



Utility Rate Study Presentation
January 24, 2018
Director of Public Works
Joe Pomroy

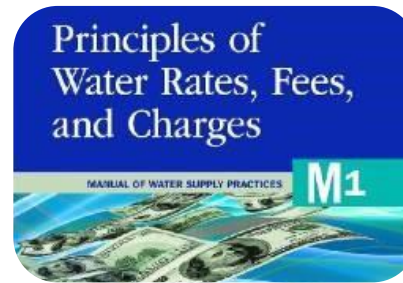
The Director of Public Works is hired to...



protect our
source water.



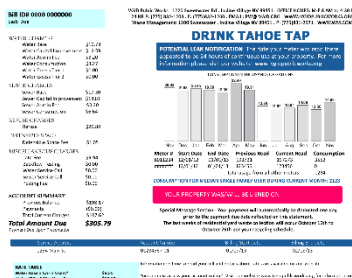
provide safe
tap water.



be fiscally
responsible.



maintain
infrastructure.



provide high
quality service.



promote safety.



safely transport
effluent.

Summary

- Rate Study Purpose
- Rate Study Fundamentals
- 2018-19 Water and Sewer Budgets
- Five Year Operating and Capital Projections
- Water and Sewer Rates
- Rate Comparisons
- Timeline
- Recommendation

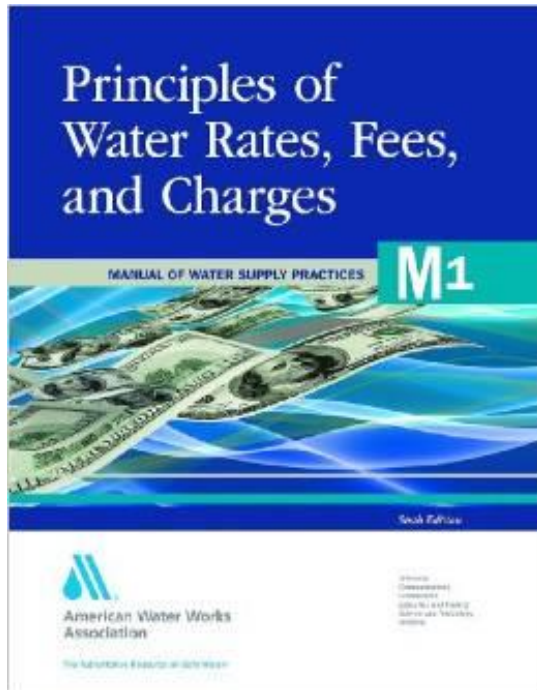
Rate Study Purpose

- Determine CIP and Operating Expenses
- Determine Revenue Projections
- Examine Full Cost Pricing
- Balance Costs Equitably Among User Classes
- Provide Price Signals to Users
- Determine Needs for Bonding
- Fund Utility for Future Users

Rate Study Fundamentals

- District Strategic Plan
 - Mission, Vision, Goals and Objectives, Culture Training, & Customer Service Training
- Industry Best Practices
 - Effective Utility Management
 - AWWA Best Practice Manuals
 - Professional Organizations, AWWA & WEF
 - Industry Peers
 - Benchmarking and Performance Measures

Rate Study Fundamentals



- AWWA Manuals of Practice
- Industry best practices
- Guiding document – 60 years
- 300 pages of rate info
- Commodity demand method
- Increasing block rate structure

Water Budget Summary

Water Budget	2017-18 Budget	2018-19 Proposed	% Change
Revenue			
Water Revenue	4,973,273	5,138,304	3.3%
Expenditure			
Salaries and Benefits*	1,555,408	1,782,579	14.6%
Professional Services	45,900	46,050	0.3%
Services and Supplies	851,634	907,870	6.6%
Insurance	85,200	93,720	10.0%
Utilities	497,896	471,874	-5.2%
Central Services Cost	147,300	150,000	1.8%
Fuels Management	50,000	50,000	0.0%
Expenditures	3,233,338	3,502,093	8.3%
Debt Service			
Principal	224,515	230,534	
Interest	82,504	76,486	

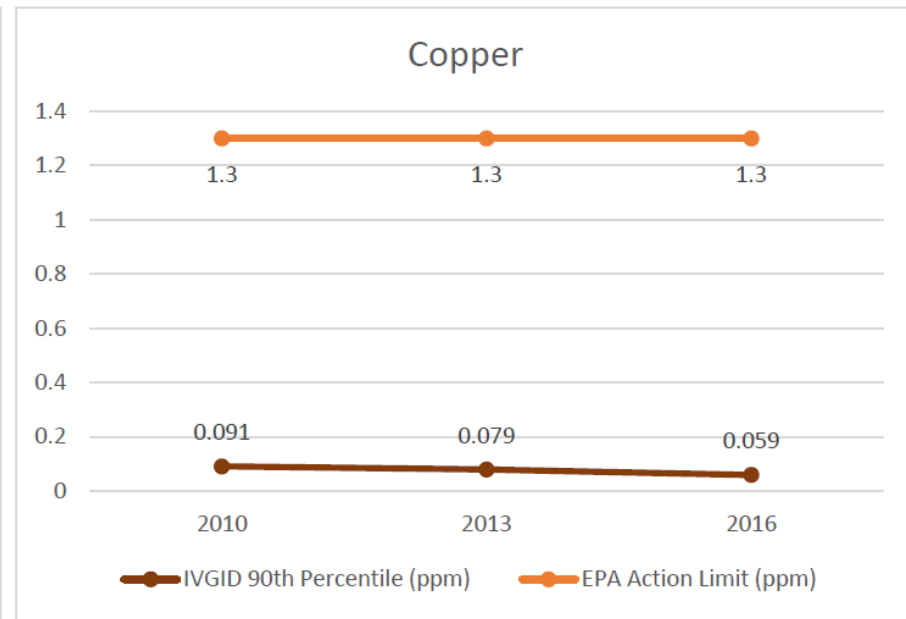
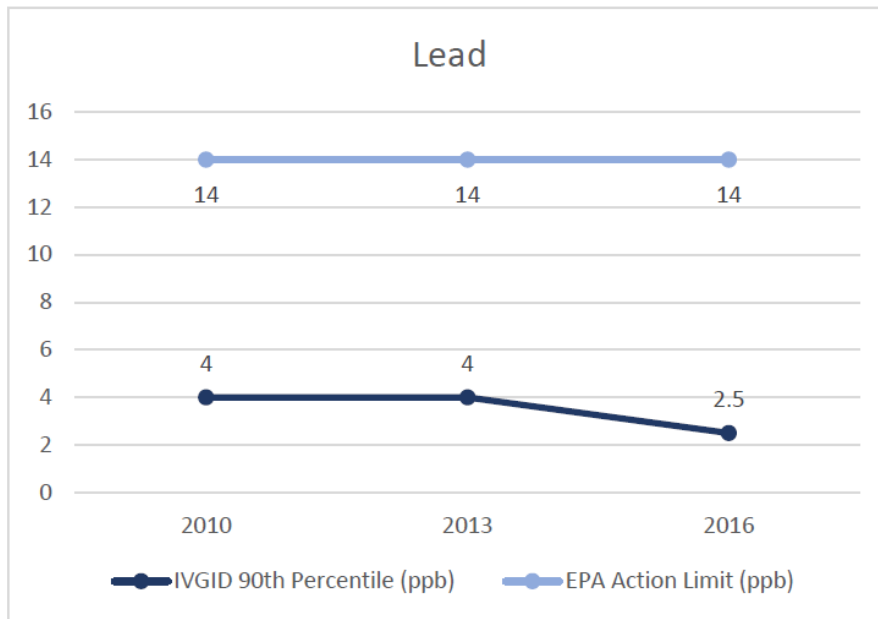
*Labor Costs reallocated from sewer to water. Combined increase of 4.6%
 See slide 18 for total labor cost and year to year increase

Utility Customer Experience

- Reliability – 100% Service Goal
- Consistent product
- Customer conveniences and information
 - On-line accounts, e/bills and e/pay
 - Speak to a person, not a machine
 - Move in and Move out
 - Designating a tenant or agent for the account
 - Leak notification by email and bill

Protecting our Water - Lead and Copper

- U.S. concern with Lead in water because of Flint Mich.
- Compliance with Federal Lead and Copper Rule
- Sampling at 20 Single Family Homes



Water Budget - Chemicals

Chemical	Budgeted Expense
Liquid Oxygen to Make Ozone for Water Disinfection	\$30,000
Sodium Hypochlorite for Water Disinfection	\$23,000
Calcium Thiosulfate Disinfection Process Chemical	\$7,000
Sodium Silicate for Corrosion Control and Control of Lead and Copper	\$70,000
Total	\$130,000

Protecting our Water - Backflow

- Protect the consumer
- Protect the water supply
- Educate the consumer
- Revenue of \$105,000 (1,700 tests)



Sewer Budget Summary

Sewer Budget	2017-18 Budget	2018-19 Proposed	% Change
Revenue			
Sewer Revenue	6,582,258	6,714,622	2.0%
Expenditures			
Salaries and Benefits*	1,945,545	1,879,350	-3.4%
Professional Services	51,900	52,200	0.6%
Services and Supplies	807,552	820,518	1.6%
Insurance	103,200	113,520	10.0%
Utilities	451,620	446,339	-1.2%
Central Services Cost	147,300	150,000	1.8%
Fuels Management	50,000	50,000	0.0%
Expenditures	3,557,117	3,511,927	-1.3%
Debt Service			
Principal	271,245	279,144	
Interest	64,868	56,970	

*Labor Costs reallocated from sewer to water. Combined increase of 4.6%
See slide 18 for total labor cost and year to year increase

Sewer Budget - Chemicals

Chemical	Budgeted Expense
Solids Dewatering Polymer	\$70,000
Sodium Hypochlorite for Effluent Disinfection	\$26,000
Odor Control Chemicals	\$22,000
Sewer pH Adjustment Chemical	\$27,000
Total	\$145,000

Sewer Budget – Sewer Mains

Sewer Main Activity	Budgeted Expense
Sewer Main Cleaning 120,000 feet of hydroflush	\$66,000 (\$0.55/foot)
Sewer Main CCTV Inspection 40,000 feet of inspection	\$52,000 (\$1.30/foot)
Sewer Main Repairs	\$42,000
Total	\$160,000

Utilities Personnel

Budget Year	Full Time	Part Time	Total
2006-07	31.2	0.7	31.9
2011-12	31.2	0.7	31.9
2016-17	31.2	3.4	34.6
2017-18	31.2	3.4	34.6
2018-19	31.2	3.7	34.9

- **2018–19 Part Time Positions**

- Solid Waste Enforcement Tech – 1.0 – (2015)
- Waste Not Intern –1.0 (increased in 2014, loss of AmeriCorps)
- Truck Driver – 0.63 (2015)
- Customer Service Representative – 0.75 (2018) (increase 0.25)
- Wetlands Hunt Supervisor – 0.3 (pre 2000)

Budgeted Expenses 2018-19

Budget Item	Budgeted Expense
Customer Service (Billing, meter reading, front office)	\$388,000
Fleet Maintenance Services	\$323,000
Buildings Maint. Services	\$109,000
Fuel	\$74,000
Regulatory Permits (NDEP, NDSL, BSDW)	\$32,000

Water and Sewer Electrical Cost Savings

Year	Electrical Cost (\$)	Year to Year Change
2009-10	\$ 1,171,063	n/a
2010-11	\$ 1,121,748	4.2%
2011-12	\$ 1,077,339	4.0%
2012-13	\$ 1,001,334	7.1%
2013-14	\$ 1,041,216	-4.0%
2014-15	\$ 983,313	5.6%
2015-16	\$ 884,989	10.0%
2016-17	\$ 804,072	9.1%
Cost Savings	\$ 366,991	31.3%

Utility Budget Summary

Utility Budget	2017-18 Budget	2018-19 Proposed	% Change
Revenues			
Water and Sewer Revenue	11,555,531	11,852,926	2.6%
Expenditures			
Salaries and Benefits*	3,500,953	3,661,929	4.6%
Professional Services	97,800	98,250	0.5%
Services and Supplies	1,659,186	1,728,388	4.2%
Insurance	188,400	207,240	10.0%
Utilities	949,516	918,213	-3.3%
Central Services Cost	294,600	300,000	1.8%
Fuels Management	100,000	100,000	0.0%
Expenditures	6,790,455	7,014,020	3.3%
Debt Service			
Principal	495,760	509,678	
Interest	147,372	133,456	
Debt Service Total	643,132	643,134	

*Labor Costs reallocated from sewer to water. Combined increase of 4.6% for Utility Budget

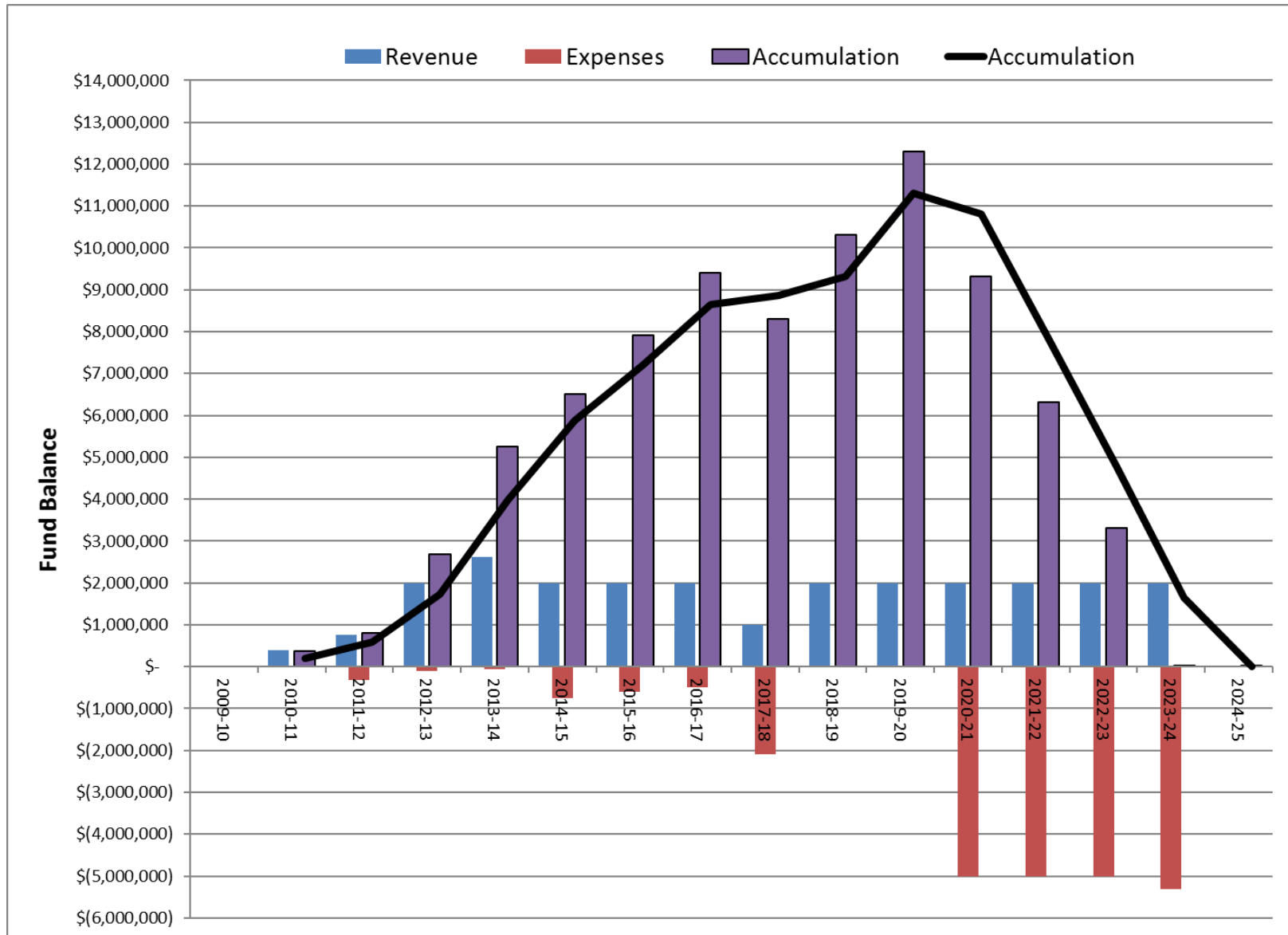
2018-19 Capital

- Effluent Export Funding
- Pump and Motor Replacements
- Water Reservoir Safety Improvements
- Burnt Cedar Electrical Improvements
- Sewage Vactor Truck Replacement
- Budget of \$4,188,000
- (Watermain in 2019-20)

Effluent Export Pipeline Phase II

- Phase 1 Years 2006 – 2009
 - Replaced 29,700 linear feet
 - Total Cost - \$15,300,000
 - District Share - \$3,700,000
 - USACE Share - \$11,600,000
- Phase 2 Years 2014 – 2024
 - Replace up to 31,000 linear feet
 - Total Project Cost Estimated at \$23,000,000
 - Accumulate \$2,000,000 per year

Export Project CIP Funding



Export Pipeline Replacement Cost Reduction Strategy

- USACE Funding Support
 - 50% – 75% potential funding support
 - Lobbying efforts in DC via Marcus Faust continue
 - Discussions with USACE Sacramento District continue
- Bike Path Co-Location
 - \$7M potential cost savings
 - Work with TTD continues
 - NEPA effort underway
- Reduction in Pipeline Replacement
 - \$2M - \$4M per mile of pipe
 - Based on outcome of condition assessment

Export Pipeline Phase II

	Annual CIP Expenses	Annual CIP Revenue	Project Balance	Sewer Rate Increase
2010-11 Fiscal Year	\$21,250	\$400,000	\$378,750	3.9%
2011-12 Fiscal Year	\$330,827	\$750,000	\$797,923	9.4%
2012-13 Fiscal Year	\$111,663	\$2,000,000	\$2,686,260	9.9%
2013-14 Fiscal Year	\$59,424	\$2,624,338	\$5,251,174	11.1%
2014-15 Fiscal Year	\$744,805	\$2,000,000	\$6,506,369	9.1%
2015-16 Fiscal Year	\$606,318	\$2,000,000	\$7,900,051	4.0%
2016-17 Fiscal Year	\$494,331	\$2,000,000	\$9,405,720	3.8%
<i>2017-18 Fiscal Year</i>	<i>\$2,100,000</i>	<i>\$1,000,000</i>	<i>\$8,305,720</i>	3.3%
Total	\$4,468,618	\$12,774,338	\$8,305,720	

Fund Balance

- The audited unrestricted net position for the Utility Fund at the end of Fiscal Year 2016-17 is \$12.5 million with \$9.4 million accumulated for the Effluent Export Project. This equates to \$3.1 million in unencumbered unrestricted net position at the end of Fiscal Year 2016-17. The target fund balance is calculated at \$1.8 million. The Utility Fund meets the fund balance and can rely on funds accumulated for the Effluent Export Project.

2018 5-Year Rate Study

- Water Rates - ↑3.4%
- Sewer Rates - ↑2.7%
- Overall Rates - ↑3.0%
- Increase is Spread Across Rate Components
- Average 3.2% Increase for Next 5 Years
- Commodity-Demand Model (fixed, variable, and CIP components)

Operating Revenues and Expenses

5-Year Plan	2018-19	2019-20	2020-21	2021-22	2022-23	5-Yr Sum
Operating Revenue	7,035,000	7,353,000	7,686,000	8,036,000	8,403,000	\$38,513,000
Operating Expense	(7,014,000)	(7,237,000)	(7,440,000)	(7,647,000)	(7,861,000)	(\$37,199,000)
					Subtotal	\$1,314,000

Does not include depreciation

Capital Revenues and Expenses

5-Year Plan	2018-19	2019-20	2020-21	2021-22	2022-23	5-Yr Sum
Capital Revenue	4,913,000	4,960,000	5,014,000	5,073,000	5,133,000	25,093,000
Capital Expense	(4,786,000)	(4,881,000)	(4,736,000)	(4,424,000)	(4,715,000)	(23,542,000)
					Subtotal	\$1,551,000

Note 1 - Capital Expense is net of grants and debt proceeds.

Total Revenues and Expenses

2018 Five Year Rate Study	5-Year Total
Operating and Capital Revenues	\$63,606,000
Operating and Capital Expenses	\$60,741,000
Net increase in reserves	\$2,865,000

2013 5-Year Rate Study

- How did we do on our projections over the 5 year period from 2012 to 2017?

Component	Projected In 2012	Actual Looking Back
Annual Average	5.2% / yr	3.8% / yr
Total Increase	28.8%	20.7%

Proposed 2018 Water Rates

Current 2017 Rate Component	2017 Rate		Proposed 2018 Rate Component	2018 Rate	Change
Base Rate	\$ 10.65		Base Rate	\$ 11.23	\$0.58
Capital Improvements	\$ 14.47		Capital Improvements	\$ 14.80	\$0.33
Customer Account Fee	\$ 3.65		Customer Account Fee	\$ 3.76	\$0.11
Defensible Space	\$ 1.05		Defensible Space	\$ 1.05	-
Monthly Water Bill	\$ 29.82		Monthly Water Bill	\$ 30.84	\$1.02
Consumption	\$ 1.45		Consumption	\$ 1.50	\$0.05
1st Tier	\$ 0.95		1st Tier	\$ 0.93	(\$0.02)
2nd Tier	\$ 1.26		2nd Tier	\$ 1.30	\$0.04

Consumption, Tier 1 and Tier 2 is cost per 1000 gallons of water use

Proposed 2018 Sewer Rates

Current 2017 Rate Component	2017 Rate		Proposed 2018 Rate Component	2018 Rate	Change
Base Rate	\$ 17.55		Base Rate	\$ 18.30	\$ 0.75
Capital Improvements	\$ 30.25		Capital Improvements	\$ 30.70	\$ 0.45
Customer Account Fee	\$ 3.65		Customer Account Fee	\$ 3.76	\$ 0.11
Monthly Sewer Bill	\$ 51.45		Monthly Sewer Bill	\$ 52.76	\$ 1.31
Sewer Use Rate	\$ 3.00		Sewer Use Rate	\$ 3.10	\$ 0.10

Sewer Use is cost per 1000 gallons of water use.

Residential sewer consumption is capped in summer months.

Utility Bill History – Median User

Year	Monthly Water Charge	Monthly Sewer Charge	Total Monthly Water and Sewer Charge
2013	\$34.66	\$51.24	\$85.90
2014	\$35.41	\$55.75	\$91.16
2015	\$36.15	\$57.96	\$94.11
2016	\$37.15	\$60.24	\$97.39
2017	\$38.47	\$62.22	\$100.69
Proposed 2018	\$39.79	\$63.88	\$103.67

The breakdown of the **\$17.78** Rate Increase from 2013 to 2018

- **\$8.42** for CIP Revenue Increase, average increase of **4.2%** per yr
- **\$9.36** for Operating Revenue Increase, average increase of **3.6%** per yr

Utility Bill – Median User

Charge	Amount	% of Bill
Variable	\$20.07	19%
Fixed	\$37.05	36%
Capital	\$45.50	44%
Defensible Space (watershed protection)	\$1.05	1%
Total	\$103.67	100%

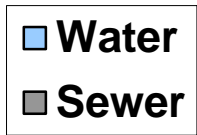
Commercial Rates

Meter Size	Water and Sewer Base Rates Monthly Base Bill
3/4"	\$83.60
1"	\$133.87
1 1/2"	\$258.42
2"	\$408.48
3"	\$758.87
4"	\$1,259.32
6"	\$2,509.32
8"	\$4,009.92

Full Cost Pricing

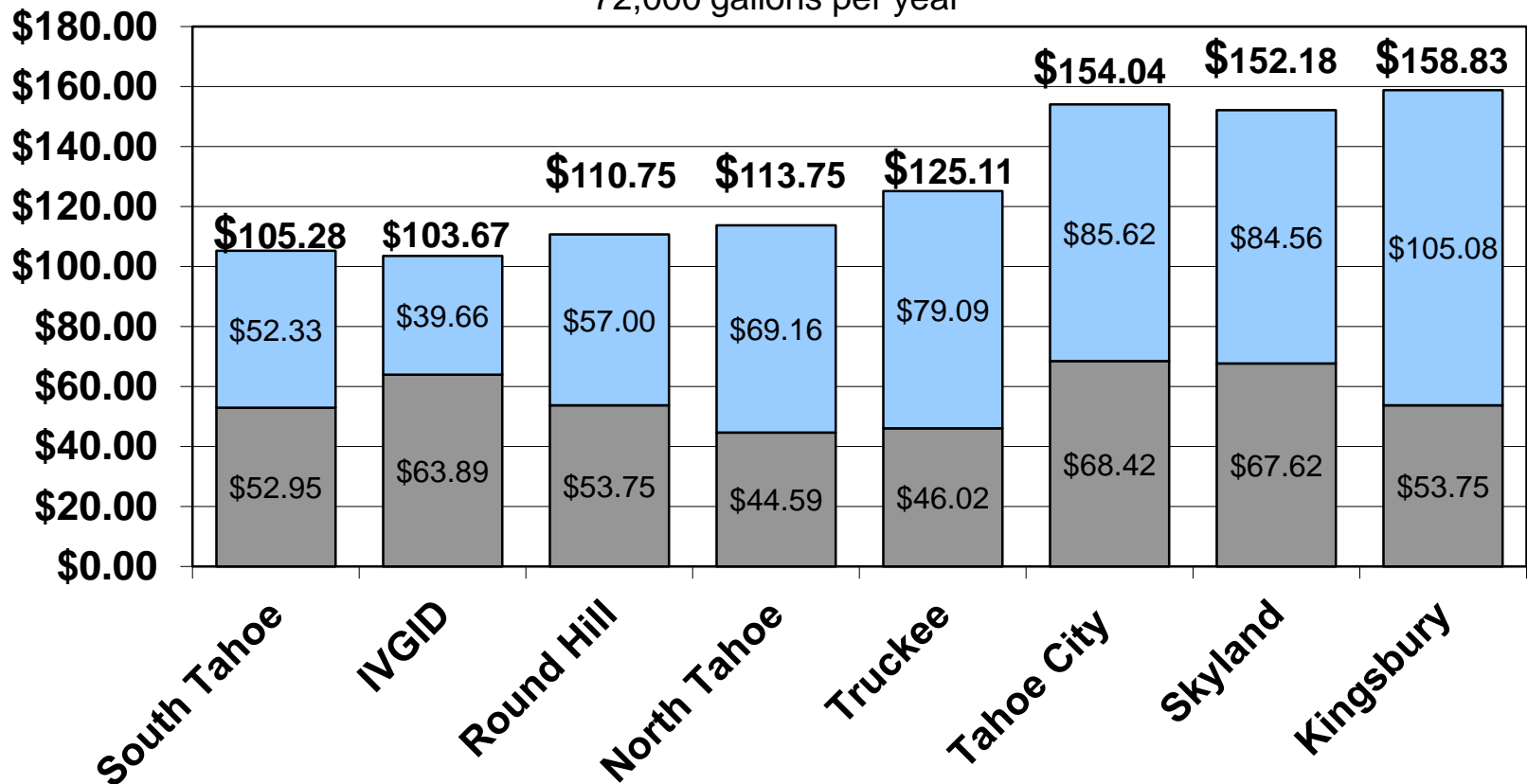
Customer Class	2018-19 Budgeted Expense	2018-19 Budgeted Revenue
Water Rate Fixed	\$1,818,000	\$1,862,000
Water Rate Variable	\$1,684,000	\$1,645,000
Water Rate CIP	\$1,775,000	\$1,679,000
Sewer Rate Fixed	\$2,249,000	\$2,269,000
Sewer Rate Variable	\$1,263,000	\$1,259,000
Sewer Rate CIP	\$3,011,000	\$3,234,000

2018 Utility Bill Comparison



Single Family Average Monthly Bill Rates applied to the Median User

6,000 gallons per month
72,000 gallons per year



2018 5-Year Rate Study

- Water Rates - ↑3.4%
- Sewer Rates - ↑2.7%
- Overall Rates - ↑3.0%
- Increase is Spread Across Rate Components
- Average 3.2% Increase for Next 5 Years
- Commodity-Demand Model (fixed, variable, and CIP components)

Other Changes

- No change to user fees (backflow, service calls, inspections)
- 5% Increase to connection fees for water and sewer

Utility Rate Timeline

Activity	Date
Utility Rate Study Presentation	January 24, 2018
Utility Rate Study Revisions if Directed by Board	February 7, 2018
Set Date for Public Hearing to Adopt New Utility Rates	March 7, 2018
Notice of Public Hearing Published in Bonanza Newspaper	March 22, 2018
Courtesy Ad for Public Hearing Published in Bonanza Newspaper	April 19, 2018
Conduct Public Hearing and Adopt New Utility Rates	April 25, 2018
New Utility Rates become effective pending approval	May 18, 2018

Recommendation

- That the Board of Trustees provide direction and comment to Staff on the 2018 Five Year Utility Rate Study and proposed utility rate increase for 2018.
- Direct staff to prepare documents and Ordinance 2 and Ordinance 4 amendments for a one year average 3.0% utility rate increase in accordance with the 2018 Utility Rate Study.