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		A							
Example Calculation of Rehabilitation and Replacement Needs	Service Life	01	riginal Cost	A (0) ÷ \$	nnual RRF riginal Cost Service Life)	R	eplacement Cost	A (R Se	nnual R epl. Co ervice L
Source of Supply Plant									
1 Wells and Springs	30 yrs.	\$	710,000	\$	20,000	\$	2,560,000	\$	90,
2 Supply Mains	60 yrs.	\$	1,340,000	\$	20,000	\$	3,760,000	\$	60,
Pumping Plant									
3 Structures and Improvements	30 yrs.	\$	1,430,000	\$	50,000	\$	6,490,000	\$	220,
4 Pumping and Power Production Equipment	25 yrs.	\$	2,080,000	\$	80,000	\$	3,050,000	\$	120,
Water Treatment Plant									
5 Structures and Improvements	30 yrs.	\$	550,000	\$	20,000	\$	2,100,000	\$	70,
6 Sand or Other Media Filtration Equipment	30 yrs.	\$	250,000	\$	10,000	\$	260,000	\$	10,
Transmission and Distribution Plant									
7 Distribution Reservoirs and Standpipes	50 yrs.	\$	950,000	\$	20,000	\$	1,770,000	\$	40,
8 Transmission and Distribution Mains	80 yrs.	\$	12,070,000	\$	150,000	\$	40,940,000	\$	510,
9 Services	30 yrs.	\$	6,990,000	\$	230,000	\$	12,290,000	\$	410,
10 Meters	20 yrs.	\$	2,850,000	\$	140,000	\$	5,400,000	\$	270,0
11 Hydrants	45 yrs.	\$	1,990,000	\$	40,000	\$	3,530,000	\$	80,0
General Plant									
12 Computer Equipment	4 yrs.	\$	50,000	\$	10,000	\$	30,000	\$	10,0
13 Transportation Equipment	10 yrs.	\$	590,000	\$	60,000	\$	710,000	\$	70,0
14 Tools, Shop and Garage Equipment	20 yrs.	\$	240,000	\$	10,000	\$	300,000	\$	20,0
15 Power Operated Equipment	15 yrs.	\$	470,000	\$	30,000	\$	710,000	\$	50,0
16 Communication Equipment	10 yrs.	\$	120,000	\$	10,000	\$	170,000	\$	20,0
17 SCADA Equipment	10 yrs.	\$	1,470,000	\$	150,000	\$	450,000	\$	50,0
Total		\$	34 150 000	\$	1 050 000	\$	84 520 000	s	2 100









Policy	Purpose	Policy Target
Operating Reserve	Minimum cash reserve to accommodate varied revenue and expenditure timing	60 days of O&M Expenses
Capital Contingency Reserve	To meet emergency repairs, unanticipated capital, and project cost overruns	1-2% of capital assets (original cost)
Replacement Reserve Funding (RRF)	Annual contribution from rate revenue toward the accumulating replacement liability - utility infrastructure	Replacement Cost Depreciation
Equipment Reserve Funding	To fund ongoing vehicle and equipment replacement	Estimated replacement valu
Debt Service Coverage	Compliance with existing debt covenants and maintain credit worthiness for future debt needs	Target 2.0 Minimum 1.25
Revenue Sufficiency	Set rates to meet the total annual financial obligations of the utility and be self supporting	Rates shall be set to cover O&M, debt service, reserve and fiscal policy achieveme



















	Revenue Forecast
Rate Revenue	Forecasted by class, based on 3 to 5 year historical trends, relies on growth assumptions
Miscellaneous Revenue	One-time or recurring, increases with growth or remains flat
Fund Balance	Not an on-going revenue source, can mask revenue short-falls
	<u>.</u>



















Sample C	Customer Classes	
Single Family Residential (SFR)	 Typically largest customer group Relatively low usage per unit High peak demand Lowest fire flow requirement; domestic sewer strength 	
Multi-family Residential (MFR)	 Lower usage per dwelling unit Usually master metered Relatively constant use Fire flow requirement between SFR & commercial Domestic sewer strength 	
Commercial/ Industrial	 Diversity in use per account Can have relatively constant use Highest fire flow requirement Varying sewer strength 	
Parks, Irrigation, & Agriculture	 Often smallest customer classes in terms of accounts Majority of use in peak season No fire flow requirement Economic sensitivity 	
FCS GROUP		Page 40







Example Rate Structure Goals		Sample Ranking
Financial Sustainability	 Sufficient and predictable revenue to recover costs Stable and predictable impacts to customers Adaptable to changing demands 	1
Conservation and Efficiency	Promote conservation and efficiency of useProtect natural resources	2
Transparency and Simplicity	Easy to understand, explain and administerCompatible with billing system / meter reading	3
Fairness and Equity	 Correlation of rates with costs Reflect customer usage patterns and service requirements 	4
Affordability	Provide affordable water to "lifeline" usersSupport economic development / preservation	5









Section 5: Communication with City Councils / Elected Officials









Surface Water Utility	Single F	amily An	nual Rate	Operations & Staffing	Capital
Level of Service Matrix	2018 (existing)	2019	2024		
LOS 1: Fix Operating Deficit	\$104	\$167	\$193	Fund Existing Operating & Staffing Additional Street Cleaning (add1 \$12kiyr.) Additional Water Treatment (add1 \$50kiyr.) Senior Engineer (\$56kiyr for Storm). PW OPs Manager (\$60kiyr for Storm).	Minimal; outside funding dependent.
LOS 2: Meet NPDES Requirements	\$0	\$33	\$56	Required as Part of NPDES Permit • Vactor crew (3) • Inspector (1) • GIS tech (1)	\$1.6 million equipment (vactor truck, street sweeper, dump truck, truck, tool shed, misc. tools & equipment)
Subtotal (LOS 1 + 2)	\$104	\$200	\$250		• £1.4 million in conital
LOS 3: High Priority Capital	\$0	\$20	\$15	No additional.	• \$1.4 million in capital
Subtotal (LOS 1 + 2 +3) LOS 4: Medium Priority Capital	\$104 \$0	\$220 \$32	\$265 \$32	No additional.	• \$3.2 million in capital
Subtotal (LOS 1 + 2 + 3 + 4)	\$104	\$252	\$296	Citutelessons ikility for sinch soul	C150k for two twoles and head
LOS 5: HOA Pond Maintenance	\$0	\$23	\$27	maintenance (3)	tools.

Variable	6% Scenario	7% Scenario	8% Scenario
Annual Increases	6% per year	7% per year	8% per year
Debt Needed	\$2.75 million	\$1.25 million	n/a
Replacement Reserve Funding per Year	\$1.1 million (45% of avg. CIP)	\$1.6 million (65% of avg. CIP)	\$2.1 million (85% of avg. CIP
Single Family Bill	\$68	\$72	\$76













FAQs	Proposed 2017-2018 Utility Rate Changes Frequently Asked Questions THURSTON COUNTY EXT on PUBLIC WORKS An Accelerated Agency of the America Police Works Association
Now are usakiwater raise determined in Lacry? fatas are determined by biolonging the Lacry Wathwater URIN's centragoted rack for control and needs with the operation number of controlsment on their waterbare production. Activated outs power, pupples, submer and benefits, ou well as major arrests like the construction of new water and capacitat to waterbare information that is poper, where and puput takinos. (If which each large transmission of the second source of the submerse transmission of the submerse and the second source of the submerse of the submerse transmission of the construction of the submerse of the second source of the submerse of the submerse biologic source of the second source of the submerse of the submerse of the construction of the submerse of the second source of the submerse of the submerse biologic source of the submerse of the second source of the submerse of the submerse of the distance of the submerse. The submerse of the submerse of the submerse biologic source of the submerse of the submerse of the submerse of the submerse large of the submerse of the submerse of the submerse of the submerse of the submerse large source of the next Systems, starting January 1, 2015. The increase to the monthly bill way 2015. Changent	How are utility rates determinent? Utility rates are calculated by distributing the expected annual cost to maintain and operate the utility ov the number of customers within the service area. These costs include a wide range of services, including: • finite sequences. • maintenance of existing facilities and pipes. • power to run the facilities. • power to run the facilities. • initiang for operators, and • build utility reserves to help fand fature water and sever infrastructure needs. • Utility rate quiltiment. • build utility reserves to help fand fature water and sever infrastructure needs. • Utility rate quiltiments. • Build utility reserves to help fand for over several years to avoid large increases. If rates are n prodically adjusted, they may not provide enough funding to meet system needs and could potential impact water quality. The number of constructioners will hold a public hearing to solicit public comments on t proposed rate increase. The hearing is heigh held to ready. November 14 5.30 p.m. County Counterson 2000 allockridge Drive SW, Olympia Holding 1, room 230 Hourd Reconstructioners will hadke a final decision. If approved, the rate increases will Hold and the formation of the proposed rate increases (2010 advorted ge Drive SW, Olympia Holding 1, room 230 Hourd Reconstructioners will hadke a final decision. If approved, the rate increases will Hold advortes to ready. Hourd SU advortes to ready advortes to ready. Hourd SU advortes to ready. Hourd SU advortes to ready advortes to ready. Hourd SU advortes to ready. Hourd SU advortes to ready. Hourd SU advortes to ready the rate increases will hourd a public hearing to hearing to solicit public comments on the ready. Hourd SU advortes to
process 2016 2015 2016 2017 2018	19 What will the new revenue be used for? 77 Revenue from utility rates are used to pay for a wide range of utility needs. It provides funds for
What will this rate change help land? The more voleted by the Cry through calcimers' monthly blis is used to maintain, repart, and ri- fingentatures. In close, there or 23 Dired of sever line, 48 sover pump stations, 8 odor control) 16400 service connections. The vality will be rebuilding its system reinvestment ² , find, which payses pagine and rebuilding implicationate that than areached the end bit is used if left. This will be end to the Cry's existing in generation will be allowed to the solected to potential of memory end solecular and will be close its solecular of solecular operating expenses. Can the Chy finance some of its capital projects to reduce the impact to rates? Ites are not 20% and the during allowed to cover a parties of the Chy's watewater financing, retice are about 57.	place existing collecte and collecte and the funding to the funding to furger bond













