



# Water Utilities Financial Plan & Rate Recommendations

December 12, 2018



**WATER UTILITIES  
LEE'S SUMMIT**

*Safe and Reliable, Now and for Future Generations*

# Updates to Model



- Water Purchases
  - City of Independence
    - No rate increase for current year – future rate increases remain 3%
  - Kansas City Water
    - Current year rate increase expected to be 1% - future rate increases set at 3% for 2020 to 2022, 5% through 2028
- Sewer Treatment
  - Middle Big Creek
    - Growth rate adjusted based on 5 year average
  - Little Blue Valley Sewer District
    - Due to dryer weather conditions, current expenses adjusted for basis of future expenditures
- Anticipates implementation of Proposed Reorganization of Water Utilities Operations Division
  - Provide skill-based multi-tier career opportunities with a step pay plan
- Anticipates implementation of revised compensation plan
  - Impact of implementation exceeds prior years estimation

# Rate funded CIP



- Completed
  - Water Utilities Service Center \$14.6m
  - M291 & US 50 \$822k
  - Sanitary Sewer CIPP \$1.15k
  - Road Relocations \$178k
- In Progress
  - Small Water Main Renewal \$4.4m
  - CC Interceptor Improvement \$1.6m
  - Sanitary Sewer CIPP \$1.15m
  - Water Tower Recoatings \$1.5m
  - Support of Development

# CIP Summary - Water

Line No:	Description	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
	<b>WATER CONSTRUCTION</b>										
1	SCADA Radio Communications	723,692	-	-	-	-	-	-	-	-	-
2	Water Main Rehab FY15	-	-	-	-	-	-	-	-	-	-
3	Water Main Rehab FY16	-	-	-	-						
4	Water Main Rehab FY17	1,985,761	-	-	-	-	-	-	-	-	-
5	Water Main Rehab FY18	2,400,000	-	-	-	-	-	-	-	-	-
6	Water Main Rehab FY19 - FY28	2,500,000	5,000,000	5,500,000	5,500,000	5,500,000	6,000,000	6,500,000	6,500,000	7,000,000	7,000,000
7	Water Meter Replacement	602,760	400,000	-	-	-	-	-	-	-	-
8	Operations Site Remediation & Genset Recor	400,000	-	-	-	-	-	-	-	-	-
9	Water Master Plan Update	-	-	250,000	-	-	-	-	-	-	-
10	Transmission Main Condition Assessments	675,000	-	-	-	-	-	-	-	-	-
11	16" Independence Line	-	-	-	850,000	-	-	-	-	-	-
12	20" Independence Line	-	-	-	-	2,000,000	-	-	-	-	-
13	Water - Asset Mgmt Plan	-	-	100,000	-	-	-	-	-	-	-
14	Water System Cathodic Protection	250,000	-	-	-	-	-	-	-	-	-
15	Water System Audit - Level II	50,000	-	-	-	-	-	-	-	-	-
16	US 50 Hwy - Smart to Harris	-	-	-	-	-	-	-	-	-	-
17	US 50 Hwy - Blackwell to Smart	119,266	-	-	-	-	-	-	-	-	-
18	Harris Road - Herring to Haines	432,500	-	-	-	-	-	-	-	-	-
19	View High - Longview Golf to Chipman	112,200	-	-	-	-	-	-	-	-	-
20	Sampson Rd - Ext to Hook	68,200	-	-	-	-	-	-	-	-	-
	<b>Street Projects - Water Construction</b>										
21	Chipman Rd-Bent Tree to View High	321,103	308,000	-	-	-	-	-	-	-	-
22	Jefferson St - Persels to Oldham Pkwy	145,075	-		-	-	-	-	-	-	-
23	3rd Street - Pryor to Murray	197,000	-	-	-	-	-	-	-	-	-
24	M291 & US50 Interchange	712,568	-	-	-	-	-	-	-	-	-
25	Misc Road Relocation Projects	-	-	500,000	250,000	-	-	-	-	-	-
26	Ward Road - M150 to Raintree Pkwy	145,000	-	-	-	-	-	-	-	-	-
27	Commerce Drive - Tudor Rd to Main St	20,000	-	-	-	-	-	-	-	-	-
28	<b>Total</b>	<b>\$ 11,860,125</b>	<b>\$ 5,708,000</b>	<b>\$ 6,350,000</b>	<b>\$ 6,600,000</b>	<b>\$ 7,500,000</b>	<b>\$ 6,000,000</b>	<b>\$ 6,500,000</b>	<b>\$ 6,500,000</b>	<b>\$ 7,000,000</b>	<b>\$ 7,000,000</b>

# CIP Summary - Sewer

Line No:	Description	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
	<b>SEWER CONSTRUCTION</b>										
1	Small Diameter Main Replacement	787,693	1,000,000	-	-	-	-	-	-	-	-
2	Flow Monitoring	407,116	-	-	-	-	-	-	-	-	-
3	Sewer Rehab - Relining, Manhole Rehab, Tap	2,723,160	900,000	900,000	900,000	750,000	-	-	-	-	-
4	Odor Control	1,200,000	-	-	-	-	-	-	-	-	-
5	CC Watershed - Interceptor Improvements W	1,034,750	-	-	-	-	-	-	-	-	-
6	CC - Downtown	-	2,550,000	-	-	-	-	-	-	-	-
7	CC - Interceptor Improvements Phase III & IV	1,261,851	-	-	-	-	-	-	-	-	-
8	WasteWater Master Plan	-	500,000	-	-	-	-	-	-	-	-
9	Rehabilitate Tudor Detention Basin	131,000	-	-	-	-	-	-	-	-	-
10	Facilities - Asset Mgmt Plan	23,856	-	-	-	-	-	-	-	-	-
11	Sewer - Asset Mgmt Plan	100,000	-	-	-	-	-	-	-	-	-
12	Sewer Main Rehab & Creek Stabiliation	222,496	-	-	-	-	-	-	-	-	-
13	Baseline CIP	-	-	-	-	-	2,250,000	2,250,000	2,500,000	2,500,000	2,500,000
14	Under Lake Interceptor Assesements	360,000	-	-	-	-	-	-	-	-	-
15	Trunk/Interceptor Condition Assesements	-	200,000	200,000	200,000	200,000	-	-	-	-	-
16	Large Force Main Condition Assesements	666,312	-	-	-	-	-	-	-	-	-
	<b>SSES and I&amp;I Rehab</b>										
17	West Prairie Lee	-	-	-	-	-	-	370,000	1,640,000	1,640,000	1,640,000
18	South Prairie Lee	-	-	-	-	-	-	-	-	190,000	2,550,000
19	Little Cedar	-	-	-	-	-	-	-	-	10,000	210,000
20	Cedar Creek	-	-	-	-	-	-	180,000	1,440,000	-	-
21	Bogg's Hollow	-	-	-	-	-	-	-	-	-	110,000
22	Middle Big Creek	-	-	-	-	-	-	-	-	30,000	450,000
23	West Prairie Lee - North Branch	-	-	-	-	-	-	-	960,000	-	-
24	South Prairie Lee - Misc Projects	-	-	-	-	-	-	-	490,000	-	-
	<b>Street Projects - Sewer Construction</b>										
25	Chipman Rd - Bent Tree to View High	121,076	-	-	-	-	-	-	-	-	-
26	Misc Relocation Projects	-	-	-	-	200,000	-	-	-	-	-
27	Jefferson St - Persels to Oldham Pkwy	191,000	-	-	-	-	-	-	-	-	-
28	3rd Street - Pryor to Murray	-	50,000	-	-	-	-	-	-	-	-
29	M291 & US50 Interchange	177,000	-	-	-	-	-	-	-	-	-
30	<b>Total</b>	<b>\$ 9,407,310</b>	<b>\$ 5,200,000</b>	<b>\$ 1,100,000</b>	<b>\$ 1,100,000</b>	<b>\$ 1,150,000</b>	<b>\$ 2,250,000</b>	<b>\$ 2,800,000</b>	<b>\$ 7,030,000</b>	<b>\$ 4,370,000</b>	<b>\$ 7,460,000</b>

# Rate Parameters



- The City has established a water rate (continuing service charge) and a sewer service rate (continuing service charge) designed to raise sufficient revenue to pay the cost of operating the City's water and sewer systems, including:
  1. The **cost of purchasing water** for human consumption and the cost of **purchasing sewage treatment** and disposal services;
  2. The **maintenance, repair, and operation** of all **water-service and sewer service equipment and facilities** owned and operated by the City;
  3. Related **accounting, administration and overhead costs**;
  4. Payments of all necessary **debt service** and maintenance of bond covenants for bond issues or other indebtedness related to the City's water and sewer facilities; and
  5. Maintenance of necessary **reserves for repair and replacement** of water and sewer facilities.

# Rate Considerations



- Revenue to Expense Ratio – equal to or greater than 1:1 to ensure that system revenues are recovering expenses. (Operating Revenues divided by Operating Expenses)
- Coverage Ratio – minimum of 1.50:1 to assure that adequate revenues are maintained to satisfy debt obligations. (Net Revenues Available for Debt Service divided by Annual Debt Service Payments)
- Working Capital – working capital equal to 90 days of annual operating expenses
- Plan effectively for rate and revenue stability.
  - Incremental rate adjustments (annual review)
  - Rates are cost-based, equitable, and understandable
  - Promote water conservation
  - Adequately fund reinvestment in water and sewer infrastructure



# Water – Projected 5 Year Rate Schedule



WATER							
	Effective Date	Current	1/1/2019	1/1/2020	1/1/2021	1/1/2022	1/1/2023
	Required Revenue Increase	3.00%	3.00%	3.00%	3.00%	3.00%	4.00%
	Monthly Base Charge (by meter size)	Current	1/1/2019	1/1/2020	1/1/2021	1/1/2022	1/1/2023
	0.625	\$ 9.95	\$ 10.25	\$ 10.56	\$ 10.88	\$ 11.21	\$ 11.65
	0.75	11.14	11.48	11.83	12.19	12.55	13.05
	1	14.92	15.37	15.84	16.32	16.81	17.48
	1.5	24.86	25.61	26.38	27.18	28.02	29.14
	2	39.77	40.97	42.20	43.47	56.03	58.27
	3	59.66	61.45	63.30	65.20	89.65	93.24
	4	79.54	81.93	84.39	86.93	112.06	116.55
	6	99.43	102.42	105.50	108.67	134.48	139.86
	8	149.14	153.62	158.23	162.98	190.51	198.13
	10	298.28	307.23	316.45	325.95	392.22	407.91
	Water Volume Charge (\$/1,000 gal)						
	Residential	Current	1/1/2019	1/1/2020	1/1/2021	1/1/2022	1/1/2023
	0 - 7,000 gals	\$ 4.26	\$ 4.39	\$ 4.53	\$ 4.67	\$ 4.81	\$ 4.96
	7,000 - 15,000 gals	5.02	5.18	5.34	5.51	5.68	5.82
	Over 15,000 gals	6.27	6.46	6.67	6.86	7.07	7.28
	Commercial:	Current	1/1/2019	1/1/2020	1/1/2021	1/1/2022	1/1/2023
	All Usage	\$ 5.02	\$ 5.18	\$ 5.34	\$ 5.51	\$ 5.68	\$ 5.82



# Sewer – Projected 5 Year Rate Schedule



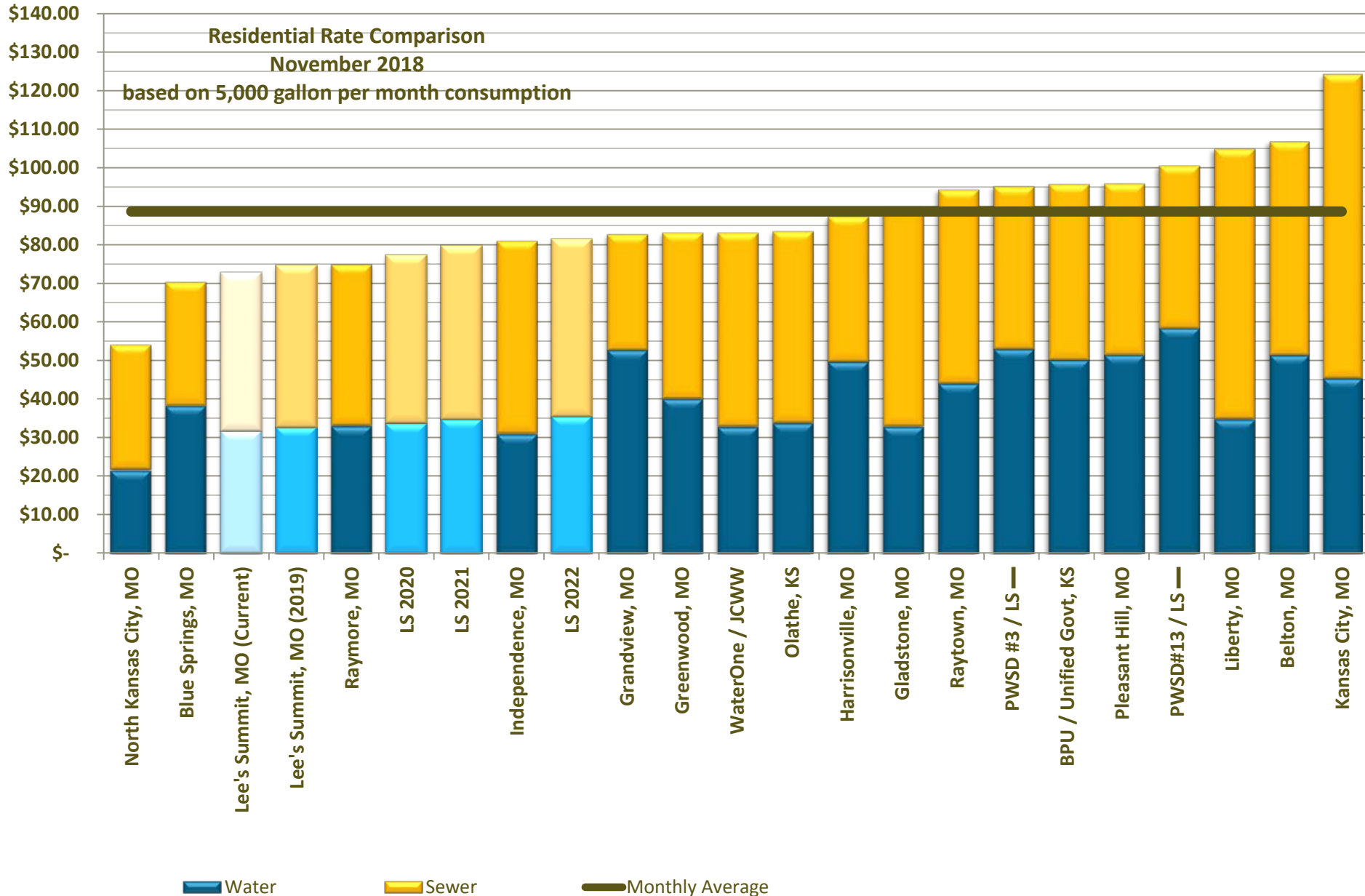
SEWER							
	Effective Date	Current	1/1/2019	1/1/2020	1/1/2021	1/1/2022	1/1/2023
	Required Revenue Increase	3.00%	3.00%	3.00%	3.00%	3.00%	4.00%
	Monthly Base Charge (by meter size)	Current	1/1/2019	1/1/2020	1/1/2021	1/1/2022	1/1/2023
	0.625	\$ 14.15	\$ 14.58	\$ 15.02	\$ 15.48	\$ 15.94	\$ 16.58
	0.75	15.84	16.32	16.81	17.32	12.55	13.05
	1	21.22	21.86	22.52	23.20	16.81	17.48
	1.5	28.29	29.14	30.02	30.93	28.02	29.14
	2	42.44	43.72	45.04	46.40	44.83	46.62
	3	49.51	51.00	52.53	54.11	56.03	58.27
	4	56.58	58.28	60.03	61.84	78.44	81.58
	6	70.72	72.85	75.04	77.30	112.06	116.55
	8	84.87	87.42	90.05	92.76	134.48	139.86
	10	99.01	101.99	105.05	108.21	168.10	174.82
	Sewer Volume Charge (\$/1,000 gal)						
	Residential	Current	1/1/2019	1/1/2020	1/1/2021	1/1/2022	1/1/2023
	All Usage	\$ 5.42	\$ 5.59	\$ 5.76	\$ 5.94	\$ 6.12	\$ 6.29
	Commercial:	Current	1/1/2019	1/1/2020	1/1/2021	1/1/2022	1/1/2023
	All Usage	\$ 5.42	\$ 5.59	\$ 5.76	\$ 5.94	\$ 6.12	\$ 6.29

# Monthly Cost of Combined Water & Sewer

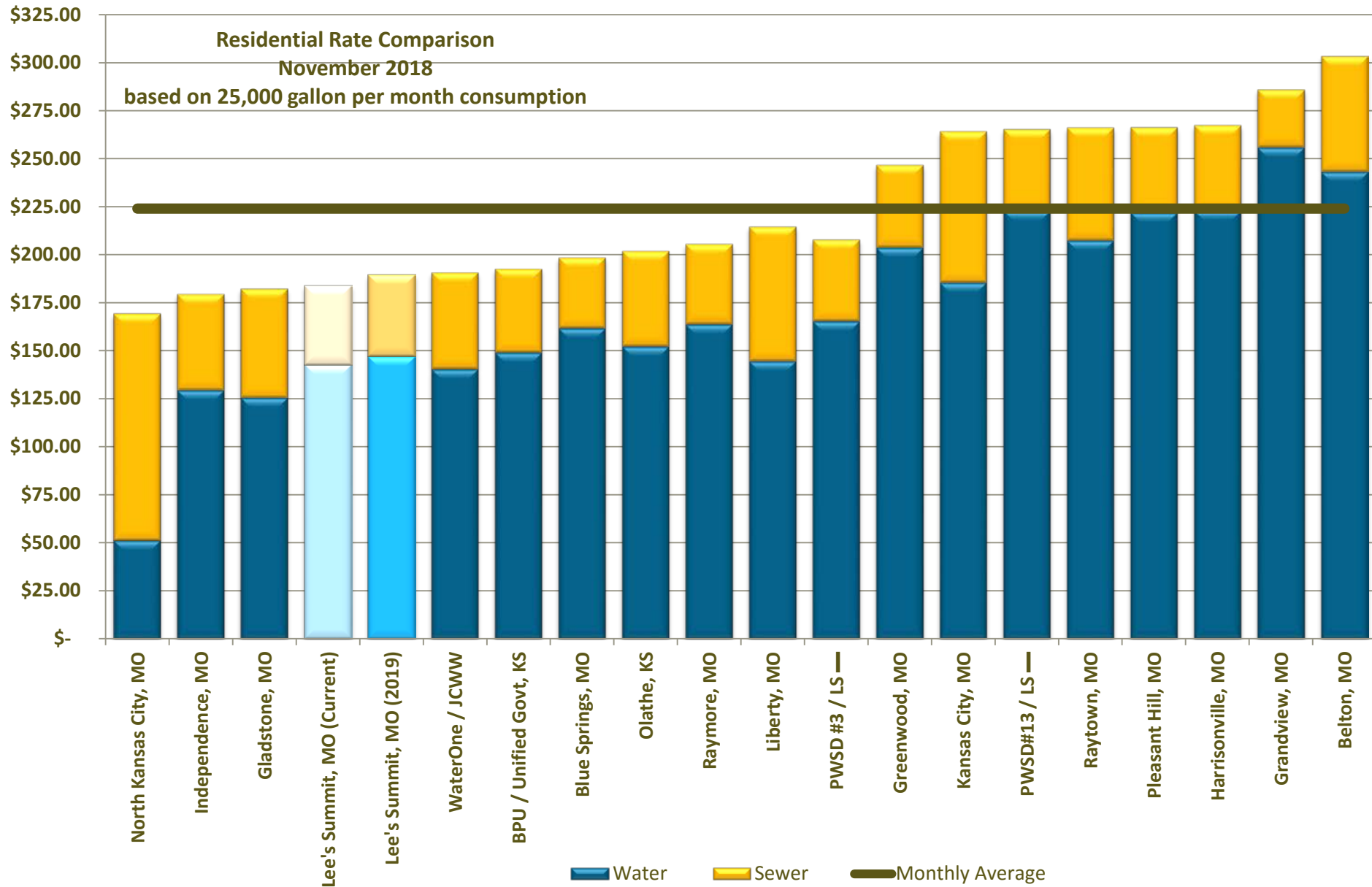
## Residential Rate Comparison

November 2018

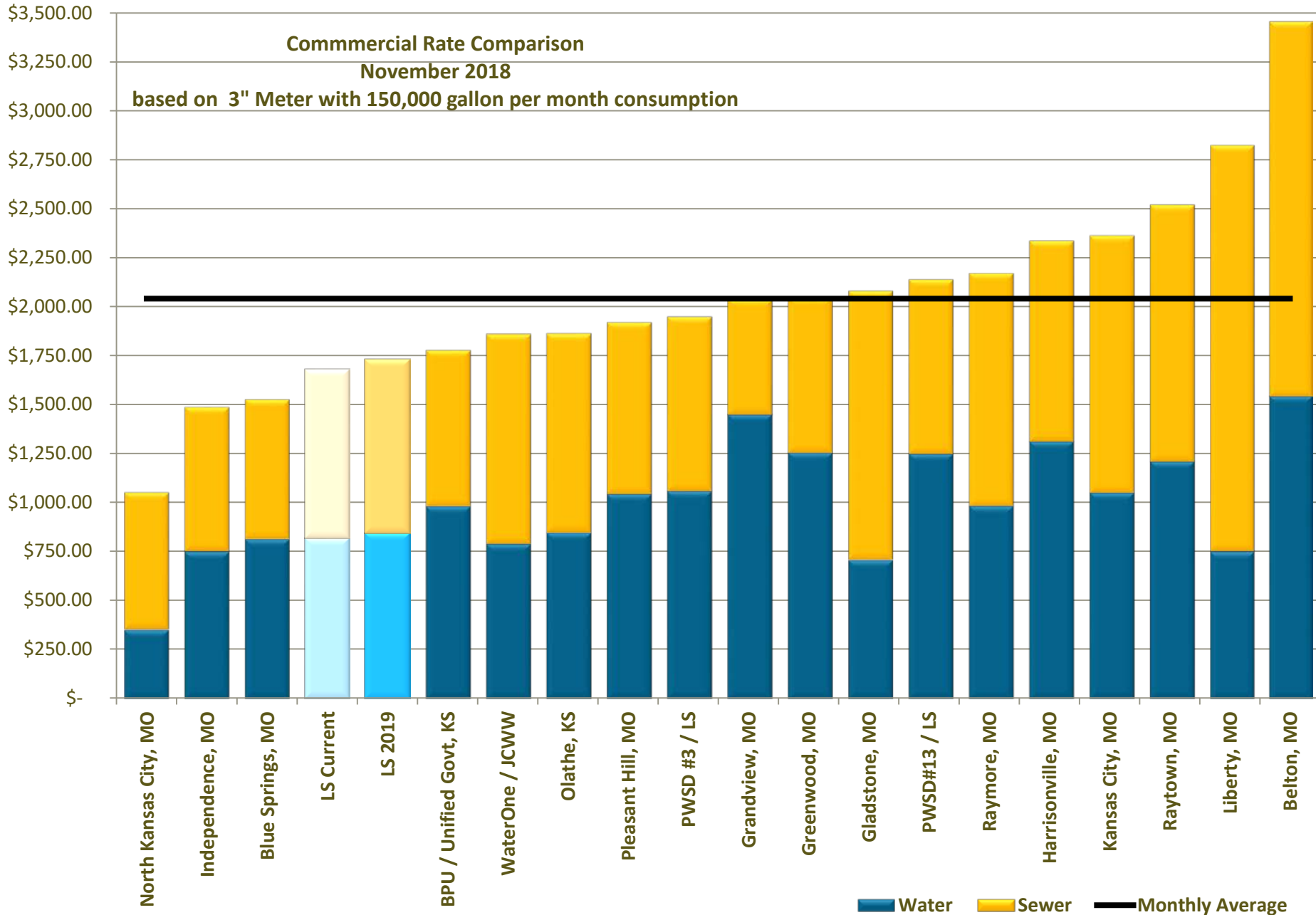
based on 5,000 gallon per month consumption



# Monthly Cost of Combined Water & Sewer



# Monthly Cost of Combined Water & Sewer





# DISCUSSION

## Water Utilities Annual Financial Plan and Rate Review



**WATER UTILITIES**  
**LEE'S SUMMIT**

*Safe and Reliable, Now and for Future Generations*