VI. UTILITIES & PUBLIC SERVICES

WATER

For Grantham's residents outside of the Eastman Community, potable water is provided by individual private wells. Within Eastman the Village Water District, a municipal water system, provides potable water to all of Eastman, which includes portions of Enfield and Springfield. (There are, however, some properties in Eastman with private wells in addition to having the water district service.) The water district is governed by a board of three elected commissioners, and operates under rules and regulations established by the State of New Hampshire, Department of Environmental Services. Water is drawn from drilled wells and gravel-packed wells. Two storage tanks are used in Eastman to provide a water reserve, and to maintain system pressures.

Some consideration might be given to encouraging new subdivisions to consider incorporating new small community water systems, rather than relying on individual wells to supply potable water for dwellings. This could assure more reliable water supply for domestic purposes, especially in the predominant areas of town where individual wells must be founded in bedrock with highly unpredictable water yields. Appropriate modification of the subdivision regulations would be the way to achieve this objective.

SEWER

Waste water disposal is accomplished by either individual private septic systems or by the Eastman sewer system. All homes and businesses outside of Eastman employ private onsite systems, and most single-family homes in Eastman have their own septic systems as well. However, most of the Eastman properties surrounding and close to Eastman Lake are serviced by the Eastman sewer system. These properties do not have individual systems. The Eastman sewer service area includes all of the condominiums. The Eastman system provides waste water collection and treatment for 553 properties. (This number includes dwellings and a small number of undeveloped Eastman lots.)

The Eastman sewer system is a private facility owned by the Eastman Community Association and governed by a local board under the jurisdiction of the NH Public Utilities Commission. As of 2004, the current sewer system infrastructure was operating at 70% capacity. As a result, a few additional lots could be added. Liquid effluent (Class 3 water) from the system is retained in three polishing ponds and used to irrigate the Eastman Golf Course.

ELECTRIC

For the great majority of Grantham, electric service is provided by Public Service of New Hampshire (PSNH). A small portion of town near the northern boundary falls in the service area of the New Hampshire Electric Cooperative (NHEC).

At present, there is no town requirement that new residential development, either single dwellings or subdivisions, be supplied with underground electrical service. However, it is increasingly common that service from existing overhead power lines along the roads to individual new dwellings is placed underground by choice of the owner or builder. The Planning Board may wish to consider adding a requirement to the subdivision regulations for underground electric service in new subdivisions involving new roads. Burial of existing power lines along existing roads would be a separate issue, and likely not to be included in any such regulatory amendment.

Because of frequent power outages, electric service in Grantham cannot be considered ideal. Other than power interruptions or extended outages, there are no known shortcomings to electric service in Grantham at the present time. The Town of Grantham maintains an emergency mobile generator to maintain essential safety services during outages.

TELEPHONE

Fixed Landline Service

The hardwire or landline telephone infrastructure in Grantham is provided by Verizon, the present day manifestation of the former New England Telephone and Telegraph Company. Ever since telephone deregulation in the 1980s, customers have had an ever-changing choice of their actual service providers. Anecdotal evidence indicates that some residents would consider doing without landline telephone service entirely if wireless service becomes sufficiently available and reliable. Presently, the possibility of using the internet for telephone service (voice-over-internet-protocol, or VoIP) is just beginning. It isn't clear how widespread this usage may eventually become.

As with electric service, there is no town requirement that new residential development be supplied with underground telephone service. But as with electric service, when new individual service for electric is buried, telephone service is buried as well, by choice of the owner or builder.

During electric service interruptions, telephone service usually continues for a period of time, relying on batteries incorporated into Verizon's facilities. For longer outages, such as the Great Northeast Ice Storm of January 1998, the battery power is insufficient. Unless Verizon deploys portable generators at critical points throughout its system, telephone service is eventually lost.

Wireless (Cellular) Service

In 1996 the US Congress passed the "Telecommunications Act of 1996," based largely on the premise that cellular telephones would allow the Emergency 911 System to reach within 50 meters of any place in the United States. The Act contains strong implications for those concerned with land use. A service provider or carrier may apply for relief before the courts in thirty days after a final denial of an application for a cellular tower by a municipality. The courts have treated companies that build towers in the same manner as the service providers (i.e., the carriers).

The first towers were built in densely populated urban areas where there was a concentration of users, but later towers began to branch out along the main arteries of transportation to allow users to communicate while traveling. This caused anxiety in the more rural and suburban communities where towers began to appear, causing sight pollution along ridgelines and in residential areas. Towns had to modify their zoning regulations to carefully accommodate the onset of towers to satisfy the implications of the 1996 Act, and at the same time to protect the rural and suburban character that the townspeople desired. In New Hampshire, municipalities were given some support with the enactment of RSA 12. This legislation allowed municipalities to make certain requests of a proposed tower applicant (regarding tower design, placement, and ancillary equipment) to lessen visual impact.

Grantham's first zoning ordinance was adopted in 1990 and was inadequate to address cellular towers. A stopgap modification was adopted in 2002. Finally, a comprehensive ordinance amendment addressing towers was put into place in 2003. The provision defined the location, tower design, height limitations, siting requirements, and dimensions of ancillary equipment a carrier could install. The provision also placed various requirements on the carrier for operating and maintaining the facility once activated. This ordinance provision was based on criteria used in the zoning ordinances of three other towns in New Hampshire, conversations with consultants, and the past experience of the Grantham Zoning Board of Adjustment (ZBA) with three tower applications it had already considered.

During the tower application hearings before the ZBA, it became apparent that the coverage provided from the central part of Grantham might not be able to seamlessly "pass a signal" to the next tower located in Enfield along I-89. It was determined that it would be more prudent to have the town better define where towers could be placed, rather than denying an undesirable location proposed by an applicant, and then have the denial overruled in court. An overlay district was designed that would cover a portion of North Grantham in the largely uninhabited and forested area along I-89. A tower or towers in this overlay district would allow more seamless communication throughout Grantham along I-89 and in central Grantham, as well as service to a large number of the residences in Eastman and Olde Farms. This new overlay district was part of the zoning ordinance amendments passed at the 2003 Town Meeting.

Since the 2003 overlay amendment was approved, US Cellular and Environmental Telecommunications Services have applied to the ZBA to erect towers in the overlay district, and the board has granted these requests. At present one has been built and one is still to be built. These towers should provide coverage along the northern reach of I-89, and cover a large portion of the Eastman Community and Olde Farms.

A reasonable prediction can be made for the foreseeable future of cellular telecommunications in Grantham. The two new approved towers will be present in the overlay district in the northern part of town, and it is possible that additional providers beyond US Cellular and Verizon will be added to the towers. These would connect Enfield to the present tower and any future tower(s) in the central part of town. Additional carriers will probably be accommodated in the central part of Grantham to service this area as well as I-89, and to reach another portion of Eastman. Lastly, a tower was approved and is now erected in the southern part of town in the present Business/Light Industrial District, to connect central Grantham and the existing tower near the northbound I-89 Rest Area in Springfield, providing more seamless communications along a topographically difficult portion of I-89. These existing and proposed installations, assuming the same carrier is present on each tower, will allow extensive cellular telephone coverage within and through Grantham, while at the same time preserving the scenic quality of the town.

CABLE TELEVISION

Almost all of Grantham's roads are strung with cables for television service, provided by Adelphia. In the last five years, Adelphia has invested heavily in its infrastructure to provide fiber-optic cables throughout the Grantham network, replacing the former metallic-conductor coaxial cables. This has allowed the company to offer digital service in addition to its analog service. The result is a substantially expanded range of television channels and services.

Similar to electric and landline telephone service, cable service for new construction is often placed underground by the owner or builder.

INTERNET

Grantham residents have a variety of choices to access the internet, or worldwide web. So-called dial-up service, using conventional telephone communication, is available from a broad array of service providers, virtually all of which have local or toll-free telephone access numbers. The upgrading of Adelphia's cable system mentioned above has brought high-speed digital cable internet access to Grantham in the last few years. This service offers significant speed increases over dial-up access, and thus is proving popular.

Direct Subscriber Line (DSL) service is not presently available in town. DSL is a faster alternative to dial-up service. This service comes over telephone lines, and depends on subscribers being within a certain distance of Verizon switching facilities. At present, these facilities are in Newport, and unless Verizon builds additional facilities closer to Grantham, it is not likely that the town will see DSL become available.

Another fast alternative is known as a T1 line. This method of internet access involves a single dedicated wire from the subscriber to the Verizon switching facilities. It is not known if any private internet access service over a T1 line exists in Grantham.

Finally there is internet service available by means of "dish" or satellite television technology. It is not known how widespread use of this method of internet access is in Grantham. It is characterized by fast download speeds, but slow upload speeds, the latter usually being over telephone lines.

GOAL

- Encourage all providers of public utility services in Grantham to deliver the highest practical level of service at the highest quality.

RECOMMENDATIONS

- Evaluate modifying of the subdivision regulations to encourage new subdivisions to consider incorporating small community water systems, rather than relying on individual wells to supply potable water for dwellings.

- Increase communication with PSNH, NHEC, Verizon, and Adelphia about ways in which each of these utilities can reduce the frequency and duration of service interruptions in Grantham.

- Consider adding requirements to the Building Code that all new construction be provided with electricity, telephone, and cable service by means of buried lines from the road to the building.

- Consider adding requirements to the Subdivision Regulations that all new subdivisions provide electricity, telephone, and cable service by means of buried lines along any new roads, as well as between roads and buildings.