



City of Franklin, TN
Water Cost of Service Study
12 Months ending June 2013

Presented: July 10, 2014

Sarah Chandler/Jim Marshall | Jackson Thornton Utilities Consultants



Typical Objectives of Rate Study

1. Revenue Stability and Sufficiency
2. Fairness and Equity
 - Fair is related to cross subsidies
 - Equity is related to $\text{Price}=\text{Cost}$
3. Ability to Pay
4. Simplicity (Admin & Cust Understanding)
5. Legally Defendable

Overview of Process

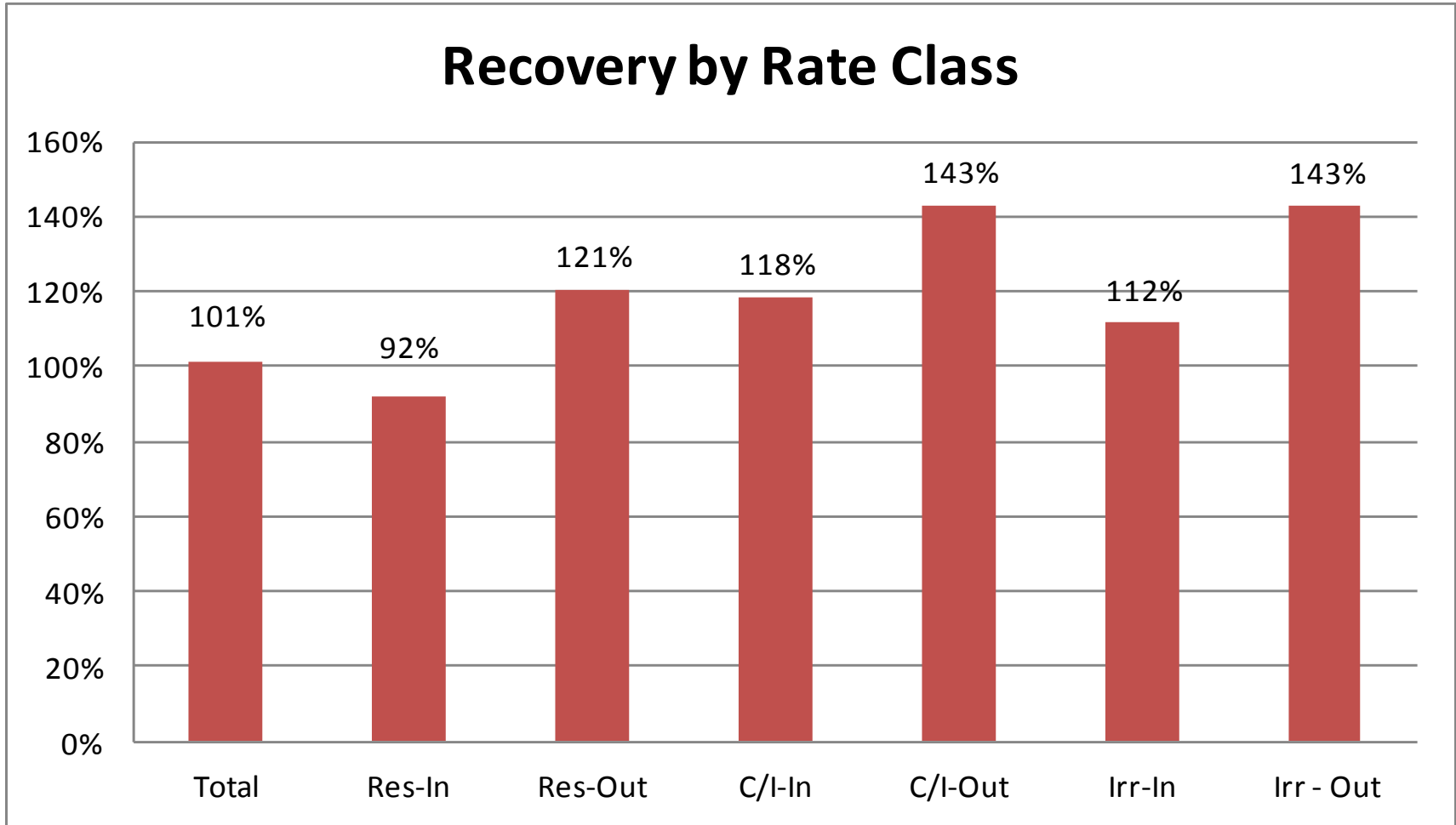
1. Determine Revenue Requirements
 - How much does the system need to recover?
2. Develop Revenue Requirements by Rate Class
 - How much do I need to make by rate class?
3. Develop COS Rates and Design Acceptable Rates
 - How do I best recover the needed revenues?
4. Implement Rate Changes

Water Revenue Requirement – FY2013

TOTAL REV. REQ.

Operations & Maintenance Expense	\$	8,233,657
Plus: Debt Service	\$	209,821
Plus: Rate Funded Capital	\$	1,509,292
Total Revenue Requirement	\$	<u>9,952,770</u>
Less: Other Revenue	\$	<u>752,431</u>
Rate Requirement	\$	<u>9,200,339</u>

Water Recovery By Class – FY2013



	Total	Res-In	Res-Out	C/I-In	C/I-Out	Irr-In	Irr - Out
Current Rate Revenue	\$ 9,319,189	\$ 5,549,393	\$ 1,285,611	\$ 1,727,635	\$ 162,920	\$ 453,751	\$ 139,880
Over/(Under) Recovery	\$ 118,850	\$ (536,170)	\$ 236,365	\$ 277,578	\$ 50,063	\$ 47,952	\$ 43,061

Water Projected Revenue Requirement

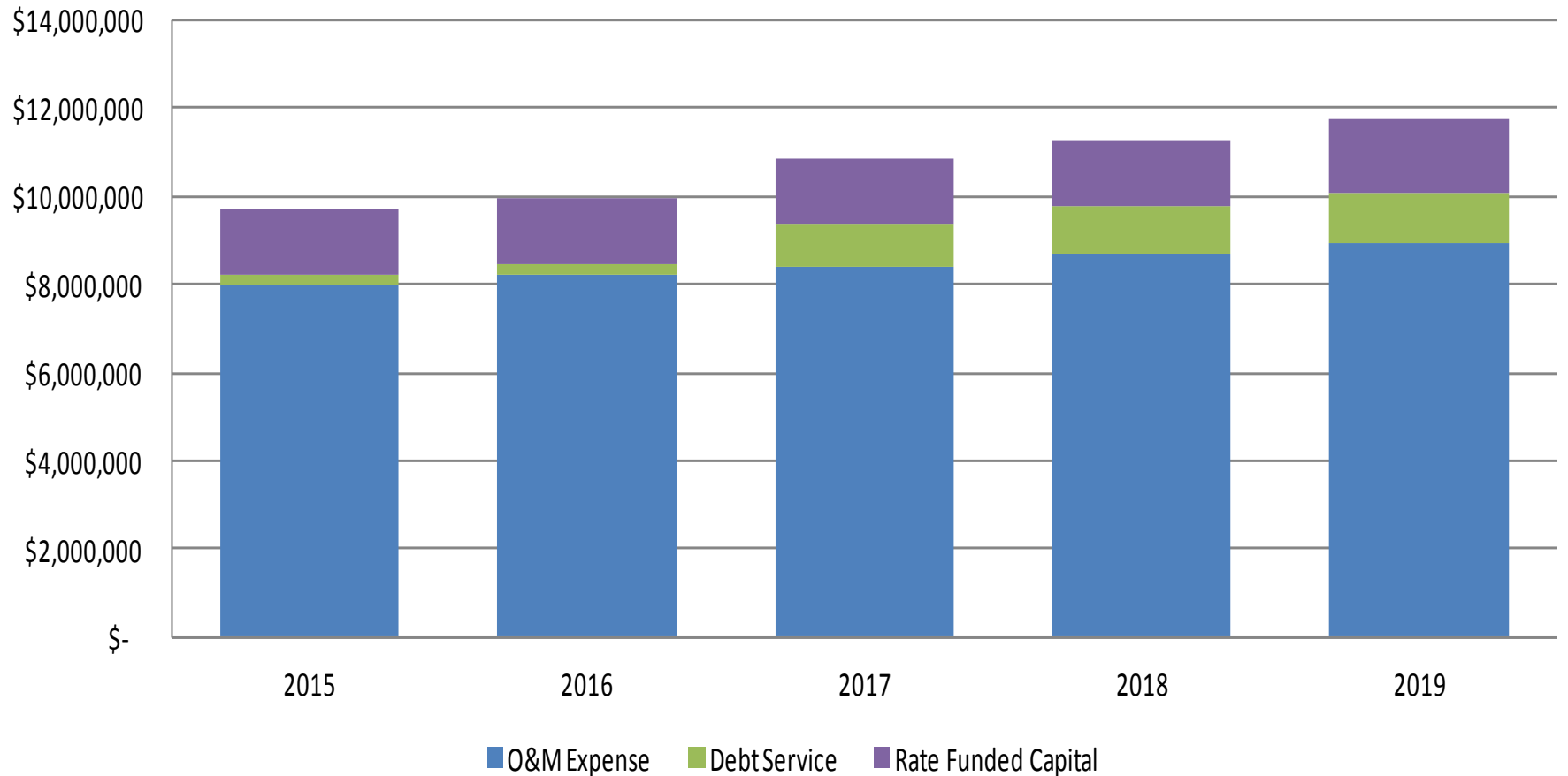
Revenue Requirement	2013	2015	2016	2017	2018	2019
O&M Expense	\$ 8,233,657	\$ 8,011,457	\$ 8,241,651	\$ 8,399,890	\$ 8,692,562	\$ 8,970,076
Debt Service	\$ 209,821	\$ 209,821	\$ 206,851	\$ 962,238	\$ 1,092,164	\$ 1,092,038
Rate Funded Capital	\$ 1,509,292	\$ 1,491,350	\$ 1,495,918	\$ 1,500,713	\$ 1,505,749	\$ 1,711,036
Total Revenue Requirement	\$ 9,952,770	\$ 9,712,628	\$ 9,944,419	\$ 10,862,842	\$ 11,290,475	\$ 11,773,151
Less: Other Revenue	\$ 752,431	\$ 752,431	\$ 752,431	\$ 752,431	\$ 752,431	\$ 752,431
Rate Requirement	\$ 9,200,339	\$ 8,960,197	\$ 9,191,988	\$ 10,110,411	\$ 10,538,044	\$ 11,020,720

**2013 from base COSS

***2015-2019 from City Budget

Water Projected Revenue Requirement

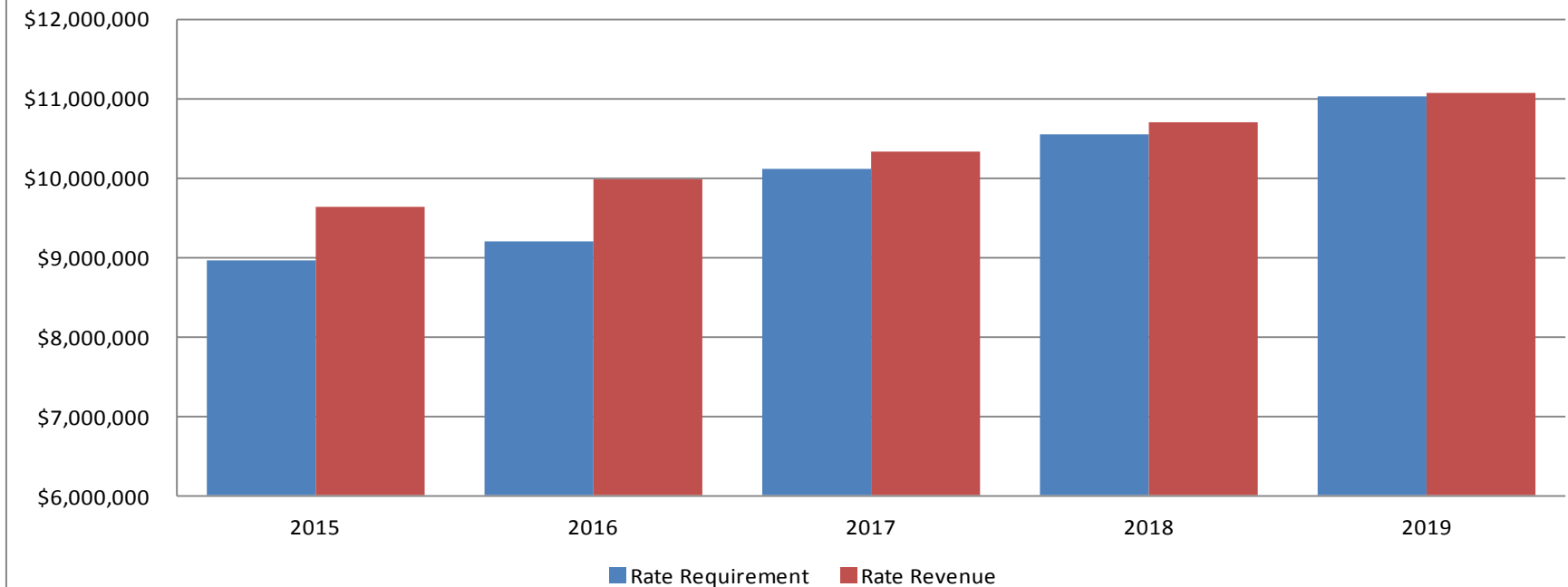
Projected System Revenue Requirement



Water – Five Year Approach

	Rate Requirement	% Change	\$ Change	Rate Revenue	Proposed Rate Change	Additional Revenue	Revenue - Requirement
Actual 2013	\$ 9,200,339			\$ 9,319,189			
Budget 2015	\$ 8,960,197	-2.6%	\$ (240,142)	\$ 9,645,361	3.50%	\$ 326,172	\$ 685,164
Budget 2016	\$ 9,191,988	2.6%	\$ 231,791	\$ 9,982,948	3.50%	\$ 337,588	\$ 790,960
Budget 2017	\$ 10,110,411	10.0%	\$ 918,423	\$ 10,332,352	3.50%	\$ 349,403	\$ 221,941
Budget 2018	\$ 10,538,044	4.2%	\$ 427,633	\$ 10,693,984	3.50%	\$ 361,632	\$ 155,940
Budget 2019	\$ 11,020,720	4.6%	\$ 482,676	\$ 11,068,273	3.50%	\$ 374,289	\$ 47,553

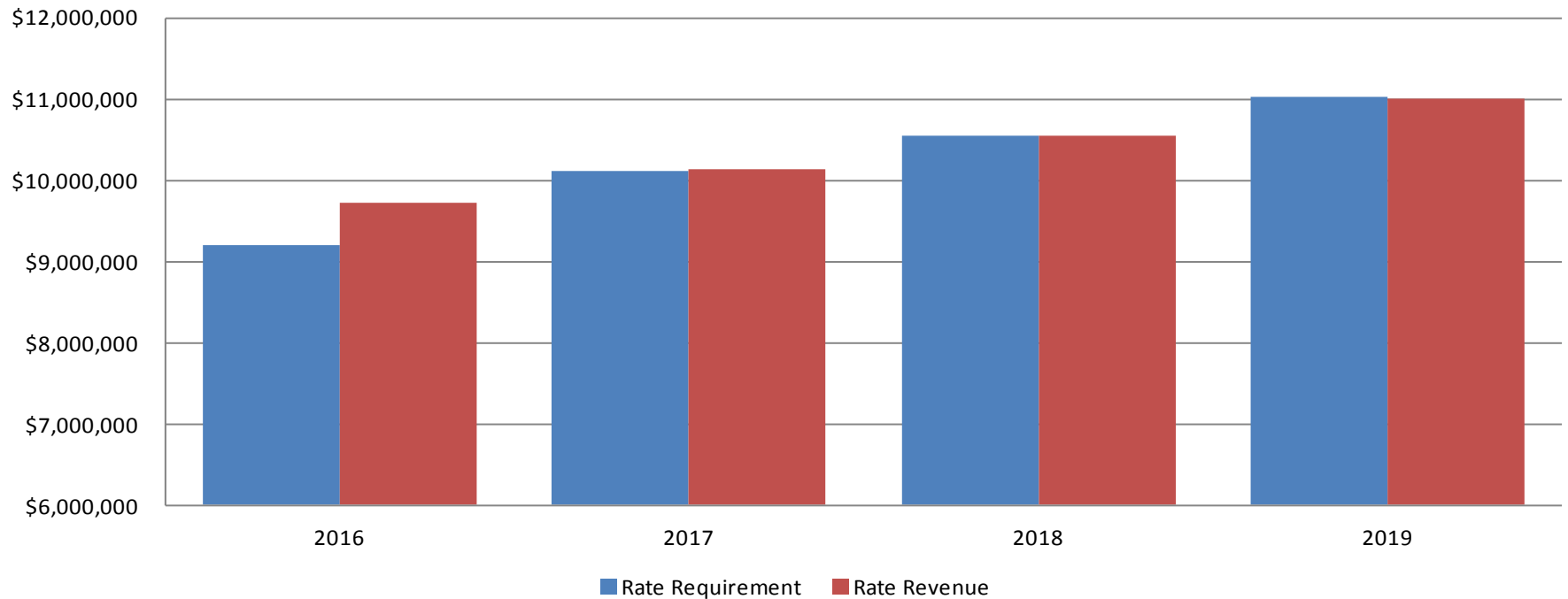
Rate Requirement Timeline



Water – Four Year Approach

	Rate Requirement	% Change	\$ Change	Rate Revenue	Proposed Rate Change	Additional Revenue	Revenue - Requirement
Actual 2013	\$ 9,200,339			\$ 9,319,189			
Budget 2016	\$ 9,191,988	2.6%	\$ 231,791	\$ 9,715,255	4.25%	\$ 396,066	\$ 523,266
Budget 2017	\$ 10,110,411	10.0%	\$ 918,423	\$ 10,128,153	4.25%	\$ 412,898	\$ 17,742
Budget 2018	\$ 10,538,044	4.2%	\$ 427,633	\$ 10,558,600	4.25%	\$ 430,447	\$ 20,556
Budget 2019	\$ 11,020,720	4.6%	\$ 482,676	\$ 11,007,340	4.25%	\$ 448,740	\$ (13,380)

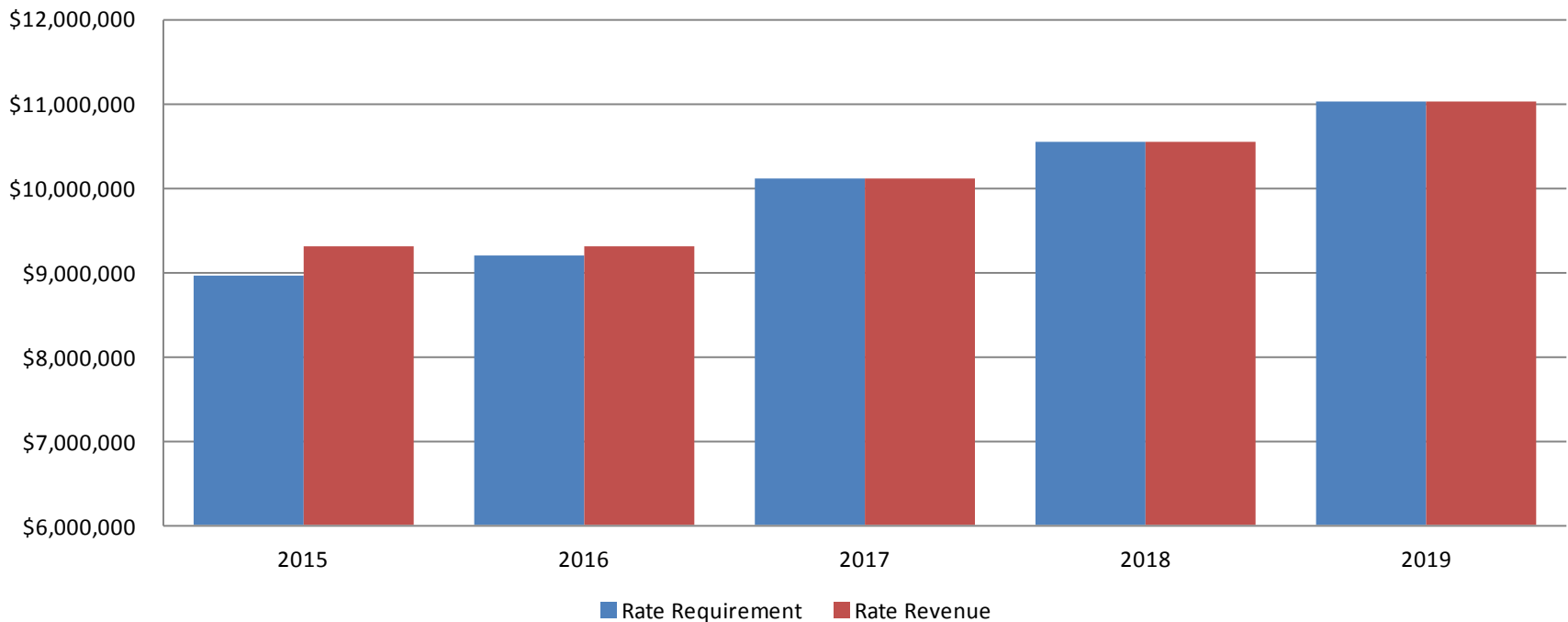
4 Year Rate Requirement Timeline



Water – COS Approach

		Rate Requirement	% Change	\$ Change	Rate Revenue	Proposed Rate Change	Additional Revenue	Revenue - Requirement
Actual	2013	\$ 9,200,339			\$ 9,319,189			
Budget	2015	\$ 8,960,197	-2.6%	\$ (240,142)	\$ 9,319,189	0.00%	\$ -	\$ 358,992
Budget	2016	\$ 9,191,988	2.6%	\$ 231,791	\$ 9,319,189	0.00%	\$ -	\$ 127,201
Budget	2017	\$ 10,110,411	10.0%	\$ 918,423	\$ 10,110,411	8.49%	\$ 791,222	\$ -
Budget	2018	\$ 10,538,044	4.2%	\$ 427,633	\$ 10,538,044	4.23%	\$ 427,633	\$ -
Budget	2019	\$ 11,020,720	4.6%	\$ 482,676	\$ 11,020,720	4.58%	\$ 482,676	\$ -

COS Approach Timeline





City of Franklin, TN
Sewer Cost of Service Study
12 Months ending June 2013

Presented: July 10, 2014

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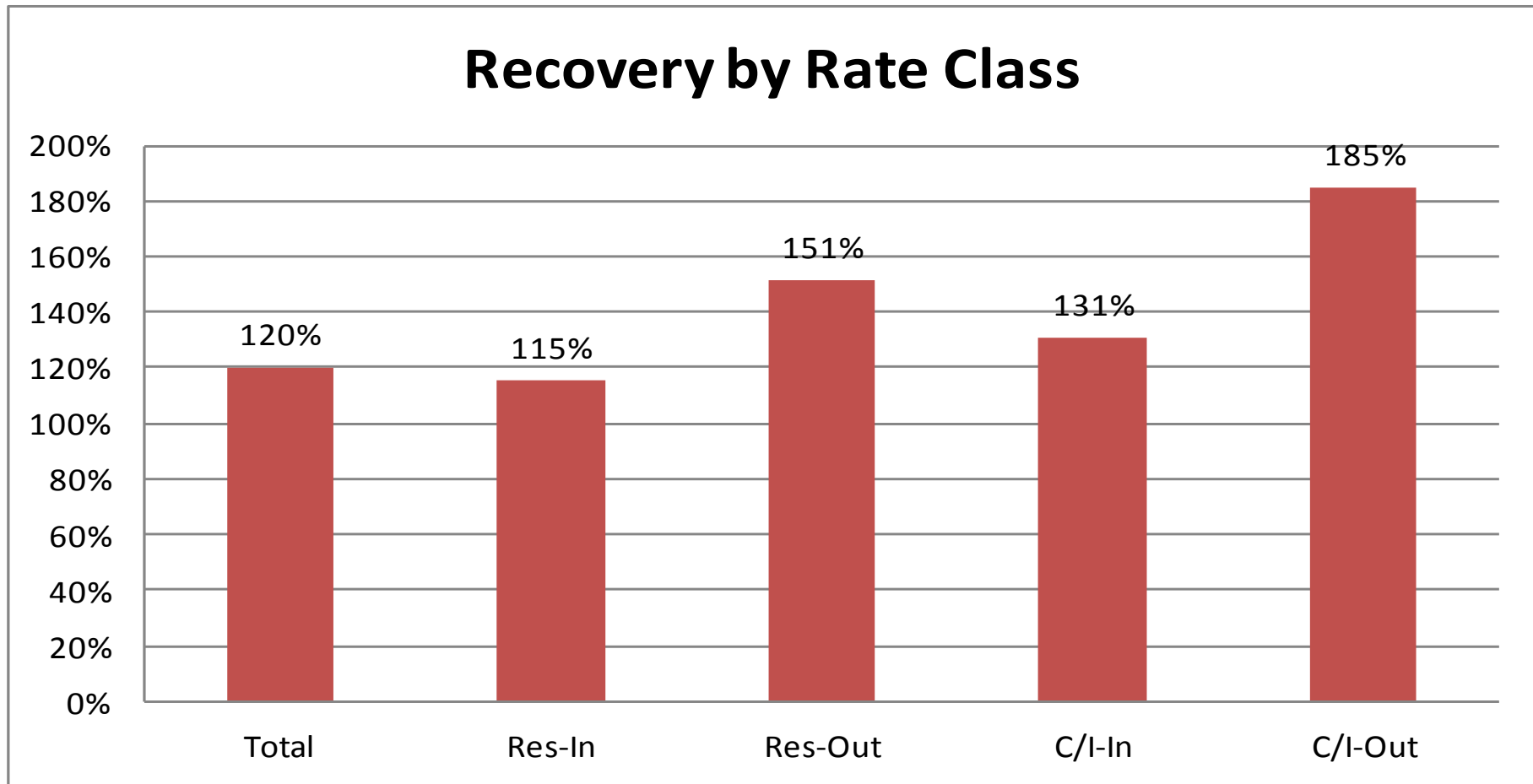


Sewer Revenue Requirement – FY2013

TOTAL REV. REQ.

Operations & Maintenance Expense	\$ 6,520,832
Plus: Debt Service	\$ 1,315,695
Plus: Rate Funded Capital	\$ 3,750,547
Total Revenue Requirement	<u>\$ 11,587,074</u>
Less: Other Revenue	<u>\$ 386,226</u>
Rate Requirement	<u>\$ 11,200,848</u>

Sewer Recovery By Class – FY2013



	Total	Res-In	Res-Out	C/I-In	C/I-Out
Current Rate Revenue	\$ 13,536,361	\$ 9,483,763	\$ 212,748	\$ 3,601,922	\$ 237,928
Over/(Under) Recovery	\$ 2,335,513	\$ 1,291,950	\$ 74,769	\$ 858,823	\$ 109,972

Sewer Projected Revenue Requirement

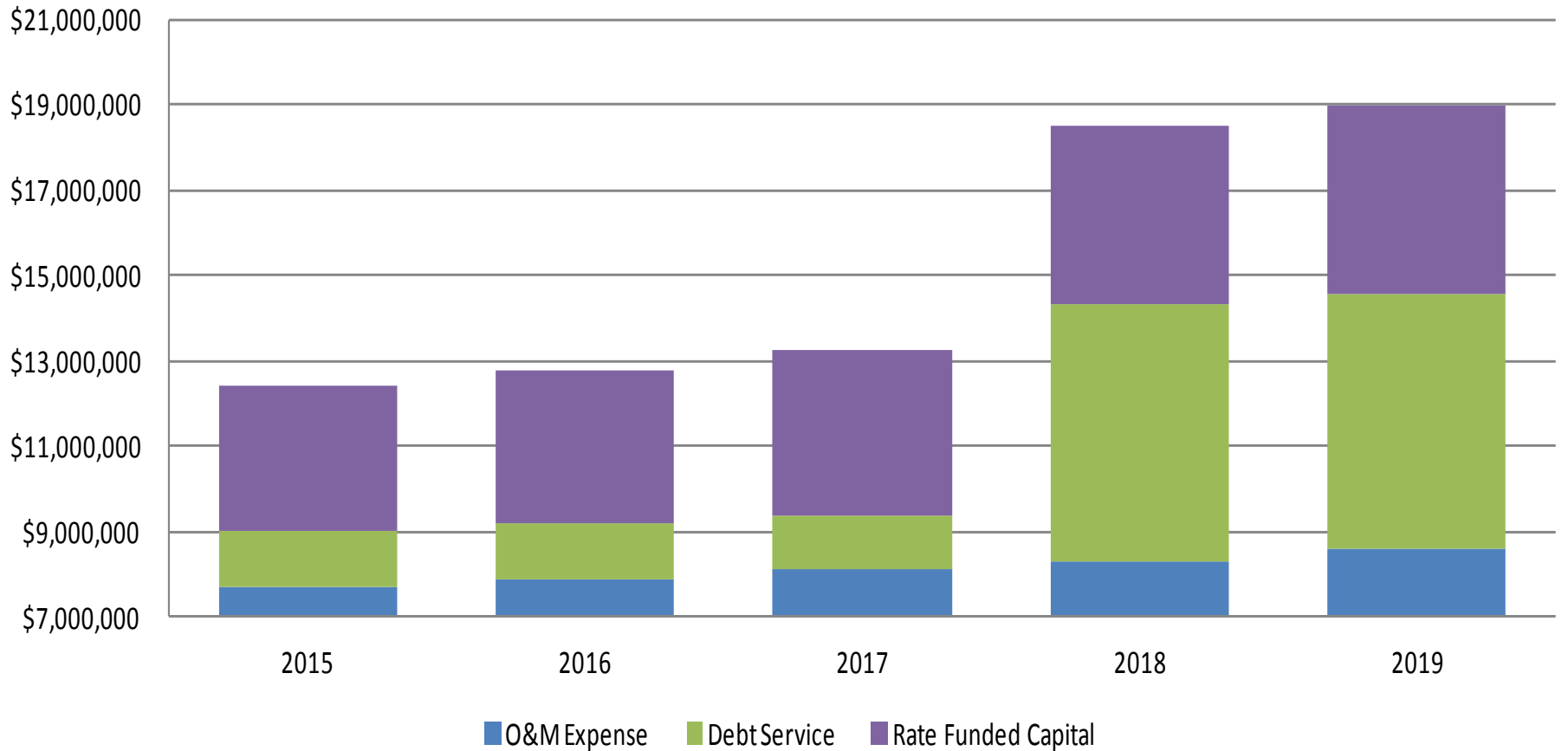
Revenue Requirement	2013	2015	2016	2017	2018	2019
O&M Expense	\$ 6,520,832	\$ 7,683,591	\$ 7,868,113	\$ 8,086,728	\$ 8,312,371	\$ 8,560,301
Debt Service	\$ 1,315,695	\$ 1,316,395	\$ 1,283,798	\$ 1,268,796	\$ 5,982,295	\$ 5,967,277
Rate Funded Capital	\$ 3,750,547	\$ 3,433,975	\$ 3,640,189	\$ 3,889,385	\$ 4,176,417	\$ 4,441,529
Total Revenue Requirement	\$ 11,587,074	\$ 12,433,961	\$ 12,792,100	\$ 13,244,909	\$ 18,471,083	\$ 18,969,107
Less: Other Revenue	\$ 386,226	\$ 386,226	\$ 386,226	\$ 386,226	\$ 386,226	\$ 386,226
Rate Requirement	\$ 11,200,848	\$ 12,047,735	\$ 12,405,874	\$ 12,858,683	\$ 18,084,857	\$ 18,582,881

**2013 from base COSS

***2015-2019 from City Budget

Sewer Projected Revenue Requirement

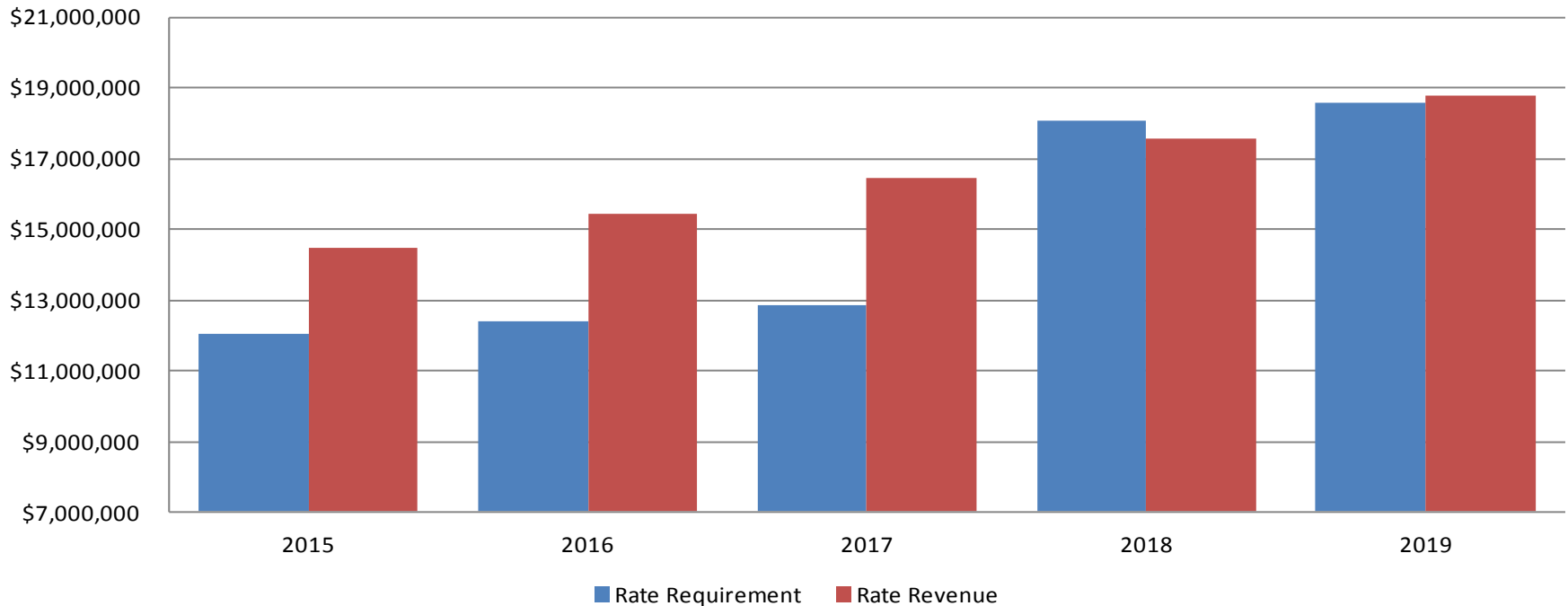
Projected System Revenue Requirement



Sewer – Five Year Approach

		Rate Requirement	% Change	\$ Change	Rate Revenue	Proposed Rate Change	Additional Revenue	Revenue - Requirement
Actual	2013	\$11,200,848			\$ 13,536,361			
Budget	2015	\$12,047,735	7.6%	\$ 846,887	\$ 14,450,065	6.75%	\$ 913,704	\$ 2,402,331
Budget	2016	\$12,405,874	3.0%	\$ 358,139	\$ 15,425,445	6.75%	\$ 975,379	\$ 3,019,571
Budget	2017	\$12,858,683	3.6%	\$ 452,809	\$ 16,466,662	6.75%	\$ 1,041,218	\$ 3,607,980
Budget	2018	\$18,084,857	40.6%	\$ 5,226,174	\$ 17,578,162	6.75%	\$ 1,111,500	\$ (506,695)
Budget	2019	\$18,582,881	2.8%	\$ 498,024	\$ 18,764,688	6.75%	\$ 1,186,526	\$ 181,807

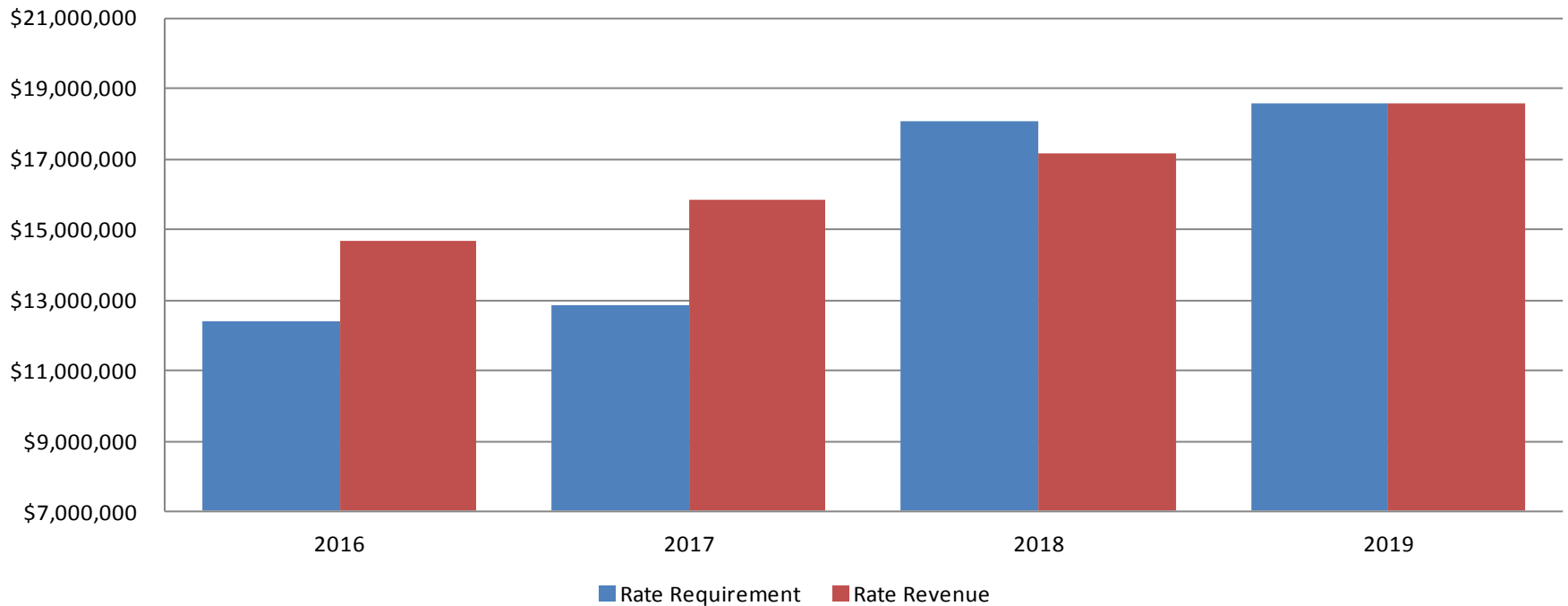
Rate Requirement Timeline



Sewer – Four Year Approach

	Rate Requirement	% Change	\$ Change	Rate Revenue	Proposed Rate Change	Additional Revenue	Revenue - Requirement
Actual 2013	\$11,200,848			\$ 13,536,361			
Budget 2016	\$ 12,405,874	3.0%	\$ 358,139	\$ 14,653,111	8.25%	\$ 1,116,750	\$ 2,247,237
Budget 2017	\$ 12,858,683	3.6%	\$ 452,809	\$ 15,861,993	8.25%	\$ 1,208,882	\$ 3,003,310
Budget 2018	\$ 18,084,857	40.6%	\$ 5,226,174	\$ 17,170,607	8.25%	\$ 1,308,614	\$ (914,250)
Budget 2019	\$ 18,582,881	2.8%	\$ 498,024	\$ 18,587,182	8.25%	\$ 1,416,575	\$ 4,301

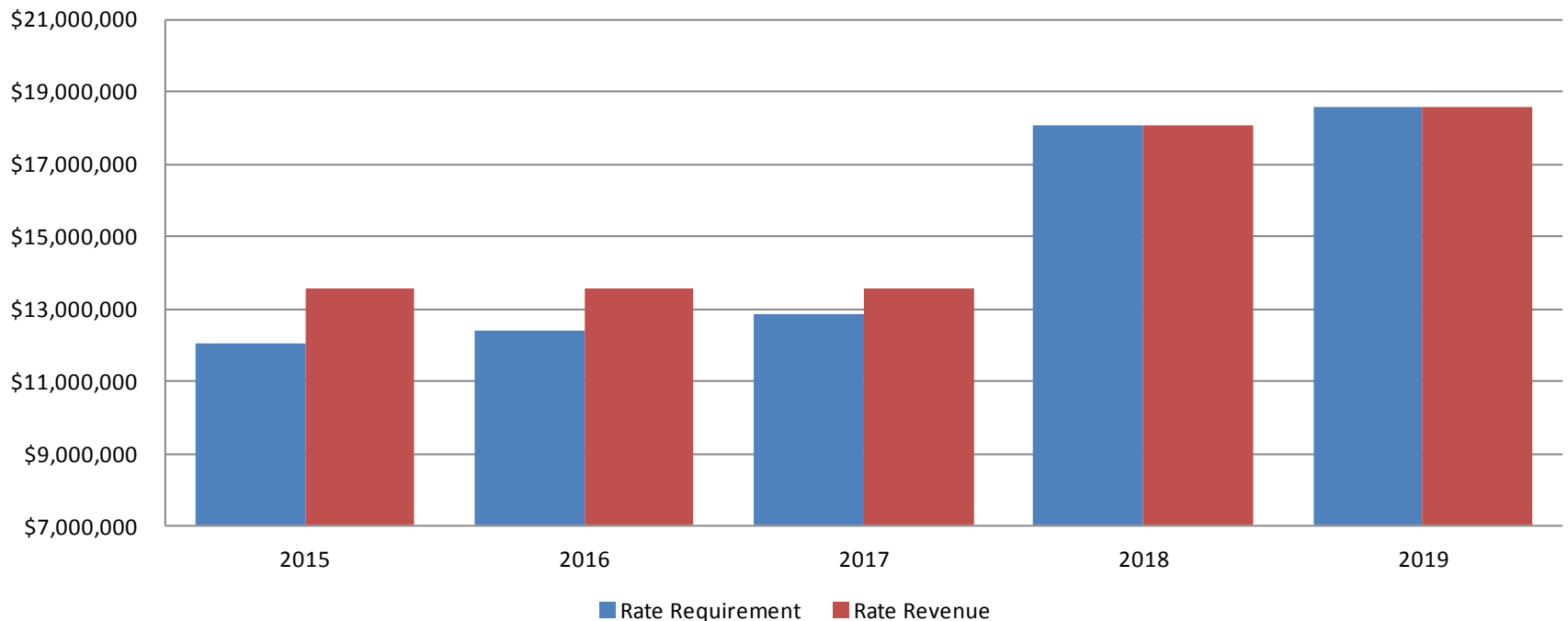
4 Year Rate Requirement Timeline



Sewer – COS Approach

	Rate Requirement	% Change	\$ Change	Rate Revenue	Proposed Rate Change	Additional Revenue	Revenue - Requirement
Actual 2013	\$11,200,848			\$ 13,536,361			
Budget 2015	\$12,047,735	7.6%	\$ 846,887	\$ 13,536,361	0.00%	\$ -	\$ 1,488,626
Budget 2016	\$12,405,874	3.0%	\$ 358,139	\$ 13,536,361	0.00%	\$ -	\$ 1,130,487
Budget 2017	\$12,858,683	3.6%	\$ 452,809	\$ 13,536,361	0.00%	\$ -	\$ 677,678
Budget 2018	\$18,084,857	40.6%	\$ 5,226,174	\$ 18,084,857	33.60%	\$ 4,548,496	\$ -
Budget 2019	\$18,582,881	2.8%	\$ 498,024	\$ 18,582,881	2.75%	\$ 498,024	\$ -

COS Approach Timeline



Residential Inside/Outside Current Rate Comparison

7 kGal Residential Current Rate Comparison

Difference Difference

Inside

Outside

(\$)

(%)

Water \$35.74 \$ 51.26 \$ 15.52 43%

Sewer \$41.57 \$ 60.87 \$ 19.30 46%

\$77.31 \$112.13 \$ 34.82 45%
