

City of Lawrence  
Department of Utilities  
Overview

*Clean Water is the most important factor in  
community health and safety*

– Gina McCarthy, Administrator US EPA

Water sustains life

Sewer services protect the public health and  
the environment

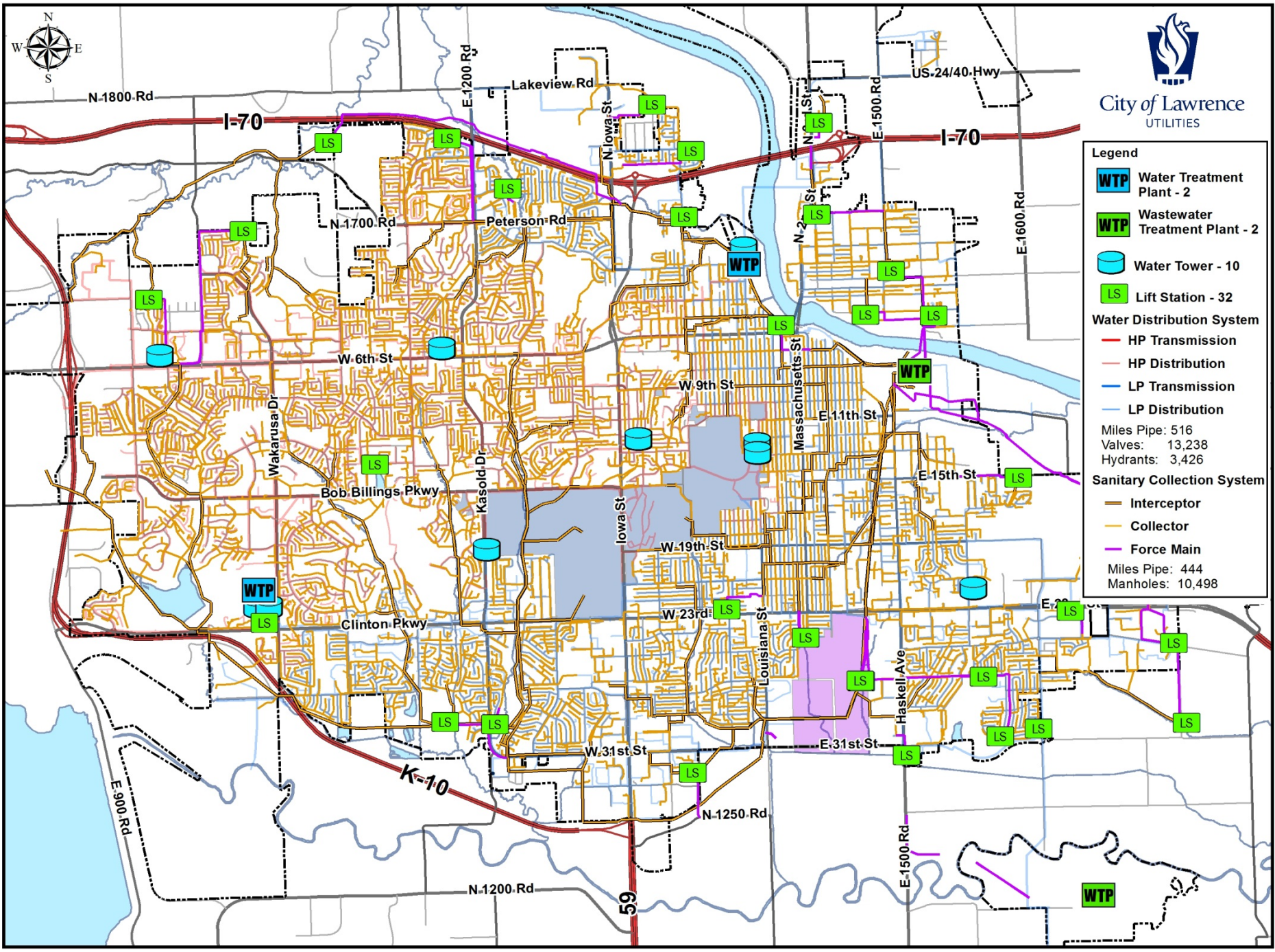
Supports commerce

*Example: Water Supply for Fire Protection's ISO Score is 37.44/40 points*



City of Lawrence  
UTILITIES

- Legend**
- Water Treatment Plant - 2
  - Wastewater Treatment Plant - 2
  - Water Tower - 10
  - Lift Station - 32
- Water Distribution System**
- HP Transmission
  - HP Distribution
  - LP Transmission
  - LP Distribution
- Miles Pipe: 516  
Valves: 13,238  
Hydrants: 3,426
- Sanitary Collection System**
- Interceptor
  - Collector
  - Force Main
- Miles Pipe: 444  
Manholes: 10,498





# Lawrence Utilities

- Provides water and separate sanitary sewer services for a population of 94,000 over 29 square miles
- Provides wholesale water to an additional ~6000 people in 3 counties
- Employs 110 staff
- Budget is \$45 million
- 5 year capital plan of \$161 million

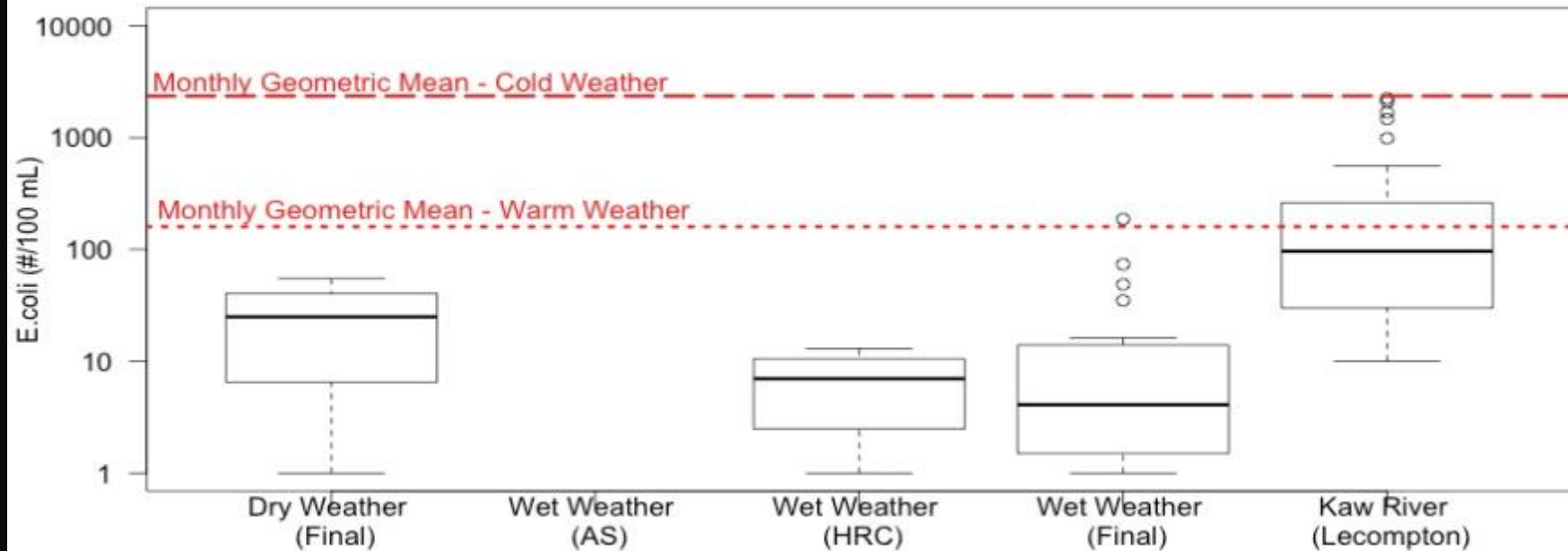
# Recent Outcomes

2014 - Nation's 1<sup>st</sup> Integrated Plan within a NPDES permit w/o formal enforcement action

Lawrence has one of the best and longest records of using innovative sewage treatment technologies (ballasted flocculation) during wet weather events

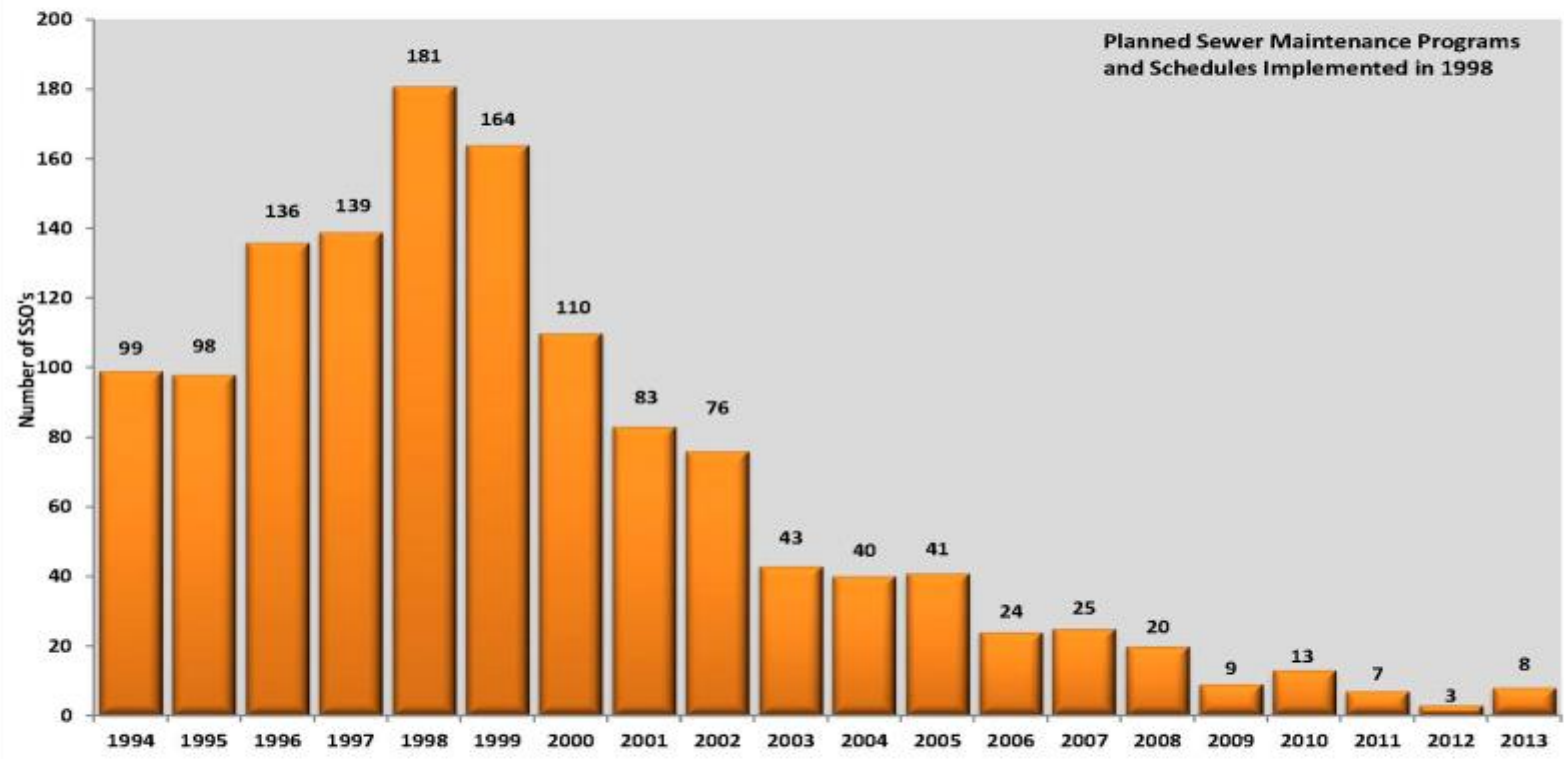
Lawrence's wet weather management and treatment outcomes are used by US EPA and clean water agencies as they consider and or promote modifications to practice, US rules, and US laws (e.g. HR 1705)

### E.coli Only (July 2008 through January 2014)



Distribution of *E.coli* data from years 2008 to 2014 is shown for dry weather and wet weather conditions, and the NPDES permit levels are shown with the dotted lines. Four sampling points are compared: Final discharge, AS discharge, and HRC (Actiflo®) discharge ; only final discharge is meaningful during dry weather operation. KDHE monitoring *E.coli* data from years 2004 to 2014 is shown for Kaw River - Lecompton KDHE sampling site upstream. The box represents the lower and upper quartile of the data, with the median drawn in the box, and the whiskers represent the extremes of the distribution. Statistical outliers are shown as individual data points.

## Wastewater Collection System Sewer Overflows





# Integrated Plan Project Drivers

- **Reliability**  
Maintaining what we have
- **Capacity**  
To support community growth and development
- **Regulatory & Service/Product Quality**  
Protect human health and the environment

# Current Integrated Plan Project Totals

- \$21 Million in completed projects
- 18 projects underway  
( In design and or construction)
- Value of projects underway is \$99 Million
- \$38 Million in contracts currently out

# New Raw Water Intake Kaw WTP

Reliability and Capacity



# North Lawrence Transmission Main

Reliability and Capacity

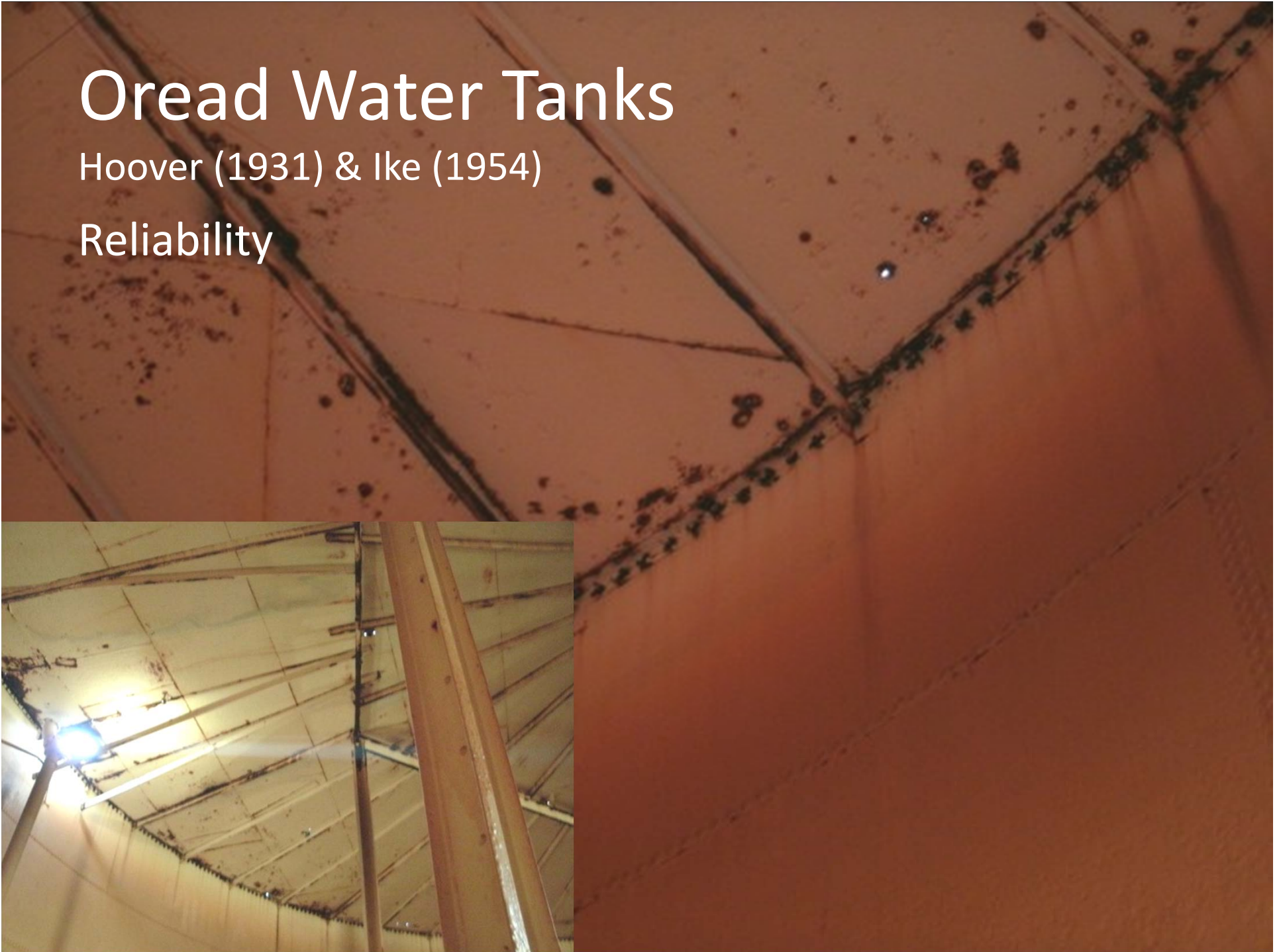
(Future phases to the East and South will serve Southeast areas)



# Oread Water Tanks

Hoover (1931) & Ike (1954)

Reliability



# Ecoflow Program

Keeping rain water out of the sanitary sewers

Reliability, Capacity, & Regulatory Compliance



# Water Main Replacement Program

Reliability and Capacity



# North Lawrence Force Mains

Reliability





# Other Projects

- Water Plant Taste and Odor/Process improvements (2015-16)
- SLT/K10 utility relocations (Underway)
- Transmission main assessments
- Clinton and Kaw WTP electrical imp.
- Water booster pump stations
- Large water valve replacements
- Wakarusa WWTP

# Financing & Budget

- Enterprise Fund – User fees and charges for service provided
- \$45 million operating budget - Operations & maintenance and debt service for capital plan
- 2013 to 2017 Capital Plan
  - Adopted March 12, 2013
  - \$161 million
- \$90.7 million revenue bonds for water and sewer improvements

# 2013 to 2017 CIP

## 2013 to 2017 CIP

### Comparison of 2015 Scenarios and Approved Scenario 5 Costs to Typical Customer

#### **Adopted 2015 Rates for T&O Phase I (including PS04 Force Main, and Emergency Sewer Repair)**

Typical Customer (4,000 gallons Water & Sewer)

Total Increase \$15.97

Average Yearly Increase \$3.19

Total Additional Cost Over the 5 Year Period \$519.84

2015 Monthly Utility Bill \$55.57

\* Using actual rates for 2013 and 2014.

#### **2013-2017 Scenario 5 - Original Projection**

Typical Customer (4,000 gallons Water & Sewer)

Total Increase \$15.56

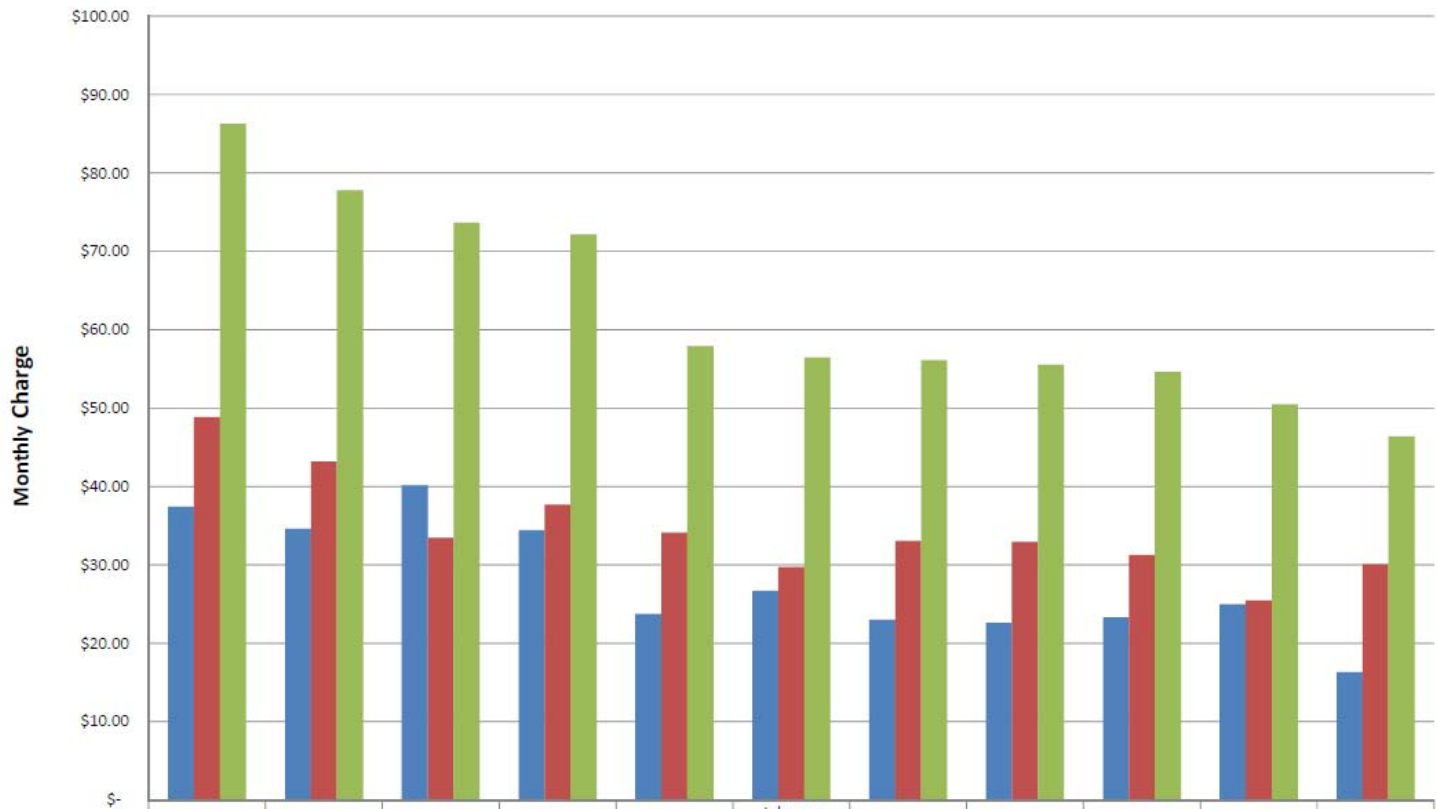
Average Yearly Increase \$3.11

Total Additional Cost Over the 5 Year Period \$519.24

# Rates

- Cost of service
- Rates presented each year with adoption of annual budget
- History of consistent rate increases since 2004 except for 2011 (factor in maintaining Aa2 Moody's rating)
- Rate model update and comprehensive financial review

## 2015 Typical Residential Monthly Utility Bill Comparison (4,000 gal)



	Gardner	KCMO	KCK	Bonner Springs	Olathe	Johnson County	Independence	Lawrence	Lee's Summit	Topeka	Manhattan
2015 Water 4,000 gal	\$37.41	\$34.60	\$40.16	\$34.44	\$23.77	\$26.71	\$23.05	\$22.63	\$23.30	\$24.99	\$16.34
2015 Sewer 4,000 gal	\$48.85	\$43.19	\$33.47	\$37.71	\$34.14	\$29.76	\$33.08	\$32.94	\$31.31	\$25.48	\$30.08
2015 Monthly Bill	\$86.26	\$77.78	\$73.63	\$72.15	\$57.91	\$56.47	\$56.13	\$55.57	\$54.61	\$50.47	\$46.42