

Presentation on Water and Wastewater Rate Study



Avila Beach CSD

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Background

- Water and Wastewater rates are usually updated every five years
 - ABCSD's last rate increase was in 2013
 - Engaged Tuckfield & Associates in May 2019 to perform rate update
- ABCSD planning indicates that water and wastewater system improvements are required
 - Water improvements will total about \$1 million for study period
 - Wastewater improvements will total over \$4 million for study period
 - Loan is proposed from CSDA to finance wastewater treatment plant improvements

Study Purpose

- Develop five-year financial plan to fund the Capital Improvement Program (CIP), Operation and Maintenance (O&M) expense, and new debt service
- Evaluate sufficiency of revenue to meet future obligations and determine revenue increases required
- Create schedules of proposed wastewater rates and charges that
 - Are fair and equitable
 - Provide predictable revenue
 - Comply with Proposition 218
 - Meet debt service coverage requirements

Financial Plan

- Water analyses indicates the revenue increases of 3 percent annually are required to sufficiently meet future annual obligations
- Wastewater analyses indicates the revenue increases of 3 percent annually are required to sufficiently meet future annual obligations
 - Proposing \$3 million loan from CSDA with 20-year term at 3.75% interest rate; Port San Luis will contribute their proportionate share
 - The CSDA Loan to finance wastewater treatment plant improvements

Water Rate Design

Rate Structure and Prices to Generate Revenue
to Recover Costs

Water Rate Method

- Allocate annual costs to fixed and variable components
 - Water fixed costs consist of ABCSD's costs
 - Water variable costs consist of State Water and Lopez water supply costs
- Fixed Costs recovered through a fixed monthly charge to all customers
- Variable costs recovered through volumetric charge per hundred cubic feet (\$/HCF)
- Three water rate structure options designed

Water Rate Options

- Option 1: Uniform Volume Charge – All consumption \$/HCF
 - Advantages: Easy to understand and explain to customers
 - Disadvantages: Not as conservation oriented as Tiered rate structure
- Option 2: Two-Tier Volume Charge
 - Tier 1: 0 – 5 HCF Tier 2: Over 5 HCF
 - Advantages: Lowest cost water supply used first in Tier 1
 - Disadvantages: Requires more detail to explain
- Option 3: Fixed Water Supply Costs included in Fixed Charge
 - Advantages: Closely aligns actual fixed and variable costs with rates charged
 - Disadvantages: Causes high fixed charges to low consumption users

Water Rate Option 1

	Current Rate	July 1, FY 20-21	July 1, FY 21-22	July 1, FY 22-23	July 1, FY 23-24	July 1, FY 24-25
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Fixed Charges

Fixed Charge (\$ per month)

All Customers	\$57.00	\$47.88	\$49.32	\$50.80	\$52.33	\$53.90
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Variable Charge (\$ per HCF)

All Customers

Tier 1 - 0 to 5 units	\$0.00	\$8.73	\$9.00	\$9.27	\$9.55	\$9.84
Tier 2 - Over 5 units	\$11.40	\$8.73	\$9.00	\$9.27	\$9.55	\$9.84

Description	Use (HCF)	Current Bill			Proposed FY 20-21 Bill				
		Service Charge	Volume Charge	Current Bill	Service Charge	Volume Charge	Proposed Bill	Dollar Difference	Percent Change
	0	\$57.00	\$0.00	\$57.00	\$47.88	\$0.00	\$47.88	(\$9.12)	-16.0%
	1	\$57.00	\$0.00	\$57.00	\$47.88	\$8.73	\$56.61	(\$0.39)	-0.7%
Median	2	\$57.00	\$0.00	\$57.00	\$47.88	\$17.46	\$65.34	\$8.34	14.6%
Average	3	\$57.00	\$0.00	\$57.00	\$47.88	\$26.19	\$74.07	\$17.07	29.9%
	4	\$57.00	\$0.00	\$57.00	\$47.88	\$34.92	\$82.80	\$25.80	45.3%
	5	\$57.00	\$0.00	\$57.00	\$47.88	\$43.65	\$91.53	\$34.53	60.6%
	10	\$57.00	\$57.00	\$114.00	\$47.88	\$87.30	\$135.18	\$21.18	18.6%
	20	\$57.00	\$171.00	\$228.00	\$47.88	\$174.60	\$222.48	(\$5.52)	-2.4%
	30	\$57.00	\$285.00	\$342.00	\$47.88	\$261.90	\$309.78	(\$32.22)	-9.4%
	50	\$57.00	\$513.00	\$570.00	\$47.88	\$436.50	\$484.38	\$484.55	-15.0%

Water Rate Option 2

	Current Rate	July 1, FY 20-21	July 1, FY 21-22	July 1, FY 22-23	July 1, FY 23-24	July 1, FY 24-25
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Fixed Charges

Fixed Charge (\$ per month)

All Customers	\$57.00	\$47.88	\$49.32	\$50.80	\$52.33	\$53.90
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Variable Charge (\$ per HCF)

All Customers

Tier 1 - 0 to 5 units	\$0.00	\$4.05	\$4.18	\$4.31	\$4.44	\$4.58
Tier 2 - Over 5 units	\$11.40	\$10.97	\$11.30	\$11.64	\$11.99	\$12.35

Description	Use (HCF)	Current Bill			Proposed FY 20-21 Bill				
		Service Charge	Volume Charge	Current Bill	Service Charge	Volume Charge	Proposed Bill	Dollar Difference	Percent Change
	0	\$57.00	\$0.00	\$57.00	\$47.88	\$0.00	\$47.88	(\$9.12)	-16.0%
	1	\$57.00	\$0.00	\$57.00	\$47.88	\$4.05	\$51.93	(\$5.07)	-8.9%
Median	2	\$57.00	\$0.00	\$57.00	\$47.88	\$8.10	\$55.98	(\$1.02)	-1.8%
Average	3	\$57.00	\$0.00	\$57.00	\$47.88	\$12.15	\$60.03	\$3.03	5.3%
	4	\$57.00	\$0.00	\$57.00	\$47.88	\$16.20	\$64.08	\$7.08	12.4%
	5	\$57.00	\$0.00	\$57.00	\$47.88	\$20.25	\$68.13	\$11.13	19.5%
	10	\$57.00	\$57.00	\$114.00	\$47.88	\$75.10	\$122.98	\$8.98	7.9%
	20	\$57.00	\$171.00	\$228.00	\$47.88	\$184.80	\$232.68	\$4.68	2.1%
	30	\$57.00	\$285.00	\$342.00	\$47.88	\$294.50	\$342.38	\$0.38	0.1%
	50	\$57.00	\$513.00	\$570.00	\$47.88	\$513.90	\$561.78	\$561.77	-1.4%

Water Rate Option 3

	Current Rate	July 1, FY 20-21	July 1, FY 21-22	July 1, FY 22-23	July 1, FY 23-24	July 1, FY 24-25
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Fixed Charges

Fixed Charge (\$ per month)

Meter Size

Meter Size	Current Rate	July 1, FY 20-21	July 1, FY 21-22	July 1, FY 22-23	July 1, FY 23-24	July 1, FY 24-25
5/8"	\$57.00	\$100.09	\$103.10	\$106.20	\$109.39	\$112.68
3/4"	\$57.00	\$109.01	\$112.28	\$115.65	\$119.12	\$122.70
1"	\$57.00	\$126.86	\$130.67	\$134.60	\$138.64	\$142.80
1.5"	\$57.00	\$171.46	\$176.61	\$181.91	\$187.37	\$193.00
2"	\$57.00	\$224.99	\$231.74	\$238.70	\$245.87	\$253.25
3"	\$57.00	\$367.73	\$378.77	\$390.14	\$401.85	\$413.91
4"	\$57.00	\$528.31	\$544.16	\$560.49	\$577.31	\$594.63

Variable Charge (\$ per HCF)

All Customers

Tier 1 - 0 to 5 units	\$0.00	\$0.12	\$0.13	\$0.14	\$0.15	\$0.16
Tier 2 - Over 5 units	\$11.40	\$0.12	\$0.13	\$0.14	\$0.15	\$0.16

Description	Use (HCF)	Current Bill			Proposed FY 20-21 Bill				
		Service Charge	Volume Charge	Current Bill	Service Charge	Volume Charge	Proposed Bill	Dollar Difference	Percent Change
	0	\$57.00	\$0.00	\$57.00	\$100.09	\$0.00	\$100.09	\$43.09	75.6%
	1	\$57.00	\$0.00	\$57.00	\$100.09	\$0.12	\$100.21	\$43.21	75.8%
Median	2	\$57.00	\$0.00	\$57.00	\$100.09	\$0.24	\$100.33	\$43.33	76.0%
Average	3	\$57.00	\$0.00	\$57.00	\$100.09	\$0.36	\$100.45	\$43.45	76.2%
	4	\$57.00	\$0.00	\$57.00	\$100.09	\$0.48	\$100.57	\$43.57	76.4%
	5	\$57.00	\$0.00	\$57.00	\$100.09	\$0.60	\$100.69	\$43.69	76.6%
	10	\$57.00	\$57.00	\$114.00	\$100.09	\$1.20	\$101.29	(\$12.71)	-11.1%
	20	\$57.00	\$171.00	\$228.00	\$100.09	\$2.40	\$102.49	(\$125.51)	-55.0%
	30	\$57.00	\$285.00	\$342.00	\$100.09	\$3.60	\$103.69	(\$238.31)	-69.7%
	50	\$57.00	\$513.00	\$570.00	\$100.09	\$6.00	\$106.09	\$106.26	-81.4%

Wastewater Rate Design

Rate Structure and Prices to Generate Revenue
to Recover Costs

Wastewater Rate Method

- Allocate annual costs to Flow, BOD, SS, and Customer components
 - Reviewed each line item cost and assigned all or a portion of the cost to Flow, BOD, SS, or Customer
- Customer Costs recovered through a fixed monthly charge to all customers
- Flow, BOD, and SS costs recovered through individual uniform volume charges to each customer classification
- Three wastewater rate structure options designed

Wastewater Rate Options

- Option 1: Uniform Volume Charge – All consumption \$/HCF
 - Advantages: easy to understand and explain to customers
 - Disadvantages: dependent on water sales volumes
- Option 2: Allocate New Debt payment to Variable Charge
 - Advantages: Lowers fixed charge per month, increase variable charge
 - Disadvantages: Prefer to collect fixed revenue to cover payment
- Option 3: All Costs included in Fixed Charge
 - Advantages: Collects 100 percent of required revenue, no variation in revenue
 - Disadvantages : Increases fixed charge significantly

Wastewater Rate Option 1

Classification	Current	July 1,	July 1,	July 1,	July 1,	July 1,
	July 1, 2017	FY 20-21	FY 21-22	FY 22-23	FY 23-24	FY 24-25
Fixed Charge (\$ per bi-month)						
Single-family	\$61.75	\$60.27	\$62.08	\$63.94	\$65.86	\$67.84
Multifamily	65.25	60.27	62.08	63.94	65.86	67.84
Commercial	83.20	60.27	62.08	63.94	65.86	67.84
Hotels	83.20	60.27	62.08	63.94	65.86	67.84
Restaurants	88.90	60.27	62.08	63.94	65.86	67.84
Industrial	\$94.90	\$60.27	\$62.08	\$63.94	\$65.86	\$67.84
Variable Charge (\$ per HCF)						
Single-family						
0 to 5 HCF	\$0.00	\$7.11	\$7.33	\$7.55	\$7.78	\$8.01
Over 5 HCF	12.35	7.11	7.33	7.55	7.78	8.01
Multifamily						
0 to 5 HCF	0.00	6.91	7.11	7.32	7.54	7.77
Over 5 HCF	13.05	6.91	7.11	7.32	7.54	7.77
Commercial						
0 to 5 HCF	0.00	8.90	9.17	9.45	9.73	10.02
Over 5 HCF	16.64	8.90	9.17	9.45	9.73	10.02
Hotels						
0 to 5 HCF	0.00	9.60	9.89	10.19	10.50	10.82
Over 5 HCF	16.64	9.60	9.89	10.19	10.50	10.82
Restaurants						
0 to 5 HCF	0.00	18.14	18.68	19.24	19.82	20.41
Over 5 HCF	17.78	18.14	18.68	19.24	19.82	20.41
Industrial						
0 to 5 HCF	0.00	8.33	8.58	8.84	9.11	9.38
Over 5 HCF	\$18.98	\$8.33	\$8.58	\$8.84	\$9.11	\$9.38

Single-family Residential Bills

Water Use	Current Bill			Proposed FY 20-21 Bill				
	Service Charge	Volume Charge	Current Bill	Service Charge	Volume Charge	Proposed Bill	Dollar Difference	Percent Change
0	\$61.75	\$0.00	\$61.75	\$60.27	\$0.00	\$60.27	(\$1.48)	-2.4%
1	\$61.75	\$0.00	\$61.75	\$60.27	\$7.11	\$67.38	\$5.63	9.1%
2	\$61.75	\$0.00	\$61.75	\$60.27	\$14.23	\$74.50	\$12.75	20.6%
3	\$61.75	\$0.00	\$61.75	\$60.27	\$21.34	\$81.61	\$19.86	32.2%
4	\$61.75	\$0.00	\$61.75	\$60.27	\$28.45	\$88.72	\$26.97	43.7%
5	\$61.75	\$0.00	\$61.75	\$60.27	\$35.56	\$95.83	\$34.08	55.2%
10	\$61.75	\$61.75	\$123.50	\$60.27	\$71.13	\$131.40	\$7.90	6.4%
15	\$61.75	\$123.50	\$185.25	\$60.27	\$106.69	\$166.96	(\$18.29)	-9.9%
20	\$61.75	\$185.25	\$247.00	\$60.27	\$142.26	\$202.53	(\$44.47)	-18.0%
25	\$61.75	\$247.00	\$308.75	\$60.27	\$177.82	\$238.09	(\$70.66)	-22.9%
30	\$61.75	\$308.75	\$370.50	\$60.27	\$213.39	\$273.66	(\$96.84)	-26.1%

Wastewater Rate Option 2

Classification	Current July 1, 2017	July 1, FY 20-21	July 1, FY 21-22	July 1, FY 22-23	July 1, FY 23-24	July 1, FY 24-25
Fixed Charge (\$ per bi-month)						
Single-family	\$61.75	\$13.42	\$13.82	\$14.23	\$14.66	\$15.10
Multifamily	65.25	13.42	13.82	14.23	14.66	15.10
Commercial	83.20	13.42	13.82	14.23	14.66	15.10
Hotels	83.20	13.42	13.82	14.23	14.66	15.10
Restaurants	88.90	13.42	13.82	14.23	14.66	15.10
Industrial	\$94.90	\$13.42	\$13.82	\$14.23	\$14.66	\$15.10
Variable Charge (\$ per HCF)						
Single-family						
0 to 5 HCF	\$0.00	\$12.84	\$13.22	\$13.62	\$14.03	\$14.45
Over 5 HCF	12.35	12.84	13.22	13.62	14.03	14.45
Multifamily						
0 to 5 HCF	0.00	12.47	12.84	13.23	13.63	14.04
Over 5 HCF	13.05	12.47	12.84	13.23	13.63	14.04
Commercial						
0 to 5 HCF	0.00	15.54	16.01	16.49	16.98	17.49
Over 5 HCF	16.64	15.54	16.01	16.49	16.98	17.49
Hotels						
0 to 5 HCF	0.00	17.28	17.80	18.33	18.88	19.45
Over 5 HCF	16.64	17.28	17.80	18.33	18.88	19.45
Restaurants						
0 to 5 HCF	0.00	38.62	39.78	40.97	42.20	43.47
Over 5 HCF	17.78	38.62	39.78	40.97	42.20	43.47
Industrial						
0 to 5 HCF	0.00	14.10	14.53	14.97	15.42	15.88
Over 5 HCF	\$18.98	\$14.10	\$14.53	\$14.97	\$15.42	\$15.88

Single-family Residential Bills

Water Use	Current Bill			Proposed Bill				
	Service Charge	Volume Charge	Current Bill	Service Charge	Volume Charge	Proposed Bill	Dollar Difference	Percent Change
0	\$61.75	\$0.00	\$61.75	\$13.42	\$0.00	\$13.42	(\$48.33)	-78.3%
1	\$61.75	\$0.00	\$61.75	\$13.42	\$12.84	\$26.26	(\$35.49)	-57.5%
2	\$61.75	\$0.00	\$61.75	\$13.42	\$25.67	\$39.09	(\$22.66)	-36.7%
3	\$61.75	\$0.00	\$61.75	\$13.42	\$38.51	\$51.93	(\$9.82)	-15.9%
4	\$61.75	\$0.00	\$61.75	\$13.42	\$51.35	\$64.77	\$3.02	4.9%
5	\$61.75	\$0.00	\$61.75	\$13.42	\$64.18	\$77.60	\$15.85	25.7%
10	\$61.75	\$61.75	\$123.50	\$13.42	\$128.37	\$141.79	\$18.29	14.8%
15	\$61.75	\$123.50	\$185.25	\$13.42	\$192.55	\$205.97	\$20.72	11.2%
20	\$61.75	\$185.25	\$247.00	\$13.42	\$256.73	\$270.15	\$23.15	9.4%
25	\$61.75	\$247.00	\$308.75	\$13.42	\$320.92	\$334.34	\$25.59	8.3%
30	\$61.75	\$308.75	\$370.50	\$13.42	\$385.10	\$398.52	\$28.02	7.6%

Wastewater Rate Option 3

Classification	Current July 1, 2017	July 1, FY 20-21	July 1, FY 21-22	July 1, FY 22-23	July 1, FY 23-24	July 1, FY 24-25
Fixed Charge (\$ per bi-month)						
Single-family	\$61.75	\$84.46	\$86.99	\$89.60	\$92.29	\$95.06
Multifamily	65.25	80.45	82.87	85.35	87.91	90.55
Commercial	83.20	103.68	106.80	110.00	113.30	116.70
Hotels	83.20	1,308.95	1,348.22	1,388.66	1,430.32	1,473.23
Restaurants	88.90	1,910.99	1,968.32	2,027.37	2,088.19	2,150.84
Industrial	\$94.90	\$90.81	\$93.53	\$96.34	\$99.23	\$102.20
Variable Charge (\$ per HCF)						
Single-family						
0 to 5 HCF	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Over 5 HCF	12.35	0.00	0.00	0.00	0.00	0.00
Multifamily						
0 to 5 HCF	0.00	0.00	0.00	0.00	0.00	0.00
Over 5 HCF	13.05	0.00	0.00	0.00	0.00	0.00
Commercial						
0 to 5 HCF	0.00	0.00	0.00	0.00	0.00	0.00
Over 5 HCF	16.64	0.00	0.00	0.00	0.00	0.00
Hotels						
0 to 5 HCF	0.00	0.00	0.00	0.00	0.00	0.00
Over 5 HCF	16.64	0.00	0.00	0.00	0.00	0.00
Restaurants						
0 to 5 HCF	0.00	0.00	0.00	0.00	0.00	0.00
Over 5 HCF	17.78	0.00	0.00	0.00	0.00	0.00
Industrial						
0 to 5 HCF	0.00	0.00	0.00	0.00	0.00	0.00
Over 5 HCF	\$18.98	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Single-family Residential Bills

Water Use	Current Bill			Proposed Bill				
	Service Charge	Volume Charge	Current Bill	Service Charge	Volume Charge	Proposed Bill	Dollar Difference	Percent Change
0	\$61.75	\$0.00	\$61.75	\$84.46	\$0.00	\$84.46	\$22.71	36.8%
1	\$61.75	\$0.00	\$61.75	\$84.46	\$0.00	\$84.46	\$22.71	36.8%
2	\$61.75	\$0.00	\$61.75	\$84.46	\$0.00	\$84.46	\$22.71	36.8%
3	\$61.75	\$0.00	\$61.75	\$84.46	\$0.00	\$84.46	\$22.71	36.8%
4	\$61.75	\$0.00	\$61.75	\$84.46	\$0.00	\$84.46	\$22.71	36.8%
5	\$61.75	\$0.00	\$61.75	\$84.46	\$0.00	\$84.46	\$22.71	36.8%
10	\$61.75	\$61.75	\$123.50	\$84.46	\$0.00	\$84.46	(\$39.04)	-31.6%
15	\$61.75	\$123.50	\$185.25	\$84.46	\$0.00	\$84.46	(\$100.79)	-54.4%
20	\$61.75	\$185.25	\$247.00	\$84.46	\$0.00	\$84.46	(\$162.54)	-65.8%
25	\$61.75	\$247.00	\$308.75	\$84.46	\$0.00	\$84.46	(\$224.29)	-72.6%
30	\$61.75	\$308.75	\$370.50	\$84.46	\$0.00	\$84.46	(\$286.04)	-77.2%

Recommended Options

- Water Option 2 and Wastewater Option 2

Combined Water and Wastewater Single-family Residential Bills

Water Use	Current Bill			Proposed FY 20-21 Bill				
	Service Charge	Volume Charge	Current Bill	Service Charge	Volume Charge	Proposed Bill	Dollar Difference	Percent Change
0	\$118.75	\$0.00	\$118.75	\$61.30	\$0.00	\$61.30	(\$57.45)	-48.4%
1	\$118.75	\$0.00	\$118.75	\$61.30	\$16.89	\$78.19	(\$40.56)	-34.2%
2	\$118.75	\$0.00	\$118.75	\$61.30	\$33.77	\$95.07	(\$23.68)	-19.9%
3	\$118.75	\$0.00	\$118.75	\$61.30	\$50.66	\$111.96	(\$6.79)	-5.7%
4	\$118.75	\$0.00	\$118.75	\$61.30	\$67.55	\$128.85	\$10.10	8.5%
5	\$118.75	\$0.00	\$118.75	\$61.30	\$84.43	\$145.73	\$26.98	22.7%
10	\$118.75	\$118.75	\$237.50	\$61.30	\$203.47	\$264.77	\$27.27	11.5%
15	\$118.75	\$294.50	\$413.25	\$61.30	\$377.35	\$438.65	\$25.40	6.1%
20	\$118.75	\$470.25	\$589.00	\$61.30	\$551.23	\$612.53	\$23.53	4.0%
25	\$118.75	\$760.00	\$878.75	\$61.30	\$834.82	\$896.12	\$17.37	2.0%
30	\$61.75	\$308.75	\$370.50	\$13.42	\$385.10	\$398.52	\$28.02	7.6%

Recommended Options

- Water Option 2 and Wastewater Option 1

Combined Water and Wastewater Single-family Residential Bills

Water Use	Current Bill			Proposed FY 20-21 Bill				
	Service Charge	Volume Charge	Current Bill	Service Charge	Volume Charge	Proposed Bill	Dollar Difference	Percent Change
0	\$118.75	\$0.00	\$118.75	\$108.15	\$0.00	\$108.15	(\$10.60)	-8.9%
1	\$118.75	\$0.00	\$118.75	\$108.15	\$11.16	\$119.31	\$0.56	0.5%
2	\$118.75	\$0.00	\$118.75	\$108.15	\$22.33	\$130.48	\$11.73	9.9%
3	\$118.75	\$0.00	\$118.75	\$108.15	\$33.49	\$141.64	\$22.89	19.3%
4	\$118.75	\$0.00	\$118.75	\$108.15	\$44.65	\$152.80	\$34.05	28.7%
5	\$118.75	\$0.00	\$118.75	\$108.15	\$55.81	\$163.96	\$45.21	38.1%
10	\$118.75	\$118.75	\$237.50	\$108.15	\$146.23	\$254.38	\$16.88	7.1%
15	\$118.75	\$294.50	\$413.25	\$108.15	\$291.49	\$399.64	(\$13.61)	-3.3%
20	\$118.75	\$470.25	\$589.00	\$108.15	\$436.76	\$544.91	(\$44.09)	-7.5%
25	\$118.75	\$760.00	\$878.75	\$108.15	\$691.72	\$799.87	(\$78.88)	-9.0%
30	\$61.75	\$308.75	\$370.50	\$60.27	\$213.39	\$273.66	(\$96.84)	-26.1%

Next Steps

March 10	Present Final Rate Study Report to Board of Directors
April 1	Mail Proposition 218 Notices
Mid-May	Public Rate Hearing for Proposed Rates
July 1	Rates Implemented

Discussion

Water and Wastewater Rate Study