



Photo by Joe Mabel



2015 COMPREHENSIVE WATER & SEWER RATE STUDY REVIEW

City of Kalamazoo



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OVERVIEW OF THE PRESENTATION

- Review the comprehensive rate study process
- Discuss findings, conclusions, & alternatives for water
 - Revenue requirements
 - Cost of service
 - Rate design alternatives
- Discuss findings, conclusions, & alternatives for sewer
 - Revenue requirements
 - Cost of service
 - Rate design alternatives



Typical Rate Study Goals and Objectives

- Revenue sufficiency
- Revenue stability
- Easy to understand (customer)
- Easy to administer (City)
- Affordability
- Economic development
- Encourage efficient use of the resource
- Equitable & non-discriminating (cost-based)
- Legally defensible

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UTILITY COST STRUCTURE

- Fixed

- Does not vary with sales
- Salaries, debt service, etc.
- Typically 80-95% for water utilities

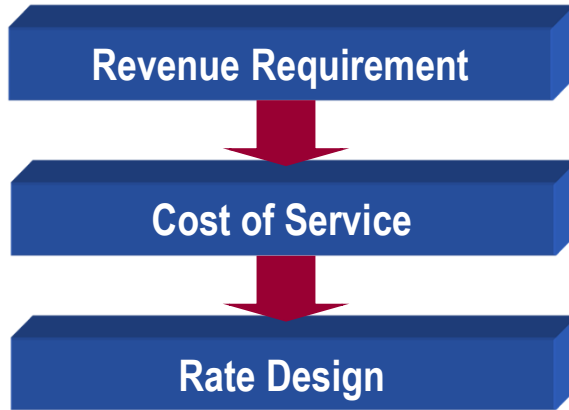
- Variable

- Varies with water sales
- Power, chemicals, etc.
- 5 -20% for water utilities

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OVERVIEW OF RATE SETTING PROCESS



Compares the revenues of the utility to its expenses to determine the overall level of rate adjustment.

Equitably allocates the revenue requirements between the various customer classes of service.

Design rates for each class of service to meet the revenue needs of the utility, along with other rate design goals and objectives.

REVIEW OF THE WATER REVENUE REQUIREMENT ANALYSIS



KALAMA'S REVENUE REQUIREMENTS – MAJOR DRIVERS

Water CIP

- \$2.4 million through 2020
- Major projects include:
 - South Port to Todd Road Water Main
 - Old Pacific Highway Water Main
 - Simmons Road Booster Station Replacement and Simmons Reservoir Replacement Project
 - Lower Green Mountain Reservoir Replacement and new Agate Mt BPS



WATER CAPITAL IMPROVEMENT COST FORECAST

	2015	2016	2017	2018	2019	2020	Totals
Capital Improvement Projects							
Upgrade Water meters (Radio Read)	\$100	\$0	\$0	\$0	\$0	\$0	\$100
Water/Sewer Rate Study (50%)	15	0	0	0	0	0	15
Update Water System Plan	40	0	0	0	0	0	40
Water Line Replacements	15	0	0	0	0	0	15
Water Plant Turbidity Sensors	10	0	0	0	0	0	10
WTP Software	0	40	0	0	0	0	40
Simmons Road Booster Station Replacement	0	0	0	256	0	0	256
Lower Green Mountain Reservoir Replacement and new Agate Mt BPS	0	0	0	0	0	604	604
South Port to Todd Road Water Main	0	536	0	0	0	0	536
Simmons Reservoir Replacement Project	0	0	0	0	398	0	398
Old Pacific Highway Water Main	0	0	306	0	0	0	306
Unidentified Future Capital Projects	0	0	0	0	0	74	74
Total	\$180	\$576	\$306	\$256	\$398	\$678	\$2,394

REVENUE REQUIREMENT ASSUMPTIONS

- Annual O&M - \$726,000 in 2015, increasing to \$837,000 in 2020
- Existing annual debt service (including ROC lease payment) - \$234,000 annually, increasing to \$250,000 annually in 2016
- Customer growth assumed at 1.0 – 1.5% for duration of planning period

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RATE REVENUE FORECAST

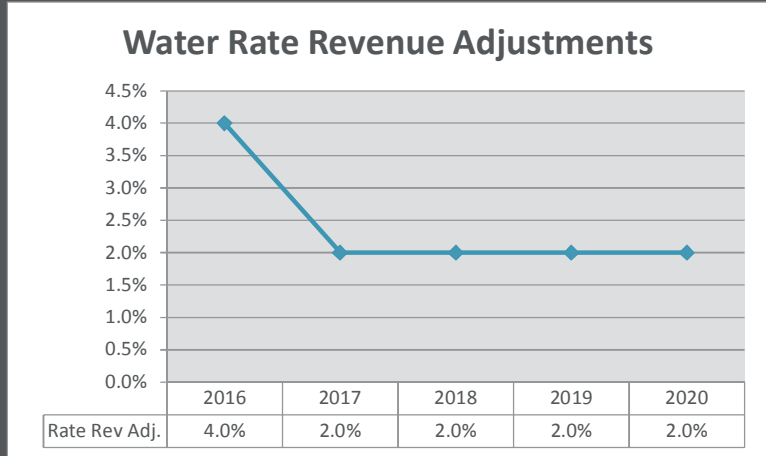
Levelized Approach – Utilize annual adjustments to minimize rate impacts to customers.

- ❖ Rate option will meet Kalama's needs, financial requirements and target reserve levels.

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WATER REVENUE REQUIREMENT RESULTS



POTENTIAL TYPICAL RESIDENTIAL CUSTOMER WATER BILL IMPACTS

- Example residential water bill assumes monthly billing, 3/4" meter, & water consumption of 4 CCF

Water	2016	2017	2018	2019	2020
2015 Average Residential Bill	\$30.40				
Proposed Rate Adjustments	4.0%	2.0%	2.0%	2.0%	2.0%
Average Residential Bill After Rate Adjustment	\$31.62	\$32.25	\$32.89	\$33.55	\$34.22
Monthly Difference in Bill	\$1.22	\$0.63	\$0.64	\$0.66	\$0.67
Cumulative Difference in Bill	\$1.22	\$1.85	\$2.49	\$3.15	\$3.82

SUMMARY CONCLUSIONS FOR KALAMA'S WATER REVENUE REQUIREMENT ANALYSIS

- The analysis indicated a deficiency of funds over the rate setting period (2016 – 2020).
- The deficiency ranges by year and is driven by the capital funding plan, meeting financial targets, and the assumed annual escalation of operational expenses.
- The proposed rate adjustments are intended to provide adequate funding for annual operating, debt service, and capital improvement needs.



WATER RESERVE FUND SUMMARY

	2015	2016	2017	2018	2019	2020
Operating Reserve End Bal	\$247	\$266	\$288	\$312	\$335	\$354
<i>Target (90 days of O&M)</i>	\$179	\$184	\$189	\$195	\$201	\$206
Capital Reserve End Bal	\$480	\$481	\$419	\$429	\$325	\$399
<i>Target (Depreciation)</i>	\$300	\$310	\$320	\$330	\$340	\$350
Equipment Replacement	\$35	\$68	\$102	\$138	\$175	\$214

COST OF SERVICE



WHAT IS A COST OF SERVICE STUDY?

An analysis to equitably allocate the revenue requirements to the various customer classes of service (e.g. residential, multi-family, commercial/industrial)



THERE ARE TWO MAIN OBJECTIVES TO A COST OF SERVICE STUDY

- Determine the cost to serve each class of service (Do cost differences exist?)
 - Usage Characteristics
 - Facility Requirements
 - Contractual Agreements
- Derive average unit costs, which are useful for rate design purposes



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KEY COST OF SERVICE ISSUES

- Allocated 2016 Revenue Requirements
 - 4% revenue adjustment scenario
- Utilized generally accepted cost of service methodologies
 - AWWA M-1 manual
 - Earn a fair return on investment to serve outside-city customers

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RESULTS OF THE WATER COSA

Summary of the Water Cost of Service Analysis (\$000s)						
Class of Service	Present Rate Revenue	Allocated Costs	Plus: Return Component	Total Allocated Costs	\$ Difference	% Difference
Residential - Inside	\$194	\$309	(\$106)	\$203	(\$9)	4.5%
Residential - Outside	382	308	85	393	(11)	2.7%
Multi-Family - Inside	52	75	(28)	47	5	-9.4%
Multi-Family - Outside	11	9	3	12	(1)	5.9%
Com/Ind - Inside	97	127	(49)	78	19	-19.3%
Com/Ind - Outside	425	375	120	494	(69)	16.2%
10" Com/Ind - Outside	<u>171</u>	<u>124</u>	<u>34</u>	<u>159</u>	<u>12</u>	<u>-7.1%</u>
Total	\$1,333	\$1,327	\$59	\$1,386	(\$53)	4.0%



SUMMARY OBSERVATIONS

- Cost of service allocates costs for a specific point in time and usage characteristics
 - Results change over time
 - ± 5% of the overall average is generally within the “cost of service”
- At this time, it is not recommended that any interclass cost of service adjustments be made
 - First COSA that the City has undertaken
 - HDR recommends that this study be used as an initial test and a subsequent COSA be completed in the future



WATER RATE DESIGNS



OVERVIEW OF CURRENT WATER RATES

- Residential – Inside
- Residential – Outside
- Multi-Family – Inside
- Multi-Family – Outside
- Commercial/Industrial – Inside
- Commercial/Industrial – Outside
- 10" Commercial/Industrial – Outside

COMPONENTS OF CURRENT STRUCTURE

- Residential (bi-monthly billing)
 - Fixed charge
 - Uniform consumption rate (per CCF)
- Multi-Family and Commercial/Industrial (monthly billing)
 - Fixed charge
 - Uniform consumption rate (per CCF)
- Large User (monthly billing)
 - Fixed charge
 - Declining block consumption rate structure

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RATE DESIGN ALTERNATIVES

1. Across-the-board rate adjustments
2. Increased fixed charges
 - Large User change to uniform consumption rate
 - Both alternatives maintain outside-city differentials
 - 85% for Residential customers
 - 50% for Commercial/Industrial customers
 - Alternatives maintain the City's low-income program
 - Discount of \$5.75 per month given on the fixed charge
 - \$0.20 per CCF discount on the consumption rate

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RESIDENTIAL RATES – ALTERNATIVE 1

Present and Proposed Residential Water Rates – Alternative 1						
	Present Rate	Proposed				
		2016	2017	2018	2019	2020
Fixed Charge (\$/Acct./Bi-Mo)						
Inside City - ¾" or 1"	\$19.00	\$19.76	\$20.16	\$20.56	\$20.97	\$21.39
Outside City – ¾" or 1"	\$35.15	\$36.56	\$37.30	\$38.04	\$38.79	\$39.57
Volume Charge (\$/CCF)						
Inside City – All Consumption	\$1.90	\$1.98	\$2.02	\$2.06	\$2.10	\$2.14
Outside City - All Consumption	3.52	3.66	3.74	3.81	3.89	3.96

RESIDENTIAL RATES – ALTERNATIVE 2

Present and Proposed Residential Water Rates – Alternative 2						
	Present Rate	Proposed				
		2016	2017	2018	2019	2020
Fixed Charge (\$/Acct./Bi-Mo)						
Inside City - ¾" or 1"	\$19.00	\$20.71	\$21.64	\$22.61	\$23.54	\$24.51
Outside City – ¾" or 1"	\$35.15	\$38.31	\$40.03	\$41.83	\$43.55	\$45.34
Volume Charge (\$/CCF)						
Inside City – All Consumption	\$1.90	\$1.90	\$1.90	\$1.90	\$1.90	\$1.90
Outside City - All Consumption	3.52	3.52	3.52	3.52	3.52	3.52

SUMMARY OF THE RESIDENTIAL RATE DESIGN ALTERNATIVES

- Options maintained the existing rate structure
- Alternatives collect the same level of revenue
- Focused on revenue stability
 - Alt. 1 – 44% fixed, 56% volume in all years
 - Alt. 2 – 51% fixed, 49% volume by 2020



MULTI-FAMILY RATES – ALTERNATIVE 1

Present and Proposed Multi-Family Water Rates – Alternative 1						
	Present Rate	Proposed				
		2016	2017	2018	2019	2020
Fixed Charge (\$/Acct./Bi-Mo)						
Inside City - ¾"	\$30.00	\$31.20	\$31.82	\$32.46	\$33.11	\$33.77
Inside City – 1"	50.00	52.00	53.04	54.10	55.18	56.28
Inside City – 2"	160.00	166.40	169.73	173.12	176.58	180.11
Outside City – ¾"	\$55.50	\$57.72	\$58.87	\$60.05	\$61.25	\$62.47
Outside City – 1"	92.50	96.20	98.12	100.09	102.08	104.12
Volume Charge (\$/CCF)						
Inside City – All Consumption	\$1.90	\$1.98	\$2.02	\$2.06	\$2.10	\$2.14
Outside City - All Consumption	3.52	3.66	3.74	3.81	3.89	3.96



MULTI-FAMILY RATES – ALTERNATIVE 2

Present and Proposed Multi-Family Water Rates – Alternative 2						
	Present Rate	Proposed				
		2016	2017	2018	2019	2020
Fixed Charge (\$/Acct./Bi-Mo)						
Inside City - ¾"	\$30.00	\$34.20	\$36.42	\$38.79	\$41.12	\$43.46
Inside City – 1"	50.00	57.00	60.71	64.66	68.54	72.45
Inside City – 2"	160.00	182.40	194.26	206.89	219.30	231.80
Outside City – ¾"	\$55.50	\$63.27	\$67.38	\$71.76	\$76.07	\$80.40
Outside City – 1"	92.50	105.45	112.31	119.62	126.80	134.03
Volume Charge (\$/CCF)						
Inside City – All Consumption	\$1.90	\$1.90	\$1.90	\$1.90	\$1.90	\$1.90
Outside City - All Consumption	3.52	3.52	3.52	3.52	3.52	3.52



SUMMARY OF THE MULTI-FAMILY RATE DESIGN ALTERNATIVES

- Options maintained the existing rate structure
- Alternatives collect the same level of revenue
- Focused on revenue stability
 - Alt. 1 – approx. 30% fixed, 70% volume in all years
 - Alt. 2 – 37% fixed, 63% volume by 2020



COMMERCIAL/IND. RATES – ALTERNATIVE 1

Present and Proposed Commercial/Industrial Water Rates – Alternative 1						
	Present Rate	Proposed				
		2016	2017	2018	2019	2020
Fixed Charge (\$/Acct./Bi-Mo)						
<i>Inside City</i>						
3/4"	\$11.50	\$11.96	\$12.20	\$12.44	\$12.69	\$12.94
1"	14.50	15.08	15.38	15.69	16.00	16.32
1.5"	68.00	70.72	72.13	73.57	75.04	76.54
2"	115.00	119.60	121.99	124.43	126.92	129.46
3"	175.00	182.00	185.64	189.35	193.14	197.00
4"	235.00	244.40	249.29	254.28	259.37	264.56
<i>Outside City</i>						
3/4"	\$17.25	\$17.94	\$18.30	\$18.66	\$19.04	\$19.41
1"	21.75	22.62	23.07	23.54	24.00	24.48
1.5"	102.00	106.08	108.20	110.36	112.56	114.81
2"	172.50	179.40	182.99	186.65	190.38	194.19
3"	262.50	273.00	278.46	284.02	289.71	295.50
4"	352.50	366.60	373.94	381.42	389.06	396.84
Volume Charge (\$/CCF)						
Inside City – All Consumption	\$1.90	\$1.98	\$2.02	\$2.06	\$2.10	\$2.14
Outside City - All Consumption	2.85	2.97	3.03	3.09	3.15	3.21

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COMMERCIAL/IND. RATES – ALTERNATIVE 2

Present and Proposed Commercial/Industrial Water Rates – Alternative 2						
	Present Rate	Proposed				
		2016	2017	2018	2019	2020
Fixed Charge (\$/Acct./Bi-Mo)						
<i>Inside City</i>						
3/4"	\$11.50	\$15.53	\$17.47	\$19.48	\$21.53	\$23.58
1"	14.50	19.58	22.03	24.56	27.14	29.72
1.5"	68.00	91.80	103.27	115.15	127.24	139.33
2"	115.00	115.00	129.38	144.26	159.41	174.55
3"	175.00	175.00	196.88	219.52	242.57	265.61
4"	235.00	235.00	264.38	294.78	325.73	356.67
<i>Outside City</i>						
3/4"	\$17.25	\$23.30	\$26.21	\$29.22	\$32.30	\$35.37
1"	21.75	29.37	33.05	36.84	40.71	44.58
1.5"	102.00	137.70	154.91	172.73	190.86	209.00
2"	172.50	172.50	194.07	216.39	239.12	261.83
3"	262.50	262.50	295.32	329.28	363.86	398.42
4"	352.50	352.50	396.57	442.17	488.60	535.01
Volume Charge (\$/CCF)						
Inside City – All Consumption	\$1.90	\$1.96	\$1.96	\$1.96	\$1.96	\$1.96
Outside City - All Consumption	2.85	2.94	2.94	2.94	2.94	2.94

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SUMMARY OF THE COMMERCIAL/IND. RATE DESIGN ALTERNATIVES

- Options maintained the existing rate structure
- Alternatives collect the same level of revenue
- Focused on revenue stability
 - Alt. 1 – approx. 16% fixed, 84% volume in all years
 - Alt. 2 – 23% fixed, 77% volume by 2020



LARGE USER RATES – ALTERNATIVE 1

Present and Proposed Large User Water Rates – Alternative 1						
	Present Rate	Proposed				
		2016	2017	2018	2019	2020
Fixed Charge (\$/Acct./Bi-Mo)						
Outside City - 10"	\$700.00	\$728.00	\$742.56	\$757.41	\$772.56	\$788.01
Volume Charge (\$/CCF)						
0 - 3,500	\$2.55	\$2.65	\$2.70	\$2.75	\$2.81	\$2.87
3,501 - 20,000	2.10	2.17	2.21	2.25	2.30	2.35



LARGE USER RATES – ALTERNATIVE 2

Present and Proposed Large User Water Rates – Alternative 2						
	Present Rate	Proposed				
		2016	2017	2018	2019	2020
Fixed Charge (\$/Acct./Bi-Mo)						
Outside City - 10"	\$700.00	\$945.00	\$1,086.75	\$1,249.76	\$1,399.73	\$1,609.69
Volume Charge (\$/CCF)						
0 - 3,500	\$2.55	\$2.55	\$2.55	\$2.55	\$2.55	N/A
3,501 - 20,000	2.10	2.27	2.35	2.42	2.50	N/A
All Consumption	N/A	N/A	N/A	N/A	N/A	\$2.55

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SUMMARY OF THE LARGE USER RATE DESIGN ALTERNATIVES

- Alternatives collect the same level of revenue
- Focused on revenue stability
 - Alt. 1 – 5% fixed, 95% volume in all years
 - Alt. 2 – 10% fixed, 90% volume by 2020

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SUMMARY OF WATER RATE DESIGN

- Alternatives collect the same level of revenue
- Focused on revenue stability
 - Alt. 1 – 27% fixed, 73% volume in all years
 - Alt. 2 – 34% fixed, 66% volume by 2020

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REVIEW OF THE SEWER REVENUE REQUIREMENT ANALYSIS



SEWER REVENUE REQUIREMENTS – MAJOR DRIVERS

Sewer CIP

- \$6.3 million through 2020
- Major projects include:
 - Install Pump Station at Rebel
 - Install New Sewer Line Hendrickson @ Temco to WWTP
 - Install New Sewer Line Old Pac Hwy - Stone Forest to Todd Rd
 - Rehab Sewer Lines North and East Elm Street



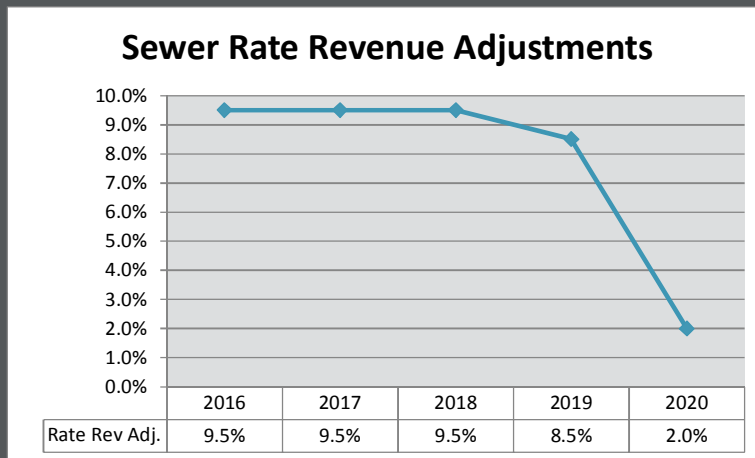
SEWER CAPITAL IMPROVEMENT COST FORECAST

	2015	2016	2017	2018	2019	2020	Totals
Capital Improvement Projects							
Replace Sections of Leaking Sewer Line	\$0	\$25	\$25	\$25	\$25	\$25	\$125
Purchase Pipe Camera	0	0	0	0	0	0	0
Replace Equipment at Wastewater Treatment Plant	0	10	0	0	40	40	90
Install New Sewer Line Cloverdale to Parkland	0	0	250	0	0	0	250
Install New Sewer Line Rebel Under I-5 to Hendrickson	0	0	0	300	0	0	300
Install Pump Station at Rebel	0	0	0	400	0	0	400
Install New Sewer Line Hendrickson @ Temco to WWTP	0	0	0	1,000	0	0	1,000
Install New Sewer Line Old Pac Hwy - Stone Forest to Todd Rd	0	0	0	2,000	0	0	2,000
Lift Station Upgrades	0	0	0	25	40	40	105
Rehab Sewer Lines North and East Elm Street	0	0	0	0	2,000	0	2,000
Rate Study (50%)	15	0	0	0	0	0	15
Future Unidentified Capital Projects	0	0	0	0	0	45	45
Total Capital Projects	\$15	\$35	\$275	\$3,750	\$2,105	\$150	\$6,330

REVENUE REQUIREMENT ASSUMPTIONS

- Annual O&M - \$560,500 in 2015, increasing to \$648,000 in 2020
- Existing annual debt service (including ROC lease payment) - \$407,000 annually, increasing to \$529,000 annually in 2020
- Additional debt assumed at 2.0% interest, 20-years
- Customer growth assumed at 1.0% annually

SEWER REVENUE REQUIREMENT RESULTS



POTENTIAL TYPICAL RESIDENTIAL CUSTOMER SEWER BILL IMPACTS

- Example residential sewer bill assumes monthly billing flat charge per account

Sewer	2016	2017	2018	2019	2020
2015 Residential Bill	\$74.50				
Proposed Rate Adjustments	9.5%	9.5%	9.5%	8.5%	2.0%
Residential Bill After Rate Adjustment	\$81.58	\$89.33	\$97.81	\$106.13	\$108.25
Monthly Difference in Bill	\$7.08	\$7.75	\$8.49	\$8.31	\$2.12
Cumulative Difference in Bill	\$7.08	\$14.83	\$23.31	\$31.63	\$33.75



SUMMARY CONCLUSIONS FOR KALAMA'S SEWER REVENUE REQUIREMENT ANALYSIS

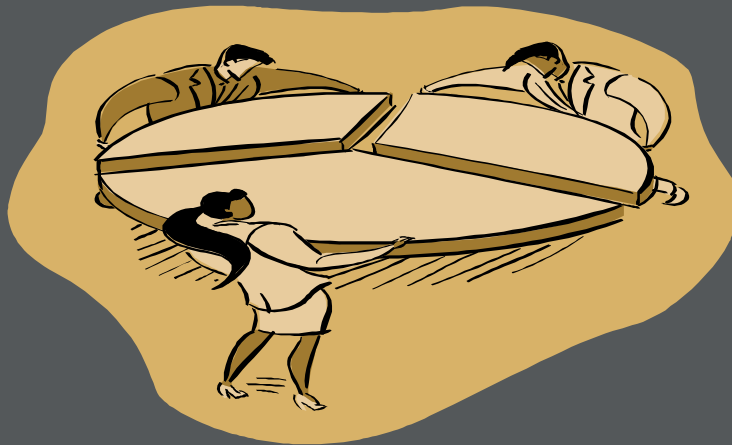
- The analysis indicated a deficiency of funds over the rate setting period (2016 – 2020).
- The level of needed rate adjustment is being driven by a variety of factors, notably the capital improvement plan
- Rate adjustments are necessary to provide funding for daily operations, debt service, and capital projects over the five year period.



SEWER RESERVE FUND SUMMARY

	2015	2016	2017	2018	2019	2020
Operating Reserve End Bal	\$56	\$63	\$105	\$104	\$103	\$113
<i>Target (60 days of O&M)</i>	\$90	\$90	\$100	\$100	\$100	\$110
I&I Reserve	\$166	\$141	\$116	\$91	\$67	\$67
Improvement Reserve	\$261	\$277	\$239	\$216	\$267	\$346
<i>Target (Depreciation)</i>	\$336	\$346	\$356	\$367	\$378	\$389
Equipment Reserve	\$35	\$38	\$41	\$45	\$48	\$52

SEWER COST OF SERVICE



KEY COST OF SERVICE ISSUES

- Allocated 2016 Revenue Requirements
 - 9.5% revenue adjustment scenario
- Utilized generally accepted cost of service methodologies (WEF MOP No. 27)



RESULTS OF THE SEWER COST OF SERVICE ANALYSIS

Summary of the Sewer Cost of Service Analysis (\$000s)				
Class of Service	Present Rate Revenues	Allocated Costs	\$ Difference	% Difference
Residential	\$580	\$603	(\$23)	4.0%
Multi-Family	190	214	(23)	12.4%
Commercial/Industrial	<u>199</u>	<u>245</u>	<u>(46)</u>	<u>22.9%</u>
Total	\$969	\$1,061	(\$92)	9.5%



SUMMARY OBSERVATIONS

- Cost of service allocates costs for a specific point in time and usage characteristics
 - Results can change over time
 - $\pm 5\%$ of the overall average is generally within the “cost of service”
- At this time, it is not recommended that any interclass cost of service adjustments be made
 - First COSA that the City has undertaken
 - HDR recommends that this study be used as an initial test and a subsequent COSA be completed in the future

SEWER RATE DESIGNS

CURRENT SEWER RATES

- Classes and billing
 - Residential – billed bi-monthly, based on winter water avg.
 - Multi-Family – billed monthly, based on all consumption
 - Commercial/Industrial – billed monthly, all consumption
- Components
 - Fixed charge
 - Uniform volume rate (per CCF)

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SEWER RATE DESIGN ALTERNATIVES

1. Across-the-board rate adjustments
2. Increased fixed charges

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Maintained current rate structure, focus was on the fixed/variable components.



ALTERNATIVE 1 – ACROSS-THE-BOARD

Present and Proposed Sewer Rates Alternative 1 – All Customers						
	Present Rate	Proposed				
		2015	2016	2017	2018	2019
Fixed Charge						
	\$/Month					
Residential	\$38.50	\$42.16	\$46.17	\$50.55	\$54.85	\$55.94
Multi-Family	33.50	36.68	40.16	43.98	47.72	48.67
Commercial						
3/4"	\$44.50	\$48.73	\$53.36	\$58.43	\$63.40	\$64.67
3/4"(Out)	44.50	48.73	53.36	58.43	63.40	64.67
1"	56.00	61.32	67.15	73.53	79.78	81.38
1.5"	127.50	139.61	152.87	167.39	181.62	185.25
2"	183.50	200.93	220.02	240.92	261.40	266.63
3"	340.00	372.30	407.67	446.40	484.34	494.03
4"	510.00	558.45	611.50	669.59	726.51	741.04
10"	1,525.00	1,669.88	1,828.52	2,002.23	2,172.42	2,215.87
Variable Charge						
	\$/CCF					
All Consumption	\$6.00	\$6.57	\$7.19	\$7.87	\$8.54	\$8.71

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ALTERNATIVE 2 – FIXED CHARGES ONLY

Present and Proposed Sewer Rates Alternative 2 – All Customers						
	Present Rate	Proposed				
		2015	2016	2017	2018	2019
Fixed Charge						
	\$/Month					
Residential	\$38.50	\$44.66	\$51.36	\$58.71	\$65.93	\$67.77
Multi-Family	33.50	39.20	45.43	52.24	58.93	60.64
Commercial						
3/4"	\$44.50	\$64.75	\$86.96	\$111.31	\$135.24	\$141.33
3/4"(Out)	44.50	64.75	86.96	111.31	135.24	141.33
1"	56.00	81.48	109.43	140.07	170.19	177.85
1.5"	127.50	185.51	249.14	318.90	387.46	404.90
2"	183.50	266.99	358.57	458.97	557.65	582.74
3"	340.00	494.70	664.38	850.41	1,033.25	1,079.75
4"	510.00	742.05	996.57	1,275.61	1,549.87	1,619.61
10"	1,525.00	2,218.88	2,979.96	3,814.35	4,634.44	4,842.99
Variable Charge						
	\$/CCF					
All Consumption	\$6.00	\$6.00	\$6.00	\$6.00	\$6.00	\$6.00

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SUMMARY OF SEWER RATE DESIGN

- Alternatives should collect approximately the same level of revenue
- Focused on revenue stability
 - Alt. 1 – 52% fixed, 48% volume in all years
 - Alt. 2 – 67% fixed, 33% volume by 2020

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SUMMARY


- Kalama's rate study provided a comprehensive review of the revenue requirements, cost of service and rate designs
- Rate adjustments are necessary to meet future revenue requirements
- Rate design options are designed to provide the City with options that consider both the size and timing of the proposed rate adjustments

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Thank You!

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