

SEWER FEE RATE STUDY
SOUTH HANOVER TOWNSHIP, PENNSYLVANIA

for
South Hanover Township

RETTEW Project No. 025942092
JULY 2019

The logo for RETTEW, featuring the word "RETTEW" in a bold, white, serif font with a small "SM" trademark symbol to the right, set against a dark red rectangular background.

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EXECUTIVE SUMMARY

RETTEW Associates has conducted the following Sewer Rate Study for South Hanover Township in an effort to determine if the current \$40.00 per month per Equivalent Dwelling Unit (EDU) is sufficient to adequately operate and maintain the existing collection and conveyance system as well as pay the expected treatment costs at the Derry Township Municipal Authority facility over the next ten years.

Additionally, the Study determined the User Rate required to generate sufficient revenue to cover the construction costs and additional operation, maintenance, and treatment expenses for the proposed Crestview Manor, Sand Beach, and Pleasant View expansion areas, as approved in the 2018 Act 537 Plan.

The Rate Study determined that *even without the future construction and expansion* called for in the Act 537 Plan, the User Rate for existing customers would need to be increased to approximately \$50.00 per month to provide for anticipated operation, maintenance, and capital improvements over the next 10 years, without decreasing the Reserve Fund Balance below its targeted minimum balance of \$1,000,000.

To finance construction of expanded sewage facilities in the Crestview Manor, Sand Beach, and Pleasant View expansion areas, in addition to anticipated operation and maintenance costs for the existing collection and conveyance system, the user rates for all customers, existing and future, would need to increase to approximately \$63.00 per month per EDU to avoid depleting the Reserve Fund balance.

The results of the Sewer Rate Study show that a rate increase is necessary to sustain the system over the next ten years and implement the improvements approved in the 2018 Act 537 Plan. The Township's decision in front of them is how to raise the rates, either through a large one-time rate increase in the next year, or through a series of incremental increases over the next ten years.

INTRODUCTION

South Hanover Township understands that to operate a self-sustaining sewage system, it periodically needs to evaluate the condition of its collection and conveyance system, the expenses required to operate and maintain those systems, and to ensure that revenue generated from user fees are sufficient to pay for those expenses. This Rate Study provides this evaluation of the current sewer rates as well as a 10-year projection of the rates and fees required to fund the Township's costs to operate and maintain the current sewer system in good working order.

Additionally, the Township completed an Act 537 Plan Update in 2018 which identified five (5) needs areas to be sewered over the next ten years and beyond. This Study will also evaluate any changes to the rates necessary to provide new sewer service to the three areas to be connected to the Township system within the next five years: Crestview Manor, Sand Beach, and Pleasant View.

DESCRIPTION OF THE WASTEWATER SYSTEM

The South Hanover Township Sewer Authority owns the wastewater collection and conveyance system that serves approximately 2,000 residential and commercial equivalent dwelling units (EDUs) in South Hanover Township. The sewer system is leased to South Hanover Township for operation and maintenance. Neither the Township nor the Authority owns any wastewater treatment facilities. Currently, all wastewater generated within the Township is conveyed to and treated at the Derry Township Municipal Authority's (DTMA) Clearwater Road Wastewater Treatment Facility (CRWTF), located across the Swatara Creek from the Village of Union Deposit. The Authority also has a standing agreement with the Swatara Township Authority (STA) for future conveyance and treatment of wastewater from the Township, although currently no wastewater is conveyed to STA from within South Hanover Township.

The Township's existing sanitary sewer system is composed of approximately 15.5 miles of pipe ranging in size from 8 to 15 inches in diameter. There are several major stream crossings within the system. Pipe materials include vitrified clay, asbestos-concrete, and PVC. Manhole construction is precast concrete. Additionally, the Township owns and maintains seven (7) pumping stations. The Swatara Creek Pumping Station, the largest of the seven, currently conveys all collected wastewater generated by the Township users to Derry Township Water Pollution Control Facility. The six other pumping stations are the Pheasant Run, Kellock Run, Dorchester Road, Willow Creek, Whippoorwill, and Venice Pumping Stations.

PART 1 – EXISTING SEWER SYSTEM

CURRENT SEWER RATE STRUCTURE AND SEWER REVENUE

The South Hanover Township 2019 Budget for the Sewer Revenue Fund was used to determine if the existing user rate is sufficient to cover the current expenses of the system.

BUDGETED EXPENDITURES FOR 2019

The 2019 budget included the subheadings Sewage System, Administration, Insurance and Debt Service/Other. A condensed budget for discussion is included as **Table 1**.

Table 1 – 2019 Sewer Revenue Fund Budget	
Description	2019 Budget
Sewage System General Operations and Maintenance	\$104,505
Sewage System Maintenance, Repair and Capital Improvements	\$222,000
Treatment Charges	\$636,500
Administration	\$43,900
Insurance	\$20,100
Debt Service/other	\$4,500
Total	\$1,031,505

For the purposes of this analysis, ‘Sewage System – General Operations and Maintenance’ includes items such as salaries and wages, utilities, and rental equipment. The ‘Sewage System – Maintenance, Repair and Capital Improvements’ includes larger maintenance projects such as sewer lining, manhole rehabilitation, and pump station rehabilitation. The Township’s 2019 Sewer Budget is included as **Appendix A** to this Study.

At this time, all ‘Treatment Charges’ are paid to DTMA because all flow in the South Hanover Township collection system is sent to the DTMA CRWTF through the Swatara Creek Pump Station. DTMA charges South Hanover Township as one (1) metered customer. As of the beginning of 2019, DTMA treatment rates include a flat charge of \$12.10 per month plus \$5.70 for every 1,000 gallons of flow. The flows from South Hanover Township to DTMA in 2018 reached almost 120 million gallons of total flow to the facility, incurring treatment costs of approximately \$655,000 for the year. Additionally, rates per 1000 gallons for sewage treatment at DTMA have increased by 2% in both 2018 and 2019. Although the Township budgeted \$636,500 for treatment costs at DTMA in 2019, the flows to DTMA in the first half of 2019 indicate that this budgeted amount may be too low due to increased wet weather flows. As will be seen in upcoming tables, the treatment costs for 2019 have been estimated at \$710,000 to account for these higher flows to DTMA.

In addition to DTMA, South Hanover Township also has a reserved capacity agreement with the Swatara Township Authority to send additional flow to the STA Water Pollution Control Plant (WPCP) in the future.

This agreement, dated July 28, 2015 and included as **Appendix B**, reserves 32,000 gal/day Annual Average Flow for South Hanover Township at the STAWPCP.

Once South Hanover Township begins to send flow to the STAWPCP, quarterly rates would be incurred by South Hanover Township. These rates would include a flat rate of \$120 per quarter plus \$6.00 per 1,000 gallons over 16,000 gallons for the quarter.

The 2019 Budget also included a line item of \$543,600 for 'Engineering Expense – Expansion.' This item was not included in the table above, as it does not represent 'typical' yearly sewer expenses. Instead, this line item concerns the upfront engineering and design of the expansion of the collection and conveyance system, per the conclusions of the 2018 Act 537 Plan Update. Eventual construction and treatment costs for these expansions areas are examined in more detail in Part 2 of this study.

BUDGETED REVENUE FOR 2019

Revenue for the South Hanover Township Sewer Revenue Fund comes in the form of user rates, tapping/connection fees, sewer inspection fees, liens, and earnings from investments.

South Hanover Township's existing rate structure is documented as Ordinance No. 4-1998. This Ordinance increased the flat rate to \$40 per month for each Equivalent Dwelling Unit (EDU), from the previous Ordinance No. 67-1977. This document presents the current flat rate schedule for the residential, commercial, and institutional establishments in the collection system. A metered rate schedule is also included in this document for Industrial Users only. A copy of Ordinance No. 4-1998 is included as **Appendix C**.

The budgeted sewer revenue from monthly sewer rental fees for 2019 is \$950,600. A delinquency rate of 1.5% has been factored into the budget as the revenue from all projected 2,010 EDUs would equal \$964,800.

Tapping and Connection Fees make up a portion of the Township's Sewer Fund revenue, in addition to the monthly User Rates. Maximum tapping fees that can be assessed by an authority or municipality are governed by Act 57. An analysis of the allowable tapping fees was not included in the scope of this Study. For the 2019 budget, a total of \$46,700 is the expected revenue for tapping fees, liens and inspection fees. The tapping fee is set by the South Hanover Sewer Authority and is currently set as follows for customers connected to sewers that flow to the DTMA treatment facility:

- Tapping Fee – Capacity Part = **\$3,196.66** per EDU
 - \$2,655.45 per EDU for DTMA treatment
 - \$541.21 per EDU for Township pumping and transmission facilities
- Tapping Fee – Collection Part = one of the following:
 - **\$339.15** per EDU if connected to sewers installed by the Township
 - **\$778.93** per EDU if connected to the Pheasant Run Pump Station (Fee expires January 2020)
 - **\$2,339.39** per EDU if connected to the Kellock Run Pump Station (Fee expires November 2024)

- Connection Fee = **\$2,300.81** per connection if installed by the Township

It is important to note that the majority of the Tapping Fee collected per EDU, \$2,655.45, is forwarded to the Derry Township Municipal Authority for the treatment component of the Tapping Fee. The Tapping Fee payable to DTMA increased to the current amount on July 1, 2018. Additionally, the fees noted above only pertain to new EDUs to be connected to existing sewers with treatment at DTMA. A new Act 57 Study by the South Hanover Sewer Authority will be necessary prior to setting the required tapping and connection fees for any future customers to be connected to new Township-constructed sewers as well as those to be connected to a non-DTMA facility, such as the Swatara Township Authority treatment facility.

CURRENT OPERATIONS AND MAINTENANCE COSTS

The costs to operate and maintain the sewage system are identified in the Township’s 2019 Budget, under its Sewer Revenue Fund (**Appendix A**). For 2019, the Township has budgeted \$1,031,505 for continued administration, operation, and maintenance of the system, plus an additional \$543,600 for estimated costs to design, permit, and prepare bidding documents for construction of sanitary sewers to serve three new areas identified in the 2018 Act 537 Plan: Crestview Manor, Pleasant View, and Sand Beach.

Of the \$1,031,505 budgeted for administration, operation, and maintenance, the largest line item is \$636,500 for treatment charges paid to the Derry Township Municipal Authority. Treatment charges to DTMA have historically accounted for 56 – 66% of the Township’s sewer budget and in recent years, rates have increased by 2% to send flows to DTMA in both 2018 and 2019. Thus, any projected, and probable, increases to the DTMA rates will have a significant impact on the Township’s sewer budget.

Since 2016, total expenditures have increased 29%, DTMA treatment costs have increased 39% due to increased flows and rate increases, but revenue has only increased 5% over this same time period. The large increase in treatment costs over this 4-year period is primarily the result of a significant increase in inflow and infiltration in the Township’s collection system as the number of users has only increased by 3% over this same time period. As will be discussed further below, the disparity between the increase in normal usage and the increase in treatment costs indicates a need to aggressively tackle inflow and infiltration within the collection system.

Table 2: Summary of Sewer Fund (2016 – 2019)					
	2016 Actual	2017 Actual	2018 Budget	2019 Budget¹	% Change 2016 - 2019
Total Expenditures	\$801,383	\$881,443	\$915,700	\$1,031,505	29%
Non-Treatment Expenses	\$342,948	\$384,394	\$369,900	\$395,005	15%
Treatment Charges ²	\$458,435	\$497,049	\$545,800	\$636,500	39%
Total Revenue	\$950,481	\$899,121	\$958,800	\$997,300	5%

¹ Excludes budgeted engineering for future expansion areas

² Treatment charges in 2019 are the current budgeted amount, not the expected amount for 2019

The Township's 2019 Sewer Revenue Fund Budget projected a shortfall of \$577,805, primarily due to the budgeted engineering expense for future expansion areas. This shortfall will be made up through the use of the Township's Reserve Fund. At the end of 2019, the Estimated Fund Cash Balance is budgeted as approximately \$2.5 million.

PROJECTED OPERATION AND MAINTENANCE COSTS FOR EXISTING SYSTEM

On-going operation and maintenance costs for the existing service area can be expected to increase by some amount over the next 10 years, in addition to costs that should be budgeted for projected repairs and equipment replacements. For the purposes of this Study, the projected operation and maintenance costs over the next 10 years were calculated first assuming no new service areas added to the system; then, in Part 2, recalculated with the addition of the Act 537-approved service areas of Crestview Manor, Pleasant View, and Sand Beach.

In projecting operation and maintenance costs over the next 10 years for the existing service area only, the following assumptions were made:

- Number of EDUs will continue to increase 1.2% each year
- DTMA treatment rates per 1000 gallons will continue to increase 2% per year (as in 2018 and 2019)
- Treatment costs were based on no additional I&I beyond what is currently entering the system
- General operation and maintenance (salaries, utilities, equipment rental, etc) will increase 3% per year
- Sewer-related expenses currently paid previously from the General Fund will be paid from the Sewer Fund.
- Insurance and Administration costs will increase 3% per year

RETTEW met with Township staff in January 2019 to discuss upcoming operations and maintenance tasks anticipated for the next 10 years to develop a Capital Improvements Plan (CIP). This CIP was not intended to be used as an official Sewer System Evaluation Study (SSES) or a comprehensive evaluation of the system, but as a tool to estimate future maintenance costs. A copy of the proposed CIP is included as **Appendix D**. In addition to specific sewer and pump station rehabilitation needs identified, this planning effort also identified critical personnel and staff needs to successfully operate and maintain the system, including the addition of one (1) new employee and a trailer-mounted flush truck.

Derry Township Municipal Authority (DTMA) Funds Appropriation

In 2018, a number of excessive flow events caused the Swatara Creek to overrun its banks and flood an adjacent manhole to DTMA. DTMA indicated that the \$95,671.40 owed by South Hanover Township in treatment charges for these additional flows should be applied to maintenance in the system to combat high wet weather flows. This amount is included in the budgeted maintenance expenditures for 2019.

Specific work to be applied to this initiative during 2019 is as follows:

- Kellock Run Metering Study – Includes the placement of flow meters in the six sub basins of the Kellock Run drainage area to determine possible sources of inflow and infiltration.

- Sewer lining of 560 lineal feet (LF) of 12-inch asbestos-cement pipe (MH 428 to MH 431)
- Replacement of manhole frames and water-tight covers (MH 424 to MH 432)
- Sewer Lining of 459 LF of 12-inch asbestos-cement pipe (MH 431 to MH 431.1; MH 431.1 to MH 424)

In addition to these tasks, South Hanover Township anticipates the following maintenance and operation tasks over the next 10 years as outlined in the CIP:

2019

- Greenbriar sewer lining (~4,500 LF) - *completed*
- Pump Station parts replacement

2020

- Swatara Creek Sewer Lining (~3,000 LF)
- Pump Station parts replacement
- Add operations staff (one part-time person)

2021

- Swatara Force Main Replacement (~1,200 LF)
- Dorchester Pump Station – Upgrade control panel
- Pheasant Run Pump Station – Install sewage grinder
- Venice Pump Station – Install chart recorder
- Pump Station parts replacement

2022

- Kellock Run Force Main Replacement (~5,000 LF)
- Pump Station parts replacement

2023

- Purchase flush truck
- Sewer Lining Project – Location to be determined by flow monitoring (~4,000 LF)
- Pump Station parts replacement

2024 – 2029

- Sewer Lining Project – Location to be determined by flow monitoring (~4,000 LF each year)
- Pump Station parts replacement (each year)

The following table summarizes the projected operating and maintenance expenses for the existing service system, including projected amounts for Capital Improvements, for the next 10 years.

Table 3: Projected Expenses for Existing Sewer System (2019– 2029)

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
# of EDUs	2010	2034	2058	2083	2108	2133	2159	2185	2211	2238	2265
Sewage System General Operating & Maintenance	\$140,505	\$155,520	\$160,078	\$164,770	\$169,601	\$174,574	\$179,694	\$184,966	\$190,393	\$195,981	\$201,734
Maintenance/Repairs/Cap Improvements	\$237,000	\$388,450	\$226,414	\$629,391	\$341,883	\$252,389	\$242,911	\$253,448	\$244,002	\$254,572	\$245,159
Treatment Charges (DTMA)	\$710,907	\$799,524	\$821,021	\$848,206	\$873,413	\$901,598	\$928,986	\$956,748	\$985,276	\$1,020,261	\$1,048,229
Administration	\$43,900	\$45,217	\$46,574	\$47,971	\$49,410	\$50,892	\$52,419	\$53,991	\$55,611	\$57,280	\$58,998
Insurance	\$20,100	\$20,703	\$21,324	\$21,964	\$22,623	\$23,301	\$24,000	\$24,720	\$25,462	\$26,226	\$27,013
Transfer to Sewer Authority Admin	\$4,500	\$4,545	\$4,590	\$4,636	\$4,683	\$4,730	\$4,777	\$4,825	\$4,873	\$4,922	\$4,971
Total Expenses	\$1,156,912	\$1,413,960	\$1,280,000	\$1,716,937	\$1,461,612	\$1,407,484	\$1,432,787	\$1,478,699	\$1,505,617	\$1,559,241	\$1,586,104

Notes/Assumptions:

- Number of EDUs will increase 1.2% each year based on historical growth over past five years.
- Treatment Charges includes Tapping Fees paid to DTMA and DTMA charges for treatment.
- DTMA treatment rates per 1000 gallons will continue to increase 2% per year
- General O&M (salaries, utilities, equipment rental, etc) will increase 3% per year; includes the transfer of expenses currently paid from the General Fund to the Sewer Fund and future staff to be added
- Insurance and Administration costs will increase 3% per year
- Total O&M Expenses for the existing system does not include \$543,600 budgeted in 2019 for the sewer expansion areas.

REVENUE REQUIRED TO FUND 10-YEAR EXPENSES FOR EXISTING SYSTEM

Once projected operating and maintenance expenses are known, the amount of revenue required to adequately fund these expenses without depleting the Township's Reserve Fund can be determined. At the end of 2019, the Fund Cash Balance is estimated to be \$2,487,856. In previous years, the Township had set a policy of establishing a fund balance reserve equal to 50% of the accumulated depreciation and amortization reported in the financial statements, or \$1,165,856 in 2019. Moving forward, the Township has established \$1,000,000 as the minimum reserve fund balance to maintain. As varying user rates are explored through the rest of this Study, the impact to this "Reserve" balance will be evaluated.

Revenue to support the expenses comes primarily from monthly user rates and supplemented by investment earnings, liens, tapping and connection fees, and inspection fees. As noted above, the budgeted sewer revenue from monthly sewer rental fees for 2019 is \$950,600 based on a flat monthly rate of \$40.00 per EDU. A delinquency rate of 1.5% has been factored into the budget as the revenue from all projected 2,010 EDUs would equal \$964,800.

Based on the projected expenses shown in **Table 3** above, the revenue required and associated monthly user rates necessary to balance the budget without utilizing the Reserve Fund are shown in **Table 4** for the years 2019 through 2029.

Table 4: Required Revenue from User Rates for Existing System

Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Total Expenses	\$1,156,912	\$1,413,960	\$1,280,000	\$1,716,937	\$1,461,612	\$1,407,484	\$1,432,787	\$1,478,699	\$1,505,617	\$1,559,241	\$1,586,104
Revenue from Tapping Fees¹	\$40,000	\$76,720	\$76,720	\$76,720	\$79,917	\$79,717	\$83,113	\$83,113	\$83,113	\$86,310	\$86,310
Investment Earnings and Misc. Fees²	\$6,700	\$6,834	\$6,971	\$7,110	\$7,252	\$7,397	\$7,545	\$7,696	\$7,850	\$8,007	\$8,167
Revenue Required from User Rates	\$1,110,212	\$1,330,406	\$1,196,310	\$1,629,911	\$1,374,443	\$1,320,170	\$1,342,129	\$1,387,889	\$1,414,654	\$1,464,924	\$1,491,626
# of EDUs	2010	2034	2058	2083	2108	2133	2159	2185	2211	2238	2265
Required Monthly User Rate³	\$46.72	\$55.32	\$49.17	\$66.18	\$55.15	\$52.35	\$52.58	\$53.73	\$54.12	\$55.37	\$55.70

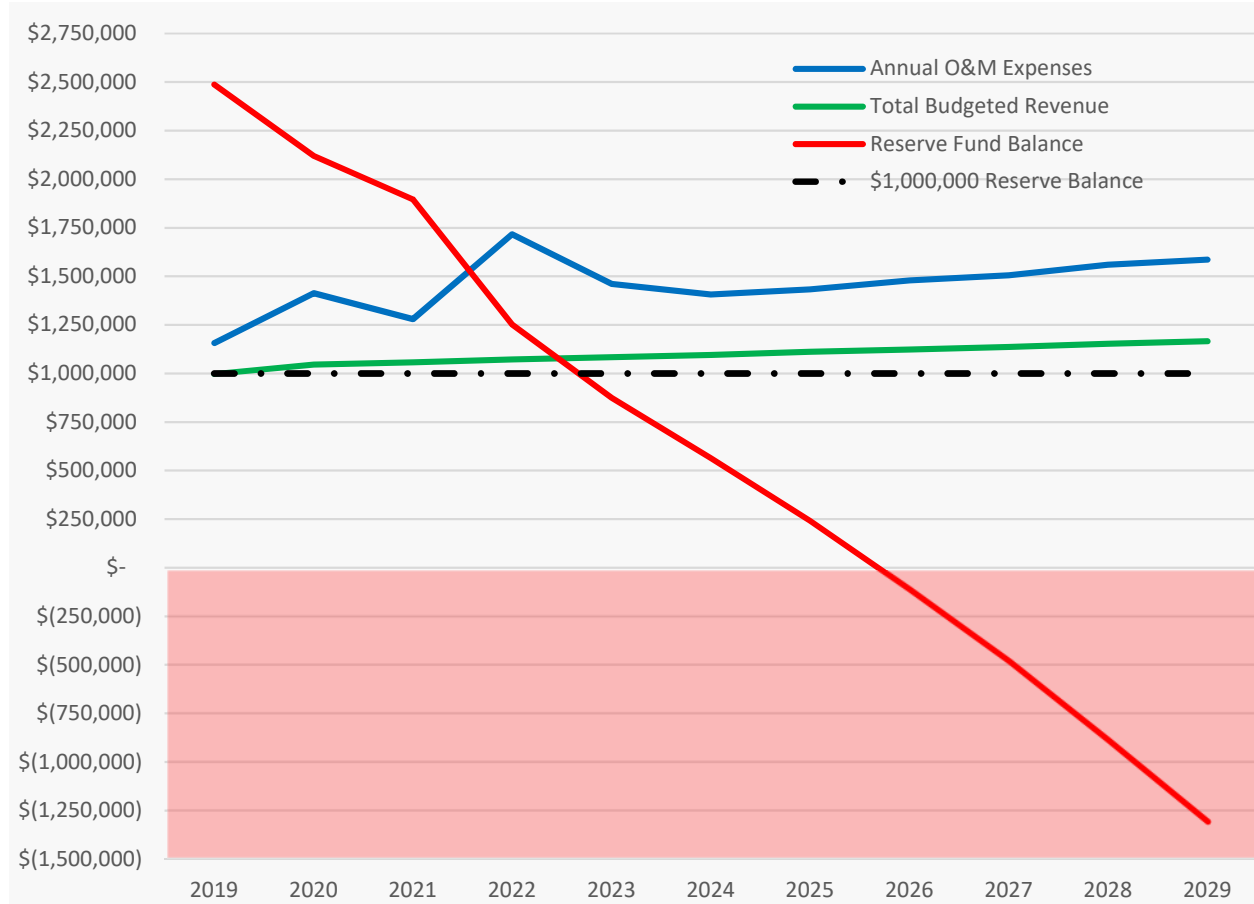
¹ Revenue from tap fees based on an increase in EDUs of 1.2% per year and a current tap fee of \$3,196.66 per EDU.

² Revenue from inspection fees, liens, and investments projected to increase 2% per year.

³ A 1.5% delinquency rate has been factored into the monthly user rate required.

Based on the analysis in **Table 4**, a monthly user rate of approximately \$55 per EDU is required to provide adequate revenue for the projected expenses through 2029, without utilizing the Township’s Reserve Fund. In comparison, **Figure 1** displays the impact to the Reserve Fund through 2029 if the monthly rate is kept at \$40.00 per month per EDU. Without an increase in revenue from user rates, the Reserve Fund would drop below the \$1,000,000 Reserve Fund threshold and be depleted by 2026.

Figure 1
10-Year Projection of Revenue, Expenses, and Reserve Fund Balance for Existing Sewer System \$40/EDU/Month Rate



The “Annual O&M Expenses” depicted in **Figure 1** include day to day operating expenses and the proposed capital improvements to ensure long-term reliability of the sewer system; these “Annual O&M Expenses” do not include the construction of the 2018 Act 537 Plan Update areas. Therefore, it can be concluded from this preliminary analysis that an increase to the current monthly user rate would be required regardless of any proposed extensions of the existing sewer system.

To determine the user rate necessary, **Figure 2** shows the 10-year projection of operating and maintenance expenses along with the anticipated total budgeted revenue and the impact to the Reserve Fund Balance with various proposed rate options, along with maintaining the current \$40/month rate:

- Maintain the \$40.00 per month per EDU rate
- Increase the User Rate to \$50.00 per month per EDU in Year 2020
- Increase the User Rate by 4% each year starting in Year 2020

The two proposed rate increase options do not deplete Reserve Fund balance below \$1,000,000 over the next 10 years. As shown in **Figure 2**, the user rate would need to be increased to approximately \$50 per month by Year 2029 to adequately fund the expected operating expenses for the existing sewer system service area. This could be accomplished with a large rate increase in one year, a smaller (4%) steady increase each year, or various options between these extremes.

Figure 2
Annual Operating Expenses and Budgeted Revenue with Varying User Rates
Existing System

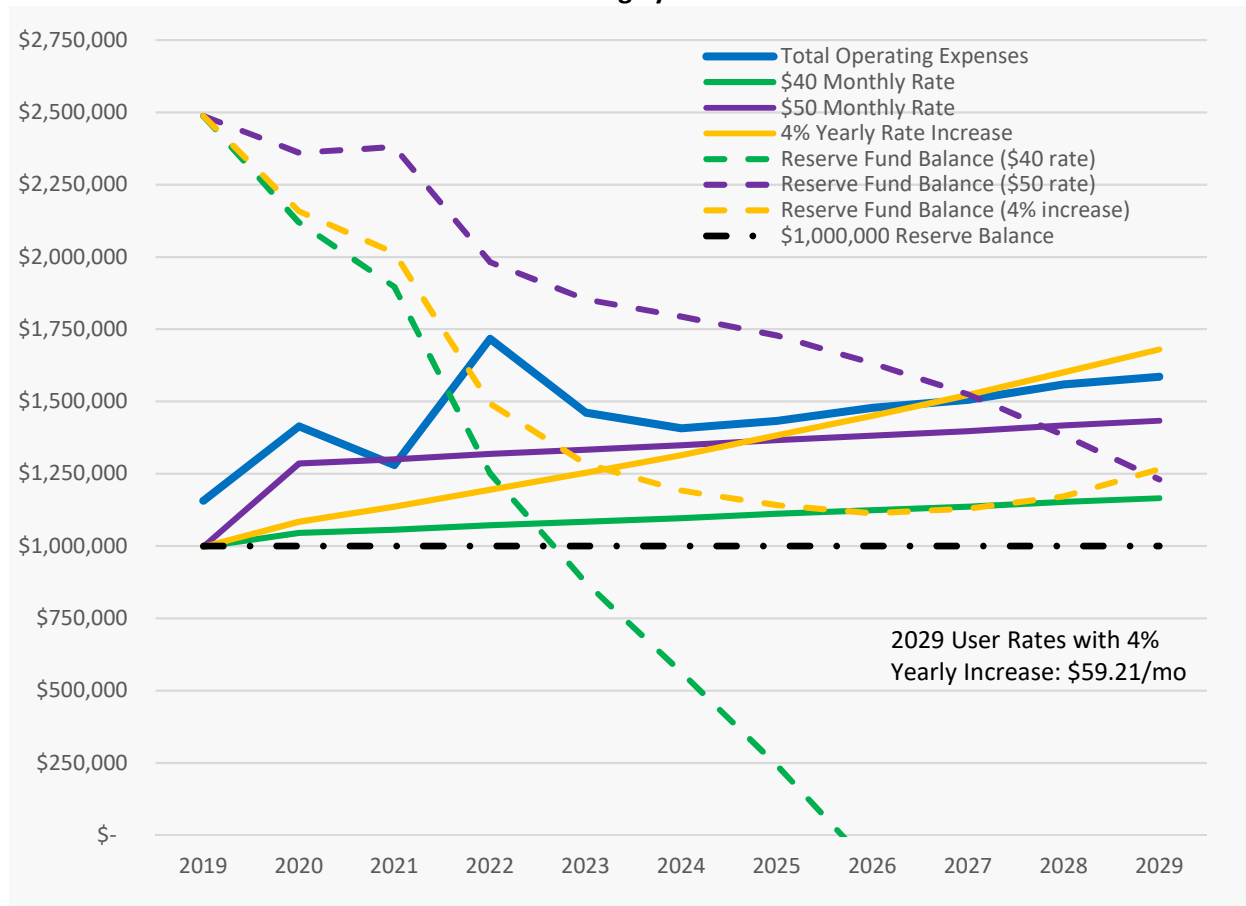


Figure 2 also shows the impact to the Reserve Fund with the two rate increase options. With an immediate increase to \$50 per month, the Reserve Fund would drop to a low of \$1,230,000 by Year 2029. The 4% yearly increase starting in 2020 would result in a Reserve Fund low of \$1,113,000 in Year 2026 and slowly increase to \$1,265,000 by Year 2029 with a monthly user rate of \$59.21 per EDU.

In summary, the current \$40 monthly user rate is insufficient to provide revenue to adequately operate and maintain the existing sewer system without depleting the Reserve Fund Balance.

PART 2 – FUTURE SEWER EXTENSIONS

ACT 537 PLAN UPDATE AND ADDITIONAL SERVICE AREAS

The 2018 Act 537 Plan Update identified the need for public sewer in five “needs areas” and evaluated various alternatives for sewage collection and conveyance. Gravity sewer was chosen for each of the five “needs areas”, but the implementation timeframe varied for each area. Due to the high level of septic system malfunctions in Crestview Manor and Sand Beach and the high level of well contamination in Crestview Manor, the necessary implementation timeline for these two areas was determined to be 0-5 years from the acceptance of the 2018 Act 537 Plan Update.

Improvements to the Pleasant View Needs Area were less urgent due to the limited number of confirmed malfunctions in the area. However, due to its close proximity to Crestview Manor, it will be included in the Crestview Manor improvements project as an alternate bid.

Improvements to the remaining “needs areas” will be addressed after 10 years due to the limited malfunctions currently present. South Hanover Township plans to address the immediate sewage needs of these areas with the implementation of an on-lot sewage management plan.

Anticipated project costs for Crestview Manor, Pleasant View, and Sand Beach were estimated as part of the South Hanover Township Act 537 Plan Update; these costs are summarized in **Table 5** below.

Table 5: Summary of Recommended Sewerage Alternatives for Needs Areas			
Area	Opinion of Probable Project Costs		
	Collection System	Conveyance System	Total Project Cost
Crestview Manor	\$2,270,000	\$118,000	\$2,388,000
Pleasant View	\$4,160,000	\$152,000	\$568,000
Sand Beach	\$1,310,000	\$1,170,000	\$2,480,000
TOTAL PROJECT COST:			\$5,436,000

PROJECTED OPERATING AND MAINTENANCE AND NEW CONSTRUCTION EXPENSES FOR THE EXPANDED SYSTEM

In addition to the annual operating and maintenance costs summarized in Part 1 above for the existing service area, additional costs must be added each year to fund design, permitting, and construction of the new sewers to serve Crestview Manor, Sand Beach, and Pleasant View over the next 10 years, as well as additional treatment charges to be paid to Derry Township Municipal Authority and Swatara Township Authority. In projecting these expenses and their impact to the Township, the following timeline was used:

- 2019 Design and permit Crestview Manor, Pleasant View, and Sand Beach sewers
- 2020 Start construction of Crestview Manor, Pleasant View, and Sand Beach sewers
- 2021 Construction of Crestview Manor, Pleasant View, and Sand Beach sewers
- 2022 All areas connected; Begin debt service payments

The 2018 Act 537 Plan Update evaluated the impact of varying collection system tapping fees on the necessary user rate increase associated with the debt service as well as the resulting user rate if only the added 149 EDUs paid the debt service. **Table 6** below displays the impact to the user rate with varying tap fees as well as the number of EDUs paying for the new debt service.

Table 6: Impact of Varying Tapping Fees on Monthly User Rate		
	\$2,500 Tapping Fee	\$5,500 Tapping Fee
Total Project Cost	\$5,436,000	\$5,436,000
Tapping Fee Revenue (149 New EDUs)	\$372,500	\$819,500
Amount to be Financed¹	\$4,519,900	\$4,072,900
Rate and Term	2.36% for 20 years	2.36% for 20 years
Annual Debt Service	\$286,118	\$257,822
Monthly Debt Service per EDU (New Users Only)	\$160.02	\$144.20
Monthly Debt Service per EDU (All Township Customers)	\$10.68	\$9.63

¹ Excludes \$543,600 for preliminary design and permitting already budgeted in 2019.

During the Act 537 planning process, the creation of separate sewer service districts for each of the Needs Areas was discussed. The preliminary rates were between \$149-\$311 per month, depending on the area. These rates represent 2.1 - 4.4% of the Township’s Median Household income of \$84,761¹ and 3.1 - 6.5% of the Median Household income of \$57,071¹ for Dauphin County. As these rates are above the percentage of median household income of 2 percent that is considered a target user rate by PENNVEST, these separate rate districts were not considered. Therefore, all Township customers will help finance the new debt service through monthly user rates. Due to the fact that increasing the tapping fee by \$3,000 will only decrease the monthly sewer rate by \$1.05, as shown in **Table 6**, a \$2,500 per EDU tapping fee has been assumed for the remainder of this Study’s user rate evaluations.

Using the above timeline, **Table 7** shows the projected operating and maintenance costs as well as new construction costs (debt service) for an expanded sewer system over the next 10 years. The debt service factored in assumes the Township will use a financing method for 20 years at a conservative 2.36% interest rate (based on recently observed financing offers) to construct the sewer systems and will assess a \$2,500 tapping fee per each EDU connected to the three new service areas. Additional funding methods at lower interest rates or longer terms may also be available depending on the timing of the funding application.

¹ Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

Table 7: Projected Expenses for Expanded Sewer System (2019– 2029)

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
# of EDUs (Existing Area)	2010	2034	2058	2083	2108	2133	2159	2185	2211	2238	2265
# of Added EDUs				149	149	149	149	149	149	149	149
Sewage System General Operating & Maintenance	\$140,505	\$155,520	\$160,078	\$164,770	\$169,601	\$174,574	\$179,694	\$184,966	\$190,393	\$195,981	\$201,734
Maintenance/Repairs/Cap Improvements	\$237,000	\$388,450	\$226,414	\$629,391	\$341,883	\$252,389	\$242,911	\$253,448	\$244,002	\$254,572	\$245,159
Treatment Charges for Existing Area (DTMA)	\$710,907	\$799,524	\$821,021	\$848,206	\$873,413	\$901,598	\$928,986	\$956,748	\$985,276	\$1,020,261	\$1,048,229
Administration	\$43,900	\$45,217	\$46,574	\$47,971	\$49,410	\$50,892	\$52,419	\$53,991	\$55,611	\$57,280	\$58,998
Insurance	\$20,100	\$20,703	\$21,324	\$21,964	\$22,623	\$23,301	\$24,000	\$24,720	\$25,462	\$26,226	\$27,013
Transfer to Sewer Authority Admin	\$4,500	\$4,545	\$4,590	\$4,636	\$4,683	\$4,730	\$4,777	\$4,825	\$4,873	\$4,922	\$4,971
Preliminary Engineering¹	\$543,600										
Debt Service – Construction and Inspection²				\$286,118	\$286,118	\$286,118	\$286,118	\$286,118	\$286,118	\$286,118	\$286,118
Additional Operating & Maintenance Costs				\$8,169	\$8,414	\$8,666	\$8,926	\$9,194	\$9,470	\$9,754	\$10,046
New DTMA Treatment Charges³				\$14,903	\$15,201	\$15,505	\$15,815	\$16,131	\$16,454	\$16,783	\$17,119
New Swatara Treatment Charges⁴				\$35,284	\$35,632	\$35,983	\$36,338	\$36,697	\$37,059	\$37,425	\$37,794
Total O&M Expenses	\$1,700,512	\$1,413,960	\$1,280,000	\$2,062,932	\$1,808,543	\$1,755,371	\$1,781,648	\$1,828,552	\$1,856,482	\$1,911,137	\$1,939,053

¹ Engineering expense based on 2019 budget and approved Act 537 Plan (2018)

² Debt service accounts for \$2,500 tap fee and financing for 20 years at 2.36% interest

³ DTMA charges based on current rate of \$5.70/1000 gallons with 2% increase per year (Sand Beach)

⁴ STA charges based on current rate of \$6.00/1000 gallons with 1% increase per year (Crestview Manor and Pleasant View)

REVENUE REQUIRED TO FUND 10-YEAR EXPENSES FOR EXPANDED SYSTEM

Based on the projected expenses for the expanded system shown in **Table 7** above, the revenue required and associated monthly user rates necessary from all Township customers without using Reserve Funds are shown in **Table 8** for 2019 through 2029. As discussed above, a separate user rate district for just the new service areas will result in an unaffordable user rate for those customers. Therefore, the revenue required and monthly user rate assumes all Township customers share in the costs.

Table 8: Required Revenue from User Rates for Expanded System											
\$2,500 Tapping Fee											
Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Total Expenses	\$1,700,512	\$1,413,960	\$1,280,000	\$2,062,932	\$1,808,543	\$1,755,371	\$1,781,648	\$1,828,552	\$1,856,482	\$1,911,137	\$1,939,053
Revenue from Tapping Fees¹	\$40,000	\$76,720	\$76,720	\$76,720	\$79,917	\$79,717	\$83,113	\$83,113	\$83,113	\$86,310	\$86,310
Investment Earnings and Misc. Fees²	\$6,700	\$6,834	\$6,971	\$7,110	\$7,252	\$7,397	\$7,545	\$7,696	\$7,850	\$8,007	\$8,167
Revenue Required from User Rates	\$1,653,812	\$1,330,406	\$1,196,310	\$1,975,906	\$1,721,375	\$1,668,057	\$1,690,989	\$1,737,742	\$1,765,519	\$1,816,820	\$1,844,576
Total # of EDUs	2010	2034	2058	2232	2257	2282	2308	2334	2360	2387	2414
Required Monthly User Rate³	\$69.59	\$55.32	\$49.17	\$74.88	\$64.51	\$61.83	\$61.97	\$62.98	\$63.28	\$64.38	\$64.63

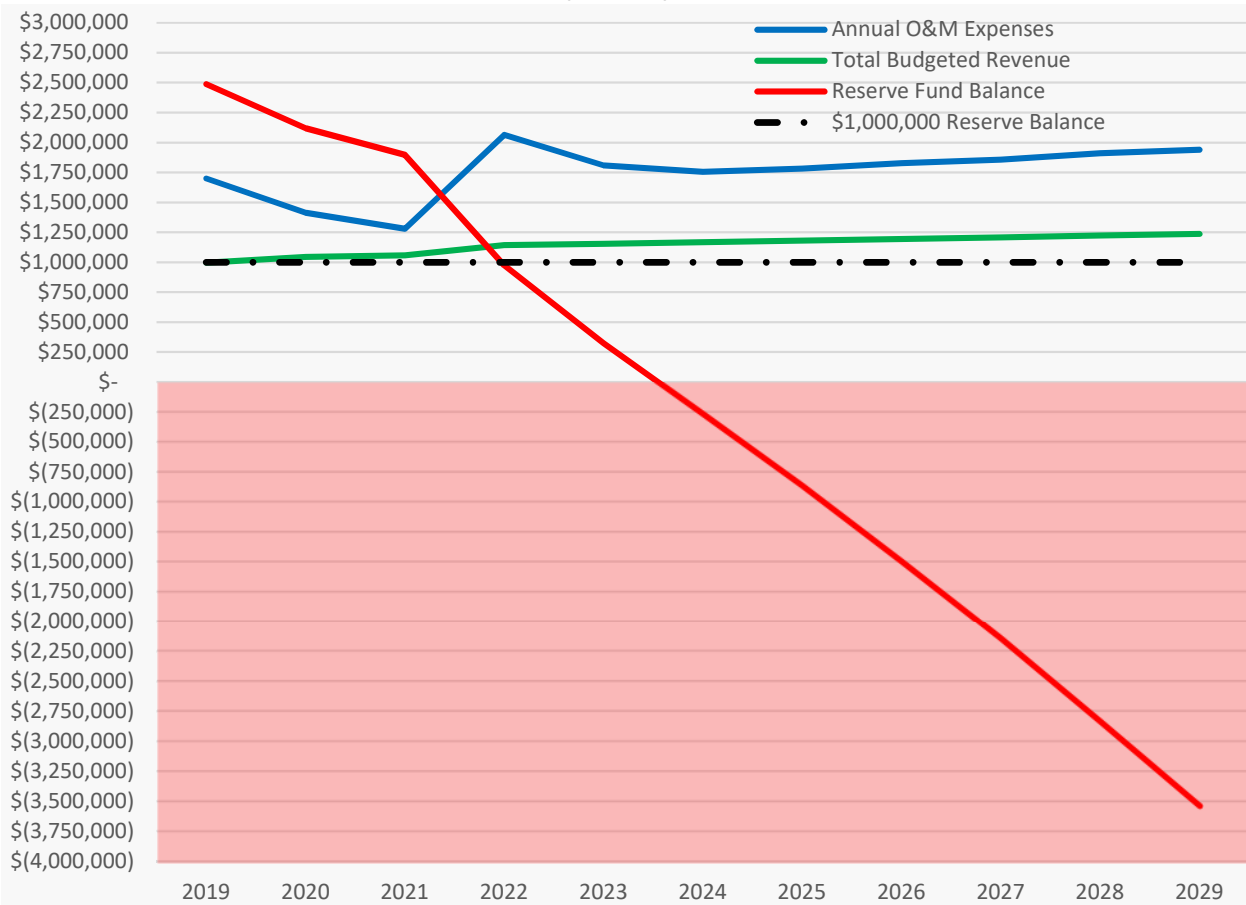
¹ Revenue from tap fees in existing system only, based on an increase in EDUs of 1.2% per year and a current tap fee of \$3,196.66 per EDU.

² Revenue from inspection fees, liens, and investments projected to increase 2% per year.

³ A 1.5% delinquency rate has been factored into the monthly user rate required.

The current \$40.00 monthly user rate is not sufficient to sustain either the existing system or the expanded system. A monthly user rate of approximately \$63 would be required to avoid utilizing the Reserve Fund. Furthermore, as shown previously in **Table 6**, a significant increase to the tapping fee will not have an impact to the expected user rate. The following analyses continue to use a tapping fee of \$2,500 per new EDU. **Figure 3** displays the impact to the Reserve Fund through 2029 if the monthly rate is kept at \$40.00 per month per EDU. The Reserve Fund will be depleted by Year 2024.

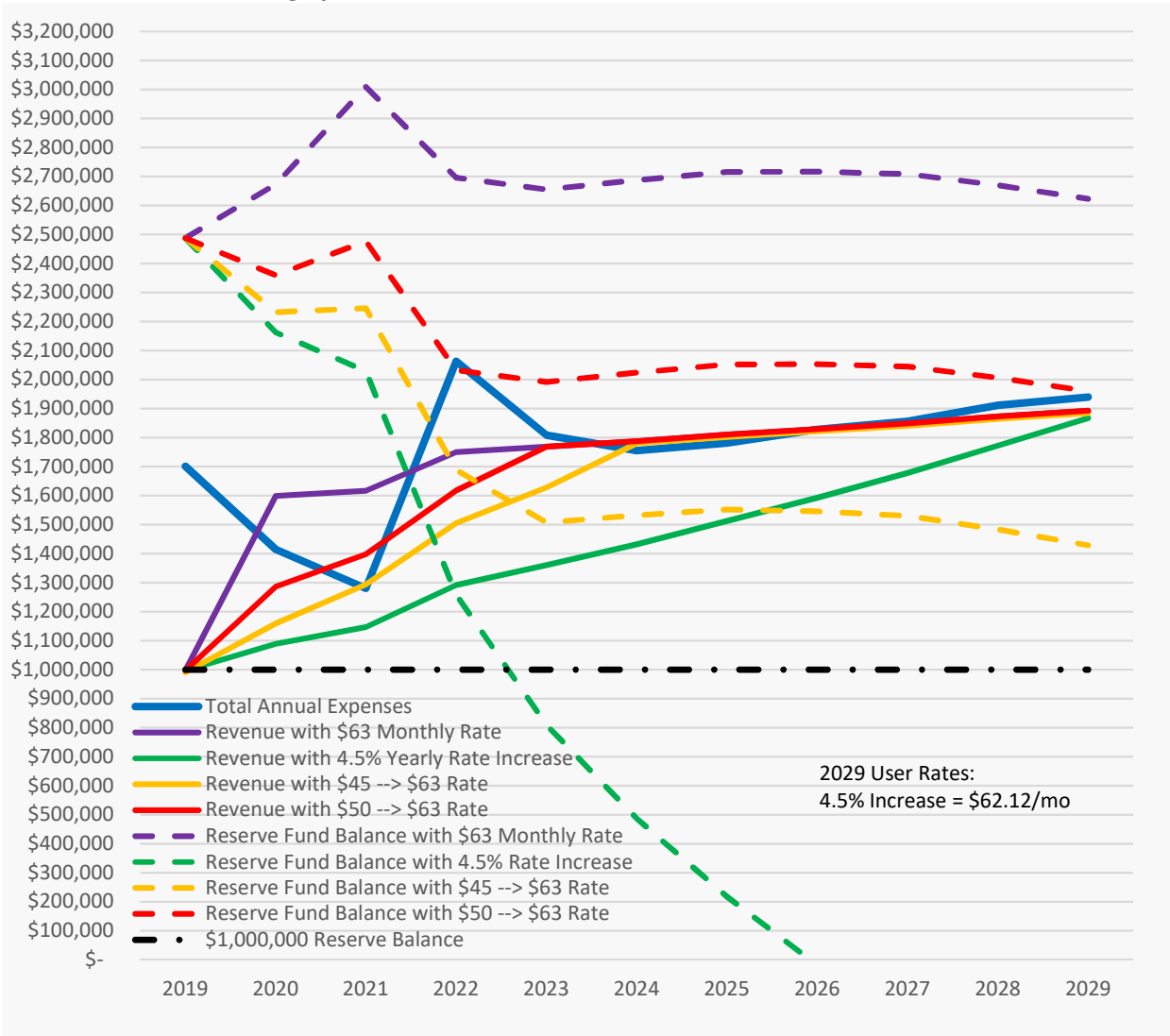
Figure 3
10-Year Projection of Revenue, Expenses, and Reserve Fund Balance for Existing Sewer System and Crestview Manor, Sand Beach, and Pleasant View \$40/Month/EDU



To determine the user rate necessary, **Figure 4** shows the 10-year projection of operating and maintenance expenses along with the total budgeted revenue and Reserve Fund Balance to be expected with four rate options:

- Increase the User Rate to \$63.00 in Year 2020
- Increase the User Rate by 4.5% each year starting in Year 2020
- Gradually increase the rate from \$45.00 to \$63.00 per month in yearly stepped increases
- Gradually increase the rate from \$50.00 to \$63.00 per month in yearly stepped increases

Figure 4
Annual Operating Expenses and Budgeted Revenue with Varying User Rates
Existing System, Crestview Manor, Sand Beach, and Pleasant View



As shown in **Figure 4**, the user rate would need to be increased to \$63.00 per month to adequately fund the expected operating expenses for the expanded sewer system service area, without depleting the Reserve Fund. This could be accomplished with a large rate increase in one year to \$63 per month, a smaller (4.5%) steady increase each year, or an initial increase to either \$45.00 or \$50.00 a month followed by additional rate increases to reach \$63.00 per month by 2023 or 2024. Note that the 4.5% yearly rate increase results in complete depletion of the Reserve Fund by 2026. **Figure 4** also shows the impact to the Reserve Fund with each option. **Table 9** depicts the anticipated monthly user rates for each year for the four options:

Table 9: Monthly User Rate Options								
Year	Increase to \$63.00		4.5% Yearly Rate Increase		Stepped Rate Increase \$45 to \$63		Stepped Rate Increase \$50 to \$63	
	Calculated Rate	Rounded Rate	Calculated Rate	Rounded Rate	Calculated Rate	Rounded Rate	Calculated Rate	Rounded Rate
2019	\$40.00	\$40.00	\$40.00	\$40.00	\$40.00	\$40.00	\$40.00	\$40.00
2020	\$63.00	\$63.00	\$41.80	\$42.00	\$45.00	\$45.00	\$50.00	\$50.00
2021	\$63.00	\$63.00	\$43.68	\$43.50	\$50.00	\$50.00	\$54.00	\$54.00
2022	\$63.00	\$63.00	\$45.65	\$45.50	\$54.00	\$54.00	\$58.00	\$58.00
2023	\$63.00	\$63.00	\$47.70	\$47.50	\$58.00	\$58.00	\$63.00	\$63.00
2024	\$63.00	\$63.00	\$49.85	\$50.00	\$63.00	\$63.00	\$63.00	\$63.00
2025	\$63.00	\$63.00	\$52.09	\$52.00	\$63.00	\$63.00	\$63.00	\$63.00
2026	\$63.00	\$63.00	\$54.43	\$54.50	\$63.00	\$63.00	\$63.00	\$63.00
2027	\$63.00	\$63.00	\$56.88	\$57.00	\$63.00	\$63.00	\$63.00	\$63.00
2028	\$63.00	\$63.00	\$59.44	\$59.50	\$63.00	\$63.00	\$63.00	\$63.00
2029	\$63.00	\$63.00	\$62.12	\$62.00	\$63.00	\$63.00	\$63.00	\$63.00

The following **Tables 10 through 13** provide the year-by-year breakdown of total annual expenses, budgeted revenue, and the reserve fund balance for each of the user rate options.

**Table 10: Ten-Year Projection of Expenses, Revenue, and Reserve Fund Balance
Existing System, Crestview Manor, Sand Beach, and Pleasant View
\$63.00 Rate Increase**

Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Total Expenses	\$1,700,512	\$1,413,960	\$1,280,000	\$2,062,932	\$1,808,543	\$1,755,371	\$1,781,648	\$1,828,552	\$1,856,482	\$1,911,137	\$1,939,053
Monthly User Rate	\$40.00	\$63.00	\$63.00	\$63.00	\$63.00	\$63.00	\$63.00	\$63.00	\$63.00	\$63.00	\$63.00
Total # of EDUs	2010	2034	2058	2232	2257	2282	2308	2334	2360	2387	2414
Total Budgeted Revenue	\$997,300	\$1,598,626	\$1,616,640	\$1,749,584	\$1,768,348	\$1,787,114	\$1,809,826	\$1,829,343	\$1,848,864	\$1,872,329	\$1,892,601
Reserve Fund Balance	\$2,487,856	\$2,672,522	\$3,009,162	\$2,695,813	\$2,655,617	\$2,687,360	\$2,715,538	\$2,716,330	\$2,708,712	\$2,669,903	\$2,623,452

**Table 11: Ten-Year Projection of Expenses, Revenue, and Reserve Fund Balance
Existing System, Crestview Manor, Sand Beach, and Pleasant View
4.5% Yearly Rate Increase**

Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Total Expenses	\$1,700,512	\$1,413,960	\$1,280,000	\$2,062,932	\$1,808,543	\$1,755,371	\$1,781,648	\$1,828,552	\$1,856,482	\$1,911,137	\$1,939,053
Monthly User Rate	\$40.00	\$42.00	\$43.50	\$45.50	\$47.50	\$50.00	\$52.00	\$54.50	\$57.00	\$59.50	\$62.00
Total # of EDUs	2010	2034	2058	2232	2257	2282	2308	2334	2360	2387	2414
Total Budgeted Revenue	\$997,300	\$1,088,792	\$1,146,560	\$1,291,632	\$1,360,081	\$1,432,241	\$1,512,121	\$1,592,971	\$1,678,209	\$1,771,965	\$1,867,449
Reserve Fund Balance	\$2,487,856	\$2,162,689	\$2,029,248	\$1,257,947	\$809,485	\$486,355	\$216,828	-\$18,752	-\$197,026	-\$336,198	-\$407,802

**Table 12: Ten-Year Projection of Expenses, Revenue, and Reserve Fund Balance
Existing System, Crestview Manor, Sand Beach, and Pleasant View
Initial \$45.00 Rate Increase, then Stepped Rate Increases to \$63.00**

Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Total Expenses	\$1,700,512	\$1,413,960	\$1,280,000	\$2,062,932	\$1,808,543	\$1,755,371	\$1,781,648	\$1,828,552	\$1,856,482	\$1,911,137	\$1,939,053
Monthly User Rate	\$40.00	\$45.00	\$50.00	\$54.00	\$58.00	\$63.00	\$63.00	\$63.00	\$63.00	\$63.00	\$63.00
Total # of EDUs	2010	2034	2058	2232	2257	2282	2308	2334	2360	2387	2414
Total Budgeted Revenue	\$990,600	\$1,158,914	\$1,293,346	\$1,504,965	\$1,627,668	\$1,779,717	\$1,802,280	\$1,821,647	\$1,841,014	\$1,864,322	\$1,884,434
Reserve Fund Balance	\$2,487,856	\$2,232,811	\$2,246,156	\$1,688,189	\$1,507,314	\$1,531,660	\$1,552,293	\$1,545,389	\$1,529,920	\$1,483,105	\$1,428,486

**Table 13: Ten-Year Projection of Expenses, Revenue, and Reserve Fund Balance
Existing System, Crestview Manor, Sand Beach, and Pleasant View
Initial \$50.00 Rate Increase, then Stepped Rate Increases to \$63.00**

Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Total Expenses	\$1,700,512	\$1,413,960	\$1,280,000	\$2,062,932	\$1,808,543	\$1,755,371	\$1,781,648	\$1,828,552	\$1,856,482	\$1,911,137	\$1,939,053
Monthly User Rate	\$40.00	\$50.00	\$54.00	\$58.00	\$63.00	\$63.00	\$63.00	\$63.00	\$63.00	\$63.00	\$63.00
Total # of EDUs	2010	2034	2058	2232	2257	2282	2308	2334	2360	2387	2414
Total Budgeted Revenue	\$997,300	\$1,285,992	\$1,397,647	\$1,617,635	\$1,768,348	\$1,787,114	\$1,809,826	\$1,829,343	\$1,848,864	\$1,872,329	\$1,892,601
Reserve Fund Balance	\$2,487,856	\$2,359,888	\$2,477,535	\$2,032,237	\$1,992,041	\$2,023,785	\$2,051,963	\$2,052,754	\$2,045,136	\$2,006,328	\$1,959,876

The Sewer Rate Study is based on maintaining a minimum Reserve Fund Balance of \$1,000,000. The availability of the Reserve Funds provides the Township with flexibility to institute a delayed or a “slow and steady” rate increase as opposed to a large increase in one year.

SEWER RATE COMPARISON

For comparison, the current and proposed sewer rates were compared to other residential sewer rates in the Dauphin County area. For an ‘equal’ comparison, the South Hanover Township equivalent flow was used for daily use. This value of 252.9 GPD/EDU resulted in a quarterly use of 22,761 gallons per quarter per household. Each of the following quarterly rates is based on this usage.

Table 14 – Quarterly Sewer Rate Comparison				
Municipality	Flat Rate/ Quarter	Flat Rate Gallons	Extra Fee/ 1,000 Gallons	Total Quarterly Rate
Millersburg Area Authority	\$0.00	0	\$8.80	\$200.30
South Hanover Proposed \$63/mo Rate	\$189.00	0	\$0.00	\$189.00
Capital Region Water	\$0.00	0	\$7.66	\$174.35
Williamstown Borough Authority	\$171.00	0	\$0.00	\$171.00
Derry Township	\$36.30	0	\$5.70	\$166.04
Swatara Township	\$120.00	16,000	\$6.00	\$160.57
Lower Paxton Twp Authority	\$153.00	0	\$0.00	\$153.00
South Hanover Proposed \$50/mo Rate	\$150.00	0	\$0.00	\$150.00
Susquehanna Township	\$123.00	0	\$0.00	\$123.00
South Hanover Current \$40/mo Rate	\$120.00	0	\$0.00	\$120.00

From the table, it is evident that even with the increased sewer rate, total quarterly fees for South Hanover Township would be comparable to, if not less than, other municipalities within Dauphin County.

In comparison to the median household income for South Hanover Township, \$84,761, a monthly sewer rate of \$63.00 per EDU represents only 0.9% of the median household income. For Dauphin County, this rate represents 1.3% of the median household income, still less than the PENNVEST target rate of 2%.

RECOMMENDATIONS

To assist in the determination of any rate increase, the Township has established a policy setting the minimum acceptable Reserve Fund Balance at \$1,000,000. The evaluations provided in Part 1 of this Rate Study indicate that for the Township to maintain a Reserve Fund Balance of \$1,000,000, an increase in

monthly user rates is necessary for the on-going maintenance of the current sewer system, before any new areas or customers are added to the system.

To provide adequate revenue for the existing sewer system, and maintain the minimum \$1,000,000 Reserve Fund Balance, the Township should consider raising rates to approximately \$50.00 per month per EDU by year 2029. There are multiple ways of providing for a rate increase: a large one-time increase to \$50.00, a yearly 4% incremental increase, or various options in between.

When considering the construction costs and expenses associated with the addition of Crestview Manor, Sand Beach, and Pleasant View, an even larger rate increase will be required to avoid lowering the Reserve Fund Balance below \$1,000,000. Four different options were evaluated: one large rate increase to \$63.00 per month per EDU, a yearly 4.5% increase, or an initial increase to either \$45.00 or \$50.00 per month, followed by a series of stepped increases to \$63.00 per month by 2023 or 2024.

To take advantage of current low interest rates on municipal bonds and other financing opportunities, the Township should also begin exploring financing options for the construction costs anticipated to be incurred over the next five years.

In addition to a revision to the monthly user rates, the Township and Authority should undertake an Act 57 analysis of current and proposed tapping fees to determine the maximum allowable tapping fee that can be charged to new customers to be added in the Crestview Manor, Sand Beach, and Pleasant View collection areas.

Regardless of which rate option is selected, RETTEW recommends reevaluating rates in 2028 prior to the design and construction of the final two 2018 Act 537 Needs Areas. At this time, the Township will also have the opportunity to map out additional Capital Improvement Projects to be funded without being a detriment to the Township's Reserve Fund.

Appendix A
South Hanover Township 2019 Sewer Budget

SOUTH HANOVER TOWNSHIP 2019 BUDGET SEWER REVENUE FUND

FUND SUMMARY

	2016 ACTUAL	2017 ACTUAL	2018 BUDGET	2018 Estimate	2019 BUDGET	% Change
TOTAL REVENUES	950,481	899,121	958,800	1,462,260	997,300	-31.8%
TOTAL EXPENDITURES	801,383	881,443	915,700	1,205,410	1,575,105	30.7%
Revenues Over/(Under) Expenditures.....	149,098	17,678	43,100	256,850	(577,805)	
Adjustment for Non-cash Items.....	163,906	172,395	0	0	0	
Budgetary Reserve.....	0	0	9,157	0	15,751	
Use of Fund Balance.....	0	0	0	0	577,805	
FUND BALANCE						
Fund Cash Balance - Beginning of Year.....	2,289,982	2,602,986	2,793,060	2,793,060	3,049,910	9.2%
Estimated Fund Cash Balance - End of Year.....	2,602,986	2,793,060	2,827,003	3,049,910	2,487,856	-18.4%
FUND BALANCE RESERVE						
Reserved.....		\$ 1,059,986	\$ 1,059,986	\$ 1,059,986	\$ 1,165,856	
Unreserved.....		\$ 1,733,074	\$ 1,767,017	\$ 1,989,924	\$ 1,322,000	

FUND DESCRIPTION

The Sewer Revenue Fund records the revenues and expenditures related to the Township's sewer utility. For budget presentation and reporting purposes the fund's budget is prepared on a cash basis. Thus, no amounts are budgeted for depreciation and amortization in the budget and revenues are shown as actually deposited. However, in the Township's annual financial statements reported using GAAP the fund is reported on an accrual basis due to its classification as a proprietary fund.

A fund balance reserve equal to 50% of the accumulated depreciation and amortization reported in the financial statements has been established.

The operating costs of the South Hanover Township Sewer Authority are recorded and budgeted in the Sewer Authority Administration Fund elsewhere in this document.

SANITARY SYSTEM USER DATA (end of year)

	2013	2014	2015	2016	2017	2018 Estimated	2019 Projected
Customers	1,184	1,207	1,249	1,271	1,299	1,310	1,320
EDU's	1,858	1,892	1,934	1,956	1,984	2,000	2,010

SOUTH HANOVER TOWNSHIP 2019 BUDGET SEWER REVENUE FUND

SEWER REVENUE FUND REVENUES

ACCT#	DESCRIPTION	2016 ACTUAL	2017 ACTUAL	2018 BUDGET	2018 Estimate	2019 BUDGET	% Change
INTEREST, RENTS & ROYALTIES							
34001	EARNINGS FROM INVESTMENTS	\$2,289	\$2,382	\$2,500	\$2,520	\$3,000	19.0%
36001	SEWER RENTAL	886,532	843,209	912,600	924,870	950,600	2.8%
37001	SPEC. ASSES. LIENS	755	1,453	700	710	700	-1.4%
37006	MISCELLANEOUS RECEIPTS	210	0	0	0	0	N/A
38004	CAPACITY AND CONNECTION FEES	56,796	48,296	40,000	531,260	40,000	-92.5%
38005	SEWER INSPECTION FEES	3,900	3,780	3,000	2,900	3,000	3.4%
TOTAL		\$950,481	\$899,121	\$958,800	\$1,462,260	\$997,300	-31.8%

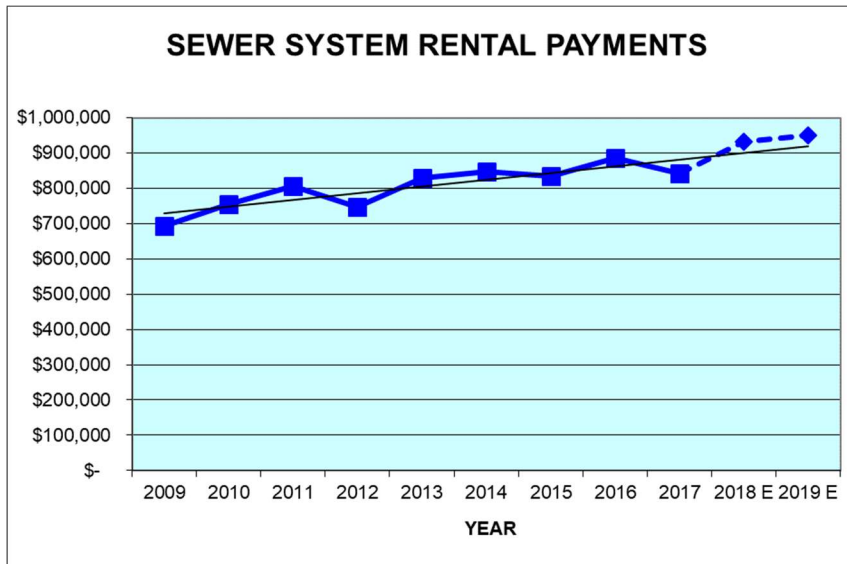
PROGRAM DESCRIPTION:

The Sewer Revenue Fund budget accounts for the user charges, connection fees and other revenues of the Township's sanitary sewer system. Current fees are shown in the table on the right. Routine maintenance, monitoring and customer billing is performed by Township personnel.

Description	Fee Amount
Sewer Inspection Fee	\$100
Sewer Lateral Connection	\$30
Sewer Tap-on Fee	\$2,045.37

BUDGET COMMENTARY:

Sewer Rental revenues (account 36001) in 2018 are expected to be slightly over budget. In 2019 those revenues are budgeted to increase by 2.0% over the 2018 estimate. See the chart on the left for a historical view of these revenues.



During the period shown on the chart, rental payments have increased by approximately 3% annually.

Sewer Inspection Fees (account 38005) include fees paid for inspection of sewer lines.

In 2018, the high amount of revenues in Capacity and

Connection Fees (account 38004) represent payments made by a commercial developer for fees to connect to the South Hanover sanitary sewer collection system and for purchase of treatment capacity from Derry Township Municipal Authority (DTMA) that were then paid by the Township to DTMA from Sewer Capacity Purchase (account 42905) shown on the next page. The 2019 budget shows a more normal year of connections to the system.

SOUTH HANOVER TOWNSHIP 2019 BUDGET

SEWER REVENUE FUND

SEWER REVENUE FUND EXPENDITURES

ACCT#	DESCRIPTION	2016 ACTUAL	2017 ACTUAL	2018 BUDGET	2018 Estimate	2019 BUDGET	% Change
SEWAGE SYSTEM							
42100	SALARIES/WAGES	43,230	\$31,990	\$43,070	\$33,650	\$43,070	28.0%
42110	MATERIALS/SUPPLIES	728	520	1,000	1,190	1,300	9.2%
42012	POSTAGE	3,088	2,433	3,000	2,540	2,800	10.2%
42116	TRAINING	0	1,080	2,000	0	0	N/A
42120	GENERAL EXPENSE	265	25	500	160	500	212.5%
42121	UTILITIES	20,745	25,959	25,000	38,370	39,000	1.6%
42124	ENGINEERING EXPENSE - EXPANSION	0	0	25,000	0	543,600	N/A
42140	MAINTENANCE/REPAIRS	14,736	52,935	169,700	177,250	211,800	19.5%
42150	CONTRACTED SERVICES	4,359	3,898	5,400	6,630	5,500	-17.0%
42160	MINOR EQUIPMENT PURCHASE	380	235	1,000	1,780	1,000	-43.8%
42170	MAJOR EQUIPMENT PURCHASE	0	13,340	10,000	5,460	0	N/A
42175	EQUIPMENT RENTAL	0	0	3,500	0	3,500	N/A
42220	TREATMENT CHARGES	458,435	497,049	545,800	655,460	636,500	-2.9%
42230	TAP ON REIMB	35,556	33,336	25,000	7,160	14,315	99.9%
42250	DEPRECIATION	160,643	169,366	0	0	0	N/A
42255	AMORTIZATION	3,262	3,262	0	0	0	N/A
42260	PAYROLL TAXES	4,369	3,575	3,930	3,350	3,720	11.0%
42905	SEWER CAPACITY PURCHASE	0	0	0	227,500	0	N/A
	TOTAL:	749,796	839,003	863,900	1,160,500	1,506,605	29.8%
ADMINISTRATION							
40039	BANK SERVICE CHARGES/FEES	0	233	300	350	350	0.0%
42300	SALARIES/WAGES	10,771	9,393	8,300	7,650	5,550	-27.5%
42310	MATERIALS/SUPPLIES	610	637	1,000	40	1,000	2400.0%
42320	GENERAL EXPENSE	1,054	38	500	3,280	500	-84.8%
42324	ENGINEERING EXPENSE	10,895	5,900	10,000	5,550	10,000	80.2%
42325	ACCOUNTING/AUDITING	0	0	0	0	0	N/A
42226	CONTRACTED SERVICES	0	0	0	0	21,000	N/A
42329	LEGAL FEES	1,065	1,456	4,000	4,790	5,000	4.4%
42332	SOFTWARE/SOFTWARE MAINTENANCE	0	0	0	1,150	500	-56.5%
	TOTAL:	24,394	17,423	23,800	21,310	43,900	106.0%
INSURANCE							
47100	FLOOD INSURANCE	6,902	6,956	7,500	7,010	7,500	7.0%
47151	COMPREHENSIVE INSURANCE	15,790	14,060	16,000	12,590	12,600	0.1%
	TOTAL:	22,692	21,016	23,500	19,600	20,100	2.6%
DEBT SERVICE/OTHER							
48905	TRANSFER TO SEWER AUTHORITY ADMIN.	4,500	4,000	4,200	4,000	4,500	12.5%
	TOTAL:	4,500	4,000	4,200	4,000	4,500	12.5%
	TOTAL EXPENDITURES:	\$801,383	\$881,443	\$915,700	\$1,205,410	\$1,575,105	30.7%

PROGRAM DESCRIPTION:

The Sewer Revenue Fund budget accounts for expenditures from the user charges, connection fees and other revenues of the Township's sanitary sewer system. Routine maintenance, monitoring and customer billing is performed by Township personnel.

BUDGET COMMENTARY:

Sewage System – Salaries/Wages (account 42100) are the allocated cost of Township staff working on repairing and maintaining the system. A portion of the salary of the Township Administrative Secretary is budgeted in Administration - Salaries/Wages (account 42300).

[commentary continued on the next page]

SOUTH HANOVER TOWNSHIP 2019 BUDGET SEWER REVENUE FUND

BUDGET COMMENTARY (continued)

Engineering Expense – Expansion (account 42124) includes 2018 funding in the amount of \$25,000 for initial survey and preliminary design of the area selected for the first sewer expansion project. No expenses are expected in 2018. The 2019 budget includes \$543,600 for estimated costs to design and prepare for bidding sanitary sewers for the initial three areas shown in the approved Act 537 plan: Crestview Manor, Pleasant View and Sand Beach.

In 2018, Sewer Capacity Purchase (account 42905) shows the amount a developer paid the Township and for which the Township subsequently paid Derry Township Municipal Authority (DTMA) for the purchase of treatment capacity for the developer.

For 2018 and 2019, an amount equal to amount of depreciation and amortization reported in the prior fiscal year is budgeted for this account to recognize the need to adequately fund maintenance and replacement needs.

Treatment Charges (account 42220) pay the charges by DTMA to the Township for the costs to treat the sewage collected by Township lines. Estimated expenditures for 2018 are high, in part, due to high flows during the July floods. DTMA has advised the Township of a 2% increase in the treatment rate and that increase is budgeted for 2019.

An amount of \$21,000 is budgeted under Contracted Services (account 42226) to cover the estimated cost of a sewer rate study.

The account Tap On Reimb (account 42230) records the reimbursement of connection charges levied by the Township that have been paid previously by another individual or company.

Depreciation and Amortization costs are not budgeted since they are a non-cash item.

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Appendix B
Swatara Township Authority Reserved Capacity Agreement

A G R E E M E N T (2015)

THIS AGREEMENT made this 28th day of July, 2015, by and among SWATARA TOWNSHIP AUTHORITY (hereinafter called "Swatara"), LOWER PAXTON TOWNSHIP AUTHORITY (hereinafter called "Lower Paxton"), THE BOARD OF SUPERVISORS OF LOWER PAXTON TOWNSHIP (hereinafter called "Lower Paxton Township Supervisors"), THE BOROUGH COUNCIL OF HUMMELSTOWN (hereinafter called "Hummelstown Borough Council" or "Hummelstown"), SOUTH HANOVER TOWNSHIP SEWER AUTHORITY (hereinafter called "South Hanover") and THE BOARD OF SUPERVISORS OF SOUTH HANOVER TOWNSHIP (hereinafter called "South Hanover Supervisors"), which Authorities, as the term is used above, are bodies politic and corporate, existing and organized under the Municipalities Authority Act of 1945, P.L. 382, as amended, and which boroughs and townships are also bodies politic and corporate organized and existing either under the Borough Code which applies to the Borough of Hummelstown, or to the Second Class Township Code, applying to the Townships of Lower Paxton and South Hanover, and all of which bodies politic and corporate are located in Dauphin County, Pennsylvania.

WHEREAS, Swatara, Lower Paxton and Hummelstown signed an agreement dated March 19, 1970, for the purpose of authorizing Swatara, as owner, to begin construction of a Treatment Plant, as defined below, on the Swatara Creek with a capacity of three million gallons per day in accordance with design plans prepared for Swatara and Lower Paxton, amended to include Hummelstown with a design capacity able to serve the municipalities until the year 1983; and

WHEREAS, the Pennsylvania Department of Environmental Protection through its Water Quality Management Bureau had found that the said plant was hydraulically overloaded; and

WHEREAS, preliminary studies were done by Swatara's former consulting engineers, which studies indicated that expansion of the present plant was feasible; and

WHEREAS, Swatara, Lower Paxton and Hummelstown submitted information to the Pennsylvania Department of Environmental Protection to have the Swatara Treatment Plant be a regional plant within part of the Beaver Creek drainage basin and in all respects under regulations of the Pennsylvania Department of Environmental Protection; and

WHEREAS, to meet the above, parts of the municipalities of Swatara, Lower Paxton Hummelstown, South Hanover and West Hanover participated in an expansion of the plant which was completed in 1972; and

WHEREAS, the Parties hereto entered into an Intermunicipal Agreement dated November 1, 1985, for an additional expansion and upgrading of the Swatara Township Water Pollution Control Plant to a capacity of 6.3 million gallons per day, which expansion was completed in 1986; and

WHEREAS, the Parties entered into an Intermunicipal Agreement Addendum dated April 16, 1986 (“Addendum to the Agreement”); and

WHEREAS, by agreement of the parties, flows from West Hanover Township now are accepted and transported by Lower Paxton, eliminating the need for West Hanover to remain a party to this Agreement; and

WHEREAS, Lower Paxton has entered into a Second Consent Decree, as amended, with the Pennsylvania Department of Environmental Protection (“DEP”) that will address Lower Paxton’s excessive infiltration and inflow problems and violation of its Reserved Capacity in the Joint Use Interceptor and the Swatara Treatment Plant; and

WHEREAS, the Parties entered into an Intermunicipal Agreement Addendum dated May 15, 2002 (“Second Addendum to the Agreement”); and

WHEREAS, DEP will require Lower Paxton to follow the Corrective Action Plan dated September 2011 in the Beaver Creek Drainage Basin; and

WHEREAS, The Commonwealth of Virginia, the State of Maryland, the Commonwealth of Pennsylvania, the District of Columbia, the United States of America and the Chesapeake Bay Commission entered into the Chesapeake 2000 Agreement (the "Chesapeake 2000 Agreement") in connection with the restoration and protection of the ecological integrity, productivity and beneficial uses of the Chesapeake Bay system; and

WHEREAS, DEP released Pennsylvania's current Chesapeake Bay Tributary Strategy (the "Strategy") in early 2005 to address Pennsylvania's commitment for nutrient and sediment reductions in the Chesapeake Bay Watershed, as required under the Chesapeake 2000 Agreement; and

WHEREAS, DEP, in connection with implementation of the Strategy and its subsequent Watershed Implementation Plans, notified Swatara by letter dated January 28, 2008 of the required upgrade of the Treatment Plant in order to comply with, *inter alia*, the nutrient and sediment reduction requirements contemplated by the Strategy; and

WHEREAS, Swatara, in order to comply with such requirements of DEP, *inter alia*, determined to undertake the Treatment Plant Upgrade Project; and

WHEREAS, the Parties hereto entered into an Intermunicipal Agreement Addendum dated October 28, 2008 ("Third Addendum to the Agreement") for an upgrade of the 6.3 million gallon per day plant; and

WHEREAS, each of the parties hereto was responsible for paying its *pro rata* capital share of the Treatment Plant Upgrade Project Cost within sixty (60) days of notice, and prior to the commencement of construction by Swatara of the Treatment Plant Upgrade Project; and

WHEREAS, in order to comply with the requirements of DEP, Swatara commenced construction of the Treatment Plant Upgrade Project by March 31, 2009, and finally completed construction of the Treatment Plant Upgrade Project in September 2012; and

WHEREAS, the Treatment Plant has been fully upgraded and is in operation, and Swatara intends to continue to operate and manage said Treatment Plant; and

WHEREAS, Swatara proposes to treat and dispose of sanitary sewage emanating from specific collection facilities of the parties to this Agreement pursuant to further terms and conditions and exhibits hereinafter set forth; and

WHEREAS, it is in the public interest, in order to provide for the health, safety and welfare of the inhabitants of the parties to this Agreement that this Agreement be entered into; and

NOW THEREFORE, in consideration of the premises and mutual promises, covenants and undertakings hereinafter contained, the parties hereto each binding itself, its successors and assigns, and each representing that it is legally organized and has the proper legal authority to enter into this Agreement, and each intending by such representation to be legally bound to each other and to be legally bound hereunder, agree as follows:

ARTICLE I

DEFINITIONS

Section 1.01 - General Matters. Terms and phrases that are defined in Section 1.01 of the 2015 Agreement shall have the meaning specified herein unless the context clearly otherwise requires.

- (a) Agreement - Shall mean this 2015 Agreement, as amended and/or supplemented.
- (b) Average Annual Flow - Shall mean the average of the “Average Daily Flows” over the water year.
- (c) Average Daily Flow - Shall mean the average flow calculated by dividing total sanitary sewage flow under consideration for a period of any calendar month by the number of days in that month.
- (d) Biological Nutrient Removal (BNR) - The reduction in concentration of nitrogen or phosphorous compounds using microorganisms and/or other technology.

(e) BOD (Biochemical Oxygen Demand) - Shall mean the quantity of oxygen, expressed in milligrams per liter, utilized in the biochemical oxidation of organic matter under standard laboratory procedure for five (5) days at twenty (20) degrees centigrade. The standard laboratory procedure shall be that defined by the latest edition of “Standard Methods for Examination of Water and Sewage” published by the American Public Health Association.

(f) Consulting Engineers - Shall mean an engineering firm of professional engineers having favorable repute and experience in all relevant aspects of wastewater engineering, and chosen by Swatara.

(g) DEP - Shall mean the Pennsylvania Department of Environmental Protection.

(h) Domestic Waste - Shall mean normal household wastes from kitchens, water closets, lavatories and laundries and shall not include wastes from sump pumps, floor drains, downspouts, or any other source of either “inflow” or “infiltration.”

(i) Industrial Wastes - Shall mean any solid, liquid or gaseous substance or form of energy rejected or escaping in the course of any industrial, manufacturing, trade or business process or in the course of the development, recovery or processing of natural resources (as defined by the United States Environmental Protection Agency) and including waste from recreational vehicles and waste pumped out of on-site septic systems as distinguished from sanitary sewage.

(j) Instantaneous Peak Flow - Shall mean the highest sanitary sewage flow to the Treatment Plant or Joint Use Interceptor at any time.

(k) Interceptor - Shall mean a sewer designed to convey wastes from sewer collection systems within municipalities to the Treatment Plant including all appurtenant manholes and chambers.

(l) Joint Use Interceptor - Shall mean that portion of the conveyance line shown in Exhibit “C”, which is attached hereto and made a part hereof, from point A to point H.

(m) Maximum Monthly Flow (MMF) - Shall mean the highest Average Daily Flow

for any calendar month.

(n) NPDES Discharge Permit - The Operating Permit issued by DEP that is the basis for the Treatment Plant's discharge limits.

(o) Nutrient - Any substance that is assimilated by organisms and promotes growth; generally applied to nitrogen and phosphorous.

(p) Owner - Shall mean any person vested with ownership, legal or equitable, sole or partial, of any property.

(q) Peak Hourly Flow - Shall mean the highest Sanitary Sewage flow to the Treatment Plant for any one hour period.

(r) pH (Hydrogen Ion Content) - Shall mean the logarithm of the reciprocal of the weight of hydrogen ions, expressed in grams per liter of solution, and indicating degree of acidity or alkalinity of a substance.

(s) PPM or Milligram Per Liter - Shall mean parts per million.

(t) Person - Shall mean any individual, firm, partnership, company, association, society, trust, corporation or other group or entity.

(u) Points of Connection - Shall mean those points at which any party hereto connects a sewer system over which it has exclusive use and control to either a sewer system which is owned by another municipality or authority and jointly used by both such parties or the interceptor owned by Swatara. Such points of connection are indicated on Exhibit "A", attached hereto and made a part hereof by reference.

(v) Pollutant - Any substance or form of energy that, due to its nature or concentration, adversely affects or interferes with normal treatment plant operations or treatment process performance, is untreatable by the normal treatment process, causes violations of the NPDES Permit, or prevents classification of the biosolids as Class A as defined by 25 Pa.Code Chapter 503.

(w) Project Cost - Shall mean all costs incurred in connection with the enlargement and upgrading of the Treatment Plant, excluding any legal, engineering or financial costs attributable to borrowing by any municipality that is a party to this Agreement.

(x) Reserved Capacity - Shall mean treatment capacity in the Treatment Plant in the maximum quantities referred to in Section 3.02 hereinafter allocated to each respective party to this Agreement and reserved for each party's exclusive use and shall mean conveyance capacity in the Joint Use Interceptor as set forth in Exhibit "C".

(y) Sanitary Sewage - Shall mean all water carried sanitary sewage or Industrial Wastes or any combination thereof, but only to the extent that industrial wastes have been pre-treated or otherwise meet the requirements of this Agreement.

(z) Sewage - Shall mean all water carried Domestic Waste permitted under this Agreement and permitted under state and federal regulations that is discharged into the sewer system from any improved property.

(aa) Sewer Collection System - Shall mean all of the sewage collector facilities constructed or to be constructed by each of the parties to this Agreement in the service areas within its respective municipality including sewer interceptors, force mains, metering devices, pumping stations, manholes, chambers, and other appurtenances. The service areas for each party hereto are defined by Exhibit "A", which is attached hereto and made a part hereof by reference.

(bb) Total Nitrogen - Shall mean the sum of Kjeldahl Nitrogen, Nitrate Nitrogen and Nitrite Nitrogen determined utilizing test procedures for the analysis of pollutants as approved under the 40 CFR Part 136, or other test procedures specified in the current Treatment Plant NPDES Discharge Permit.

(cc) Total Phosphorous - Shall mean the sum of Orthophosphate, Polyphosphate, Tripolyphosphate and Organic Phosphate forms determined utilizing test procedures for the

analysis of pollutants as approved under the 40 CFR Part 136, or other test procedures specified in the current Treatment Plant NPDES Discharge Permit.

(dd) Toxic Wastes - Shall mean any poisonous substance, including but not limited to, wastes containing cyanide, lead, copper ions or chromium ions.

(ee) Treatment Costs - Shall mean the actual costs and expenses necessarily incurred in the operation, administration, and maintenance of the Treatment Plant and Joint Use Interceptor as upgraded and properly chargeable thereto in accordance with sound accounting and engineering practices.

(ff) Treatment Plant - Shall mean the regional water pollution control facility as constructed and owned by Swatara, together with any additions, improvements, enlargements and modifications thereto.

(gg) Treatment Plant Upgrade Project - shall mean the capital additions, extensions, alterations, replacements and/or improvements to the Treatment Plant required by DEP or otherwise to comply with the current regulatory requirements imposed upon Swatara by DEP in connection with the implementation of the Strategy or Watershed Implementation Plan referred to in the preambles hereto and improvements and/or renovations to the main pump station and the upgrading of the Treatment Plant's biosolids process.

(hh) Treatment Plant Upgrade Project Cost - shall mean all costs incurred in connection with the Treatment Plant Upgrade Project, excluding any legal, engineering or financing costs attributable to any borrowing by any party to the Agreement.

(ii) Water Year - Shall mean the year-long period starting October 1 and ending September 30, also termed the "Compliance Year" in the Treatment Plant's NPDES permit.

ARTICLE II

STATEMENT OF INTENT

Section 2.01 - Treatment Plant Upgrade Project. The parties hereto understand and agree that in order to meet the requirements of DEP in connection with the implementation of the Strategy, as herein contemplated, or otherwise, Swatara did undertake and complete the Treatment Plant Upgrade Project. The Treatment Plant Upgrade Project was undertaken as hereinafter provided, so that at the completion thereof, there would be available to each party to the Agreement the reserved capacity allocated to it in Section 3.02 of the Agreement. The Treatment Plant and Joint Use Interceptor in Swatara Township, and any future additions, improvements, enlargements and modifications thereto, shall be owned exclusively by Swatara. The parties shall allocate, at the percentages set forth in Exhibit "B" - Upgrading Ratio, which is attached hereto and made a part hereof by this reference, the Average Daily Flow and pertinent peak flow capacities along with organic and nutrient loadings in accordance with the design of the Biological Nutrient Removal facilities at the Treatment Plant as set forth in the Design Engineers' Report submitted with the Water Quality Management Part II Permit Application ultimately resulting in the related permit. Each party hereto shall be liable for and shall pay its *pro rata* share of the Treatment Plant Upgrade Project Cost as set forth in Exhibit "E", which is attached hereto and hereby made a part hereof. This Agreement supersedes and replaces the November 1, 1985 Agreement as amended and/or supplemented by the Addendum to Agreement, as amended and/or supplemented by the Second Addendum to Agreement, as amended and/or supplemented by the Third Addendum to Agreement.

Section 2.02 - Financing. Each party hereto shall have the exclusive control over the manner and means of procuring any necessary financing for such party's share of the costs contemplated in Section 2.01 hereof or future additional upgrades. No party shall be required by

the Agreement to participate with any other party in any joint financing, but such participation may be undertaken by agreement of the affected parties outside of the terms of this Agreement.

Section 2.03 - Grants. Each of the parties to the Agreement hereby acknowledges that Swatara has applied for and received a grant in connection with the Treatment Plant Upgrade Project in the amount of \$1,000,000. These funds have been applied to the Project Cost as shown in Exhibit "E".

ARTICLE III

TERMS OF AGREEMENT

Section 3.01 - Term. This Agreement shall become effective upon its execution and delivery by all of the parties hereto and shall remain in effect until terminated by mutual consent of all of the parties hereto.

Section 3.02 - Reserved Capacity. Subject to payment of charges and subject also to the limitations of this Agreement, Swatara grants unto each party the right, during the term of this Agreement, to discharge sanitary sewage originating anywhere within the service area shown on Exhibit "A" into the Treatment Plant in maximum quantities set forth on Exhibit "B", and into the Joint Use Interceptor as is set forth in Exhibit "C", as may be modified in accordance with 3.04 (4). Exhibits "A" "B" and "C" are attached hereto and made a part hereof.

Section 3.03 - Delivery of Sanitary Sewage. Except as otherwise provided, all sanitary sewage originating in each party's sewer collection system in the service areas shown on Exhibit "A" shall be delivered, at each party's own expense, to Points of Connection for transportation to and treatment at the Treatment Plant; provided, however, that nothing herein shall be construed as requiring any party to deliver hereunder any sanitary sewage originating in its respective sewer collection system which by prior practice has been delivered to another treatment facility. Hummelstown shall have the option to remove a portion of its EDU's and to re-route them to another available treatment facility for the flows from Derry Township as shown on Exhibit "A"

hereto, and the areas of the Borough of Hummelstown that are serviced by the pumping station on the south side of East Main Street or on new extensions to its system, or if it exceeds the capacity reserved to it, or subject to the approval of Swatara.

Section 3.04 - Redistribution of Reserved Capacity.

(1) Any party requiring additional capacity shall have the option, in accordance with the following terms and procedures, to reserve additional capacity in the Treatment Plant or Joint Use Interceptor. In order to obtain further hydraulic or Nutrient capacity ("capacity"), there must be in existence at the time unused treatment or Joint Use Interceptor capacity that has been allocated to another municipality or authority but which such other municipality or authority is not in need of at the time and is willing to surrender.

(2) Swatara agrees that in the event any party to this Agreement consents to a reduction of capacity reserved to it, the capacity surrendered shall be offered to any of the parties to this Agreement in the discretion of the selling municipality, at the price agreed to by the selling party. The selling party must give notice, only to the other parties to this Agreement, of intent to sell part of its capacity to another party even though it need not be offered to all other parties to this Agreement. If the party to whom such excess capacity is offered does not wish to accept such additional capacity, the capacity so offered may be made available to the remaining parties on a pro-rata basis.

(3) Any party surrendering all or any portion of its Reserved Capacity shall be reimbursed in accordance with a mutual agreement reached with the party purchasing such capacity. If no party desires to purchase Reserved Capacity, then the party offering to sell its Reserved Capacity shall continue to be liable for all payments with respect to such reserved capacity.

(4) Where an entity or party acquires an interest in reserved capacity in the Swatara Plant or the Joint Use Interceptor, such entity or party must thereafter pay to Swatara the acquiring

party's proportional share of capital improvement costs, debt service payments and costs incident to ownership, including but not limited to, its share of all expenses, without limitation. Such acquiring party shall be bound by the terms of this Agreement, as it may from time to time be amended. Notwithstanding the above, it is acknowledged that the allocated peak flow capacities in the Treatment Plant exceed those allocated in the Joint Use Interceptor, as presented in Exhibit "C". It is further acknowledged that recent modeling of the Joint Use Interceptor indicates that the carrying capacity of the Joint Use Interceptor is greater than the sum of the allocated capacities in Exhibit "C". It is agreed that further verification of the model will be done using metering data and field measurements satisfactory to Swatara to establish the safe carrying capacity of the JUI without the threat of backups (the discharge of sewage into buildings from the sewage collection/conveyance system via lateral connections due to surcharging) or overflows. Once the safe carrying capacity is determined by agreement of the parties, the safe carrying capacity of the Joint Use Interceptor will be allocated in proportion to the allocations presented in Exhibit "C", and Exhibit "C" revised to show these allocations, which shall not exceed any party's peak instantaneous flows allocation in the Treatment Plant, at which time the Agreement is amended.

ARTICLE IV

CONSTRUCTION SCHEDULE, OPERATIONS AND ENFORCEMENT

Section 4.01 - Treatment Plant. Swatara has used its best efforts to construct the proposed upgrade of its Treatment Plant in accordance with the design plans and specifications prepared by its Consulting Engineers. Construction of the upgrade project was substantially completed as of August 2011.

Section 4.02 - Metering Stations.

(1) In order to determine flows for the purposes of measuring Reserved Capacity and to determine any surcharge for flow in excess of standards herein set forth, the parties hereto agree to the construction of metering chambers for the purpose of measuring the flow of each party

hereto. Attached hereto on Exhibit "A" is the Consulting Engineer's designation of the specific locations of metering stations presently in existence, required to be constructed and installed, or proposed to be constructed and installed by each of the parties hereto at its own expense. Further, if there should be a party to this Agreement that does not intend or cannot discharge sanitary sewage to the Treatment Plant upon the completion of the upgrade, it shall, when it first intends to discharge sanitary sewage, install uniform metering stations and meters at its own expense and under the direction of Swatara's consulting engineers, which direction shall be considered to be mandatory for the engineering, construction and design of all such metering stations set forth on Exhibit "A".

(2) Swatara shall have responsibility for the calibration and inspection of all metering equipment used in connection with the Treatment Plant and Joint Use Interceptor. Swatara shall be responsible for determining the flows attributable to each municipality's Reserved Capacity. It shall be Swatara's responsibility to determine what amount of each municipality's Reserved Capacity has been used by making determinations as set forth in this Article IV. In the event any meters are inoperable, or require scheduled or unscheduled maintenance, it shall be the responsibility of Swatara to replace or to make repairs and to maintain the meters, and the municipality owning the meter shall reimburse Swatara for the expense of making such repairs and maintaining said meters. During the period that meters are inoperable or unreliable, or for properties not on metered lines, Swatara shall make estimates based on observation, portable meters and any other data available. Swatara's conclusions shall be final, subject only to dispute resolution under Paragraph 9.04.

Section 4.03 - Individual Systems. The municipalities and parties agree that they shall continuously operate and maintain their own respective Sewer Collection Systems in the areas governed by Exhibit "A"; each party will insure its Sewer Collection System with a responsible company or companies authorized and qualified to do business under the laws of the

Commonwealth of Pennsylvania against loss or damage by flood (if required by any governmental body), fire, and against such other risks and in such amounts as are usually carried with respect to like property in Pennsylvania. If any loss or damage is incurred by any party regarding its system, the party owning such system will commence and promptly complete the repair, replacement or reconstruction of the damage to the destroyed portion of its sewage collection system, in accordance with plans and specifications prepared by its consulting engineers. Each party shall carry liability insurance to cover claims of third parties in the event of any damage or loss to its sewage collection system.

Section 4.04 - Treatment Plant Insurance. Swatara will insure the Treatment Plant and its Joint Use Interceptor with a responsible company or companies authorized and qualified to do business under the laws of the Commonwealth of Pennsylvania against loss or damage by flood (if required by any governmental body), fire and against such other risks and in such amounts as are usually carried with respect to like property in Pennsylvania, and at a replacement cost value. Proof of such insurance, if demanded by any party hereto, shall be given by Swatara to said party by providing the said party with a current certificate of said insurance. Immediately after any loss or damage to the Treatment Plant or Joint Use Interceptor connected therewith under the control of Swatara, Swatara shall commence and complete the repair, replacement or reconstruction of the damaged or destroyed portion of the Treatment Plant or Joint Use Interceptor, in accordance with plans and specifications prepared by its consulting engineer. In the event that it becomes necessary to make any repair, replacement or reconstruction of the Treatment Plant or Joint Use Interceptor, including parts thereof damaged in any respect, and there are insufficient funds available from insurance proceeds to pay the costs and expenses thereof, or insurance would not cover such damage, then each party hereto shall pay its *pro rata* share of costs of such repair, replacement or reconstruction. Said costs and expenses shall be allocated to the parties *pro rata* as capital costs or expenses, as the case may be.

Section 4.05 - Sanitary Sewage Samples. Samples of Sanitary Sewage and/or flow data and/or data from the metering stations may be obtained and analyzed by any party to this Agreement at reasonable places and at reasonable times in order to insure compliance with the terms of this Agreement. Each party hereto shall have the right to have a representative present when such samples and/or data are obtained, but such right shall not limit any party's right of access to metering stations or other portions of the Sewer Collection System to obtain such samples or data upon the giving of reasonable notice thereof to the party whose system is involved.

Section 4.06 - Flow Records and Enforcement of Reserved Capacity.

(1) For the purposes of determining and calculating the volumes of Sanitary Sewage discharged from each party's Sewer Collection System into the Treatment Plant and Joint Use Interceptor, all metering chambers shall be inspected and calibrated and tested for accuracy in such manner as Swatara may prescribe, at least semi-annually, with oral notice to the party owning the metering device. Each party shall have the right to have an inspection of its meters by an independent technician at any time, at the municipality's own cost and expense, provided oral notice has been given to Swatara. Each party's meter readings must be transmitted to the Treatment Plant, by telephone lines or other methodology approved by Swatara, at the expense of the Owner of the meter. The maintenance, repair or replacement cost shall be borne by the party that owns the meter. The cost of inspection and calibration by Swatara shall be an operating cost of the Treatment Plant.

(2) It shall be Swatara's responsibility to determine what amount of each municipality's reserved capacity has been used by making determinations based on the meters installed in accordance with this Article IV. This determination shall be based upon flows from the permanent meters installed, and when such meters are inoperable, or unreliable, or for properties not on metered lines, Swatara shall make estimates for each municipality, using portable

meters, observation and any other data available. Swatara's conclusions shall be final, subject only to dispute resolution under Paragraph 9.04.

(3) When the amount of a municipality's Reserved Capacity, or portion thereof as identified in 4.06(3)(b), (c), (d) and (e), has been exceeded by any party to this Agreement, as determined by Swatara, the following provisions shall apply:

(a) The party who has exceeded its reserved maximum month capacity, as determined by Swatara, shall be given notice by Swatara after being over capacity for one (1) calendar month.

(b) The party who has exceeded eighty-five percent (85%) of its reserved maximum month capacity as an average, for a period of three (3) consecutive calendar months during any Water Year, as determined by Swatara, shall be given notice by Swatara.

(c) Where the municipality has been over its reserved maximum month capacity for a period of two (2) calendar months in any Water Year or where the municipality has exceeded eighty-five percent (85%) of its reserved maximum month capacity, as an average, for a period of four (4) consecutive calendar months during any Water Year, notice in writing shall be given by Swatara, and no further connections will be allowed, except that individual lots owned by a person who owns only one lot (not part of a new development), on existing streets, and abutting existing collection lines completely constructed at the time of execution of this Agreement, shall be permitted to connect a single family residence.

(d) Where the municipality has been over ninety percent (90%) of its reserved Annual Average Flow (AAF) for any Water Year, as determined by Swatara, notice will be given by Swatara and the committee of engineers referenced in 4.06(f) be convened to review prior years flow data and to determine whether additional restrictions on maximum

month flows other than those cited in this section are necessary to provide reasonable assurance that the municipality's flows do not exceed its AAF Reserved Capacity.

(e) Where a municipality exceeds its Instantaneous Peak Flow for two (2) consecutive hours or more in any twenty-four (24) hour period, it shall pay to Swatara a \$1,000 per day surcharge.

(f) A determination as to whether a municipality has brought its flows under control after being over capacity shall be made by a committee consisting of a representative from the engineers for Swatara, Hummelstown, and Lower Paxton. The determination of the engineers as to whether or not the reserved capacity has been brought under control so that additional permits may be issued shall be based on sound engineering judgment. Their decision shall be binding and conclusive on all parties hereto. If the engineers determine that the program to correct the flows has not been effective, no additional connections shall be permitted.

(g) During dispute resolution or subsequent appeals, no further connections shall be allowed.

(h) Any *force majeure* defense implied or used in this Agreement shall be limited to floods, earthquakes, tornadoes, landslides, explosions and the like, and shall not include periods of excessive precipitation that do not result in flood conditions.

(4) Municipalities shall not issue building and sewer permits in advance, which would permit the construction of substantial additional units which might overload the Treatment Plant.

Section 4.07 - Records and Enforcement of Pollutant Loads.

(1) Should loadings for any pollutant received at the Treatment Plant interfere with plant operations or cause violations of the Treatment Plant's NPDES Permit, investigation of contributions from each municipality will be initiated to determine the source. For purposes of determining and calculating the mass of pollutant discharged from each party's Sewer Collection

System into the Treatment Plant, all meter chambers shall be inspected, calibrated, and tested for accuracy by the Owner thereof per Section 4.06(1). A representative 24-hour composite sample shall be taken by the Owner at each municipality's meter chamber, with the exception of Swatara. Swatara's pollutant mass loading shall be calculated by subtracting the other municipalities' pollutant mass loading from the Treatment Plant influent pollutant volume. The pollutant concentrations shall be analyzed at a Certified Wastewater Lab in conjunction with the Treatment Plant NPDES Permit required samples. Pollutant mass loading shall be calculated using each municipality's annual average flows and average pollutant concentrations based on all samples collected throughout the Water Year.

(2) It shall be Swatara's responsibility to determine what amount of each municipality's pollutant capacity, as stated in Exhibit "B," has been used by performing calculations based on flows per Sections 4.06 (1) and (2) and lab results. Swatara's conclusions shall be final, subject only to dispute resolution under Paragraph 9.04.

(3) Frequency of analysis shall be determined by Swatara.

(4) Costs related to sampling and lab analyses shall be handled as routine O & M expenses.

(5) Where a municipality exceeds its annual allocated capacity for pollutant loads in any Water Year, it shall pay Swatara a surcharge based on the amount of the increased cost of treatment for Swatara. Said surcharge shall be used by Swatara to cover the increased costs of treatment.

(6) Where a municipality is over ninety percent (90%) of its reserved annual Nutrient mass loading, municipality promptly shall give notice to Swatara, perform a study and provide a report to Swatara demonstrating adequate reserved annual Nutrient mass loading exists to meet the projected needs of the municipality. Where adequate reserved Nutrient mass loading cannot be demonstrated, the municipality shall indicate how it will reduce its Nutrient mass loading so that

adequate reserve does exist, or indicate how it will address obtaining or purchasing credits for any needed additional Nutrient mass loading.

ARTICLE V

CHARGES AND PAYMENTS

Section 5.01 - Project Cost Payment. Each party shall pay to Swatara in a single lump sum payment its *pro rata* share of the capital cost for both upgrading and expansion as defined in Sections 2.01 and 2.02 and as set forth on Exhibit “B” and Exhibit “E”. No portion of this payment shall include any legal, engineering, or financing cost attributable to borrowing by any municipality which is a party to this Agreement. Such payments shall be made to Swatara before construction commences and within sixty (60) days after written notice by Swatara of the due date of the payment.

Section 5.02 - Disposition of Payments. Swatara shall deposit all amounts delivered to it by the parties pursuant to Section 5.01 hereof in its financial institution of choice, in a construction fund (the “Fund”). Such Fund monies shall be held, deposited, and invested by the bank on behalf of Swatara, and, to the extent not otherwise insured by the Federal Deposit Insurance Company or other Federal agency, shall be fully collateralized by the depository bank by the pledge of direct obligations of the United States of America or of the Commonwealth of Pennsylvania. Money on deposit in the Fund may be wholly or partially invested by the depository bank only in direct obligations of the United States of America or may be deposited in certificates of deposit, which shall mature, or shall be subject to redemption or withdrawal, not later than the day before such funds are required to meet obligations due and payable in connection with the Treatment Plant Upgrade Project. Any securities and the interest and income received from investments shall be credited, on a *pro rata* basis, to each party's respective subaccount within the Fund.

Section 5.03 - Payments from the Fund. Swatara agrees that payments from the Fund shall be made only upon requisitions, copies of which shall be made available to the parties

hereto, duly executed by the Chairman, Vice-Chairman or other designated representative of Swatara which shall state the following:

- (1) The amount requested.
- (2) The obligation for or on account of which the requisition is made, showing separately the total obligation, the amount already paid, if any, and the balance remaining to be paid.
- (3) The person to whom the payment shall be made and his address.
- (4) That the item for which the requisition is made has not been paid.
- (5) That regarding any final payment of such item, there are no vendors, mechanics, or other liens or secured transactions which are not being discharged by such payment.

Further, all requisitions relating to construction contracts shall contain a certificate of Swatara's Consulting Engineers certifying approval of the requisition and further certifying that the obligation has been properly incurred, is due and unpaid and, if the obligation was incurred for work, materials, supplies or equipment, that such work was actually performed and such supplies, materials and equipment were actually installed or used in connection with the Treatment Plant Upgrade Project. Finally, all requisitions shall be signed by the Swatara Solicitor indicating that in his legal opinion the obligation is owed and required to be paid pursuant to contract.

Section 5.04 - Change Orders. Swatara shall make only necessary changes to the plans and specifications related to the Treatment Plant Upgrade Project as determined or recommended by Swatara's Consulting Engineers, and agrees to notify the parties hereto of all material changes or alterations in the Treatment Plant Upgrade Project where the amount of the change order exceeds Twenty Thousand Dollars (\$20,000), and will not make any change that exceeds the monies available in the Fund as provided in Section 5.06 hereof, without notification to the

parties.

SECTION 5.05 - Completion. Upon completion of construction, Swatara shall deliver to each party a certificate of Swatara's Consulting Engineers. The certificate shall state the fact that the construction is completed, the total Treatment Plant Upgrade Project Cost in reasonably itemized form and the amounts of any applicable insurance proceeds received or about to be received and appropriate adjustments with respect to income, gain or loss from the investment of the Fund, if any. In addition, if any party's share of the total Treatment Plant Upgrade Project Cost is less than the amount deposited as required by Section 5.01, the amount of any reimbursement that shall be due to such party shall be stated by Swatara's Consulting Engineers in such Consulting Engineers' certificate.

Section 5.06 - Deficiency. In the event that the Treatment Plant Upgrade Project Cost exceeds the amount initially paid by the parties hereto, as set forth in Exhibit "E", any deficiency shall be charged to, and paid by, each party hereto on a *pro rata* basis in the same percentage as its original share in the total Treatment Plant Upgrade Project Cost and shall be due within one hundred twenty (120) days of written notice unless any party within thirty (30) days of receipt of a certificate requiring payment, has requested a readjustment or audit and, in such event, payment shall be made by such party within fifteen (15) days after the matter is resolved and if not paid within such time, shall be subject to interest at the rate Swatara must pay for borrowed funds until paid.

Section 5.07 - Treatment Costs and Expenses.

(1) Treatment costs and expenses shall include, but not be limited to, the following items:

- (a) salary and wages of superintendents, foremen, technicians, operators and laborers, including Social Security and other customary fringe benefits;
- (b) costs of chemicals and laboratory supplies;

(c) costs of equipment maintenance, including motor vehicles equipment maintenance, gasoline and oil;

(d) electric power, natural gas, fuel oil, water and other utilities;

(e) cost of ordinary and routine repairs of property, plant, and equipment of the Treatment Plant Facility and Joint Use Interceptor;

(f) costs of replacements and acquisitions of property, plant, and equipment of the Treatment Facility and Joint Use Interceptor;

(g) costs of insurance and inspection;

(h) costs of administration by Swatara for services of its administrative officers, employees and agents including preparation of annual budgets;

(i) legal, engineering and auditing costs and expenses provided, however, that in the event of litigation between the parties hereto, each party shall bear its own legal, engineering and auditing expenses, and such expenses shall not be charged to the Treatment Plant as an operating cost; and

(j) such other costs and expenses which under sound accounting and engineering practice constitute costs and expenses of operation and maintenance which are standard expenses incurred by treatment facilities throughout the United States.

(2) Depreciation shall not be included in calculating the foregoing operating costs and expenses. Depreciation may be shown as a bookkeeping item only.

(3) Allocation of Costs and Expenses. Attached hereto and made a part hereof as Exhibit "D" is a formula for the payment of treatment costs and expenses hereinabove defined.

Section 5.08 - Budget. Swatara Manager and O&M Superintendent shall prepare, subject to the approval of Swatara Authority Board, and furnish to each party hereto by November 1st of each year, a budget for the next calendar year setting forth any debt service requirements, and the total estimated cost of operating and maintaining the Treatment Plant for the said year, and

each party's share of such budget, and each party shall have thirty (30) days to provide comments or input prior to its adoption by Swatara.

Section 5.09 - Billing. Bills shall be submitted quarterly with respect to the total cost of operating and maintaining the Treatment Plant and shall be delivered by Swatara to each party hereto by the first days of January, April, July and October.

Section 5.10 - Payment of Bills. Each bill shall be due and payable at Swatara's office within thirty (30) days of the date of the bill. There shall be added a five percent (5%) penalty based on the amount of the unpaid balance after thirty (30) days of the date of the bill, and interest may be added from the due date at the maximum amount allowed by law.

Section 5.11 - Reconciliation of Audited Funds. The October billing shall incorporate a reconciliation of the prior year's transactions based upon audited financial statements. Each participating municipality's October billing shall be decreased by its prorated share when prior year revenues exceed prior year expenditures. Likewise, the October billing shall be increased by its prorated share when prior year expenditures exceed prior year revenues. In addition, each municipality's October billing shall be adjusted so that the Treatment Plant account maintains a cash reserve set at ten percent (10%) of the current year's annual budget. The cash reserve allows the cash flow burden to be shared among all participating municipalities.

ARTICLE VI

INFILTRATION AND INDUSTRIAL WASTES

Section 6.01 - Infiltration.

(1) Each party hereto agrees that the waters or wastes discharged by any user into its Sewer Collection System shall not contain any excessive preventable storm water, surface water, ground water, roof runoff, subsurface drainage or any discharges other than Sanitary Sewage, as herein defined, that are preventable by sound engineering practices.

(2) The sources of preventable infiltration shall be located and corrected by each party hereto with respect to its Sewer Collection System or sewer system in order that the Treatment Plant is treating only Sanitary Sewage. A list of all known sources of infiltration and inflow and estimated amounts is to be maintained by each party. Proposed remedial action and scheduling is to be determined and reported annually to Swatara, no later than February 1st for the preceding year. Each party will be responsible for vigorous enforcement of its ordinance against those customers who willfully and knowingly are contributing preventable inflow or infiltration.

Section 6.02 - Prohibited Discharges. No Industrial Wastes, chemicals or other discharges having any one of the following characteristics shall be discharged into any Sewer Collection System with or without pretreatment as follows:

- (1) having a temperature higher than 104°F;
- (2) containing more than 100 PPM by weight of fats, oils and grease;
- (3) containing any gasoline, motor oil, benzene, naphtha, fuel oil or other flammable or explosive liquids, solids or gases;
- (4) containing any garbage that has not been ground by household type or other suitable grinders;
- (5) containing any ashes, cinders, sand, mud, straw, shavings, metal, glass, rags, feathers, tar, plastics, rubber, wood, paunch, manure, or any other solids or viscous substances capable of causing obstructions or other interferences with proper operation of the sewer system and Treatment Plant;
- (6) having a pH lower than 6.5 or higher than 9.0, or having any other corrosive property capable of causing damage or hazards to structures, equipment or personnel of the Sewer Collection System;
- (7) containing toxic or poisonous substances in sufficient quantity to injure, interfere or cause pass-through of any sewage treatment process, or constitute hazards to humans or animals,

or to create any hazard in waters which receive treated effluent from the Treatment Plant. Toxic wastes, as referred to herein, shall include, but not be limited to, wastes containing cyanide, chromium, cadmium, mercury, copper and nickel ions;

(8) containing noxious or malodorous gases or substances capable of creating a public nuisance;

(9) containing solids of such character and quantity that special and unusual attention is required for their handling; (This includes rubber solids)

(10) containing any substance which may affect the plant's effluent and cause violation of the NPDES Permit requirements;

(11) containing any substance which would affect the Treatment Plant's Class A Biosolids Certification or cause the plant to be in noncompliance with sludge use, recycling, or disposal criteria pursuant to guidelines or regulations developed under the Clean Water Act of 1977, 33 U.S.C. §1251, The Clean Air Act, or regulations or criteria for sludge management and disposal as required by the Pennsylvania Department of Environmental Protection;

(12) containing color which cannot be removed in the treatment process;

(13) containing any radioactive wastes or isotopes;

(14) containing any pollutant, including BOD and nutrient pollutants, released at a flow rate and/or pollutant concentration which would cause interference or pass-through at the plant;

or

(15) other substances prohibited under regulations of the Environmental Protection Agency, or the Department of Environmental Protection.

Section 6.03 - Industrial Waste Samples. With regard to any compliance required by federal, state or local law, all parties hereto owning Sewer Collection Systems into which Industrial Wastes are discharged, shall cooperate with Swatara in the collection and analysis of samples of Industrial Wastes as frequently as Swatara deems necessary. The analysis of samples obtained

shall be made in accordance with the latest editions of “Standard Methods for the Examination of Water and Wastewater” published by the American Public Health Association, *et al.*

Section 6.04 - Prohibited Connections.

(1) No party hereto may connect to its Sewer Collection System or sewer system any industrial user discharging any Industrial Wastes or the process wastes whose quantity or quality may be deemed to have a deleterious effect on the sewage treatment process or which cannot be processed by the Treatment Plant in the ordinary normal course of operation. Each party shall effect disconnection of prohibited connections.

(2) Each party must see that all its industrial users are controlled in accordance with United States Environmental Protection Agency and all other applicable regulations, and shall adopt and enforce necessary ordinances or resolutions to ensure compliance.

ARTICLE VII

MAINTENANCE AND SAVE HARMLESS AGREEMENT

Section 7.01 - Facilities. Each party agrees in connection with its respective Sewer Collection Systems to continuously operate, keep and maintain the same at all times in good repair and order and good and efficient operating conditions, to meet all standards prescribed by the Pennsylvania Department of Environmental Protection or any other governmental body having jurisdiction.

Section 7.02 - Indemnity. Each of the parties hereto agree to indemnify and save harmless any other party against all losses, costs or damages on account of any injury to persons or property occurring in the performance of this Agreement due to the negligence of any such party, its respective servants, agents or employees, or resulting from the failure of the Treatment Plant, Interceptor, and system leading thereto to function properly from any cause due to such negligence. Each party agrees to defend, indemnify and hold harmless Swatara from any claims, suits, fines, penalties, costs or judgments arising from and attributed to (1) any sewage flows from its collection

system flowing to Swatara's Treatment Plant that are in excess of its Reserved Capacity and any approved Maximum Monthly Flow limitation for the Treatment Plant or that are in excess of its capacity in the Joint Use Interceptor or (2) a violation of the obligations of Article VI of this Agreement. Each party will pay all fines, penalties or judgments properly levied against itself or Swatara, due to hydraulic overloads of the Joint Use Interceptor or Swatara's Treatment Plant when and if such violations are caused by reasons above.

Section 7.03 - Records. Upon receipt of a written request, Swatara agrees to make available at reasonable time to any of the parties hereto, or their authorized agents, employees and representatives, all records pertaining to the costs of construction, operation and maintenance of its Treatment Plant as covered under this Agreement.

Section 7.05 - Access to Collection Systems. Swatara shall have access to each party's Sewer Collection System in order to ensure compliance with the terms and conditions of this Agreement, after oral notice to such municipality.

ARTICLE VIII

COVENANTS

Section 8.01 - Swatara's Covenants. Upon the execution of this Agreement, Swatara covenants that it will do the following:

(1) Maintain the Treatment Plant in good repair and operating condition and continuously operate the same.

(2) After completion of a project covered by this Agreement, treat the reserved capacity of each of the parties hereto subject to the terms and conditions of this Agreement.

(3) To accept contributions covered by Section 5.01 to be made promptly from each party hereto, to invest the same as hereinabove described and to make appropriate distributions as called for hereinabove.

(4) To cause to be delivered to each party such construction reports as are prepared for Swatara by its Consulting Engineers during construction of the project hereinabove described.

Section 8.02 - Covenants of Other Parties. Upon execution of this Agreement, each party hereto other than Swatara covenants as follows:

(1) To construct, if not already in place, a Sewage Collection System at such time as may be needed by the party, and thereafter to maintain such system in good repair and operating condition as its Sewage Collection System and to continuously operate the same.

(2) To collect on behalf of Swatara any costs required by rules, regulations, laws or agreements to be paid by its users for the benefit of Swatara and to promptly enforce collection of such charges against its users.

ARTICLE IX

MISCELLANEOUS PROVISIONS

Section 9.01 - Committee of Joint Users. The parties hereto shall submit to Swatara the name of an authorized representative from each municipality for the purpose of having such a representative serve on a committee of joint users of the Treatment Plant. From time to time, the joint committee shall meet, but not less frequently than annually. At such meetings, the conduct and operations of the Treatment Plant shall be reviewed by the committee. In addition, the Swatara O&M Superintendent shall review planning modules and applications for extensions involving subdivisions, before any user submits said module or application to any governmental authority, for the purpose of making recommendations to the said user regarding submission. In the event that such submission will cause any party to exceed its Reserved Capacity or Nutrient capacity, the O&M Superintendent shall notify the party of that fact and encourage the party to modify the submission or not submit the same in its proposed form. The committee shall have, as its primary purpose, the function of liaison between the Authorities and other parties involved herein. Each municipality shall report above activity to the committee at the annual meeting.

Section 9.02 - Organizational Integrity. Each party hereto covenants that so long as it is necessary to do so, it shall take all steps needed to preserve the legal integrity of its organization including, if necessary, the reapplication under the Municipal Authorities Act of 1945, as amended (53 P.S. §5601, *et seq.*), to extend the life of an authority beyond an initial fifty (50) year period called for herein.

Section 9.03 - Waiver of Rights. The failure of any party hereto to insist upon strict performance of this Agreement or its terms and conditions shall not be construed as a waiver of any of its rights.

Section 9.04 – Dispute Resolution. If any party hereto believes that the terms and conditions of this Agreement are not being properly observed by the other parties hereto, or otherwise raises an issue of contention between the parties related to this Agreement, the resolution of such a dispute shall be according to the procedure set forth herein, it being the intent of the parties to provide a dispute resolution process that is fair, maximizes cooperation between the parties, and minimizes costs and animosity between the parties. Accordingly, the dispute resolution process and application of remedies set forth herein is the sole procedure contemplated by the parties, and failure to seek the remedies so provided using the process described shall be a bar to legal or equitable relief.

(1) Procedure. If any party hereto is in breach of any provision of this Agreement and is unwilling or otherwise unable to correct the breach within a reasonable time, or in the case that the breaching party disputes that it is in breach, or in the case of any other dispute between the parties, then the following procedure shall apply:

(a) Discussion. The parties agree that they will attempt to resolve any breach or dispute by mutual discussion between the Authority members, principal administrative officials, such elected officials as may be appointed to such a role, and, when necessary and appropriate, the parties' engineers, accountants, legal counsel, or other professionals.

Discussions will be held in good faith and with the intent of resolving the dispute efficiently, economically, and fairly.

(b) Mediation. Should the parties be unable to resolve a dispute after proceeding through the step set forth above, they shall submit to mediation upon the written notice of either party to so proceed. The parties shall endeavor to mutually agree upon the identity of the mediator. If they are unable to agree upon a mediator, either party may, after forty-five (45) days have elapsed from the date of the written request for mediation, petition the Court of Common Pleas of Dauphin County to appoint a mediator.

The mediation shall be conducted in accordance with all applicable laws of the Commonwealth. The parties agree to share the mediator's fee equally. The location of the mediation shall be in Dauphin County, Pennsylvania, unless otherwise mutually agreed by the parties. Agreements reached in mediation shall be enforceable as a settlement agreement in any court having jurisdiction.

(c) Legal/Equitable Relief. In the event that the parties are unable to resolve a breach or other dispute after proceeding through the two steps set forth above, they may take such other action as they deem fit and proper, including but not limited to a civil action in the Court of Common Pleas of Dauphin County. The parties agree and covenant that there will be no cause of action to take before the Court or other tribunal until and unless each of the remedies set forth above has been exhausted in good faith.

(2) Remedies. The parties acknowledge that the subject matter of this Agreement is such that legal remedies may not always be appropriate, and hereby covenant that this Agreement may be enforced by means of specific performance or other equitable relief in addition to such legal relief as may be appropriate.

(3) Continuation of Sewer Service and Payments During the Term of Any Dispute. Sewer service being necessary to the health and welfare of all citizens, the parties agree that

Swatara shall continue to provide sewer service for all Hummelstown, Lower Paxton, and South Hanover Sewage flows during the term of any dispute regarding the terms of this Agreement. A party's failure or refusal to accept waste or to make payments as required by this Agreement shall entitle the other party to seek and obtain immediate injunctive relief from the Court of Common Pleas of Dauphin County, Pennsylvania, and neither party shall assert as a defense that the other party has an adequate remedy at law.

Section 9.05 - Entire Agreement. This writing and the Exhibits attached hereto constitutes the entire Agreement between the parties hereto and supersedes all previous agreements between the parties. There are no other representations or agreements, verbal or written, other than those contained herein. This Agreement and the Exhibits attached hereto may not be modified, amended or supplemented except by written agreement of all parties hereto.

Section 9.06 - Severability. Should any one or more of the provisions of this Agreement for any reason be held illegal, invalid or unenforceable, such illegality, invalidity, or unenforceability shall not affect any other provisions of this Agreement and this Agreement shall, under the circumstances, be construed and enforced as if such illegal, invalid or unenforceable provision had not originally been contained herein.

Section 9.07 - Meaning of Phrases. When reference is made herein to "party" or "respective party," or phrases of similar importance, such phrases shall refer to the particular municipality or township or authority as appropriate under the circumstances.

Section 9.08 - Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be properly executed by all of the parties hereto and all of which shall be regarded for all purposes as one original and all of which shall constitute one Agreement, legally binding upon the parties hereto.

Section 9.09 - Addresses. Whenever any notice is required to be given by mail, the

following addresses shall be used unless a different address is specifically later requested.

Lower Paxton Township Authority
or Board of Supervisors
425 Prince Street
Harrisburg, PA 17109

Borough of Hummelstown
136 South Hanover Street
Hummelstown, PA 17036

Swatara Township Authority
599 Eisenhower Boulevard
Harrisburg, PA 17111

South Hanover Township
or Authority
111 West Third Street
Hershey, PA 17033

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by the respective officers and have obtained the joinder in this Agreement by their respective governing bodies, where applicable, all of which has been done and authorized by resolution or ordinance and all of which is accompanied by the respective corporate seals hereunto affixed, the day and year first above written.

ATTEST:

James P. Schreffler

[Signature]

Carl Lewis

Edward M. Manning

[Signature]

[Signature]

SWATARA TOWNSHIP AUTHORITY

BY: [Signature]

LOWER PAXTON TOWNSHIP AUTHORITY

BY: [Signature]

SOUTH HANOVER TOWNSHIP MUNICIPAL AUTHORITY

BY: [Signature]

SOUTH HANOVER TOWNSHIP

BY: [Signature]

LOWER PAXTON TOWNSHIP

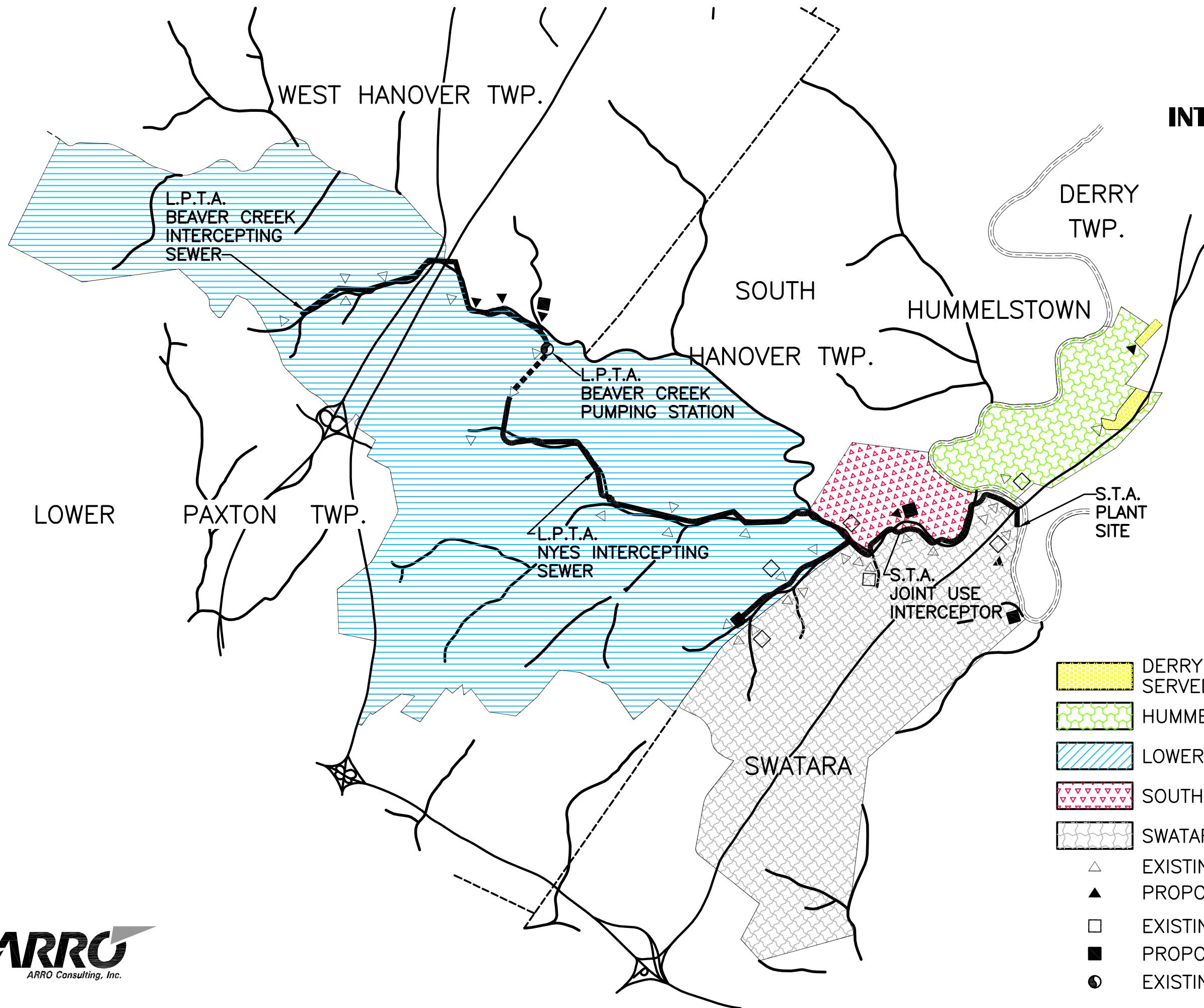
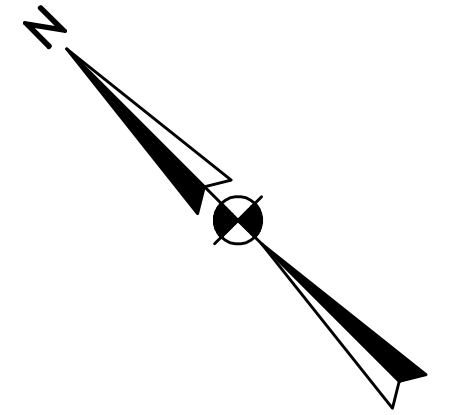
BY: [Signature]

BOROUGH OF HUMMELSTOWN

BY: [Signature]

EXHIBIT A

**Swatara Township Authority
INTER-MUNICIPAL AGREEMENT
SEPTEMBER 2012**



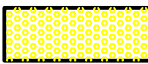
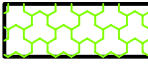








-  DERRY TOWNSHIP MUNICIPAL AUTHORITY SERVED THROUGH HUMMELSTOWN BOROUGH
-  HUMMELSTOWN BOROUGH
-  LOWER PAXTON TOWNSHIP AUTHORITY
-  SOUTH HANOVER TOWNSHIP
-  SWATARA TOWNSHIP AUTHORITY
-  EXISTING POINTS OF CONNECTION
-  PROPOSED POINTS OF CONNECTION
-  EXISTING METERING FACILITIES
-  PROPOSED METERING STATION
-  EXISTING PUMPING STATION

EXHIBIT B

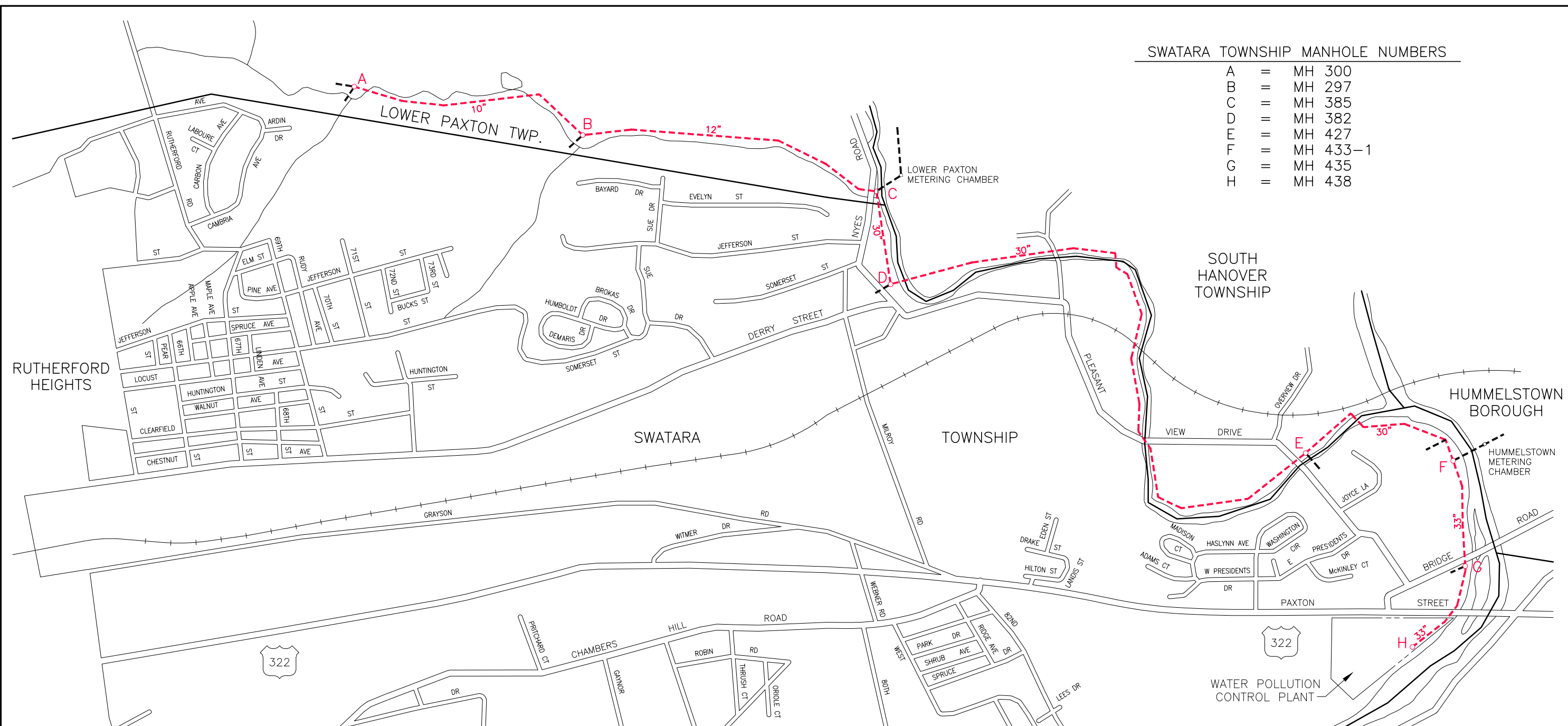
Swatara Township Authority
 Water Pollution Control Plant Upgrade and Modifications – 2010
 Total Plant Flow Capacity – 6.3 MGD (AAF)

	Hummelstown	Lower Paxton	South Hanover	Swatara
Reserve Flow Capacities				
Plant Flow Capacities:				
Annual Average Flow (AAF) – 6.3 MGD	0.615 MGD	3.795 MGD	0.032 MGD	1.858 MGD
Maximum Monthly Average Flow (MMAF) – 8.90 MGD*	0.869 MGD	5.361 MGD	0.045 MGD	2.625 MGD
Peak Daily Flow (PDF) – 14.18 MGD	1.384 MGD	8.542 MGD	0.072 MGD	4.182 MGD
Peak Hourly Flow (PHF) – 15.75 MGD	1.538 MGD	9.487 MGD	0.080 MGD	4.645 MGD
Upgrading Ratio – Percent of Plant Capacity Based on AAF	9.762%	60.238%	0.508%	29.492%
Reserve Organic and Nutrient Capacities				
Total Plant Organic Capacity – 10,508 lbs BOD/day	1,025.79 lbs/day	6,329.81 lbs/day	53.38 lbs/day	3,099.02 lbs/day
Total Nutrient Capacities				
Total Kjeldahl Nitrogen – 2,969 lbs/day	289.83 lbs/day	1,788.47 lbs/day	15.08 lbs/day	875.62 lbs/day
Total Plant Phosphorus – 594 lbs/day	57.99 lbs/day	357.81 lbs/day	3.02 lbs/day	175.18 lbs/day

* 8.90 MGD based on July 23, 2014, WQM Part II Permit approval.

SWATARA TOWNSHIP MANHOLE NUMBERS

- A = MH 300
- B = MH 297
- C = MH 385
- D = MH 382
- E = MH 427
- F = MH 433-1
- G = MH 435
- H = MH 438



ALLOCATED CAPACITIES

SEGMENT	SIZE	CAP. FULL M.G.D.	SWATARA	LOWER PAXTON	HUMMELSTOWN	SOUTH HANOVER
A—B	10"	1.400	0.791	0.609	-----	-----
B—C	12"	2.100	1.218	0.882	-----	-----
C—D	30"	10.700	3.090	7.610	-----	-----
D—E	30"	11.800	3.806	7.930	-----	0.064
E—F	30"	12.000	3.806	8.130	-----	0.064
F—G	33"	12.500	3.806	7.400	1.230	0.064
G—H	33"	12.500	3.806	7.400	1.230	0.064

EXHIBIT C

**Swatara Township Authority
JOINT USE INTERCEPTOR
INTERMUNICIPAL AGREEMENT
2013**



SWATARA TOWNSHIP AUTHORITY
WATER POLLUTION CONTROL PLANT EXPANSION

EXHIBIT D

1. Annual operating costs shall be shared by all municipalities contributing sanitary wastewater to the system on the basis of the number of equivalent dwelling units (EDUs) connected in each municipality.
 - (a) For purposes of determining the municipality's number of EDUs, the municipality's total quarterly billing for sewerage service (exclusive of penalty and interest charges) will be divided by the municipality's quarterly service charge for a single dwelling unit whether a single home, a separate dwelling unit in a home, each apartment unit in an apartment building, or a trailer or mobile home intended for occupancy by a single family.
 - (b) Each municipality or party hereto agrees to establish service charges for all classifications of customers other than a dwelling unit in reasonable proportion to rates for a dwelling unit considering the volumes and characteristics of the wastes received from such customers.
2. Operating costs shall be as defined in Section 5.07.
3. The annual operating costs shall be computed by Swatara in the annual budget. The average annual EDUs for each municipality will be estimated for the coming year as a part of the aforesaid budget.
 - (a) The proportionate share of operating costs for each municipality shall be computed as follows:
$$\frac{[\text{Total Estimated Operating Cost} - (\text{State Subsidy} + \text{Interest Earned on Debt Reserve})]}{\text{Total Estimated EDUs}} \times \text{Municipality's Estimated EDUs}$$
 - (b) The resultant sum divided by four (4) will equal the quarterly payments to be made in advance of each quarter beginning January 1.

- (c) Upon audit of the actual expenses and average EDUs for the year, adjustments will be made per Section 5.11.
4. The quarterly payments determined by 3(b) above entitle each municipality to a monthly average flow of 220 gallons per day per EDU.
- (a) In the event this flow is exceeded in any month, the municipality(ies) whose monthly flow exceeds the 220 gpd/EDU average shall pay to Swatara a surcharge; which surcharge will be developed in the annual budget and will represent the cost of pumping and chemical addition per 1,000 gallons of wastewater.
 - (b) For purposes of determining average monthly flows, the readings from the metering stations described in Section 4.02 of this agreement will be taken from the recorders located at the Water Pollution Control Plant, plus estimated flows from unmetered customers.
 - (c) Flows from customers on lines not metered shall be estimated as the average daily flow from customers on metered lines for each municipality multiplied by the number of EDUs connected to the unmetered lines in each municipality.

EXHIBIT E

1. The parties hereto acknowledge and approve the total low bids received by Swatara on February 11, 2009, in the amount of \$22,916,712.00 plus change orders throughout construction, in the amount of \$1,668,767.62, plus engineering design cost of \$1,491,994.32, plus administrative and legal costs of \$126,300.95, less a grant in the amount of \$1,000,000.00, with a total net Treatment Plant Upgrade Project Cost of \$25,203,774.89.
2. The amount of each participant's capital contribution for the BNR Upgrade Project determined on the basis of bids received on February 11, 2009, is as follows:

<u>Party</u>	<u>Percentage Allocation</u>	<u>Dollar Amount</u>
Swatara	31.079%	\$7,833,081.17
Lower Paxton	58.651%	\$14,782,266.03
Hummelstown	9.762%	\$2,460,392.49
South Hanover	<u>0.508%</u>	<u>\$128,035.20</u>
TOTAL	100.000%	\$25,203,774.89

3. Cost for future capital projects will be distributed based on the percentage of allocated capacity as shown on Exhibit B.

Appendix C
Ordinance 4-1998: Rate Schedule

ORDINANCE NO. 4 1998

AN ORDINANCE OF THE TOWNSHIP OF SOUTH HANOVER, DAUPHIN COUNTY, PENNSYLVANIA, AMENDING ORDINANCE NO. 67-1977 AS PREVIOUSLY AMENDED (CHAPTER XVIII OF THE CODE OF ORDINANCES, TOWNSHIP OF SOUTH HANOVER) PROVIDING FOR AN INCREASE IN THE FLAT RATES FOR SEWER RENTALS FOR DWELLING UNITS, COMMERCIAL ESTABLISHMENTS, INSTITUTIONAL ESTABLISHMENTS AND PROVIDING FOR A DISCOUNT FROM THE ANNUAL FLAT RATE FOR EACH OWNER OF IMPROVED PROPERTY SUBJECT TO THE FLAT RATE CLASSIFICATION WHO SHALL PAY THE TOTAL ANNUAL FLAT RATE SEWER RENTAL ON OR BEFORE JANUARY 25TH OF EACH YEAR.

BE IT ORDAINED AND ENACTED by the Board of Supervisors of the Township of South Hanover and it is hereby ordained and enacted by the authority of the same as follows:

Section 1.

Section 4 of Ordinance 67-1977, as amended, as set forth in Chapter XVIII Section 124 of the Code of Ordinances is hereby amended to provide as follows:

1. Flat rates for Dwelling Units, Commercial Establishments and Institutional Establishments. Sewer rentals or charges for Sanitary Sewage discharged into the Sewer System from any Improved Property constituting a Dwelling Unit, a Commercial Establishment, or an Institutional Establishment, shall be on a flat rate basis for the following classifications at the following rates per month:

<u>Classification</u>	<u>Rate Per Month</u>
(1) Each Dwelling Unit	\$40.00
(2) Commercial Establishments:	
a. Each fire house or municipal building	\$59.97
b. Each church	\$48.14
c. Each retail gasoline station without car washing facilities	\$59.97
d. Each retail gasoline station with car washing facilities	\$119.93
e. Each motel or hotel	\$19.99 per unit

Wherever a restaurant or bar room is conducted in connection with any motel or hotel, a separate sewer rental or charge shall be imposed for such facilities in accordance with the classification set forth under (2)f below:

f. Each restaurant, bar room or other Commercial Establishment which regularly dispenses food or beverages for consumption on the premises.

\$7.93 per month per employee plus \$3.99 per month for each seat regularly intended for customer use, subject to a minimum charge of \$79.93 per month. This sewer rental or charge shall be computed on the basis of the average daily number of employees for the month immediately preceding the date of the bill.

g. All other Commercial Establishments not separately classified under (2)a, (2)b, (2)c, 2(d), (2)e, (2)f, above and not constituting a combination Dwelling Unit and Commercial Establishment as classified in (3) below

\$5.99 per month per employee, and \$59.93 per month for each public restroom, subject to a minimum charge of \$89.84 per month. This sewer rental or charge shall be computed on the basis of the average daily number of employees for the month immediately preceding the date of the bill.

(3) Combination Dwelling Unit and Commercial Establishments located in one structure and owned, occupied and operated by the same Person; provided, however, that this (3) shall not be applicable in those cases where the Commercial Establishment shall constitute a restaurant, bar room or other Commercial Establishment which regularly dispenses food and/or beverages for consumption on the premises.

\$59.97 per month.

(4) Schools:

\$6.10 per month

- a. Each public or private school per pupil, based upon the daily average number of pupils enrolled on days when the school was in session during the immediately preceding full school term. Teachers and employees shall be classified and treated as pupils for purposes of this Ordinance.

2. Metered Rates for Industrial Establishments. Sewer rentals or charges for Sanitary Sewage and Industrial Wastes, not subject to special charge hereunder, which shall be discharged into the Sewer System from any Improved Property constituting an Industrial Establishment shall be based upon volume of water usage, adjusted, if appropriate, as provided in this ordinance, where the volume of water usage shall be metered in connection with the Water System or otherwise.

Sewer rentals or charges for Sanitary Sewage and Industrial Wastes, not subject to a special charge hereunder, which shall be discharged into the Sewer System from any improved Property Constituting an Industrial Establishment may be based upon actual metered volume of discharge, as permitted in this Ordinance.

In either of the foregoing cases, such sewer rentals or charges shall be computed in accordance with the following metered rate schedule; subject, however, to a minimum sewer rental or charge per month, regardless of volume of water usage or of volume of actual metered waste discharged, of \$54.37 per month or \$5.45 per employee, based upon the daily average number of employees for the month immediately preceding the month for which the bill is rendered, whichever is larger:

METERED RATE SCHEDULE

Per Monthly Water Consumption of Metered
Waste Discharge

\$8.88 per 1,000 gallons

3. Non-Metered Rates for Industrial Establishments. Sewer rentals or charges for Sanitary Sewage and Industrial Wastes, not subject to a special charge hereunder, which shall be discharged into the Sewer System from any Improved Property constituting an Industrial Establishment when the volume of water usage shall not be metered as permitted in this Ordinance, shall be computed in accordance with the Metered Rate Schedule provided herein and shall be based upon an estimate by this Township of the water consumption of said Improved Property constituting an Industrial Establishment.

4. Multiple Users. Each Billing Unit located in a Multiple Unit shall be billed as a separate entity and the foregoing sewer rentals or charges, as appropriate, shall be used in computing the sewer rentals or charges applicable to each such Billing Unit as though such Billing Unit was in a separate structure and had a direct and separate connection to the Sewer System; Provided, however, that this paragraph shall not be applicable to a combination Dwelling Unit and Commercial Establishment as specified in Classification (3) above.

5. Charges for Industrial Wastes Having Certain Concentrations. In the event this Township shall consent to accept Industrial Wastes for discharge into the Sewer System from any Industrial Establishment having total Suspended Solids in excess of 300 ppm or B.O.D. in excess of 250 ppm, charges for the total volume of waste shall be determined in accordance with the following formula:

$$\text{Total Charge} = Q + .005 Q (\text{B.O.D. in ppm} - 250) \\ .005 Q (\text{SS in ppm} - 300)$$

For purposes of the above formula:

Q = Metered Quantity Charge

S = Suspended Solids

The strength of Industrial Wastes shall be determined at intervals deemed advisable by this Township or as may be requested by the particular Industrial Establishment. The collection and analysis of waste samples for determination shall be supervised by a qualified testing laboratory approved by this Township. All costs for waste sampling and collection shall be paid by the party who desires that the waste be sampled and analyzed. The Township reserves the right to submit a revised analysis on a quarterly basis. The analysis of all waste samples collected shall be made in accordance with the latest edition of "Standard Methods for the Examination of Water and Wastewater," as published by the American Public Health Association.

6. Changes in Flat Rate Classifications. If the use or classification of any Improved Property shall change during any month, the sewer rental or charge shall be adjusted by this Township, by proration on a daily basis to the nearest calendar month, with a credit or charge, as shall be appropriate under the circumstances, being made on the statement for the next succeeding month.

7. Additional Flat Rate Classifications and Modifications of Flat Rate Classifications. This Township reserves the right from time to time, to establish additional flat rate classifications and to establish monthly rates therefor, and this Township further reserves the right, from time to time, to alter, modify, revise and/or amend flat rate classifications and the monthly rates applicable thereto.

8. Special Agreements. Notwithstanding any provision in this ordinance to the contrary, this Township shall have the right, based upon good reasons and circumstances existing, to enter into special agreements with the Owner of any Improved Property, with respect

to terms and conditions upon which Sanitary Sewage and/or Industrial Wastes may be discharged into the Sewer System and with respect to payments to be made to this Township in connection therewith. In such event, such service and payments with respect thereto shall be governed by the terms and conditions of such special agreement.

Section 2.

Any ordinance or part thereof in conflict with the provisions hereof is hereby repealed except that nothing in this ordinance shall affect any act done or liability incurred, or any suit or prosecution pending or to be instituted under any repealed or superseded ordinance.

Section 3.

This Ordinance shall take effect January 2, 1999.

ORDAINED AND ENACTED, this 22nd day of December 1998.

BOARD OF SUPERVISORS
TOWNSHIP OF SOUTH HANOVER

By: Donald W. Vachon
Chairman

ATTEST:

Edward M. Munnigh
Secretary

SOUTH HANOVER TOWNSHIP SEWER AUTHORITY
RESOLUTION NO.: 1 -2010

TAPPING FEE RESOLUTION

A RESOLUTION OF THE SOUTH HANOVER TOWNSHIP SEWER AUTHORITY CHARGING A TAPPING FEE AGAINST THE OWNER OF EACH PROPERTY WHO CONNECTS SUCH PROPERTY TO THE SEWER SYSTEM OWNED BY THE AUTHORITY AND LEASED TO THE TOWNSHIP OF SOUTH HANOVER, DAUPHIN COUNTY, PENNSYLVANIA FOR USE AND OPERATION UNDER AN AGREEMENT OF LEASE DATED AS OF MAY 1, 1977 BY AND BETWEEN THIS AUTHORITY AND SAID TOWNSHIP, PROVIDING FOR THE MANNER OF PAYMENT OF TAPPING FEES AND AGREEING TO TRANSFER A PORTION OF SUCH TAPPING FEES TO SAID TOWNSHIP.

WHEREAS, this Authority is a Municipality Authority existing under and governed by the Pennsylvania Municipality Authorities Act of 1945, approved May 2, 1945, P.L. 382, as amended and supplemented (the "Authorities Act"); and

WHEREAS, this Authority, pursuant to authority vested in it by law and pursuant to the request and consent of the Township of South Hanover, Dauphin County, Pennsylvania (the "Township"), has constructed and acquired certain sanitary sewer collection and transportation system facilities (the "Sewer System") required for rendering sewage service in and for portions of the Township; and

WHEREAS, the Township has enacted an ordinance requiring all owners of improved property located within the Township which is accessible to and whose principal building is within one hundred fifty (150) feet of any sanitary sewer constituting a part of the Sewer System to connect with the Sewer System; and

WHEREAS, the Municipality Authorities Act was amended by the Act on December 20, 2003, P.L. 308, No. 57, Section 1, 53 P.S. Section 5607, in order to *inter alia*

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prescribe the method for calculating a tapping fee where such fee is authorized by municipal resolution; and

WHEREAS, it is the decision of the Authority that provision for payment of part of the costs of existing facilities and the cost of additional facilities should be made the responsibility of the persons or entities that benefit from the use of existing facilities and contribute to the necessity for such additional facilities the amount of which shall not exceed the costs of the following fee components as more fully set forth herein:

1. The capacity fee for capacity-related general system facilities, including but not limited to treatment, pumping, transmission, trunks, and interceptor mains to provide existing service and future capacity-related facilities to provide future services as restricted herein.
2. The collection part for collection-related facilities such as collection mains required to provide existing services and those that will provide future services.
3. The connection part for connection-related facilities such as lateral and wyes required to provide existing services.
4. Special purpose part for special purpose facilities applicable only to a particular group of customers, serving a particular purpose, or serving a specific area, and such facilities may include those that provide existing services and those that will provide future services.
5. Reimbursement component being an amount necessary to recapture the allocable portions of the facilities in order to reimburse the property owner at whose expense such facilities were constructed.

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NOW, THEREFORE, BE IT RESOLVED by the Board of this Authority, and it is hereby resolved that the Tapping Fee Resolution dated May 23, 1977 as last amended by Resolution No. 1 – 2006 adopted May 18, 2006, is hereby amended in its entirety as follows:

SECTION 1.

Unless the context specifically and clearly indicates otherwise, the meaning of the terms used in this Resolution shall be as follows:

a. "Authority" means South Hanover Township Sewer Authority, Dauphin County, a Pennsylvania municipal authority.

b. "Commercial" means any room, group of rooms, building or enclosure used or intended for use in the operation of one business enterprise for the sale and distribution of any product, commodity, article or service or used or intended for use for any social, amusement, religious, education, charitable or public purpose and containing plumbing facilities for kitchens, toilet or washing facilities. "Commercial" includes institutional dormitories.

c. "Equivalent Dwelling Unit (EDU)" with regard to residential owner, is any room, group of rooms, house trailer, mobile home, enclosure, etc., occupied or intended for occupancy as separate living quarters for a family or other group of persons living together or by persons living alone. An EDU for commercial and industrial shall mean the unit rate of flow of sewage in multiples of 252.9 gallons per day, emanating from a use of structure other than a Dwelling Unit, said amount to be based upon water consumed at said use or structure or upon the actual flow of sewage discharged into the said sewer system.

d. "Industrial" means any room, group of rooms, building or other enclosure used or intended for use, in whole or in part, in the operation of one business enterprise for manufacturing, fabricating, processing, cleaning, laundering or assembling from which any waste, as distinct from sanitary sewage, shall be discharged.

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e. "Owner" means any individual, partnership, company, association, society, trust, corporation or other group or entity.

f. "Person" means any individual, partnership, company, association, society, trust, corporation or other group or entity.

g. "Township" means the Township of South Hanover, Dauphin County, Pennsylvania, a municipality.

SECTION 2.

No person shall connect any improved property to any part of the Sewer System without first making application for and securing a permit, in writing, from the Township, as provided for by ordinance of the Township. Such application shall be made on a form provided by the Township.

SECTION 3.

There is hereby fixed and imposed a tapping fee upon the owner of each residential, industrial or commercial property (other than such owner who is subject to contractual or special agreements providing for payment of certain sums in lieu of a tapping fee) making any connection to the Sewer System in the Township, regardless of whether such connection is direct or indirect, including changing the type of use of property previously connected or connecting one or more new uses of the types hereinafter referred to through an existing connection, and regardless of whether such property is connected separately or through one or more existing or new lateral or sewer connection or such collection line is owned by the Authority or owned by any owner other than the Authority. Such fee is based upon the fee schedule duly adopted herewith. The fee shall be in addition to any charges assessed against the owner in the construction of a sewer main, as well as any other user charge imposed.

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SECTION 4.

With respect to the Capacity Part of the Sewer System, the tapping fee is hereby fixed at the sum of \$2,200.23 per EDU. Said sum being equal to \$1,659.02 per EDU (252.9 gpd per EDU times \$6.56 per gpd, Derry Township current fee for treatment capacity) which shall be forwarded to the Derry Township Municipal Authority to offset costs for treatment facilities plus \$541.21 per EDU which shall be retained by the Authority to offset set cost for pumping, transmissions and other capacity-related facilities. A detailed itemization of all calculations, showing the maximum fee allowable for the capacity part of the tapping fee and the manner in which the fee was determined, is attached hereto as Schedule "A" and is made a part of this resolution.

SECTION 5.

With respect to the Collection Part of the Sewer System, a tapping fee is hereby fixed at the sum of \$339.15 per EDU. A detailed itemization of all calculations showing the maximum fee and the manner in which the fee was determined is attached hereto as a part of Schedule "B" and is made a part of this resolution.

SECTION 6.

With respect to the Connection Part of the Sewer System, a tapping fee is hereby fixed at the sum of \$2,300.81 per EDU. A detailed itemization of all calculations showing the maximum fee and the manner in which the fee was determined is attached hereto as a part of Schedule "C" and is made a part of this resolution.

SECTION 7.

In accordance with the Development Agreement, dated September 12, 2000 between Meadows of Hanover, Inc. and the Township, said agreement being referred to and incorporated herein by reference; a Reimbursement Component of the tapping fee is hereby fixed and imposed upon the owner of each property making any connection from a newly constructed residential, commercial, or industrial structure to the sewer system tributary to the Pheasant Run Pumping

Station in the amount of \$778.93 per EDU. Said fee will be applicable for a period of ten (10) years from the effective date of *this Resolution*. Said fee will be allocated with ninety-five percent (95%) being remitted to the Meadows of Hanover, Inc. and five percent (5%) retained by the Authority or its agent for administrative services. A detailed itemization of all calculations showing the maximum fee and the manner in which the fee was determined is attached hereto as a part of Schedule "D" and is made a part of this resolution.

SECTION 8.

Each EDU shall be charged separately even though two (2) or more domestic units are or will be connected to either new or old collection lines through a single connection (a wye or a manhole). For nonresidential owners (commercial or industrial) the number of EDU's to be assigned to each owner shall be determined from the nature of the establishment and estimated and actual loads which may be or are discharged into said collection lines. Whenever actual loads exceed estimates, an additional tapping fee shall be charged.

SECTION 9.

Where any improved property connected to said collection line shall be converted, enlarged or remodeled or additional buildings shall be constructed on a property and connected indirectly to said collection line through an existing lateral, so as to create or establish additional uses as classified in Section 3 hereof and additional tapping fee determined in accordance with Section 8 hereof for each such additional use shall be payable to the Authority by the owner of said property.

SECTION 10.

The tapping fee imposed hereunder shall be in addition to:

- A. Any inspection charge or administrative fee imposed by the Authority or the Township;

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- B. Any customer facilities fee imposed by the Authority or the Township; and
- C. Any rental or other charges fixed, charged or imposed by the Authority or Township by reason of the use, or availability of use, of the sewer system, by such property.

SECTION 11.

The tapping fee shall be due and payable at the time application is made to the Township to make any such connection to the Sewer System, as provided in Section 2, or upon the date when the Township shall connect any such improved property to the Sewer System, at the cost and expense of the owner, when such owner shall have failed to make such connection as required by the Township pursuant to the provisions of the ordinance then in effect requiring such connection.

SECTION 12.

All tapping fees shall be payable to the Treasurer of this Authority or to such other officer or representative of this Authority as shall be authorized, from time to time, by resolution of this Authority, to accept payment thereof.

SECTION 13.

This Authority covenants and agrees to transfer and to pay over to the Township, within thirty (30) days of the date of collection, tapping fees charged and collected by this Authority under this resolution, to the extent provided in the Agreement of Lease between the Authority and the Township. Said money received by the Township shall be deposited by the Township into the Sewer Revenue Account in accordance with the Lease.

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SECTION 14.

Payment of tapping fees charged by this Authority pursuant to this resolution shall be enforced by this Authority in any manner appropriate under laws at the time in effect.

SECTION 15.

The Authority reserves the right, from time to time, to adopt modifications of, supplements to, or amendments of this resolution, and to revise and substitute, from time to time, Schedule "A", "B", "C", or "D", which shall be available for public inspection, to reflect appropriate amendments to the cost components, design capacity, or other elements of the required calculations of the tapping fee.

SECTION 16.

This resolution shall become effective immediately.

SECTION 17.

In the event any provision, section, sentence, clause or part of this resolution shall be held to be invalid, such invalidity shall not affect or impair any remaining provision, section, sentence or clause or part of this resolution, it being the intent of this Authority that such remainder shall be and shall remain in full force and effect.

SECTION 18.

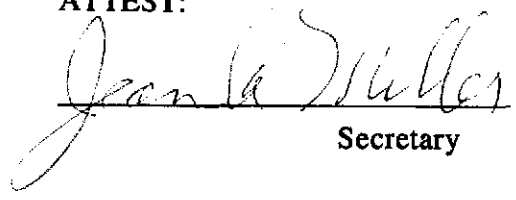
All resolutions or parts of resolutions inconsistent herewith expressly are repealed.

DULY ADOPTED, this 26th day of January, 2010, by the Board of the South Hanover Township Sewer Authority, in lawful session duly assembled.

SOUTH HANOVER TOWNSHIP
SEWER AUTHORITY

By: 
Chairman

ATTEST:


Secretary

**SCHEDULE A
SOUTH HANOVER SEWER AUTHORITY
CALCULATION OF TAPPING FEE - CAPACITY PART**

	Cost
1. <u>Cost of Conveyance portion of Capacity Part Facilities (See Exhibit I)</u>	
Trended Facilities Cost	\$ 3,854,494
2. <u>Grants Received (See Exhibit II)</u>	\$ 2,182,886
3. <u>Net Cost of Conveyance portion of Capacity Part Facilities</u>	\$ 1,671,608
4. <u>Outstanding Debt (See Exhibit III)</u>	\$ 237,469
5. <u>Conveyance Facilities Design Capacity</u>	
(set equal to Swatara Creek Pumping Station permitted capacity) ⁽¹⁾	670,000 gpd

6. Conveyance Portion of Capacity Part Facilities Present Value Unit Cost Calculation

<u>Net Cost of Capacity Facilities - Outstanding Debt</u>	=	Cost per Unit of						
Design Capacity (gpd)		Design Capacity						
<table style="margin: auto; border-collapse: collapse;"> <tr> <td style="text-align: right;">\$ 1,671,608</td> <td style="text-align: center;">-</td> <td style="text-align: left;">\$ 237,469</td> </tr> <tr> <td colspan="3" style="border-top: 1px solid black; text-align: center;">670,000 gpd</td> </tr> </table>	\$ 1,671,608	-	\$ 237,469	670,000 gpd			=	\$ 2.14 /gpd
\$ 1,671,608	-	\$ 237,469						
670,000 gpd								

GPD Per Residential Connection	x	Cost per Unit of Design Capacity	=	Conveyance Part of Tapping Fee
252.9 gpd/EDU ⁽²⁾	x	\$ 2.14 /gpd	=	\$ 541.21 /EDU

7. Treatment Portion of Capacity Part Facilities Present Value Unit Cost Calculation

GPD Per Residential Connection	x	Cost per Unit of Design Capacity	=	Treatment Part of Tapping Fee
252.9 gpd/EDU ⁽²⁾	x	\$ 6.56 /gpd ⁽³⁾	=	\$ 1,659.02 /EDU

8. Capacity Facilities Present Value Unit Cost Calculation

	Conveyance Part of Tapping Fee	x	Treatment Part of Tapping Fee	=	Capacity Part of Tapping Fee
\$	541.21 /EDU	x	\$ 1,659.02 /EDU	=	\$ 2,200.23 /EDU

(1) From NPDES Permit

(2) Based on 90 gpd/person times the 2000 US Census value for South Hanover of 2.81 persons per household.

(3) Current charge for treatment capacity in the Derry Township Municipal Authority WWTP.

Subject to change in accordance with Derry Township Municipal Authority current rate schedule.

11/4/2009

**SCHEDULE B
SOUTH HANOVER SEWER AUTHORITY
CALCULATION OF TAPPING FEE - COLLECTION PART**

	<u>Cost</u>
1. <u>Cost of Collection Part Facilities (See Exhibit I)</u>	
Adjusted Facilities Cost	\$ 1,688,878
2. <u>Grants Received (See Exhibit II)</u>	\$ 916,985
3. <u>Net Cost of Collection Part Facilities</u>	\$ 771,893
4. <u>Outstanding Debt (See Exhibit III)</u>	\$ 104,049
5. <u>Collection Part Facilities Design Capacity</u>	498,000 gpd
(set equal to the Design Capacity of 8" diameter pipe at minimum slope)	

6. Collection Part Facilities Present Value Unit Cost Calculation

<u>Net Cost of Collection Facilities - Outstanding Debt</u>		=	Cost per Unit of
Design Capacity (gpd)			Design Capacity
\$ 771,893	-		\$ 104,049
	498,000	=	\$ 1.34 /gpd
	gpd		
GPD Per Residential	x		=
Connection		Cost per Unit of	Collection Part of
		Design Capacity	Tapping Fee
252.9 gpd/EDU ⁽¹⁾	x	\$ 1.34 /gpd	= \$ 339.15 /EDU

(1) Based on 90 gpd/person times the 2000 US Census value for South Hanover of 2.81 persons per household.

**SCHEDULE C
SOUTH HANOVER SEWER AUTHORITY
CALCULATION OF CONNECTION FEE**

	Cost
1. <u>Cost of Connection Fee Facilities (See Exhibit I)</u>	
Trended Facilities Cost	\$ 642,076
2. <u>Grants Received (See Exhibit II)</u>	\$ 278,104
3. <u>Net Cost of Connection Facilities</u>	\$ 363,972
4. <u>Outstanding Debt (See Exhibit III)</u>	\$ 39,557
5. <u>Connection Facilities Design Capacity</u> (set equal to number of connections)	141 connections

6. Connection Facilities Present Value Unit Cost Calculation

<u>Net Cost of Connection Facilities - Outstanding Debt</u>	=	Cost per Unit of
Design Capacity (gpd)		Design Capacity
\$ 363,972 - \$ 39,557	=	\$ 2,300.81 /connection
141 connections		

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**SCHEDULE D
SOUTH HANOVER SEWER AUTHORITY
CALCULATION OF TAPPING FEE - REIMBURSEMENT COMPONENT**

	Cost
1. <u>Cost of Reimbursement Part Facilities (See Exhibit IV)</u>	
Facilities Cost	\$ 714,087
2. <u>Grants Received</u>	\$ -
3. <u>Net Cost of Reimbursement Facilities</u>	\$ 714,087
4. <u>Outstanding Debt</u>	N/A
5. <u>Reimbursement Facilities Design Capacity</u> (set equal to Pheasant Run Pumping Station permitted capacity) ⁽¹⁾	232,000 gpd

6. Reimbursement Facilities Present Value Unit Cost Calculation

<u>Net Cost of Reimbursement Facilities - Outstanding Debt</u>	= Cost per Unit of								
Design Capacity (gpd)	Design Capacity								
<table style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <tr> <td style="text-align: right; padding-right: 10px;">\$ 714,087</td> <td style="text-align: center; padding: 0 10px;">-</td> <td style="text-align: right; padding-right: 10px;">\$ -</td> <td style="border-bottom: 1px solid black; width: 20px;"></td> </tr> <tr> <td></td> <td style="text-align: center;">232,000</td> <td style="text-align: right;">gpd</td> <td></td> </tr> </table>	\$ 714,087	-	\$ -			232,000	gpd		= \$ 3.08 /gpd
\$ 714,087	-	\$ -							
	232,000	gpd							

GPD Per Residential Connection	x	Cost per Unit of Design Capacity	= Reimbursement Part of Tapping Fee
252.9 gpd/EDU ⁽²⁾	x	\$ 3.08 /gpd	= \$ 778.93 /EDU

(1) From NPDES Permit

(2) Based on 90 gpd/person times the 2000 US Census value for South Hanover Twp of 2.81 persons per household.

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EXHIBIT I
SOUTH HANOVER SEWER AUTHORITY
SEWER FACILITY COST SUMMARY
 (Indexed to August 2009 Dollars)

Facility	Total Costs	Capacity Costs	Collection Costs	Connection Costs
Union Deposit Project (1976) ⁽¹⁾	\$ 5,482,367	\$ 3,542,769	\$ 1,488,243	\$ 451,356
Greenbriar Project (1980) ⁽²⁾	\$ 618,444	\$ 287,392	\$ 200,635	\$ 190,720
Emergency Bypass Piping (1999) ⁽³⁾	\$ 14,626	\$ 14,626	\$ -	\$ -
SCADA 3000 Addition (2003) ⁽³⁾	\$ 9,707	\$ 9,707	\$ -	\$ -
TOTAL	\$ 6,125,144	\$ 3,854,494	\$ 1,688,878	\$ 642,076

Notes:

(1) From Table 1.

(2) From Table 2.

(3) From May 2006 Tapping Fee Calculation prepared by Benatec Assoc. Adjusted with current ENR Index

**EXHIBIT II
SOUTH HANOVER SEWER AUTHORITY
GRANTS RECEIVED FOR SEWER FACILITIES**

Grant	Date Received	Total Amount Constr. Year	Attributable to		Attributable to	
			Capacity Facilities	Collection Facilities	Collection Facilities	Connection Facilities
EPA Grant ⁽¹⁾	1976	\$ 897,070	\$ 579,697	\$ 243,519	\$ 73,855	
CFA Grant ⁽¹⁾	1976	\$ 50,000	\$ 32,311	\$ 13,573	\$ 4,116	
TOTAL GRANT RECEIVED		\$ 947,070	\$ 612,007	\$ 257,092	\$ 77,971	
	1976 ENR INDEX	2401				
	August-2009 ENR INDEX	8563.8				
Indexed Grant Amount		\$ 3,377,975	\$ 2,182,886	\$ 916,985	\$ 278,104	

Note:

(1) Grants identified from May 1977 Sewer Revenue Bond.

**EXHIBIT III
SOUTH HANOVER SEWER AUTHORITY
OUTSTANDING DEBT**

Financing	Total Remaining Principle ⁽¹⁾	Attributable to		Attributable to Connection Facilities ⁽²⁾
		Capacity Facilities ⁽²⁾	Collection Facilities ⁽²⁾	
Guaranteed Sewer Revenue Note, Series of 1999	\$ 377,360	\$ 237,469	\$ 104,049	\$ 39,557

Note:

- (1) From July 17, 2009 Balance Statement
- (2) Based on ratio of Total Facilities Costs From Exhibit I

**EXHIBIT IV
SOUTH HANOVER SEWER AUTHORITY
REIMBURSEMENT COMPONENT
MEADOWS OF HANOVER SEWER FACILITY COST SUMMARY**

Item	Total Costs ⁽¹⁾	Eligible Reimbursement Component Costs
B&R Electrical Contractors (Swatara Creek PS) ⁽²⁾	\$ 545	\$ 189
Horst Excavating (Pheasant Run PS)	\$ 28,430	\$ 28,430
Horst Excavating (Pheasant Run PS Force Main)	\$ 182,062	\$ 182,062
Horst Excavating (Large Diameter Sanitary Sewer)	\$ 42,526	\$ 42,526
Dutchland Incorporated (Pheasant Run PS)	\$ 358,393	\$ 358,393
Johnston Construction Company (Swatara Creek PS) ⁽²⁾	\$ 220,892	\$ 76,488
S.R. 39 Pipe Bursting Project ⁽³⁾	\$ 210,043	\$ 26,000
TOTAL	\$ 1,042,891	\$ 714,087

Notes:

- (1) From data provided by Herbert, Rowland & Grubic, Inc.
- (2) Equals total costs times ratio of Pheasant Run PS capacity to Swatara Creek PS capacity.
- (3) Equal to Meadows of Hanover's portion of project cost in accordance with 12/23/02 Agreement

TABLE 2
SOUTH HANOVER SEWER AUTHORITY
Greenbriar Phase I Sewer Project
 (Bid Date: 1980)

Item	Original Costs ⁽¹⁾	Capacity Part Costs ⁽²⁾	Collection Part Costs ⁽³⁾	Connection Part Costs ⁽⁴⁾
General Contract Sanitary Sewers and Appurtenances	\$ 166,510.36	\$ 77,377.61	\$ 54,019.04	\$ 51,349.71
Engineering Costs ⁽⁵⁾	\$ 36,967.95	\$ 17,179.06	\$ 11,993.09	\$ 11,400.45
Financial, Administrative, and Legal Costs ⁽⁵⁾	\$ 30,285.17	\$ 14,073.56	\$ 9,825.07	\$ 9,339.57
TOTAL PROJECT COST	\$ 233,763.48	\$ 108,630.23	\$ 75,837.19	\$ 72,089.73
1980 ENR INDEX	3237			
August-2009 ENR INDEX	8563.8			
Indexed Project Costs	\$ 618,444.14	\$ 287,391.90	\$ 200,634.71	\$ 190,720.42

Notes:

- (1) Costs from Project Requisition Dated May 21, 1981 prepared by Gerrit J. Betz Associates, Inc.
- (2) Construction cost break down from Final Estimates for M&M Paving & Excavation plus miscellaneous subcontractor invoices presented on Project requisition list.
- (3) Costs for interceptors, pumping station, and force main.
- (4) Costs for collection sewers
- (5) Costs for Y's and lateral connections
- (5) Component Costs based on ratio of construction costs.

**South Hanover Township
1976 Sewer Project
Contract 1 Break Down**

Capacity Facilities

	<u>Quantity</u>	<u>Cost</u>
<u>Gravity</u>		
12" Sewer Lines	5,671 ft	\$ 123,887.50
12 " Highway Crossing	40 ft	\$ 16,000.00
Subtotal	5,711 ft	\$ 139,887.50
<u>Force Main</u>		
10 " Force Main	1,400 ft	\$ 19,600.00
10 " Force Main Creek Crossing	280 ft	\$ 19,600.00
A.R.V. & Manhole	3 each	\$ 4,500.00
Force Main Air Testing	10 each	\$ 500.00
Subtotal	1,680 ft	\$ 44,200.00
	(Pipe Length Only)	
Subtotal	7,391 ft	\$ 184,087.50
	(Pipe Length Only)	

Collection Facilities

8" Sewer Lines 9,620 ft \$ 163,365.00

Connection Facilities

6" Horizontal House Connection 3,300 ft \$ 49,500.00

Y-Branches 74 each \$ 5,850.00

Subtotal \$ 55,350.00

Manholes

Total V.F. 815 ft \$ 44,050.00

Frame and Cover 74 each \$ 10,150.00

Subtotal \$ 54,200.00

Attributable to Capacity = $5,711 / (5,711 + 9,620) \times \$54,200 =$ \$ 23,549.00

Attributable to Collection = $9,620 / (5,711 + 9,620) \times \$54,200 =$ \$ 30,651.00

Backfill & Restoration

Total Cost \$ 185,400.00

Attributable to Capacity = $7,391 / (7,391 + 9,620 + 3,300) \times \$54,200 =$ \$ 67,465.00

Attributable to Collection = $9,620 / (7,391 + 9,620 + 3,300) \times \$54,200 =$ \$ 87,812.00

Attributable to Connection = $3,300 / (7,391 + 9,620 + 3,300) \times \$54,200 =$ \$ 30,123.00

Contract 1: Act 57 Summary

Attributable to Capacity = \$ 275,101.50

Attributable to Collection = \$ 281,828.00

Attributable to Connection = \$ 85,473.00

South Hanover Township
 1980 Sewer Project (Greenbriar Phase 1)
 Contract 1 Break Down

Item	Description	Final Quantity	Unit Price	Total Cost	Capacity	Tap Fee Component Collection	Connection
1	8" Sewer	3578.5	\$ 13.65	\$ 48,846.53	\$	\$ 20,611.50	\$ 28,235.03
	1510 feet downstream of PS						
2	6" Lateral	2750	\$ 12.67	\$ 34,842.50	\$	\$ -	\$ 34,842.50
3	2.5" PVC Force Main	213	\$ 10.50	\$ 2,236.50	\$	\$ 2,236.50	\$ -
4	Wyes	58	\$ 50.00	\$ 2,900.00	\$	\$ -	\$ 2,900.00
5	8"X6" Saddles	9	\$ 60.00	\$ 540.00	\$	\$ -	\$ 540.00
6	Precast Manhole	18	\$ 800.00	\$ 14,400.00	\$	\$ 6,076.29	\$ 8,323.71
7	Manhole F&C Standard	16	\$ 150.00	\$ 2,400.00	\$	\$ 1,012.71	\$ 1,387.29
8	Manhole F&C Watertight	2	\$ 200.00	\$ 400.00	\$	\$ 168.79	\$ 231.21
9	Precast Catch Basin	6	\$ 600.00	\$ 3,600.00	\$	\$ 3,600.00	\$ -
10	18" Storm Sewer	972	\$ 13.00	\$ 12,636.00	\$	\$ 12,636.00	\$ -
11	Tie to Ex/Manholes	4	\$ 300.00	\$ 1,200.00	\$	\$ 1,200.00	\$ -
12	Sewage Pump Station	1	\$ 11,000.00	\$ 11,000.00	\$	\$ 11,000.00	\$ -
13	Refurb Ex. Sewer	1	\$ 2,000.00	\$ 2,000.00	\$	\$ 2,000.00	\$ -
14	Resurface	11453.5	\$ 3.00	\$ 34,360.50	\$	\$ 10,474.28	\$ 14,348.38
CO 1	Elevation Change	1	\$ 1,292.00	\$ 1,292.00	\$	\$ 1,292.00	\$ -
CO 2	Extra Depth	1	\$ 1,384.00	\$ 1,384.00	\$	\$ 1,384.00	\$ -
CO 3	Paving Misc.	1	\$ 3,576.35	\$ 3,576.35	\$	\$ 1,090.20	\$ 1,493.42
	TOTAL			\$ 74,782.27	\$	\$ 54,019.04	\$ 48,813.07

110025

SOUTH HANOVER SEWER AUTHORITY
RESOLUTION NO.: 1 - 2014

A RESOLUTION OF THE SOUTH HANOVER TOWNSHIP SEWER AUTHORITY AMENDING RESOLUTION NO. 1-2010, THE SOUTH HANOVER SEWER AUTHORITY TAPPING FEE RESOLUTION PROVIDING A REIMBURSEMENT COMPONENT OF THE TAPPING FEE TO BE IMPOSED UPON THE OWNER OF EACH PROPERTY MAKING ANY CONNECTION FROM A NEWLY CONSTRUCTED RESIDENTIAL, COMMERCIAL, OR INDUSTRIAL STRUCTURE TO THE SEWER SYSTEM TRIBUTARY TO THE KELLOCK RUN PUMPING STATION.

WHEREAS, this Authority is a municipal authority existing under and governed by the Pennsylvania Municipality Authorities Act of 1945, approved May 2, 1945, P.L. 382, as amended and supplemented (the "Authorities Act"); and

WHEREAS, the South Hanover Township Sewer Authority pursuant to the authority granted to it under the Authorities Act adopted Resolution No. 1-2010 wherein it fixed and imposed a tapping fee upon the owner of each residential, commercial, or industrial property; and

WHEREAS, pursuant to certain agreements between the Authority and Ridgewood Holdings, LLC and Aikon L.P. Ridgewood Holdings, LLC constructed a new waste water pumping station at the site of the existing Kellock Run Pumping Station; and

WHEREAS, Ridgewood Holdings, LLC has dedicated the newly constructed Kellock Run Pumping Station to the Authority and the Authority has accepted the dedication of the pumping station.

NOW THEREFORE, BE IT RESOLVED by the Board of this Authority, and it is hereby resolved that the tapping fee resolution dated January 26, 2010 and identified as Resolution No. 1-2010 is hereby amended by adding a new Section 7.A as follows:

Section 7.A In accordance with the Agreement dated November 11, 2014 between Ridgewood Holdings, LLC, Aikon L.P. Joseph P. Clark, II, the South Hanover Township Sewer Authority and the Township of South Hanover, said Agreement being referred to and incorporated herein by reference, a reimbursement component of the tapping fee is hereby fixed and imposed upon the owner of each property making any

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connection from a newly constructed residential, commercial, or industrial structure to the sewer system tributary to the Kellock Run Pumping Station in the amount of \$2,339.39 per EDU. Said fee will be applicable for a period of ten (10) years from the effective date of this Resolution. Said fee will be allocated with ninety-five (95%) percent being remitted to Aikon L.P. and five (5%) percent retained by the Authority or its agent for administrative services. A detailed itemization of all calculations showing the maximum fee and the manner in which the fee was determined is attached hereto as Schedule D-1.

Section 2 Except as amended and supplemented by this Resolution, Resolution No. 1-2010 of the Authority is hereby ratified and confirmed and shall continue in full force and effect.


Section 3 This Resolution shall become effective immediately.

Section 4 In the event any provision, section, sentence, clause or part of this Resolution shall be held to be invalid, such invalidity shall not affect or impair any remaining provision, section, sentence, clause or part of this Resolution, it being the intent of this Authority that such remainder shall be and shall remain in full force and effect.

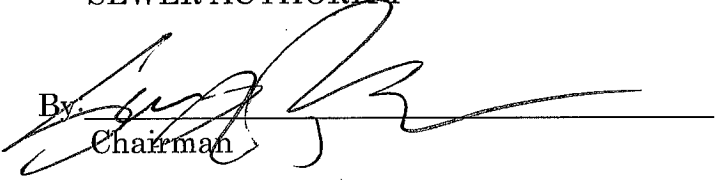
DULY ADOPTED, this 25th day of November, 2014 by the Board of the South Hanover Township Sewer Authority, in lawful session duly assembled.

ATTEST:

SOUTH HANOVER TOWNSHIP
SEWER AUTHORITY



 Secretary

By: 

 Chairman

SCHEDULE D-1
 SOUTH HANOVER SEWER AUTHORITY
 CALCULATION OF TAPPING FEE - REIMBURSEMENT COMPONENT
 FOR KELLOCK RUN PUMPING STATION IMPROVEMENT

110025

		<u>Cost</u>														
1.	<u>Cost of Reimbursement Part Facilities (See Exhibit V)</u>															
	Facilities Cost	\$297,103														
2.	<u>Grants Received</u>	<u>\$ 0</u>														
3.	<u>Net Cost of Reimbursement Facilities</u>	\$297,103														
4.	<u>Outstanding Debt</u>	N/A														
5.	<u>Reimbursement Facilities Design Capacity</u> (set equal to increase in unreserved capacity as a result of the upgrade and reconstruction of the Kellock Run Pumping Station)	127 edu														
6.	<u>Reimbursement Facilities Present Value Unit Cost Calculation</u>															
	<u>Net Cost of Reimbursement Facilities - Outstanding Debt</u> = Cost per Unit of Design Capacity															
	Design Capacity (edu)	Capacity														
	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: right;">\$297,103</td> <td style="text-align: center;">-</td> <td style="text-align: right;">\$</td> <td style="text-align: center;">-</td> <td style="border-top: 1px solid black;"></td> <td style="text-align: right;">=</td> <td style="text-align: right;">\$2,339.39/edu</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">127 edu</td> <td></td> <td></td> </tr> </table>	\$297,103	-	\$	-		=	\$2,339.39/edu					127 edu			
\$297,103	-	\$	-		=	\$2,339.39/edu										
				127 edu												
	EDU Per Residential Connection	x	Cost per Unit of Design Capacity	=	Reimbursement Part of Tapping Fee											
	1	x	\$ 2,339.39	=	\$ 2,339.39 edu											

EXHIBIT V

**SOUTH HANOVER SEWER AUTHORITY
REIMBURSEMENT COMPONENT -
KELLOCK RUN PUMPING STATION**

ITEM	TOTAL COST	ELIGIBLE REIMBURSEMENT
1. CONTRACT		
1. General Conditions & Submittal	204,528.00	
2. E&S and Site Prep	8,401.00	
3. Site Excavation	60,346.00	
4. Building Construction	417,689.00	
5. Sewer Construction	211,395.00	
6. Fencing and Seeding	10,042.00	
7. Site Stone & Paving	9,654.00	
TOTAL CONTRACT	922,055.00	
2. CHANGE ORDERS		
1. CO# 1 Rock Removal	20,249.00	
2. CO# 2 Rock Removal Thru 8/31	1,931.00	
3. Generator Charges	97,205.00	
4. Building Revision	13,920.00	
5. Plumbing Revisions	10,918.00	
6. Platform Revisions	2,437.00	
TOTAL CHANGE ORDERS	146,660.00	
TOTAL	1,068,715.00	27.8% = \$297,102.77

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Appendix D
Capital Improvement Plan

South Hanover Township
Capital Improvement Plan
With Major Equipment Purchases
2019 - 2029

Project	Description	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Kellock Run Metering Study	Install 6 meters in system to determine I&I	\$ 15,000.00										
2019 Sewer Main Lining	560 LF of 12" sewer lining, Replace MH Frame & Cover	\$ 40,000.00										
Greenbriar Main Lining	Greenbriar sewer lining (4,661 LF)	\$ 164,000.00										
Pump Station Maintenance	Replace parts every 5 year, rotating thru P.S.	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00
Swatara Creek Sewer Replacement	3000 LF of sewer replacement		\$ 360,000.00									
Swatara Force Main Replacement	Replace 1,200 LF of 10" DI force main			\$ 144,000.00								
Dorchester Pump Station	Upgrade control panel			\$ 20,000.00								
Pheasant Pump Station	Install sewage grinder			\$ 40,000.00								
Venice Pump Station	Install chart recorder			\$ 3,500.00								
Kellock Run Force Main Replacement	Replace 5,000 LF of 6" DI force main				\$ 600,000.00							
Annual Sewer Lining	4000 LF of sewer lining					\$ 160,000.00	\$ 164,800.00	\$ 169,744.00	\$ 174,836.32	\$ 180,081.41	\$ 185,483.85	\$ 191,048.37
Miscellaneous	Miscellaneous					\$ 62,000.00	\$ 57,200.00	\$ 52,256.00	\$ 47,163.68	\$ 41,918.59	\$ 36,516.15	\$ 30,951.63
Major Equipment Purchase	Major Equipment Purchase		\$ 10,000.00		\$ 10,000.00	\$ 100,000.00	\$ 10,000.00		\$ 10,000.00		\$ 10,000.00	
Total Maintenance/Repairs & Capital Improvements =		\$ 222,000.00	\$ 373,000.00	\$ 210,500.00	\$ 613,000.00	\$ 325,000.00	\$ 235,000.00	\$ 225,000.00	\$ 235,000.00	\$ 225,000.00	\$ 235,000.00	\$ 225,000.00