

# Transportation and Infrastructure

## GOALS:

- A. Provide a network of roads and streets to facilitate the safe and efficient movement of vehicular traffic throughout the Town and Village of Sodus.**
- B. Provide a network of sidewalks in the Village of Sodus to facilitate safe and efficient pedestrian travel throughout the Village.**
- C. Provide high quality, affordable municipal water service in the Village and throughout the Town of Sodus.**
- D. Provide high quality, affordable sanitary sewer service in the Village of Sodus and appropriate areas of the Town.**
- E. Provide a network of drainage facilities throughout the Town and Village capable of conveying sufficient amounts of stormwater to prevent property damage from flooding.**
- F. Provide adequate illumination in the Village of Sodus and in Town lighting districts to provide for the safe and efficient movement of vehicular and pedestrian traffic at night.**
- G. Maintain Town and Village infrastructure in safe, good and efficient operating condition and make improvements to and/or replace such facilities as necessary.**



### Residents Survey Highlights

#### **Satisfaction of Village respondents with stormwater drainage:**

- 19.2% were very satisfied; 34.4% somewhat dissatisfied.
- 17.9% were very dissatisfied; 16.1% somewhat dissatisfied.
- **Satisfaction of Town respondents with stormwater drainage:**
- 13.5% were very satisfied; 28.8% somewhat dissatisfied.
- 8.9% were very dissatisfied; 8.0% somewhat dissatisfied.

## Existing Conditions and Background

### **WATERSHEDS, FLOOD PLAINS AND STORMWATER DRAINAGE**

Three watersheds, all discharging ultimately to Lake Ontario, are found within the Town of Sodus. Tributaries to Sodus Bay drain the eastern quarter of the Town. The western portion of the Town lying north of Ridge Road and extending eastward to Kelly Road drains directly to Lake Ontario through a number of tributaries. The remainder of the town drains to Salmon Creek which discharges directly to Lake Ontario west of the Village of Sodus Point. Watercourses and drainage basins within the Town are shown in Map 10: Watercourses and Watersheds.

Most flood plains within the Town are found within the Salmon Creek watershed. Many of these are extensive, one half mile or more in width. Many fewer flood plains are found within the Sodus Bay watershed and are generally very confined and in close proximity to the waterways. No flood plains are found within the watershed draining the northwestern portion of the town. Flood plains within the Town of Sodus are depicted in Map 9: FEMA Flood Zones.

The drainage systems in the Town outside the Villages are comprised of networks of open ditches, cross-culverts and driveway culverts located within highway and road rights-of-way. Installation, cleaning, maintenance and replacement of these improvements along Town roads is the responsibility of the Town Highway Department. The Wayne County Highway Department and the NYS Department of Transportation are responsible for the maintenance of the drainage improvements along County roads and State Highways.

The drainage system within the Village of Sodus is comprised of a network of catch basins, storm sewers and open ditches. The Village's drainage system and the location of drainage improvements are depicted in Map 19: Village Drainage System and Map 25: Needed Village Drainage Improvements.

### **TRANSPORTATION**

#### **Highways, Roads and Streets**

More than 150 miles of public roadways are found within the Town of Sodus outside the Villages. Approximately 22.5 miles consist of NYS Highways which include NYS Routes 104, 88 and 14. Route 104 is a

major east-west route through western New York. Route 88 which intersects with Route 104 transects the Village of Sodus and links Sodus to the Village of Newark to the south. Route 14 connects the Village of Sodus Point to the Village of Lyons also to the south. The segment of Route 14 north of Route 104 is designated as part of the Seaway Trail as it approaches Sodus Point. The Seaway Trail is a tourist route along the southern shore of the Saint Lawrence seaway and Lakes Ontario and Erie between Massena, New York and the New York-Pennsylvania border.

Multiple County roads, together totaling more than 47 miles in length, are found within the Town of Sodus. Maintenance of these are the responsibility of the Wayne County Highway Department. Approximately 86.5 miles of public roadway are owned and maintained by the Town. All but 5.5 miles of Town roadways are paved. The Village of Sodus maintains 7.26 miles of Village streets.

Roads, and their classifications, are illustrated in Map 20: Road Classifications. The street network within the Village of Sodus is depicted in Map 21: Village Streets.

### Railroad

A railroad right-of-way follows an east/west course through the Town of Sodus which closely approximates and is frequently adjacent to that of NYS Route 104. The track was purchased by Wayne County and the State of New York and rail service is provided by the shortline Ontario Midland Railway. The railway makes use of a siding and engine house located in the Village of Sodus.

The railroad right-of-way terminates to the west in the Village of Webster within Monroe County and to the east in the Village of Red Creek. The railroad right-of-way is interconnected to the CSX/Amtrak railroad via a short segment that runs from the Hamlet of Wallington south through Sodus Center to the CSX/Amtrak interchange immediately north of the Village of Newark.

### Sidewalks and Trails

Sidewalks are found only within the Villages of Sodus and Sodus Point. Approximately five miles of sidewalks, mostly four feet in width, are maintained within the Village of Sodus. Considerable spot repair of sidewalks is undertaken annually. New sidewalks were recently installed on Gaylord Street and along the east end of Main Street. Sidewalks along Mill Street are anticipated to be replaced in the coming year. The 22: Village Sidewalks.

Trails are described and discussed in the Parks and Recreation chapter.



## Residents Survey Highlights

### **Satisfaction of Village respondents with street maintenance and repair:**

- ◆ 17.0% were very satisfied; 39.5% somewhat satisfied.
- ◆ 19.7% were very dissatisfied; 23.8% somewhat dissatisfied.

### **Satisfaction of Village respondents with snow removal:**

- ◆ 42.2% were very satisfied; 39.3% somewhat satisfied. Only 6.3% were very dissatisfied.

### **Satisfaction of Town respondents with road maintenance:**

- ◆ 15.8% were very satisfied; 37.1% somewhat dissatisfied.
- ◆ 18.4% were very dissatisfied; 26.5 % somewhat dissatisfied.

### **Satisfaction of Town respondents snow removal:**

- ◆ 34.7% were very satisfied; 35.7% somewhat satisfied. Only 9.4% were very dissatisfied.



### Residents Survey Highlights

#### **Satisfaction of Village respondents with municipal water service:**

- ◆ 43.8% were very satisfied; 40.2% somewhat satisfied.
- ◆ Less than 10% expressed any dissatisfaction.

#### **Satisfaction of Town residents with municipal water service:**

- ◆ 26.0% were very satisfied; 25.4% somewhat dissatisfied.
- ◆ 28.6% of the respondents did not have municipal water service.

### **Public Transportation**

Public Transportation in Wayne County is provided by the Wayne Area Transportation Service (WATS). WATS is a subsidiary of the Genesee-Rochester Regional Transportation Authority (R-GRTA). WATS operates buses along three routes within Wayne County to provide intra-county transportation. The three routes are configured as loops that pass through most of the villages and hamlets within Wayne County although each route differs somewhat from the others. All three bus routes pass through the Town and Village of Sodus. Bus service is provided on weekdays only. No bus service is provided on weekday evenings or on weekends.

WATS also operates a Route 104 Connector Service to the greater Rochester area. The commuter buses travel along Route 88 between the Villages of Sodus and Newark and along Route 104 between the Villages of Sodus and Webster in Monroe County where it connects to Rochester Transit Service (RTS) Route 45. The connector service, designed for working commuters, operates only on weekdays and only in the early morning and late afternoon/early evening hours. WATS bus schedules and bus routes are contained in the appendix.

### **Williamson-Sodus Airport**

The Williamson-Sodus Airport is a small, public-use airport located along Route 104 near the western boundary of the Town of Sodus. The airport contains a 3,800 foot runway which will accommodate twin-engine turboprop aircraft as well as small jet aircraft. The airport has pilot-activated runway lights and a beacon light which makes it suitable for nighttime use. The airport also has self-service fueling facilities.

## **MUNICIPAL WATER SYSTEMS**

### **Village Water System**

The Village of Sodus, which owns and operates its own municipal water system, has two sources of water, i.e., Lake Ontario and a well located along Route 88 south of the Village. The Town purchases water from both the Village of Sodus and the Town of Williamson. Average daily demand for the entire Sodus water system is 625,000 gallons, while peak daily demand is approximately 900,000 gallons.

The Village's well provides approximately 500,000 gpd. Unfiltered water from the well is disinfected at the wellhead and pumped 24 hours per day directly into the Town's water distribution system through an 8" diameter watermain. Water drawn from Lake Ontario is conveyed to the Village's water filtration plant located outside the Village a short distance north of the Lake Road/Maple Avenue inter-

section to be filtered and disinfected. The plant, with a capacity to process 1 million gallon per day was constructed in 2002 and is normally operated daily for one shift to supplement the water provided by the well. Water processed by the plant is pumped directly into the Town's distribution system via two watermains that function as transmission lines to convey water to the Village. One is 10" in diameter, the other 12" in diameter. On average, approximately 125,000 gpd of water is drawn from Lake Ontario, 400,000 gpd during the peak demand season.

The Village of Sodus' water distribution system contains two subterranean concrete reservoirs with a combined capacity of 1.25 million gallons. The reservoirs are located on the west side of the Village along Ridge Road atop a steeply sloped hill. The two reservoirs provide for the storage of potable water for both the Village and the Town. The Town has no separate storage facilities of its own. The smaller reservoir was constructed circa 1913, the larger in the mid 1930s as a Works Progress Administration project. Water from the Village's well and water filtration plant is not conveyed directly into the water reservoirs, but enters the reservoirs from the distribution system during times when water production exceeds consumption. The level in the reservoirs is maintained by manually controlling the pumps at its water filtration plant.

### Town Water System

The Town of Sodus has five water districts, with several associated extensions, serving 1,100 customers. In addition, a permissive service area surrounds the transmission mains along Maple Avenue. The Town water distribution systems contains approximately 43 miles of watermain, serving approximately 30% of the area within the Town. The watermains range in size from 2" in diameter to 16" in diameter in the following approximate lengths: 2" – 21,530 L.F.; 6" – 24,305 L.F.; 8" – 95,725 L.F.; 10" – 42,635 L.F.; and, 12"- 44,050 L.F. The water distribution system is in good operating condition and is not a maintenance concern. The water districts and existing water distribution system is shown in Map 23: Town Water Districts and Map 24: Town Water Distribution System.

The Town of Sodus water distribution system has two metered connections with the Williamson water distribution system. One is on Lake Road at the town line, the other on Ridge Road also at the town line. The Ridge Road interconnection is normally closed and serves as an emergency backup supply source only. The Ridge Road interconnection, normally open, supplies the Town of Sodus with approximately 10,000 gpd which is used to serve the northwest quadrant of the Town of Sodus.

Water supplied by the Village of Sodus is used to serve the remain-



### Residents Survey Highlights

#### **Town respondents who relied on private wells for their source of water described their wells as follows:**

- ◆ 49.5% indicated their wells produced abundant supplies of good quality water.
- ◆ 17.7% indicated their wells produced inadequate amounts of good quality water.
- ◆ 20.8% indicated their wells produced abundant supplies, but the water was of poor quality.
- ◆ 12.0% indicated their wells produced inadequate quantities and the water was of poor quality.



### Residents Survey Highlights

#### **Satisfaction of Village respondents with municipal sanitary sewer service was as follows:**

- ◆ 42.5% were very satisfied;  
40.7% somewhat satisfied.
- ◆ Less than 8% expressed any dissatisfaction.

der of the Town's water districts and the Village of Sodus Point. A metered connection at the Lake Road/ Maple Avenue intersection supplies the eastern portion of the Lake Road Water District. A metered connection at the Village's well house supplies the water districts in the southern and southeastern portions of the Town. In addition, the Village supplies water to the Town through three metered feeds at the Village line: an 8" diameter feed on State Street to the east, a 10" diameter feed on Old Ridge Road to the east, and a 10" diameter feed on Ridge Road to the west. The Town's distribution system is set up such that an interruption from any of the above three sources can be back-fed from one or both of the other sources.

The Village of Sodus Point furnishes its own water storage tank. The tank was sized to provide a three day reserve to avoid and/or delay a disruption of service to Village customers in the event the supply from the Town were to be disrupted. This is necessary as the Village of Sodus Point has no backup source of water.

The Town of Sodus has plans to extend public water in three non-contiguous areas designated as Water District Number 6. Water District No. 6 has been established, but no improvements have yet been constructed. The project will involve the installation of approximately 27,350 linear feet of 8-inch watermain along portions of Joy Road, Cheetham Road, Steel Drive, South Street, and VanLare Road to serve 72 households. Fourteen of the properties are farmland located within Wayne County Agricultural Districts Nos. 4 and 7.

A recent application for the development of a 9.12 acre subdivision with 27 lots within the Town of Sodus, adjoining the Village of Sodus Point is under consideration. The developer proposes water be supplied to the subdivision by connecting to the nearby Village of Sodus Point watermain on Bayview Drive. It has been proposed that the Town of Sodus form a special improvement district, accept dedication of the constructed improvements and enter into an intermunicipal agreement whereby the Village of Sodus Point would operate and maintain the improvements as well as supply water via Village water mains.

#### **SANITARY SEWER SYSTEM**

The wastewater collection system within the Village of Sodus is comprised of 10.03 miles of sanitary sewers. Wastewater collected within the northern portions of the Village drains by gravity north to the wastewater treatment plant (WWTP) located on Mud Road north of the Village. Wastewater collected by gravity within southern portions of the Village, which includes the school properties, is first conveyed to pump station located between Mill and Gaylord



Streets, and then pumped via a 6" diameter force main to a manhole at the intersection of Orchard Terrace and High Street from where it flows by gravity to the WWTP.

The Village of Sodus WWTP discharges treated effluent to Salmon Creek pursuant to a SPDES permit issued by NYS Department of Environmental Conservation. The plant is authorized to treat 0.383 mgpd. Current average flows are at this level and flows can exceed this level in during rainy periods and in the spring when snowmelt occurs. The WWTP is physically incapable of treating more than 0.5 mgpd.

Although the Village of Sodus WWTP is located in the Town outside the Village, the Town does not own or operate any wastewater collection or treatment systems or improvements. Only two parcels beyond the Village boundary are connected to Village sanitary sewers. Wastewater from the Blossom View Nursing Home on Maple Avenue is pumped via a 4" diameter forcemain/lateral and discharged to the nearby 12" diameter trunk line that conveys sewage from the Village to the WWTP. Wastewater from the former Myers Community Hospital, located a short distance east of the Maple Avenue / Middle Road intersection is also pumped via a 4" force main/lateral and discharged to the trunk line on the grounds of the WWTP.

### Street Lighting

One hundred sixty two street lights are within the Village of Sodus. The lights are owned and maintained by R.G.&E. which bills the Village for each.

Within the Town of Sodus, beyond the limits of either village, street lights are found in districts within the following three hamlets: Wallington, Sodus Center and Alton. Properties within each district are assessed annually to support the cost of operating and maintaining the street lights. Lighting districts are depicted on Map 26: Lighting Districts.



### Issues and Opportunities

Poor Stormwater Drainage - The open ditches, cross-culverts and driveway culverts within Town road rights-of-way are part of a wider ranging network of downstream open ditches and watercourses located on private land. In many instances, blockage and debris on private land impedes the flow of stormwater from highway improvements, causing localized flooding and related problems. The Town Highway Department has no authority to enter private land to remove such blockages or to compel private owners to remove such debris. A policy or program is needed to ensure that drainage ways on private lands can be cleaned when necessary to allow for the safe drainage and maintenance of Town Roads.

Multiple areas within the Village have poor drainage. Drainage would be improved with the installation of additional catch basins and storm sewers as identified on Map \_\_\_\_\_. In some instances, deteriorated roads and curbing contribute to the problem. The lack of adequate drainage in many areas of the Village is suspected to contribute to infiltration and inflow of groundwater into the Village sanitary sewer system. The Village has undertaken a policy of prioritizing stormwater management improvements in proximity to sanitary sewer manholes in addition to making direct improvements to the wastewater collection system in an effort to reduce inflow and infiltration.

Poorly Aligned Intersections - Two intersections in the Town have been identified as needing improvement due to poor alignment. Pilgrimport Road intersects York Settlement Road at a 45 degree angle. A similarly configured intersection is found, north of the Village of Sodus where Pulver Road intersects Mud Lane at an angle of 45 degrees or less. Realignment of the final northern segment of Pilgrimport Road and the southern segment of Pulver Road to permit intersections angle closer to 90 degrees would improve traffic safety.

Unpaved Town Roads - Unpaved Town roads are difficult to maintain and complicate snow removal under certain conditions, particularly early and late in the season. Higher maintenance costs result from the need for frequent grading and application of additional road material to eliminate potholes and maintain a travelable surface. Efforts have been made to gradually eliminate unpaved roads. Unfortunately, some of the roadways have not been well constructed resulting in accelerated deterioration of the asphalt road surfaces.

Main Street/Route 88 Intersection Congestion - The Route 88 / Main Street intersection within the Village of Sodus becomes congested, particularly in summer, with northbound motorist traveling to Lake Ontario. As the intersection is not controlled by a traffic signal, long queues of vehicles form along Route 88 awaiting an opportunity to



turn onto Main Street. It is not uncommon for trucks turning right to attempt to pass to the right of vehicles waiting for an opportunity to make a left-hand turn onto Main Street. Often the trucks go outside the right-of-way and across adjoining private properties. Village requests to NYSDOT to signalize the intersection or widen it to provide a turn lane have been denied. Village personnel have been known to voluntarily direct traffic at the intersection during times of extreme congestion.

Limited Public Transportation Routes and Schedules - Although WATS buses provide the Town and Village of Sodus with some of the highest levels of bus service in Wayne County, WATS bus service is not always fast or convenient. The limited bus schedules and circuitous routes frequently make traveling from one community to another a lengthy process. As no bus service is provided in the evenings or on weekends, residents who have no other means of transportation are unable to travel during these times. Notwithstanding the lengthy rides and limited schedules, WATS provides a much needed service to enable residents without other means of transportation to travel to other communities within Wayne County.

Route 104 Accidents – Route 104 carries a high volume of high speed motor vehicle traffic. According NYS Department of Transportation traffic counts, more than 10,000 vehicles per day travel along the segment of Route 104 that transects the Village of Sodus. This segment of the highway is only two lanes wide, although left-turn lanes are provided at intersections. Although the posted speed limit is 55 mph along this segment of the highway, drivers frequently exceed the speed limit and frequently pass slower moving vehicles at inopportune times or at inappropriate locations. The result is that severe motor vehicle accidents are common occurrences in the Town of Sodus.

Village Sidewalks - Sidewalks within the Village are generally in poor condition. The poor condition of sidewalks may present a safety concern for pedestrians. Furthermore, poor sidewalks in the Village's business district may impede economic development.

Town Water Distribution System – Many areas of the Town are not provided with municipal water service. Residences in such areas must rely on private wells for their water supply. Unfortunately, many private wells produce poor quality water and/or inadequate amounts of water. Many householders who rely on private wells are eager for the Town to extend watermains to serve their neighborhoods. Unfortunately, most of the unserved areas have low-density development which makes it costly to extend water service to these areas. The Town Board has identified the extension of water service to unserved areas as a high priority and actively seeks grant funds and low-cost financing to reduce the costs to property owners. See For-

mation of *Water Districts* section in this chapter for a more detailed discussion.

A leak survey conducted in 1992 revealed that significant discrepancies existed between the aggregate amount of water individual water customers consumed in Water District Nos. 1 and 2 and the amount of water supplied to the two water districts by the Village. (See *Relevant Plans, Studies and Policies* section in this chapter). The discrepancies may be due to leakage and/or customer service meters that under register water usage. Such discrepancies result in lost water and sewer revenues.

Village Water System – Currently, there are two significant concerns with the Village’s water system. One involves the reservoirs, the other the supply well along Route 88. The Village’s two reservoirs are in advanced stages of deterioration attributable to their advanced ages and normal wear and tear. Recent inspections reveal that structures have large cracks in the concrete sidewalls through which tree roots have intruded. The structures have been discovered to be leaking which is problematic as the groundwater in the surrounding soils has the potential to enter the reservoirs and contaminate the drinking water when the level of water inside the reservoirs is below the level of the surrounding groundwater. The surface of the flat concrete covers is also spalling permitting surface water which ponds on top of the covers to intrude into the structures.

The Village has taken steps toward the construction of a larger reservoir to replace the two existing reservoirs. Construction drawings have been submitted to the NYS Department of Health and approval is pending. The Village has also applied for grant funds to assist with the cost of constructing the new storage facility. Construction is slated for 2006. Until the new reservoir can be constructed, the Village’s Water Department has implemented a policy to maintain the water stored in the reservoirs at high levels at all times to prevent the possibility of groundwater intrusion.

The State Sanitary Code requires drinking water supplied by wells and springs “under the influence of surface water” to be filtered. The NYSDOH has identified the Village wells as potentially being under the influence of surface water. The Village has undertaken a hydrogeological assessment in an effort to demonstrate that the well is not under the influence of surface water. If the Village is unsuccessful, the Village will be required to begin to filter the water or cease using the well a source of supply.

Sanitary Sewer System - The Village of Sodus WWTP is in good condition, but operates near capacity. The WWTP plant is authorized

to treat 0.383 mgpd and average flows are at this level. Due to this situation, requests to connect properties outside the Village to the collection system have been denied.

Increased flows in the spring, approximately two hours following significant rain events and higher overnight flows than would be anticipated all indicate the likelihood of significant inflow and infiltration of groundwater into the collection system. This is a significant concern, particularly given the lack of excess WWTP capacity.

Village personnel have examined much of the system via camera and have not located points of significant inflow and infiltration. Circumstances seem to indicate that much of the inflow and infiltration is generalized and not point specific. Infiltration through deteriorating infrastructure, particularly manholes, is thought to be a major factor. The Village has also identified stormwater drainage problems known to lead to ponding of stormwater in streets and in close proximity to sanitary sewer manholes. Areas of poor drainage are thought to be contributing to unnecessary inflow and infiltration to the Village of Sodus sanitary sewer system.

There are no direct connections in the Village between stormwater sewers and the sanitary sewer system. Although some basement sump pumps have been found to be connected to the sanitary sewers, such connections are prohibited and not thought to be a major contributor to inflow and infiltration. Village personnel notify owners of prohibited sump pump connections discovered when reading or servicing water meters.

Septic Systems within Village of Sodus – Despite the availability of sanitary sewer service throughout the Village, not all residential properties are connected. Such properties are either a long distance from the sanitary sewer or the topography prevents the flow of wastewater from the residences to the wastewater collection system. These properties continue to rely on private septic systems for sewage disposal.

Development of Beechwood State Park – Although the Town of Sodus provided municipal water service to Beechwood State Park, municipal sanitary sewer service is not available to the park. The NYS Office of Parks, Recreation and Historic Preservation (OPRHP) is preparing a master plan for the future development of the park, and depending on the development proposed, OPRHP may be interested in the provision of municipal sanitary sewer service to the park. As the Sodus Point WWTP is closest to the park and is currently operating well under its capacity, there may be potential to extend sanitary sewers to serve the State Park and residences in the Town located near the park. Topographical features

may make such a sanitary sewer extension difficult and cost prohibitive. In addition, limitations in the capacity of the Village of Sodus Point's main pump station may preclude the extension of sanitary sewer service unless the main pump station is upgraded to increase its capacity.

Street Lighting - Most street lights within the Village of Sodus are mounted on existing utility poles. The light fixtures and the utility poles detract from the appearance of the community, especially in the downtown business district.



## Tools and Techniques

### Capital Improvement Plan

A capital improvement plan (CIP) is a tool used to plan for the replacement and/or improvement of existing infrastructure and the construction of new infrastructure. A CIP identifies necessary and potential future capital projects over multi-year horizon, typically six years in New York State. In addition to identifying each project, schedules and tentative cost estimates are developed for each, and funding sources and potential funding sources such as State and federal grant programs are also identified.

### Capital Reserve Fund

Capital Reserve Fund is accounting fund established and maintained for accumulating funds to pay for the construction of future capital projects. Each year, or as financial conditions permit, the municipal governing body appropriates funds which are held in the Capital Reserve Fund until needed.

### Grant and Low-Interest Loan Programs

The State and federal governments make financial assistance available to municipal governments in the form of grants-in-aid and low interest loans to fund and/or finance capital improvement projects. Each grant and/or loan program has its own distinct eligibility requirements, application procedures, and funding/financing limits. Below are the more prominent types of grant and/or loan programs:

Small Cities Grant Program – Grants of up to \$400,000 (\$650,000 if a joint application) are available to municipalities. Eligible projects include all types of capital improvements. Applications are accepted annually and the program is competitive. The program is administered by the Governor's Office for Small Cities.

NYS Environmental Facilities Corporation Revolving Loan Program – The NYS Environmental Facilities Corporation (EFC) makes financing available for municipal water projects through the Drinking Water State Revolving Fund (DWSRF) and for municipal sanitary sewer projects through the Clean Water State Revolving Fund (CWSRF). Low- and no-interest loans are available through both programs depending on the income of the households benefiting from the project. Grants are also available under certain circumstances. Applications are accepted annually and municipalities must arrange for their projects to be listed on the agency's intended use plan before EFC will accept a financing application.

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Rural Development Public Facilities Program – Rural Development (U.S. Department of Agriculture) makes low-interest loans available for water and sewer projects through its public facilities program. In some cases a combination grant and low-interest loan are available depending on the income of the households benefiting from the project and the cost of the project. Applications are accepted annually



## Formation of Water Districts

The manner in which towns in New York State provide water service is regulated by New York State Town Law. The Town Law precludes a town from using funds collected town-wide to provide water service in the same manner that a town uses such funds to improve or maintain highways. Instead, towns are required to first form special districts for the purposes of constructing, operating and maintaining water service improvements.

Special districts must include all properties benefited by a particular improvement (such as a watermain). The owners of benefited properties within the district are either taxed annually, usually in proportion to the value of their property (ad valorem tax), or charged a benefit fee. The funds collected from the special district are used to pay for improvements and to operate and maintain the water system. Sometimes the cost of operation and maintenance is assessed on a per parcel, per building or other basis rather than on an ad valorem basis. Sometimes the cost of operation and maintenance is included in water usage charges. But the funds used by towns to build, operate and maintain water systems must always come from the owners of the benefited properties within the water district. Towns may never take monies collected town-wide to use to support the water system unless the water district is a town-wide special district.

It is often difficult to provide water in sparsely populated areas with relatively little development. In such areas, the cost to an individual property owner becomes prohibitively expensive. This is a result of having too few neighboring residents and developed properties with which to share the cost. Instead, the cost is borne by a relatively few property owners. NYS has recognized the difficulty of providing water service in sparsely populated areas and has taken steps to ensure that districts are not formed where the cost per property is too high. Currently (2005), the formation of special districts in which the annual cost for a typical single family residence would be greater than \$575 per year, must undergo a lengthy review and approval process by the State Comptroller. Frequently approval to create such water districts is denied.

The following illustrates the difficulty in a community like Sodus. Approximately 580,000 linear feet of road in the Town (outside either Village) is not within a water district. A rough rule of thumb to estimate the cost of an 8" water main is \$35 per linear foot. This amount includes construction, financing, design and all other related expenses, but not the potential cost of additional pumps, storage tanks, etc. Assuming for this example that no additional pumps or storage tanks are required, the approximate cost to install watermains along every road would be over \$20 million. The annual debt service to support such a project would be over \$1.18 million (at 5% per annum for 40 years). The total assessed valuation of lands not now within a water district is about \$145 million. In this scenario, the debt service alone would cost each owner of a property worth \$75,000 \$612 per year. An owner of a property worth \$100,000 would pay \$816 per year for debt service alone. Additional costs for operation and maintenance and for water consumption would also have to be borne by these owners and would have to be added to the above amounts. Adding the operation and maintenance costs and consumption fees would likely annual households costs between \$860 and \$1,100 which would unlikely be approved by the State Comptroller.

Another option available to the Town would be the creation of a town-wide water district. If a town-wide water district were formed, all property owners in the Town outside the villages would be required to pay for the cost of constructing watermains in areas not currently served. The formation of a town-wide water district, however, requires the approval of property owners throughout the Town. Half of the Town's population currently receives water service. These people have been and continue to pay for the debt service associated with the construction of the water system improvements that serve them. They are very unlikely to be willing to pay more in order to extend water service to areas not currently served.



## Relevant Plans, Studies and Policies

Phase II Stormwater Management Regulations - Although development within the region has been modest, interest in new residential development is now apparent. Three residential subdivisions have recently been either begun or proposed, all within or adjacent to the Village of Sodus Point. Under recently promulgated Phase II Stormwater Management Regulations, such developments now typically require development of stormwater management basins or ponds to improve water quality and attenuate peak flows. Although towns with more extensive development have begun considering how to best provide for the maintenance of such facilities, the developments proposed in Sodus are modest enough that maintenance through a Homeowners Association or other common form of ownership is reasonable provided suitable access easements in the municipalities favor can be set aside at the time of subdivision.

Street Reconstruction / Road Paving Policies – Since approximately 1997, the Village of Sodus has been following a program of reconstructing streets including curbing and drainage improvements. Existing watermains remain in place and are not replaced as part of this program. Streets reconstructed in this program include Main, Belden Avenue, Danford Street, School Street, High Street and Carlton Street. Maple Avenue is anticipated to be undertaken next in this program.

Of the total Highway Department budget, which includes appropriations for new equipment, building maintenance and snow removal 32 percent has been set aside for street reconstruction including drainage and 4 percent has been set aside for additional drainage improvements.

Town Roads are in fair condition. Approximately 4 to 6 miles of existing paved town roads are totally reconstructed and/or resurfaced every year. In recent years, the Town has followed a policy of paving a dirt road per year, generally requiring the installation of a mile or more of new pavement annually. If continued, this program will eliminate unpaved town roads in Sodus within five years or so.

Village Sidewalk Replacement Policy - A program has been initiated to annually replace segments of sidewalk within the Village. The 2005 Highway Budget appropriated funds for the replacement of approximately 1,500 linear feet of sidewalk within the Village.

Town Water System Leak Detection Survey - A leak detection survey conducted by the Town of Sodus in 1992 revealed that the aggregate consumption of water registered by the meters of individual customers in Water District No. 1 was 30% less than the amount of water supplied to the district recorded by the master meter. Unaccounted for losses and/or consumption in excess of 15% are generally suspect and grounds for further investigation. The loss of water can be attributed to customer meters under registering and/or not registering water consumption and/or to leakage. The discrepancy found in Water District No. 2 was 12%. Such losses are not necessarily indicative of significant leaks within a system and can also indicate that a significant number of meters are registering low or not at all.

# **Recommended Actions**

### **Stormwater Drainage Infrastructure**

1. Establish drainage districts, either localized or town-wide, as appropriate and when feasible, to permit the maintenance of ditches and waterways on private lands in order to reduce or prevent flooding of public roadways and facilities.
2. Continue the program of installing additional catch basins and storm sewers, and explore alternatives for additional funding to accelerate the program. Give priority to correcting stormwater drainage problems that contribute to the infiltration of stormwater into the wastewater collection system.

### **Transportation Infrastructure**

3. Develop a budget and schedule for realignment of the York Settlement Road/Pilgrimport Road and Pulver Road/Mud Lane intersections.
4. Continue the policy of gradually eliminating the remaining unpaved town roads by paving one to two miles annually.
5. Evaluate the cost effectiveness of the current policy of reconstructing and/or repaving 4 to 6 miles of town roads annually versus the cost effectiveness of undertaking improved road maintenance to prolong the life of the roadways.
6. Continue to document the poor and dangerous conditions at the Route 88 / Main Street intersection and lobby NYS DOT for improvements such a signalization and installation of a turn lane on Route 88 to resolve the situation.
7. Continue the program of rebuilding Village streets.
8. Continue the program of sidewalk replacement and explore the availability of additional funding which would permit acceleration of the program.

### **Municipal Water Infrastructure**

9. Extend watermains to areas of the Town not currently served when cost effective to do so and pursue grant funds and low-interest loans to help to reduce the cost to property owners.
10. Undertake a water-loss study, particularly for District No. 1, to determine the underlying cause of the apparent water loss and resolve whether leaks remain to be repaired or whether the system would benefit from implementation of a meter replacement program. Implement a meter replacement program as warranted.
11. Construct a new water reservoir to replace the Village's existing deteriorated reservoirs.

### **Municipal Sanitary Sewer Infrastructure**

12. Continue investigation of sanitary sewer inflow and infiltration to determine more specifically the locations and causes of infiltration and then take corrective action giving priority to the situations that contribute the most inflow and infiltration.
13. Continue enforcing the prohibition of sump pump connections to the sanitary sewer system.
14. Continue making repairs and upgrades to sanitary sewer collection system.
15. Continue to prioritize stormwater drainage improvements most likely to reduce sanitary sewer inflow and infiltration.
16. Rehabilitate the Village's wastewater treatment plant (WWTP) to increase its capacity to treat larger volumes of wastewater.
17. Define areas within the Town appropriate for municipal sanitary sewer service and identify potential sewer routes. Explore the possibility of entering into intermunicipal agreements with the Villages of Sodus and Sodus Point to connect to their sanitary sewer systems.

### **Street Lighting**

18. Explore opportunities to strategically replace the lights having the greatest impact upon the visual appearance within the Village with lower and more attractive fixtures to support enhanced economic activity.