AWWU Rates and Tariff Revisions

Anchorage Assembly Worksession

October 15, 2020

Clearly

Topics for Discussion

- AWWU's Proposed Rate Increases for 2021
- Fire Protection Charge Methodology and Cost of Service
- Proposed Water Tariff Revision Authorizing a Voluntary Rebate Program Related to the 475 Loop Conversion Project

Across the Board Rate Increases for 2021

- Across the board rate increases proposed in budget effective 4/1/21
  - Water and Wastewater combined rate increase of 4.8%
    - 2% increase for Water Service
    - 8% increase for Wastewater Service

- Rate increases based on Revenue Requirement Studies (RRS)
  - Requesting lower rate increases than calculated in the RRS
    - Calculated rate increases of 3.5% for Water Service
    - Calculated rate increases of 11.5% for Wastewater Service

- Drivers of Rate Increases
  - Water & Wastewater
    - Increases in MUSA Expense, Treatment Expense, Labor, and Depreciation Expense
  - Wastewater
    - Plant in Service Increased by $32M in 2019, mostly due to Eagle River Treatment Plant

Calculating the Revenue Requirement

- Rule of Thumb: $600k increase in expense = 1% rate increase in rates

- Basis is Historical Test Year: 2019 Test Year for 2021 Rates

- Simplified Calculation:

  + Operating Expenses (2019 actuals including known/measurable changes)
  + Depreciation Expense (on Plant Used & Useful during 2019)
  + MUSA Expense (calculated on NBV of Plant on 12/31/19)
  + Return on Rate Base Expense (based on capital structure and ROE)

  = Annual Revenue Requirement

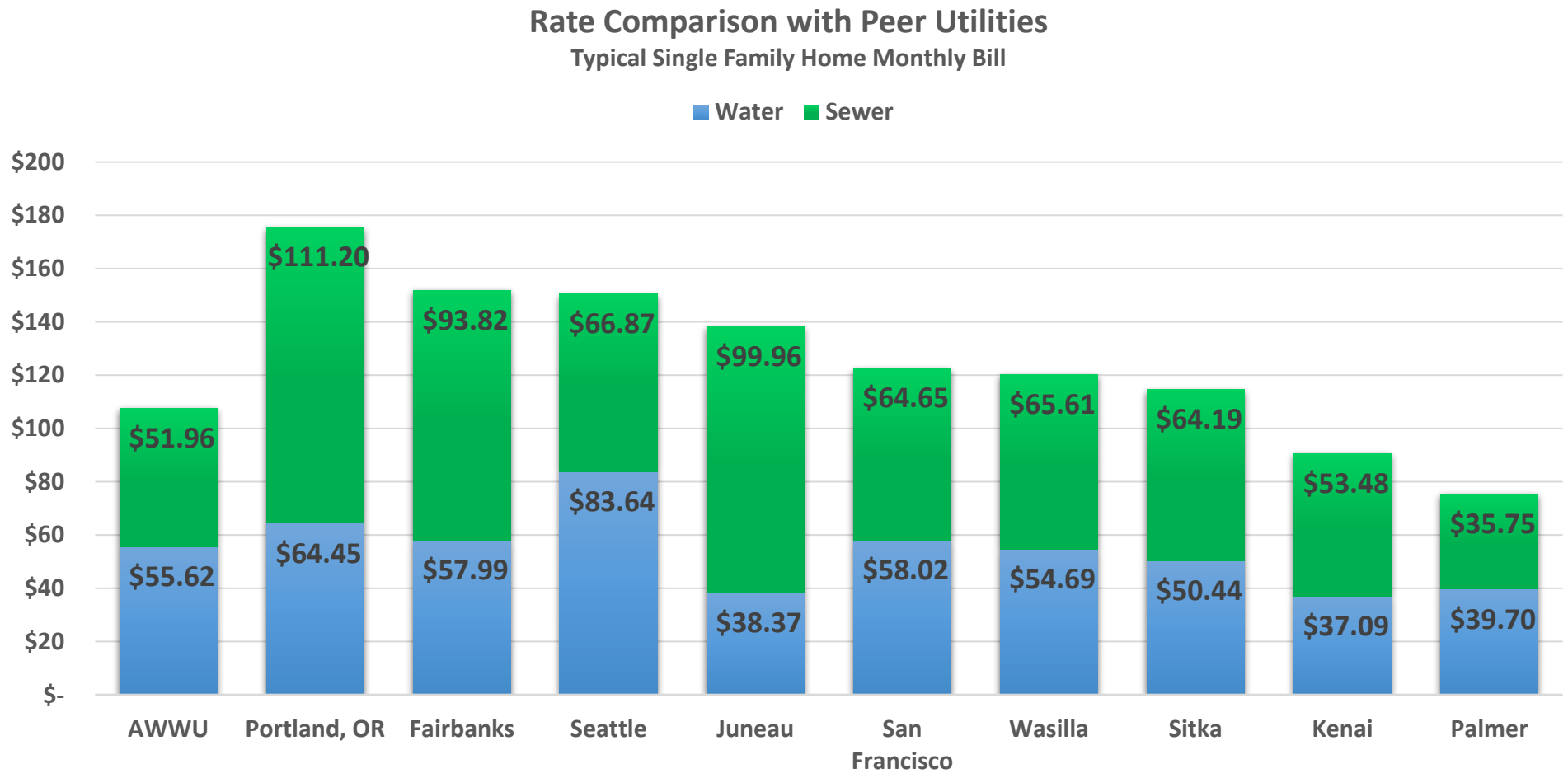
Impacts on Common Water Monthly Rates

Water			
Customer Class	Current Rate	Proposed Rate	$ Change
(a)	(b)	(c)	(d)
Unmetered Single Family Residential	$ 54.53	$ 55.62	$ 1.09
Metered Residential and Commercial:			
Customer Charge (per Account)	$ 14.42	$ 14.71	$ 0.29
Volume Rate per 1,000 Gallons	$ 5.57	$ 5.68	$ 0.11
Anchorage Fire Department	$ 435,553.44	$ 444,264.51	$ 8,711.07

Impacts on Common Wastewater Monthly Rates

Wastewater			
Customer Class	Current Rate	Proposed Rate	$ Change
(a)	(b)	(c)	(d)
Unmetered Single Family Residential	$ 48.11	$ 51.96	$ 3.85
Metered:			
Customer Charge (per Account)	$ 9.19	$ 9.93	$ 0.74
Residential Charge (per 1,000 Gallons)	$ 6.09	$ 6.58	$ 0.49
Low Strength Charge (per 1,000 Gallons)	$ 5.35	$ 5.78	$ 0.43
Medium Strength Charge (per 1,000 Gallons)	$ 7.11	$ 7.68	$ 0.57
High Strength Charge (per 1,000 Gallons)	$ 8.30	$ 8.96	$ 0.66
Septage Hauler:			
Customer Charge (per Account)	$ 9.19	$ 9.93	$ 0.74
Estimated Usage (per 1,000 Gallons)	$ 26.70	$ 28.84	$ 2.14

Rate Comparison Peer Utilities



Next Steps

- AWWU Board Approval
  - Presented at public meeting on October 7th
  - Approved Unanimously

- Approval Required by the Assembly
  - Per AMC, rates must be approved by ordinance
  - Target Date for Introduction November 17th

- Approval Required by the Regulatory Commission of Alaska (RCA)
  - Pending approval of Assembly, RRS submitted to RCA prior to 12/31/2020
  - RCA filings require a 30-day public comment period
  - 45 days after the initial filing, the RCA will either approve, reject, or suspend the matter for further investigation
  - November 2021 or later – Hearing at RCA
  - Statutory timeline for decision is 450 days – March 2022 or later
  - AWWU will request interim and refundable rates effective on April 1, prior to a final decision

What is a Fire Protection Charge?

- Reflects the cost to operate and maintain public hydrants and provide standby service for firefighting
  - The utility must be ready to provide adequate water and pressure to meet firefighting needs

- Fire Protection includes both Public and Private Fire Protection Service:

- Public Fire Protection
  - Infrastructure needed to provide adequate fire flow and pressure to hydrants
  - Includes both direct costs of hydrants and indirect costs associated with upsizing
  - AWU's rates currently considers all fire protection costs to be public included in AFD charge

- Private Fire Protection
  - Infrastructure needed to provide adequate fire flow and pressure to private hydrants, standpipes, and sprinkler connections
  - Used by AWU 1976 - 1980
  - Can be controversial to implement
  - Data collection would be necessary to identify private fire protections systems in MOA

History of Fire Protection Rate

- Prior to 1976 – AWU ratepayers paid full cost of fire protection
- 1976 – Costs split $565k Municipal Charge / $245k AWU ratepayers for private fire protection infrastructure
- 1980
  - Commercial customers filed a lawsuit over private fire protection charges
  - AFD and AWU enter MOU for fire protection to be a Municipal Charge to AFD
  - MOU approved by APUC, dividend restriction implemented due to revenue shortfall
  - Annual Municipal Charge = $683k
- 1995 – Municipal Charge was set to $2.5M
- 2002
  - AWWU proposed study to remove Municipal Charge and instead allocate costs to AWU customers.
  - Proposal rejected by the MOA Assembly
- 2006 - RCA affirmed cost allocations for Municipal Charge.

Benchmarks for Fire Protection Rates

- 1996 Maine Public Utilities Commission
  - Based on 1987 analysis, public fire protection charge should be between 6% and 30% of revenue
- 2016 Wisconsin Public Utilities Commission
  - Analysis of 582 WI utilities calculated fire protection charges between 9% and 45% of revenue
- AWWU's 2022 Fire Protection Rate would be 9% of revenue from COSS
  - Increases from $5.3M to $5.9M - $2.1M direct fire and $3.8M indirect fire
- Fire Protection Charge with a COSS Blended Rate for Indirect Fire
  - Municipal Annual Charge decreases from $5.9M to $4.4M
  - AWU ratepayers pay $1.6M for fire protection in rates

Potential Rate Design Options – Highlighted Options Illustrated

- **Public Fire Protection Charge**
  - Continue with current methodology – Municipal Charge
  - Charge AWU customers only
    - Cost allocations based on building type and meter and/or line size
  - Split charges between Municipal Charge and AWU customers
    - Municipal Charge includes Direct Fire and Indirect Fire based allocation of line size of public hydrants

- **Private Fire Protection Charge**
  - Continue with current methodology – no charge
  - Charge customers with private fire hydrants
    - Allocation based on demand of private hydrants versus public hydrants
  - Charge customers with sprinkler systems
    - Data collection necessary to identify private fire protections systems in MOA

Calculation of a Blended Rate for Fire Protection

TABLE 1 – Fire Protection Cost Allocation

Fire Protection Charges	Cost of Service Annual Charges	Allocation	
		AFD	AWU Ratepayers
(a)	(b)	(c)	(d)
Direct – Hydrants	$2,089,710	$2,089,710	-
Indirect – Upsizing for Standby Service	$3,790,665	$2,226,007	$1,564,659
Total Fire Protection Charges	$5,880,375	$4,315,717	$1,564,659
		59%	41%

* Allocation of Indirect charges based on line size assuming 6 inch line for public hydrants.

TABLE 2 – Fire Protection Cost Allocation to Ratepayers

Customer Class	# of Accounts	Gallons Per Minute (GPM)	Duration in Minutes	% of Total	Indirect Fire Cost Allocation	Ratepayer Annual Impact
(a)	(b)	(c)	(d)	(e)	(f)	(g)
Single-Family	43,939	1,000	120	45%	$700,700	$15.95
Duplex	4,379	1,500	120	7%	$104,749	$23.92
Triplex	675	1,500	120	1%	$16,146	$23.92
Multi-Family	3,833	3,000	180	18%	$275,064	$71.76
Mobile Home Parks	22	3,000	180	0%	$1,579	$71.76
Commercial	3,656	4,000	240	30%	$466,421	$127.58
Total	56,504			100%	$1,564,659	

* GPM required by building type from the AWWU 2012 Water Master Plan

Impacts of Preliminary Cost of Service on Water Rates

TABLE 3 – Rate Impact for Common Rates

Customer Class	COSS Rate	2019 TY	Change	% Change
(a)	(b)	(c)	(d)	(e)
Volume Rate per 1,000 gallons				
Residential:				
Single-Family	$ 8.34	$ 5.68	$ 2.66	47%
Multi-Family / Mobile Home	$ 5.59	$ 5.68	$(0.09)	-2%
Commercial	$ 6.49	$ 5.68	$ 0.81	14%
Monthly Customer Charge	$ 9.81	$ 14.71	$(4.90)	-33%

Example of Impacts on Monthly Bills from Implementing COSS

TABLE 4 – Impact to Unmetered Residential Accounts

	Preliminary COSS Results					2019 Test Year RRS					
Customer Class	Usage Charge (per Unit)	# of Units	Customer Charge (per Account)	Fire Charge (per Account)	Total Charges	Usage Charge (per Unit)	# of Units	Customer Charge (per Account)	Total Charges	Change	% Change
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
Single-Family	$47.82	1	$9.81	$1.33	$58.96	$40.91	1	$14.71	$55.62	$3.34	6.01%
Duplex	$29.37	2	$9.81	$1.99	$70.54	$40.91	2	$14.71	$96.53	($25.99)	-26.92%
Triplex	$19.94	3	$9.81	$1.99	$71.62	$40.91	3	$14.71	$137.44	($65.82)	-47.89%
Multi-Family	$18.76	8	$9.81	$5.98	$165.87	$40.91	8	$14.71	$341.99	($176.12)	-51.50%
Mobile Home Parks	$14.20	50	$9.81	$5.98	$725.79	$40.91	50	$14.71	$2,060.21	($1,334.42)	-64.77%

TABLE 5 – Impact to Metered Accounts

	Preliminary COSS Results					2019 Test Year RRS					
Example Customers	Usage Charge per tgal	Meter Charge (per Account)	Customer Charge (per Account)	Fire Charge (per Account)	Total Charges	Usage Charge per tgal	Meter Charge (per Account)	Customer Charge (per Account)	Total Charges	Change	% Change
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
Residential Triplex 1 inch meter, 15 tgals	$5.59	$10.15	$9.81	$5.98	$109.79	$5.68	$12.42	$14.71	$112.33	($2.54)	-2.26%
Commercial 1 inch meter, 15 tgals	$6.49	$10.15	$9.81	$10.63	$127.94	$5.68	$12.42	$14.71	$112.33	$15.61	13.90%
Commercial 2 inch meter, 100 tgals	$6.49	$32.47	$9.81	$10.63	$701.91	$5.68	$38.60	$14.71	$621.31	$80.60	12.97%
Commercial 4 inch meter, 600 tgals	$6.49	$64.95	$9.81	$10.63	$3,979.39	$5.68	$121.47	$14.71	$3,544.18	$435.21	12.28%

Potential Risks with Submitting a COSS

- Changes to the Fire Protection Rate Design may:
  - Not be approved as filed by RCA resulting in a higher municipal charge for fire protection or a different allocation of costs than expected
  - Face legal challenges
  - Result in a larger uncollectible expense for the Utility
  - Include a reduced fee in accordance with AS 42.05.381(d)
    - A utility shall provide for a reduced fee or surcharge for standby water for fire protection systems approved under AS 18.70.081 which use hydraulic sprinklers.

Tradeoffs with Submitting a COSS

Changes to the Fire Protection Rate Design will:

- Better Align Cost Causer Cost Payer
- Result in tax exempt organizations paying a portion of fire protection
- Shift costs paid by landlords to renters
- Potentially create confusion or perception of a duplicate charge with taxes
- Result in larger water bill for AWWU ratepayers

Changes from the COSS not related to Fire Protection will:

- Allocate more costs to metered usage versus fixed charges
- Align Cost Causer Cost Payer for multi-unit residential customers
- Promote conservation by shifting costs from fixed to variable rates
- Create a revenue deficiency for the Utility if current commercial consumption trends persist

Next Steps

- AWWU Board Approval
  - Will be Presented at public meeting on November 4th
- Approval Required by the Assembly
  - Per AMC, rates must be approved by ordinance
  - Should be introduced by December 8th to ensure approval by end of year
  - Using a test year older than 2019 for the cost of service studies will require a waiver of Alaska Administrative Code and could be rejected by the RCA if submitted after December 31, 2020
  - If a cost of service is submitted for water, AWWU should also submit for Wastewater
    - AWWU would need to present wastewater results to the Assembly at a future work session in November if we want to submit studies to RCA by end of year
- Approval Required by the Regulatory Commission of Alaska (RCA)
  - Pending approval of Assembly, RRS submitted to RCA prior to 12/31/2020
  - RCA filings require a 30-day public comment period
  - 45 days after the initial filing, the RCA will either approve, reject, or suspend the matter for further investigation
  - November 2021 or later – Hearing at RCA
  - Statutory timeline for decision is 450 days – March 2022 or later
  - Cost of service rates go into effect at the end of the statutory timeline, no interim and refundable

2012 WMP identified a series optimization projects

- Issues with pre-2012 water system
  - Water Sources and Water Storage
    - Stranded assets/usage of resources
  - Transmission Network
    - Loop incomplete / Risk of break/Complex
  - Distribution Network
    - Complex conveyance of water

- Benefits
  - Simplify – Eliminate failure points
  - Enhance ability to move water

Rebate Program for 475 Loop Conversion

- AWWU Board Meeting on 1/7/2015 included a presentation on pressure zone changes from the 2012 Water Master Plan
- The 475 Loop Conversion Project
  - Lowers water pressure to properties located in the Muldoon Road area
  - Impacts to on property fire systems currently being evaluated
  - AWWU proposes a rebate of up to $35k to properties with sprinkler systems that will no longer be compliant due to this project
    - Work must be approved by AWWU beforehand to be eligible for the rebate
    - Work must be complete and appropriate documentation submitted
    - AWWU will not provide rebates for work related to upgrading fire systems that were out of compliance for reasons not related to the pressure zone conversion
- AWWU implemented a similar program in 2016 that provided rebates to customers needing to install on property PRVs

Next Steps

- AWWU Board Approval
  - Presented at public meeting on October 7th
  - Approved Unanimously

- Approval Required by the Assembly
  - Per AMC, Tariff changes approved by resolution
  - Target Date November 3rd

- Approval Required by the Regulatory Commission of Alaska (RCA)
  - Pending approval of Assembly, Tariff Change submitted to RCA
  - RCA filings require a 30-day public comment period
  - 45 days after the initial filing, the RCA will either approve, reject, or suspend the matter for further investigation
  - Typically no hearing requirements
  - Statutory timeline for decision is 180 days

Questions and Comments