



THE GREENVILLE WATER AUTHORITY
MERCER COUNTY, PENNSYLVANIA

2016 WATER SYSTEM ANNUAL REPORT & 2017 OPERATING BUDGET

Prepared by: Robert J. Horvat



Entech Engineering, Inc.
400 Rouser Road | Building 2, Suite 200 | Coraopolis, PA 15108
(p) 412.264.2800 (f) 412.264.2850

Project No.: 4631.01

Dated: February 8, 2017

Table of Contents

<u>Section</u>	<u>Page</u>
1. INTRODUCTION	
1.1. Greenville Water Authority Water System Description	1
2. OPERATIONAL & MAINTENANCE STATUS OF AUTHORITY FACILITIES .	1
2.1. System Operational and Maintenance Status.....	1
2.2. Water Treatment Plant	2
2.3. Distribution System	2
2.4. Distribution Storage Facilities	2
2.5. General Office Structures and Equipment	3
2.6. Consumers.....	3
2.7. Use of Water	4
2.8. Water Treatment Plant Operation	4
3. REVENUES AND EXPENDITURES	6
3.1. Revenues and Expenses.....	6
3.2. Comparative Statement of Revenues, Expenses, and Debt Service.....	12
4. CAPITAL IMPROVEMENTS AND REDEMPTION FUND	13
4.1. Capital Improvements 2016.....	13
4.2. Capital Improvements Program 2017-2019	14
5. RATES, RENTS AND CHARGES FOR WATER.....	15
5.1. Rate Schedule.....	15
5.2. Bulk Water Rates	16
6. INSURANCE	16
7. CONCLUSIONS AND RECOMMENDATIONS.....	18
8. ACKNOWLEDGEMENT.....	19
TABLES	
Revenues and Expenses for the Years 2015 and 2016 and 2016 Budget	6
Operating Budget for 2017	9
Comparative Statement of Revenues, Expenses and Debt Service	12
Capital Improvements Program 2016	13
Capital Improvements Program 2017, 2018 and 2019.....	14

1. INTRODUCTION

This Water System Annual Report has been prepared in accordance with the authorization given to Entech Engineering Inc., by the Greenville Water Authority (Authority) in accordance with Article VI, Section 6.07 of the Third Supplemental Trust Indenture dated December 29, 2011 which states:

"The Consulting Engineer shall be required to report annually on (i) the condition and operation of the Water System, and (ii) on the sufficiency of the Capital Improvements and Redemption Fund. The Capital Improvements and Redemption Fund shall be funded by any additional amounts recommended by the Consulting Engineer. Furthermore, amounts on deposit in the Capital Improvements and Redemption Fund shall be used to replenish any deficiency in the Debt Service Reserve Fund."

The Annual Report, presented herein is classified under the following headings:

- Operational and Maintenance Status of Authority Water Facilities
- Revenues and Expenditures
- Capital Improvements and Redemption Fund
- Rates, Rents and Charges for Water
- Insurance
- Conclusions and Recommendations

This report is the seventy-fourth annual report upon the operation of the water system under Authority management. Reports have been submitted annually covering operations since April 1, 1942. Additions and improvements during the past year are reviewed, and the report includes recommendations for additions and improvements, the operating budget for fiscal year 2017, and the capital expenditures proposed for the fiscal year 2017. Information used in this report has been obtained from Authority Management.

1.1. Greenville Water Authority Water System Description

The Greenville Water Authority Water System is comprised of one treatment plant, five storage tanks, distribution mains, and associated appurtenances. This system serves Greenville Borough and a portion of Hempfield Township and West Salem Township. Pertinent information about the Authority and its water system is provided in Section 2.

2. OPERATIONAL & MAINTENANCE STATUS OF AUTHORITY FACILITIES

2.1. System Operational and Maintenance Status

The general performance of all Greenville Water Authority distribution and treatment facilities during Fiscal Year 2016 has been satisfactory. Management reports that all Authority facilities have functioned well throughout the year with no extraordinary operational or maintenance problems encountered.

2.2. Water Treatment Plant

The filtration plant contains four filters that have a total of 360 square feet of surface area. Considering these filters to be rapid rate filters with multimedia beds per the Department of Environmental Protection Regulations, the filters can produce 2,000,000 gallons of water per day.

The filtration plant was operated 5,130 hours during the past year for an average of approximately 14.1 hours daily and processed sufficient quantities of water to meet all consumer requirements. A review of operating results indicates that the water produced by the plant met or exceeded primary drinking water regulations of the Safe Drinking Water Act.

In addition to performing routine maintenance, Greenville Water Authority replaced two (2) chemical feed pumps for Polyaluminium Chloride (PAC) and one (1) for ammonia during 2016. A heat pump was also added in the office area.

2.3. Distribution System

The distribution system has been properly maintained during the past year, and extensions were made as required to serve customers. In 2016, 435' of 12" river crossing water line was replaced. Hydrants were regularly inspected, and repairs were made as required to the distribution system to provide for minimum interruption of service to customers.

Under the Meter Account, 122 remote meters were installed and 14 meters were tested or repaired in 2016.

A review of the operating records, as noted above, indicates that the Authority has continued to expand and improve distribution and service facilities during the past year and has operated and maintained them in accordance with accepted waterworks practice.

The Authority also continued an ongoing inspection of fire hydrants and turned valves in an effort to keep the system's components operational. The Authority flushed the system in April and October.

2.4. Distribution Storage Facilities

The exterior surfaces and grounds surrounding the two 750,000-gallon, 255,000-gallon, the high level 250,000-gallon and 1,000,000-gallon storage tanks are maintained in a satisfactory manner. Construction for the new 1 million gallon storage tank adjacent to the existing Hadley Road storage tank was completed in December 2010. The Hadley Road 250,000 gallon tank was repainted in 2014 and a tank mixing system was also provided.

It is recommended that the Authority continue the annual inspection and maintenance program for all distribution storage tanks. This program will identify potential problems before they become major and costly.

The water storage tanks were last painted as follows:

<u>Tank</u>	<u>Year</u>
750,000-Gallon, South Tank	1997
750,000-Gallon, North Tank	1995
250,000-Gallon, Hadley Road Tank	2014
255,000-Gallon, West Main Street	2005
1,000,000-Gallon, Hadley Road Tank	2010

2.5. General Office Structures and Equipment

The general office structure has been well maintained and is adequate in size for Authority operations. A video surveillance system was installed in 2015 and an additional camera covering the employee parking area was added in 2016.

Under General Shop Equipment, general tools and equipment were purchased during 2016. Adequate small tools and repair equipment are available and maintained in good condition for repairs and service to customers. In 2016, a new roof was added on the office building along with a new furnace/AC unit at a cost of \$76,795.

2.6. Consumers

The total number of customers according to consumer classifications listed on the books of the Authority as of December 31, 2016, compared with those listed at the end of 2015, is as follows:

Number of Customers			
	<u>December 31, 2015</u>		<u>December 31, 2016</u>
Residential	2,454		2,464
Commercial	225		223
Industrial	3		3
Public	24		22
Private Fire Protection	53		53
Public Fire Protection	2		2

Note that a new customer tap for the Cobblestone Hotel was installed in December 2016. The tap required an 80 LF extension of 12" pipe, including a 60 LF bored road crossing at a cost of \$28,567.66

2.7. Use of Water

The comparison of the amount of water sold by consumer classification for the past five years is tabulated in the following summary:

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
Residential	101,687	104,940	102,932	99,693	97,037
Commercial	58,923	52,607	50,881	49,980	43,496
Industrial	6,078	5,232	2,891	2,434	1,929
Public	15,120	11,187	11,737	10,159	10,479
Bulk Sales	1,943	3,116	1,646	522	939
TOTAL	183,751	177,082	170,087	162,788	153,880

Sales to metered consumers totaled 153,880,000 gallons or a daily average of approximately 421,589 gallons in 2016 and represents a decrease in total sales of 8,908,000 gallons from 2015. A breakdown of sales per customer class indicates that residential sales decreased by 2,656,000 gallons, commercial decreased by 6,484,000 gallons, industrial decreased by 505,000 gallons, public increased by 320,000 gallons and bulk sales increased by 417,000 gallons in 2016.

2.8. Water Treatment Plant Operation

The following tabulation lists plant output, quantity of water sold, water used in plant operation, daily average output and the percentage of water unbilled for during the past ten years.

<u>Year</u>	<u>Plant Output (1)</u>	<u>Sold (1)</u>	<u>Other (1,2)</u>	<u>Daily Average Output (1)</u>	<u>Percentage Unbilled</u>
2016	224,767	153,880	6,794	616	29.7
2015	255,681	162,788	15,570	700	30.2
2014	255,805	170,087	-	701	33.5
2013	255,760	177,081	15,000	701	30.9
2012	268,303	183,751	7,500	735	31.5
2011	240,000	179,052	1,000	658	25.4
2010	245,171	175,030	3,000	672	28.6
2009	256,327	176,827	2,024	702	31.0
2008	265,236	186,294	5,500	727	29.8
2007	314,148	199,421	11,497	861	36.5
Note :	(1) Units in 1,000 gallons				
	(2) Estimated for fire hydrant flushing				

The Unbilled percentage is based on the Plant Output and Water Sold values. This accounts for unmetered water usage from hydrant flushing, leaks, tank drawdowns, fire protection, etc.

The following tabulation compares the chemical usage and cost for the last two years:

<u>Chemical</u>	<u>2015</u>		<u>2016</u>	
	<u>Amount Used (lbs)</u>	<u>Total Cost</u>	<u>Amount Used (lbs)</u>	<u>Total Cost</u>
Activated Carbon	-	\$0	-	\$ -
AquaMag (gal)	301	\$4,274	429	\$5,992
Caustic Soda	21,099	\$6,883	42,824	\$14,998
Chlorine	10,700	\$5,822	10,808	\$6,154
Fluoride	11,751	\$6,829	10,641	\$5,207
PolyEZ N1986	107	\$305	88	\$251
Stern PAC	163,600	\$29,448	215,370	\$38,767
300-53 Polymer (Sludge Press)	1,406	\$2,404	1,904	\$3,256
Potassium Permanganate	1,416	\$6,357	2,191	\$8,766
Ammonia	6,425	\$2,418	9,051	\$4,337
TOTAL		\$64,741		\$87,728

3. REVENUES AND EXPENDITURES

3.1. Revenues and Expenditures

Based on information provided by the Authority, Table 1 has been prepared to show the actual 2015 revenues and expenses compared with the projected actual (unaudited) and budgeted revenues and expenses for 2016.

TABLE 1			
REVENUES AND EXPENSES FOR 2015, 2016 AND 2016 BUDGET			
Operating Revenue	2015 Actual	2016 Year End (unaudited)	2016 Budget
Metered Residential	\$1,214,218	\$1,233,938	\$1,231,837
Metered Commercial	\$376,884	\$366,879	\$401,275
Metered Industrial	\$20,887	\$19,913	\$23,600
Metered Public	\$35,497	\$38,571	\$32,318
Private Fire Protection	\$36,792	\$37,547	\$35,369
Public Fire Protection	\$26,829	\$26,828	\$26,892
Tap in Fees	\$9,782	\$28,568	\$2,000
Subtotal Operations Revenue	\$1,720,889	\$1,752,243	\$1,753,291
Non-Operations Revenue			
Bulk Water Sales	\$4,286	\$9,433	\$5,000
Well Sample Test	\$6,808	\$8,815	\$6,200
Turn On/Off Service Fee	\$9,706	\$9,208	\$8,300
Lien Letter Receipts	\$2,475	\$2,725	\$2,000
Collection Cost Recovery	\$41,620	\$42,218	\$34,100
Miscellaneous/Scrap	\$1,510	\$869	\$3,000
Theft of Service Recovered	\$0	\$0	\$100
Work for Others	\$11,855	\$7,156	\$3,000
Sewer Collection Fees	\$27,743	\$30,055	\$27,744
Interest Earnings	\$3,458	\$3,933	\$650
Written Off Account Recovery	\$2,505	\$759	\$240
Grant and Property Sale/Lease	\$0	\$11,370	\$0
USB Trust- Debt Interest	\$27	\$60	\$48
USB Trust - Debt Holdings Interest	\$18	\$16	\$18
USB Capital Interest	\$33	\$41	\$4
Subtotal Non-Operations Revenue	\$112,044	\$126,659	\$90,404
TOTAL REVENUES	\$1,832,933	\$1,878,903	\$1,843,695

TABLE 1 (cont'd)			
REVENUES AND EXPENSES FOR 2015, 2016 AND 2016 BUDGET			
General & Administrative	2015 Actual	2016 Year End (unaudited)	2016 Budget
Authority Board	\$5,900	\$5,900	\$6,000
Office Salaries	\$107,892	\$109,968	\$110,515
Billing Supplies	\$49,739	\$44,179	\$59,425
Contracted Services	\$36,676	\$43,284	\$37,000
Utilities	\$11,720	\$11,144	\$18,612
Office Building Maintenance	\$89	\$381	\$1,300
Permits/ Right of Ways	\$9,809	\$6,050	\$11,000
General Adjusted Bank Fees	\$4,560	\$4,698	\$5,000
Uncollectable Consumer Write-offs	\$0	\$0	\$1,200
Engineering Retainer	\$5,417	\$4,583	\$5,000
Legal & Professional	\$9,463	\$11,157	\$12,500
Insurance Premiums	\$35,780	\$39,070	\$44,572
Social Security	\$33,836	\$34,883	\$35,200
Health Benefits	\$84,854	\$92,367	\$111,500
Mileage Reimbursements	\$244	\$823	\$515
Education/Safety/ Medical	\$3,352	\$3,535	\$2,500
Unemployment Compensation	\$2,909	\$2,821	\$3,400
Retirement	\$6,163	\$7,354	\$7,334
Court Fees	\$1,714	\$543	\$1,400
Subtotal General Administrative Fees	\$410,117	\$422,741	\$473,973
PURIFICATION SYSTEM			
Operations Labor	\$152,807	\$162,606	\$160,200
Overtime Labor	\$6,381	\$7,707	\$7,300
Operations Expense	\$18,560	\$14,864	\$22,024
Treating Chemicals	\$64,742	\$87,727	\$71,958
Contracted Services	\$38,480	\$32,098	\$35,000
Utilities	\$60,682	\$56,691	\$66,000
Lab Chemicals	\$13,875	\$20,485	\$12,408
WTP Evaluation	\$4,435	\$1,963	\$3,500
Subtotal Purification	\$359,961	\$384,141	\$378,390

TABLE 1 (cont'd)
REVENUES AND EXPENSES FOR 2015, 2016 AND 2016 BUDGET

HADLEY ROAD BOOSTER PUMP	2015 Actual	2016 Year End (unaudited)	2016 Budget
Electric / Building	\$768	\$738	\$790
Electric / Pump	\$6,054	\$5,682	\$7,445
Heating	\$1,823	\$1,670	\$2,482
Pump Maintenance	\$0	\$2,831	\$1,800
Contracted Services	\$0	\$0	\$0
Subtotal Pumping	\$8,645	\$10,920	\$12,517
DISTRIBUTION SYSTEM			
Operations Labor	\$164,065	\$165,683	\$169,940
Labor Overtime	\$12,405	\$9,670	\$11,960
Services Materials	\$5,534	\$4,391	\$5,920
Mains Material	\$15,248	\$7,691	\$16,000
Meters Material	\$29,514	\$24,105	\$30,000
Operation Expense	\$15,776	\$23,456	\$16,650
Contracted Service	\$57,675	\$44,398	\$58,800
Vehicle Expense	\$1,894	\$4,729	\$2,400
Gasoline Expense	\$4,559	\$3,241	\$6,200
Subtotal Distribution	\$306,670	\$287,363	\$317,870
TOTAL EXPENSES	\$1,085,393	\$1,105,166	\$1,182,750

As shown in Table 1, for Fiscal Year 2016 the total unaudited operating revenues were less than budgeted operating revenues by \$1,048. However, overall revenues exceeded budget by \$35,208. Total expenses for 2016 were \$77,584 less than the budget and the net income available for depreciation, debt service and capital additions is \$773,737.

Table 2 has been prepared to show the actual (unaudited) revenues and expenses of the Authority compared to the 2017 budget of revenues and expenses adopted by the Authority.

TABLE 2		
2017 OPERATING BUDGET		
Operating Revenue	2016 (unaudited)	2017 Budget
Metered Residential	\$1,233,938	\$1,250,280
Metered Commercial	\$366,879	\$376,800
Metered Industrial	\$19,913	\$22,092
Metered Public	\$38,571	\$36,216
Private Fire Protection	\$37,547	\$37,548
Public Fire Protection	\$26,828	\$26,892
Tap in Fees	\$28,568	\$2,000
Subtotal Operation Revenue	\$1,752,243	\$1,751,828
Non-Operations Revenue		
Bulk Water Sales	\$9,433	\$9,000
Well Sample Test	\$8,815	\$6,900
Turn On/Off Service Fee	\$9,208	\$9,084
Lien Letter Receipts	\$2,725	\$2,500
Collection Cost Recovery	\$42,218	\$41,000
Miscellaneous/Scrap	\$869	\$1,500
Theft of Service Recovered	\$0	\$100
Work for Others	\$7,156	\$7,000
Sewer Collection Fees	\$30,055	\$27,744
Interest Earnings	\$3,933	\$1,800
Written Off Account Recovery	\$759	\$240
Grant and Property Sale/Lease	\$11,370	\$0
USB Trust- Debt Interest	\$60	\$48
USB Trust - Debt Holdings Interest	\$16	\$18
USB Capital Interest	\$41	\$4
Subtotal Non-Operations Revenue	\$126,659	\$106,938
TOTAL REVENUES	\$1,878,903	\$1,858,766

TABLE 2 (Cont'd)		
2017 OPERATING BUDGET		
General & Administrative	2016 (unaudited)	2017 Budget
Authority Board	\$5,900	\$6,000
Office Salaries	\$109,968	\$114,204
Billing Supplies	\$44,179	\$50,200
Contracted Services	\$43,284	\$41,900
Utilities	\$11,144	\$12,400
Office Building Maintenance	\$381	\$1,000
Permits/ Right of Ways	\$6,050	\$10,500
General Adjusted Bank Fees	\$4,698	\$5,000
Uncollectable Consumer Write-offs	\$0	\$600
Engineering Retainer	\$4,583	\$5,170
Legal & Professional	\$11,157	\$12,925
Insurance Premiums	\$39,070	\$43,600
Social Security	\$34,883	\$36,397
Health Benefits	\$92,367	\$128,000
Mileage Reimbursements	\$823	\$530
Education/Safety/ Medical	\$3,535	\$3,000
Unemployment Compensation	\$2,821	\$3,800
Retirement	\$7,354	\$7,400
Court Fees	\$543	\$1,400
Subtotal General Administrative Fees	\$422,741	\$484,026
PURIFICATION SYSTEM		
Operations Labor	\$162,606	\$166,824
Overtime Labor	\$7,707	\$8,508
Operations Expense	\$14,864	\$19,500
Treating Chemicals	\$87,727	\$82,404
Contracted Services	\$32,098	\$35,600
Utilities	\$56,691	\$62,000
Lab Chemicals	\$20,485	\$18,108
WTP Evaluation	\$1,963	\$1,000
Subtotal Purification	\$384,141	\$393,944

TABLE 2 (Cont'd)		
2017 OPERATING BUDGET		
HADLEY ROAD BOOSTER PUMP	2016 (unaudited)	2017 Budget
Electric / Building	\$738	\$814
Electric / Pump	\$5,682	\$6,108
Heating	\$1,670	\$2,400
Pump Maintenance	\$2,831	\$3,000
Contracted Services	\$0	\$0
Subtotal Pumping	\$10,920	\$12,322
DISTRIBUTION SYSTEM		
Operations Labor	\$165,683	\$148,584
Labor Overtime	\$9,670	\$14,856
Services Materials	\$4,590	\$5,500
Mains Material	\$8,659	\$15,600
Meters Material	\$25,503	\$29,496
Operation Expense	\$23,456	\$22,860
Contracted Service	\$44,398	\$57,600
Vehicle Expense	\$4,729	\$2,004
Gasoline Expense	\$3,241	\$4,920
Subtotal Distribution	\$289,928	\$301,420
TOTAL EXPENSES	\$1,105,166	\$1,191,712

The Operating Budgeted Expenses for 2017, included herein, total \$1,191,712. This represents an increase of approximately 8 percent over the unaudited operating expenses in 2016. Expenses are based on present and anticipated 2017 costs of chemicals, power, contract dewatering of treatment plant sludge, and other operating requirements.

The anticipated revenues from metered sales, fire protection, and tap-in fees revenue are estimated to provide approximately \$1,751,828 in 2017. Non-operating revenues are estimated to amount to \$106,938, which includes the fee charged to the Borough of Greenville and Hempfield Township for billing and collecting sewer charges, and interest income from investments. On the above basis, total revenues for 2017 have been anticipated to amount to \$1,858,766.

3.2. Comparative Statement of Revenues, Expenses, and Debt Service

A comparative statement of operating revenues, expenses, and debt service for Fiscal Years 2016 and 2017 is shown in Table. The Budget FY2017 figures reflect the Fourth Issue Water Revenue Bonds, Series of 2011 dated December 29, 2011 values.

TABLE 3		
<u>COMPARATIVE STATEMENT OF REVENUE AND DEBT SERVICE</u>		
	Unaudited FY 2016	Budget FY 2017
<u>Net Revenue</u>		
Total Revenue	\$1,878,903	\$1,858,766
Total Expenses	\$1,105,166	\$1,191,712
Total Revenue Available for Debt Service	\$773,737	\$667,054
<u>Debt Service</u>		
2011 Bond Issue	\$283,588	\$284,988
Pennvest Waterline	\$246,997	\$248,400
Hospital princ/int NEW PENVEST	\$0	\$25,000
Total Debt Service	\$530,585	\$558,388
<u>Capital Additions</u>		
Revenue Available for Debt Service	\$773,737	\$667,054
Total Debt Service	(530,585)	(558,388)
Available for Capital Additions	\$243,152	\$108,666
Coverage Provided	1.46	1.19

The above summary indicates that revenues produced by the rate schedule effective January 1, 2017 together with other non-operating revenue will provide revenues for the year 2017 that will be sufficient to cover the requirements for operating expenses and for debt service as required by the Trust Indenture.

4. CAPITAL IMPROVEMENTS AND REDEMPTION FUND

4.1. Capital Improvements 2016

Cost of capital additions to plant and equipment of the Waterworks System in 2016 totaled \$537,157. These improvements were sufficient for proper operation of the Authority's system.

A tabulation of budgeted and actual expenses is shown in Table 4.

TABLE 4		
Capital Improvements Program 2016		
<u>ITEM</u>	<u>Budget 2016</u>	<u>Actual 2016</u>
Lab/Plant Equipment	\$28,300	\$19,538
Raw Pumps/Finish Pumps	\$15,000	\$0
Sludge/ Press Improvements	\$3,000	\$3,403
Building & Parking Lot Repairs	\$60,000	\$83,459
Hydrant/Valve Program	\$4,800	\$5,625
Tools & Equipment	\$3,600	\$0
Main Line Improvements	\$14,000	\$0
Hadley Road Cobblestone Hotel*	\$0	-\$4,589
Thiel Waterline Reimbursement	\$209,000	\$188,320
River Crossing (Partial)	\$125,000	\$227,858
West Tank Improvements	\$140,000	\$15,543
TOTAL	\$602,700	\$539,157

**Note that the Cobblestone Hotel line item reflects activity related to a Developers' agreement escrow account.*

4.2. Capital Improvements Program 2017-2019

Proposed capital improvements for the years 2017, 2018 and 2019 are shown in Table 5. These improvements will be prioritized by the Authority and implemented based on need and available funds.

TABLE 5			
Capital Improvements Program 2017-2019			
ITEM	Budget 2017	Budget 2018	Budget 2019
Lab/Plant Equipment	\$22,000	\$10,000	\$40,000
Raw Pumps/Finish Pumps	\$15,000	\$3,000	\$0
Sludge/ Press Improvements	\$3,000	\$13,000	\$1,500
Building & Parking Lot Repairs	\$0	\$0	\$30,000
New Vehicles Replacement	\$42,000	\$45,000	\$0
Hydrant/Valve Program	\$4,800	\$0	\$4,800
Tools & Equipment	\$3,000	\$0	\$0
Office Equipment	\$15,200	\$1,500	\$0
West Tank Improvements	\$200,000	\$30,000	\$0
Matching Funds for CFA Grant	\$58,170	\$0	\$0
Booster	\$0	\$40,000	\$230,000
TOTAL	\$363,170	\$142,500	\$306,300

5. RATES, RENTS AND CHARGES FOR WATER

5.1. Rate Schedule

The Authority's current rate schedule, which became effective January 1, 2017, is summarized as follows:

Monthly Minimum charge for which 500 gallons of water is allowed

<u>Size of meter</u>	<u>Rate</u>
5/8"	\$18.15
3/4"	\$26.86
1"	\$39.93
1 1/4"	\$47.85
1 1/1"	\$54.26
2"	\$82.63
3"	\$166.50
4"	\$272.80
6"	\$516.75

Monthly consumption charges, per thousand gallons for water used by one customer

for the next	3,500 gallons	\$7.93
for the next	29,500 gallons	\$8.20
for the next	66,500 gallons	\$7.92
for the next	233,500 gallons	\$5.88
over	333,500 gallons	\$4.16

Stand and by Service for Private Fire Protection
(Annual Cost – Billed Monthly)

2" Hydrant	\$103.12
4" Hydrant	\$435.53
6" Hydrant	\$573.01
<u>Sprinkler Systems</u>	
2" Connection - Each	\$103.12
4" Connection - Each	\$435.53
6" Connection - Each	\$573.01
8" Connection - Each	\$985.74

Public Fire Protection includes main line (4" size or larger) and Fire Hydrants include supply line from the treatment plant (unchanged).

Borough of Greenville \$18,256.92 per year

Hempfield Township \$8,571.24 per year

5.2. Bulk Water Rates

The bulk water sale rate is \$7.93 per thousand gallons (billed monthly).

Metered bulk water use throughout the system is billed with a \$25.00 minimum.

Bulk water obtained at the water treatment plant has a \$5.00 service fee applied per load.

6. INSURANCE

Insurance in force as of December 31, 2016, is tabulated on the following page and includes General Liability, Property Coverage, Employees, Vehicles, Public Officials Liability, Employee Workers Compensation, and Employee Dishonesty as noted. The insurance coverage is based on an appraisal by an independent professional appraiser. The appraisal is updated annually. It is recommended that this practice be continued and that the Authority's appraisal be updated annually.

SCHEDULE OF INSURANCE

AS OF DECEMBER 31, 2016

<u>Policy No.</u>	<u>Property Covered</u>	<u>Type of Coverage</u>	<u>Amount of Coverage</u>	<u>Expiration Date</u>
Great American Insurance Co.	General Liability	Liability	\$1,000,000	5/1/2017
				5/1/2017
	Property Coverage	Building Coverage	\$8,038,598	5/1/2017
		Hydrants	\$25,000	5/1/2017
		Mobile Equipment	\$38,000	5/1/2017
		Flood & Earthquake		5/1/2017
	Umbrella Coverage		\$1,000,000	5/1/2017
	Public Officials & Employment Practices Liability		\$3,000,000	5/1/2017
	Commercial Crime		\$100,000	5/1/2017
	Computer Fraud		\$500,000	5/1/2017
Arch Insurance Co.	4 Vehicles, 2 Trailers	Property Damage	\$1,000,000	5/1/2017
		Comprehensive	\$1,000,000	5/1/2017
		Collision	\$1,000,000	5/1/2017
		Phsyical Damage	\$1,000,000	5/1/2017
		Uninsureds Motorists	\$1,000,000	5/1/2017
Erie Insurance Co. of New York	Employee Workers Compensation		PA Standard	2/28/2017

7. CONCLUSIONS & RECOMMENDATIONS

In accordance with the covenants of the Trust Indenture dated December 29, 2011, as set forth in Section 6.07, the following conclusions and recommendations are submitted:

Total Expenses in the amount of \$1,191,712 as outlined in the Budget, represent the estimate of the amount required for operational and administrative costs and maintenance of the water system for the 2017 fiscal year.

The operating budget, as provided herein, has been approved and adopted. In our opinion, it represents the required expenditures necessary to maintain the properties of the Authority in good repair and sound operating condition.

The insurance schedule, as set forth herein, is based on an independent professional appraisal. It is recommended that this appraisal be updated annually and insurance coverage be revisited as necessary for the coming fiscal year.

The capital improvements budget has been developed to provide a listing of desirable improvements over the next three (3) years. These improvements will be completed based upon the Authority's prioritization and available funding.

In its seventy-third year of existence, the Authority has continued to provide good, sound, direction to the operation of the utility in accordance with recognized water works practices, regulatory requirements, and industry standards.

Entech is registered to provide engineering services as Entech Engineering, Inc. In the performance of its services on behalf of the Greenville Water Authority (a municipal entity), Entech is not recommending any financing action, is not acting as a municipal advisor to the Client and does not owe a fiduciary duty pursuant to Section 15B of the Exchange Act to the Authority in respect to the information and material contained in this Report. The Authority should discuss any information and material contained in this Report with any and all internal and/or external financial advisors and experts deemed appropriate before acting on the information contained herein.

8. ACKNOWLEDGMENT

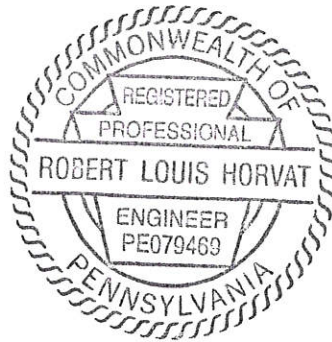
Entech Engineering, Inc. would like to take this opportunity to express sincere gratitude to the Authority Board for the opportunity to serve as the Greenville Water Authority consulting engineer; and to recognize the valuable contributions of Ms. Carol Paul and the Greenville Water Authority staff to the preparation of this report

Respectfully Submitted,



ENTECH ENGINEERING, INC.

Robert Horvat, PE
Regional Director



RATE INREASE	0.0%	0.0%	10.0%	6.5%	3.0%	3.0%	3.0%	3.0%	3.0%
Operating Revenues	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
Metered Residential	1,022,419	1,061,952	1,189,144	1,214,218	1,231,837	1,256,474	1,281,603	1,307,235	1,333,380
Metered Commercial	402,185	336,894	369,336	376,884	401,275	409,301	417,487	425,836	434,353
Metered Industrial	33,039	29,955	21,472	20,887	23,600	24,072	24,553	25,045	25,545
Metered Public	32,371	28,572	30,898	35,497	32,318	32,964	33,624	34,296	34,982
Private Fire Protection	29,651	31,179	35,693	36,792	37,896	39,033	40,204	41,410	42,652
Public Fire Protection	23,820	23,820	31,141	26,829	26,892	26,892	26,892	26,892	26,892
Tap In Fees	9,005	5,290	4,302	9,782	2,000	2,000	2,000	2,000	2,000
Subtotal Operating	1,552,490	1,517,660	1,681,986	1,720,889	1,755,818	1,790,735	1,826,362	1,862,714	1,899,804
Non-Operating Revenues	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
Bulk Water Sales	11,712	18,425	15,808	4,286	5,000	6,300	6,300	6,300	6,300
Well Sample Test	5,235	6,041	6,481	6,808	6,200	6,200	6,200	6,200	6,200
Turn on/off Service	10,368	9,241	7,757	9,706	8,300	8,300	8,300	8,300	8,300
Lien Letter Receipts	1,467	1,600	2,396	2,475	2,000	2,000	2,000	2,000	2,000
Collection Cost Recovery	25,086	26,271	34,636	41,620	34,100	34,100	34,100	34,100	34,100
Misc/Scrap	4,129	2,978	3,313	1,510	3,000	3,000	3,000	3,000	3,000
Theft Of Service Recovered	0	0	0	0	100	100	100	100	100
Work For Others	2,587	25,008	5,031	11,855	3,000	2,700	2,800	2,900	2,900
Sewer Collection Fees	27,743	27,743	27,743	27,743	27,744	27,744	27,744	27,744	27,744
Interest Earnings	1,916	1,795	3,121	3,458	650	650	650	650	650
Written Off Acc Recovery	1,257	371	515	2,505	240	240	240	240	240
Grant & Property Sale/Lease	28,144	0	0	0	0	0	0	0	0
USB Trust - Debt Interest	15	54	40	27	48	48	48	48	48
USB Trust - Debt Holdings Interest	74	35	18	18	18	18	18	18	18
USB Capital Interest	4	6	3	33	4	4	4	4	4
Subtotal Non-Operating	119,737	119,570	106,862	112,044	90,404	91,404	91,504	91,604	91,604
TOTAL REVENUES	1,672,227	1,637,230	1,788,848	1,832,934	1,846,221	1,882,139	1,917,866	1,954,317	1,991,408

Approved budgets are for planning purposes only.

General & Administration	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
Authority Board	6,000	5,700	6,000	5,900	6,000	6,000	6,000	6,000	6,000
Office Salaries	104,658	99,584	97,023	107,892	110,515	114,273	118,158	122,175	126,329
Billing Supplies	25,353	23,993	31,652	49,739	59,425	61,208	63,044	64,935	66,883
Contracted Services	26,065	28,240	35,314	36,676	37,000	38,258	39,559	40,904	42,294
Utilities	13,485	13,533	17,057	11,720	18,612	19,245	19,899	20,576	21,275
Office Bldg Maint.	1,061	827	11,874	89	1,300	1,500	1,500	1,500	1,500
Permits	1,605	6,230	5,315	9,809	11,000	14,500	14,500	14,500	14,500
Gen/Adj Bank Fees	2,755	4,768	4,550	4,560	5,000	5,170	5,346	5,528	5,715
Uncollectible Write Off	0	0	0	0	1,200	1,241	1,263	1,327	1,372
Engineer Retainer	4,583	5,000	5,056	5,417	5,000	5,170	5,346	5,528	5,715
Legal & Professional	7,950	15,363	14,455	9,463	12,500	12,925	13,364	13,819	14,289
Insurance Premiums	38,556	36,229	44,863	35,780	44,572	46,801	49,141	51,598	54,178
Social Security	32,848	31,388	32,404	33,836	35,200	36,397	37,634	38,914	40,237
Health Benefits	73,663	75,747	82,068	84,854	111,500	120,000	124,080	128,299	132,661
Mileage Reimbursement	1,254	303	580	244	515	530	546	563	580
Educ/Safety/Med	3,527	2,693	2,478	3,352	2,500	4,000	3,000	3,000	3,000
Unemploy-Comp	3,398	3,431	2,670	2,909	3,400	3,516	3,635	3,759	3,887
Retirement	10,416	2,646	2,311	6,163	7,334	7,500	7,500	7,500	7,500
Court Fees	(1,446)	538	1,279	1,714	1,400	1,400	1,400	1,400	1,400
Provision for Renewal (Depreciation)	293,026	270,488	299,134	289,521	328,000	328,000	328,000	328,000	328,000
Subtotals do not include "provision for renewals." In General, Expenses Based On 3.4% Increase Yearly									
SubTotal G & A Expenses	355,731	356,212	396,948	410,117	473,973	499,632	514,935	531,822	549,315

EXPENSES (Cont.)

Treatment Plant	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
Operating Labor	141,549	139,575	150,044	152,807	160,200	165,006	169,956	175,055	180,307
Overtime Labor	8,027	6,422	4,930	6,381	7,300	7,519	7,745	7,977	8,216
Operating Expense	24,248	13,498	20,411	18,560	22,024	22,773	23,547	24,348	25,149
Treat-Chemicals	66,114	59,470	67,647	64,742	71,958	74,836	77,830	80,943	84,181
Contracted Service	28,088	31,921	34,208	38,480	35,000	36,050	37,132	38,245	39,393
Utilities	53,613	53,740	59,917	60,682	66,000	67,980	70,019	72,120	74,284
Lab Chemicals	9,809	13,201	13,364	13,875	12,408	12,830	13,266	13,717	14,168
WTP Evaluation	Capital	Capital	3,046	4,435	3,500	3,600	3,600	3,600	3,600
SubTotal Treatment	331,448	317,826	353,568	359,961	378,390	390,594	403,095	416,005	429,297
Hadley Rd. Booster Pump	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
Electric / Building	459	879	806	768	790	814	838	863	889
Electric / Pumps	5,427	5,813	6,824	6,054	7,445	7,698	7,960	8,230	8,501
Heating	1,733	1,453	2,019	1,823	2,482	2,566	2,653	2,743	2,834
Pump Maint.	1,664	0	0	0	1,800	1,924	1,990	2,058	2,125
Contracted Service	0	6,000	0	0	0	0	0	0	0
SubTotal Pumping	9,283	14,146	9,650	8,645	12,516	13,002	13,441	13,895	14,349
Distribution	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
Operating Labor	152,992	148,626	98,917	164,065	169,940	175,038	180,289	185,698	191,269
Labor Overtime	5,887	6,617	5,593	12,405	11,960	12,319	12,688	13,069	13,461
Services Material	4,415	4,432	3,132	5,534	5,920	6,098	6,281	6,469	6,663
Mains Material	5,269	11,565	9,625	15,248	16,000	16,320	16,646	16,979	17,319
Meters Material	109	761	24,719	29,514	30,000	30,900	30,900	30,900	30,900
Operating Expense	11,245	11,020	17,094	15,776	16,650	17,150	17,664	18,194	18,740
Contracted Service	57,396	39,760	38,553	57,675	58,800	42,766	44,220	45,724	45,724
Vehicle Expense	942	3,487	479	1,894	2,400	2,566	2,653	2,743	2,743
Gasoline Expense	6,451	8,441	6,175	4,559	6,200	7,000	7,200	7,300	7,400
SubTotal Distribution	244,707	234,709	204,287	306,670	317,870	310,156	318,542	327,076	334,219
Total Expenses	941,170	922,893	964,453	1,085,393	1,182,750	1,213,385	1,250,013	1,288,798	1,327,179

CAPITAL

GREENVILLE WATER AUTHORITY APPROVED 2016 BUDGET

02 /17/2016

Treatment Plant	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
Evaluation/Optimization	1,548	6,168	Expense	-----	-----	-----	-----	-----	-----
Lab and Plant Equip Improvement: Capital or Expense	18,338	11,258	13,910	7,620	28,300	35,000	16,000	12,000	12,000
Raw/Finish Pumps Improvement: Capital or Expense	0	12,464	0	3,461	15,000	16,000	12,000	0	0
Sludge Press & Equip Improvement: Capital or Expense	0	0	0	1,940	3,000	5,000	12,000	2,500	5,000
Sub Total - Plant	19,886	29,890	10,369	13,021	46,300	56,000	40,000	14,500	17,000

Distribution	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
Building & Lot Repairs Capital or Expense	0	0	7,674	0	60,000	5,000	35,000	18,000	5,000
System Map & Model Capital or Expense	2,115	0	0	7,949	0	0	0	0	0
Meter Replacement	34,178	36,884	3,750	-----	-----	-----	-----	-----	-----
New Vehicles - Capital	0	23,997	0	0	0	40,000	30,000	0	0
Hydrant/Valve Replace Capital or Expense	0	4,747	0	0	4,800	4,800	4,800	4,800	4,800
Power Equipment Capital or Expense	0	3,134	0	2,363	3,600	4,000	4,000	1,500	3,600
Main/Service Line Improvements - Capital	0	4,482	0	0	14,000	20,000	12,000	0	0
Storage Tanks	0	4,209	197,044	0	0	0	0	94,000	92,000
Sub Total - Distribution	36,293	77,453	208,468	10,312	82,400	73,800	85,800	118,300	105,400

Office	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
Office Equipment Expense	4,150	2,279	0	0	0	2,000	2,000	3,000	3,000
Sub - Total Office	4,150	2,279	0	0	0	2,000	2,000	3,000	3,000

Total	60,329	109,622	218,836	23,333	128,700	131,800	127,800	135,800	125,400
--------------	---------------	----------------	----------------	---------------	----------------	----------------	----------------	----------------	----------------

FUNDED FROM AVAILABLE CASH IN REVENUE ACCOUNT

Fredonia Road			147,007						
Thiel			5,694	11,217	209,000				
River Crossing (Partial)			1,322	7,772	125,000	85,000			
West Tank			1,321	3,879	140,000	80,000		306,000	250,000
Brackin Alley** was not in 2015 budget				86,820	0				
Booster					0	230,000			

MONEY SPENT FROM SAVINGS 155,344 109,688 474,000 395,000 0 306,000 250,000

SUMMARY

GREENVILLE WATER AUTHORITY APPROVED 2016 BUDGET

02/17/2016

DEBT SERVICE	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
Pennvest Princ/Int Hadley Rd. Tank Paid Off July 2013	34,588	19,712	0	0	0	0	0	0	0
Pennvest Princ/Int Dist Improvement	138	27,606	247,465	248,533	248,400	248,400	248,400	248,400	248,400
USB Bonds Princ/Int Pay Off September 2024	61,268	278,678	283,554	287,888	283,588	284,988	290,988	280,588	289,713
Hospital Princ/Int Pay Off January 2012	1,875	1,875	0	0	0	0	0	0	0
Total Debt. Service	97,870	327,870	531,019	536,421	531,988	533,388	539,388	528,988	538,113

SUMMARY	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
Revenues	1,672,227	1,637,230	1,788,848	1,832,934	1,846,221	1,882,139	1,917,866	1,954,317	1,991,408
Expenses	941,170	922,893	964,453	1,085,393	1,182,750	1,213,385	1,250,013	1,288,798	1,327,179
Net Revenue	731,057	714,337	824,395	747,541	663,472	668,754	667,853	665,519	664,229
Capital / Improvements	60,329	109,622	218,836	23,333	128,700	131,800	127,800	135,800	125,400
Debt. Service	97,870	327,870	531,019	536,421	531,988	533,388	539,388	528,988	538,113
Indenture Coverage	7.47	2.18	1.55	1.39	1.25	1.25	1.24	1.26	1.23
Balanced Budget +/-	572,858	276,845	74,540	187,786	2,784	3,566	666	732	716

When Calculating Indenture Coverage, Divide Net Revenue by Debt Service - Must Be No Lr $\frac{\text{NET REVENUE}}{\text{DEBT SERVICE}} \geq 1.10$

Available for Capital 633,187 386,467 293,376 211,119 131,484 135,366 128,466 136,532 126,116

NOTE: The Actual & Budget Presentations **EXCLUDE** the \$428,402 Revenue received from the gas lease and \$602,793

Debt Expense for PennVEST tank payoff in 2013 and \$135,526.00 PennVest Main Line Reimbursement in 2014.

As unusual one-time events, including these, although more accurate, tends to distort year to year budget comparisons