

# Overview of Borough of Sussex

## Water and Sewer Utility

### Preface

During the initial deliberations of the Consolidation Study Commission, it was clearly stated that there was a concern about the status of the utility. Questions arose about the physical and financial condition of the Utility, the responsibility for it should a consolidation occur and the ability to provide utility extensions along with the concern of mandatory hook ups. This report attempts to address these issues from a layman's perspective to assist the Commission in their deliberations.

### Summary of conclusions and recommendations

Analysis of the utilities' current and potential situations shows that, as with older infrastructure everywhere, there are conditions and issues that need to be dealt with. Infiltration and inflow (I&I) of storm water and groundwater into the wastewater system is an issue with broad effects.

Overall, however, the utilities are a great potential asset to a consolidated community. They promise to provide an economic-development and land-planning tool for a consolidated municipality that would not be available either to Sussex or to Wantage as individual municipalities.

Sussex is physically too small to provide the development opportunities offered by the utilities. Wantage would have no right to the excess capacity, and Sussex would have little incentive to sell such a valuable resource.

But together they could use this tool for the overall community good.

### Introduction

Since the early part of the last century, residents of the Borough of Sussex have enjoyed the services of a public water and public sewer system. Through the years, the system has expanded, deteriorated and been repaired and improved. The system currently meets all regulatory standards and is self-liquidating.

The information below has been obtained through interview and submission of supporting documentation by the following persons:

- Catherine Gleason, Sussex Borough Clerk
- Jeffery Card, Sussex Borough Public Works Director
- David Kirkham, Water Treatment Plant Operator
- Michael Simone, P.E., Crew Engineering
- John Hatzelis, Administrator, Sussex County Municipal Utilities Authority
- Grant Rome, CFO, Borough of Sussex

The Borough's systems have the following customer base as of the summer of 2008:

| Location of Customers: | Sussex | Wantage | Hardyston | Total |
|------------------------|--------|---------|-----------|-------|
| Water                  | 617    | 115     | 0         | 732   |
| Sewer*                 | 612    | 2       | 1         | 615   |

\* Sewer customers outside of Sussex include the A&P Shopping Center and Veterinarian's office in Wantage and the Bins and Bays Storage facility in Hardyston, located adjacent to the Upper Wallkill Wastewater Treatment Plant

On 10 June 2004, the Township and the Borough entered into an amended agreement regarding the water and sewer utility. The original interlocal service agreement (ILSA) was dated 19 December 2000. The agreement states that the Borough and the Township wish to "continue and confirm arrangements with regard to water/sewer services provided to Wantage customers." The agreement goes on to call for the Borough billing customers directly for services provided. It also calls for the Borough to "continue to supply water and sewer service to Wantage properties currently serviced and new customers based on available capacity." Rates charged to Wantage customers shall be the same as rates charged to Sussex customers. The municipalities cooperated in the collection of delinquent accounts through the tax title lien process. Wantage will process these for Sussex for properties located within the Township.

On 15 March 2000, the Township and United Properties Group of Sussex entered into an agreement. Under this agreement, the Township would purchase 10,000 gallons per day of effluent treatment capacity with the SCMUA facility. The capacity was acquired from the Borough of Franklin and assigned to the A&P Shopping center. This effectively increases the permitted flow from the Sussex pumping station. In addition, it provides the right to United Properties Group of Sussex to purchase water from the Borough also, depending on the business need.

## **Water Treatment and Distribution System**

### **Surface Water Source and Available Water**

Surface water from Lake Rutherford, located on the lands of Highpoint State Park, serves as the source of water for the system. Waters flow by gravity from the Lake to the Colesville Reservoir located just south of Route 23 in Wantage. It then flows to the Sussex Borough Water Treatment Plant, located on Route 23 just northwest of the Wantage Municipal Center. A pipe, 12 inches in diameter transmits the water from the 300,000-gallon water tank located behind the treatment plant to the Borough of Sussex.

As the transmission line travels down the mountain, the line generally follows the course of Clove Brook. Along the route, various Wantage businesses and residences have tapped into the line for treated potable water. Some of these users include the Clove Hill Manor housing development, Township of Wantage Municipal Center, and

the Sussex Wantage Elementary School. The transmission pipe ends up filling the 500,000-gallon storage tank west of Route 284 near Harrison Street in the Borough.

While the rated capacity of the Water Treatment Plant is about 600,000 gallons per day, with modifications to various elements of the Plant, it could produce upwards of 1.1 MGD (million gallons per day). However, the Borough’s surface water diversion rights under permits issued by the New Jersey Department of Environmental Protection limits the facility to an average allocation of 451,000 gallons per day, with a single day withdrawal not to exceed 700,000 gallons per day. (Safe yield analysis report in 2007 stated that the “...the Water Allocation Permit limits water diversion from Lake Rutherford to ... 0.65 MD/day... [and the] plant processes approximately 0.3 to 0.5 MG/day.” p.1). With modifications to the equipment and facilities used for withdrawal, it is possible that NJDEP could increase the average daily allocation and the withdrawal maximum. Under current circumstances, this is not necessary as the average production generally does not exceed 200,000 and typically is closer to 150,000 gallons per day.

To summarize the above:

| Category                            | Current Use               | Potential Use |
|-------------------------------------|---------------------------|---------------|
| ▪ Water Treatment Plant Capacity    | 0.600 MGD                 | 1.1 MGD       |
| ▪ NJDEP Water Allocation Permit     |                           |               |
| ○ Average Daily Withdrawal          | 0.451 MGD                 |               |
| ○ Single Day Maximum Withdrawal     | 0.700 MGD                 |               |
| ▪ Safe Yield Analysis;              |                           |               |
| ○ Diversion from Lake Rutherford    | 0.650 MGD                 |               |
| ▪ Current Use - Average Daily Usage | 0.150 MGD to<br>0.200 MGD |               |

(MGD = million gallons per day)

### Operation of the Water System

The Borough has a contract with United Water Company (successor to Earth Tech) to provide all necessary operator licenses for both the water and sewer system and to operate the Water Treatment Plant. Borough employees are responsible for reading meters, preparing utility bills, collecting utility payments, managing the distribution system and providing necessary monies to make capital improvements to the system’s elements.

### Condition of the Water System

The Borough’s public water system consists of the following elements:

- Water Source - Lake Rutherford
- Reservoir - Colesville
- Water Treatment Plant
- Storage Capacity - in line 300,000 and 500,000 gallon water tanks.
- Main transmission line - 12 inches
- Distribution System - water mains, fire hydrants, meters, etc.

The Water Treatment Plant was constructed in 1995 to bring the system into compliance with Clean Water regulations of NJDEP, the US Environmental Protection Agency (EPA), and health authorities.

## ***Sewerage Collection and Treatment System***

### **Sewerage Collection System**

The Borough's sewerage collection system serves all but a few properties within the Borough. With a planned relocation of a sewer main in the Harrison Street area, four properties currently on individual sewage disposal systems within the Borough will be connected to the Borough's system. Collection lines under the Borough's jurisdiction are about 35,000 linear feet in length. This excludes lateral connections that serve individual properties that are owned by and the responsibility of the property owner.

Because of the terrain, the entire system has been designed to flow by gravity. The only pumping station operated and maintained by the Borough is the main station adjacent to the former treatment plant on Brookside Avenue within the Borough.

Two private property owners operate and are responsible for pumping stations that deliver effluent to the Borough's system. Alpine Village, a garden apartment development of approximately 110 dwelling units is located within the Borough. Based on the standard calculation of 250 gallons per day per equivalent dwelling unit (EDU), the apartments utilize about 27,500 gallons of capacity.

The owner of the A&P Shopping Center on Route 23 in Wantage has additional capacity from SCMUA of 10,000 gallons, in addition to that of the Borough. The center delivers its effluent via an on-site pumping station under its own operational control and responsibility via a force main to a collection main operated by the Borough, which then travels by gravity to the Borough's main pumping station.

The capacity of the main pumping station is about 1.1 million gallons per day. Why might this be necessary if the Borough's typical water delivered to the system is about 150,000 to 200,000 gallons per day and the maximum average daily flow permitted to SCMUA is 464,000 gallon per day? The answer is Inflow and Infiltration or "I&I." An old collection system often permits water from outside the system to enter. This infiltration and inflow requires repair of the system by lining current collection lines and/or replacing old collection lines.

When heavy rains and/or snowmelts occur, storm water and groundwater from roof drains, sump pumps, and storm sewers connected to the system, seepage through manhole covers, cracks in the lines, etc, all increase the flow. This flow can actually exceed the capacity of the pumping station. When this occurs, the pumping station will overflow. The effluent, including the I&I, will then flow into Clove Brook adjacent to

the pumping station and the force main. When such an event occurs, the DPW superintendent must report to NJDEP, which at times results in an investigation by that agency.

The Borough is well aware of the I&I problems with the system as is SCMUA. Under the direction of the Borough's Engineer, Crew Engineering, the Borough is in an ongoing Sewerage System Evaluation Survey (SES) to identify and correct the sources of I&I. Currently approximately 5 meters are placed in the system identifying flows during dry and wet periods. Incrementally these meters are moved up the collection system to determine the causes of I&I. When a cause for the I&I is found, corrective actions can be taken.

Previously smoke tests were conducted and permitted some corrections. According to John Hatzelis, Administrator of the Sussex County Municipal Utilities Authority (SCMUA), the Borough has been showing progress in addressing this problem. As the Borough reduces the I&I, greater capacity is gained both in the pumping station and in the treatment capacity allocation from SCMUA. This will permit:

- Connection of additional users that will result in collection of connection fees
- Greater flows for which the Borough may charge rents
- Potential economic development opportunities for ratable growth within the municipality
- Stabilization of rates for existing customers.

### **Sewage Treatment**

Until about 1994, the Borough collected and treated its own sewage. Effluent from the plant was deposited in Clove Brook adjacent to the former plant located on Brookside Avenue. NJDEP issued an Administrative Consent Order directing the Borough to either build a new treatment plant or identify another viable alternative. On 17 August 1992, the Borough and SCMUA entered into an agreement in which the Borough would build a pumping station adjacent to the former treatment plant and construct a force main generally along the Route 23 and Route 94 rights of way to deliver the Borough's sewage to the Upper Wallkill Wastewater Treatment Plant for treatment and discharge. (See Appendix A - 1992 Service Contract between SCMUA and the Borough of Sussex)

The agreement calls for the Borough to deliver to the plant an average daily maximum of 464,000 gallon over the course of a month. This has actually been modified to reflect a separate agreement between the Township of Wantage and the Borough of Franklin, from which Wantage acquired an allocation of 10,000 gallons per day of effluent. This is set forth in an agreement entitled "Wantage Township Sewer and Water Agreement with United Properties Group of Sussex." The flow is delivered to SCMUA via the Borough of Sussex force main. Therefore, it is more correct to identify the maximum permitted monthly average daily flow as 474,000 gallons. In order to assure that fixed costs of the SCMUA treatment facility are covered, the agreement also calls for a minimum flow of 312,000 gallons.

In 2001 the Borough of Sussex entered into an agreement with a Hardyston developer. The name of the development is "High Ridge." The developer purchased 25,000 gallon per day of effluent treatment capacity from the Borough. The developer paid the Borough about \$12.50 per gallon for the capacity and has paid something toward the carrying costs of the reserved capacity. There is a dispute between the Borough and the developer regarding the legitimacy of the payments. Since the time of the original agreement, the parties have been in the process of renegotiating the terms and conditions, or seeking clarification of the meaning of the original agreement. No connection has been made to the system nor has any effluent flowed through the system.

Nevertheless, the Borough has sold capacity. The Borough's current available capacity might be described as:

- |  |                         |
|--|-------------------------|
| ▪ Original capacity from the 1992 agreement                | 464,000 gallons per day |
| ▪ Added capacity from 2001 Wantage Agreement - A&P Develop | 10,000 gallons per day  |
| ▪ Reduced by sale to 2001 High Ridge Development           | 25,000 gallons per day  |
| ▪ Current capacity under control of the Borough            | 449,000 gallons per day |

From December 2007 through August 2008, monthly average daily flows have ranged from 546,000 gallons in March to 152,000 gallons in July. When flows exceed the maximum permitted flow, the Borough is surcharged for the excess flow at twice the rate for normal flows within the maximum of 474,000 gallons. When monthly average daily flows fall short of the minimum, the Borough is charged the minimum as stated above. In this way, SCMUA is able to collect sufficient funds to meet its fixed costs. The average monthly average daily flow for the first 9 months of the current fiscal year is 285,444 gallons, an amount below the minimum billed amount.

Annual average daily flows from Sussex Borough over the past few years are as follows according to the records of the SCMUA:

| <b>Year</b> | <b>Flow</b> |
|-------------|-------------|
| • 1997      | 258,000     |
| • 1998      | 307,000     |
| • 1999      | 280,000     |
| • 2000      | 372,000     |
| • 2001      | 295,000     |
| • 2002      | 280,000     |
| • 2003      | 410,000     |
| • 2004      | 370,000     |
| • 2005      | 353,000     |
| • 2006      | 324,000     |
| • 2007      | 253,000     |

From a high flow in 2003, the Borough's sewerage flows have been steadily decreasing. The flow in 2007 was the lowest flow since the start of the program. While much of the reduction could be attributable to reduced rainfall, it does appear that the Borough is making progress reducing Inflow and Infiltration.

## Utility Operations, Budgeting and Staffing

The Borough manages these municipal services as a combined self-liquidating utility. What does this mean? The Borough sets apart the operations of the Utility separate from the remainder of municipal services such as land use administration, municipal court, clerk-administrator functions, public works, etc. In Calendar Year 2008, the Current Fund budget (all operations other than the utility) is \$1,818,167 while the Water and Sewer Utility budget is \$1,543,104.

Operationally, however, it is hard to draw a clear distinctive line between public works operations and utility maintenance functions performed by the same personnel. Likewise, it is difficult to segregate the tax collection functions from the utility collection functions especially when the collection dates are the same.

### Salaries and Wages

The budget has been constructed by allocating time based on broad measures between the current and utility funds. The following allocations are used for budgeting purposes and have been offered by the CFO. In order to develop a truly accurate understanding of how much actual time is contributed to each fund, a time and motion study over at least a couple of seasons would be needed.

|  | Current Fund | Water and Sewer Utility |
|--|--------------|-------------------------|
| <b>Operations:</b>                       |              |                         |
| DPW Staff (5 f/t)                        | 75%          | 25%                     |
| <b>Administration and Finance:</b>       |              |                         |
| Clerk (1 f/t)                            | 75%          | 25%                     |
| Deputy Clerk/Dep Treasurer (1 f/t)       | 75%          | 25%                     |
| CFO (p/t)                                | 50%          | 50%                     |
| <b>Collector' staff:</b>                 |              |                         |
| Collector (p/t)                          | 50%          | 50%                     |
| Cashier (f/t)                            | 50%          | 50%                     |
| Total staffing 8 f/t and 2 p/t personnel |              |                         |

Salary and Wage budgetary allocations for the Utility have been as follows over the years:

| Year           | 2005      | 2006      | 2007     | 2008      |
|----------------|-----------|-----------|----------|-----------|
| S&W Allocation | \$130,000 | \$143,000 | \$84,000 | \$103,117 |

Prior to 2006, the Borough allocated 50% of public works salary and wage costs to each of the funds. In the 2007 budget, the allocation was changed to that noted above. In addition, the Borough utilized the services of a consulting firm to provide clerk-administrator duties in 2007. These costs would have been paid from Other Expenses rather than salaries and wages.

### Other Expenses

Many, though not all, other-expense costs are easily attributable to the utility. For example, the contracts with Earth Tech for treatment plant operators (now United Water) and with SCMUA for wastewater treatment are easily assigned to the utility. The property tax paid by the Borough to the Township for the land the Utility utilizes for water supply and treatment is also easily attributable to the Utility. However, auditing fees and several others must be estimates of the actual costs as is the allocation of staff time identified above. Currently, the utility operationally is integrated into the operations of the Borough government.

### Debt Service

For the past two years, debt service for the Utility has been as follows:

| Category of Debt Service  | 2007    | 2008    |
|---------------------------|---------|---------|
| Payment of Bond Principal | 60,000  | 60,000  |
| Interest on Bonds         | 55,566  | 53,415  |
| FHA Principal Payment     | 116,211 | 121,659 |
| FHA Interest Payment      | 276,364 | 300,209 |
| Total Debt Service        | 508,141 | 535,283 |

According to the information obtained from the Borough’s chief financial officer, debt service drops gradually and regularly from its current high to the following periodic amounts:

|      |            |
|------|------------|
| 2009 | \$ 498,159 |
| 2015 | \$ 483,589 |
| 2020 | \$ 470,224 |
| 2025 | \$ 375,368 |
| 2037 | \$ 79,400  |

For a more detailed review of the debt service, see Appendix B, “Borough of Sussex Water and Sewer Utility, Debt Service Summary.”

### Financial Condition of the Utility

Even under current conditions of the utility, incoming revenues are sufficient to offset expenses including debt service. The Utility meets the requirements of being self-liquidating and does not require the Borough to raise funds through a tax increase to fund a deficit in the utility. In addition, the debt service is gradually decreasing as each year passes. Lastly, the flows in the sewerage system are at an annual all time low. All of this data suggests that the Utility is in a positive position to serve as an asset of the Borough and of the region.

### Capital Improvements

As with any capital investment, it is necessary to constantly maintain the various elements of the investment if it is to continue to provide service and therefore positive

cash flow and income. The Borough’s Water and Sewer Utility is no different. Its need is greater however because of the requirement to stay ahead of the ongoing deterioration of an older system. The Sewerage System Evaluation Survey mentioned above is one aspect of this. The findings from this investigation will permit the reduction of I&I and thereby free up capacity. The additional capacity will permit the Utility to sell this to property owners for correction of failed individual sewerage disposal systems or for economic development. Either end purpose will provide connection fees and ongoing service fees to support the utility. Staff identified a number of additional improvements that must be addressed during the following years. These include:

| Project  | Estimated Cost |
|--|----------------|
| ▪ Installation of Harrison Street Sewer main (planned 2009)            | \$300,000      |
| ▪ Replacement of water main in Hamburg Avenue                          | \$400,000      |
| ▪ Replacement of sewer main in Grove Street                            | \$115,000      |
| ▪ Hydrant replacement and upgrade (\$9,000 per year)                   | \$ 90,000      |
| ▪ Valve replacement and upgrades (\$5,000 per year)                    | \$ 50,000      |
| ▪ Total meter replacement in 2015                                      | \$400,000      |
| ▪ I&I control project: main, manhole and lateral rehabilitation        | unknown*       |
| ▪ Sewer Force Main future replacement                                  | unknown**      |
| ▪ Dredging Colesville Reservoir, and/or                                |                |
| ▪ Water Main construction from Lake Rutherford to Colesville Reservoir | unknown^       |
| ▪ Dam maintenance for Lake Rutherford and Colesville Reservoir         | unknown^^      |

\*Metering and measuring has been underway. Within the next 6-12 months the Engineer will be able to design the improvement work and estimate the costs.

\*\*The force main is gradually corroding. It requires upwards of \$100,000 per year to repair. Replacement of the force main is a long term item.

^The purpose of this is to reduce turbidity in the incoming water to the treatment plant. Long term project

^^The Borough has submitted material to NJDEP for potential grant to rehabilitate the dams.

In addition, the Borough prepared a Capital Improvement Program for the years 2008 through 2013 as is required by the Division of Local Government Services in the Department of Community Affairs. However, the capital program neither includes any of the projects listed above nor names any projects. It simply says that \$90,000 will be spent on projects for the Water/Sewer Utility over the next 6 years at the rate of \$15,000 per year. This document, although official, does not provide any understanding of the Borough’s intentions regarding maintaining and improving the utility.

### **Future Opportunities**

In Sussex County, with the imposition of NJDEP clean stream (C-1) regulations which severely restrict development in Sussex County, the availability of public water and sewer services can prove to be a major economic development tool. Several land owners, primarily in Wantage, wish to acquire allocation for water and sewer from the Borough. The I&I conditions prevent the Borough from using the potential capacity and allocation available in the system.

Even more important is the impact of policy decisions regarding allocation and sale of water and sewer capacity as this relates to regional land development, land use, and

transportation planning policies. Allocation of utility capacity can be an important and decisive tool for implementing the master plan, including redevelopment, housing and community-facility elements.

These decisions should not be made as individual decisions but as elements of an overall strategy to realize a vision for the region. Depending upon who acquires potential available capacity, land development and associated conditions could help realize a well vetted vision of the region or result in replications of bad land use and land development decisions abundantly evident elsewhere in New Jersey.

It is critically important that strategies and decisions regarding utility availability be discussed in the context of Waste Water Service Area (or Section 208) planning and the master plan(s) of the community. In the event of a future consolidation of the Borough and the Township, the decision regarding this and other critical issues would be made in the context of a government having a greater regional orientation and regional focus of interest.

### Rates and Fee Structure

Currently, the Borough has adopted an ordinance that sets forth connection or tapping fees for connection to the water and sewer systems.

Ordinance No. 2007-02 adopted 3 April 2007 provides for connection fees ranging from a 3/4-inch connection for \$3,000 to an 8 inches connection for \$7,500. It should be noted that connection fees should be dedicated to capital improvements to the utility and not to fund operating expenses. The connection fee under the law is actually a payment to offset the costs paid by prior users of the system to build and improve the system.

*The best way to reimburse the prior users of the system is to use the monies to continually improve the system for all users. From the budget material obtained so far, it appears that these connection fees are actually being utilized not to fund capital outlay or the capital improvement fund but rather to pay annual operating expenses. This is not a productive use of these funds. While this might not be very important today with few connections, if opportunities for expansion are pursued and added customer connections occur, the policy for the use of these funds would be of significance to the ongoing improvement of the systems.*

Water and sewer rates are based on consumption of water. Within the past five years, all water meters have been replaced to assure more accurate readings of water usage. A Utility employee is charged with obtaining radio-read meter readings or where this does not work properly, obtaining a manual reading of meters. This is a quarterly process.

Rate for service are as follows:

| Rate of Usage                                     | Fees     |          |
|---|----------|----------|
|   | Water    | Sewer    |
| 0 to 10,000 gallons per quarter                   | \$100.00 | \$150.00 |
| for each addition 1000 gallons or portion thereof | \$ 10.25 | \$ 16.25 |

## **System Expansion**

According to SCMUA, one property owner near the sewer service line is currently experiencing failure of an individual sewerage disposal system. Typically under this condition, this property would be a high priority for mandatory connection to an available public sewer system to eliminate the environmental hazard. In a case such as this, if available capacity exists in the system, a hook up should be required and accommodated by the Utility.

The ordinance controlling the sewer and water system of a consolidated municipality should address the issue of voluntary and mandatory hook ups. As stated above, this needs to be coordinated with the extant Waste Water Service Area plans. If there are intentions to modify the plan this should be carried out in accordance with the master plan(s) of the community and general development policies of the consolidated municipality. Given the limits of service within both the water system and the sewerage system, expansion should be limited to correction of failures of individual sewage disposal systems and implementation of economic development initiatives for the region.

## **Mandatory Connections**

During the Commission's process of identifying community concerns, the subject of mandatory connections to the water and/or sewer system arose. From the findings set forth above, this does not appear to be a matter about which residents should be concerned.

Residents are more likely to be required to connect to the sewer system than the water system. This requirement is typically based on two factors.

The first is the failure of an individual sewerage disposal system, or septic tank. When the tank and drainage field(s) is no longer able to accept the effluent, a property owner might be directed to connect to a public sewerage collection and treatment system. The second factor is the proximity of the collection piping. The mandatory connection only occurs when the collection pipe is within a reasonable distance and capable of accepting the flow. At times such as this, a public sewerage collection system is more often considered a benefit rather than a cost.

However, before the Utility can consider adding even properties in need of service, the I&I problems need to be corrected to permit added flows and the sewer service area needs to be expanded to permit properties that might need the system to connect.

Unless a former potable water well becomes contaminated, there have not generally been requirements around the State to connect to a public water system. Ground water supplies in this region have sometimes been problematic. In some cases, multiple wells

have had to be drilled in order to find sufficient water of satisfactory quality to meet minimum requirements. As shown above, it is clear that surface water supplies from Lake Rutherford are limited, though there is still the ability to increase the amount of water drawn from the lake.

Nevertheless, there is a higher likelihood that additional customers will be gained for the water system from those wishing to connect than from those who would be forced to connect. Those who would wish to connect might include:

- Residents and businesses close to the system's distribution lines who find it more cost effective to connect to publicly treated water than to drill their own well and treat their own water.
- Utilization of the public water as an economic development tool to encourage commercial and/or light industrial development within the community.

Overall, it is extremely unlikely that residents who are remote from the sewer and water systems would ever be required to connect to either one.

### **Possible Organizational Structures**

There are several ways in which the Utility could be established in a consolidated municipality. These include:

- a separate authority with its own governance and management separate from the municipality with a board of directors appointed by the municipality
- incorporated into the municipal operations
- as a self-liquidating utility, managed by the consolidated municipality, meaning that fees charged by the utility support its operations. Property taxes are not used to support the utility nor does the utility replace property taxes.

The last — a self-liquidating utility — is the preferred organizational structure to use in this case. It is recommended for the following reasons:

- The finances are segregated from those of the municipality.
- The costs of the utility are borne by the customers of the utility alone.
- The municipality provides management of the utility and charges the utility for this service.
- It will be the responsibility of the consolidated municipality to determine the appropriate allocation of staff salaries and wages to support and maintain the utility. The new municipality should conduct a time study over a one-year period to clearly identify the time spent on the utility operations versus other use of time for public works and collections personnel. The allocations in the budget can then be charged accordingly, consistent with the actual use of time.

## Conclusions

From the data assemble above the following conclusions can be reached:

1. The water and sewer distribution systems are older and in some cases not functioning properly. For example, the Inflow and Infiltration problem needs to be attacked quickly and decisively. The reduced flow and consequential added capacity will then present the community with opportunities not previously anticipated.
2. The arrangement for treatment with SCMUA provides flexibility to permit the use of the utility system to support future land and economic development.
3. Sufficient extra capacity exists in the water treatment plant, distribution lines and storage tanks to permit addition new customers
4. A comprehensive financial, debt management and capital plan for the utility can retain the self-supporting nature of the utility and achieve economic development objectives in the context of rational and methodical wastewater management planning.
5. Incorporation of the utility into the management of a larger municipality with greater personnel, such as a full time manager or administrator and chief financial officer, and greater financial resources would permit a governing body to implement a rational strategy to maximize the economic development potential in the utility.
6. Currently, along the route of the transmission line the water system serves 16% of its customers that are properties in Wantage Township. Given the capacity of the system, a greater number of voluntary customers could participate.
7. In a consolidated municipality, the Utility would not be required to pay \$7,500 a year in property tax expenses as it would be located in the consolidated municipality.
8. Apparently, prior to this analysis the Hardyston customer (Bins and Bays) utilizing the force main as a discharge point for its sewage had not been paying for service. The Borough has corrected their accounts and is now assuring that the utility is receiving appropriate revenues.
9. Attention should be given by either the current Borough or by the consolidated municipality to confer with the SCMUA to devise a financial and capital plan to utilize excess capacity in the sewerage collection system to generate connection fees, rents and/or transmission fees to
  - resolve a failing septic system within a short distance of a current main
  - incorporate the benefits of the utility as an implementation tool in the master planning process of both the Borough and the Township, or the consolidated municipality
  - begin comprehensive planning, including
    - appropriately planned expansion of the waste water service area ,
    - integrating system improvements,
    - creating a financial plan to systematically improve the collection system and significantly reduce I&I,
    - which will then beget additional capacity to be converted to revenue for further system improvements

## Next Steps

The Borough's Water and Sewer Utility, if properly maintained and properly managed, presents a significant resource for the region. In classic land use planning terminology, the utility could serve as a major implementation tool to advance the master plan for the region. However, this would require land use master planning to be shaped with the best interests of the region in mind and not just the best interests of one municipality or the other.

Envision a consolidated municipality with a single land use board clearly representing all of the varied interests of the current Borough and Township. This land use board creates a master plan that foresees balanced, human scale economic growth compatible with the agrarian culture of the larger community. The current densely developed Borough of Sussex serves as the center of this regional community.

The consolidated governing body and land use board create a zoning ordinance that advances the implementation of the master plan and uses the consolidated municipality's capital improvement program to assist in this implementation.

The governing body – representing the variety of interests extant in the community – utilizes the additional water and sewer utility capacity gained from well-managed rehabilitation of the system as a means to achieve the objectives set forth in the master plan.

In a community as conservative, prudent and future-oriented as the Sussex-Wantage community, such a vision is within grasp. All that is needed is a citizenry willing to invest the energy and time to oversee the process and public officials dedicated to the advancement of the commonweal.

Appendix A -

1992 Service Contract between SCMUA and the Borough of Sussex

(See Attachment)

Appendix B -

Borough of Sussex Water and Sewer Utility, Debt Service Summary

(See Next Page)

FINAL

| Issue Type | Farmers Home Loan<br>Loan Date 9 Jan 1984 |           | Water Sewer Bond<br>Issue 15 Nov 2005 |           | USDA Plant Improve<br>Loan 22 Mar 1996 |           | USDA Const Sewer<br>Loan 23 Jan 1997 |           | Total Debt Service |               |                       | Annual<br>Reduction<br>Debt Serv |
|------------|---|-----------|---------------------------------------|-----------|--|-----------|--------------------------------------|-----------|--------------------|---------------|-----------------------|----------------------------------|
|            | Interest                                  | Principal | Interest                              | Principal | Interest                               | Principal | Interest                             | Principal | Interest           | Principal     | Total Debt<br>Service |                                  |
| 2009       | 38446.61                                  | 34409.39  | 45585.00                              | 60000     | 97600.75                               | 41401.25  | 129165.9                             | 51550.1   | \$ 310,798.26      | \$ 187,360.74 | \$ 498,159.00         | \$ 37,124                        |
| 2010       | 36704.64                                  | 36151.36  | 42885.00                              | 60000     | 95716.74                               | 43285.26  | 126820.05                            | 53895.95  | \$ 302,126.43      | \$ 193,332.57 | \$ 495,459.00         | \$ 2,700                         |
| 2011       | 34874.47                                  | 37981.53  | 40185.00                              | 60000     | 93746.98                               | 45255.02  | 124367.45                            | 56348.55  | \$ 293,173.90      | \$ 199,585.10 | \$ 492,759.00         | \$ 2,700                         |
| 2012       | 32951.66                                  | 39904.34  | 37485.00                              | 60000     | 91687.59                               | 47314.41  | 121803.23                            | 58912.77  | \$ 283,927.48      | \$ 206,131.52 | \$ 490,059.00         | \$ 2,700                         |
| 2013       | 30931.50                                  | 41924.50  | 34785.00                              | 60000     | 89534.59                               | 49467.51  | 119122.33                            | 61593.67  | \$ 274,373.42      | \$ 212,985.68 | \$ 487,359.10         | \$ 2,700                         |
| 2014       | 28809.07                                  | 44046.93  | 32085.00                              | 60000     | 87283.42                               | 51718.58  | 116319.44                            | 64396.56  | \$ 264,496.93      | \$ 220,162.07 | \$ 484,659.00         | \$ 2,700                         |
| 2015       | 26579.20                                  | 46276.80  | 31017.50                              | 60000     | 84929.89                               | 54072.11  | 113388.99                            | 67327.01  | \$ 255,915.58      | \$ 227,675.92 | \$ 483,591.50         | \$ 1,068                         |
| 2016       | 24236.44                                  | 48619.56  | 28167.50                              | 60000     | 82469.28                               | 56532.72  | 110325.20                            | 70390.8   | \$ 245,198.42      | \$ 235,543.08 | \$ 480,741.50         | \$ 2,850                         |
| 2017       | 21775.07                                  | 51080.93  | 25317.50                              | 60000     | 79896.68                               | 59105.32  | 107121.97                            | 73594.03  | \$ 234,111.22      | \$ 243,780.28 | \$ 477,891.50         | \$ 2,850                         |
| 2018       | 19189.10                                  | 53666.90  | 22467.50                              | 60000     | 77207.03                               | 61794.97  | 103772.98                            | 76943.02  | \$ 222,636.61      | \$ 252,404.89 | \$ 475,041.50         | \$ 2,850                         |
| 2019       | 16472.21                                  | 56383.79  | 19617.50                              | 60000     | 74394.97                               | 64607.03  | 100271.59                            | 80444.41  | \$ 210,756.27      | \$ 261,435.23 | \$ 472,191.50         | \$ 2,850                         |
| 2020       | 13617.78                                  | 59238.22  | 17650.00                              | 60000     | 71454.94                               | 67547.06  | 96610.87                             | 84105.13  | \$ 199,333.59      | \$ 270,890.41 | \$ 470,224.00         | \$ 1,968                         |
| 2021       | 10618.85                                  | 62237.15  | 14650.00                              | 60000     | 68381.13                               | 70620.87  | 92783.56                             | 87932.44  | \$ 186,433.54      | \$ 280,790.46 | \$ 467,224.00         | \$ 3,000                         |
| 2022       | 7468.09                                   | 65387.91  | 11650.00                              | 60000     | 65167.44                               | 73834.56  | 88782.09                             | 91933.91  | \$ 173,067.62      | \$ 291,156.38 | \$ 464,224.00         | \$ 3,000                         |
| 2023       | 4157.83                                   | 68698.17  | 8650.00                               | 60000     | 61807.50                               | 83194.50  | 84598.52                             | 96117.48  | \$ 159,213.85      | \$ 308,010.15 | \$ 467,224.00         | \$ (3,000)                       |
| 2024       | 785.52                                    | 31420.90  | 5650.00                               | 60000     | 58294.67                               | 80707.33  | 80224.57                             | 100491.43 | \$ 144,954.76      | \$ 272,619.66 | \$ 417,574.42         | \$ 49,650                        |
| 2025       |   |           | 2650.00                               | 53000     | 54621.98                               | 84380.02  | 75651.59                             | 105064.41 | \$ 132,923.57      | \$ 242,444.43 | \$ 375,368.00         | \$ 42,206                        |
| 2026       |   |           |                                       |           | 50782.17                               | 88219.83  | 70870.49                             | 109845.51 | \$ 121,652.66      | \$ 198,065.34 | \$ 319,718.00         | \$ 55,650                        |
| 2027       |   |           |                                       |           | 46767.62                               | 92534.38  | 65871.84                             | 114844.16 | \$ 112,639.46      | \$ 207,378.54 | \$ 320,018.00         | \$ (300)                         |
| 2028       |   |           |                                       |           | 42570.38                               | 96431.62  | 60645.72                             | 120070.28 | \$ 103,216.10      | \$ 216,501.90 | \$ 319,718.00         | \$ 300                           |
| 2029       |   |           |                                       |           | 38182.13                               | 100819.87 | 55181.76                             | 125534.24 | \$ 93,363.89       | \$ 226,354.11 | \$ 319,718.00         | \$ 300                           |
| 2030       |   |           |                                       |           | 33594.19                               | 105407.81 | 49469.18                             | 131246.82 | \$ 83,063.37       | \$ 236,654.63 | \$ 319,718.00         | \$ -                             |
| 2031       |   |           |                                       |           | 28797.48                               | 110204.52 | 43496.62                             | 137219.38 | \$ 72,294.10       | \$ 247,423.90 | \$ 319,718.00         | \$ -                             |
| 2032       |   |           |                                       |           | 23782.49                               | 115219.51 | 37252.29                             | 143463.71 | \$ 61,034.78       | \$ 258,683.22 | \$ 319,718.00         | \$ -                             |
| 2033       |   |           |                                       |           | 18539.28                               | 120462.72 | 30723.78                             | 149992.22 | \$ 49,263.06       | \$ 270,454.94 | \$ 319,718.00         | \$ -                             |
| 2034       |   |           |                                       |           | 13057.48                               | 125944.52 | 23898.20                             | 156817.8  | \$ 36,955.68       | \$ 282,762.32 | \$ 319,718.00         | \$ -                             |
| 2035       |   |           |                                       |           | 7326.21                                | 131675.79 | 16762.02                             | 163953.98 | \$ 24,088.23       | \$ 295,629.77 | \$ 319,718.00         | \$ -                             |
| 2036       |   |           |                                       |           | 1432.84                                | 63681.09  | 9301.08                              | 171414.67 | \$ 10,733.92       | \$ 235,095.76 | \$ 245,829.68         | \$ 73,888                        |
| 2037       |   |           |                                       |           |  |           | 1747.19                              | 77652.82  | \$ 1,747.19        | \$ 77,652.82  | \$ 79,400.01          | \$ 166,430                       |
| TOTAL      | 347618.04                                 | 77748.38  | 420497.5                              | 1013000   | 1639027.9                              | 2185440.2 | 2256350.5                            | 2883097.3 |                    |               |                       |                                  |

Source: Sussex Borough CFO

2008 Base of Utility Debt Service = \$585,283