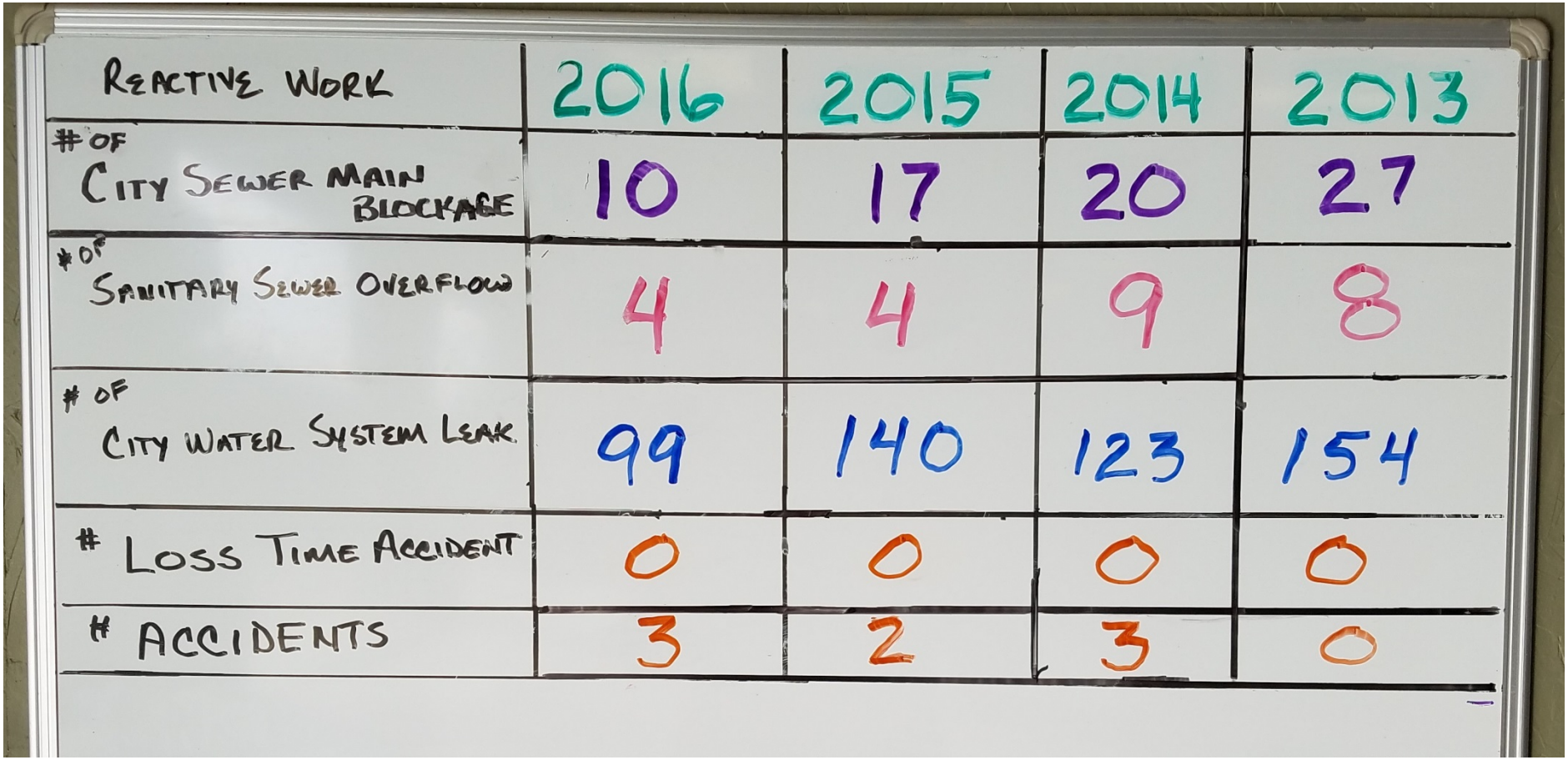
Water and Sewer Rate Model
&
Recommended 2018 - 2022 Capital Improvement Program

City *of* Lawrence
UTILITIES

Agenda

- Introduction
- Rate Model & Rate Methodologies
- Recommended 2018 - 2022 CIP
- Preliminary Revenue Requirements
- Questions

Field Services KPIs

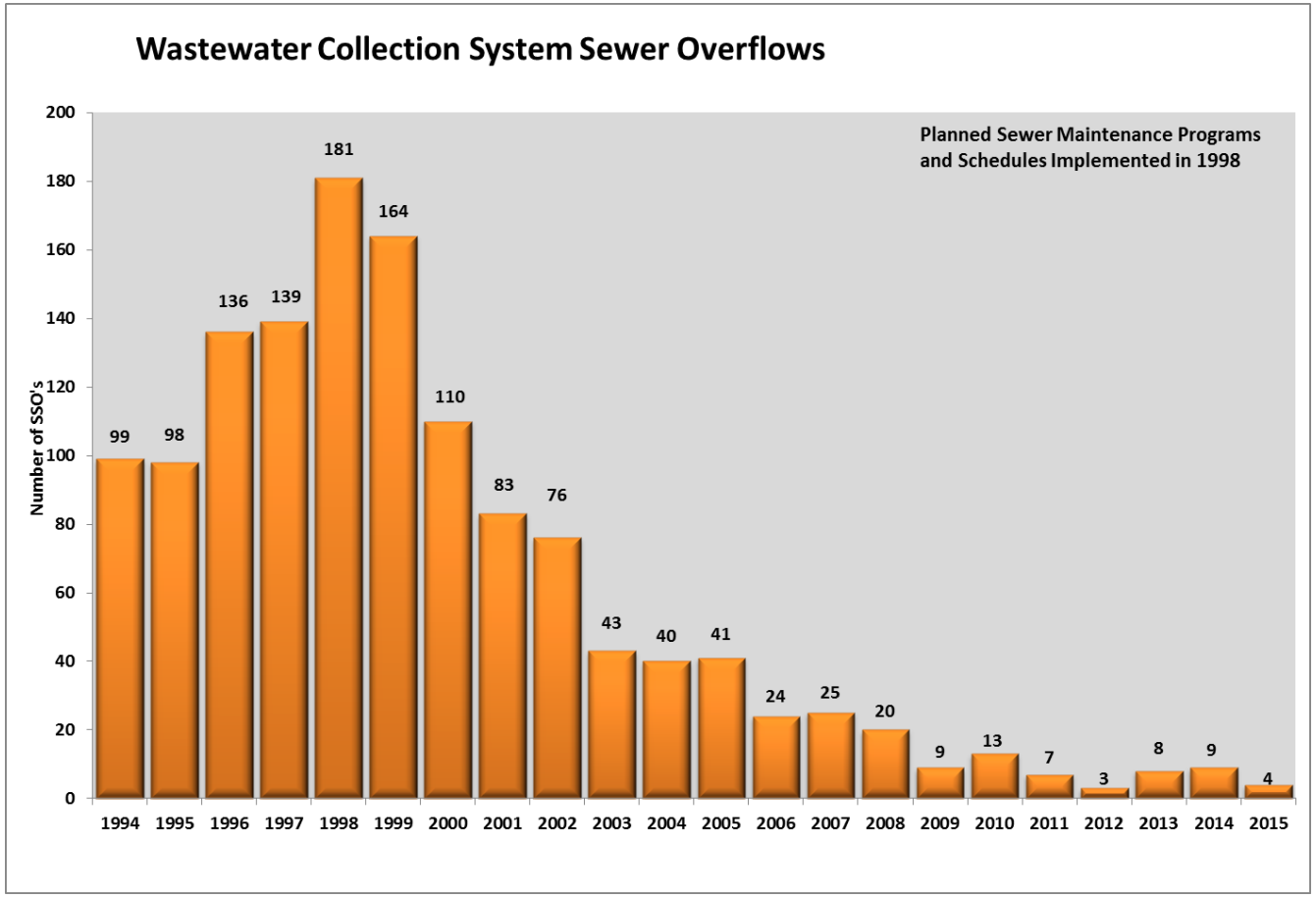


Reactive Work	2016	2015	2014	2013
# of City Sewer Main Blockage	10	17	20	27
# of Sanitary Sewer Overflow	4	4	9	8
# of City Water System Leak	99	140	123	154
# Loss Time Accident	0	0	0	0
# Accidents	3	2	3	0

Collection System - Maintenance

Focus on system maintenance…

System maintenance programs have reduced service calls and sanitary sewer overflows saving staff time and reducing property damage.



Rate Model Background

- Water Rate Methodologies
- Sewer Rates – Average Winter Consumption (AWC)
- First Rate Model 2004
- New Model - June 2015
- American Water Works Association (AWWA) Principles of Water Rates, Fees, and Charges manual.
- Commission Input
  - Encourage water conservation
  - Rate relief for low income/elderly customers

Rate Methodologies

- Declining Block Rate

Rate Methodologies

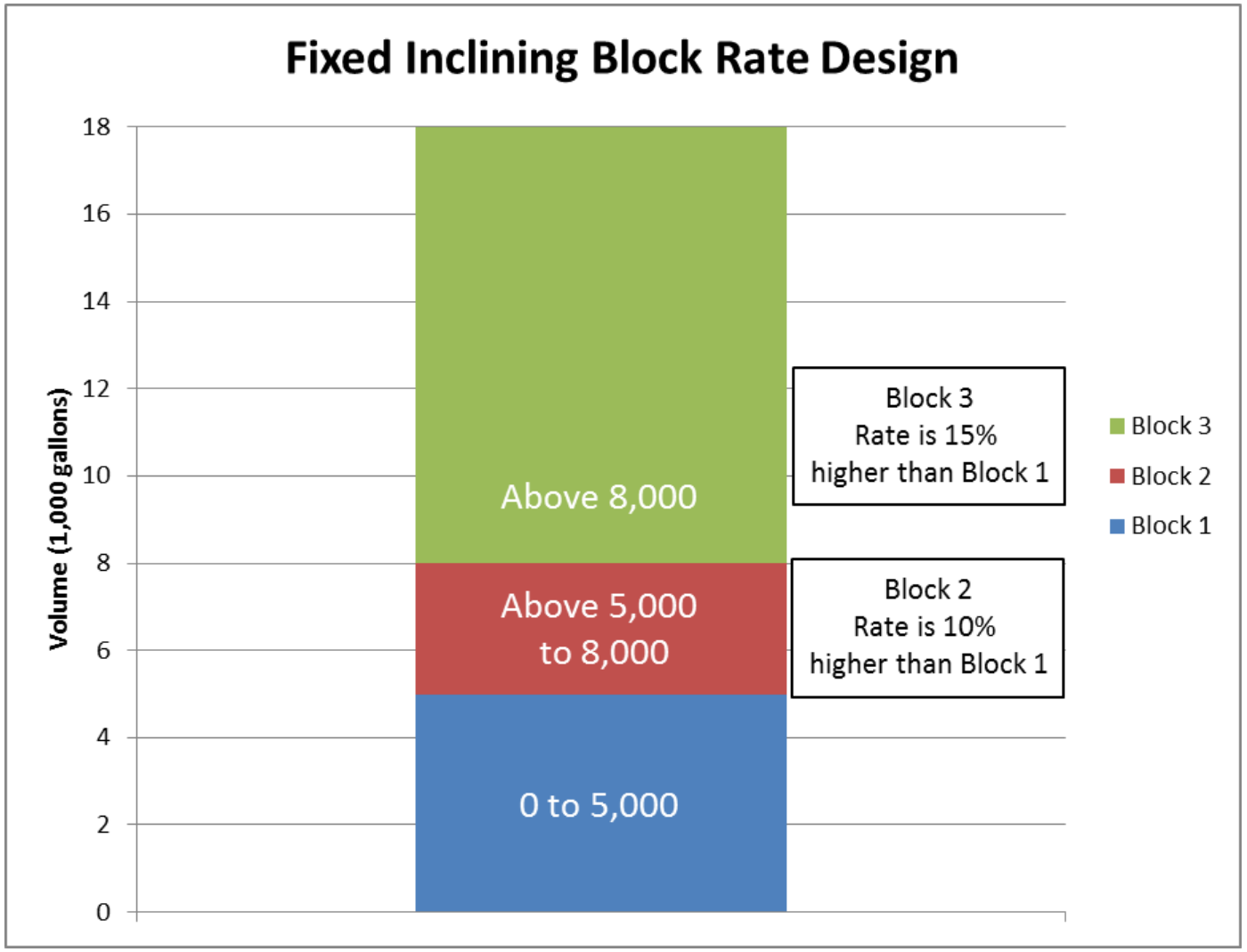
- Declining Block Rate
- Uniform Rate

Rate Methodologies

- Declining Block Rate
- Uniform Rate
- Residential Fixed Inclining Block Rate

Rate Methodologies

Residential

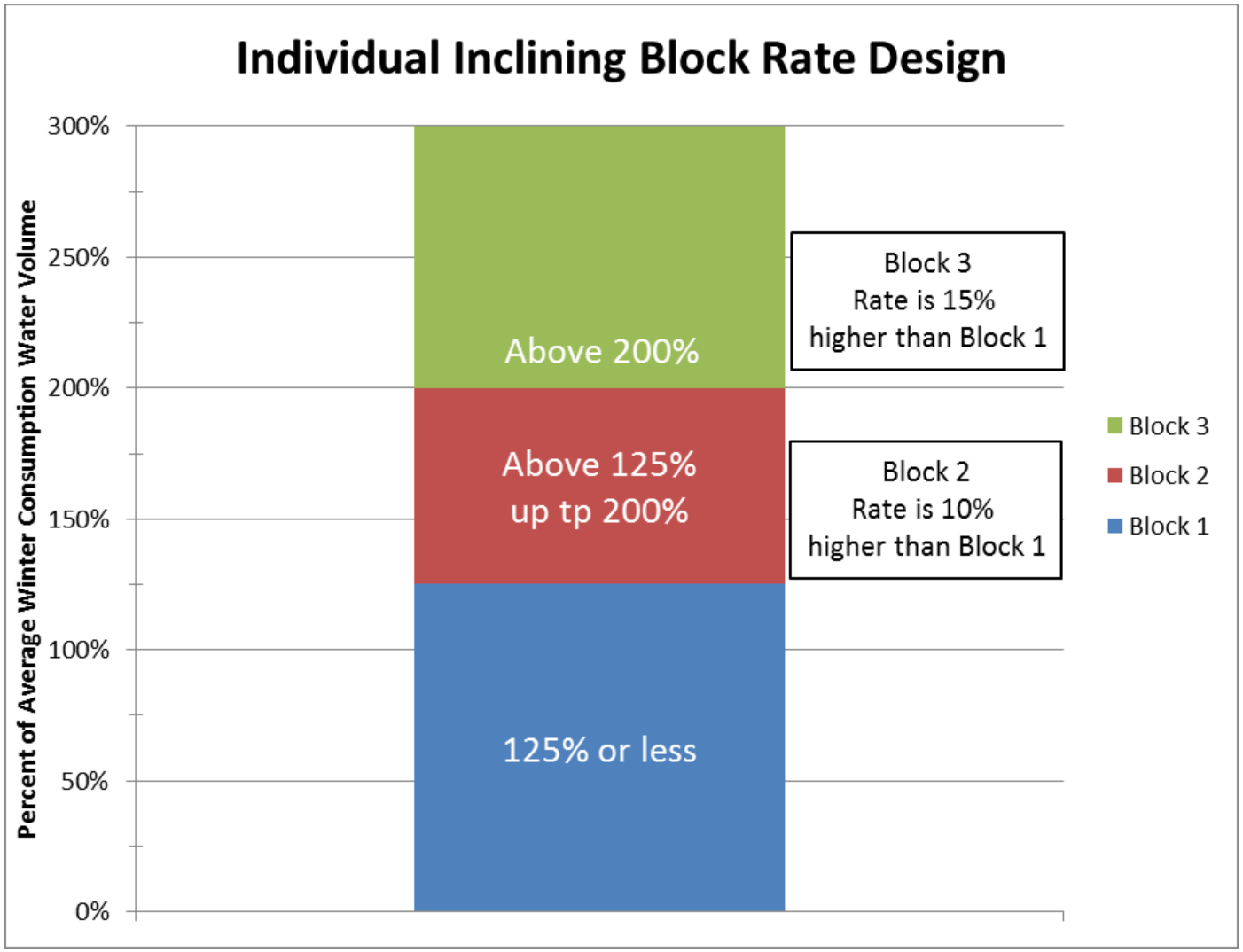


Rate Methodologies

- Declining Block Rate
- Uniform Rate
- Residential Fixed Inclining Block Rate
- Residential Individual Inclining Block Rate

Rate Methodologies

Residential



Rate Methodologies

- Declining Block Rate
- Uniform Rate
- Residential Fixed Inclining Block Rate
- Residential Individual Inclining Block Rate
- Irrigation Rate

Rate Methodologies

Comparison

	Residential			Multifamily	Commercial	Industrial
	Uniform	**Fixed IB**	**Individual IB**			
Block 1	Current	0 to 5K	0 to 125% of AWC	Uniform	Uniform	Uniform
Block 2		> 5K to 8K	> 125% to 200% of AWC			
Block 3		> 8K	> 200% of AWC			
Irrigation*	Optional	Optional	Optional	Optional	Optional	Optional

*** Irrigation requires a separate meter and service connection**

Rate Methodologies

Residential Bill Increase - Comparison to Uniform Rate

Residential

	Uniform	Fixed Inclining Block	Individual Inclining Block	Irrigation*
Excessive Irrigation	Current	More increase	More increase	Optional
Large Household	Current	More; > Individual IB	More; < Fixed IB	Optional
Small Household	Current	Less increase	Less increase	Optional
Low or Fixed Income	Current	Less increase	Less increase	Optional

*** Irrigation requires a separate meter and service connection**

2018 - 2022 CIP Drivers

The 2018 - 2022 Capital Improvement Program addresses the needs of the Department in the following areas:

- Maintenance of Infrastructure
- Regulatory and Public Health
  - Integrated Planning
  - Nutrients at Kansas River WWTP
  - Inflow & Infiltration Control
  - Water Quality - (Lead, Algal Toxins, & Unregulated Contaminants)
- Efficiency & Quality of Service
- Community Growth

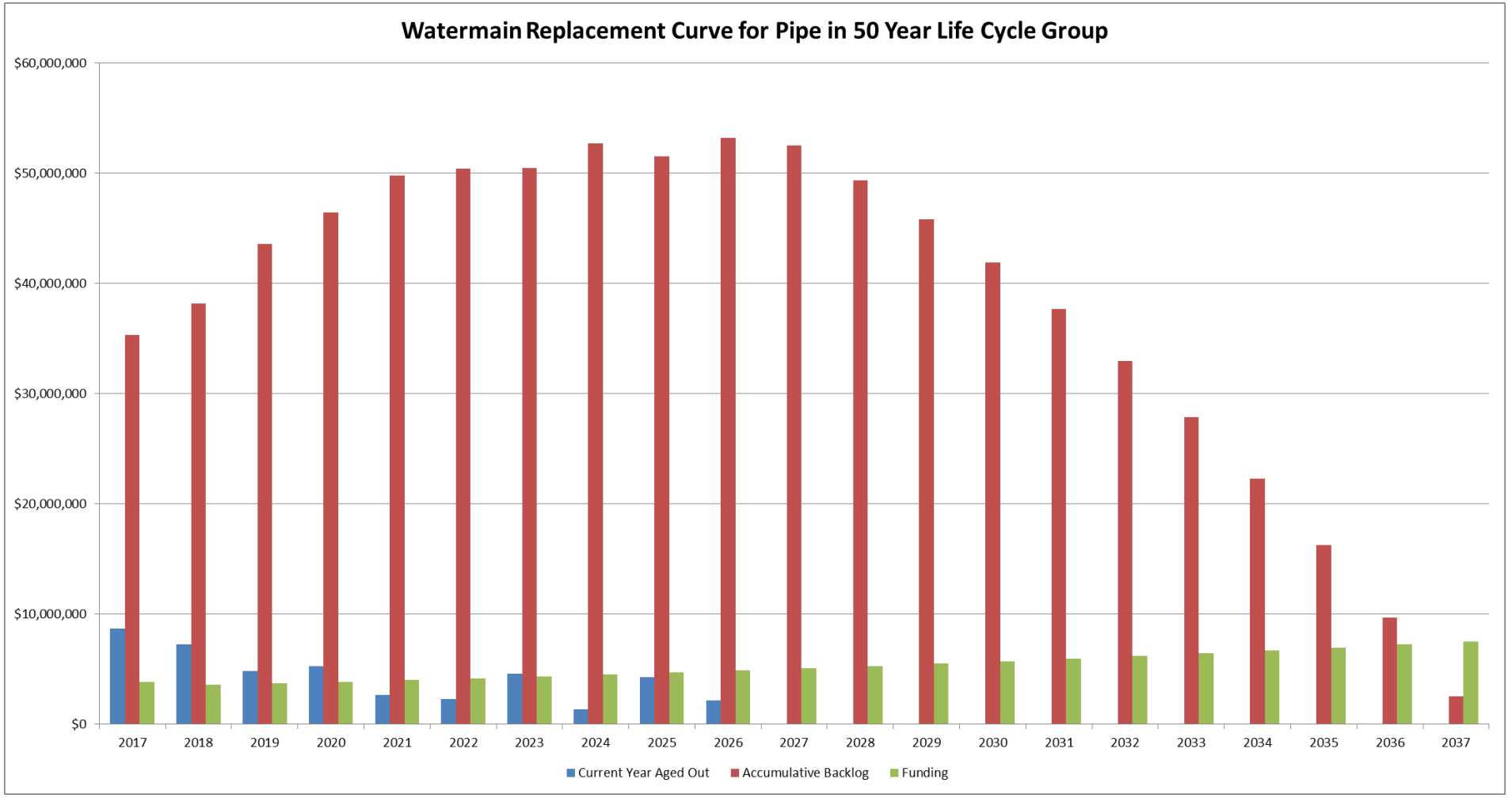
  Expands capacities to support projected community growth and future economic development

Recommended 2018 - 2022 CIP

A $130 million program consisting of the following programs and projects:

- Water Tower Maintenance - $ 6.6 Million
- Advanced Metering Infrastructure (AMI) - $10.9 Million
- Water Distribution System - $23.1 Million
- Water Plant Infrastructure- $18.5 Million
- Sewer Collection System - $26.3 Million
- Ecoflow & CIPP (I&I Control) - $21.4 Million
- Field Operations Building - $ 7.2 Million
- Kansas River WWTP Nutrient Removal Design- $ 8.5 Million
- Wastewater Plants & Pump Stations - $ 5.8 Million
- Bowersock Dam Repairs - $ 1.0 Million

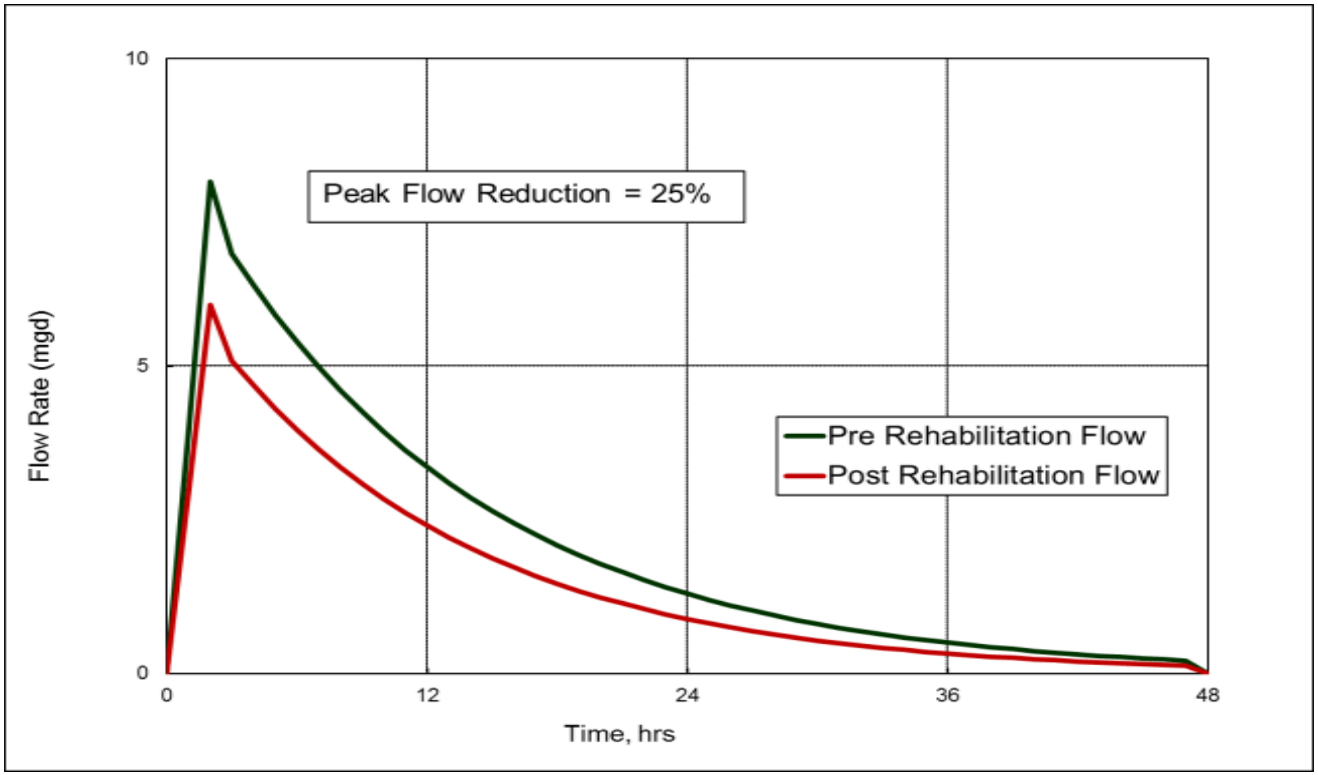
Watermain Replacement



Collection System - Flow Monitoring

Results 2014, 2015, and 2016

- **Peak Flow Reduction 2014 to 2015: 25% in Phase 1 area**
- 2016 Flow Monitoring Data Analysis is not yet completed.



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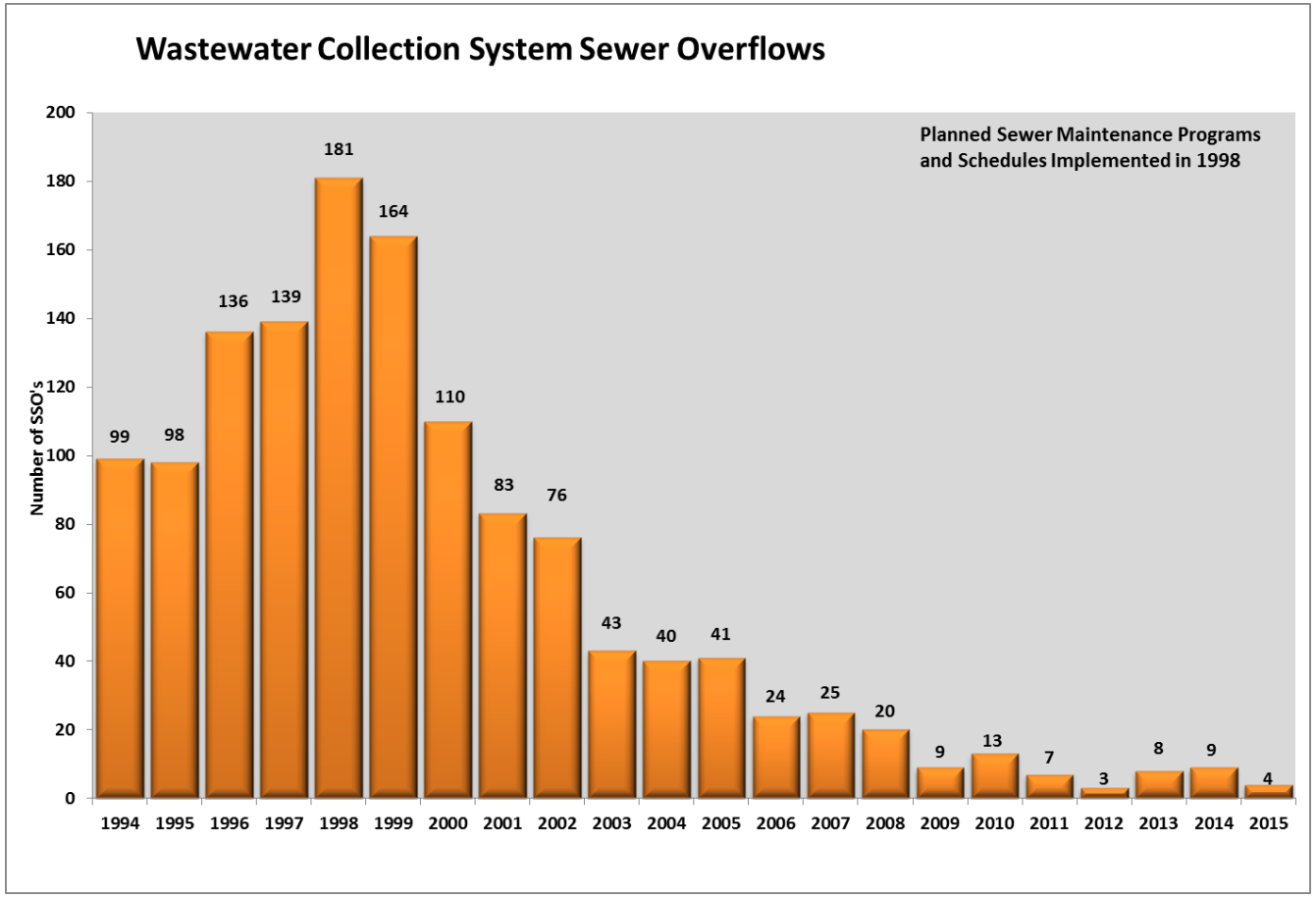
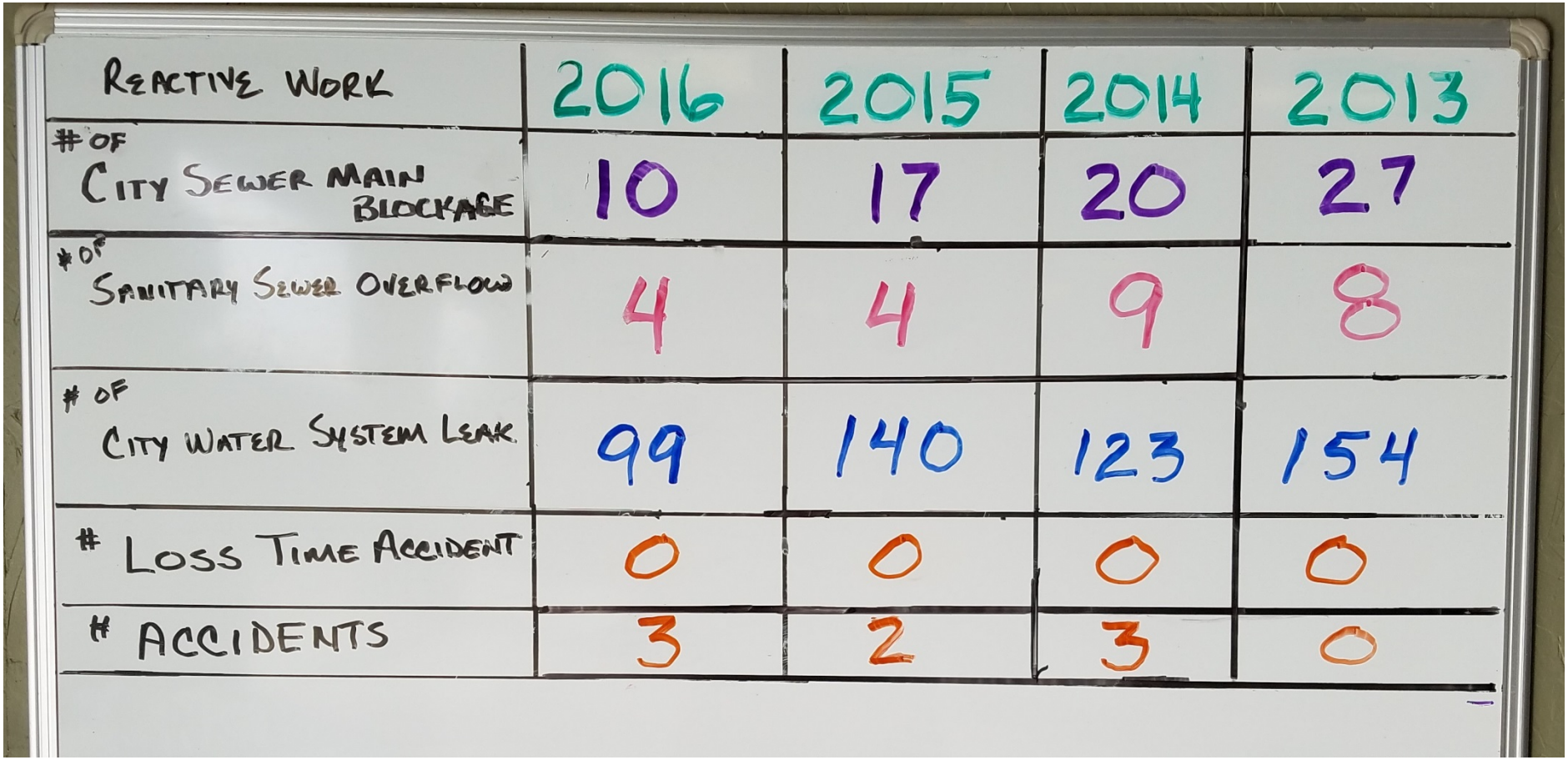


Field Services KPIs



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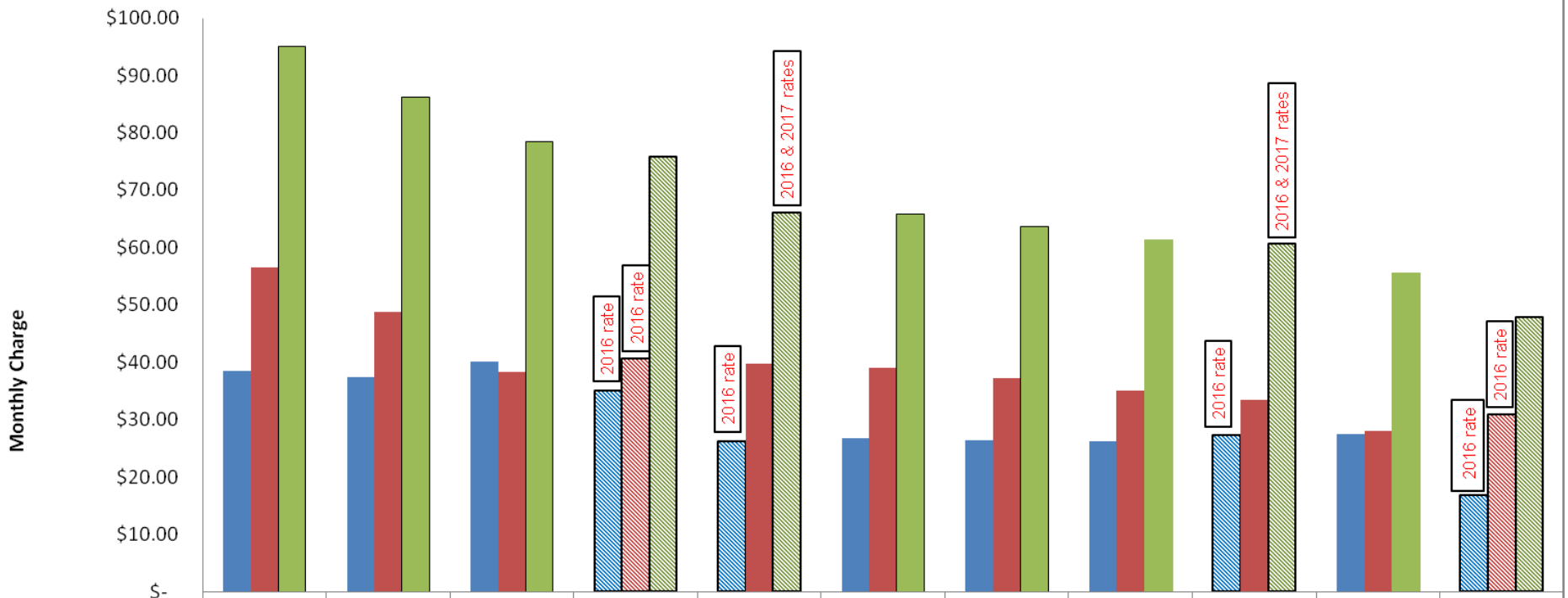
Area Rate Comparison

2017 Typical Residential Monthly Utility Bill Comparison (4,000 gal)



	KCMO	Gardner	KCK	Bonner Springs	Independence	Olathe	Lawrence	Lee's Summit	Johnson County	Topeka	Manhattan
2017 Water 4,000 gal	$38.51	$37.41	$40.16	$35.13	$26.30	$26.81	$26.35	$26.16	$27.23	$27.56	$16.81
2017 Sewer 4,000 gal	$56.46	$48.85	$38.34	$40.75	$39.85	$39.00	$37.26	$35.16	$33.37	$28.06	$30.99
Monthly Bill	$94.97	$86.26	$78.50	$75.88	$66.15	$65.80	$63.61	$61.32	$60.60	$55.62	$47.80

Shaded bars indicate currently available 2016 rates for comparison purposes - 2017 rates to be determined.

Rate Comparison

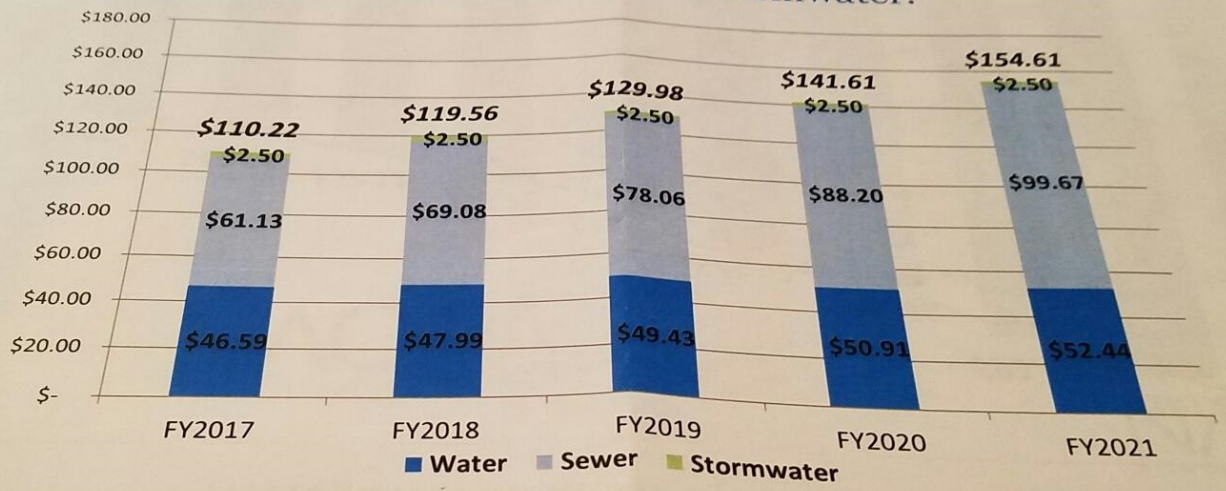
City of Springfield, MO

Susan Myers
General Counsel
Metropolitan St. Louis Sewer District, MO

2017 WINTER CONFERENCE
Next Generation Compliance...
Where Affordability & Innovation Intersect

Projected Residential Bill (FY2017-FY2021)

Assumes 3% annual increase for Water, 13% annual increase for Wastewater and 0% annual increase for Stormwater.

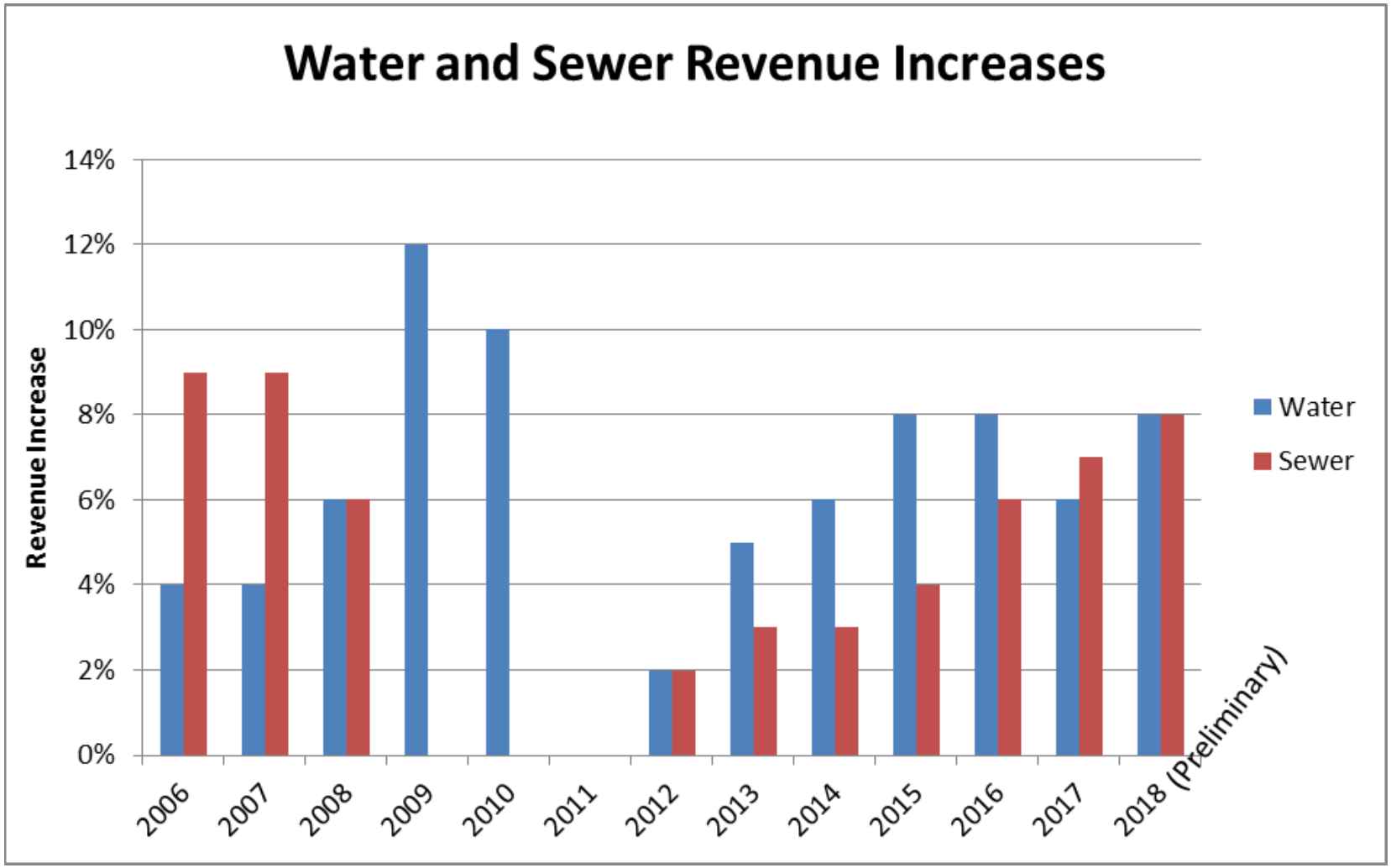


Note: Projected rates in future years are based on plan of record as of April 2016. Future rates are subject to change as financial and operating conditions change.

KC WATER SERVICES

9/13/2016

Historical Revenue Increases



Preliminary Revenue Increase

- 8% annual increase 2018 - 2021
  - 4% for Operation & Maintenance
  - 4% for CIP
- 7.5% annual increase 2022 - 2025

Questions

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