

## 7.0 Infrastructure and Utilities

Adequate access to water, sewage disposal and utilities is generally considered essential to health and well being of residents. This section presents a discussion of infrastructure facilities that are available in the Town of New Hartford.

### 7.1 Water



*Widening of Chapman Road*

The majority of residents in the Town of New Hartford receive their drinking water from the Mohawk Valley Water Authority. The Mohawk Valley Water Authority is a regional system that serves the Town of New Hartford and 13 other municipalities in Oneida County as well as two municipalities in Herkimer County. The Water Authority anticipates that within the next five years it will serve 85% to 95% of the Town of New Hartford's population. Un-serviced areas are being evaluated and new water districts will be added when and where they are deemed appropriate.

A new water district is being developed in the southeastern section of the Town of New Hartford and should be completed by the end of 2006. Water mains are being installed along Mohawk Street and portions of Higby Road, Mallory Road, Sessions Road, Roberts Road and Tilden Avenue. Other recent or proposed improvements include a water tank that was installed in Frankfort in 2005 and a supplemental water tank, which should be installed by

the end of 2006 at Mohawk Street and Higby Road, both of which will address needs in the southeastern section. Within the next 2-3 years, an extension is planned for the water main along Woods Highway from Seneca Turnpike to the Town of Whitestown border. An additional water district is also proposed for the area around Tibbitts Road and Snowden Hill Road to the Town of Kirkland border.

Areas in the Town not serviced by the Mohawk Valley Water Authority receive water from individual wells. Identified issues with groundwater include supply in times of drought and the presence of heavy metals.

The Hinckley Reservoir is the water source used by the Mohawk Valley Water Authority. The reservoir's watershed encompasses 373 square miles of primarily rural and undeveloped forest land, most of which falls within the Adirondack Park boundary.

The Hinckley reservoir is a multi-use facility that is owned by the State of New York and has a capacity of 25 billion gallons of water. The Mohawk Valley Water Authority is authorized to draw 48.5 MGD (million gallons per day). Its filtration plant, located in the Town of Trenton, can process up to 32 MGD. The average daily demand for the system is 20 MGD. The Town of New Hartford consumed approximately 1.4 MGD in 2005.

According to the Mohawk Valley Water Authority 2004 Water Quality Report, the water produced and delivered by the system met or exceeded the water quality standards set by New York State and the Federal government.

During the 2005 fiscal year, the Town of New Hartford had an annual water consumption of approximately 66 million cubic feet. For residential purposes, consumption is measured in cubic feet and 1 cubic foot is equivalent to 7.48 gallons. An average family of four is estimated to consume 3100 cubic feet at a cost of \$68.60 per quarter or \$274.40 per year. The same rate is applied in all communities served by the system.

### 7.1.1 Sewage Systems

Sanitary sewers are available in all developed areas of the Town. Approximately 55% of the Town, including the villages, has access to sanitary sewers. The cost to residents for this service is approximately \$20/parcel/year, in addition to an ad valorem charge of about \$94/parcel. Rural sections of the Town, the southern areas, which have not experienced significant development do not have sanitary sewers. Where sanitary sewers are not available, individual septic tanks are used. Property owners are responsible for the proper maintenance of septic tanks. The Town of New Hartford Codes Enforcement Officer must approve installation and alteration of septic tanks. The Oneida County Department of Health performs sanitary inspections on behalf of the Town.

No recent studies have been completed to assess the existing sanitary sewer system and determine its ability to meet current and future needs. However, it is known that in the spring and during periods of wet weather, capacity is exceeded at the Sauquoit Creek Pumping Station (SCPS). When this occurs, although most of the sewer is channeled to the county's main sewage processing plant in Utica, some untreated waste is discharged into the Mohawk River.

Communities affected by this issue includes portions of the Town of New Hartford, all of the Town of Whitestown and the Villages of New York Mills, Yorkville, Whitesboro, New Hartford and Oriskany. According to the Department of Environmental Conservation (DEC), the sewer system is outdated and needs to be upgraded and modernized. Several factors may contribute to the problem. Some homes and businesses may channel roof-runoff or water generated from sump pumps into their sanitary lines, there may be leaks in aging pipes that flood with groundwater, some storm water pipes in older systems may be connected to the sanitary pipes or the sewer line may not have the capacity to handle the level of development that has occurred in its service area.

The pipe leading to the SCPS, where the overflow is occurring, was classified as a “combined sewer” and could carry both storm runoff and unsanitary waste. Most older cities in the northeast were designed with combined sewer systems. The DEC wants to phase out combine sewer pipes and proposes to reclassify the Sauquoit sewer line as a “sanitary sewer” that would only carry water that is processed before being released back into the environment.

To address this issue and maintain its State Pollution Discharge Elimination System (SPEDES) permit, Oneida County Sewer District will need a study of the system leading to the SCPS. That study would cost between \$3 million and \$5 million. Then, depending on the results of the study, one or a combination of the following remedies would be applied: patch up all the places where storm water was entering the sanitary system, trap and store the overflow in a tank until the system could handle it or build an additional treatment plant to handle the Sauquoit line's sewage. All of these options would be very costly. Both state and federal funding would be sought to reduce the cost to local users.

Until a solution is found, new sewer connections in the municipalities that use the SCPS will not be allowed unless they demonstrate that they have removed inflow and infiltration exceeding the volume of the proposed new connection. Inflow is water that is dumped into the sewer system through improper connections, such as downspouts and groundwater sump pumps. Infiltration is groundwater that enters the sewer system through leaks in the pipe. The ratio is normally 3 to 1 but it is subject to negotiation.

### 7.1.2 Storm Water Management

The storm water system in the Town of New Hartford is separate from the sewer system and consists of individual stormwater basins. Increased stormwater runoff as a result of paving and development sometimes overwhelm the existing system and add to the flooding potential in the areas surrounding Mud Creek, Sauquoit Creek and the other named and unnamed streams within the Town’s borders. Two studies completed in 2005 by Shumaker Consulting Engineering and Land Surveying, P.C., analyzed this problem. The studies identified several areas in the Town that could experience periodic flooding and/or possible property damage if a large storm occurred.

#### The Oxford Road/Kellogg Road Regional Storm Drainage Assessment<sup>13</sup>

The Oxford Road/Kellogg Road Regional Storm Drainage Assessment examined the watershed in the vicinity of Snowden Hill Road, Oxford Road and Kellogg Road and the following problems and recommendations were noted:

- Intersection of Oxford Road and Kellogg Road

Issue:	Despite the addition of an upstream detention facility at Longworth Acres, runoff from the Jubilee Estates stormwater system is
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<sup>13</sup> Shumaker Consulting Engineering & Land Surveying , P.C. Oxford Road/Kellogg Road Regional Storm Drainage Assessment. November 2005.

overwhelming the existing Oxford Road storm drainage system

Recommendation: Implement a combination of stormwater detention on Jubilee Estate site (approximately \$25,000 plus land acquisition cost) and increase the size/slope of the driveway culverts along Oxford Road (approximately \$12,000 each)

- Culvert and Stormwater Swale Near the former Tops Plaza (Kellogg Road west of the Sauquoit Expressway)

Issue: The 42-inch stormwater culvert and swale that separate Tops Plaza and the Town of New Hartford Offices may not have sufficient capacity to handle storms of a magnitude greater than the 25-year storm

Recommendation: If the capacity of the culvert and swale were increased also increase the capacity of Reach 1 (approximately \$170,000)

- Oxfordtown Area

Issue: Flooding in the vicinity of the land area near the outfall of Reach C

Recommendation: Conduct a detailed topographic survey and engineering study to evaluate the existing detention capacity of the lawn area and a construction project that integrates the known detention characteristics with capacity improvements to the culvert under Harrogate Road (approximately \$68,000)

- Culvert at Commercial Plaza on Tibbitts Road

Issue: Driveway culvert has a calculated nominal capacity that is less than the calculated peak runoff of the 10-year storm event in the Tibbitts subarea

Recommendation: Replace culvert with a new culvert of greater capacity (approximately \$17,000)

#### The Tilden Avenue Drainage Assessment<sup>14</sup>

The Tilden Avenue Drainage Assessment evaluated the watershed area north of Higby Road in the vicinity of Tilden Avenue to address stormwater runoff that caused damage to residences on the west side of Tilden Avenue. The project had the following goals and conclusions:

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<sup>14</sup> Shumaker Consulting Engineering & Land Surveying , P.C. Tilden Avenue Drainage Assessment Town of New Hartford. June 2005.

- Evaluate the feasibility and impacts of constructing a diversion swale on Wadsworth Road

Conclusion: Construction of the interceptor swale is feasible. The swale will have the capacity to handle storm water flows in excess of those predicted by the watershed analysis and alleviate at least 30% of the run-on stormwater flow from the residential area

- Evaluate the watershed flow relative to the location and capacity of two unused reservoirs located on the north end of the study area to determine the feasibility of integrating two of three southern reservoirs into a regional stormwater management facility in hopes of reducing downstream flooding caused by development

Conclusion: The existing box culvert that receives the watershed flow is too small to handle peak discharges. It is feasible to use the southern reservoirs basin(s) for stormwater detention to handle periodic overflows and later released at a rate consistent with the capacity of the box culvert. Study of at least one additional watershed in the vicinity should be conducted to determine specific parameters for diversion and release structures

The actions recommended by these two studies have been noted and detailed construction costs and engineering design are currently being developed.

Various design mechanisms are available to ensure that post-development stormwater runoff does not exceed pre-development conditions and that erosion issues are prevented. Mitigation of existing problems and the prevention of future ones will require both capital investment and vigilance in the oversight of development projects.

The EPA has amended its stormwater regulations to require that operators of small municipal separate stormwater sewer systems (MS4's) within "Urbanized Areas" as defined by the United States Census, develop programs for the control of stormwater under their jurisdiction. According to the Census, 95 percent of the Town is urbanized and due to its location in the Urbanized Area, it is subject to the new regulations. The DEC administers the new Stormwater Phase II Regulations in New York State.

The goal of the Stormwater Phase II Regulation is to apply appropriate technologies and management practices to prevent pollution from non-point sources from entering the stormwater system and to address stormwater runoff. To accomplish this goal, the regulations consist of two SPDES General Permits, both of which went into effect on March 10, 2003. The first permit applies to all construction projects that disturb one acre or more of land excluding most residential and agricultural projects. If total disturbance is one acre or greater, the project is subject to Stormwater Phase II Regulations and the operator must obtain a SPDES General Permit for Stormwater Discharges from Construction Activity from the DEC (Permit No. GP-02-01). To receive this permit the applicant must complete a Stormwater Pollution Prevention Plan (SWPPP) and file Notice of Intent (NOI) with the DEC stating that the SWPPP will be implemented.

To receive a MS4, the SPDES General Permit for the Stormwater Discharges from Municipal Separate Stormwater Sewer System (Permit No. GP-02-02), the Town was required to file a NOI with the DEC by March 10, 2003. That requirement has been fulfilled. The NOI states that the Town will begin to develop and implement a Stormwater Management Program (SWMP) that will comply with the Stormwater Phase II Regulations by accomplishing the following:

1. Develop an educational program to encourage public awareness of stormwater issues
2. Encourage public participation and involvement in decisions involving stormwater
3. Institute a system to identify the cause of and remedy illicit connections
4. Review development plans to ensure the adequacy of construction site runoff controls
5. Inspect stormwater facilities after construction to ensure that they are performing as designed
6. Adopt and institute a stormwater management pollution prevention program at facilities operated by the municipality. The Town of New Hartford will have to report annually to DEC on their progress toward implementation of this program. The DEC expects the Town to follow a plan so that by March 2008 the program will be fully implemented

## 7.2 Utilities

National Grid, a Syracuse based company, provides gas and electric service to residences and businesses in the Town of New Hartford. Several service options are available to residential and commercial customers. Delivery charges for residential electric customers in Oneida County participating in the standard service option, includes a \$14.92 basic service charge and a delivery charge of \$0.04/kWh. Residential gas customers pay a \$14.71 basic service charge plus \$0.35/therm up to 50 therms. Supply charges for both gas and electric service varies by month and service classification.

Cable service in the Town of New Hartford is provided is by Adelphia Communications Corporation, the fifth-largest cable television company in the country. Adelphia offers analog and digital video services, high-speed Internet access and other advanced services over its broadband networks.

### 7.3 Infrastructure & Utilities Findings

- Most of the Town of New Hartford is served by the Mohawk Valley Water Authority, a regional water system
- Areas not serviced by the Water Authority are being evaluated and new districts will be added as deemed appropriate and feasible
- The water produced and delivered by the Mohawk Valley Water Authority met or exceeded the water quality standards set by the State and Federal governments in 2004
- Sanitary sewers are available in all developed areas of the Town of New Hartford
- Areas without access to sanitary sewers use individual septic tanks
- The Sauquoit Creek Pumping Station has a history of sewage discharge into Mohawk River during periods of wet weather and a significant financial investment is required by the County to address the problem
- Several culvert sites have been identified as inadequate to handle maximum potential stormwater flows

### 7.4 Infrastructure & Utilities Policies

Policy 1 - The Town should work with utility providers to ensure that service scope and levels are sufficient to meet the needs of residents

Policy 2 - Programs to educate homeowners on the care and maintenance of individual sewage disposal systems should be promoted and supported

Policy 3 - Development should be permitted only where adequate roadways, utilities, and/or other public service infrastructure are available

Policy 4 - The Town should continue to address and mitigate its stormwater management issues