

Utilities and Public Services

Introduction

High quality, well-functioning, and reliable public utilities and services are important for maintaining quality life among Littleton residents. and have a direct impact on natural, cultural, and financial resources. This chapter analyzes the need for and discusses the present and future locations of public and private utilities, in the greater Littleton area. These utilities include water, sewer, electrical, solid waste, and telecommunications (wireless and land lines).

Littleton Water and Light Department

The Littleton Water and Light provides electrical power and potable water for residents, institutions, and businesses within the Town of Littleton and portions of the neighboring Towns of Bethlehem and Lisbon. They purchase wholesale electric power from suppliers from the New England Power Pool on an hourly basis. The Littleton Water and Light is a separately chartered operational enterprise of the Town of Littleton with three commissioners as its governing body. The Board of Commissioners are appointed to 3-year terms by the Town's Selectmen and are charged with direct oversight and have the ability to change rates as needed to support its mission. The main department facility (which houses the administrative offices, equipment storage, and the repair area) is located on Lafayette Avenue.



Water Department

Littleton's primary water source includes seven and half square miles of drainage area on the side of Mt. Garfield located in the towns of Bethlehem and Franconia. An eleven-mile pipeline was laid in 1903 to the Railroad Street Chlorinating Station to service the Town and continues to provide service to this day. Water flows by gravity into Littleton at the design rate of up to 1.8 million gallons per day (gpd).

Littleton also has a backup water source that is a drilled rock well capable of supplying another 400,000 gpd, which was developed in 1961. Since then, further improvements included a new 1,500,000-gallon water storage reservoir and pumping station in 1969; industrial park improvements; improvements to the disinfection facility; and finally continued aggressive replacement of small diameter galvanized pipes and services with emphasis on establishing loop feeds in the distribution system. Littleton also has over 2.5 million gallons of covered storage in Town with available fire flow in excess of 1200gpm in the industrial park for fire suppression capabilities.

The Department currently serves 1,700 connections (the majority of the 6,000 residents of Littleton) in the town, and a daytime population that swells much larger to include employees and visitors spending

time in this regional center. Approximately 600,000 – 500,000 gallons of water are being consumed each day in Littleton.

Steps have been taken to secure additional secure water sources, and to understand to what extent the existing system is being strained by large scale development outside the downtown area. New water sources for Littleton should be located in the town, and will be supplied by groundwater rather than surface water sources. Preliminary well development is under way and it is expected that a large public well will be permitted with the next five (5) years with in town.

Electric Department

Littleton's Electric Distribution System consists of four distribution substations, approximately 150 miles of distribution lines, 3700 meters, and more than 4000 utility poles.

Littleton's largest industrial customers are taking advantage of free electrical thermo imaging and power quality monitoring to help make these users more competitive in their own marketplace. Power quality monitoring ensures that these customers are efficiently using power supplied to them so that sophisticated computer operated equipment and machinery will operate reliably. Littleton's low rates are reflective of local control and sound business decision making that puts the customers first. a low profit margin and lack of debt combined with a good mix of industrial, commercial, and residential customers helps to sustain the competitive rates.

With passage of a \$6,000,000 bond issue in December 1997, Littleton Water and Light terminated its long-term power supply contract with the New England Power Company, which enabled the utility to buy power on the open market. As a result, the utility continues to offer the lowest electric tariff in New Hampshire and one of the lowest in New England.

Littleton Water and Light is currently seeking additional power supplies source to increase redundancy and power quality and improve reliability of its systems.

Littleton Water and Light utility rates are among the lowest in the region.



Above: Pattenville Station



Above: South Street Sub-Station

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Land Use Implications Related to Water and Electricity	Potential Actions
<p>New uses are being created at the outer reaches of the Water Department’s service area. Elevations above 990 feet are only serviceable from the Mann’s Hill, Mt. Eustis, and Exit 43 vicinities, and cannot be connected to the gravity system.</p>	<p>Identify areas in Littleton for future development that do not strain the water system, and any of the other resources discussed in this plan, or identify the infrastructure improvements needed to service these higher elevation areas outside the downtown.</p>
<p>Nearly 1.9 million gallons of water are available in Littleton each day for fire suppression needs, and of this amount, about 500,000 gallons are currently being utilized on average. The Department and Town need to find and develop an additional water source to lessen dependency on the single supply line from the Gale River. Although sections have been replaced some of the original water line is still in service. In light of growing federal regulations stemming from water rate withdrawals to national security issues, the development of a source inside the Town boundaries may be feasible.</p>	<p>Continue developing an additional underground water source in Littleton that can be protected and managed by the community.</p>
<p>Littleton is fortunate to have electricity available at a relatively low cost. Littleton’s industrial electrical rates are among the lowest in the region.</p>	<p>Continue evaluating the development of another transmission supplier/provider for the Town’s 34.5 kV transmission line, or a connection point directly to the grid. This would provide an additional layer of reliability to an already reliable system.</p>
<p>The current electricity distribution system does have limitations that need to be addressed.</p>	<p>Continue establishing one distribution service voltage (12470/7200Y) and a sub-transmission voltage of 34,500</p>
	<p>Continue to maintain an up-to-date Capital Improvements Program that forecasts needs and infrastructure improvements</p>
<p>New development has the potential to burden town services if not planned carefully. The Town needs to encourage business activity that utilizes large amounts of water in their manufacturing process.</p>	<p>Ensure that consideration of the demands on municipal infrastructure associated with proposed developments is routinely incorporated in the development review process. Ensure that the developer pays their fair share of any needed improvements. Prevent development from overburdening the town's ability to provide services and facilities in a cost-effective manner.</p>
<p>Many NH electric companies offer incentives to their customers for renewable energy production. For example, the NH Public Utilities Commission provides for net metering, which permits homeowners to receive credit for on-site electricity generation, such as from a solar photovoltaic (PV) or wind turbine installation when the generation exceeds household consumption.</p>	<p>The Town’s electric department should consider offering net metering services to its customers to support those investing in renewable energy sources for their electricity. Net metering is accomplished by use of an electricity meter that can run both forward and backward so that the homeowner is bill only for the net reading on the meter.</p>
	<p>Consider increasing the installation of solar production as a way to increase locally sourced electricity.</p>

Waste Disposal

The landfill on Riverside Drive was closed in July 1993 and a new transfer station and recycling center was opened to handle Littleton’s solid waste. Unfortunately, the facility was destroyed in a fire in 1999 and had to be totally rebuilt. The new facility is now nearly 20 years old and was only expected to meet the community’s needs for ten years. Property taxes are not used to cover the costs of waste disposal in Littleton. Any surplus revenues or unused expenditures remain in a special account that can only be accessed by a vote at Town Meeting.

TRANSFER STATION

The Town of Littleton is a member of the Pemi-Baker Solid Waste District. At the 1993 Littleton Town Meeting, residents voted to start a “Pay by the Bag” program to help offset the costs of waste disposal. Special Littleton garbage bags must be purchased and used to dispose of waste at the transfer station. Recycling of most items is also available at no cost, and provides an incentive to reduce the amount of waste each household throws away. The transfer station also accepts construction debris, furniture, tires, appliances, and other bulky items for a fee. A separate fee schedule is available for these items. The “Pay by the Bag” system is also being used in several surrounding towns.



Above: Littleton Transfer Station

RECYCLING

The recycling center accepts recyclables from residential, commercial, and industrial generators. The center also accepts recyclables from sources outside of Littleton including Bretton Woods, the Town of Dalton, Grafton County, and others. The Town relies on the Pemi-Baker Solid Waste District for an Electronics Recycling Program, Paint Recycling, Florescent Bulb Recycling, and a Household Hazardous Waste Collection.

Land Use Implications Related to Waste Disposal	Potential Actions
Commercial and Industrial operations are encouraged to recycle. Their material increases the volume of materials being recycled by the Town and helps make the operation more cost effective.	Continue to promote residential, commercial, and industrial recycling in Littleton.
The Transfer Station promotes recycling rather than disposal.	Expand the categories of materials accepted at the Recycling Center as new materials become marketable.

Wastewater Treatment

The Town operates a wastewater collection and treatment facility which services about 70% of the population, and is supported by the collection of user fees. Wastewater treatment is important to ensure that pollutants are being removed being wastewater is deposited back into the natural environment. The facility is located on Meadow Street and discharges the treated effluent into the Ammonoosuc River. The Town contracts with a private firm to operate the treatment facility. Littleton is responsible for maintenance of the facility and all of the collection lines on the system.

The wastewater treatment facility is a secondary treatment plant, which began operation in 1989. The facility's capacity is 1.5 million gallons a day and is operating at slightly more than 65% of its capacity. The wastewater treatment facility currently serves the needs of the facility, though will need some upgrades in the future that will modernize and improve efficiency of the plant.

Land Use Implications Related to the Wastewater Treatment Plant	Potential Actions
<p>There are concerns with the location of the service area related to current and future development.</p> <p>Access to this infrastructure should be available in areas that are zoned for commercial, industrial, and high-density development. This infrastructure should not be available in out-lying areas or along routes where the town does not want to encourage development in the future.</p>	<p>Study the extent of the Wastewater Treatment Plant's service area, and its compatibility with areas of Littleton that have been zoned for future development.</p>

Telecommunications

Littleton's ability to attract, retain, and generate businesses will increasingly depend upon the availability of telecommunications infrastructure to support the needs of these companies. This requires the availability of high bandwidth connections to the Internet and wireless connections, both for industrial and commercial areas where companies are located, and in residential areas where employees, residents, and small businesses are located. Littleton is mainly served by two wired providers. Both Consolidated Communications and Charter Spectrum offer wired internet access covering the majority of Littleton residents. Littleton should undertake an assessment of the existing carriers and bandwidth, and promote the improvement of this infrastructure if it is deemed insufficient.

LAND LINES

Local telephone service in Littleton is provided by Verizon, and long-distance services are available through many providers, including MCI, AT&T, Verizon, and others. Internet connections also are available through such companies as Earthlink, NCIA, AOL, and Verizon through the existing land line network. This land line system is also an integral part of the wireless telecommunication system, and necessary for transmitting calls.

WIRELESS SERVICES

Littleton currently has 3 towers providing communications, broadcast, and personal wireless service. The Mann's Hill facility is owned by Atlantic Cellular of Colchester, Vermont and broadcasts for New Hampshire Public Television, WLTV, Verizon personal wireless service, and communications for the Littleton Fire, Police and Highway Departments. The Pine Hill facility is owned by Profile Broadcasting of

Littleton and broadcasts radio signals for WLTN. The Mount Eustis facility is used to provide personal wireless service through US Cellular. Another facility is located in the Town of Bethlehem on Mt. Agassiz. The Mt. Agassiz facility provides personal wireless service through U.S. Cellular. Another broadcast facility, owned by WLTN, is located on Breezy Hill in Lisbon.

Wireless service is an increasingly sought-after service for phone and internet access. Increased wireless service throughout Littleton would be beneficial to all users. As the number of users increases in Littleton wireless providers will be looking at add additional wireless telecommunications facilities to the network to handle the capacity and peaks in demand. The western portion of Littleton has already been identified as a region that still needs coverage.

CABLE SERVICES

Littleton’s cable television service is currently provided through Spectrum. Spectrum also provides high bandwidth residential connections over its cable infrastructure for internet access. There are, however, competing technologies such as Digital Subscriber Lines (DSL) that offer advantages in some cases, which are difficult to provide to large areas of the Town. DSL facilities generally require equipment to be housed in the local telephone company central office and within 17,000 to 20,000 feet of the subscriber property. The distance of these facilities to some rural areas makes DSL unfeasible.

In new developments and redevelopment projects infrastructure planning should include the installation of conduit to accommodate wiring for existing and future telecommunications technology. This feature will allow people to access services online, easily work from their homes, and will potentially reduce the number of vehicles traveling on local and regional roadways.

FUTURE INFRASTRUCTURE EXPANSION

Despite the Town's predominately rural nature and relatively small population, the citizens of Littleton demand access to new and emerging telecommunications infrastructure. Zoning and other local regulations should allow for the careful siting and installation of telecommunications capabilities such as fiber optic cabling, and the wireless, cellular and satellite communication infrastructure needed to support and retain commercial and residential interests. Whenever possible, unobtrusive installations and co-location should be encouraged.

Land Use Implications Related to Telecommunications	Potential Actions
Fast and reliable telecommunications infrastructure has become necessary for economic development.	The Town of Littleton should work in cooperation with existing and future telecommunications service providers to insure future expansion of the cable, high speed internet, and other telecommunications infrastructure coincides with projected residential and commercial development.
Telecommunications provides access to information, retail, entertainment, education, town services, and in some cases employment without requiring a trip on local roadways.	
Increases in the number of users in Littleton will result in a need for additional telecommunications facilities to handle this additional capacity.	