

Water and Sewer Rates

City Commission Meeting

January 26, 2015



History of Water & Sewer Rate Increases

	1994	1995	1996	1997	1998	1999	2000
Water	(12)%	0%	0%	0%	(9)%	0%	0%
Sewer	25%	0%	0%	0%	5%	7%	8%
Combined	7%	0%	0%	0%	(1)%	4%	5%
	2001	2002	2003	2004	2005	2006	2007
Water	35%	30%	25%	0%	0%	0%	0%
Sewer	35%	30%	25%	0%	0%	0%	0%
Combined	35%	30%	25%	0%	0%	0%	0%
	2008	2009	2010	2011	2012	2013	2014
Water	0%	0%	0%	0%	0%	0%	0%
Sewer	0%	0%	0%	0%	0%	0%	0%
Combined	0%	0%	0%	0%	0%	0%	0%



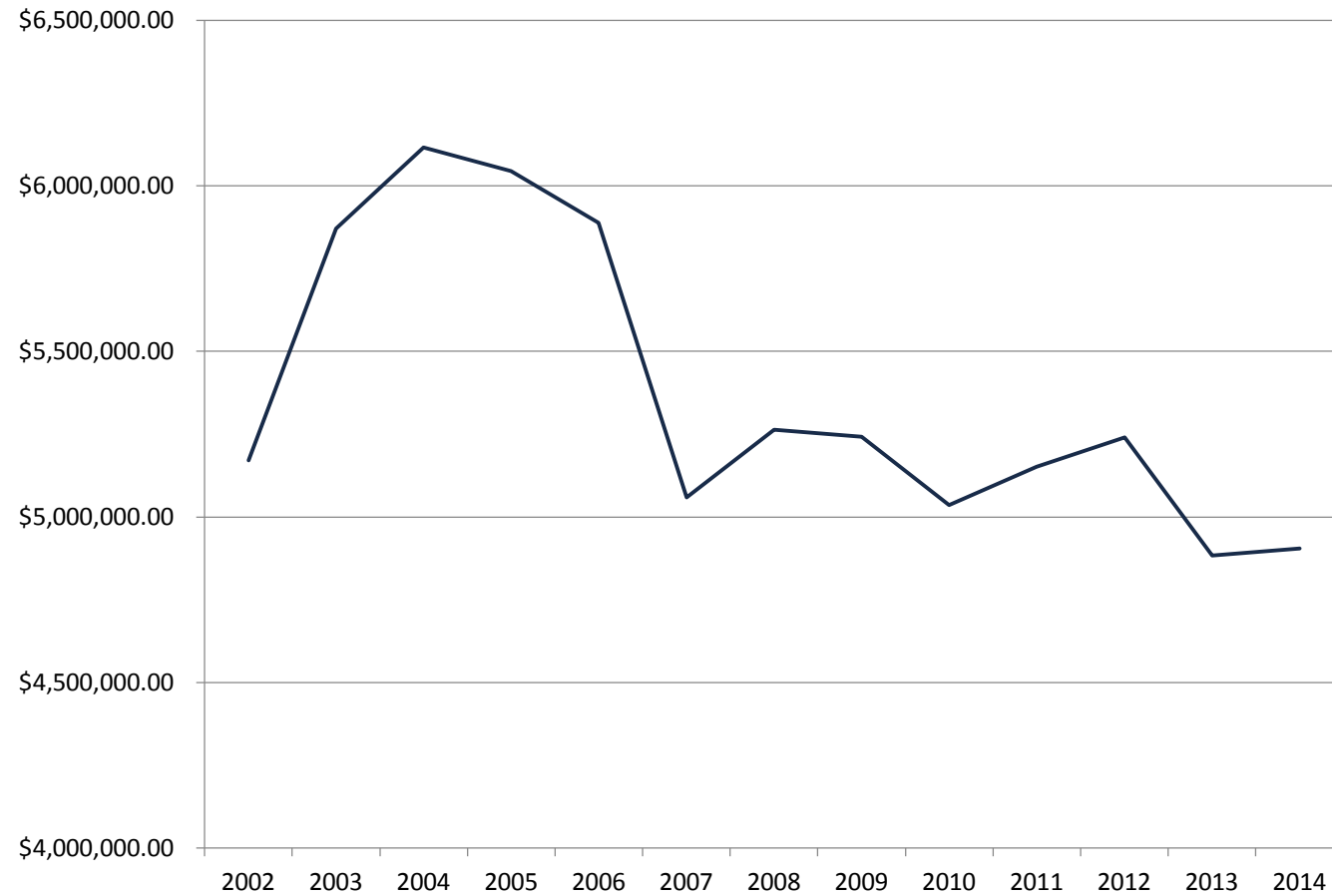
Background Information

- EPA requested detailed analysis of sewer rates to be incorporated into the General Plan Update
- Cost to revise previous rate studies in 2014 was over \$15,000 each for sewer and water
- Detailed spreadsheet created in lieu of full study for around \$5,000 each
- Can update the document annually based on actual year-end numbers and proposed future capital improvement plans
- Future: Do not have to perform full rate study to analyze rates
- Goal of rate study: balance necessary reserves to actual reserves
- Target reserve is around 25% of O&M and debt service
- Less revenue since peak usage (~20% water, ~17% sewer), reduced demand possibly from recession, less population, conservation



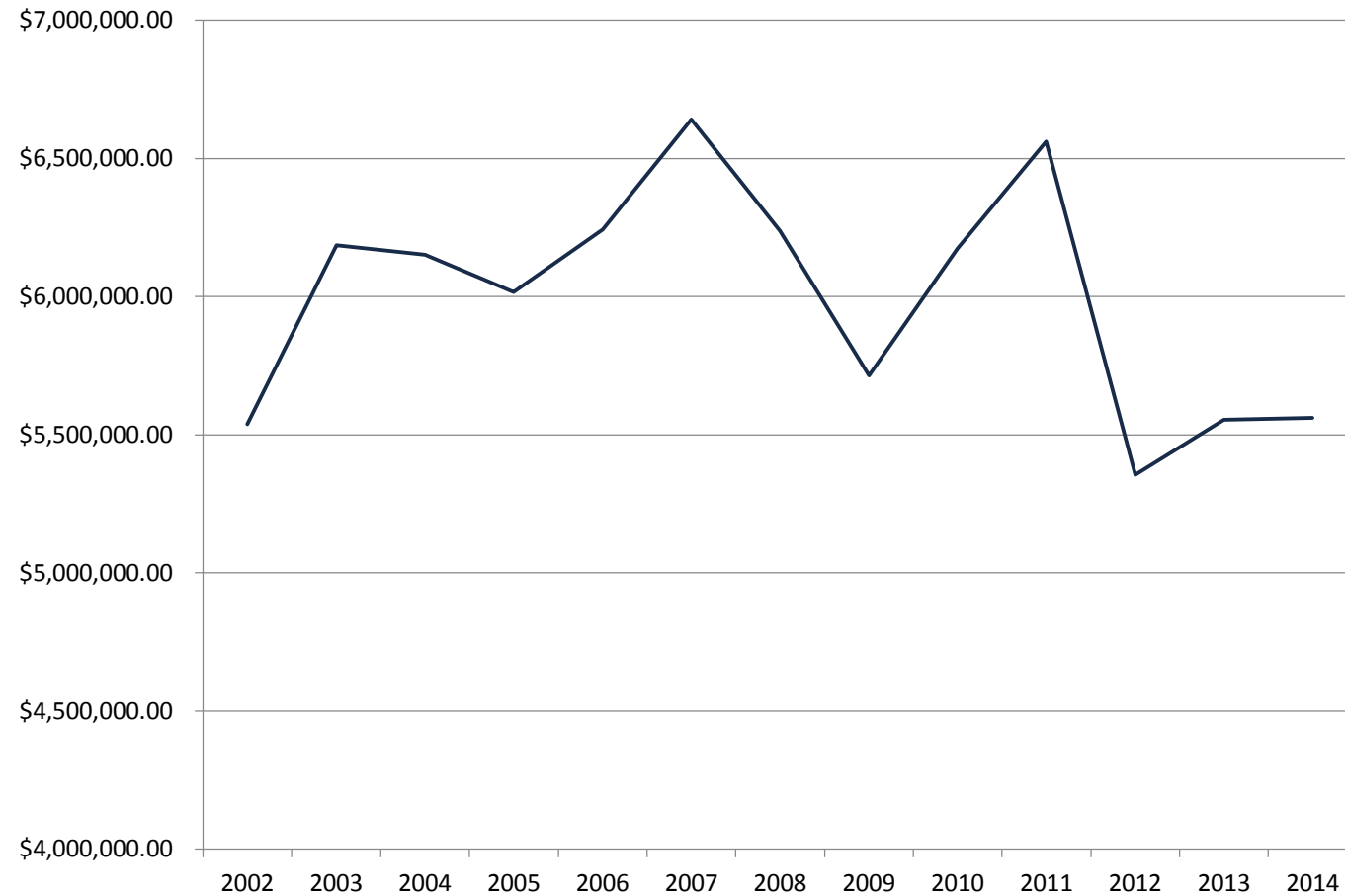
Historical Water Revenues

Year	Revenue
2002	\$ 5,170,875.66
2003	\$ 5,871,723.63
2004	\$ 6,115,821.55
2005	\$ 6,045,467.79
2006	\$ 5,887,976.61
2007	\$ 5,058,976.42
2008	\$ 5,263,767.61
2009	\$ 5,241,678.74
2010	\$ 5,035,794.05
2011	\$ 5,152,314.94
2012	\$ 5,241,144.90
2013	\$ 4,884,332.78
2014	\$ 4,904,659.64



Historical Sewer Revenues

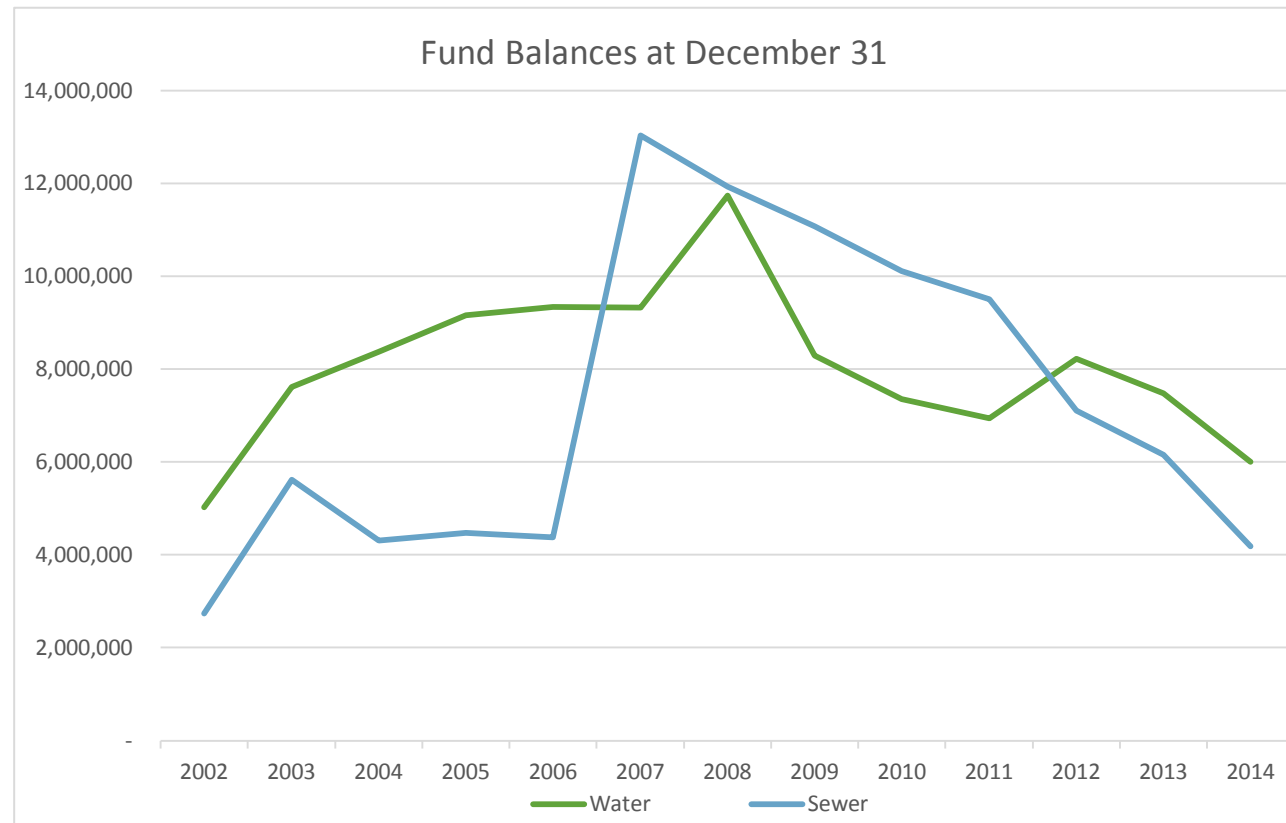
Year	Revenue
2002	\$ 5,538,613.48
2003	\$ 6,186,836.76
2004	\$ 6,151,848.21
2005	\$ 6,016,899.35
2006	\$ 6,242,923.93
2007	\$ 6,640,684.44
2008	\$ 6,239,171.53
2009	\$ 5,714,134.57
2010	\$ 6,173,847.86
2011	\$ 6,562,021.88
2012	\$ 5,354,671.58
2013	\$ 5,553,879.17
2014	\$ 5,560,948.99



Historical Year End Reserves

- Larger historical reserves because of increases in 2001, 2002 and 2003 but lack of sustainable increases while implementing multi-year capital plans caused reserves to decrease

Year	Water	Sewer
2002	\$ 5,029,782.30	\$ 2,732,821.38
2003	\$ 7,613,504.69	\$ 5,621,768.52
2004	\$ 8,373,417.34	\$ 4,313,244.51
2005	\$ 9,156,358.46	\$ 4,476,973.41
2006	\$ 9,333,884.79	\$ 4,378,391.81
2007	\$ 9,317,564.92	\$13,033,140.36
2008	\$11,732,495.73	\$11,929,212.78
2009	\$ 8,283,596.29	\$11,079,163.99
2010	\$ 7,348,811.09	\$10,105,962.99
2011	\$ 6,945,210.21	\$ 9,495,838.72
2012	\$ 8,224,460.83	\$ 7,111,404.89
2013	\$ 7,472,242.16	\$ 6,159,737.55
2014	\$ 6,001,890.58	\$ 4,184,648.55



Reasons for Rate Increase

- Inflationary cost increases
- Last rate increase was in 2003
- Decline in consumption
- Nearly \$12 million in water system improvements in next 7 years
- Improvements to address algae problem in Sandusky Bay
- Improvements to replace aging infrastructure
- Over \$20 million in sewer system improvements in next 7 years
- Improvements required to reduce combined sewer overflows
- Compliance with Ohio EPA Consent Order
- Fines up to \$8,500 per day for failure to comply
- Compliance with OEPA Storm Water regulations



Capital Projects - Water

- Water Quality related to Harmful Algal Blooms (THM & Toxin project)
- Rotating Screen Repairs
- Emergency Intake Improvements
- Pressure improvements in distribution
- Sludge Handling Improvements
- Filter Media Replacement
- Rye Beach Intake Improvements
- Carbon Feed System Improvements
- Wholesale Rate Study
- Vehicles
- Water Main repair and improvement projects:
 - Water Street
 - Looping under railroads
 - Lincoln Street
 - Venice Road
 - F Street
 - Forest Drive
 - McArthur Park Area
 - Cleveland Road
 - Perkins Avenue



Capital Projects – Wastewater & Storm Water

- Bar Screen Reconstruction
- General Plan projects (EPA mandated)
 - Grit Tank Capacity Improvements
 - East End Sewer Improvements
 - Farwell & Pier Track Upgrades
 - Mills Street Wet Weather Facility
 - New Third Street Equalization Basin and Pump Station with Cross-town Force main
- WPC Roof repairs, including digester
- Vehicles
- Centrifuge Improvements
- Sanitary/Combined Sewer Projects
 - Market Street
 - Sloane
 - Miscellaneous
- Storm Water related projects
 - Water Street
 - Warren Street
 - Camp Street
 - Curran Street
- Venice Road Lift Station Improvements

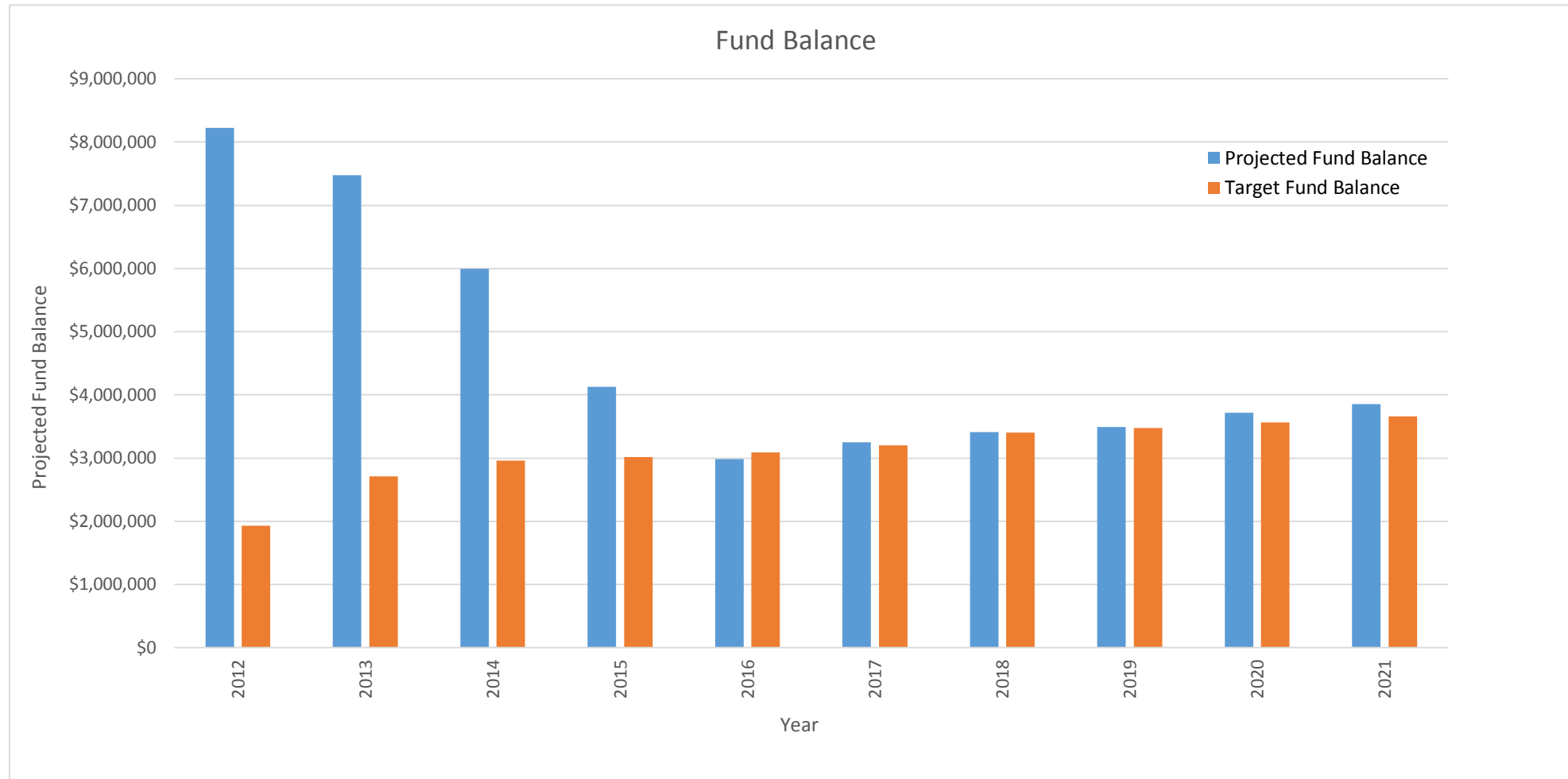


Water Rate Model - Summary

Sandusky, Ohio Water Fund Rate Model										
	Actual 2012	Actual 2013	Actual 2014	Budgeted 2015	Projected 2016	Projected 2017	Projected 2018	Projected 2019	Projected 2020	Projected 2021
Revenue	\$8,409,252	\$5,702,940	\$5,028,204	\$6,273,629	\$8,469,159	\$10,099,026	\$8,327,365	\$8,848,928	\$9,005,083	\$9,165,922
Expense	\$7,130,001	\$6,455,158	\$6,768,247	\$8,141,149	\$9,610,073	\$9,832,667	\$8,171,733	\$8,767,672	\$8,779,010	\$9,028,753
Surplus/Deficit	\$1,279,251	\$(752,218)	\$(1,740,043)	\$(1,867,520)	\$(1,140,914)	\$266,359	\$155,632	\$81,256	\$226,072	\$137,169
End of Year Fund Balance	\$8,224,461	\$7,472,243	\$5,994,553	\$4,127,033	\$2,986,119	\$3,252,479	\$3,408,110	\$3,489,366	\$3,715,439	\$3,852,608
Targeted Fund Balance	\$1,933,929	\$2,713,401	\$2,962,238	\$3,021,174	\$3,089,664	\$3,199,056	\$3,399,614	\$3,478,639	\$3,564,556	\$3,659,365



Water Rate Model – Target vs. Projected



Water Rate Model – Percent Increases

Sandusky, Ohio Water Fund Rate Model										
	Actual 2012	Actual 2013	Actual 2014	Budgeted 2015	Projected 2016	Projected 2017	Projected 2018	Projected 2019	Projected 2020	Projected 2021
Percent Rate Increase	Last Water Rate Increase was in 2003									
City										
Minimum Charge (\$/bill)	0.0%	0.0%	0.0%	25.0%	25.0%	7.0%	3.0%	3.0%	3.0%	3.0%
Commodity Charge (\$/ccf)	0.0%	0.0%	0.0%	25.0%	25.0%	7.0%	3.0%	3.0%	3.0%	3.0%
County										
Used for calculating 3-yr Wholesale Rate	0.0%	-6.3%	0.0%	0.0%	25.0%	7.0%	3.0%	3.0%	3.0%	3.0%
Wholesale (\$/ccf)*	0.0%	-6.3%	0.0%	0.0%	36.9%	0.0%	0.0%	10.0%	0.0%	0.0%



Water Rate Model – Rates

Sandusky, Ohio Water Fund Rate Model										
Rates	Actual 2012	Actual 2013	Actual 2014	Budgeted 2015	Projected 2016	Projected 2017	Projected 2018	Projected 2019	Projected 2020	Projected 2021
City										
Minimum Charge (\$/bill)	\$4.10	\$4.10	\$4.10	\$5.13	\$6.41	\$6.85	\$7.06	\$7.27	\$7.49	\$7.72
Commodity Charge (\$/ccf)	\$1.90	\$1.90	\$1.90	\$2.38	\$2.97	\$3.18	\$3.27	\$3.37	\$3.47	\$3.58
County										
Used for calculating 3-yr Wholesale Rate	\$1.26	\$1.18	\$1.18	\$1.18	\$1.48	\$1.58	\$1.63	\$1.67	\$1.72	\$1.78
Wholesale (\$/ccf)	\$1.26	\$1.18	\$1.18	\$1.18	\$1.62	\$1.62	\$1.62	\$1.78	\$1.78	\$1.78

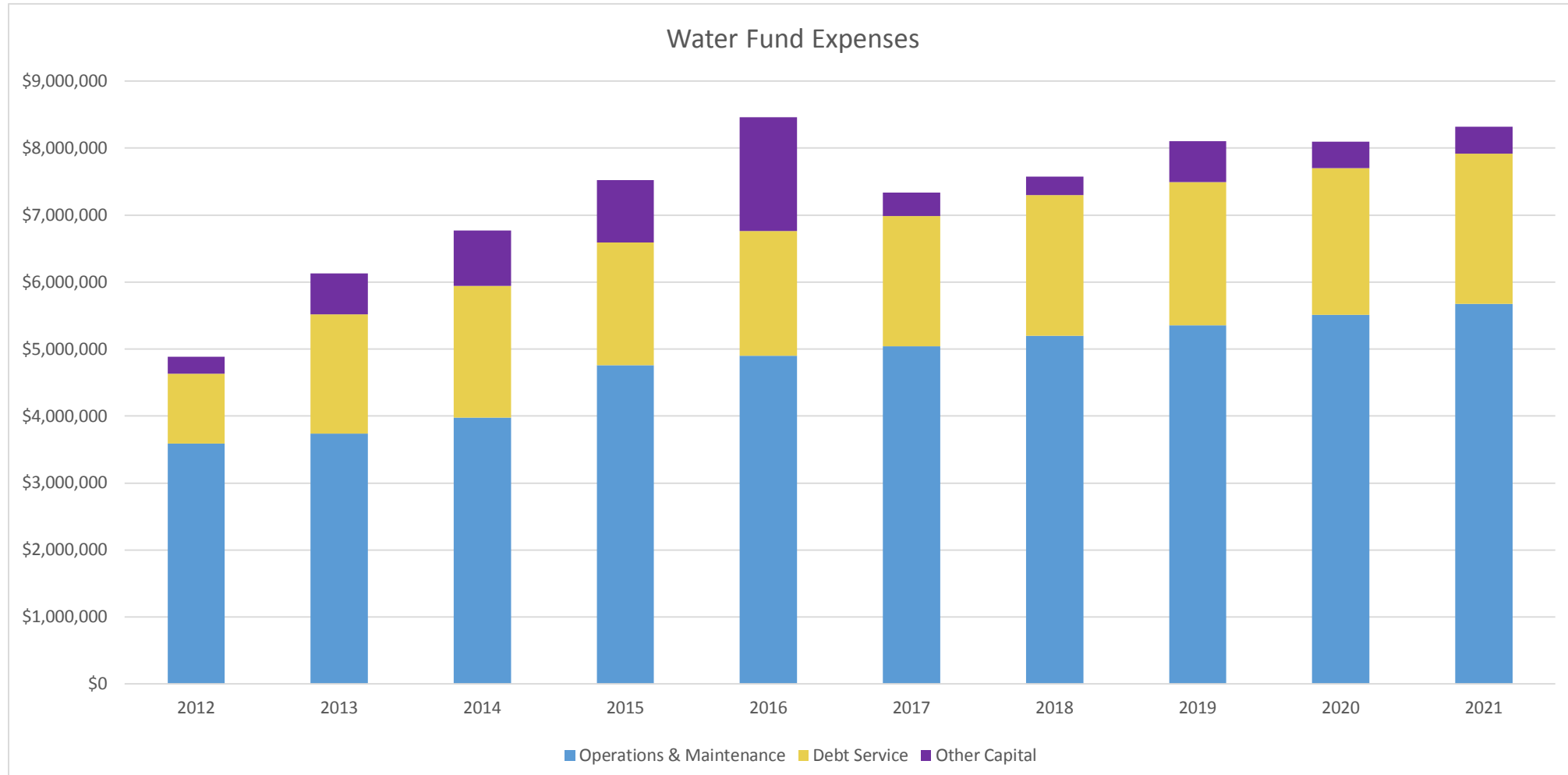


Water Rate Model - Summary

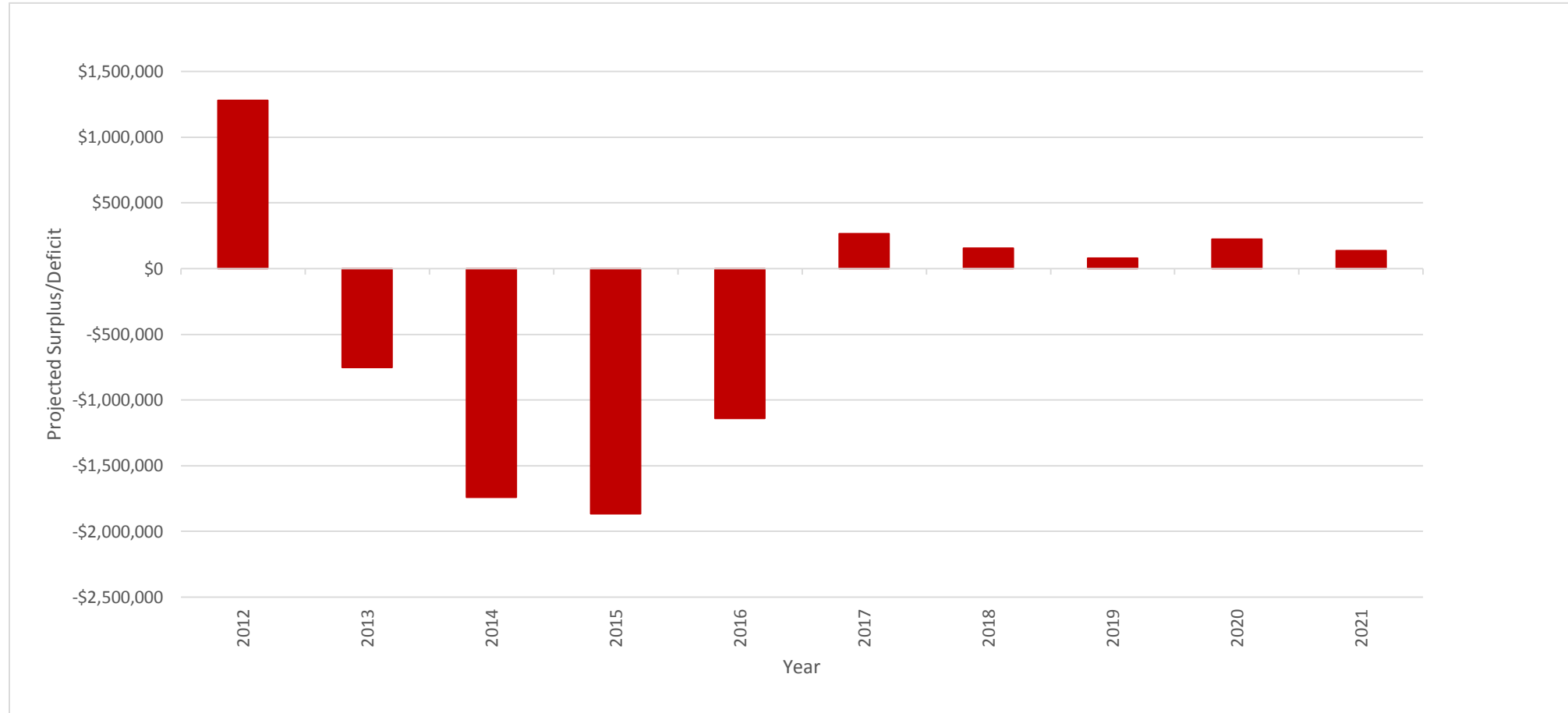
Sandusky, Ohio Water Fund Rate Model										
Monthly Bill	Actual 2012	Actual 2013	Actual 2014	Budgeted 2015	Projected 2016	Projected 2017	Projected 2018	Projected 2019	Projected 2020	Projected 2021
Based on 6.00 ccf (City)	\$13.60	\$13.60	\$13.60	\$17.00	\$21.25	\$22.74	\$23.42	\$24.12	\$24.85	\$25.59
Based on 10.37 ccf (City)	\$21.90	\$21.90	\$21.90	\$27.38	\$34.22	\$36.62	\$37.72	\$38.85	\$40.01	\$41.22
State-wide Average Bill Based on 10.37 ccf (2012 OEPA Survey)	\$45.58	\$47.75	\$50.02	\$52.39	\$54.88	\$57.49	\$60.22	\$63.08	\$66.08	\$69.21



Water Fund Expense Breakdown



Water Fund – Projected Surplus/Deficit

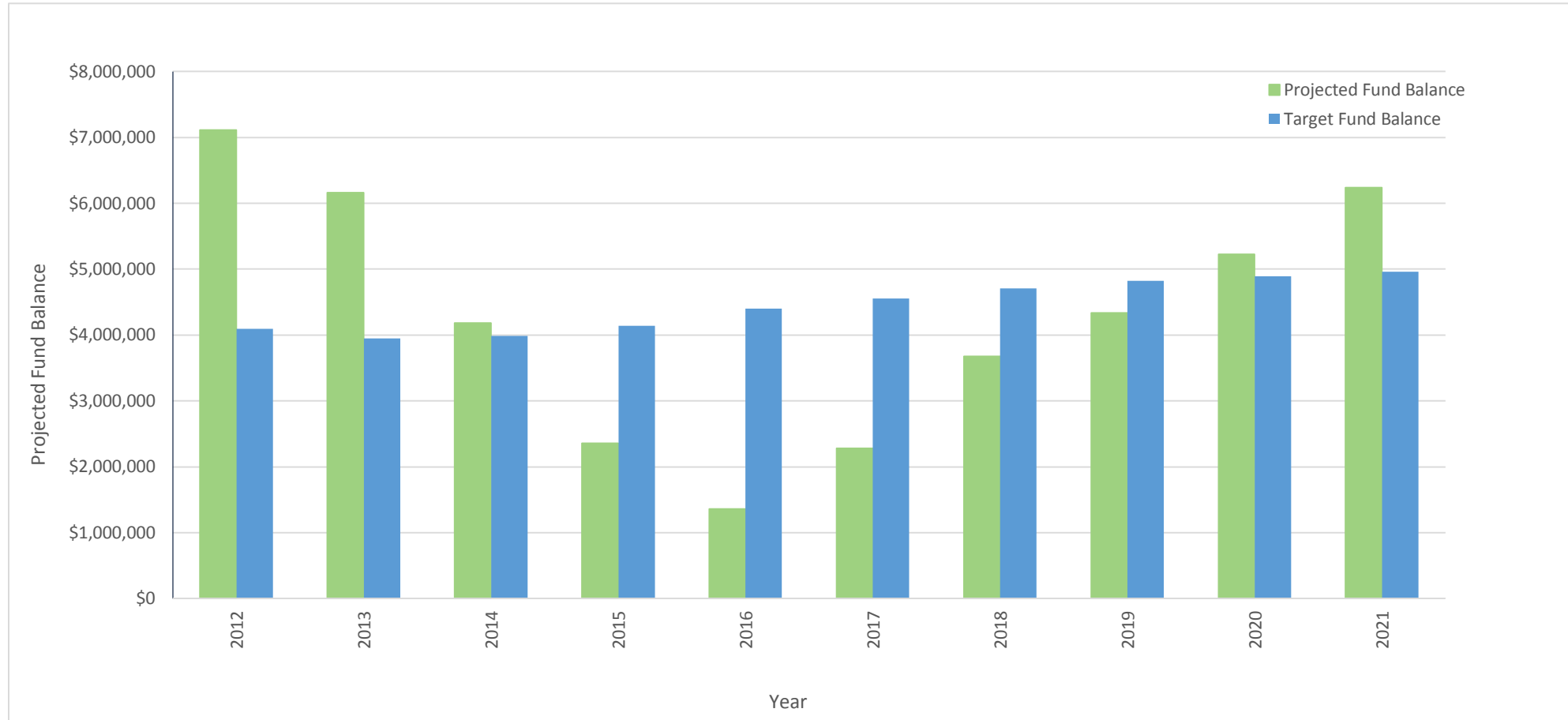


Sewer Rate Model - Summary

Sandusky, Ohio Sewer Fund Rate Model										
	Actual 2012	Actual 2013	Actual 2014	Budgeted 2015	Projected 2016	Projected 2017	Projected 2018	Projected 2019	Projected 2020	Projected 2021
Revenue	\$5,663,908	\$6,310,338	\$7,281,305	\$11,339,125	\$10,918,382	\$12,658,162	\$12,630,142	\$11,837,845	\$12,290,004	\$12,639,779
Expense	\$8,048,341	\$7,262,006	\$9,380,115	\$13,163,129	\$11,919,930	\$11,742,724	\$11,240,651	\$11,178,203	\$11,398,735	\$11,621,336
Surplus/Deficit	\$(2,384,433)	\$(951,668)	\$(2,098,810)	\$(1,824,005)	\$(1,001,548)	\$915,437	\$1,389,491	\$659,642	\$891,269	\$1,018,443
End of Year Fund Balance	\$7,111,405	\$6,159,737	\$4,178,774	\$2,354,769	\$1,353,221	\$2,268,658	\$3,658,149	\$4,317,791	\$5,209,061	\$6,227,504
Targeted Fund Balance	\$4,091,526	\$3,945,264	\$5,451,936	\$4,131,030	\$4,393,593	\$4,542,916	\$4,698,749	\$4,810,543	\$4,880,545	\$4,948,101



Sewer Fund Balance – Target vs. Projected



Sewer Rate Model – Percent Increases

Sandusky, Ohio Sewer Fund Rate Model										
	Actual 2012	Actual 2013	Actual 2014	Budgeted 2015	Projected 2016	Projected 2017	Projected 2018	Projected 2019	Projected 2020	Projected 2021
Percent Rate Increase										
City										
Minimum Charge (\$/bill)	0.0%	0.0%	0.0%	25.0%	25.0%	25.0%	5.0%	3.0%	3.0%	3.0%
Commodity Charge (\$/ccf)	0.0%	0.0%	0.0%	25.0%	25.0%	25.0%	5.0%	3.0%	3.0%	3.0%
Storm Water Charge (\$/ERU)	N/A	N/A	N/A	N/A	0.0%	0.0%	0.0%	0.0%	33.3%	0.0%
County										
Wholesale (\$/ccf)	14.6%	-14.5%	17.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%



Sewer Rate Model - Rates

Sandusky, Ohio Sewer Fund Rate Model										
	Actual 2012	Actual 2013	Actual 2014	Budgeted 2015	Projected 2016	Projected 2017	Projected 2018	Projected 2019	Projected 2020	Projected 2021
Rates	Last Sewer Rate Increase was in 2003									
City										
Minimum Charge (\$/bill/mo)	\$7.00	\$7.00	\$7.00	\$8.75	\$10.94	\$13.67	\$14.36	\$14.79	\$15.23	\$15.69
Commodity Charge (\$/ccf)	\$3.97	\$3.97	\$3.97	\$4.96	\$ 6.20	\$ 7.75	\$ 8.14	\$ 8.39	\$ 8.64	\$ 8.90
Storm Water Charge (\$/ERU/mo)*	\$ 0	\$ 0	\$ 0	\$3.00	\$ 3.00	\$ 3.00	\$ 3.00	\$ 3.00	\$ 4.00	\$ 4.00
County										
Wholesale (\$/ccf)	\$0.55	\$0.47	\$0.55	\$0.57	\$0.58	\$0.60	\$0.62	\$0.64	\$0.66	\$0.68

*Per bill for 2015 and 2016.



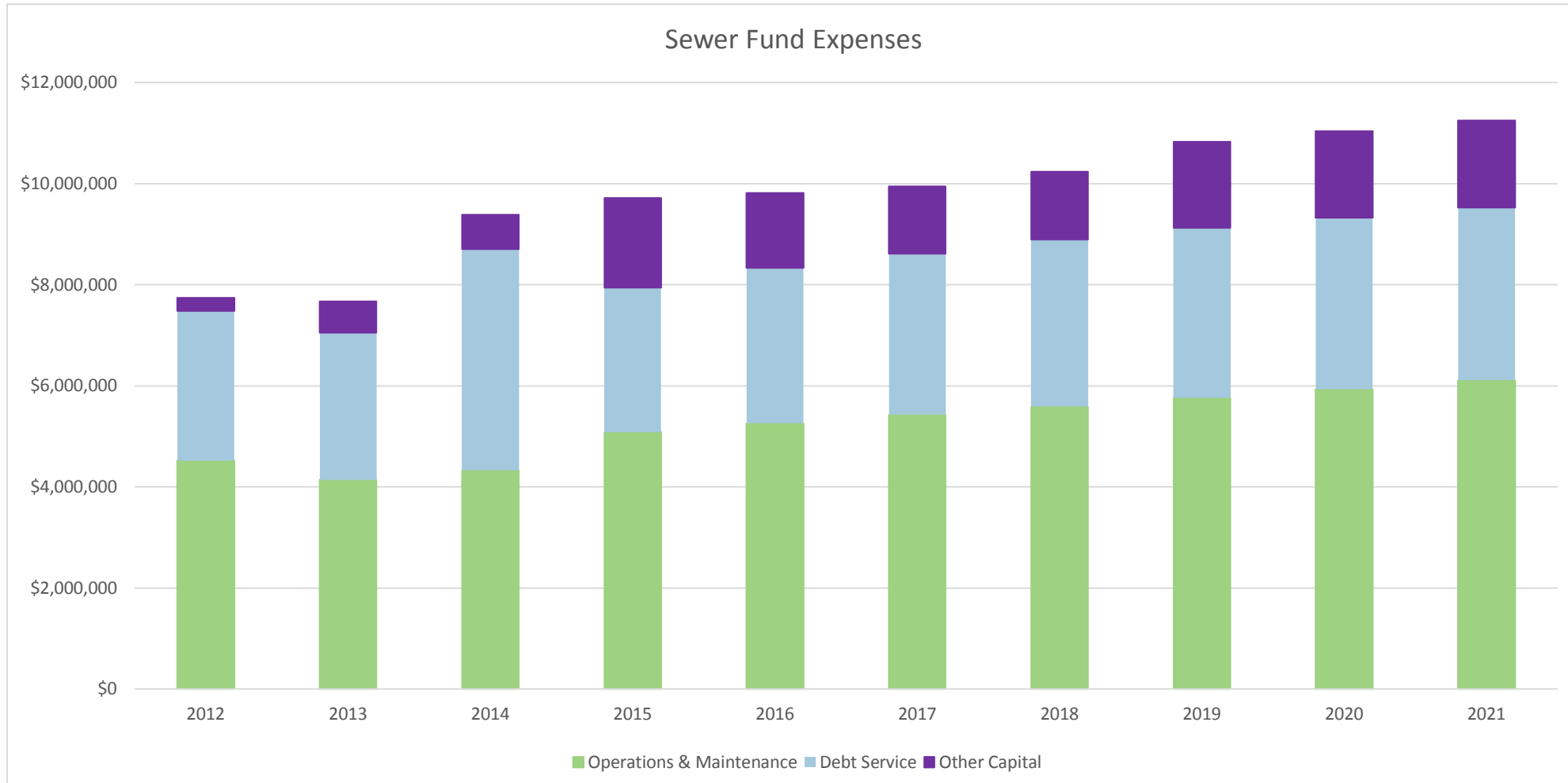
Sewer Rate Model - Summary

Sandusky, Ohio Sewer Fund Rate Model										
Monthly Bill (City)	Actual 2012	Actual 2013	Actual 2014	Budgeted 2015	Projected 2016	Projected 2017	Projected 2018	Projected 2019	Projected 2020	Projected 2021
Based on 6.00 ccf	\$26.85	\$26.85	\$26.85	\$36.56	\$44.95	\$55.44	\$58.06	\$59.72	\$62.42	\$64.17
Based on 10.37 ccf	\$44.20	\$44.20	\$44.20	\$58.25	\$72.06	\$89.33	\$93.64	\$96.36	\$100.16	\$103.05
Ohio CSO Community Average Bill Based on 10.37 ccf	\$53.91	\$56.77	\$59.78	\$62.94	\$66.28	\$69.79	\$73.49	\$77.39	\$81.49	\$85.81
MHI	0.95%	0.93%	0.92%	1.23%	1.49%	1.81%	1.86%	1.89%	1.94%	1.96%

- The 2012 Median Household Income (MHI) is \$34,018 based on 2008-2012 American Community Survey (ACS) 5-year Estimates. The projected MHI has been adjusted for inflation based on the 5-year (2009-2013) average Consumer Price Index (CPI) of 1.6 percent.
- The Guidance for Financial Capability Assessment and Schedule Development, EPA 1997 published that the desired financial impact to be within:
"Mid-Range" level of 1.0 - 2.0% MHI.



Sewer Fund Expense Breakdown



Sewer Fund – Projected Surplus/Deficit



Estimated 2015 Combined Rate based on Meter Size

2015 WATER-SEWER RATE ADJUSTMENT
CITY OF SANDUSKY
EFFECTIVE 4/1/2015

MINIMUM BILLS: (INCLUDES 1 CCF)

METER SIZE	COMPUTER SYSTEM SIZE	WATER NEW MINIMUM AMOUNT	SEWER NEW MINIMUM AMOUNT	TOTAL NEW MINIMUM AMOUNT
5/8	1	\$ 5.13	\$ 8.75	\$13.88
3/4	2	\$ 5.13	\$ 10.04	\$15.17
1	3	\$ 5.13	\$ 12.61	\$17.74
1 1/2	4	\$ 5.13	\$ 19.03	\$24.16
2	5	\$ 5.13	\$ 26.74	\$31.87
3	6	\$ 5.13	\$ 44.73	\$49.86
4	7	\$ 5.13	\$ 70.43	\$75.56
6	8	\$ 5.13	\$ 134.68	\$139.81
8	9	\$ 5.13	\$ 211.78	\$216.91
10	10	\$ 5.13	\$ 301.73	\$306.86
12	11	\$ 5.13	\$ 558.73	\$563.86

- Normal Residential Meter Size is 5/8"
- This does not include the storm water charge of \$3.00 per bill.



Estimated Monthly Residential Bill per Use in 2015

CONSUMPTION OVER MINIMUM(1 CCF) :
 \$ 2.38 \$ 4.96 \$ 7.34

EXAMPLES OF RESIDENTIAL (5/8") MONTHLY BILLS:

CCF	NEW WATER AMOUNT	NEW SEWER AMOUNT	NEW TOTAL AMOUNT	OLD TOTAL AMOUNT	DOLLAR AMOUNT OF CHANGE	% OF CHANGE
1	5.13	8.75	\$13.88	11.10	\$2.78	25.05%
2	7.51	13.71	\$21.22	16.97	\$4.25	25.04%
3	9.89	18.67	\$28.56	22.84	\$5.72	25.04%
4	12.27	23.63	\$35.90	28.71	\$7.19	25.04%
5	14.65	28.59	\$43.24	34.58	\$8.66	25.04%
6	17.03	33.55	\$50.58	40.45	\$10.13	25.04%
7	19.41	38.51	\$57.92	46.32	\$11.60	25.04%
8	21.79	43.47	\$65.26	52.19	\$13.07	25.04%
9	24.17	48.43	\$72.60	58.06	\$14.54	25.04%
10	26.55	53.39	\$79.94	63.93	\$16.01	25.04%
11	28.93	58.35	\$87.28	69.80	\$17.48	25.04%
12	31.31	63.31	\$94.62	75.67	\$18.95	25.04%
13	33.69	68.27	\$101.96	81.54	\$20.42	25.04%
14	36.07	73.23	\$109.30	87.41	\$21.89	25.04%
15	38.45	78.19	\$116.64	93.28	\$23.36	25.04%
16	40.83	83.15	\$123.98	99.15	\$24.83	25.04%
17	43.21	88.11	\$131.32	105.02	\$26.30	25.04%
18	45.59	93.07	\$138.66	110.89	\$27.77	25.04%
19	47.97	98.03	\$146.00	116.76	\$29.24	25.04%
20	50.35	102.99	\$153.34	122.63	\$30.71	25.04%
21	52.73	107.95	\$160.68	128.50	\$32.18	25.04%
22	55.11	112.91	\$168.02	134.37	\$33.65	25.04%
23	57.49	117.87	\$175.36	140.24	\$35.12	25.04%
24	59.87	122.83	\$182.70	146.11	\$36.59	25.04%
25	62.25	127.79	\$190.04	151.98	\$38.06	25.04%
26	64.63	132.75	\$197.38	157.85	\$39.53	25.04%
27	67.01	137.71	\$204.72	163.72	\$41.00	25.04%
28	69.39	142.67	\$212.06	169.59	\$42.47	25.04%
29	71.77	147.63	\$219.40	175.46	\$43.94	25.04%
30	74.15	152.59	\$226.74	181.33	45.41	25.04%

- This does not include the storm water charge of \$3.00 per bill for 2015.



Estimated Monthly Residential Bill per Family Size in 2015

# IN FAMILY	# OF GALLONS gpcd	# OF CUBIC FEET GAL/7.5 = CF	# OF CCF CF/100 = CCF	WATER COST \$	SEWER COST \$	TOTAL COST \$	
				\$ 2.38	\$ 4.96	\$ 7.34	
1	85	2,550	340	4	\$ 9.52	\$ 19.84	\$ 29.36
				\$ (2.38)	\$ (4.96)	\$ (7.34)	
			MINIMUM	\$ 5.13	\$ 8.75	\$ 13.88	
			TOTAL	\$ 12.27	\$ 23.63	\$ 35.90	
2	85	5,100	680	7	\$ 16.66	\$ 34.72	\$ 51.38
				\$ (2.38)	\$ (4.96)	\$ (7.34)	
			MINIMUM	\$ 5.13	\$ 8.75	\$ 13.88	
			TOTAL	\$ 19.41	\$ 38.51	\$ 57.92	
3	85	7,650	1,020	11	\$ 26.18	\$ 54.56	\$ 80.74
				\$ (2.38)	\$ (4.96)	\$ (7.34)	
			MINIMUM	\$ 5.13	\$ 8.75	\$ 13.88	
			TOTAL	\$ 28.93	\$ 58.35	\$ 87.28	
4	85	10,200	1,360	14	\$ 33.32	\$ 68.44	\$ 102.76
				\$ (2.38)	\$ (4.96)	\$ (7.34)	
			MINIMUM	\$ 5.13	\$ 8.75	\$ 13.88	
			TOTAL	\$ 36.07	\$ 73.23	\$ 109.30	
5	85	12,750	1,700	17	\$ 40.46	\$ 84.32	\$ 124.78
				\$ (2.38)	\$ (4.96)	\$ (7.34)	
			MINIMUM	\$ 5.13	\$ 8.75	\$ 13.88	
			TOTAL	\$ 43.21	\$ 86.11	\$ 131.32	
6	85	15,300	2,040	21	\$ 49.98	\$ 104.16	\$ 154.14
				\$ (2.38)	\$ (4.96)	\$ (7.34)	
			MINIMUM	\$ 5.13	\$ 8.75	\$ 13.88	
			TOTAL	\$ 52.73	\$ 107.95	\$ 160.68	
7	85	17,850	2,380	24	\$ 57.12	\$ 119.04	\$ 176.16
				\$ (2.38)	\$ (4.96)	\$ (7.34)	
			MINIMUM	\$ 5.13	\$ 8.75	\$ 13.88	
			TOTAL	\$ 59.87	\$ 122.83	\$ 182.70	
8	85	20,400	2,720	28	\$ 66.64	\$ 138.88	\$ 205.52
				\$ (2.38)	\$ (4.96)	\$ (7.34)	
			MINIMUM	\$ 5.13	\$ 8.75	\$ 13.88	
			TOTAL	\$ 69.39	\$ 142.67	\$ 212.06	
9	85	22,950	3,060	31	\$ 73.78	\$ 153.76	\$ 227.54
				\$ (2.38)	\$ (4.96)	\$ (7.34)	
			MINIMUM	\$ 5.13	\$ 8.75	\$ 13.88	
			TOTAL	\$ 76.53	\$ 157.55	\$ 234.08	
10	85	25,500	3,400	34	\$ 80.92	\$ 168.64	\$ 249.56
				\$ (2.38)	\$ (4.96)	\$ (7.34)	
			MINIMUM	\$ 5.13	\$ 8.75	\$ 13.88	
			TOTAL	\$ 83.67	\$ 172.43	\$ 256.10	

- This does not include the storm water charge of \$3.00 per bill for 2015.



Comparison of Water & Sewer Rates in Similar Local Communities

Community	Water	Sewer*	Total
Bellevue	\$ 491	\$ 737	\$1228
Erie County	\$1315	\$ 670	\$1985
Fremont	\$ 608	\$ 615	\$1223
Huron	\$ 522	\$ 602	\$1124
Lorain	\$ 322	\$ 584	\$ 906
Norwalk	\$ 726	\$ 800	\$1526
Port Clinton	\$ 635	\$1326	\$1961
Vermilion	\$ 573	\$ 790	\$1363
Sandusky - 2014	\$ 263	\$ 530	\$ 793
Sandusky - 2015	\$ 329	\$ 699	\$1028
State Average	\$ 581	\$ 647	\$1228

*Does not include storm water charge

Source: 2012 Ohio EPA Sewer and Water Survey. Annual cost based on 10.37 ccf per month which is more than the average residential consumption.



Updated Rates for Septic Haulers

Gallons	Effective Date						
	4/1/15	1/1/16	1/1/17	1/1/18	1/1/19	1/1/20	1/1/21
	25%	25%	25%	5%	3%	3%	3%
1-1,000	\$ 54.85	\$ 68.56	\$ 85.70	\$ 89.99	\$ 92.69	\$ 95.47	\$ 98.33
1,001-2,000	\$ 82.26	\$102.83	\$128.54	\$134.96	\$139.01	\$143.18	\$147.48
2,001-3,000	\$109.69	\$137.11	\$171.39	\$179.96	\$185.35	\$190.92	\$196.64
3,001-4,000	\$137.11	\$171.39	\$214.24	\$224.95	\$231.70	\$238.65	\$245.81
4,001-5,000	\$164.54	\$205.67	\$257.09	\$269.94	\$278.04	\$286.38	\$294.98
5,001-more	\$219.38	\$274.22	\$342.77	\$359.91	\$370.71	\$381.83	\$393.29



Updated Water Turn-on Rates

939.10 Water Turn-On to be:

- Water that has been improperly shut off for reasons listed in 939.09 (mostly delinquency related items)
 - Increased from \$45.00 to \$75.00
- Water that has been properly shut off
 - Increased from \$25.00 to \$30.00

