

City of Owosso

Water and Sewer Rate Information

Rate Determination

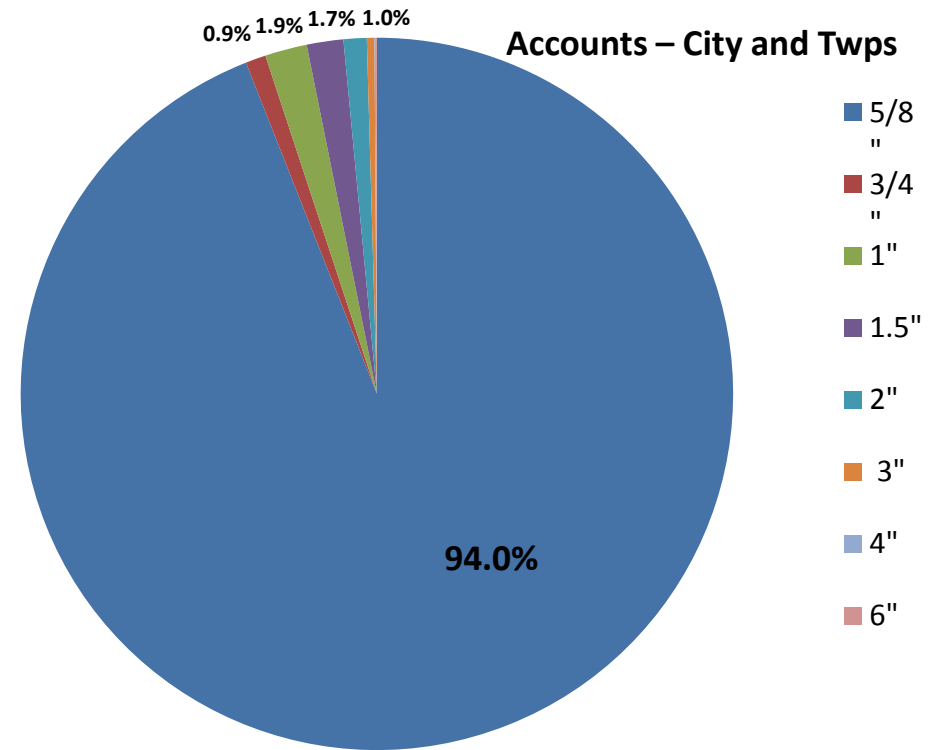
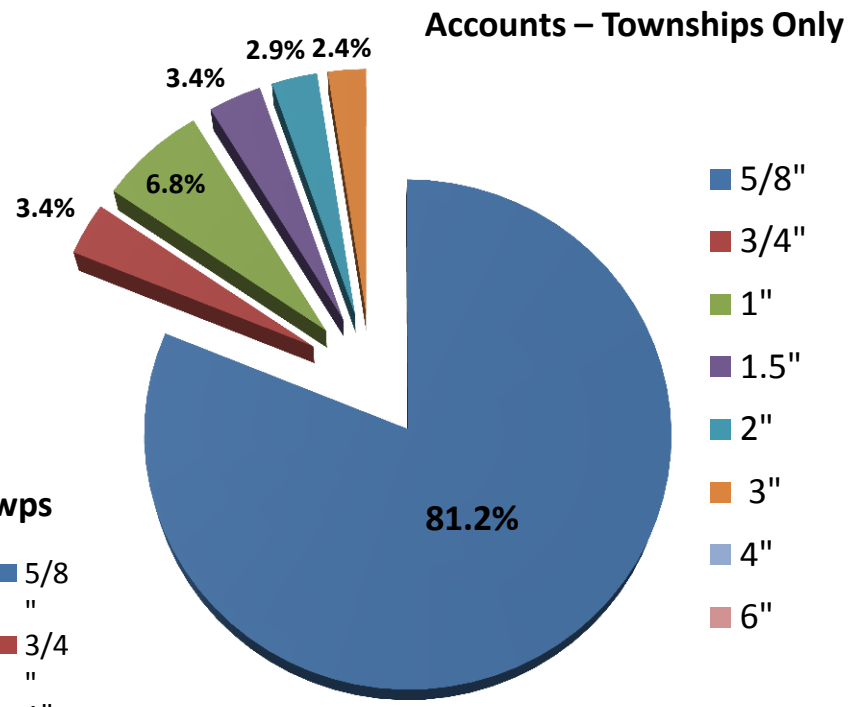
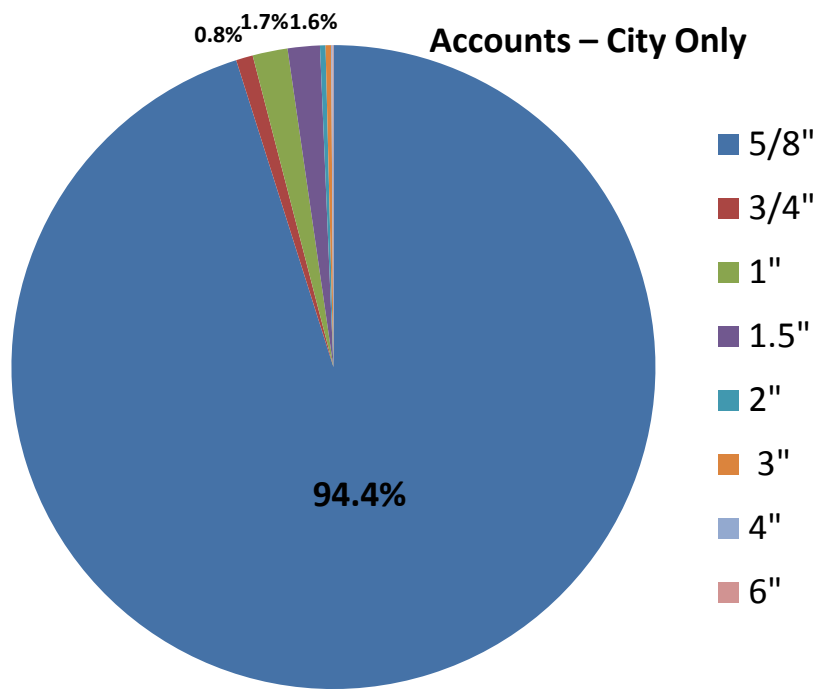
- Water and Sewer Funds are enterprise funds
 - should be self sufficient
- City Manager, Finance Director, and Utilities Director analyze Water and Sewer Funds
- Make Determination of rate to keep fund balanced and enable planned and ongoing capital investment
- Propose increase of 13.5% to maintain system integrity and to make needed improvements to water distribution system and sewer plant

Rate Determination

- Rate increase applied to the following services provided by Utilities Department
 - Water Rates
 - Sewer Rates
 - Sprinkling Meters
 - Flat Rate Sewer Customers
 - Fire Protection Lines
 - Township Customers (Retail)
 - Corunna Customers (Wholesale)
- Townships charged twice the in-city water rate
- Corunna charge wholesale at 110% water usage rate
- Sewer
 - Charged to city customers based on meter size (demand rate) and usage
 - charged to townships and Corunna based on long-term contract from 1980's

Customer Profile:

Accounts by meter size

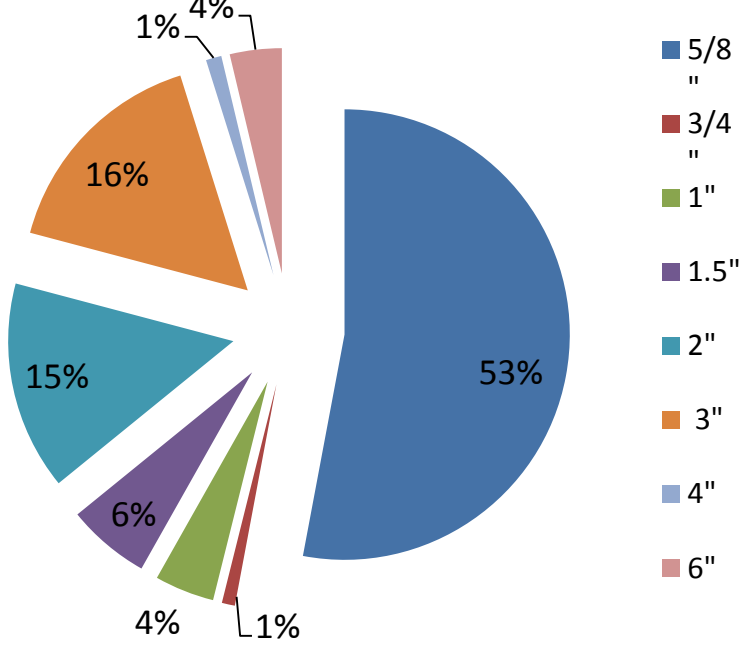


Account Breakdown

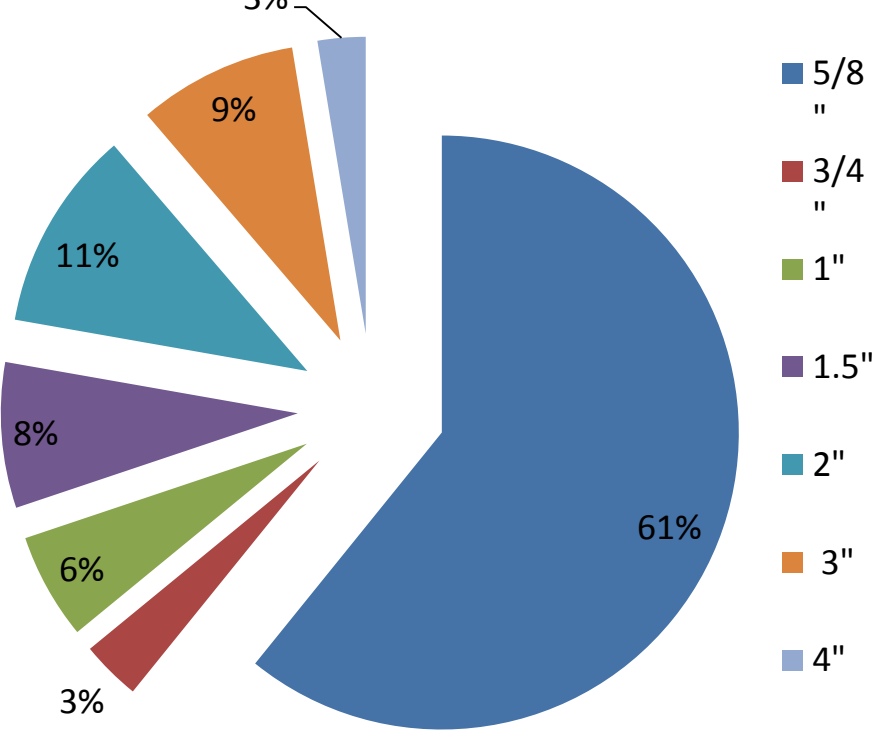
- 6184 accounts in City
- 207 accounts in Twps
- **TOTAL = 6391**

Customer Profile: Usage by meter size (FY16-17)

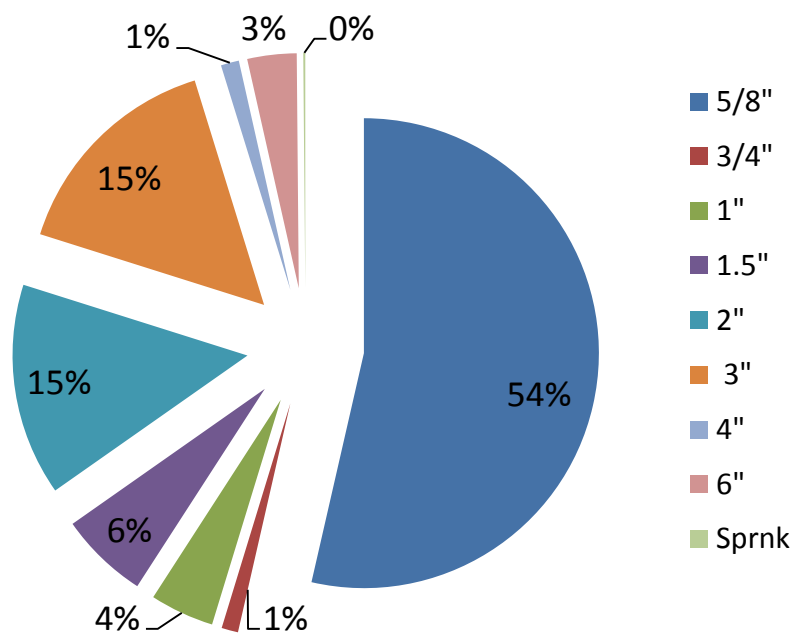
Usage by Meter Size (City Only) - FY16/17



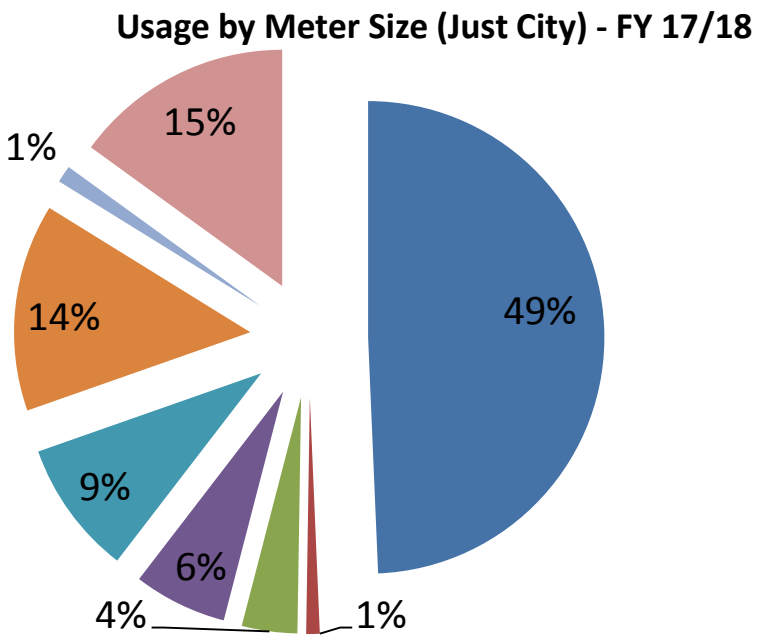
Usage by Meter Size (Twps Only) - FY16/17



Usage by Meter Size (City and Twps) - FY16/17

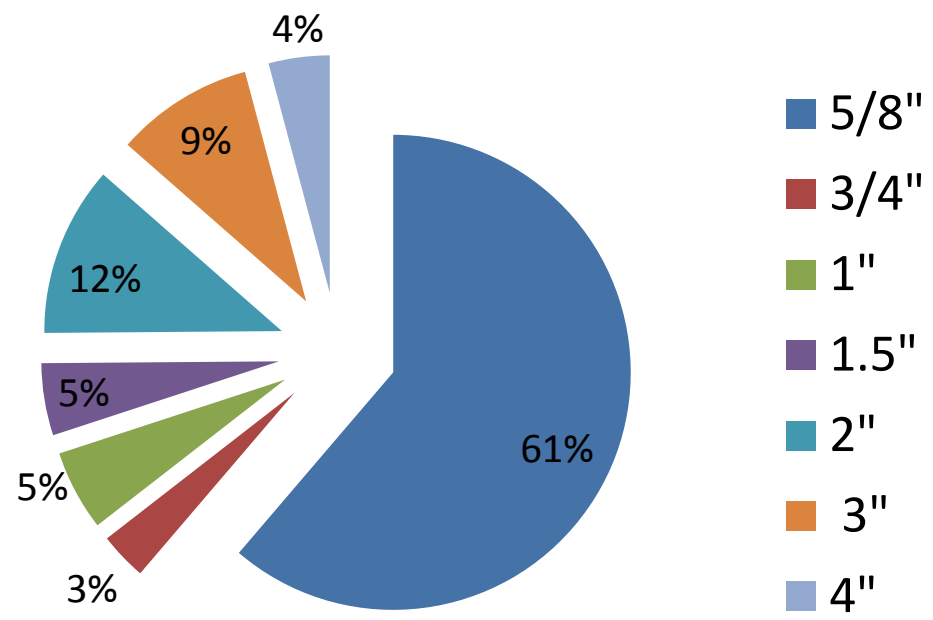


Customer Profile: Usage by Meter Size (FY17/18)



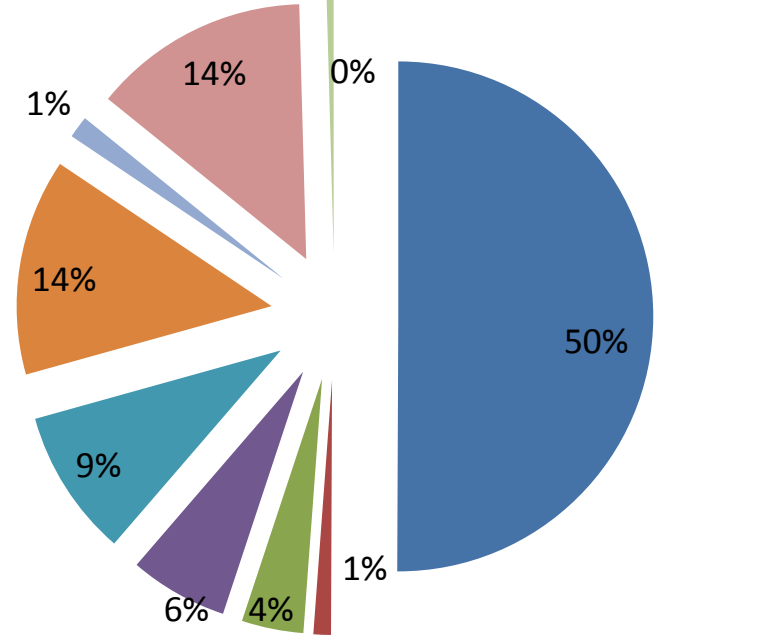
- 5/8"
- 3/4"
- 1"
- 1.5"
- 2"
- 3"
- 4"
- 6"

Usage by Meter Size (Just Twps) - FY17/18



- 5/8"
- 3/4"
- 1"
- 1.5"
- 2"
- 3"
- 4"
- 6"
- Sprnk

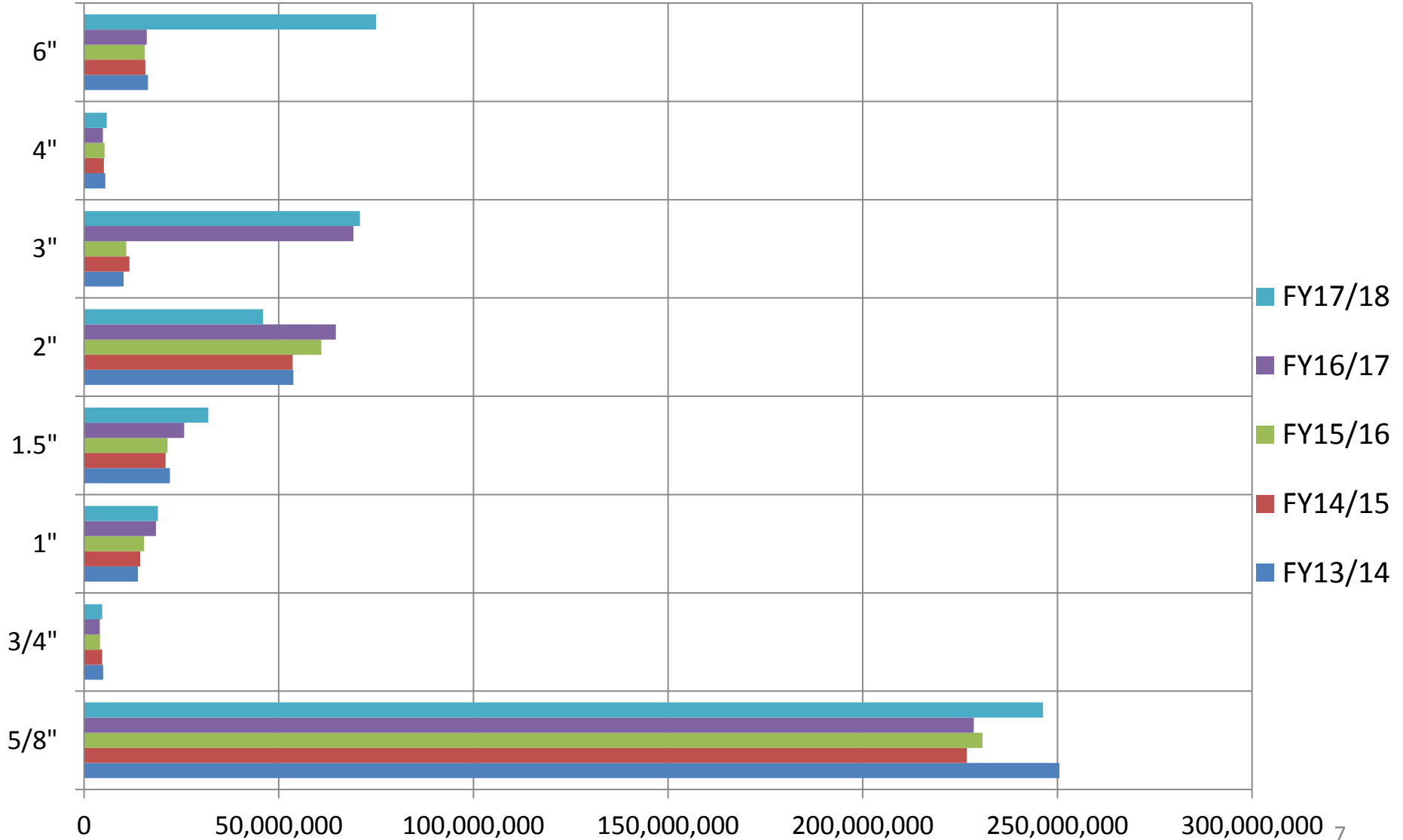
Usage By Meter Size (City and Twps) - FY 17/18



Water Usage: 5-year history

Based on City Billing Data

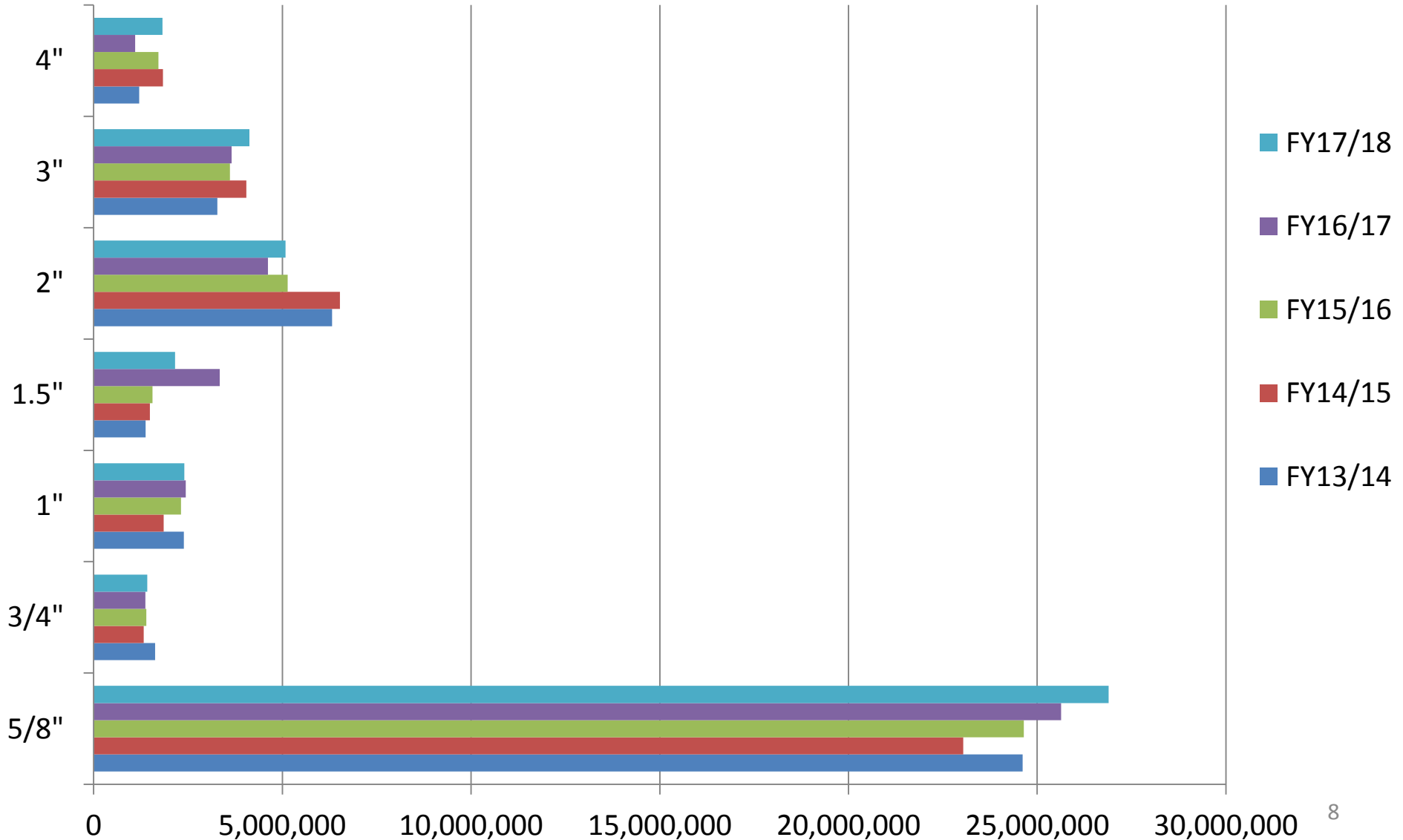
Gallons By Meter Size and Fiscal Year: *Just City*



Water Usage: 5-year History

Based on Billing Data

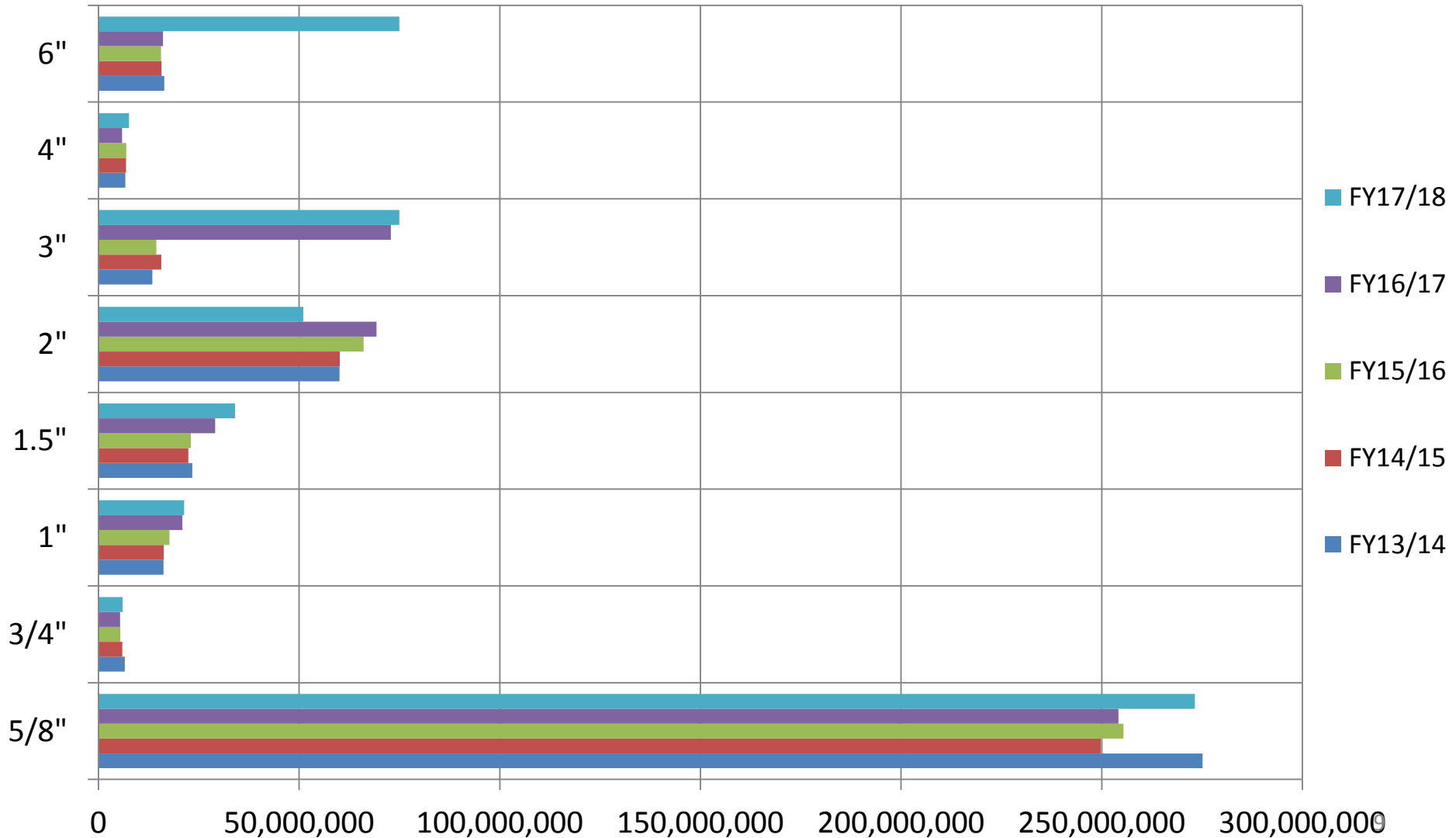
Gallons by Meter Size and Fiscal Year: *Just Townships*



Water Usage: 5-year History

Based on Billing Data

Gallons by Meter Size and Fiscal Year: *City and Townships*



Water and Sewer Billing

- Demand charge for water and sewer
 - Quarterly charge
 - Based on meter size
 - Water has a ‘capital charge’ as well but only for in-city customers
 - Townships take care of capital needs for their own systems a different way via existing contracts with the City
 - Out-of-town water meters charged double the demand rate for in-town meters
- Usage charge based on usage for both water and sewer
 - Based on 1 unit = 100 cubic feet of water = 750 gallons
 - Summer usage averaged for yard watering
 - Out-of-town meters charged double the usage charge for water

Water and Sewer Billing

Current In-Town charges for 5/8" meter

- Water
 - Demand: \$34.00
 - Capital (in-city only): \$15.00
 - Dedicated for water main replacement
 - Usage: \$2.00 per unit (750 gallons)
- Sewer
 - Demand: \$28.00
 - Usage: \$2.40
- Combined Water/Sewer: \$77.00
- Average usage for family of 4 = 24 units
- Average bill for family of 4 = \$182.60

Current out-of-town charges for 5/8" meter (twps)

- Water
 - Demand: \$68.00
 - Usage: \$4.00
- Sewer
 - No “retail” out-of-town sewer service
 - Sewer billed to townships and Corunna based on flow identified in existing long-term contract

**Corunna buys Owosso water at a wholesale rate of 110% of in-city usage charge because they handle their own billing and capital maintenance

Water Demand Charge – In City: Proposed Increase effective July 1, 2018

Meter Size	Current Rate	Proposed Rate
5/8"	\$34.00	\$38.00
3/4"	\$51.00	\$57.00
1"	\$85.00	\$95.00
1.5"	\$170.00	\$190.00
2"	\$272.00	\$304.00
3"	\$510.00	\$570.00
4"	\$850.00	\$950.00
6"	\$1,700.00	\$1900.00

Water Demand Charge – Twtps: Proposed Increase Effective July 1, 2018

Meter Size	Current Rate	Proposed Rate
5/8"	\$68.00	\$76.00
3/4"	\$102.00	\$114.00
1"	\$170.00	\$190.00
1.5"	\$340.00	\$380.00
2"	\$544.00	\$608.00
3"	\$1,020.00	\$1,140.00
4"	\$1,700.00	\$1,900.00
6"	\$3,400.00	\$3,800.00

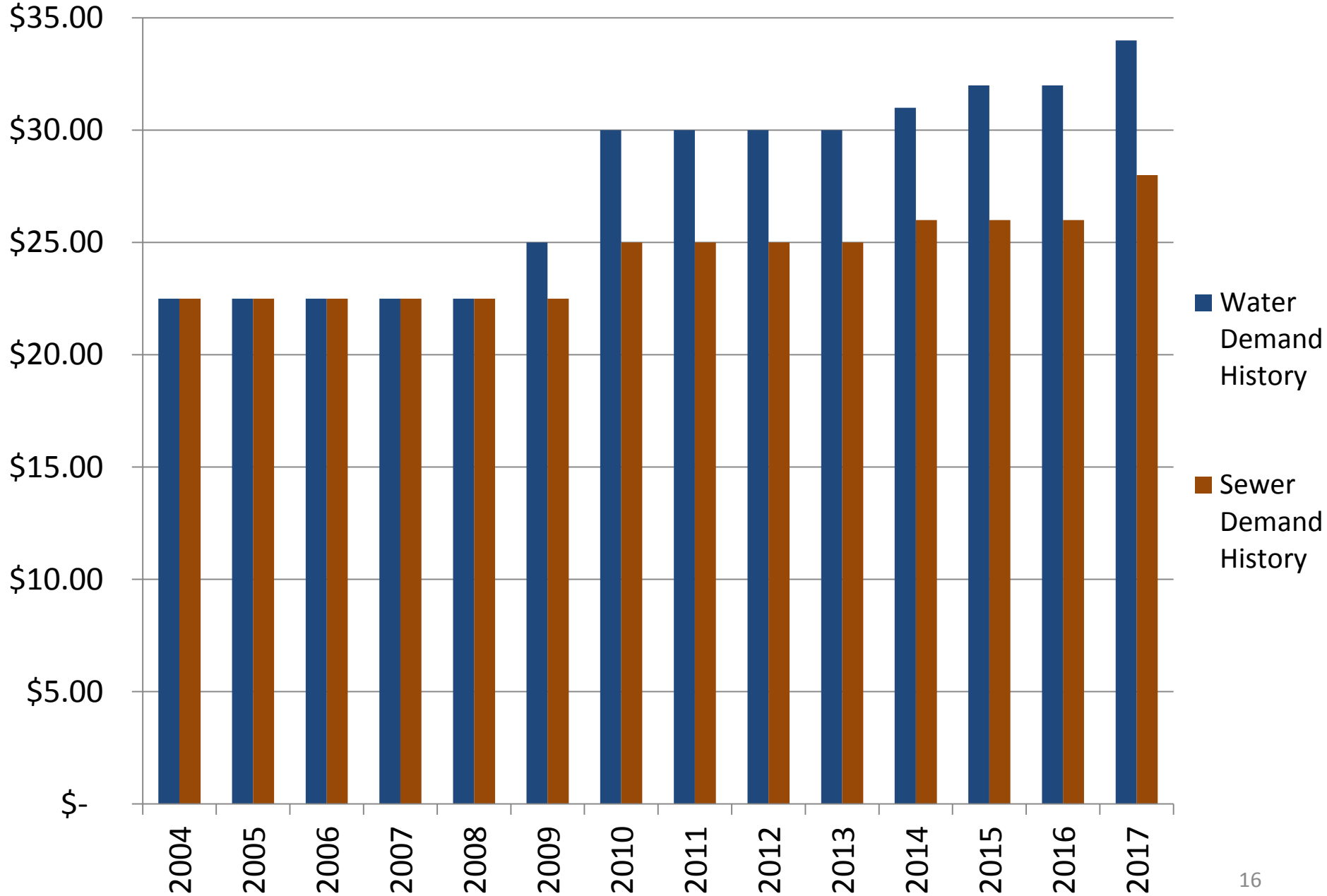
Water Capital Charge – Proposed Increase effective July 1, 2018

Meter Size	Current Rate	Proposed Rate
5/8"	\$15.00	\$24.00
3/4"	\$23.00	\$36.80
1"	\$38.00	\$60.80
1.5"	\$76.00	\$121.60
2"	\$122.00	\$195.20
3"	\$229.00	\$366.40
4"	\$382.00	\$611.20
6"	\$764.00	\$1,222.40

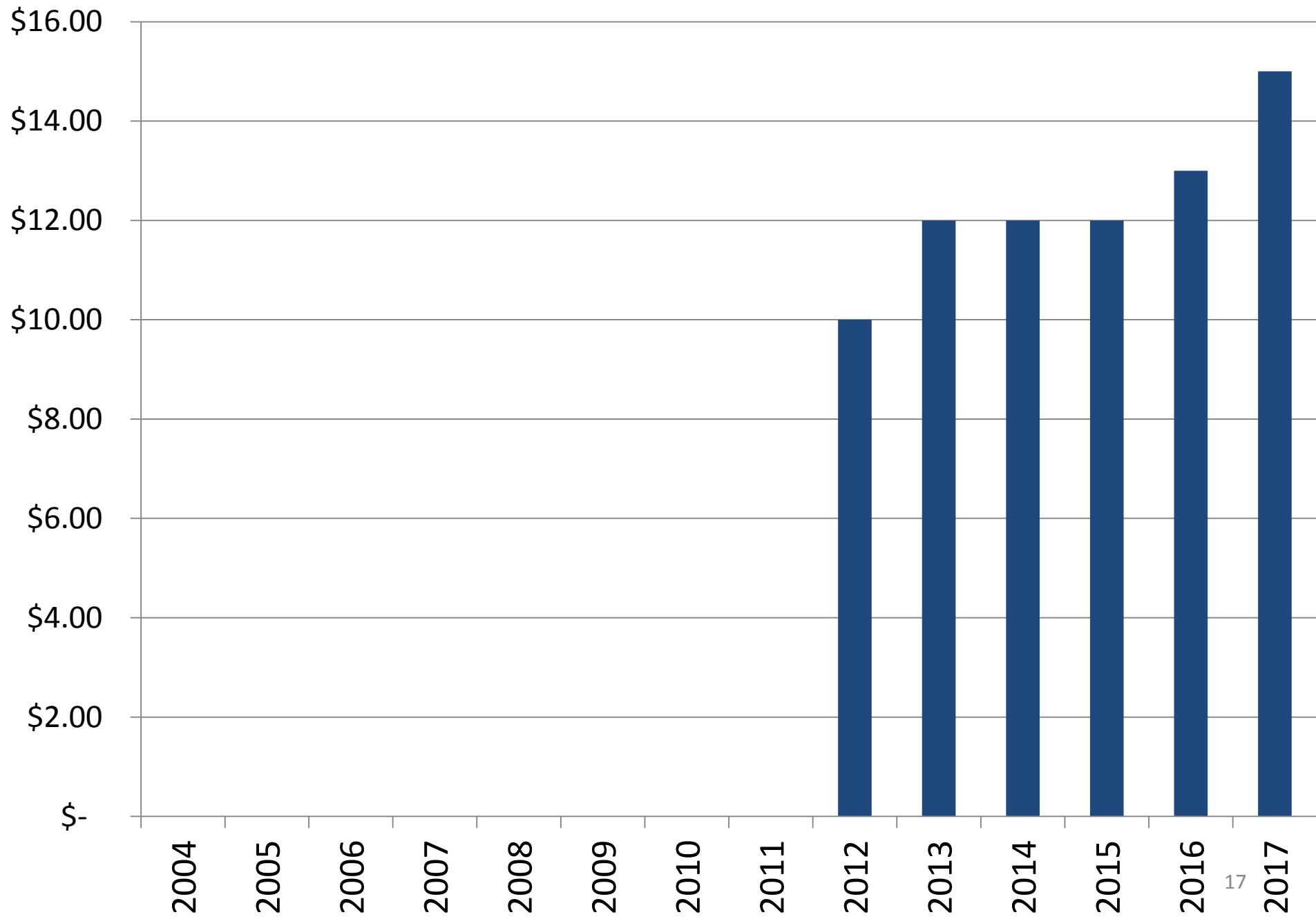
Sewer Demand Charge – Proposed increase effective July 1, 2018

Meter Size	Current Rate	Proposed Rate
5/8"	\$28.00	\$30.00
3/4"	\$42.00	\$45.00
1"	\$70.00	\$75.00
1.5"	\$140.00	\$150.00
2"	\$224.00	\$240.00
3"	\$420.00	\$771.43
4"	\$700.00	\$750.00
6"	\$1,400.00	\$1,500.00

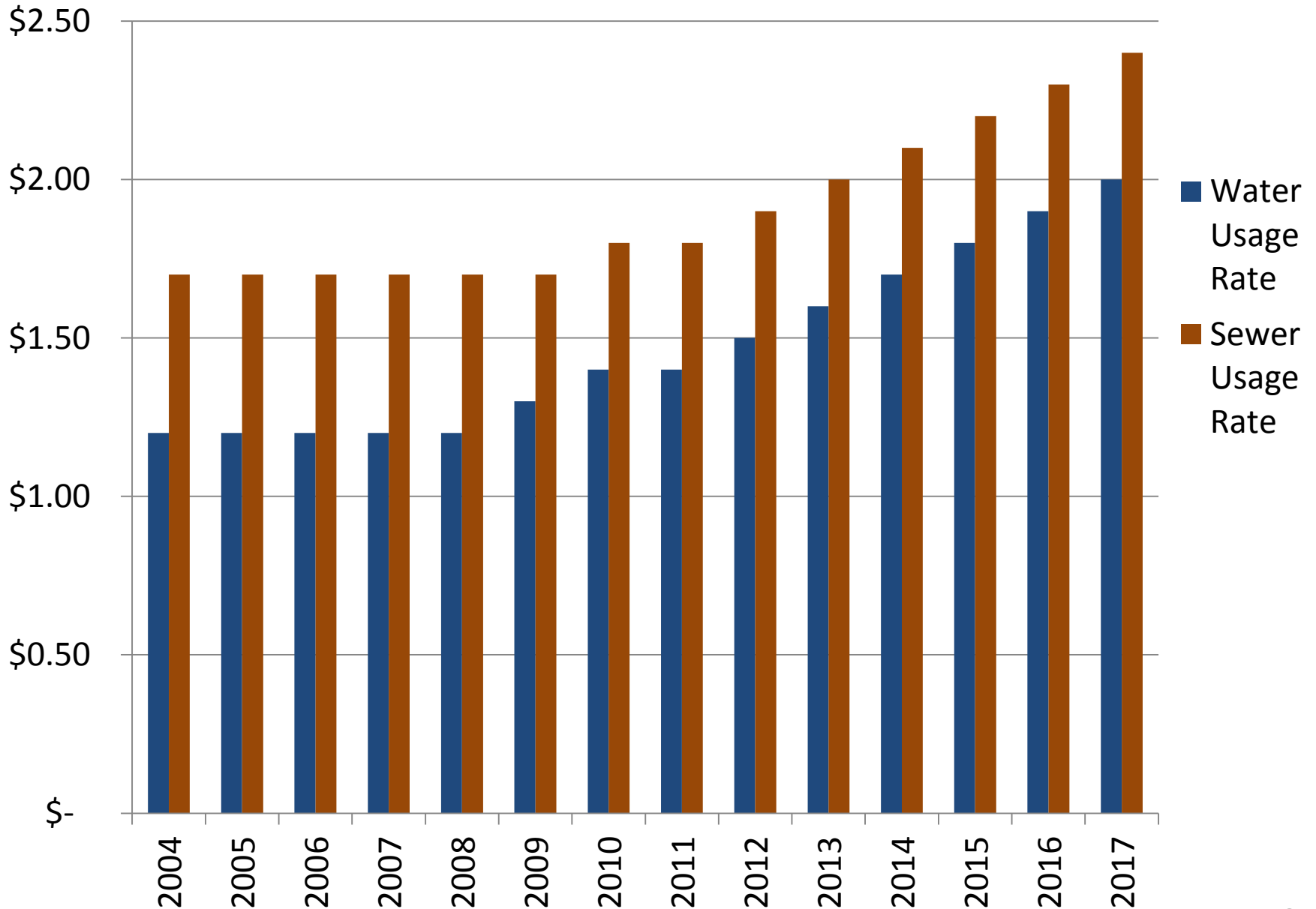
Residential (5/8") Demand 14 Year History



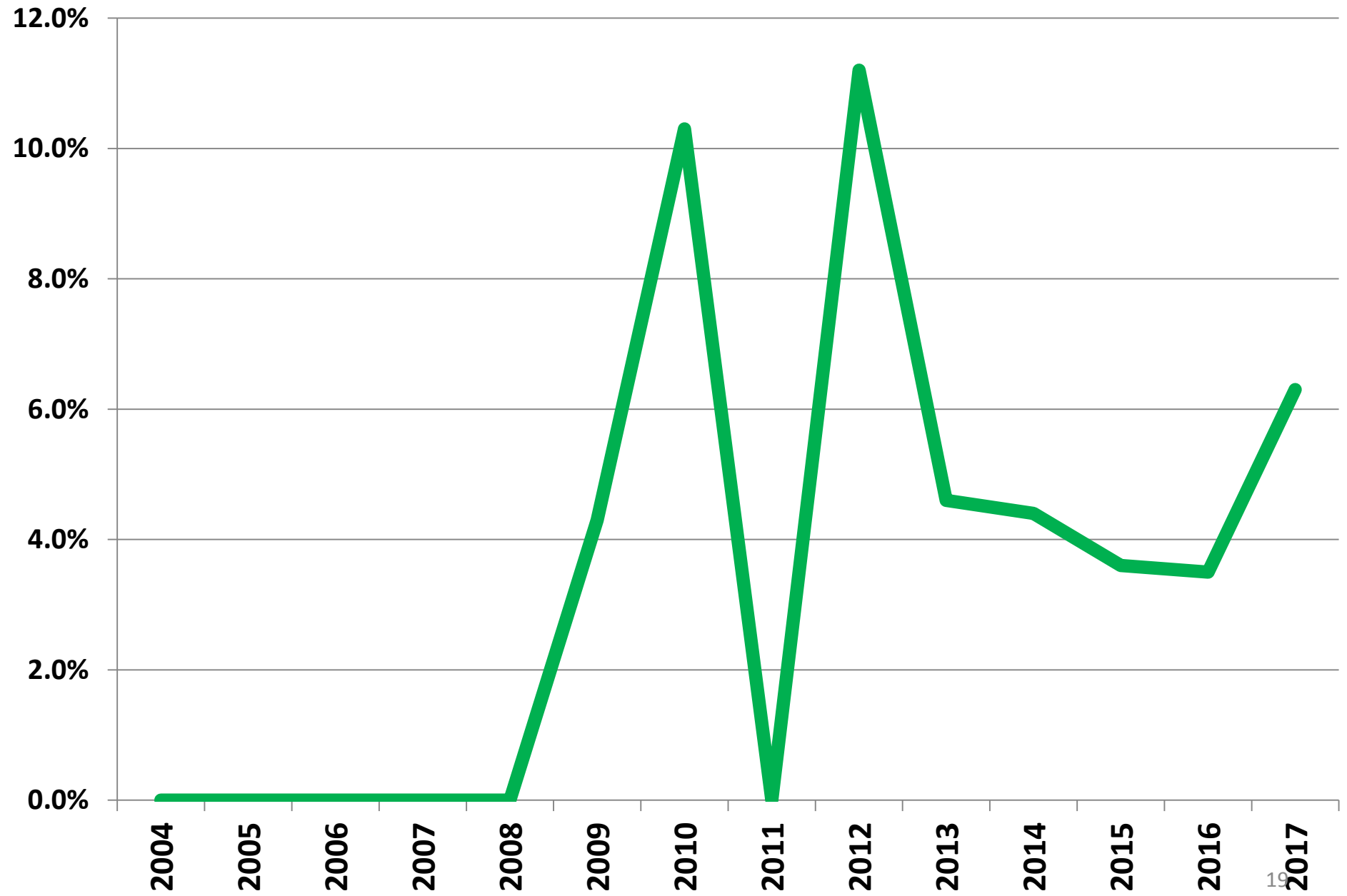
Water Capital Charge History (Water Mains)



Residential (5/8") Usage 14 Year History



Water/Sewer Combined Rate Change 14 Year History



Water and Sewer Commodity Charge

- Water commodity charge is a flat rate structure
 - Currently \$2.00 per unit in town and \$4.00 per unit out of town (townships)
 - Remember: Corunna buys water wholesale from City at 110% percent of in-town commodity charge (\$2.20 per unit)
- Sewer commodity charge is a flat rate structure
 - Currently \$2.40 per unit
 - Flat rate sewer customers (those with well water but city sewer) pay a current flat rate of \$85.60 per quarter

Rate Increase (Option 1)

Water (Residential)

- Demand: \$34.00 to \$38.00
 - 11.76% increase
- Capital: \$15.00 to \$24.00
 - 60% increase
- Usage: \$2.00 to \$2.20
 - 10% increase
- OVERALL WATER INCREASE
 - 18.4%

Sewer (Residential)

- Demand: \$28.00 to \$30.00
 - 7.1% increase
- Usage: \$2.40 to \$2.60
 - 8.3% increase
- OVERALL SEWER INCREASE
 - 7.9%

COMBINED WATER SEWER TOTAL INCREASE: 13.5%

Water 18.4%: What will we do with it...?

- FY 18/19
 - Water distribution
 - 9,749 ft of new water main = \$1.3 million

FY18/19	Location	From	To	Length	Current Rating	Price
Mains	S Washington	Corunna	Stewart	948	POOR	\$ 68,000
	Williams St	Shiawassee	Washington	1800	good	\$ 377,000
	Summit	Abbott	Rubelman	1650	good	\$ 381,000
	Center	King	North	2863	good	\$ 357,875
	Clark	Oliver	King	970	POOR (illegal storm connect)	\$ 121,250
	Cedar	South	Hampton	1319	POOR	\$ 164,875
	Palmer	Gute	Prindle	524	POOR	\$ 13,100
	Oliver	West end	Chipman	803	good	\$ 100,375
	Chipman	M-21	Hathaway	672	good (main too small)	\$ 84,000
	TOTAL			9749		\$ 1,290,475

Water projects to 2022

FY19/20	Dewey	Brandon	Moore	1000	FAIR	\$ 150,000	
	Cleveland	Chestnut	Brooks	1000	POOR	\$ 150,000	
	Lafayette	Main	Cleveland	600	POOR	\$ 90,000	
	Robbins	Mack	South End	230	POOR	\$ 17,250	
	Morris	Mack	North end	328	POOR	\$ 24,600	
	TOTAL			3158		\$ 431,850	
FY20/21	North	Shiawassee	Gould	5963	FAIR	\$ 894,450	
	Milwaukee	Lyon	Cedar	670	POOR	\$ 50,250	
	Huron	Huggins	West End	360	POOR	\$ 27,000	
	Dewey	M-21	King	2659	POOR	\$ 848,850	
	TOTAL			9652		\$ 971,700	
FY21/22	Genessee	Michigan	Green	400	POOR	\$ 60,000	
	Grace	Shiawassee	Cedar	1300	POOR	\$ 195,000	
	Nafus	Frederick	Freeman	650	POOR	\$ 97,500	
	Tracy	Frederick	Stewart	1200	POOR	\$ 180,000	
	Young	Chesnut	Brooks	950	FAIR	\$ 142,500	
	Grand	Auburndale	Franklin	700	POOR	\$ 105,000	
	Grace	Cedar	Lyons	600	POOR	\$ 90,000	
	Nafus	Frederick	South End	500	POOR	\$ 37,500	
	Genessee	Mich Ave	West End	422	POOR	\$ 31,650	
	TOTAL			6722		\$ 939,150	

Water Treatment Plant Projects Included

Year	Project	Cost
19/20	New Well – Hintz	\$155,000
19/20	Move electronics	\$100,000
19/20	Backwash pump (2)	\$200,000
20/21	Hopkins Lk Well Study	\$425,000
21/22	SCADA Upgrade	\$200,000
21/22	Finish Security Fencing	\$36,000
22/23	Elevated tank rehab	\$300,000
	TOTAL	\$1,416,000

Water Fund Estimated Cash Balance Future – with 18.4% proposed increase and 4% increases thereafter

• June 30, 2019	=	\$32,952
• June 30, 2020	=	\$348,716
• June 30, 2021	=	\$104,319
• June 30, 2022	=	\$215,737

***20% cash balance is a sound financial policy.
That equals about \$800,000

Sewer 7.9%: What will we do with it...?

- FY18/19
 - \$1.6 million dollars in plant upgrades
 - Paid for thru rate increases and existing fund balance (not sustainable in the long run)
 - Cannot fund all three Screw Pump Replacements next year with proposed rate increase. We could do up to 2 screw pumps and get the 3rd one later. However, we would pay more in the long run because of construction cost and staging costs.

FY18/19	Project	Condition	Price
	Screw Pump Replace (3)	Severe	\$ 725,000
	Sludge Thickener Drive and Equip	Severe	\$ 400,000
	Backup Generator	Severe	\$ 350,000
	1935 building roof	Severe	\$ 350,000
	TOTAL		\$ 1,583,500

WWTP Fund Estimated Cash Balance Future – with proposed
7.9% rate increase and 5% increases thereafter

• June 30, 2019	=	\$149,677
• June 30, 2020	=	\$(1,484,262)
• June 30, 2021	=	\$(2,663,804)
• June 30, 2022	=	\$(4,112,312)

**Scenario may be avoided with combination of project cuts, borrowing, and/or higher rate increases

***Target fund balance of 20% = \$500,000

Water and Sewer Rate Increase

Residential Examples – 5/8” meter

Quarterly Billing (1 unit=100 cu ft=750 gallons)

****Usage of 24 units is average****

<u>W&S Usage Per Quarter</u>	Current Bill	Proposed Bill	Increase
9 units (6,750 gallons)	\$116.60	\$135.20	\$18.60
18 units (13,500 gallons)	\$156.20	\$178.40	\$22.20
<i>24 units (18,000 gallons)</i>	<i>\$182.60</i>	<i>\$207.20</i>	<i>\$24.60</i>
30 units (22,500 gallons)	\$209.00	\$236.00	\$27.00

Rate Increase (Option 2)

Phase in proposed WATER increase over 2 years

FY18/19

Water (Residential)

- Demand: \$34.00 to \$36.00
 - 6% increase
- Capital: \$15.00 to \$19.50
 - 30% increase
- Usage: \$2.00 to \$2.10
 - 5% increase
- OVERALL WATER INCREASE
 - 9.2%

Sewer (Residential)

- Demand: \$28.00 to \$30.00
 - 7.1% increase
- Usage: \$2.40 to \$2.60
 - 8.3% increase
- OVERALL SEWER INCREASE
 - 7.9%

COMBINED WATER SEWER TOTAL INCREASE: 8.6%

Rate Increase (Option 2)

Phase in proposed WATER increase over 2 years

FY19/20

Water (Residential)

- Demand: \$36.00 to \$38.15
 - 6% increase
- Capital: \$19.50 to \$24.00
 - 23% increase
- Usage: \$2.10 to \$2.20
 - 5% increase
- OVERALL WATER INCREASE
 - 8.5%

Sewer (Residential)

- Demand: \$30.00 to \$31.50
 - 5% increase
- Usage: \$2.60 to \$2.75
 - 5% increase
- OVERALL SEWER INCREASE
 - 5.5%

COMBINED WATER SEWER TOTAL INCREASE: 7.1%

Water 18.4% over 2 years: What will we do with it...?

- FY 18/19
 - Water distribution
 - 7,103 ft of new water main = \$928,125

FY18/19	Location	From	To	Length	Current Rating	Price
Mains	S Washington	Corunna	Stewart	948	POOR	\$ 68,000
	Williams St	Shiawassee	Washington	1800	good	\$ 377,000
	Summit	Abbott	Rubelman	1650	good	\$ 381,000
	Center	King	North	2863	good	\$ 357,875
	Clark	Oliver	King	970	POOR (illegal storm connect)	\$ 121,250
	Cedar	South	Hampton	1319	POOR	\$ 164,875
	Palmer	Gute	Prindle	524	POOR	\$ 13,100
	Oliver	West end	Chipman	803	good	\$ 100,375
	Chipman	M-21	Hathaway	672	good (main too small)	\$ 84,000
	TOTAL			7103		\$ 928,125

Water Treatment Plant Projects Included

Year	Project	Cost
19/20	New Well – Hintz	\$155,000
19/20	Move electronics	\$100,000
19/20	Backwash pump (1)	\$100,000
20/21	Hopkins Lk Well Study	\$425,000
21/22	SCADA Upgrade	\$200,000
21/22	Finish Security Fencing	\$36,000
22/23	Elevated tank rehab	\$300,000
	TOTAL	\$1,416,000

Water Fund Estimated Cash Balance Future – with 18.4% proposed increase **over 2 years** and 4% increases thereafter

- June 30, 2019 = \$13,118
- June 30, 2020 = \$202,823
- June 30, 2021 = \$29,384
- June 30, 2022 = \$20,318

***20% cash balance is a sound financial policy.
That equals about \$800,000

Water and Sewer Rate Increase (Option 2)

Residential Examples FY18/19 – 5/8” meter

Quarterly Billing (1 unit=100 cu ft=750 gallons)

****Usage of 24 units is average****

<u>W&S Usage Per Quarter</u>	Current Bill	Proposed Bill	Increase
9 units (6,750 gallons)	\$116.60	\$127.80	\$11.20
18 units (13,500 gallons)	\$156.20	\$170.10	\$13.90
<i>24 units (18,000 gallons)</i>	<i>\$182.60</i>	<i>\$198.30</i>	<i>\$15.70</i>
30 units (22,500 gallons)	\$209.00	\$226.50	\$17.50

Water and Sewer Rate Increase (Option 2)

Residential Examples FY19/20 – 5/8” meter

Quarterly Billing (1 unit=100 cu ft=750 gallons)

****Usage of 24 units is average****

<u>W&S Usage Per Quarter</u>	FY18/19 Bill	FY19/20 Bill	Increase
9 units (6,750 gallons)	\$127.80	\$138.20	\$10.40
18 units (13,500 gallons)	\$170.10	\$182.75	\$12.65
<i>24 units (18,000 gallons)</i>	<i>\$198.30</i>	<i>\$212.45</i>	<i>\$14.15</i>
30 units (22,500 gallons)	\$226.50	\$242.15	\$15.65

Why are we not recommending going 2 years on a Sewer rate increase???

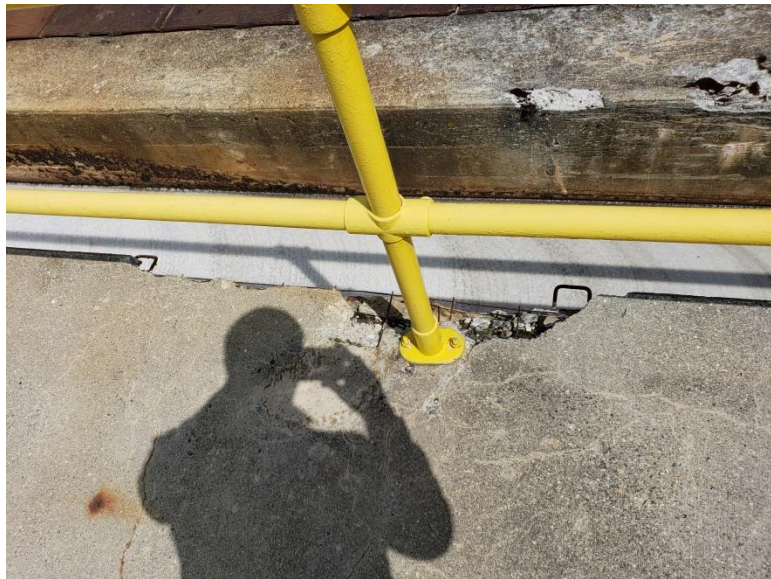
- It is because of the severe condition of the equipment at the WWTP...





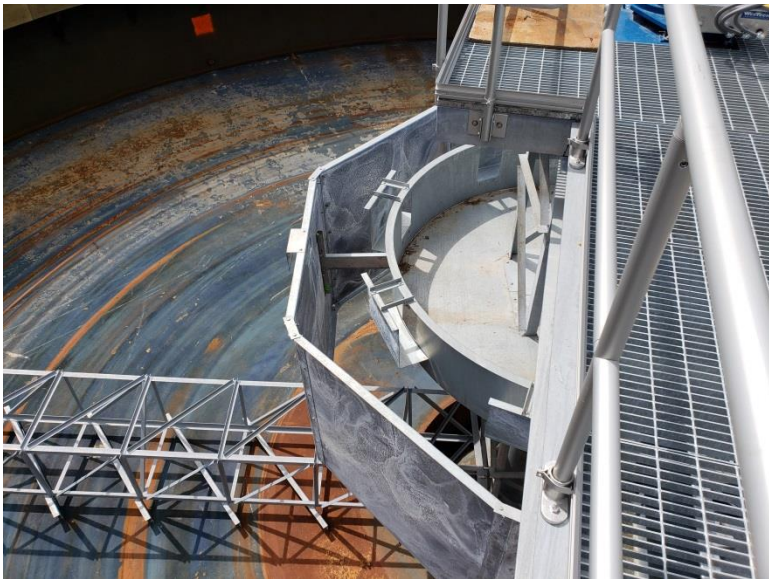








WWTP Projects Happening NOW





WWTP Capital Improve Plan - C2AE(October 2017)

CAPITAL IMPROVEMENT PLAN CIP Project Summary			
Project Name	Years	Amount	Amount
Severe	2018 - 2019	\$ 1,825,000 (1018 dollars)	\$1,945,000 (2020 dollars)
1. (3)Screw, Pump, Drive, Deflection plate		\$725,000	770000
2. Sludge Thickener Drive and equipment		\$400,000	425000
3. Install Backup Generator		\$350,000	375000
4. Main building roof		\$350,000	375000
Mid-Level Priority	2019 - 2025	\$ 7,600,000 (2020 dollars)	\$8,850,000 (2025 dollars)
5. Remove Nitrification Towers & Replace		\$ 2,500,000	\$2,900,000
6. Grit System		\$ 1,000,000	1,200,000
7. Secondary Clarifiers, & Removal of Ex. Intermediate Clarifiers		\$ 2,500,000	\$2,900,000
8. Scada System		\$300,000	\$350,000
9. Remove Sand Filters and install Disc Filters		\$1,300,000	\$1,500,000
Low-Level Priority	2025 - 2030	\$ 7,900,000 (2025 dollars)	\$9,200,000 (2030 dollars)
10. Equalization Basin		\$4,500,000	\$5,225,000
11. UV system & Removal of Chlorine Contact		\$1,500,000	\$1,750,000
12. Administration/Lab Renovation		\$ 400,000	\$475,000
13. Belt filter Press & Odor Control		\$1,500,000	\$1,750,000
Total Project Cost		\$17,325,000	\$19,995,000

Water Treatment Plant Capital Improvements Plan

Project Description	Location	Priority	Projected Year	Notes/Estimated Cost
New Hintz Well , Design Build/Engineer – Temp ScaDATA Control, Well Metering and Monitoring, Security included.	Collection	1	2017-2018	Phase 1 in process. \$165,000
New 2nd Hintz Well , Design Build/Engineer - - Temp ScaDATA Control, Well Metering and Monitoring, Security included.	Collection	1	2019-2020	Phase 2 \$155,000
Drain Line Changes in Sub basement w/sump pump controls/electrical raised above flood level..... relocate up 1 floor.	WTP	2	2019-2020	\$100,000
Water Main replacement in Sub-Basement Engineering & Bids 16" WTP pipe identical replacement	WTP	2		
Filter Backwash pump upgrade and VFD control. New primary pump and controls, Flow Metering, Second backup pump and controls	WTP	3	2020-21	\$100,000
Vandekarr Rd.- Hopkins Lake Well Field Study	Collection	4	2020-21	\$425,000
Controls upgrade Phase I - Scada control/monitoring maint. and upgrade. Implementation use of AMI data at WTP	WTP	5	2021-2022	\$200,000
Controls upgrade Phase II - Scada control/monitoring maint. and upgrade. Controls upgrade Clean up old panel at control center				
Mixer installation on Standpipe	Distribution	5	2021-2022	\$10,000
Mixer installation on West Tower	Distribution	5	2021-2022	\$10,000
Security WTP Lagoon Fencing and signage. Estimate 1,700 LF at \$20/ft. plus contingency of \$3,400 for total \$37,400.	WTP	5	2021-2022	\$36,000
WTP Main Dist. Panel Switch Replacement	WTP	6	2022-2023	\$50,000
Elevated Water Tank. maintenance & repairs per NTEC interior & exterior coating inspection. \$275,700.00	Distribution	7	2022-2023	\$300,000
Standpipe/Booster Station Structural coatings interior & exterior per NTEC inspection. \$340,940.00	Distribution	8	2023-2024	\$400,000

List of Assets (Touch Water)	Estimated Replacement Date	Estimated Replacement Cost.	Estimated Replacement Date Notes and Explanations	3/28/2018 Notes
Induced Draft Aerator	2024	\$40,000 Rehab only	Internal metal show moderate corrosion and pitting that will need replacement. Some structural fatigue.	
Lime Distribution Silo/Feeder/Slaker/ Controls/Piping	2028	\$387,000	Slakers controls and slaker/feeder component replacement.	Expect component replacement cost
CO2 Distribution Tank/Controls/Piping/Contact Chamber	2024	\$100,000	CO2 controls, equipment and piping.	Expect component replacement cost
Chlorine Distribution Tanks/Pumps/Controls/ Piping	2026	\$40,000	Bulk storage tank (2,000 gallons) primary future cost	
Fluoride Distribution Tank/Pump/Controls/ Piping	2030	\$27,000		
North Clarifier	2032	\$236,000	Scaling influent and effluents pipes, weirs and mechanical components primary concerns	
South Clarifier	2033	\$236,000	Scaling influent and effluents pipes, weirs and mechanical components primary concerns	
High Service Pump 1	2021	\$52,000	Electrical panels, controls, vacuum system priority concerns	
High Service Pump 2	2037	\$52,000	Electrical panels, controls, vacuum system priority concerns	
High Service Pump 3	2031	\$52,000	Electrical panels, controls, vacuum system priority concerns	
High Service Pump 4	2032	\$52,000	Electrical panels, controls, vacuum system priority concerns	