

State of Enterprise Funds And Utility Rate Evaluation

Background & History

- As Wooster's system grew from the 50's thru 90's, capital funds were spent to expand our service area and capacity.
- At the same time, system maintenance (line replacements and pump station refurbishments) were deferred.
- Deferred maintenance caused large cash balances and a rate rollback in 1997.
- Reduced rates were kept for 9 years and depleted cash reserves.
- Cash reserves continued to decline thru 2010. Comparisons between 1999 and 2010 are as follows :
 - Water Cash Reserve – decreased 86%
 - 1999 - \$9,856,963
 - 2010 - \$1,395,929
 - Sewer Cash Reserve – decreased 83%
 - 1999 - \$11,700,608
 - 2010 - \$ 1,950,282

- As a cost saving measure, staffing has been reduced.
 - 1997- 36 Fulltime Employees
 - 2017- 30 Fulltime Employees
 - Currently operating with a 16.7% workforce reduction
- Part time and seasonal labor has been utilized to reduce cost and maintain the systems.
- The 2010 Voluntary Separation Plan also reduced personnel costs when 1/3 of the plant operations staff retired.
- Capital & Infrastructure continually deferred

Operational Best Practices

- Industry best practices:
 - Replace 1.5% - 2% of water lines each year
 - Results in 70 year replacement cycle
 - Current Wooster replacement cycle:
 - 2017 - 0.9% (6,638')
 - 2016 - 0.7% (5,320')
 - 2015 - 0.6% (4,333')
 - 2014 - 0.6% (4,674')
 - Average = 0.7%, or 53 - 65% below industry standard
 - Maintain unaccounted for water (water loss) to AWWA standards:
 - Infrastructure Leakage Index (ILI) between 1.0 and 8.0 (Measure of actual to unavoidable water loss)
 - Recommended target is < 3
 - Wooster Water System ILI (2010 - 2014) = 5.1
 - Wooster Water System ILI (2016 - 2017) = 2.9

Rate Setting Best Practices

- Alliance for Water Efficiency
 - Rates should be reviewed regularly (e.g., with annual budget review) and adjusted as needed to meet both operating and long-term costs.
- AWWA Manual M54
 - Perform annual utility financial reviews, in conjunction with budget process if possible, for revenue needs, operational needs, and long-term cost efficiencies.
 - Minimal review items include:
 - Assessments of revenue received versus expenses
 - Operational cost trends versus budgets
 - Capital cost expenditures trends versus capital plan
 - Maintaining sufficient operational and capital reserves
 - Condition assessment of major fixed assets
 - Trends in customer use (including the effects of conservation)

Moody's Rating Agency

- “We tend to give higher scores to utilities that set rate structures under which increases are automatic, and do not require annual approval for implementation.”
- Moody's - multi-year rate adjustments are preferred
- Utilities can receive a higher rating, which could result in a lower overall cost of borrowing.
- Moody's Ratings Agency, “Rating Methodology: US Municipal Utility Revenue Debt” December 15, 2014, P. 16.

Standard and Poor's Rating Services

- S&P considers a utility to be “strong” if:
 - “When rate increases have been needed, the decision-making body has been supportive and timely, even to the extent that multiyear, preapproved rate increases are common, if not standard. Finance decisions are prudent, in our view, rather than simply politically expedient and that could possibly be to the detriment of the utilities near-term financial health. Periodic rate studies (internal or external) are common.”⁴
 - Source: Standard and Poor's Ratings Services McGraw Hill Financial U.S. Public Finance Waterworks, Sanitary Sewer and Drainage Utility Systems: Rating Methodology and Assumptions January 19, 2016, P. 21 Table 14.

Legal Requirements for Rate Setting

Ordinance 1989-54

- *WHEREAS, Council desires to maintain these funds as self- supporting operations.*
- *SECTION 1. That in establishing the charges for services the following policy is established:*
- *Sufficient revenue must be generated by the charges to ensure high quality service for an indefinite period of time. Therefore the return on assets must approximate inflation after consideration of gifts, donations, grants and subsidized loans. Sufficient cash flow must be generated by the charges to ensure all expenditures , including debt service, can be paid in a timely manner.*

Legal Requirements for Rate Setting

Ordinance 924.06: Annual Rate Review

- *These rates shall be reviewed annually and shall be revised periodically, as required, to reflect actual treatment works' operation and maintenance costs.*

Ordinance 923.14: Utility Rates, Billing and Collection, Liability for Charges

- *The Director of Administration has the authority and responsibility to assess utility user charges of sufficient amounts and in such manner as s/he deems equitable from all premises supplied with utility services. In assessing such user charges, s/he shall strictly observe the policy on rate-setting for enterprise funds set forth in Ordinance 1989-54.*

History of Rate Increases:

- 90's – Annual reviews and small adjustments:
 - Rates reduced in 1997
- 1997 to 2007: No changes to rates.
- Some rate changes between 2007 and 2011, but not enough to make up for past practices and future needs.
- 2008 – 2012: Great Recession
- 2011-2017 – No changes to rates.
- No adjustment for inflation or construction cost indexes (2%/year CPI, 14% CCI increase)
- Several capital projects to replace aging infrastructure have been deferred again.

Results of delayed rate increases

- Delaying rate increases for multiple years causes significant increases later when implemented
- Lack of cash causes debt financing
- Raises annual debt service which raises annual operating costs
- Increases the rate of cash depletion
- Rapid rate increases harm all residents, businesses, especially low income families
- Large rate increases every 6 to 9 years cause rates to be higher than small increases over time

Costs of Deferral

- Water lines now cost 1 million dollars (\$924,000) per mile to replace.
- The city has 128.64 miles of water line or \$119 million in replacement cost at 2017 replacement rate.
- 1999 \$105 per foot
- 2010 \$135 per foot – 29% increase
- 2017 \$175 per foot – 30% increase
- 2027 \$240 per foot – 37% increase (projected)
- Compared to 1999, projects in 2017 cost 67% more than they would have in 1999.
- Deferring capital only makes it cost more later.

Where are we now?

- Water/Sewer
 - Conservation efforts have caused a decrease in the amount of water used by our customers.
 - Aging Infrastructure – Our system is old and requires water and sewer lines to be replaced
 - Utility system has over 400 miles of piping
 - 70% of utility infrastructure is over 20 years old
 - 55% of utility infrastructure is over 50 years old
 - We need to break the perpetual cycle of long periods of time between rate increases causing large rate increases.

Deferral vs. Replacement Droplets = water main break * Result of repair versus replacement



Capital Projects by Category 1999-Current

- Water

▪ Unfunded Mandates	\$1,030,000
▪ Aging Infrastructure Replacement	\$16,300,000
▪ Growth	\$4,050,000

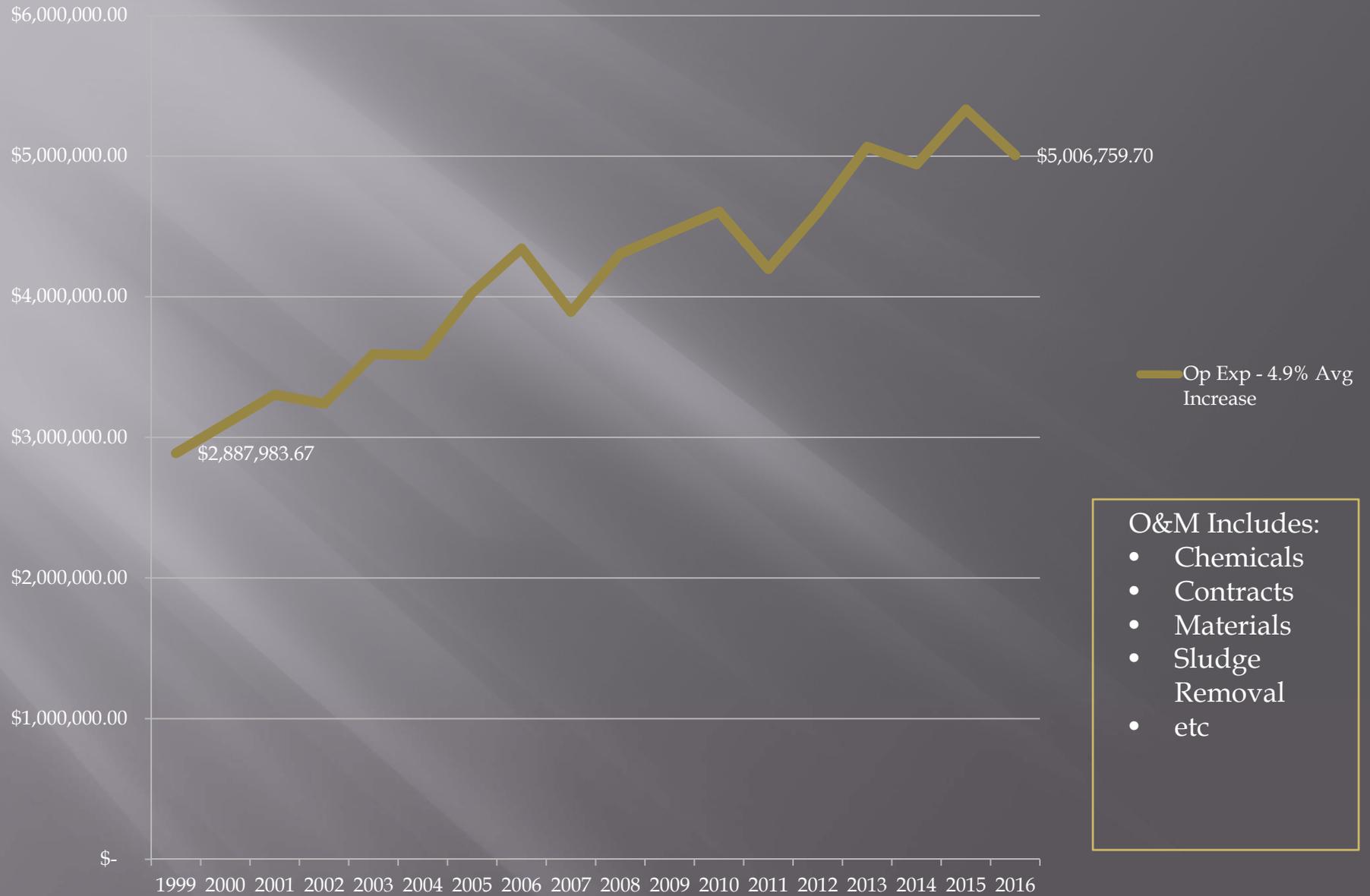
- Sanitary Sewer

▪ Unfunded Mandates	\$1,580,000
▪ Aging Infrastructure Replacement	\$31,200,000
▪ Growth	\$1,940,000
▪ Findings and Orders	\$10,500,000

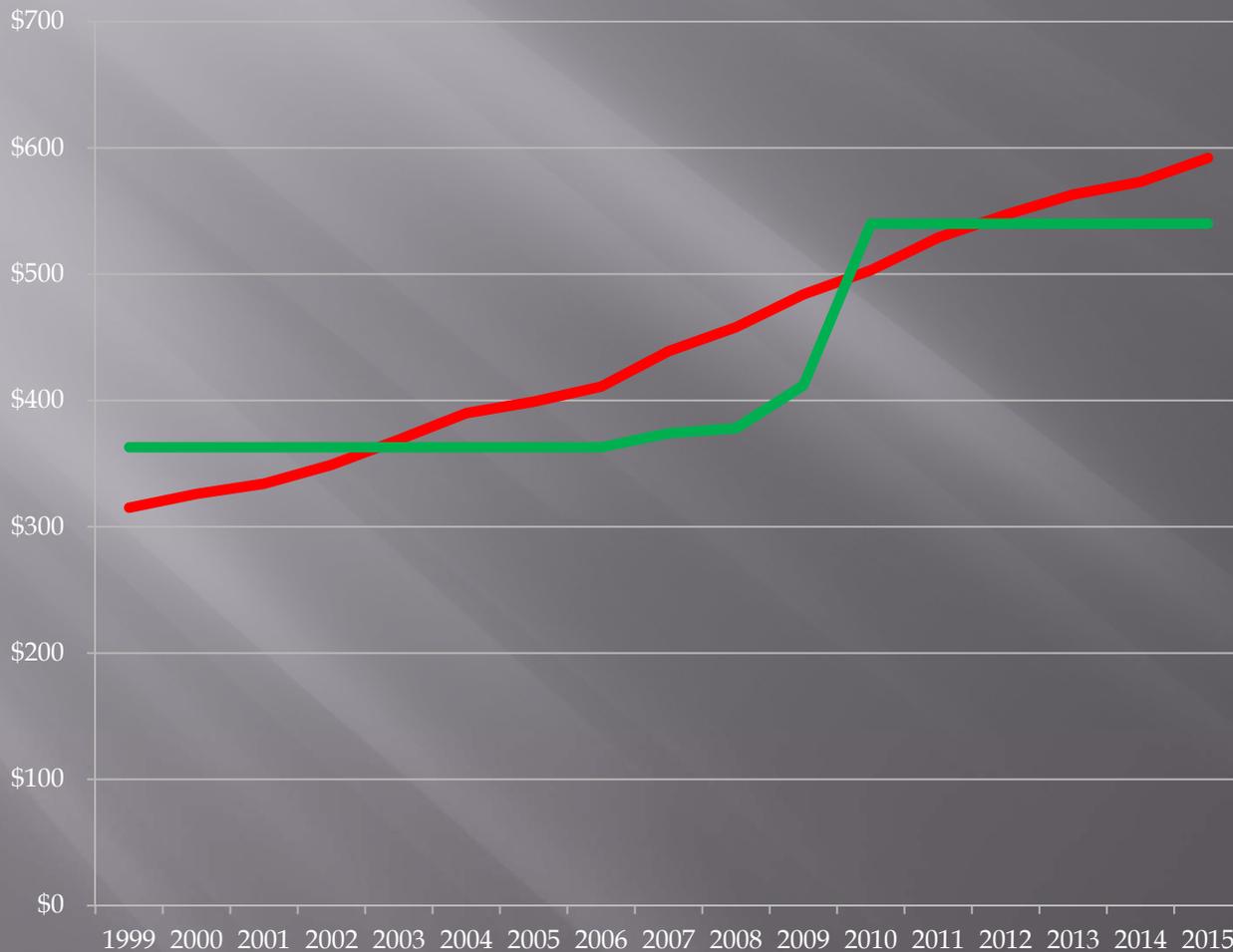
Water System Expenditures: 2016

- Expenditures by Category:
 - Personnel Services: \$1,805,054
 - Operations and Maintenance: \$1,736,308
 - Capital Expenditures: \$1,974,458.37
 - Inter-fund Reimbursement: \$207,148
 - Debt Service: \$488,473
- Cash Decrease 2015-2016: (\$584,733.73)
- With no rate increases we are out of cash in 2020.

Water - Annual Operating Expenses



Wooster Annual Water Rates are \$52.00 below Ohio Average

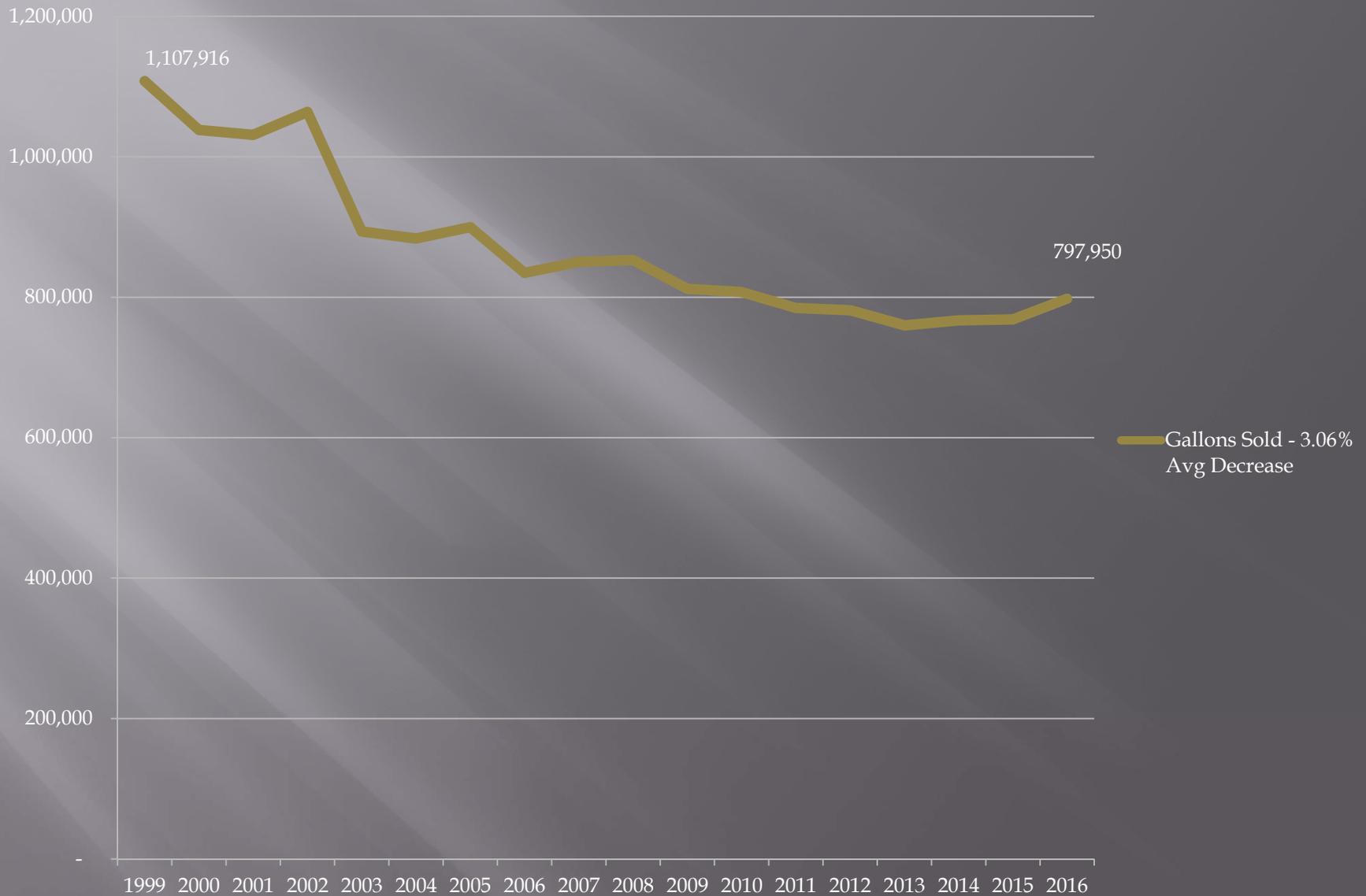


— Water Ohio Average Rate
— Water Wooster Average Rate

Ohio Annual Rates:
 Highest = \$1654
 75th Perc. = \$724
 Avg. = \$592

Wooster Annual Rates:
 Avg. = \$540

Gallons Sold Are Decreasing - 3.06% Avg Decrease



Operational Efficiency Accomplishments

- Reduced Unaccounted for Water by:
 - New processes to ensure constructed buildings have meters before occupancy
 - Repaired and replaced leaking lines
 - Large Meter Testing and Repairs
 - Large/industrial meters replaced or recalibrated
 - Targeted Leak Detection
 - Temporary District Metered Areas (DMAs)
 - Tank Isolations and pump monitoring
 - Service line leak detection
 - Third party water system audits
 - Water system modeling
 - AquaHawk System Installed
 - Meters with AMR installed on hydrant flushing trucks

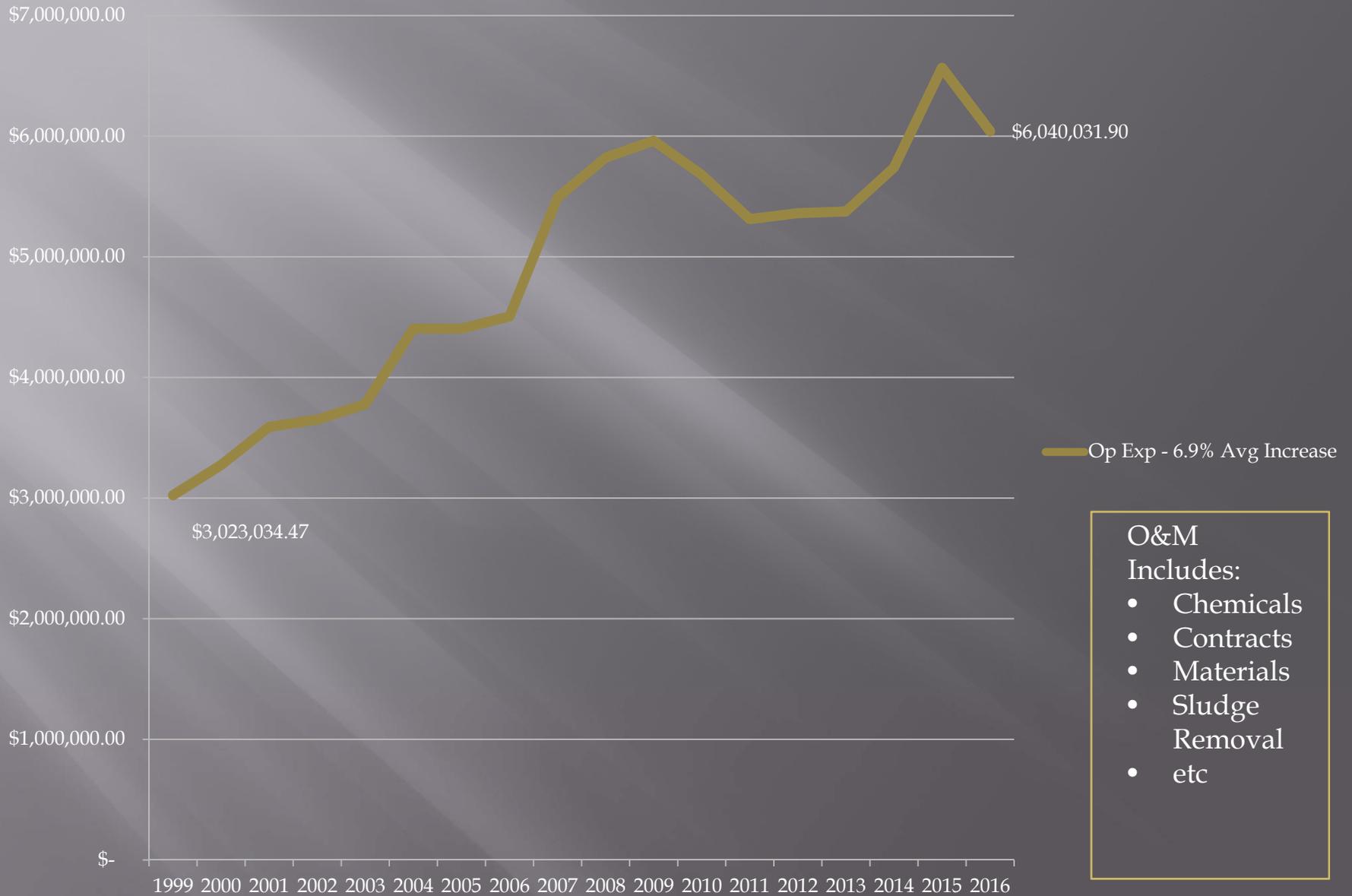
Operational Efficiency Results

- Unaccounted for water
 - Reduced from 43% in 2013 to 24% in 2017
 - Unaccounted for water reduced by nearly one-half
- AquaHawk System Monitoring
 - Increased customer service
 - More than 500 customers notified of high use
 - Saves customers money.

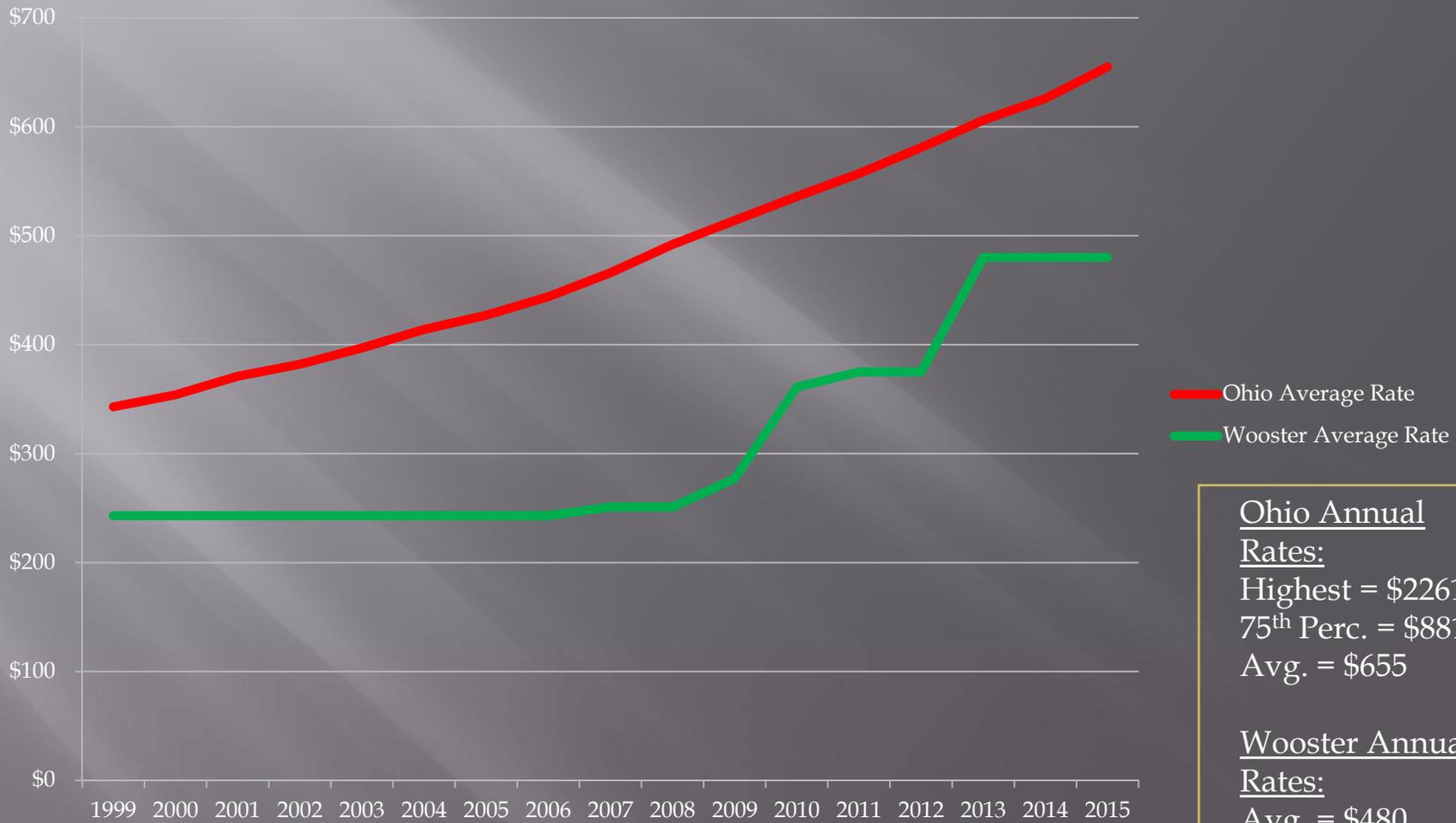
Sewer System Expenditures: 2016

- Expenditures by Category:
 - Personnel Services: \$1,435,154
 - Operations and Maintenance: \$1,526,401
 - Capital Expenditures: \$2,075,563.59
 - Inter-fund Reimbursement: \$1,305,782
 - Debt Service: \$1,418,338
- Cash Decrease 2015-2016: (\$110,335.38)
- With no rate increases we are out of cash in 2021.

Sewer - Annual Operating Expenses



Wooster Annual Sewer Rates are \$175.00 below Ohio Average



Enterprise funds “Days in Cash” Controls & Rate Setting

- Ensures Funds are operable “for an indefinite period of time” as required by ordinance.
- Will have minimum and maximum days in cash.
- Rate setting and capital decisions will be based upon maintaining these minimum and maximum days in cash.
- Target #1 = 60-240 days worth of expenditures
- Target #2 = Maintain capital reserves equal to depreciation: \$1.2 to \$1.7 Million per year

Budgeting Capital and Funding

Capital must go hand in hand

- Annual budgets include a 10 year capital plan
 - Maintaining utility service & quality requires a 10 year funding plan.
- Avoids continual capital deferment
- Limits issuing debt for capital projects
- Maintains adequate funds for operations & capital

10 year Rate Plan

- Cash needs will be forecasted based on trending historical costs, future capital needs, and measure this against cash balances in each fund.
- 10 years of planned capital expenses will be plugged into the model.
- Rates will be set based upon a days in cash calculation to ensure that expenditures do not lower cash balances outside of adequate operational range.

Water - 10 Year Model

WATER FUND												
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Revenue:												
Water Sales	\$ 5,371,358.15	\$ 5,419,022.00	\$ 5,541,056.74	\$ 5,751,048.96	\$ 5,969,948.10	\$ 6,198,161.68	\$ 6,436,116.70	\$ 6,551,736.65	\$ 6,736,318.49	\$ 6,926,310.58	\$ 7,121,880.09	\$ 7,323,199.66
Misc Op Rev	\$ 149,399.78	\$ 121,000.00	\$ 149,399.78	\$ 149,399.78	149,399.78	149,399.78	149,399.78	149,399.78	149,399.78	149,399.78	149,399.78	121,000.00
Int & Inv Earnings	\$ 19,456.47	\$ 30,000.00	\$ 19,456.47	\$ 19,456.47	\$ 19,456.47	\$ 19,456.47	\$ 19,456.47	\$ 19,456.47	\$ 19,456.47	\$ 19,456.47	\$ 19,456.47	\$ 19,456.47
Capital Charge Meter equivalent			\$ 178,289.78	\$ 178,289.78	\$ 178,289.78	\$ 222,862.23	\$ 267,434.67	\$ 356,579.56	\$ 356,579.56	\$ 356,579.56	\$ 356,579.56	\$ 356,579.56
Capital Charge			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Misc Non-Op Rev	\$ 16,414.39	\$ 37,000.00	\$ 16,414.39	\$ 16,414.39	\$ 16,414.39	\$ 16,414.39	\$ 16,414.39	\$ 16,414.39	\$ 16,414.39	\$ 16,414.39	\$ 16,414.39	\$ 16,414.39
Total Revenue	\$ 5,556,628.79	\$ 5,607,022.00	\$ 5,904,617.16	\$ 6,114,609.38	\$ 6,333,508.52	\$ 6,606,294.55	\$ 6,888,822.01	\$ 7,093,586.85	\$ 7,278,168.69	\$ 7,468,160.78	\$ 7,663,730.29	\$ 7,836,650.08
Expenses:												
Personal Services	\$ 1,805,054.28	\$ 1,866,662.00	\$ 1,978,661.72	\$ 2,047,914.88	\$ 2,119,591.90	\$ 2,193,777.62	\$ 2,270,559.83	\$ 2,350,029.43	\$ 2,432,280.46	\$ 2,517,410.27	\$ 2,605,519.63	\$ 2,696,712.82
Operating Exp	\$ 1,736,307.79	\$ 1,650,000.00	\$ 1,754,445.00	\$ 1,842,167.25	\$ 1,934,275.61	\$ 2,030,989.39	\$ 2,132,538.86	\$ 2,239,165.81	\$ 2,351,124.10	\$ 2,468,680.30	\$ 2,592,114.32	\$ 2,721,720.03
Interfund	\$ 207,147.82	\$ 217,090.92	\$ 227,511.28	\$ 238,431.82	\$ 249,876.55	\$ 261,870.62	\$ 274,440.41	\$ 287,613.55	\$ 301,419.00	\$ 315,887.11	\$ 331,049.70	\$ 346,940.08
O&M Expenses	\$ 3,748,509.89	\$ 3,733,752.92	\$ 3,960,618.00	\$ 4,128,513.95	\$ 4,303,744.06	\$ 4,486,637.63	\$ 4,677,539.11	\$ 4,876,808.79	\$ 5,084,823.56	\$ 5,301,977.69	\$ 5,528,683.65	\$ 5,765,372.93
Capital Exp	\$ 1,974,458.37	\$ 1,169,000.00	\$ 1,595,000.00	\$ 1,382,500.00	\$ 1,227,500.00	\$ 1,012,500.00	\$ 2,362,500.00	\$ 730,000.00	\$ 1,512,000.00	\$ 2,100,000.00	\$ 1,827,000.00	\$ 1,825,000.00
Debt Service	\$ 752,135.21	\$ 758,000.00	\$ 763,150.74	\$ 756,914.99	\$ 760,610.99	\$ 704,675.74	\$ 703,225.74	\$ 700,013.24	\$ 702,317.88	\$ 697,313.38	\$ 699,614.00	\$ 699,614.00
Total Cap+Debt Serv	\$ 2,726,593.58	\$ 1,927,000.00	\$ 2,358,150.74	\$ 2,139,414.99	\$ 1,988,110.99	\$ 1,717,175.74	\$ 3,065,725.74	\$ 1,430,013.24	\$ 2,214,317.88	\$ 2,797,313.38	\$ 2,526,614.00	\$ 2,524,614.00
Total Expenditures:	\$ 6,475,103.47	\$ 5,660,752.92	\$ 6,318,768.74	\$ 6,267,928.94	\$ 6,291,855.05	\$ 6,203,813.37	\$ 7,743,264.85	\$ 6,306,822.03	\$ 7,299,141.44	\$ 8,099,291.07	\$ 8,055,297.65	\$ 8,289,986.93
Percent Increase/Decrease												
Minimum Charge		0.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	3.00%	3.00%	3.00%	3.00%
Tiered Usage		0.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Capital Charge Meter Equivalent			\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.25	\$ 1.50	\$ 2.00	\$ 2.00	\$ 2.00	\$ 2.00	\$ 2.00
Capital Charge												
Profit/Loss:												
Starting Cash	\$ (918,474.68)	\$ (53,730.92)	\$ (414,151.58)	\$ (153,319.56)	\$ 41,653.47	\$ 402,481.17	\$ (854,442.84)	\$ 786,764.83	\$ (20,972.75)	\$ (631,130.29)	\$ (391,567.36)	\$ (453,336.86)
Ending Cash	\$ 2,684,807.00	\$ 2,631,076.08	\$ 2,216,924.51	\$ 2,063,604.95	\$ 2,105,258.42	\$ 2,507,739.59	\$ 1,653,296.75	\$ 2,440,061.58	\$ 2,419,088.83	\$ 1,787,958.54	\$ 1,396,391.18	\$ 943,054.32
Days in Cash	151.34	169.65	128.06	120.17	122.13	147.54	77.93	141.22	120.97	80.58	63.27	41.52
Monthly Increase (Decrease)												
Monthly			\$ 2.51	\$ 1.58	\$ 1.66	\$ 2.00	\$ 2.08	\$ 2.07	\$ 1.64	\$ 1.71	\$ 1.78	\$ 1.86
Residential 5,000 gallon customer	Annual	0	\$ 30.10	\$ 19.01	\$ 19.96	\$ 23.96	\$ 25.00	\$ 24.81	\$ 19.63	\$ 20.48	\$ 21.36	\$ 22.29
min charges billed	2,496,056.92	2,496,056.92	2,620,859.77	2,751,902.75	2,889,497.89	3,033,972.79	3,185,671.43	3,281,241.57	3,379,678.82	3,481,069.18	3,585,501.26	3,693,066.29
Usage Tier 1	474,844,000	462,972,900	451,398,578	440,113,613	429,110,773	418,383,003	407,923,428	397,725,343	387,782,209	378,087,654	368,635,462	359,419,576
Usage Tier 2	273,496,000	273,496,000	273,496,000	273,496,000	273,496,000	273,496,000	273,496,000	273,496,000	273,496,000	273,496,000	273,496,000	273,496,000
Usage Tier 3	13,755,000	13,755,000	13,755,000	13,755,000	13,755,000	13,755,000	13,755,000	13,755,000	13,755,000	13,755,000	13,755,000	13,755,000
Meter Equivalent Rate:	\$ 14.00	\$ 14.00	\$ 14.70	\$ 15.44	\$ 16.21	\$ 17.02	\$ 17.87	\$ 18.40	\$ 18.96	\$ 19.52	\$ 20.11	\$ 20.71
Usage Rates:												
Tier 1	\$ 5.39	\$ 5.39	\$ 5.66	\$ 5.94	\$ 6.24	\$ 6.55	\$ 6.88	\$ 7.22	\$ 7.58	\$ 7.96	\$ 8.36	\$ 8.78
Tier 2	\$ 4.77	\$ 4.77	\$ 5.01	\$ 5.26	\$ 5.52	\$ 5.80	\$ 6.09	\$ 6.39	\$ 6.71	\$ 7.05	\$ 7.40	\$ 7.77
Tier 3	\$ 2.31	\$ 2.31	\$ 2.43	\$ 2.55	\$ 2.67	\$ 2.81	\$ 2.95	\$ 3.10	\$ 3.25	\$ 3.41	\$ 3.58	\$ 3.76
gallons in minimum	206,503,000	206,503,000	206,503,000	206,503,000	206,503,000	206,503,000	206,503,000	206,503,000	206,503,000	206,503,000	206,503,000	206,503,000
Residential user												
Thousands of gallons per month:	5											
Total Monthly Bill	\$ 30.17	\$ 30.17	\$ 31.68	\$ 33.26	\$ 34.93	\$ 36.67	\$ 38.51	\$ 40.07	\$ 41.71	\$ 43.42	\$ 45.20	\$ 47.05
		\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.25	\$ 1.50	\$ 2.00	\$ 2.00	\$ 2.00	\$ 2.00	\$ 2.00
		\$ 30.17	\$ 32.68	\$ 34.26	\$ 35.93	\$ 37.92	\$ 40.01	\$ 42.07	\$ 43.71	\$ 45.42	\$ 47.20	\$ 49.05
			8.3%	4.8%	4.9%	5.6%	5.5%	5.2%	3.9%	3.9%	3.9%	3.9%

Sewer – 10 Year Model

SEWER FUND	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Revenue:												
Sewer Sales	5,418,631.97	5,454,498.65	5,727,223.58	6,013,584.76	6,314,264.00	6,503,691.92	6,677,840.41	6,814,031.10	6,954,307.51	7,098,792.22	7,247,611.46	7,400,895.28
Flat Rate	591,440.66	591,440.66	621,012.69	652,063.33	684,666.49	705,206.49	719,310.62	719,310.62	719,310.62	719,310.62	719,310.62	719,310.62
Surcharge	292,684.07	292,684.07	292,684.07	292,684.07	292,684.07	292,684.07	292,684.07	292,684.07	292,684.07	292,684.07	292,684.07	292,684.07
Estimate - Food Stock	100,000.00	100,000.00	101,000.00	102,010.00	103,030.10	104,060.40	105,101.01	106,152.02	107,213.54	108,285.67	109,368.53	110,462.21
Investment Earnings	32,050.30	32,130.43	32,210.75	32,291.28	32,372.01	32,452.94	32,534.07	32,615.40	32,696.94	32,778.69	32,860.63	32,942.78
Capital Charge - Motor Equivalents	195,339.70	195,339.70	195,339.70	195,339.70	195,339.70	244,174.63	293,009.55	390,679.40	390,679.40	390,679.40	390,679.40	390,679.40
Capital Charge		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Septage	121,347.25	120,000.00	133,333.33	146,666.67	146,666.67	146,666.67	146,666.67	146,666.67	146,666.67	146,666.67	146,666.67	146,666.67
Total Revenue	6,456,154.25	6,590,753.80	7,102,804.13	7,434,639.80	7,769,023.03	8,028,937.10	8,267,146.39	8,502,139.28	8,643,558.75	8,789,197.33	8,939,181.37	9,093,641.03
Expenses:												
Operations & Maint												
Personal Services	1,435,153.82	1,484,000.00	1,535,940.00	1,589,697.90	1,645,337.33	1,702,924.13	1,762,526.48	1,824,214.90	1,888,062.43	1,954,144.61	2,022,539.67	2,093,328.56
Operating Exp	1,299,340.00	1,579,550.00	1,611,141.00	1,643,263.82	1,676,231.10	1,709,755.72	1,743,950.83	1,778,829.85	1,814,406.45	1,850,694.58	1,887,708.47	1,925,462.64
Additional Feedstock Exp		37,500.00	37,875.00	38,253.75	38,636.29	39,022.65	39,412.88	39,807.01	40,205.08	40,607.13	41,013.20	41,423.33
Interfund	1,305,782.01	1,121,000.00	1,335,500.00	1,399,604.00	1,466,784.99	1,537,190.67	1,610,975.82	1,688,302.66	1,769,341.19	1,854,269.57	1,943,274.51	2,036,551.68
Cost Reduction Estimates if any		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
G&M Expenses	4,040,275.83	4,222,050.00	4,520,458.00	4,670,919.47	4,826,369.70	4,988,893.17	5,158,666.01	5,331,154.42	5,512,015.14	5,699,715.88	5,894,535.84	6,096,766.21
Capital Expenses												
Capital Exp	2,075,563.59	5,264,232.00	1,142,000.00	2,167,500.00	1,610,900.00	580,000.00	672,500.00	560,000.00	925,000.00	525,000.00	2,846,000.00	600,000.00
Debt Service:												
Total Expenditures:	7,856,250.48	11,370,290.00	12,323,647.81	8,992,395.52	8,593,409.06	7,722,636.30	7,727,385.28	7,527,678.89	8,083,700.68	7,865,417.70	10,231,168.90	7,887,399.27
Proceeds from debt issue		4,700,000.00	4,500,000.00									
Percent Increase/Decrease												
Minimum Charge		0.00%	5.00%	5.00%	5.00%	3.00%	2.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Tiered Usage		0.00%	5.00%	5.00%	5.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Capital Charge Meter Equivalent		\$ -	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.25	\$ 1.50	\$ 2.00	\$ 2.00	\$ 2.00	\$ 2.00	\$ 2.00
Capital Charge		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Profit/Loss:	(\$1,400,096.23)	(\$79,536.20)	(\$720,843.68)	(\$1,557,755.72)	(\$824,386.03)	\$306,300.80	\$539,761.11	\$974,460.38	\$559,858.07	\$923,779.63	(\$1,291,987.53)	\$1,206,241.76
Starting Cash		\$ 3,878,970.00	\$ 3,795,443.80	\$ 3,078,600.12	\$ 1,520,844.40	\$ 696,458.37	\$ 1,002,759.17	\$ 1,542,520.28	\$ 2,516,980.67	\$ 3,076,838.73	\$ 4,000,618.36	\$ 2,708,630.83
Ending Cash	\$ 3,878,970.00	\$ 3,799,443.80	\$ 3,078,600.12	\$ 1,520,844.40	\$ 696,458.37	\$ 1,002,759.17	\$ 1,542,520.28	\$ 2,516,980.67	\$ 3,076,838.73	\$ 4,000,618.36	\$ 2,708,630.83	\$ 3,914,872.59
Days in Cash	180.22	121.97	91.18	61.73	29.58	47.39	72.86	122.04	138.93	185.85	96.83	181.17
Annual Increase (Decrease)		0.00	29.40	18.27	19.18	15.09	14.16	14.84	9.11	9.38	9.66	9.95
Monthly Increase (Decrease)		\$ -	\$ 2.45	\$ 1.52	\$ 1.60	\$ 1.28	\$ 1.18	\$ 1.24	\$ 0.78	\$ 0.78	\$ 0.81	\$ 0.83
Residential Customer 5,000 gallons Septage Increase			1.11	1.10	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Motor Equivalents:	195,339.70	195,339.70	195,339.70	195,339.70	195,339.70	195,339.70	195,339.70	195,339.70	195,339.70	195,339.70	195,339.70	195,339.70
Motorod Usage												
Inside City	896,667,000	905,633,670	905,633,670	905,633,670	905,633,670	905,633,670	905,633,670	905,633,670	905,633,670	905,633,670	905,633,670	905,633,670
Outside City	11,330,000	11,330,000	11,330,000	11,330,000	11,330,000	11,330,000	11,330,000	11,330,000	11,330,000	11,330,000	11,330,000	11,330,000
Fairgrounds	4,445,000	4,445,000	4,445,000	4,445,000	4,445,000	4,445,000	4,445,000	4,445,000	4,445,000	4,445,000	4,445,000	4,445,000
Motor Equivalent Rate:	9.00	9.00	9.45	9.92	10.42	10.73	10.95	10.95	10.95	10.95	10.95	10.95
Usage Rates:												
Inside City	4.00	4.00	4.20	4.41	4.63	4.77	4.91	5.06	5.21	5.37	5.53	5.69
Outside City	6.00	6.00	6.30	6.62	6.95	7.15	7.37	7.59	7.82	8.05	8.29	8.54
Fairgrounds	1.33	1.33	1.40	1.47	1.54	1.59	1.64	1.69	1.74	1.79	1.84	1.90
Cap charge motor equiv cap charge			\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.25	\$ 1.50	\$ 2.00	\$ 2.00	\$ 2.00	\$ 2.00	\$ 2.00
Residential user												
Thousands of gallons per month:	5											
Total Monthly Bill	\$ 29.00	\$ 29.00	\$ 31.45	\$ 32.97	\$ 34.57	\$ 35.83	\$ 37.01	\$ 38.25	\$ 39.00	\$ 39.78	\$ 40.58	\$ 41.42
Increase			8.4%	4.8%	4.8%	3.6%	3.2%	3.2%	2.0%	2.0%	2.0%	2.0%

Benefits of Annual Scheduled Rate Increases

- Transparency of future rate adjustments
- Rates over time will be lower than doing large increases every 6 to 9 years
- Stability and predictability of rates for our customers, they can plan for increases
- Industrial customers can plan & forecast for their budgets
- City can directly link to & reflect the budget process (e.g. 5 year O&M budget/10 year Capital budget/10 year rate plan)

Planned Utility Rate Adjustments

Water

- 2018 – 5% (\$2.51/mo.)
- 2019 – 5% (\$1.58/mo.)
- 2020 – 5% (\$1.66/mo.)
- 2021 – 5% (\$2.00/mo.)
- 2022 – 5% (\$2.08/mo.)

Sewer

- 2018 – 5% (\$2.45/mo.)
- 2019 – 5% (\$1.52/mo.)
- 2020 – 5% (\$1.60/mo.)
- 2021 – 3% (\$1.26/mo.)
- 2022 – 3% (\$1.18/mo.)

Add Capital Charge based on Meter Equivalents (ME)

- \$1/ME = \$1/Residential Meter (\$1 Each water & sewer)

Trash Service Rate Reduction: - \$1.50 per month

* Costs based on average residential usage of 5000 gallons/month.

Utility Rate Adjustment Impacts

Residential User:

- Average total 2018 utility bill change = \$5.66
 - \$2.51 Water + \$2.45 Sewer + \$2 Capital - \$1.50 Trash
 - Total Average 2017 City Services bill = \$79.92
(Water, Sewer, Storm, Trash)
- Total 2018 Residential Utility Bill Increase = 4.3%
- Total 2019 Residential Utility Bill Increase = 3.7%

*Assumes 5000 gallons/mo. usage; 5/8" meter (1 ME)

Utility Rate Adjustment Impacts

Industrial Users:

Meter Size	Meter Equiv.s	Typical 2017 Bill	Typical 2018 Bill	Increase 2017 to 2018	Typical 2019 Bill	Increase 2018 to 2019
6"	92	\$ 8,700.00	\$ 9,320.00	7.1%	\$ 9,770.00	4.8%
4"	41	\$ 3,420.00	\$ 3,670.00	7.3%	\$ 3,850.00	4.9%
2"	10	\$ 760.00	\$ 820.00	7.9%	\$ 860.00	4.9%

Note: Without a dedicated Capital Charge, typical industrial bills would increase 10% for the same revenue impact.

What Does it Cost for a Drink?

Bottled Water @ the store

- Treated
- Disinfected
- 20 oz. bottle - \$1.25
- $\$1.25/20 = \0.0625 per oz.
- 128 oz. in a gallon
- $\$0.0625 \times 128 = \$8.00/\text{Gal.}$

Wooster Water Delivered to your home, 24/7/365

- Treated
- Disinfected
- \$14.00 min. charge monthly
- Includes 2,000 gallons
- $\$14/2000 = \$0.007/$ gallon

Wooster Water is 1142 x Cheaper

Nearby Community Increases

City of Orrville Water – 40% increase over the next 5 years

8% increase in 2018

7% increase in 2019

6% increase 2020, 2021, 2022

City of Canton Water: 8% annual increase, 2017 thru 2019

City of Canton Sewer: 8.5% annual increase, 2018 thru 2021

NEORSD: 33.2% increase over 4 years

(8.3 % annual increase, 2017 thru 2021)

City of Akron Sewer – 70% increase in sewer rates during 2013-2015

Conclusion

- We have identified the weaknesses in past practices and have researched best practices from industry groups such as AWWA (American Water Works Association).
- We are ready to implement a 10 year rate forecast.
- If we make no changes the Water and Sewer Funds will run out of cash by 2021.
- Postponing critical infrastructure needs due to lack of funding only causes those projects to cost more later.
- Our infrastructure continues to age and break, this cannot be stopped.
- This long period since the last rate adjustment has caused the need for catch up increases of 5% in the water and sewer funds.