the Adirondack Park Agency issues state permits for any projects in Ticonderoga resulting in wetland impacts. The agency maintains a map of all regulated wetlands. Wetland activities that require permits include dredging and filling, diversions of surface or subsurface drainage, and projects that increase the amount of sediment entering wetland areas.

8. Groundwater

Those residents of Ticonderoga who are not served by the municipal water system or taking water directly from Lake George obtain their drinking water from groundwater. Groundwater is stored beneath the surface in loose deposits of sand and gravel, in other saturated soils and in fractures in the bedrock. Supplies of groundwater are maintained by the percolation of precipitation and water runoff into the soils in highly permeable recharge areas or bedrock faults. Groundwater is stored in aquifers at various depths beneath the earth's surface.

Specific soil and slope conditions, and soil permeability greater than six inches per hour in areas with slopes of less than eight percent, are needed for water to move through the soil to recharge groundwater supplies. Land with these characteristics is also generally well suited for development. Development, with its buildings and paved areas, often reduces the amount of surface area for or otherwise alters drainage patterns that impact groundwater recharge. Promoting development that minimizes its amount of impervious surface area and properly manages stormwater on-site helps to maintain adequate groundwater recharge and supplies.

In addition to groundwater supply, the quality of groundwater is vitally important. Groundwater supplies that are contaminated and therefore unsafe to drink often cannot be easily remediated and will remain polluted and unusable for decades or more. Groundwater contamination can come from a variety of sources including landfills or other waste sites, underground storage tanks, unprotected above ground storage of or improper use or disposal of materials like road salt, agricultural chemicals or wastes, lawn and garden fertilizers or pesticides, or failed septic systems.

9. Wildlife and Fisheries

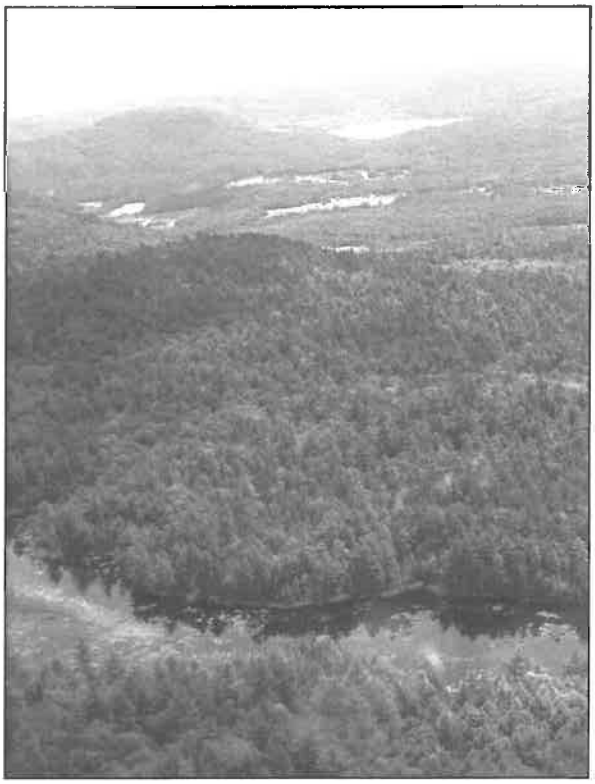
Like people, plants and animals tend to live together in recognizable communities, each composed of individuals adapted to life under similar conditions. Some plant species require deep, fertile soils, while others thrive in the relative austerity of droughty outwash sands. Amphibious communities straddle the line between uplands and the underwater world of fish. Others cling to life in acid bogs on barren mountain summits.

Ticonderoga's wildlife and fishery resources are an important part, not only of the town's ecosystems, but also to the rural lifestyle and quality of life enjoyed by residents and visitors. Hunting, fishing and wildlife viewing are popular recreational activities and could be further developed as components of the town's strategy for developing as a year-round tourist destination.

Rare and Endangered Species

Since the early 20th century, efforts have been made to prevent further extinctions of plant and animal species in the United States. Early efforts focused on specific rare and endangered species, but over the past two decades the emphasis has shifted to protecting the habitat needed for these plants and animals to survive. New York State's policy and regulatory programs aid in maintaining a diversity of fish and wildlife habitats. Within the Adirondack Park, the Private Land Use and Development Plan protects critical wildlife habitat such as wetlands, deer wintering grounds and habitat of endangered species.

The New York Natural Heritage Program is a joint endeavor of the state's Department of Environmental Conservation and the Nature Conservancy. Since 1983, field searches have been conducted to locate plant and animal species considered to be rare globally or within New York State. The information collected forms an inventory of New York's most important planning and research. With preservation of habitat the objective, priorities are set for the protection of these sites and various safeguards considered: preservation through gifts of land, bargain sales, outright acquisitions, land management agreements, or conservation easements. Species that have been identified for special protection in the Adirondack Park include: peregrine falcon, bald eagle, spruce grouse, bog turtle, Indiana bat, and timber rattlesnake.



Looking east from Three Brothers Mts.

10. Forest

More than 60 percent of Ticonderoga's landscape is forested. These forest resources have played a significant role in the town's development and continued economic vitality. Most of the town's forested land can be classified as part of one of the following forest communities.

Mixed Wood Forest

Mixed wood forests grow on soil derived from outwash, the sand and gravel deposited by glacial rivers. Because most nutrient-rich clays and silts were flushed away by this meltwater, outwash rarely develops into the fertile soil required by northern hardwoods. Mixed woods are aptly named, for the community is characterized by an assortment of conifers and certain hardwoods that vary in abundance according to subtle changes in soil fertility and height of the water table.

On moist sites, red spruce thrives alongside hemlock, red maple, black cherry and the ubiquitous yellow birch. Water percolates quickly through outwash, causing upper soil layers, where tree roots are found, to lose moisture easily. White and red pine, species that tolerate droughty conditions, are commonly associated with drier outwash sites like eskers. Where a high water table keeps moisture near the surface, red spruce and balsam fir dominate. A carpet of greenery composed of ferns, mosses, wood sorrel, and Canada mayflower flows beneath the trees, contrasting with the bed of leaves that covers the hardwood forest floor.

Northern Hardwood Forest

The northern hardwood forest is the most extensive woodland in the Adirondacks, typically occupying the region's best soils and sites. Northern hardwoods grow on glacial till, which normally develops into a more fertile soil than outwash. Species adapted to this community produce a deep shade in which only shade-tolerant seedlings can grow to maturity. Barring such major catastrophes as fire or blow down, this forest can maintain itself indefinitely once it has become established.

Sugar maple and American beech can tolerate more shade than other hardwoods, and thrive on deep, fertile, well-drained till. Yellow birch, which requires more sun, does well on both till and outwash. The constant shade of northern hardwoods is home for an understory of striped maple and witchhobble. And the forest floor nourishes various species of clubmoss, as well as spinulose woodfern, trilliums, wild sarsaparilla and Solomon's Seal.

Rich-Site Hardwoods

White ash, basswood, elm and hop hornbeam are called rich site hardwoods because they grow on humus that has high pH and nutrient levels. These sites, common in the Champlain Valley, have their own typical ground plants: Jack-in-the-Pulpit, foamflower, and Canada violets, among others.

Slopes of Spruce and Fir

Living conditions on mountains are harsher than in the valleys and flats below. The average daily temperature falls as altitude increases, shortening the growing season. Soils become thinner and more acidic. As the process of decay slows, organic matter accumulates and fertility levels drop. Exposure to drying winds stresses trees, especially in winter when roots cannot draw moisture from the frozen ground. Above approximately 2,500 feet, the northern hardwood community gives way to stands of red spruce and balsam fir, which are better adapted to life on the high mountain slopes.

B. The Lakes

1. Lake George

Lake George is 32 miles long and about 2½ miles across at its widest point. This north-south trending lake covers 44 square miles and has an average depth of 60 feet. The watershed draining into the lake has a surface area of 190 square miles. Lake George drains into Lake Champlain via the LaChute River with the series of dams along the river controlling Lake George's water levels. Approximately 10 miles of shoreline, comprising the narrow, northern tip of the lake, are located in Ticonderoga.

The New York State Department of Environmental Conservation has classified Lake George as a Class AA-Special water body (its highest classification), which means it may be used as a drinking water supply and for recreation and fishing. It is also suitable for fish habitat and survival. In Ticonderoga, the lake is a domestic water source for some shoreline residents and is one of the sources for the town's municipal water supply; therefore, water quality is a matter of ongoing concern. The lake also provides important fish and wildlife habitat. Resident fish species include lake trout, landlocked salmon, smelt, smallmouth bass, largemouth bass and others.

As of 2005, there were approximately 250 residential lots with lake frontage in Ticonderoga. While the lakeshore is largely residential, there is limited commercial activity including a marina and short-term rental properties. The Mossy Point Boat Launch and the Town Beach provide public access to the lake.

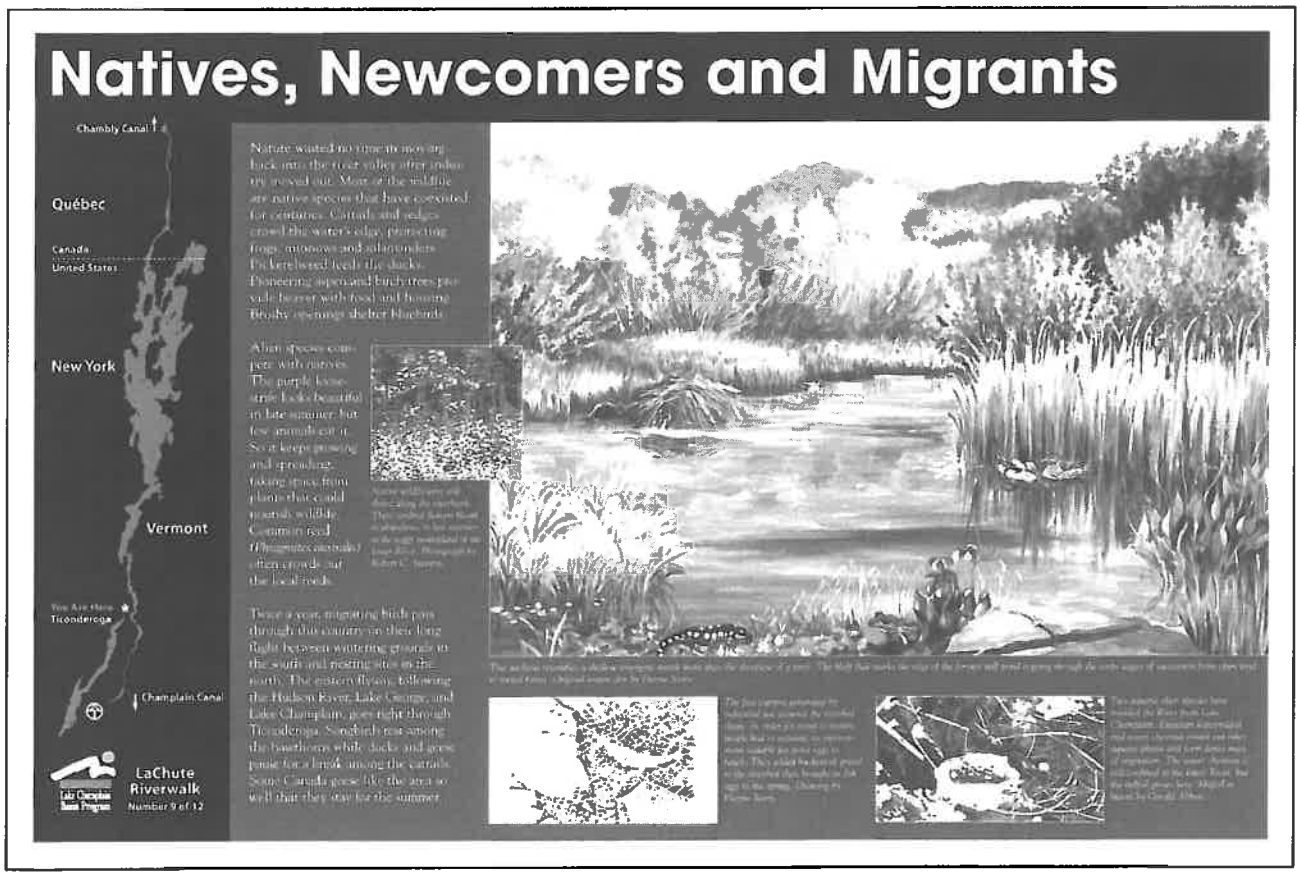
The build-out analysis conducted as part of the planning process indicated that there is little developable frontage remaining on the Lake George shoreline in Ticonderoga. The undeveloped land that remains on the shoreline is in existing small lots; there are no long stretches of waterfront that could be further subdivided. However, there is a significant amount of undeveloped, fairly level land to the west of Baldwin Road. Some of this area is currently classified by the Adirondack Park Agency as a Moderate Intensity Land Use Area, which allows for a development density of one unit per 1.3 acres, while the remainder is within the Rural Use classification, which allows for a development density of one unit per 8.5 acres. The town has zoned this area as Rural Residential with a minimum lot size of one acre or Medium Density Residential with a minimum lot size of one-half acre. Provision of municipal water and sewer to this part of town will likely spur development in this area near the lake. As the town is making decisions regarding infrastructure extensions, it should also consider the potential impacts of additional development on the lake and the town as a whole and ensure that its land use regulations guide development in a manner that prevents negative impacts on either.

Ticonderoga's town beach on Lake George.

2. Lake Champlain

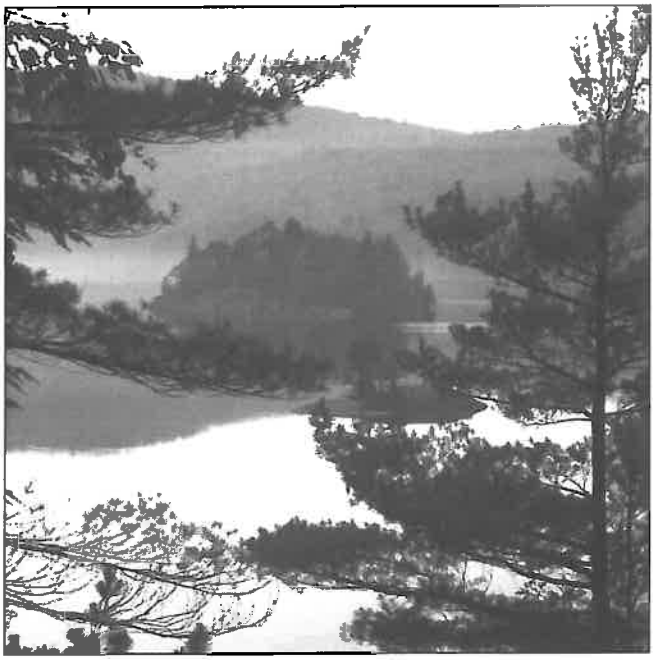
The Lake Champlain Basin stretches from the peaks of the Adirondacks to the Green Mountains and north into Québec; it is renowned as a natural and historic resource. The lake itself is 120 miles long, flows north from Whitehall to the Richelieu River in Quebec and is the sixth largest lake in the United States. Lake Champlain originated around 200 million years ago when, due to movements in the earth's crust, a massive block of bedrock dropped down between the Adirondack and Green Mountains. The lake was later shaped, formed and re-formed by glaciers. At one time, it was a massive south-draining lake with its surface 600 feet higher than today's level; later it became a salt-water sea. Following the last ice-age, Lake Champlain formed into its current configuration as an inland lake.

The south end of the lake has seen an explosion of vegetative growth, largely the invasive Eurasian milfoil, which has diminished the quality of its recreational opportunities and habitat for native species. This phenomenon has been connected to the unintended introduction of another foreign species, the zebra mussel, which has increased the clarity of the historically murky waters allowing more sunlight to reach the lake floor spurring plant growth. Efforts are underway to control invasive species in the lake and prevent future introductions of non-native plants and animals. Invasive aquatic species are a concern in



An interpretative sign along the LaChute trail discusses how invasive species have disrupted native ecology.

all the town's water bodies and these unwanted plants and animals are easily spread by either natural or human means. In additional to their environmental impact, invasive species have the potential to reduce the recreational potential of the town's water bodies.



A view of islands in Eagle Lake.

Fifteen miles of Lake Champlain shoreline form the eastern border of Ticonderoga. The southern end of the lake is narrow and shallow. The average lake depth near Ticonderoga is 10 feet (and around 30 at its deepest point) and the width ranges from one-quarter up to one mile.

With the exception of the industrial property owned by International Paper, all the land in Ticonderoga adjacent to Lake Champlain is in the APA's Resource Management Land Use Area. The presence of the rail line, which runs along the lake, has made the shoreline largely unsuitable for residential or commercial development. Most of the Lake Champlain shoreline in Ticonderoga north of the LaChute River outlet is owned either by International Paper or Fort Ticonderoga. South of the LaChute, the limited amount of land east of the rail line is generally developed with camps on small lots. There are approximately 20 residential lots with Lake Champlain frontage in Ticonderoga, the majority of which are seasonal. Much of the land on the west side of the rail line is in agricultural use.

Ticonderoga does not have a commercial marina on Lake Champlain and such a facility has been identified as desirable. There are a number of constraints to development of a marina, including the physical character of the shoreline, land ownership patterns, and the presence of the rail line.

3. Eagle Lake

Eagle Lake is a 425-acre lake, which is located largely within the Town of Ticonderoga with a small section crossing the town line into Crown Point. The average depth of the lake is 19 feet, with maximum depths of around 40 feet. The lake supports a variety of fish species including smallmouth and largemouth bass, northern pike, brown trout, pickerel and yellow perch.

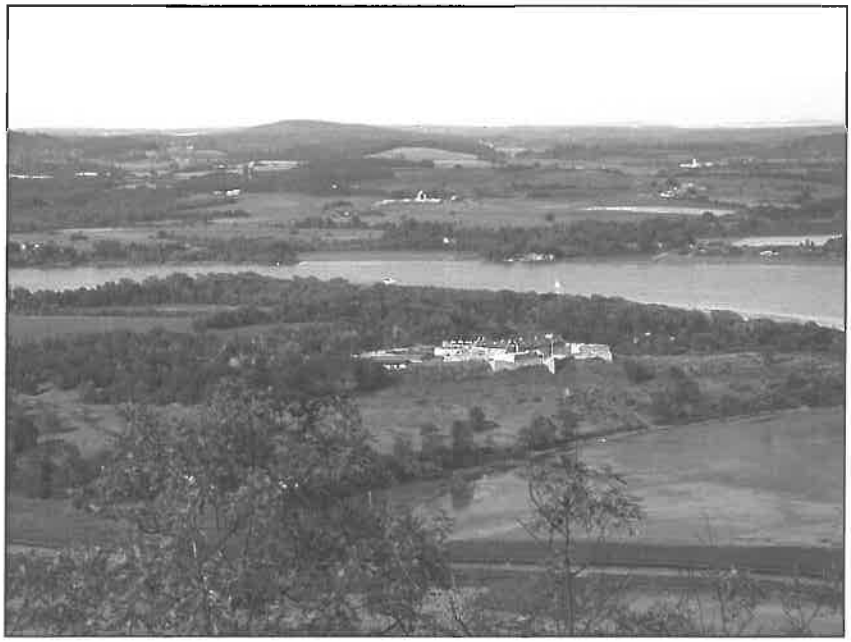
Route 74 passes along the southern shoreline and there are approximately 50 homes on waterfront lots around Eagle Lake in Ticonderoga with about an additional 20 homes near the lake. There are less than a handful of undeveloped frontage properties. Most of the shoreline property around Eagle Lake is within the APA's Low Intensity Land Use Area with a smaller amount classified as Resource Management; there is also some state land around the western end of the lake.

C. The Fort

The Town of Ticonderoga and Fort Ticonderoga have been inextricably linked since the French first began constructing fortifications in the 18th century. From the time of the Seven Years War through the War of 1812, Lake Champlain, Lake George and the communities along their shores were host to many of the battles that shaped the history of the North American continent and the formation of our nation. Ticonderoga, as the nexus between these two lakes, owes much of its history and development pattern to that military heritage. The importance of the Fort to the larger community continues to the present as the name "Fort Ticonderoga" is now internationally known both for its military role and for its restoration and operation as a museum and tourist destination.

In 1820, William Ferris Pell purchased the ruins of the Fort and the surrounding "garrison grounds" to preserve it for posterity. In 1826, he built the Pavilion first as a home, and later turning it into a hotel to serve the growing number of tourists who came to see the Fort ruins. In 1908, Stephen and Sarah Gibbs Thompson Pell began restoration of Fort Ticonderoga, which was opened to the public in 1909 with President Taft in attendance. In 1931, Fort Ticonderoga was designated a not-for-profit educational historic site managed by the Fort Ticonderoga Association.

The Fort Ticonderoga Association now administers the historic site through a 24-member Board of Trustees. The site's facilities include the restored 18th century Fort, a museum with over 30,000 objects, and the Thompson-Pell Research Center that houses administrative offices and a research library with over 13,000 rare books and manuscripts. In addition, there is the Log House Restaurant and Museum Store. Below the Fort on Lake Champlain is the Pavilion, which is slated for future restoration. Next to the Pavilion are the King's Garden at Fort Ticonderoga, the 18th century garrison garden, a children's garden, and the Native American garden – all of which are open to the public.



A view of Fort Ticonderoga from Mt. Defiance.

The Fort Ticonderoga Association owns 2,000 acres in New York and Vermont, 1,690 acres of which are in Ticonderoga. Some of their holdings in Ticonderoga include the Carillon Battlefield, Mount Defiance (open to the public) and Mount Hope (open to the public). In Vermont, the Fort owns the northern half of Mount Independence.

The Fort's 2004 annual operating budget was $2.2 million of which 70 percent was earned revenue from admissions, museum store and food sales. The Fort's 2004 capital budget was an additional $2.9 million. The Fort has 18 year-round employees and 59 seasonal employees, both full and part-time; additionally, over 1,000 people volunteered nearly 66,000 hours to the Fort in 2004. The Fort estimates that their visitors spend on average $127 per person for gas, food and lodging, which yields $12.1 million in local economic impact annually.

Fort Ticonderoga is open to the public from May to late October annually and in 2004 the Fort's attendance was over 96,000. Throughout the season, the Fort offers numerous education programs, lectures, symposia and reenactments. There are two major reenactments held each year, the Grand Encampment of the Seven Years War in June and the Revolutionary War Encampment in September. Over 7,000 school-age children receive education programs both at the Fort and in area schools each year.

1777 Map of Fort Ticonderoga.

Recent efforts at the Fort suggest that it is attempting to shift from a purely seasonal to a year-round operation. The Fort is currently adding an expanded educational program and a new all-season facility within the East Barracks to its operation, which would allow it to be open throughout the year. The Fort expects to have a number of multi-day educational conferences, workshops and exhibits during the late fall, winter, and early spring months.

As discussed elsewhere in the plan, currently the majority of the Fort's tourists do not stay overnight, so despite the Fort being a major attraction, the town has not been able to capitalize on this resource to develop a vital tourist economy. However, future visitors to the Fort's year-round facilities could add substantially to the number of tourists the Fort currently attracts in its seasonal mode who stay in town for more than a day. The lack of accommodations in Ticonderoga will be a constraining factor on the Fort's expansion plans, just as it is to the town's efforts to become a year-round tourist destination. However, if the town and the Fort were to work together this constraint could be turned into an opportunity that would benefit both the historic site and the community.

D. The Hamlet

The Adirondack Park Agency has designated a 1,100-acre area, comprising most of the former village along with additional lands, as the hamlet of Ticonderoga. The hamlet includes 45 percent of the town's residential properties, the downtown commercial core, and some of the commercial property around the Four Corners.

The hamlet remains the center of the town's population and commercial concentration. In 2000, 42 percent of the town's residents lived within the 9612.4 and 9612.5 census block groups, which together are roughly equivalent to the hamlet boundaries. Nearly all of Ticonderoga's major civic institutions are located in the hamlet. One of the main goals of this plan is to maintain the hamlet as the commercial, institutional and cultural center of the town.

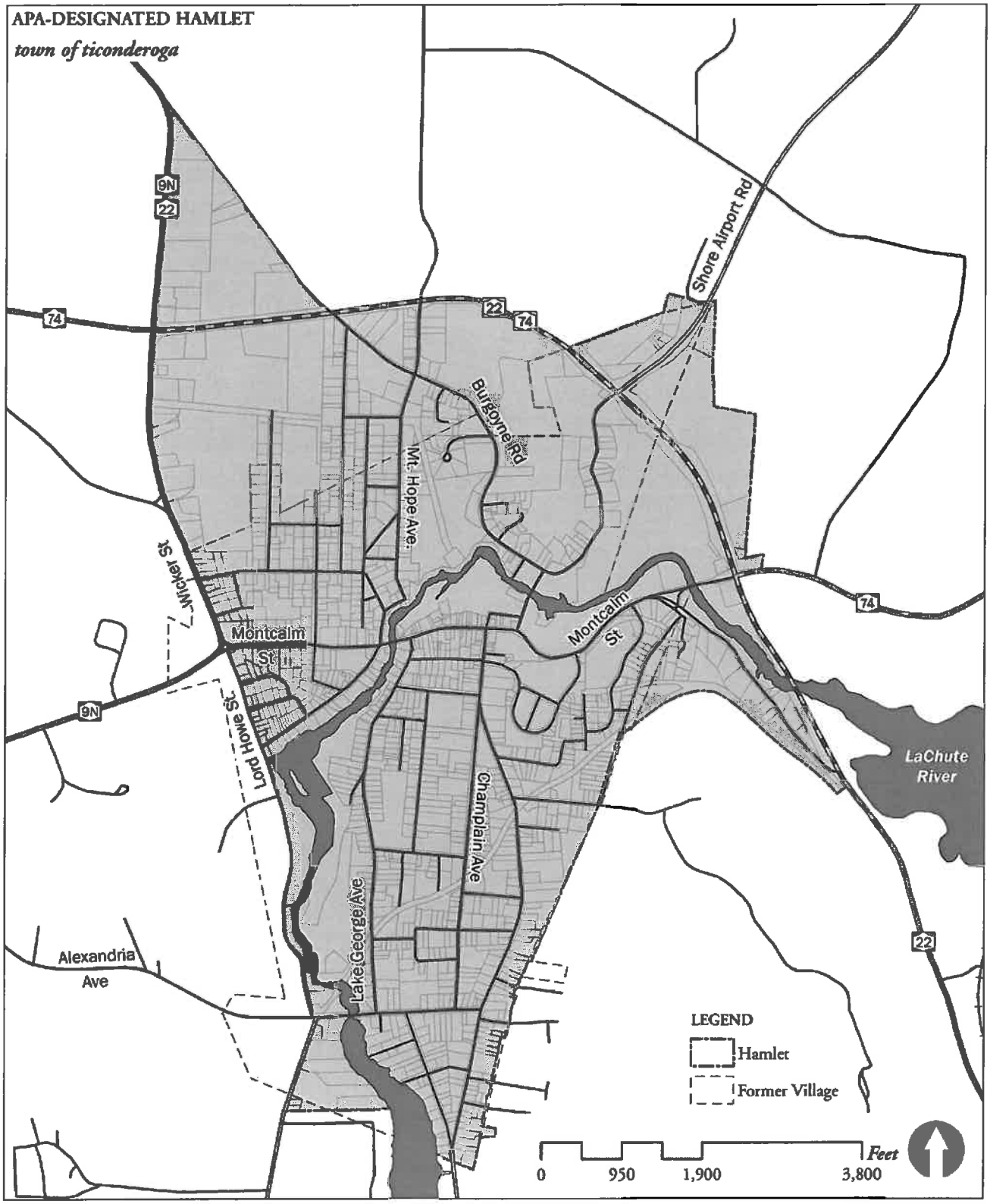
1. Civic Institutions and Commercial Activity

To achieve that goal, it is essential to maintain and enhance the civic institutions in the hamlet including: the Community Building, Armory, Post Office, Black Watch Library, Police, Fire and Rescue Departments. These institutions serve as "anchors" in the hamlet, just as large department stores function as "anchors" in a shopping mall. They are the main reasons many residents come to the hamlet, and once there, these residents may shop in downtown stores, patronize local eateries, or stop to get a haircut or other such service. Every effort should be made to ensure that civic institutions remain in the hamlet. If they outgrow their present locations or require more parking, creative solutions should be found to accommodate these anchors within the hamlet.

The hamlet's vitality also depends on supporting community services and ensuring continued commercial activity in Ticonderoga's downtown. The town should continue its efforts to turn the Armory into a community center for youth and senior citizens. The hamlet is the ideal location for daycare facilities and summer programs for children due to its central location and the proximity to the town's recreational, civic and cultural resources. Ticonderoga's officials and real estate community should be proactive in promoting the hamlet to prospective business owners and entrepreneurs. The town's zoning should be reviewed to ensure that civic, professional and retail uses are guided to the hamlet.

2. Cultural and Educational Institutions

Many of Ticonderoga's cultural and educational institutions are located within the hamlet. These institutions have been identified as key components in the town's efforts to revitalize the downtown. Arts, culture and history have been successful tools for revitalization efforts in communities throughout the country. Downtown revitalization programs focused on the arts and cultural tourism in other Northeastern communities – such as Brandon, Vermont and Pittsfield, Massachusetts – offer models that could be adapted to Ticonderoga, which is well positioned to build upon its existing resources to become a premier Adirondack arts community.


APA-DESIGNATED HAMLET
town of ticonderoga
9N
22
74
Shore Airport Rd
Burgoyne Rd
Mt. Hope Ave.
Wicker St
Montcalm St
Lord Howe St
Montcalm St
LaChute River
Champlain Ave
Lake George Ave
Alexandria Ave
LEGEND
Hamlet
Former Village
0
950
1,900
3,800
Feet

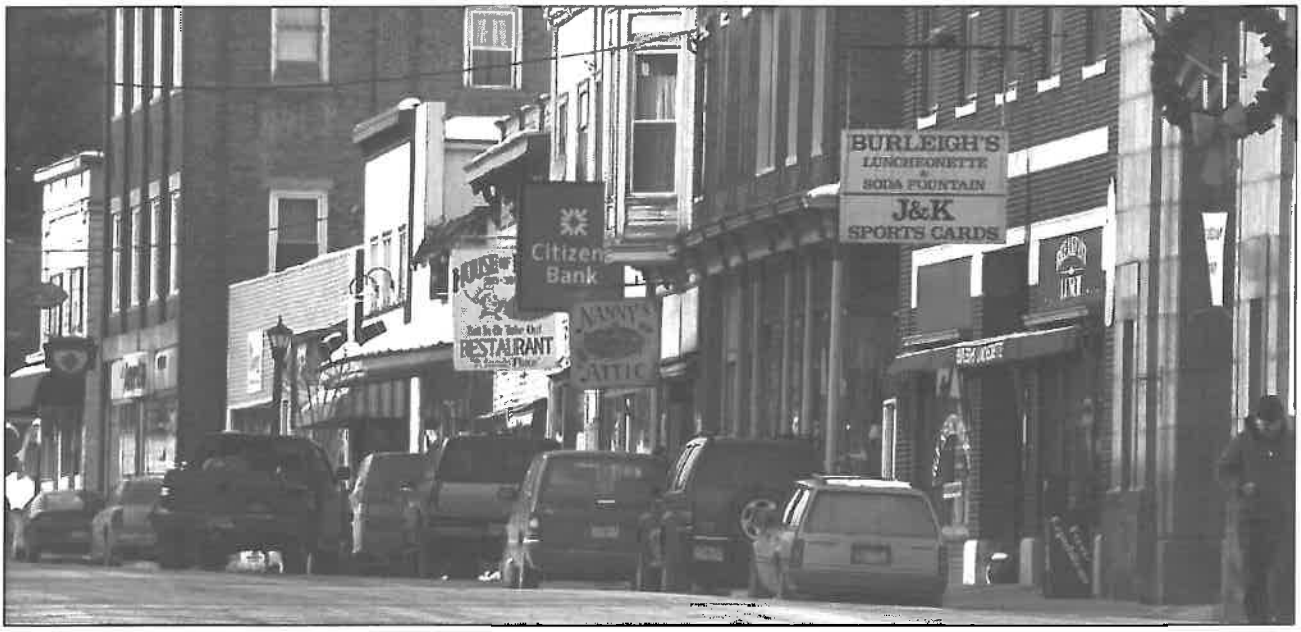
3. Beautification and Historic Preservation

As discussed earlier in this plan, Ticonderoga is committed to ongoing efforts to beautify its downtown commercial district and the adjacent town-owned parklands. Street trees have been planted and historic streetlights have been installed, among other actions. Private property owners have made façade improvements to downtown buildings. These cannot be one-time campaigns, however; they must be part of an ongoing program of enhancement to and maintenance of the community's appearance.

Historic structures greatly contribute to the hamlet's visual appearance and are an important reminder of Ticonderoga's cultural heritage. There are numerous sites and buildings within the hamlet with significant historic value as evidenced by the historic markers placed throughout the hamlet. In an attempt to reconnect the hamlet to the town's heritage, street names in the village were changed in the late-1920s to reference people and events from Ticonderoga's history. In the 1980s, many buildings in Ticonderoga were placed on the National Register of Historic Places either individually or as part of several districts. Providing property owners with information about the architectural character and significance of their buildings, as well as how to maintain or rehabilitate them in a historically appropriate manner, is a good way to promote preservation and enhancement of the historic character of the hamlet.

4. Parking and Transportation

The town maintains a number of municipal parking lots in the hamlet including lots: on the northeast corner of the Champlain Avenue – Montcalm Street intersection; behind the former Newberry's building, and behind the Pride buildings. While public parking is generally plentiful in downtown Ticonderoga, it is poorly advertised. Public parking signs should be placed along Montcalm Street to indicate the location of town lots.



Looking west along Montcalm Street from the Champlain Avenue intersection.

The town's beautification efforts should be extended to its public parking lots. Landscaping parking lots creates a more attractive environment by reducing the visual impact of a "sea of asphalt" and creating shade for parked cars. Landscaped islands should separate parking lots from adjacent streets or sidewalks. Such islands visually fill in the gaps that large open parking lots can create along a street and encourage pedestrians to walk past a parking lot to the next commercial block. Islands also control access into and out of the parking lot, creating a safer environment for drivers and pedestrians. Lighting and signage within parking lots should be human-scaled and of a style appropriate for the historic character of the downtown.

There is on-street parking available throughout the downtown, although it is not regulated in terms of how long vehicles can remain parked in a single location. Downtown merchants have requested setting time limits for some of the on-street parking for a number of years. Regulated parking would prevent the residents of upper story downtown apartments and employees of downtown businesses from leaving their vehicles parked in prime locations for extended periods. For time limits to be effective, however, the town would need to install signs, begin parking enforcement and provide suitable parking for downtown residents and employees.

Why are Main Streets Important?

Can malls and discount centers take the place of traditional commercial districts? The answer is a resounding "no." It may no longer be the sole option in the community, but the commercial district is much more than a shopping center. Here are some reasons why Main Street is still important:

- **Commercial districts are prominent employment centers.** Even the smallest commercial district employs hundreds of people, and often the district is collectively the community's largest employer.
- **The commercial district is a reflection of community image, pride, prosperity, and level of investment** — critical factors in business retention and recruitment efforts.
- **Main Street represents a significant portion of the community's tax base.** If the district declines, property values drop, placing more of a tax burden on other parts of town.
- **The traditional commercial district is an ideal location for independent businesses,** which in turn:
  - *Keep profits in town. Chain businesses send profits out of town*
  - *Support other local businesses and services*
  - *Support local families with family-owned businesses*
  - *Support local community projects, like teams and schools*
  - *Provide an extremely stable economic foundation, as opposed to a few large businesses and chains with no ties to stay in the community*
- **Main Street is the historic core of the community.** Its buildings embody the community's past and its visual identity.
- **A historic commercial district is often a major tourist attraction.** When people travel or shop, they want to see unique places — especially ones that offer a unique shopping "experience."
- **A vital Main Street area reduces sprawl** by concentrating retail in one area and uses community resources wisely, such as infrastructure, tax dollars, and land.
- **A healthy Main Street core protects property values** in surrounding residential neighborhoods.
- **The commercial district offers convenience.** Main Streets are often within walking distance of residential areas, providing easy accessibility for the community and reducing the reliance on auto-dependent shopping.
- **The district is usually a government center** where city hall, municipal buildings, the courthouse, and/or post office are located. It often is an important service center as well for finding attorneys, physicians, insurance offices, and financial institutions.
- **Main Street provides an important civic forum,** where members of the community can congregate. Parades, special events, and celebrations held there reinforce intangible sense of community. Private developments like malls and strip centers can and do restrict free speech and access.
- **The commercial district represents a huge public and private investment.** Imagine how much it would cost to re-create all of the buildings and public infrastructure in the commercial district.

While the bypass has significantly reduced the amount of truck traffic passing through the downtown, traffic is still heavy on Montcalm Street at certain hours of the day. The town should continue its efforts to ensure that the hamlet, especially the downtown commercial district, provides a safe, pleasant environment for pedestrians. Traffic calming techniques have been and should continue to be implemented downtown to slow automobile traffic. These techniques include raising pedestrian crosswalks, narrowing roads (especially at crosswalks) with extended curbs, changing the road surface texture or color at crosswalks, installing highly visible signage and lighting, and using street trees and furniture to slow traffic and increase drivers' awareness of pedestrians. The theory behind traffic calming is that roads should be multi-use spaces that encourage social links within the community, rather than merely being access ways for cars.

5. Connection to Recreational and Natural Resources

One of Ticonderoga hamlet's greatest assets is the amount of public parkland along the LaChute River. This land extends between Montcalm Street and the river, behind the downtown business blocks. A number of plans have suggested ways to improve connections between the downtown and river corridors.

It has also been suggested that the rear of the buildings that face the river be redeveloped. The rear facades of these buildings are currently in poor condition and detract from the natural beauty of their surroundings. An example of reutilizing the rear facades of downtown buildings can be found along the Otter Creek in Middlebury, Vermont where these structures now provide space for shops and restaurants, several with outdoor seating overlooking the river. Properly rehabilitated, Ticonderoga's downtown buildings could be used to similar purpose.

The LaChute Trail is another key connector; its four-mile route links downtown and Lake George, as well as the residential neighborhoods along the way. A dozen wayside exhibits along the trail interpret the industrial history of Ticonderoga and the ecology of the river. As discussed elsewhere in this plan, ongoing work is needed to make the trail easier to find and follow.

6. Scale and Character of Development

The scale and architectural features of buildings is critical to maintaining and enhancing the distinct character of the hamlet. There are some basic design principles that make traditional downtown commercial blocks and residential neighborhoods successful and attractive places that people want to live in and visit. Perhaps most important is the human scale of the hamlet, which is expressed in the width of streets, height of buildings and streetlights, and setbacks between structures and the street. Provision of sidewalks, a sense of personal safety and visual interest along the way encourages people to walk between destinations. Architectural features – like windows, trim or decorative brickwork – break up the monotony of large blank walls. Ticonderoga's downtown blocks have and will continue to change over time, but if new buildings and renovations follow the basic "downtown" design principles, the character of the hamlet will endure, and may be improved.