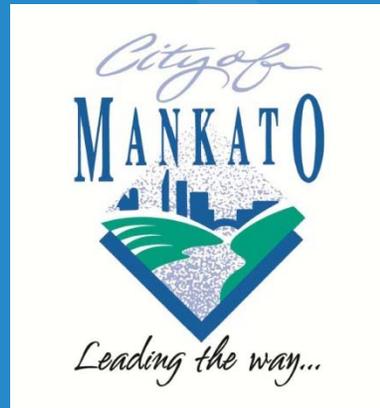


City of Mankato



Water and Sewer Rate Study

November 26, 2013

Karen Cavett, SEH



Utilities Rate Study Initiated to:

- Comply with state mandated requirements:
 - Implementation of water conservation rate structure
- Evaluate the utility rate program
- Establish a long range asset improvement plan
- Define revenue requirements for the next 5 years

Water Conservation

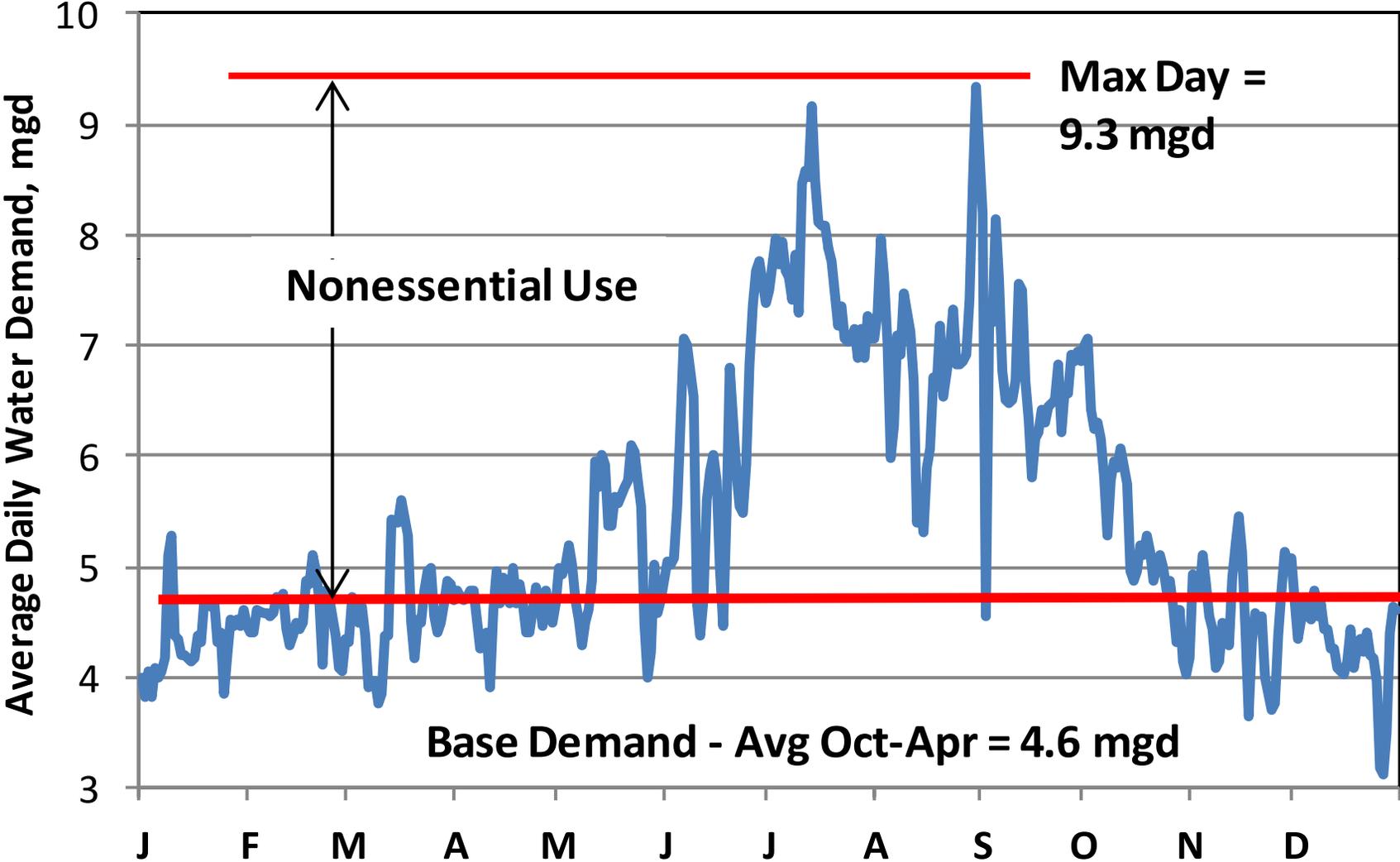
- *Minnesota Statutes, Section 103G.291*

Requires public water suppliers serving more than 1,000 people to adopt demand reduction measures, including a water conservation rate or a uniform rate with a conservation program

New Water Rate Structure:

- Meet the state's conservation criteria
- Provide fair and equitable rate structure for all customers
- Target reduction of nonessential water use

Water Use 2012



Water Conservation Rates

Current Rate Structure: Declining Rate Structure:
prohibited by state statute

Rate Options: must encourage reduction of water use.

Examples:

1. Increasing Block
2. Seasonal
3. Time of Use
4. Excess Use
5. Individualized Goal

Water Conservation Rates

- Increasing Block:
 - Cost per gallon increases within specified blocks or volumes.
 - Rates should increase a minimum of 25% between blocks
 - Example:
 - Block 1: \$4.00 0 – 6,000 gallons
 - Block 2: \$5.00 6,001 – 9,000 gallons
 - Block 3: \$6.25 9,001 gallons above

Water Conservation Rates

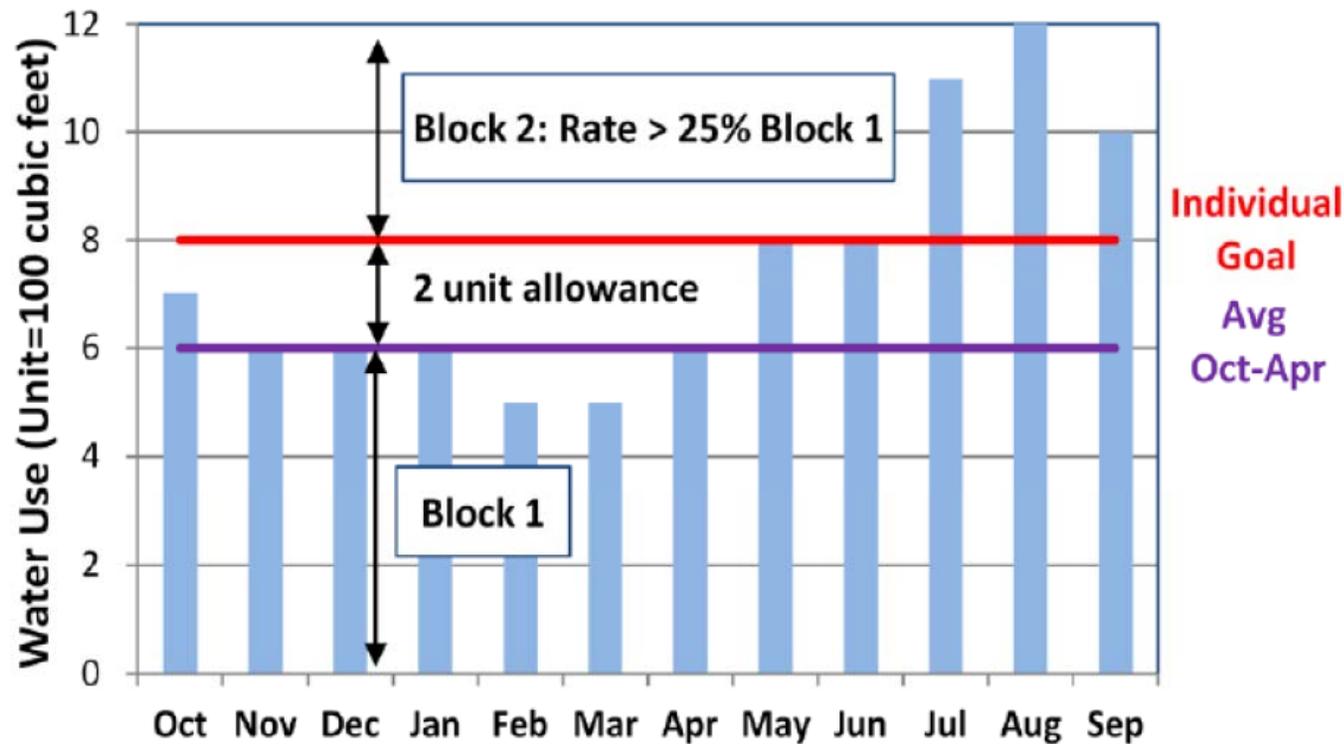
- **Seasonal:**
 - Higher seasonal rates at specified times, typically spring through fall seasons.
 - Example:
 - October – April - \$4.00
 - May – September - \$5.00
- **Time of Use:**
 - Higher rate when water use is at its peak usage.
 - Requires specialized water meter
 - Can be a burden for a community to monitor
 - Not often implemented in the Midwest

Water Conservation Rates

- Excess Use:
 - Similar to an increasing block, but with much higher increases between blocks.
 - Sends strong message to large users.
 - Often rate increase of 50% between blocks
 - Example:
 - Block 1: \$4.00 0 – 6,000 gallons
 - Block 2: \$6.00 6,001 – 9,000 gallons
 - Block 3: \$9.00 9,001 gallons above

Water Conservation Rates

- Individual Goal:
 - Structure provides goal for each individual customer. Typically based on seasonal goal.



Conservation Rate Impact on Large Water Users

Current Water Rate: Cost of Service Charge: \$4.42
 0 to 300 units: \$3.29 per unit
 301 units and above: \$2.28 per unit

Industrial: Average	Year	Rate Structure	Water	Sewer	Total
Use: 400 units/month (300,000 gallons/mo)	2013	Current: Declining	\$1,219.42	\$1,347.89	\$2,567.31
	2014	Declining/Multi	\$1,245.51	\$1,376.05	\$2,621.56
		Straight	\$1,348.51	\$1,376.05	\$2,724.56

2014: 2% rate increase

1 unit = 100 cu.ft. = 750 gallons

Impact of Conservation Rate

Industrial: Moderate	Year	Rate Structure	Water	Sewer	Total
Monthly Summer: 3,000 units (2,225,000 gallons) Winter: 2,800 units (2,137,500 gallons)	No Sprinklers:				
	2013	Current: Declining	\$7,147.42	\$10,057.89	\$17,205.31
	2014	Declining/Multi-Dwell	\$7,303.51	\$10,268.05	\$17,571.56
		Straight	\$10,084.51	\$10,268.05	\$20,352.56
	With Sprinklers:				
	2013	Current - Declining	\$7,298.92	\$9,555.39	\$16,854.31
	2014	Declining/Multi-Dwell	\$7,458.01	\$9,755.05	\$17,213.06
		Straight	\$10,084.51	\$9,755.05	\$19,839.56

2014: 2% rate increase

1 unit = 100 cu.ft. = 750 gallons

Water Conservation Rate

- An individual user has a base fee (cost of service) plus volume of water used
- State Requirement:
 - *Minnesota Statutes, Section 103G.291*

Conservation rates applied to multifamily dwellings or connections to multiple users must consider each residential unit as an individual user.

Water Conservation Rate

- Each residential unit of multi-family dwellings/connections must be considered as an individual user.
- Change in Base Fee (Cost of Service):
 - Apartment Complex with 10 units:
 - 2013: $\$4.42/10 \text{ units} = \0.44 per user
 - 2014: $\$4.42 \text{ user}$

Impact of Conservation Rate

Multi-Dwelling 150 Unit Apartment	Year	Rate Structure	Water	Sewer	Total
Summer: 600 units (450,000 gallons) Winter: 588 units (441,000 gallons)	No Sprinklers:				
	2013	Current: Declining	\$1,675.42	\$2,017.89	\$3,693.31
	2014	Declining/Multi	\$2,383.50	\$2,060.05	\$4,443.55
		Straight	\$2,692.50	\$2,060.05	\$4,752.55
	With Sprinklers:				
	2013	Current - Declining	\$1,687.54	\$1,977.69	\$3,665.23
	2014	Declining/Multi	\$2,395.86	\$2,019.01	\$4,414.87
		Straight	\$2,692.50	\$2,019.01	\$4,711.51

2014: 2% rate increase

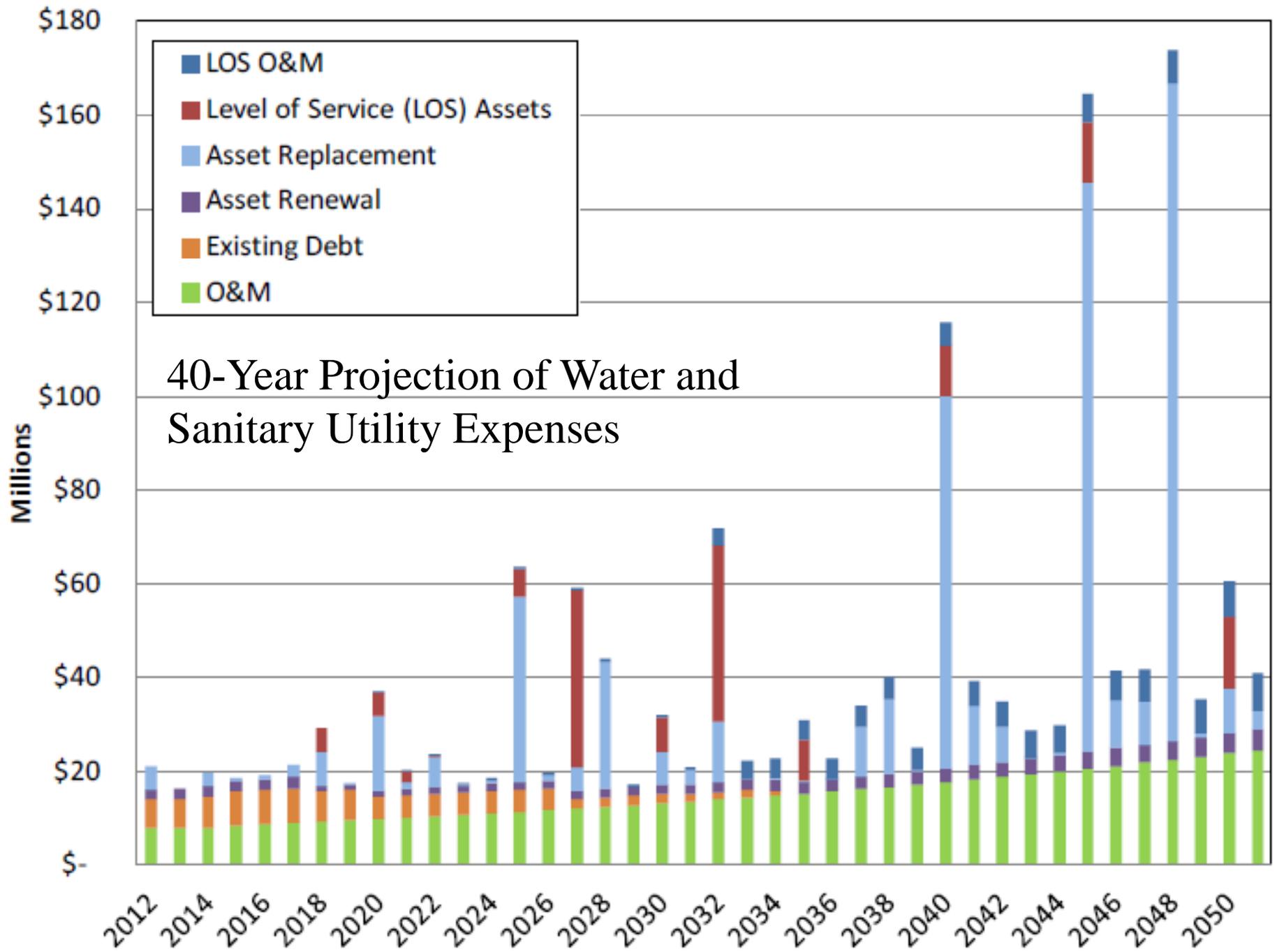
1 unit = 100 cu.ft. = 750 gallons

Long Range Planning

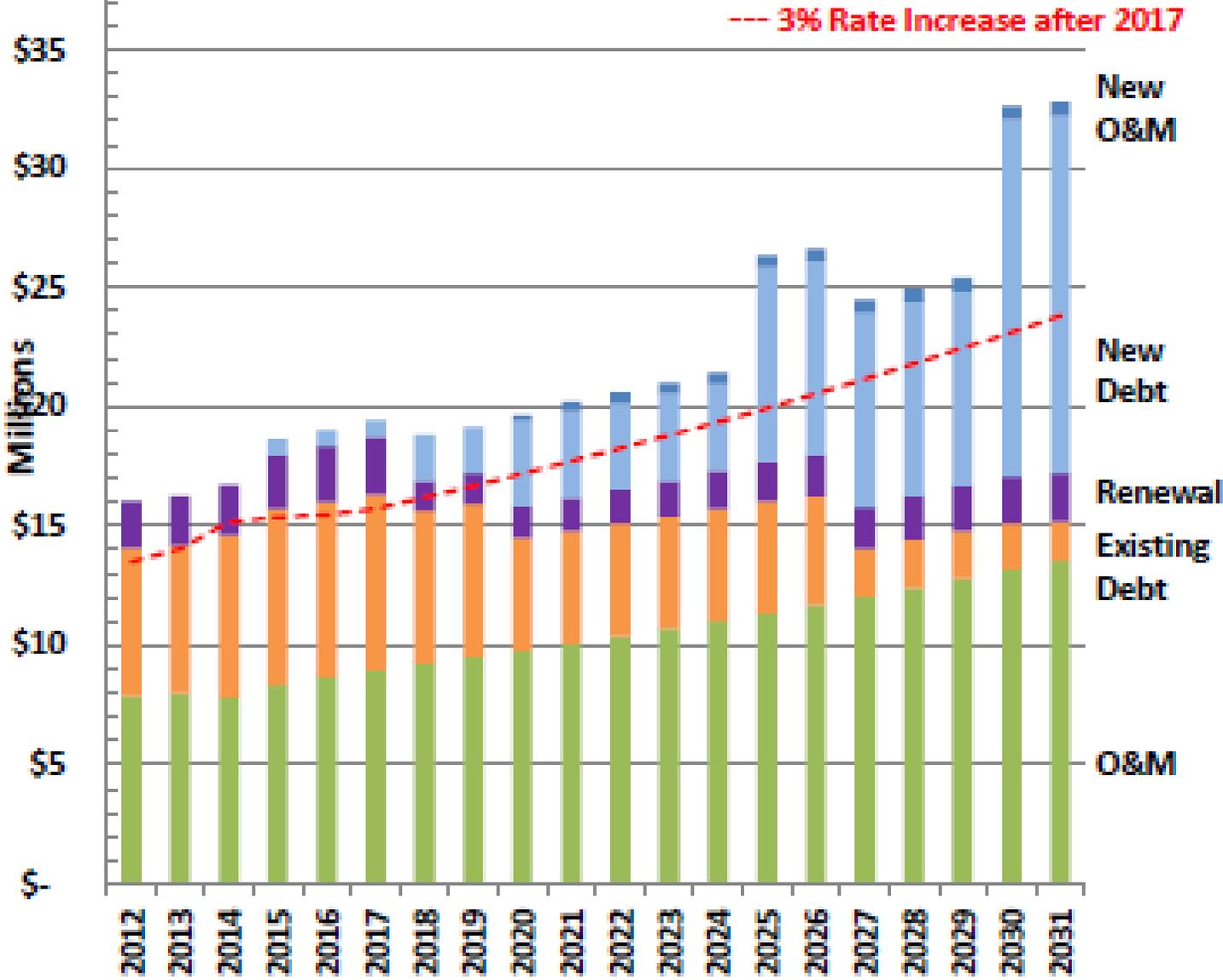
- City evaluated the useful life of major utility facilities and equipment to forecast the 40-year replacement costs for aging infrastructure
- Improvements required for population growth
- Future regulations that mandate treatment or system modifications

Major Assets

- Water System: wells, water treatment plant, reservoirs, water towers \$70.93 Million
- Wastewater System: wastewater treatment plant, lift stations, flood stations \$95.08 Million
- Sanitary Collection System: Piping \$176.03 Million
- **Total:** **\$342.05 Million**



No Change in Water & Sewer Revenue



January 2014 - Water and Sewer Rates

- Rate increase: 2%

Item	Water Rates		Sewer Rates	
	2013	2014	2013	2014
Cost of Service	\$4.42	\$4.51	\$7.89	\$8.05
Per Unit	\$3.29	\$3.36	\$3.35	\$3.42
More than 300 units	\$2.28	\$2.33		

Note: 1 unit = 100 cubic feet = 750 gallons

- Each residential unit of multi-family dwellings/connections will be considered as an individual user.

Single Family Residential 5-year Average Water Use:

7 units/month
(5,250 gallons)

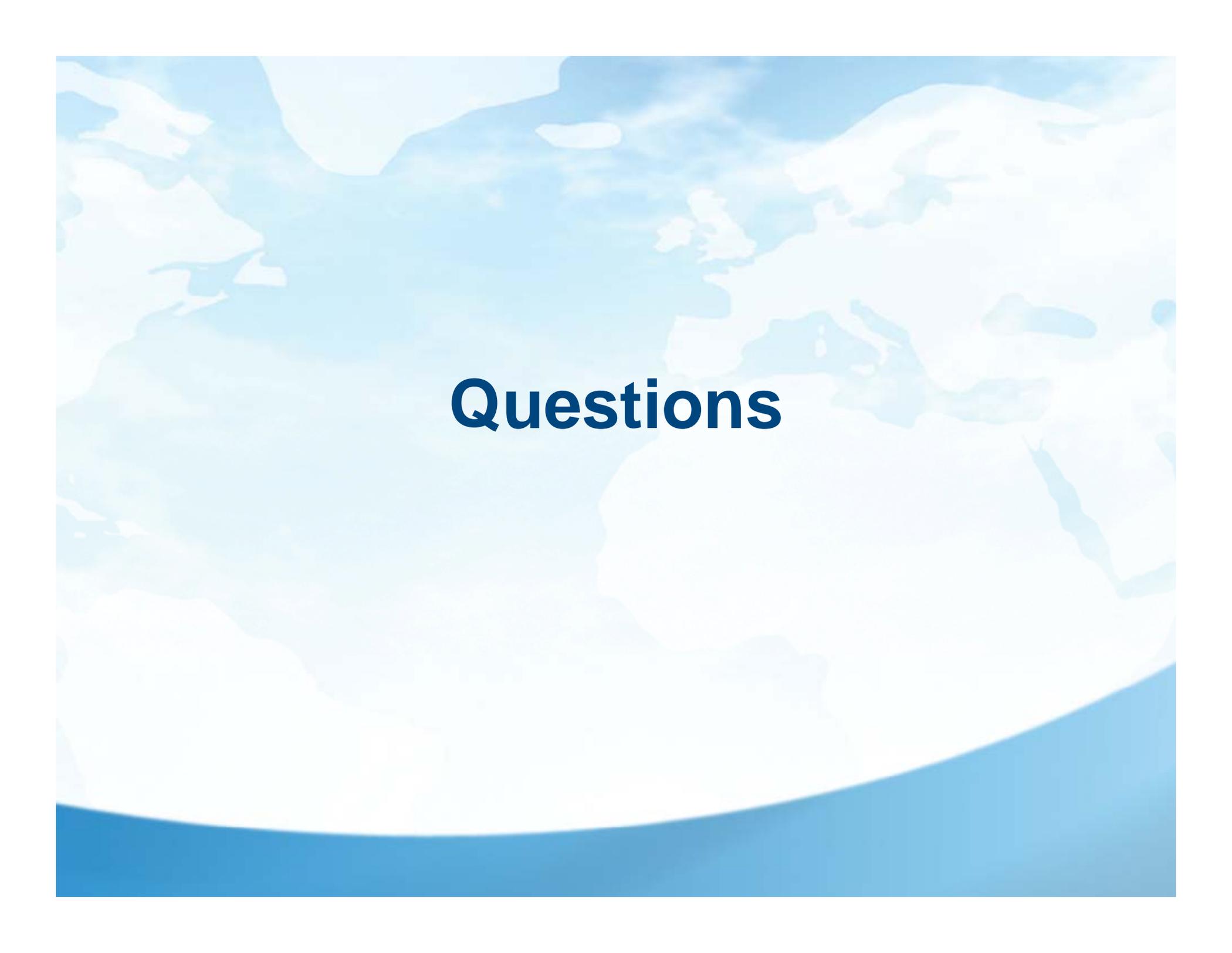
Item	Water Rates	
	2013	2014
Cost of Service	\$4.42	\$4.51
Per Unit	\$23.03	\$23.52
More than 300 units	\$0.00	\$0.00
Total	\$27.45	\$28.03

Item	Sewer Rates	
	2013	2014
Cost of Service	\$7.89	\$8.05
Per Unit	\$23.45	\$23.94
Total	\$31.34	\$31.99

Note: 1 unit = 100 cubic feet = 750 gallons

Compliance Rate Structure Implementation

- **January 1, 2014**
 - Multi-dwellings charged per unit for cost of service
- **January 1, 2015**
 - No longer declining rate
 - Rate structure must encourage conservation



Questions

Summer Usage: Number of Residential Connections per Unit Water

