



City of Manistee

Water & Sewer Rates

September 12, 2017

2014 Rate Study

- Burton & Associates
- Presented April 2014
- Comprehensive review of the Utility
- Utilized AWWA methodology
- Three Phases
 - Perform a cost of service allocation
 - Develop a Recommended Rate Structure
 - Develop a Multi-Year Financial Mgt. Plan
- Modified existing two-part rate structure
- In effect for FY 15, 16, 17 & 18

Study Objective: Sustainability

- ▶ Develop a rate structure to address the City's unique balance of the various components of sustainability:

- ▶ Social

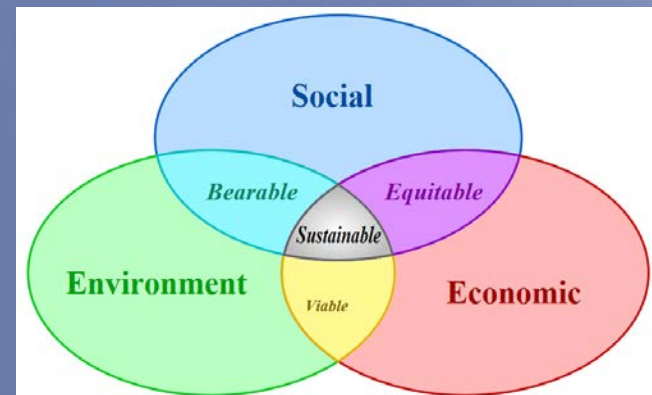
- ▶ Fair & equitable distribution of costs to customers

- ▶ Environmental

- ▶ Fund cost of regulatory compliance

- ▶ Economical

- ▶ Satisfy operating costs
 - ▶ Fund asset management
 - ▶ Service existing and new debt
 - ▶ Meet financial policies
 - ▶ Provide fiscal stability

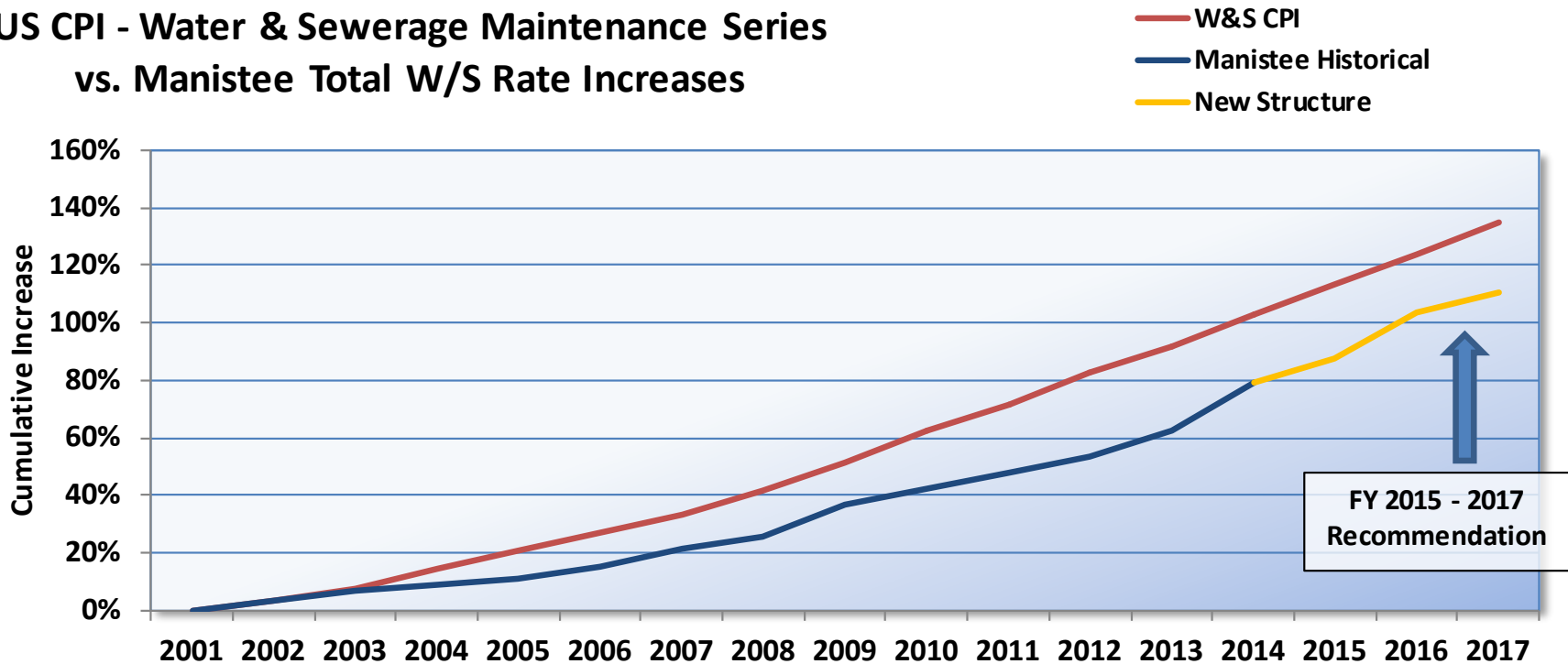


Water & Sewer Rate Structure

- City uses a two-part rate structure
 - Volume Usage
 - Ready-to-Serve
- This is a standard in the industry designed to balance financial stability with affordability
- Utilities have substantial investments in capacity-related costs and other fixed costs that are incurred year-round to maintain a state of readiness to meet peak demands when they occur
- RTS is set at 50% of what is recommended in order to ease the transition

Water & Sewer Rates

US CPI - Water & Sewerage Maintenance Series
vs. Manistee Total W/S Rate Increases



- City has been consistently lower than the industry in water/sewer rate adjustments through 2014
- Recommendations would fund needed improvements with rate adjustments lower than the industry

Water & Sewer Rates

- Current rates for 5/8# meter (residential)
 - Water \$2.93 per 1,000 G
 - Sewer \$8.03 per 1,000 G
 - Water RTS \$4.15 per month
 - Sewer RTS \$11.94 per month
- 6,000 G per month customer pays:
 - \$65.77 in volume
 - \$16.09 in RTS
 - \$81.86 overall
- 80% Volume
- 20% RTS
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Depreciation

- Depreciation:
- An accounting method (estimate) that allocates the cost of a tangible asset over the period
- It is NOT necessarily the potential economic life of the asset
- It is NOT a measure of the amount of work that needs to be done each year
- Depreciation is a non-cash expense on the audited financial statements
- Depreciation is a proxy only for needed repairs, replacement and renewal of assets

Funding the Utility

- Utilities need to generate revenue sufficient to fund:
 - Operating Costs
 - Debt Service
 - Repairs & Maintenance
 - Replacement
- Rates should be set to cover these costs
- Rate study has set the City up to meet these needs over time
- Depreciation is a proxy for RR&M

Investment in the System

	Investment	Depreciation
• 2011	\$2,159,005	\$ 986,883
• 2012	\$3,976,940	\$1,069,024
• 2013	\$ 133,337	\$1,136,263
• 2014	\$ 69,921	\$1,151,654
• 2015	\$ 142,012	\$1,142,257
• 2016	\$ 589,767	\$1,083,638
• 2017	\$2,303,903	\$1,142,374
• Total	\$9,374,885	\$7,712,093

Investments (examples)

- River & Oak Valves R&R
- Edgewater Watermain New
- SCADA Upgrades R&R
- Sewer Main R&R
- Manhole New
- 6th Ave PS and Sewer R&R
- Well Controls R&R
- Roaming Collector New
- Maywood Tank Paint R&R
- Sweetnam PS R&R
- Industrial PS R&R
- Portable Pump New
- Renaissance PS Gen. New
- 8th & Vine PS R&R
- Cedar St. CSO R&R
- Jones St CSO R&R

SAW Grant & Asset Management

- Asset management is a better method than just using depreciation as a measure of needed investment
- Wastewater Asset Management Plan (OCT 2015 - OCT 2018)
 - Complete an Asset Inventory
 - 1,000 Sanitary Manholes +/-
 - 42 Miles +/- of Gravity Sewer
 - 13 Pump Stations and 5 Miles of Force Main
 - WWTP Facility
 - Complete Condition assessment
 - Scan and Photograph manholes, inventory in GIS, Condition Rate each structure
 - Televis 28 of the 42 miles of Gravity Sewer, inventory defects in GIS, Condition Rate each pipe
 - Pump Testing, WWTP inventory, Condition Rate each pump station and WWTP facilities

SAW Grant & Asset Management

Wastewater Asset Management Plan (OCT 2015 - OCT 2018)

- Perform Risk assessment of the system based on:
 - Likelihood of Failure (LOF)
 - Based on Pipe, MH, or PS Structural Condition
 - Consequences of Failure (COF)
 - Social - Number of people served, Important Customers..
 - Economic - Depth, Diameter, Restoration
 - Environmental - Proximity to Water Body
 - Risk or Criticality - Product of LOF & COF
- Capital Improvement Projects identified and ranked based on Criticality (Most Critical to Least Critical)
 - Most Cost Effective Treatments to Extend Life of Sewer
 - i.e. Rehabilitation versus Replacement...

Closing CSO 018 -

PHASE I - Corrective Action Plan (CAP) and Pilot Rehabilitation Project

- Implement NPDES CAP (2017-June 2018) \$950k +/-
 - Televising Remaining Sanitary Sewers (15 Miles +/-)
 - Televising Data Review
 - Smoke Testing
 - Dye Testing
 - Field Investigations...
 - Wet Weather Hydraulic Modeling
 - Alternative Analysis
 - Cost Benefit Analysis
 - Prepare Basis of Design for MDEQ

 - Pilot Rehabilitation Project (2017 - May 2018) \$300k - \$400k
 - Design, Permitting, Bidding, and Construction
 - Pipe Lining/ Rehabilitation
 - MH Rehabilitation

 - Contingency/ Financing Costs \$150k - \$250k
- \$1.5M +/-

Closing CSO 018 -

- PHASE II - I/I Mitigation within Collection System (July 2018 - December 2020) \$3M - \$5M
 - Districts 6 & 7 (Areas with Higher Rates of I/I)
 - Permitting, Design, Bidding, Construction
 - Cured in Place or other Pipe Lining (3 to 5 Miles)
 - MH Lining, Repairs, Replacement (50 to 100 MH's)
 - Spot Repairs, Cross Connections
 - Storm Sewer/Infiltration Improvements
- PHASE III - Storage of Excess I/I - Storage Basin (July 2018 - December 2020) up to \$18.5M
 - Basis of Design from CAP to determine Size
 - Permitting, Design, Bidding Construction
 - Currently estimated at 4 to 8 Million Gallons
 - Need to Validate method/size with MDEQ during CAP
 - Size may decrease based on level of I/I Mitigation
 - Conveyance Improvements to Proposed Basin
 - CSO 018 Overflow Weir Closure

Financing Phases

- Phase I Revenue Bond assume \$1.5M
 - Open market issue
 - Approximately \$82,000 annual debt service
- Phase II USDA Loan assume \$5.0M
 - 2.0%
 - Approximately \$183,000 annual debt service
- Phase III USDA Loan\Grant assume \$13.5M
 - 2.0%
 - Approximately \$495,000 annual debt service
 - Possibly reduced by grant funding

Financing Phases

- Debt service is about \$1.43 million dollars annually thru FY 2020.
- Declines to \$750,000 in 2021, a reduction of \$683,000
- Declines to \$600,000 in 2022, a reduction of \$136,000
- Would likely support \$20+ million in added debt (if needed) based on the expected financing method(s).
- Would require some internal “gap” financing in FY 2019 and 2020 thru debt structure, cash reserves or s\t loans

Financing Phases

FYE	INTEREST	TOTAL
June 30		
2017	\$307,816	\$1,427,816
2018	\$273,169	\$1,423,169
2019	\$237,213	\$1,427,213
2020	\$197,946	\$1,437,946
2021	\$169,427	\$754,427
2022	\$155,983	\$618,538
2023	\$143,962	\$618,962
2024	\$131,634	\$616,634
2025	\$119,058	\$609,058
2026	\$106,271	\$616,271
2027	\$93,083	\$575,353
2028	\$80,215	\$445,989
2029	\$69,452	\$454,452
2030	\$58,702	\$448,702
2031	\$47,513	\$448,588
2032	\$36,563	\$266,563
2033	\$28,925	\$268,925
2034	\$20,963	\$270,963
2035	\$12,756	\$267,756
2036	\$4,306	\$269,306
	\$0	\$0
	\$0	\$0

