

South Tahoe PUD

Board Meeting

Water Rate
Study Update

February 6, 2014



Presented by:

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Associate Vice President

Objectives of the Review

- Provide an independent review of the long-term financial plan for the water utility
- Review impacts of various alternative capital plans
 - Timing of key improvements
 - Implementation of the metering plan/meters
- Developed a 5-year rate transition plan to meet the operating and capital needs
 - Considered 4 alternatives
- Develop rates for the rate transition plan alternatives

Overview of the Analysis

- Developed a 10-year financial plan
- The starting point was the 2014/2015 budget
 - Revenues and expenses were projected based on recent trends (e.g., growth, inflation)
- Independently calculated rate revenues
 - Based on recent metered water data and customer counts
- Developed 4 capital alternatives
 - Least Risky – Metering plus appropriate and adequate improvements
 - Delayed A – Accelerated line replacement plus metering
 - Delayed B – Current 10 year plan plus metering
 - Delayed C – Reduced line replacement plus metering
- Assumes additional long-term debt terms of:
 - 0.0% for 20 years for low interest loans
 - 5.5% for 20 years for revenue bonds

Summary of the Analysis (Least Risky)

Revenue Requirement						
(\$000s)						
	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Sources of Funds						
Rate Revenues	\$9,281	\$9,304	\$9,328	\$9,351	\$9,374	\$9,398
Other Revenues	592	674	628	671	711	837
Total Source of Funds	\$9,873	\$9,978	\$9,955	\$10,022	\$10,085	\$10,234
Application of Funds						
Operation & Maintenance Expense	\$7,640	\$7,743	\$7,924	\$8,084	\$8,274	\$8,442
Capital Funded from Rates	1,300	1,450	1,600	1,800	2,400	2,600
Debt Service	1,861	1,298	1,185	1,390	1,846	2,051
Change in Working Capital +/-	(928)	371	1,051	1,562	1,484	1,803
Total Revenue Requirement	\$9,873	\$10,862	\$11,761	\$12,837	\$14,004	\$14,896
Balance/(Deficiency) of Funds	\$0	(\$884)	(\$1,805)	(\$2,814)	(\$3,919)	(\$4,662)
Balance as % of Rev from Rates	0.0%	9.5%	19.4%	30.1%	41.8%	49.6%
Proposed Rate Adjustment	0.0%	9.5%	9.0%	9.0%	9.0%	5.5%

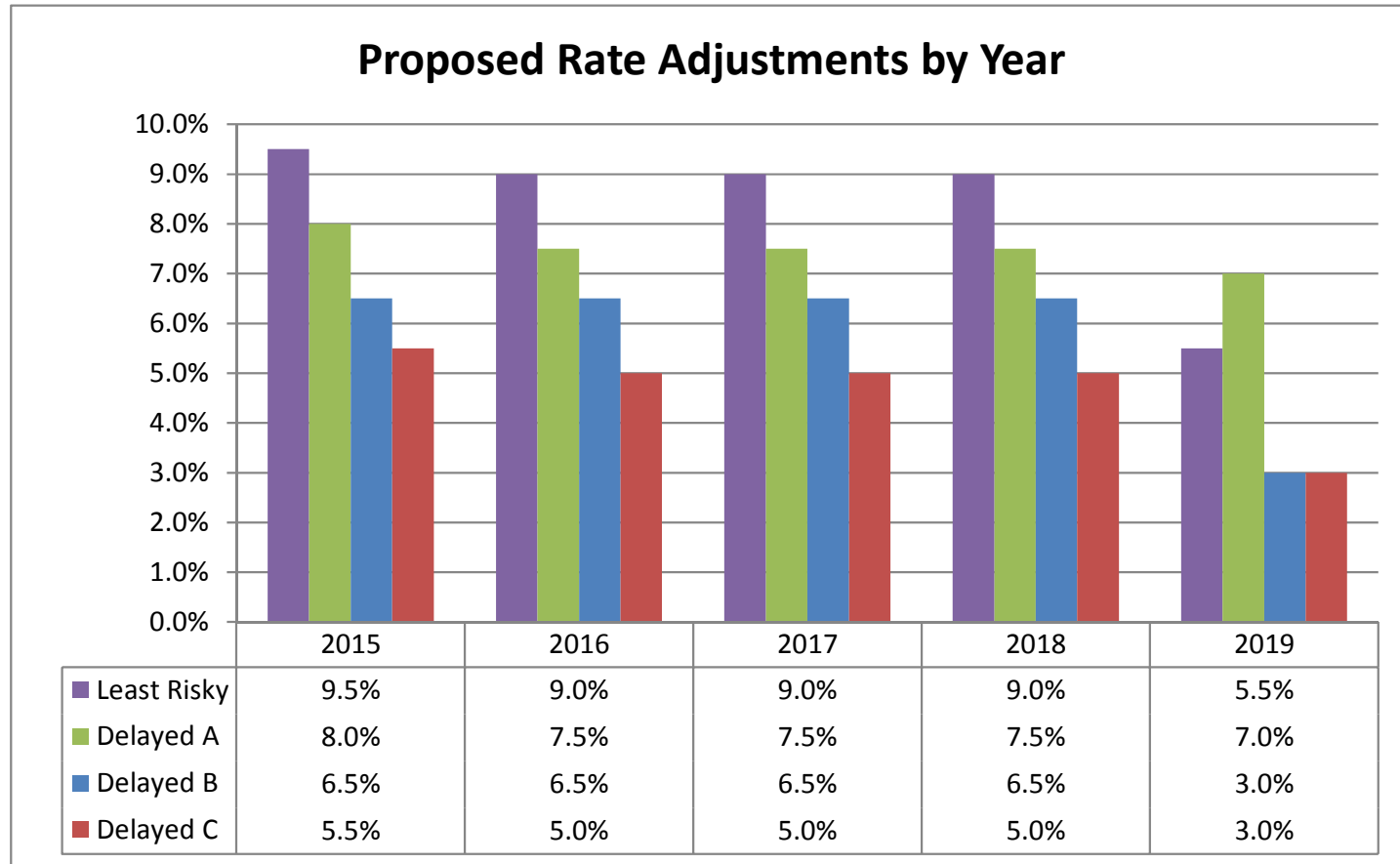
Capital Funding Alternatives

- Key assumptions
 - Least Risky: 10-year CIP with appropriate and adequate improvements
 - Delayed A: 10-year CIP with accelerated waterline replacements
 - Increases the total capital needs over the 10-years as well as the long-term borrowing
 - Delayed B: Capital improvement plan provided in the current 10-year plan.
 - Delayed C: 10-year CIP with reduced waterline replacements.
 - Reduces the total capital needs over the 10-years as well as the long-term borrowing vs. baseline scenario

Comparison of the Alternatives

- Least Risky:
 - Total CIP = \$66.2 million
 - Total Borrowing = \$33.5 million
 - Resulting cumulative 5-year rate deficiency = 49.6%
- Delayed A:
 - Total CIP = \$54.1 million
 - Total Borrowing = \$27.5 million
 - Resulting cumulative 5-year rate deficiency = 43.6%
- Delayed B:
 - Total CIP = \$46.0 million
 - Total Borrowing = \$24.5 million
 - Resulting cumulative 5-year rate deficiency = 32.5%
- Delayed C:
 - Total CIP = \$40.1 million
 - Total Borrowing = \$21.5 million
 - Resulting cumulative 5-year rate deficiency = 25.8%

Comparison of the Annual Rate Adjustments



Conclusions of the Analysis

- Rate adjustments are necessary to fund the District's operating and capital needs over the next 10-year period
 - Focus is on the next 5-year period
- Rate impacts vary depending on the capital plan
 - Level and timing of the plan
 - Long-term debt impacts differences
- Rates have been developed for each scenario

Key Rate Design Assumptions

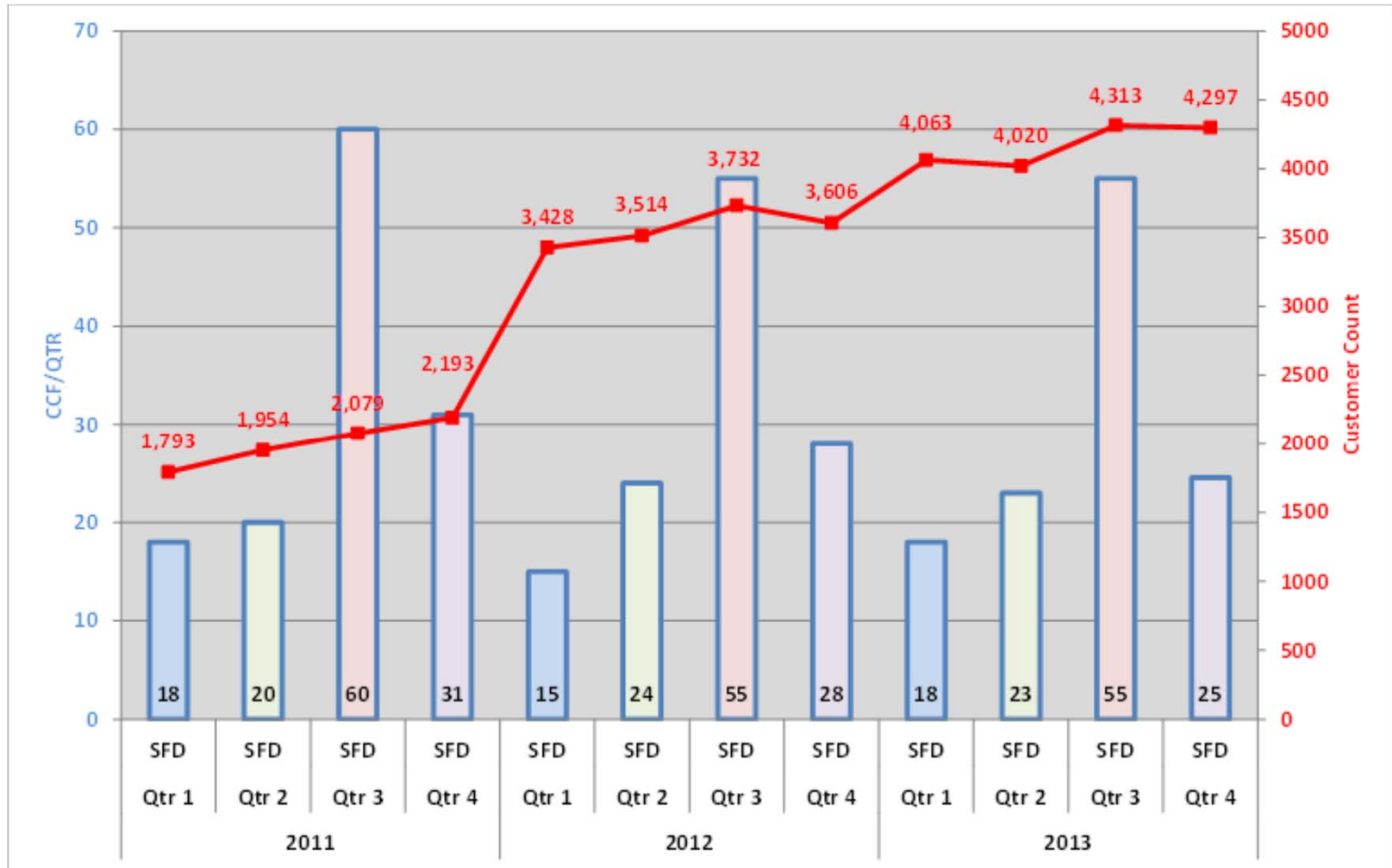
- Maintain current rate structure
 - Across the board adjustment
- Transitioning customers to metered rates
 - Price elasticity and impacts to rates
- Bill comparisons show the impact of the level of different rate transition plans
- Flat rate customer bills increased based on the overall rate adjustment
- Timing of proposed rate transition plans
 - Implement over a 5-year period utilizing a multi-year Proposition 218 notice

Customer Consumption Assumptions

- Single Family Residential
 - Average metered customer is a $\frac{3}{4}$ " meter and consumes about 9 CCF/month on annual average
- Multi-family Residential
 - Average flat rate customer is in a duplex
 - Average metered customer has a $\frac{3}{4}$ " meter and the complex uses about 34 CCF/month on annual average
- Commercial
 - Average metered customer is a 1" meter using about 90 CCF/month on annual average

Note: CCF = hundred cubic feet = 748 gallons

Single-Family Metered Consumption Summary



Present and Proposed Quarterly Single-Family Water Rates (Least Risky)

	Present Rates	2014-15	2015-16	2016-17	2017-18	2018-19
Proposed Annual Adjustments	0.0%	9.5%	9.0%	9.0%	9.0%	5.5%
Bill increase per quarter		\$11.60 /qtr	\$12.10 /qtr	\$13.10 /qtr	\$14.30 /qtr	\$9.50 /qtr
Bill increase per month		\$3.87 /mo	\$4.03 /mo	\$4.37 /mo	\$4.77 /mo	\$3.17 /mo
<u>Flat Rate</u>						
Single Family Dwelling	\$122.30	\$133.90	\$146.00	\$159.10	\$173.40	\$182.90
Low Income (Discount 20%)	97.84	107.10	116.70	127.20	138.60	146.20
<u>Meter Charge by Size</u>						
3/4"	\$90.00	\$98.60	\$107.50	\$117.20	\$127.70	\$134.70
1"	150.30	164.60	179.40	195.50	213.10	224.80
1 1/2"	299.70	328.20	357.70	389.90	425.00	448.40
2"	479.70	525.30	572.60	624.10	680.30	717.70
Care 3/4"	72.00	78.80	85.90	93.60	102.00	107.60
Care 1"	120.24	131.70	143.60	156.50	170.60	180.00
Care 1 1/2"	239.76	262.50	286.10	311.80	339.90	358.60
<u>Consumption</u>						
Block 1 (1 - 45 CCF)	\$1.25	\$1.37	\$1.49	\$1.63	\$1.77	\$1.87
Block 2 (45 + CCF)	1.88	2.06	2.24	2.45	2.67	2.81

Present and Proposed Quarterly Single-Family Water Rates (Delayed A)

	Present Rates	2014-15	2015-16	2016-17	2017-18	2018-19
Proposed Annual Adjustments	0.0%	8.0%	7.5%	7.5%	7.5%	7.0%
Bill increase per quarter		\$9.78 /qtr	\$9.91 /qtr	\$10.65 /qtr	\$11.45 /qtr	\$11.49 /qtr
Bill increase per month		\$3.26 /mo	\$3.30 /mo	\$3.55 /mo	\$3.82 /mo	\$3.83 /mo
<u>Flat Rate</u>						
Single Family Dwelling	\$122.30	\$132.08	\$141.99	\$152.64	\$164.09	\$175.57
Low Income (Discount 20%)	97.84	105.67	113.59	122.11	131.27	140.46
<u>Meter Charge by Size</u>						
3/4"	\$90.00	\$97.20	\$104.49	\$112.33	\$120.75	\$129.20
1"	150.30	162.32	174.50	187.59	201.65	215.77
1 1/2"	299.70	323.68	347.95	374.05	402.10	430.25
2"	479.70	518.08	556.93	598.70	643.60	688.66
Care 3/4"	72.00	77.76	83.59	89.86	96.60	103.36
Care 1"	120.24	129.86	139.60	150.07	161.32	172.62
Care 1 1/2"	239.76	258.94	278.36	299.24	321.68	344.20
<u>Consumption</u>						
Block 1 (1 - 45 CCF)	\$1.25	\$1.35	\$1.45	\$1.56	\$1.68	\$1.79
Block 2 (45 + CCF)	1.88	2.03	2.18	2.35	2.52	2.70

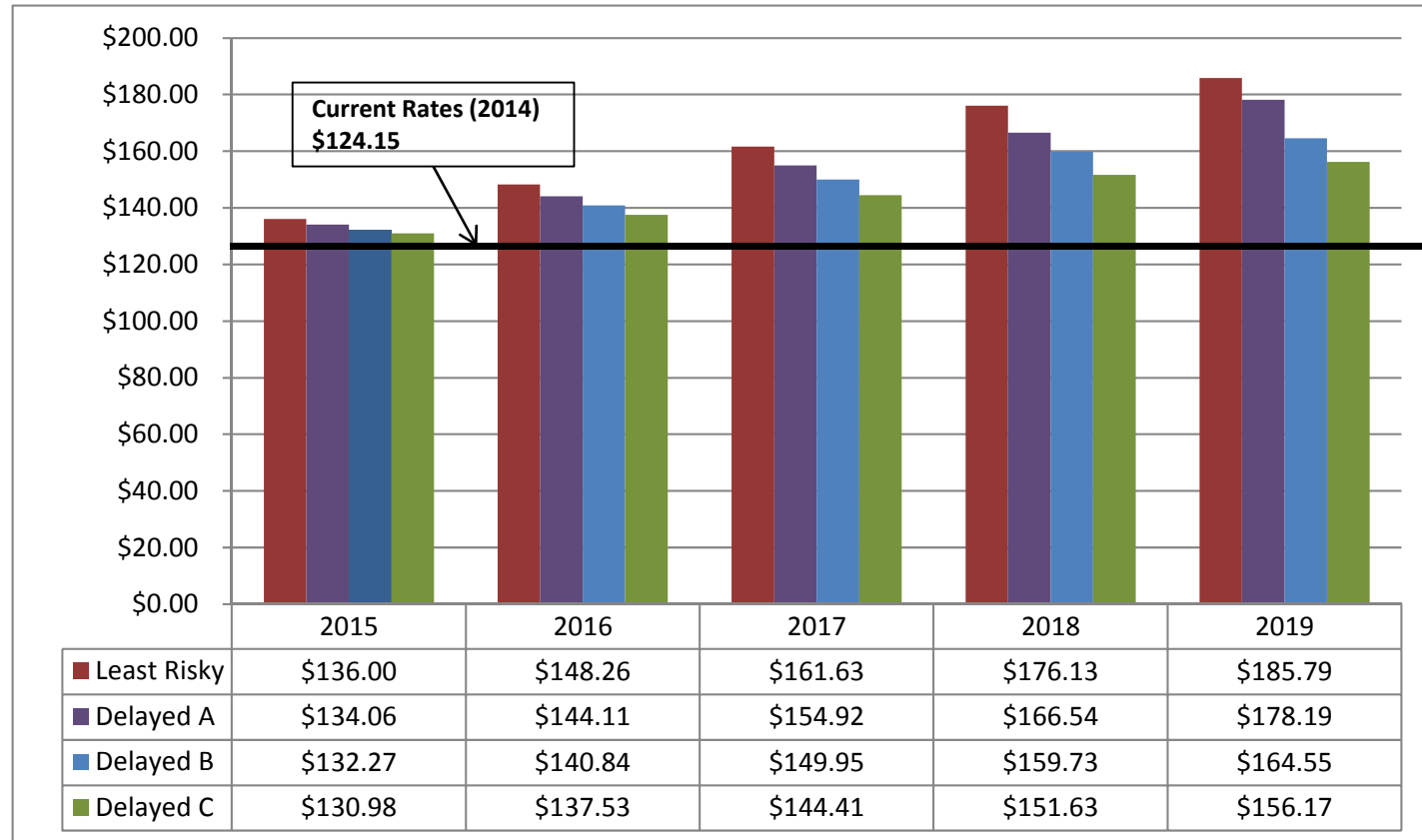
Present and Proposed Quarterly Single-Family Water Rates (Delayed B)

	Present Rates	2014-15	2015-16	2016-17	2017-18	2018-19
Proposed Annual Adjustments	0.0%	6.5%	6.5%	6.5%	6.5%	3.0%
<i>Bill increase per quarter</i>		\$7.90 /qtr	\$8.50 /qtr	\$9.00 /qtr	\$9.60 /qtr	\$4.70 /qtr
<i>Bill increase per month</i>		\$2.63 /mo	\$2.83 /mo	\$3.00 /mo	\$3.20 /mo	\$1.57 /mo
<u>Flat Rate</u>						
Single Family Dwelling	\$122.30	\$130.20	\$138.70	\$147.70	\$157.30	\$162.00
Low Income (Discount 20%)	97.84	104.20	111.00	118.20	125.90	129.70
<u>Meter Charge by Size</u>						
3/4"	\$90.00	\$95.90	\$102.10	\$108.70	\$115.80	\$119.30
1"	150.30	160.10	170.50	181.60	193.40	199.20
1 1/2"	299.70	319.20	339.90	362.00	385.50	397.10
2"	479.70	510.90	544.10	579.50	617.20	635.70
Care 3/4"	72.00	76.70	81.70	87.00	92.70	95.50
Care 1"	120.24	128.10	136.40	145.30	154.70	159.30
Care 1 1/2"	239.76	255.30	271.90	289.60	308.40	317.70
<u>Consumption</u>						
Block 1 (1 - 45 CCF)	\$1.25	\$1.33	\$1.42	\$1.51	\$1.61	\$1.66
Block 2 (45 + CCF)	1.88	2.00	2.13	2.27	2.42	2.49

Present and Proposed Quarterly Single-Family Water Rates (Delayed C)

	Present Rates	2014-15	2015-16	2016-17	2017-18	2018-19
Proposed Annual Adjustments	0.0%	5.5%	5.0%	5.0%	5.0%	3.0%
<i>Bill increase per quarter</i>		\$6.73 /qtr	\$6.45 /qtr	\$6.77 /qtr	\$7.11 /qtr	\$4.48 /qtr
<i>Bill increase per month</i>		\$2.24 /mo	\$2.15 /mo	\$2.26 /mo	\$2.37 /mo	\$1.49 /mo
<u>Flat Rate</u>						
Single Family Dwelling	\$122.30	\$129.03	\$135.48	\$142.25	\$149.36	\$153.85
Low Income (Discount 20%)	97.84	103.22	108.38	113.80	119.49	123.08
<u>Meter Charge by Size</u>						
3/4"	\$90.00	\$94.95	\$99.70	\$104.68	\$109.92	\$113.21
1"	150.30	158.57	166.49	174.82	183.56	189.07
1 1/2"	299.70	316.18	331.99	348.59	366.02	377.00
2"	479.70	506.08	531.39	557.96	585.85	603.43
Care 3/4"	72.00	75.96	79.76	83.75	87.93	90.57
Care 1"	120.24	126.85	133.20	139.86	146.85	151.25
Care 1 1/2"	239.76	252.95	265.59	278.87	292.82	301.60
<u>Consumption</u>						
Block 1 (1 - 45 CCF)	\$1.25	\$1.32	\$1.38	\$1.45	\$1.53	\$1.57
Block 2 (45 + CCF)	1.88	1.98	2.08	2.19	2.30	2.36

Average Single Family Customer Quarterly Bill Impacts (all alternatives)



Present and Proposed Quarterly Multi-Family Water Rates (Least Risky)

	Present Rates	2014-15	2015-16	2016-17	2017-18	2018-19
Proposed Annual Adjustments	0.0%	9.5%	9.0%	9.0%	9.0%	5.5%
Bill increase per quarter		\$20.68 /qtr	\$21.40 /qtr	\$23.40 /qtr	\$25.50 /qtr	\$17.00 /qtr
Bill increase per month		\$6.89 /mo	\$7.13 /mo	\$7.80 /mo	\$8.50 /mo	\$5.67 /mo
<u>Flat Rate</u>						
Duplex	\$217.42	\$238.10	\$259.50	\$282.90	\$308.40	\$325.40
Triplex	295.39	323.50	352.60	384.30	418.90	441.90
Four-Plex and Above Base Charge	64.12	70.20	76.50	83.40	90.90	95.90
Multi-Family Unit Charge	382.12	418.40	456.10	497.10	541.80	571.60
<u>Meter Charge by Size</u>						
3/4"	\$90.00	\$98.60	\$107.50	\$117.20	\$127.70	\$134.70
1"	150.30	164.60	179.40	195.50	213.10	224.80
1 1/2"	299.70	328.20	357.70	389.90	425.00	448.40
2"	479.70	525.30	572.60	624.10	680.30	717.70
3"	900.00	985.50	1,074.20	1,170.90	1,276.30	1,346.50
4"	1,500.30	1,642.80	1,790.70	1,951.90	2,127.60	2,244.60
<u>Consumption</u>						
Consumption (CCF)	\$1.45	\$1.59	\$1.73	\$1.89	\$2.06	\$2.17

Present and Proposed Quarterly Multi-Family Water Rates (Delayed A)

	Present Rates	2014-15	2015-16	2016-17	2017-18	2018-19
Proposed Annual Adjustments	0.0%	8.0%	7.5%	7.5%	7.5%	7.0%
Bill increase per quarter		\$17.39 /qtr	\$17.61 /qtr	\$18.93 /qtr	\$20.35 /qtr	\$20.42 /qtr
Bill increase per month		\$5.80 /mo	\$5.87 /mo	\$6.31 /mo	\$6.78 /mo	\$6.81 /mo
<u>Flat Rate</u>						
Duplex	\$217.42	\$234.81	\$252.42	\$271.36	\$291.71	\$312.13
Triplex	295.39	319.02	342.95	368.67	396.32	424.06
Four-Plex and Above Base Charge	64.12	69.25	74.44	80.03	86.03	92.05
Multi-Family Unit Charge	382.12	412.69	443.64	476.91	512.68	548.57
<u>Meter Charge by Size</u>						
3/4"	\$90.00	\$97.20	\$104.49	\$112.33	\$120.75	\$129.20
1"	150.30	162.32	174.50	187.59	201.65	215.77
1 1/2"	299.70	323.68	347.95	374.05	402.10	430.25
2"	479.70	518.08	556.93	598.70	643.60	688.66
3"	900.00	972.00	1,044.90	1,123.27	1,207.51	1,292.04
4"	1,500.30	1,620.32	1,741.85	1,872.49	2,012.92	2,153.83
<u>Consumption</u>						
Consumption (CCF)	\$1.45	\$1.57	\$1.68	\$1.81	\$1.95	\$2.08

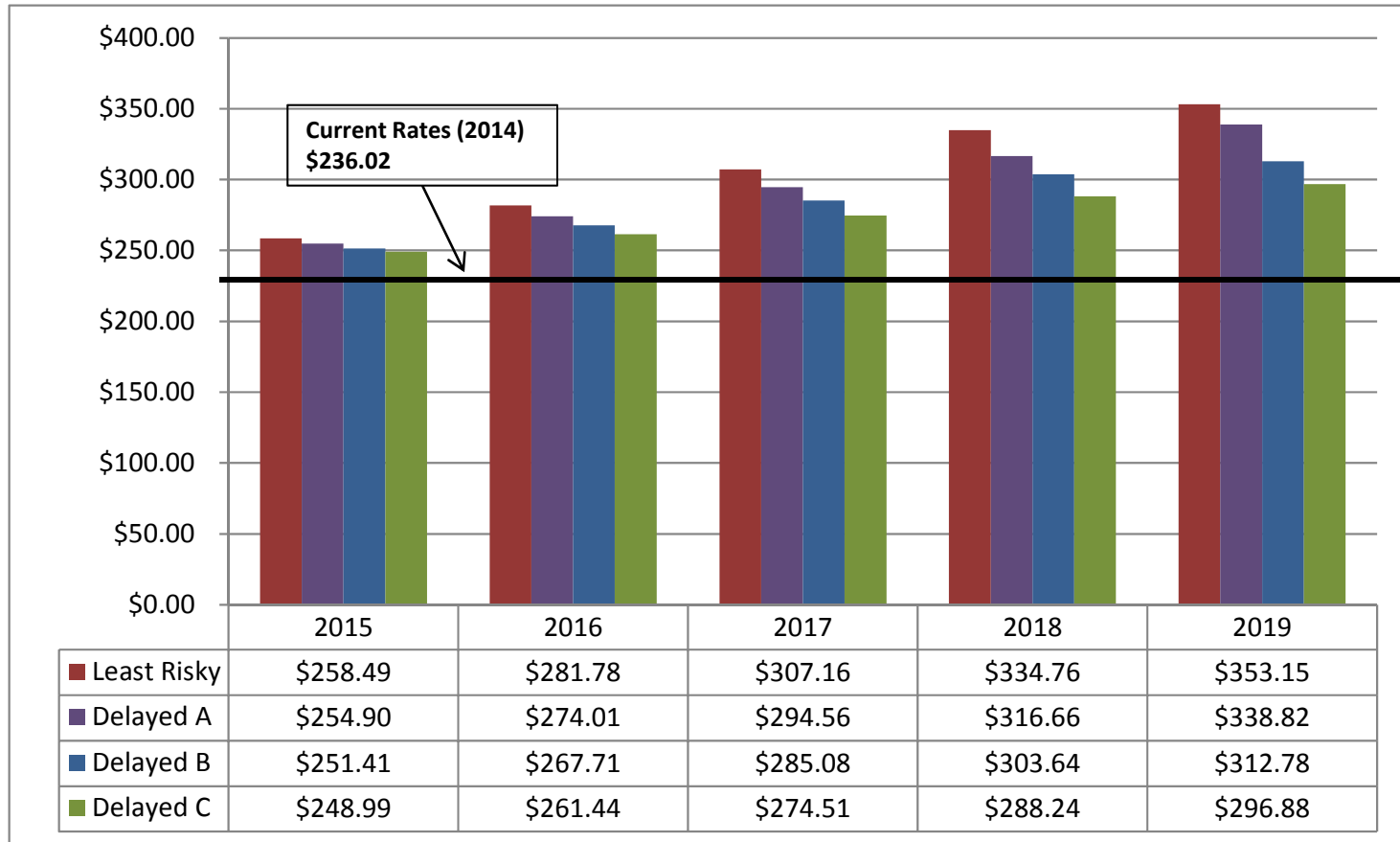
Present and Proposed Quarterly Multi-Family Water Rates (Delayed B)

	Present Rates	2014-15	2015-16	2016-17	2017-18	2018-19
Proposed Annual Adjustments	0.0%	6.5%	6.5%	6.5%	6.5%	3.0%
<i>Bill increase per quarter</i>		\$14.18 /qtr	\$15.10 /qtr	\$16.00 /qtr	\$17.10 /qtr	\$8.40 /qtr
<i>Bill increase per month</i>		\$4.73 /mo	\$5.03 /mo	\$5.33 /mo	\$5.70 /mo	\$2.80 /mo
<u>Flat Rate</u>						
Duplex	\$217.42	\$231.60	\$246.70	\$262.70	\$279.80	\$288.20
Triplex	295.39	314.60	335.00	356.80	380.00	391.40
Four-Plex and Above Base Charge	64.12	68.30	72.70	77.40	82.40	84.90
Multi-Family Unit Charge	382.12	407.00	433.50	461.70	491.70	506.50
<u>Meter Charge by Size</u>						
3/4"	\$90.00	\$95.90	\$102.10	\$108.70	\$115.80	\$119.30
1"	150.30	160.10	170.50	181.60	193.40	199.20
1 1/2"	299.70	319.20	339.90	362.00	385.50	397.10
2"	479.70	510.90	544.10	579.50	617.20	635.70
3"	900.00	958.50	1,020.80	1,087.20	1,157.90	1,192.60
4"	1,500.30	1,597.80	1,701.70	1,812.30	1,930.10	1,988.00
<u>Consumption</u>						
Consumption (CCF)	\$1.45	\$1.54	\$1.64	\$1.75	\$1.87	\$1.92

Present and Proposed Quarterly Multi-Family Water Rates (Delayed C)

	Present Rates	2014-15	2015-16	2016-17	2017-18	2018-19
Proposed Annual Adjustments	0.0%	5.5%	5.0%	5.0%	5.0%	3.0%
Bill increase per quarter		\$11.96 /qtr	\$11.47 /qtr	\$12.04 /qtr	\$12.64 /qtr	\$7.97 /qtr
Bill increase per month		\$3.99 /mo	\$3.82 /mo	\$4.01 /mo	\$4.21 /mo	\$2.66 /mo
<u>Flat Rate</u>						
Duplex	\$217.42	\$229.38	\$240.85	\$252.89	\$265.53	\$273.50
Triplex	295.39	311.64	327.22	343.58	360.76	371.58
Four-Plex and Above Base Charge	64.12	67.65	71.03	74.58	78.31	80.66
Multi-Family Unit Charge	382.12	403.14	423.29	444.46	466.68	480.68
<u>Meter Charge by Size</u>						
3/4"	\$90.00	\$94.95	\$99.70	\$104.68	\$109.92	\$113.21
1"	150.30	158.57	166.49	174.82	183.56	189.07
1 1/2"	299.70	316.18	331.99	348.59	366.02	377.00
2"	479.70	506.08	531.39	557.96	585.85	603.43
3"	900.00	949.50	996.98	1,046.82	1,099.16	1,132.14
4"	1,500.30	1,582.82	1,661.96	1,745.06	1,832.31	1,887.28
<u>Consumption</u>						
Consumption (CCF)	\$1.45	\$1.53	\$1.61	\$1.69	\$1.77	\$1.82

Average Multi-Family Customer Quarterly Bill Impacts (all alternatives)



Present and Proposed Quarterly Commercial Water Rates (Least Risky)

	Present Rates	2014-15	2015-16	2016-17	2017-18	2018-19
Proposed Annual Adjustments	0.0%	9.5%	9.0%	9.0%	9.0%	5.5%
Bill increase per quarter		\$17.72 /qtr	\$18.30 /qtr	\$20.00 /qtr	\$21.80 /qtr	\$14.50 /qtr
Bill increase per month		\$5.91 /mo	\$6.10 /mo	\$6.67 /mo	\$7.27 /mo	\$4.83 /mo
<u>Flat Rate</u>						
3/4" Business Flat	\$186.08	\$203.80	\$222.10	\$242.10	\$263.90	\$278.40
1" Business Flat	280.81	307.50	335.20	365.40	398.30	420.20
<u>Meter Charge by Size</u>						
3/4"	\$90.00	\$98.60	\$107.50	\$117.20	\$127.70	\$134.70
1"	150.30	164.60	179.40	195.50	213.10	224.80
1 1/2"	299.70	328.20	357.70	389.90	425.00	448.40
2"	479.70	525.30	572.60	624.10	680.30	717.70
3"	900.00	985.50	1,074.20	1,170.90	1,276.30	1,346.50
4"	1,500.30	1,642.80	1,790.70	1,951.90	2,127.60	2,244.60
6"	2,999.70	3,284.70	3,580.30	3,902.50	4,253.70	4,487.70
8"	4,799.70	5,255.70	5,728.70	6,244.30	6,806.30	7,180.60
10"	6,900.30	7,555.80	8,235.80	8,977.00	9,784.90	10,323.10
<u>Consumption</u>						
Consumption (CCF)	\$1.37	\$1.50	\$1.64	\$1.78	\$1.94	\$2.05

Present and Proposed Quarterly Commercial Water Rates (Delayed A)

	Present Rates	2014-15	2015-16	2016-17	2017-18	2018-19
Proposed Annual Adjustments	0.0%	8.0%	7.5%	7.5%	7.5%	7.0%
Bill increase per quarter		\$14.89 /qtr	\$15.07 /qtr	\$16.20 /qtr	\$17.42 /qtr	\$17.48 /qtr
Bill increase per month		\$4.96 /mo	\$5.02 /mo	\$5.40 /mo	\$5.81 /mo	\$5.83 /mo
<u>Flat Rate</u>						
3/4" Business Flat	\$186.08	\$200.97	\$216.04	\$232.24	\$249.66	\$267.14
1" Business Flat	280.81	303.27	326.02	350.47	376.76	403.13
<u>Meter Charge by Size</u>						
3/4"	\$90.00	\$97.20	\$104.49	\$112.33	\$120.75	\$129.20
1"	150.30	162.32	174.50	187.59	201.65	215.77
1 1/2"	299.70	323.68	347.95	374.05	402.10	430.25
2"	479.70	518.08	556.93	598.70	643.60	688.66
3"	900.00	972.00	1,044.90	1,123.27	1,207.51	1,292.04
4"	1,500.30	1,620.32	1,741.85	1,872.49	2,012.92	2,153.83
6"	2,999.70	3,239.68	3,482.65	3,743.85	4,024.64	4,306.36
8"	4,799.70	5,183.68	5,572.45	5,990.39	6,439.66	6,890.44
10"	6,900.30	7,452.32	8,011.25	8,612.09	9,258.00	9,906.06
<u>Consumption</u>						
Consumption (CCF)	\$1.37	\$1.48	\$1.59	\$1.71	\$1.84	\$1.97

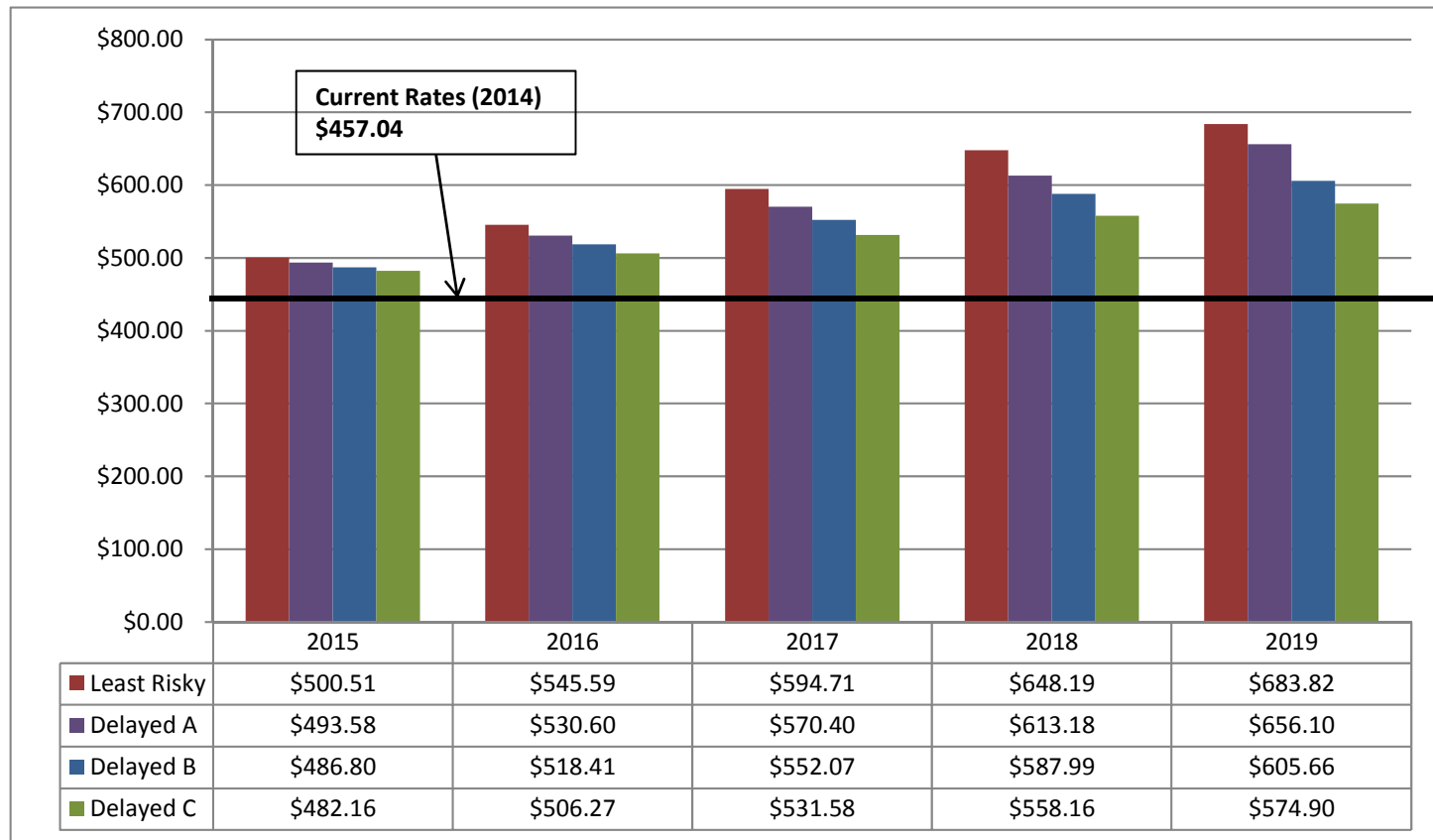
Present and Proposed Quarterly Commercial Water Rates (Delayed B)

	Present Rates	2014-15	2015-16	2016-17	2017-18	2018-19
Proposed Annual Adjustments	0.0%	6.5%	6.5%	6.5%	6.5%	3.0%
Bill increase per quarter		\$12.12 /qtr	\$12.90 /qtr	\$13.70 /qtr	\$14.60 /qtr	\$7.20 /qtr
Bill increase per month		\$4.04 /mo	\$4.30 /mo	\$4.57 /mo	\$4.87 /mo	\$2.40 /mo
<u>Flat Rate</u>						
3/4" Business Flat	\$186.08	\$198.20	\$211.10	\$224.80	\$239.40	\$246.60
1" Business Flat	280.81	299.10	318.50	339.20	361.20	372.00
<u>Meter Charge by Size</u>						
3/4"	\$90.00	\$95.90	\$102.10	\$108.70	\$115.80	\$119.30
1"	150.30	160.10	170.50	181.60	193.40	199.20
1 1/2"	299.70	319.20	339.90	362.00	385.50	397.10
2"	479.70	510.90	544.10	579.50	617.20	635.70
3"	900.00	958.50	1,020.80	1,087.20	1,157.90	1,192.60
4"	1,500.30	1,597.80	1,701.70	1,812.30	1,930.10	1,988.00
6"	2,999.70	3,194.70	3,402.40	3,623.60	3,859.10	3,974.90
8"	4,799.70	5,111.70	5,444.00	5,797.90	6,174.80	6,360.00
10"	6,900.30	7,348.80	7,826.50	8,335.20	8,877.00	9,143.30
<u>Consumption</u>						
Consumption (CCF)	\$1.37	\$1.46	\$1.55	\$1.65	\$1.76	\$1.82

Present and Proposed Quarterly Commercial Water Rates (Delayed C)

	Present Rates	2014-15	2015-16	2016-17	2017-18	2018-19
Proposed Annual Adjustments	0.0%	5.5%	5.0%	5.0%	5.0%	3.0%
Bill increase per quarter		\$10.23 /qtr	\$9.82 /qtr	\$10.31 /qtr	\$10.82 /qtr	\$6.82 /qtr
Bill increase per month		\$3.41 /mo	\$3.27 /mo	\$3.44 /mo	\$3.61 /mo	\$2.27 /mo
<u>Flat Rate</u>						
3/4" Business Flat	\$186.08	\$196.31	\$206.13	\$216.44	\$227.26	\$234.08
1" Business Flat	280.81	296.25	311.07	326.62	342.95	353.24
<u>Meter Charge by Size</u>						
3/4"	\$90.00	\$94.95	\$99.70	\$104.68	\$109.92	\$113.21
1"	150.30	158.57	166.49	174.82	183.56	189.07
1 1/2"	299.70	316.18	331.99	348.59	366.02	377.00
2"	479.70	506.08	531.39	557.96	585.85	603.43
3"	900.00	949.50	996.98	1,046.82	1,099.16	1,132.14
4"	1,500.30	1,582.82	1,661.96	1,745.06	1,832.31	1,887.28
6"	2,999.70	3,164.68	3,322.92	3,489.06	3,663.52	3,773.42
8"	4,799.70	5,063.68	5,316.87	5,582.71	5,861.85	6,037.70
10"	6,900.30	7,279.82	7,643.81	8,026.00	8,427.30	8,680.12
<u>Consumption</u>						
Consumption (CCF)	\$1.37	\$1.45	\$1.52	\$1.59	\$1.67	\$1.72

Average Commercial Customer Quarterly Bill Impacts (all alternatives)



Residential Fixed/Variable % (Least Risky)

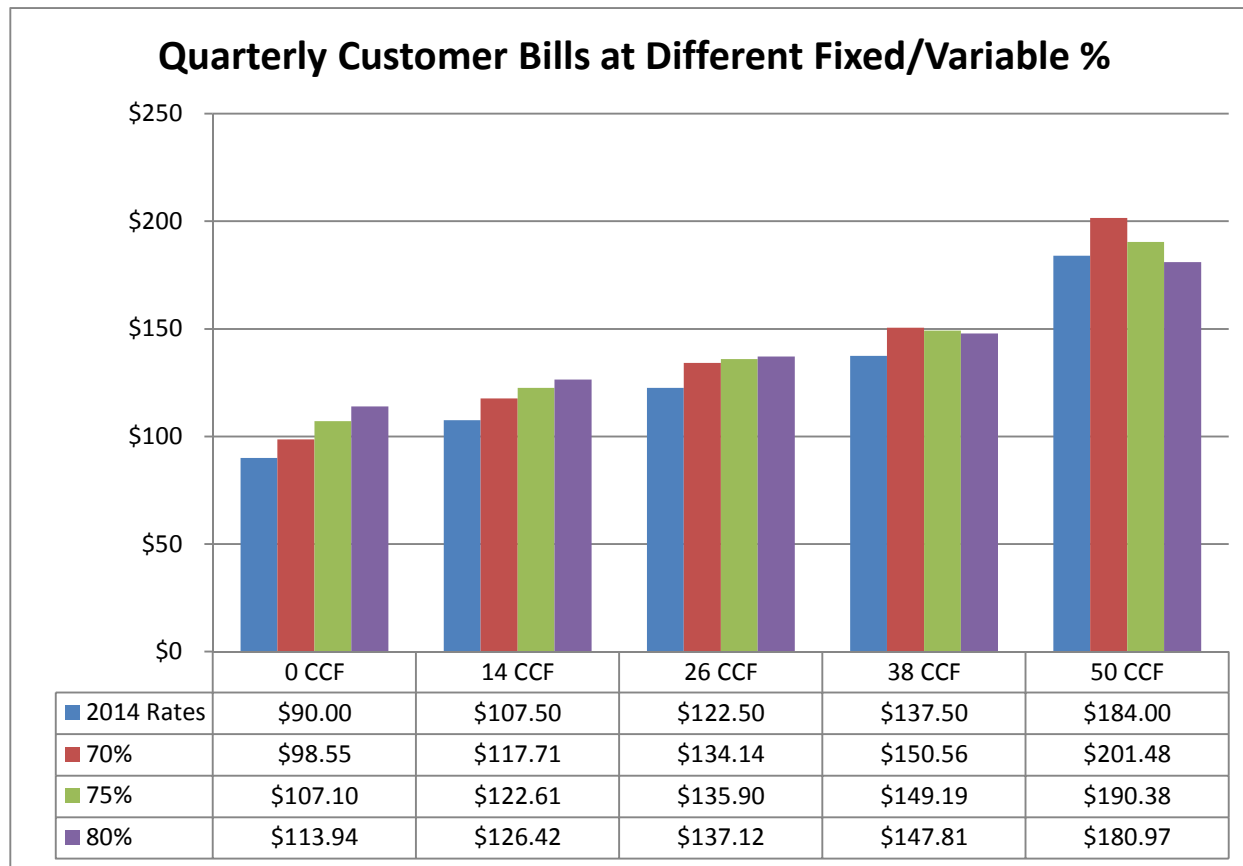
Quarterly Rates

	2014	2015			2016			2017			2018			2019		
	Present Rates	Proposed Fixed %			Proposed Fixed %			Proposed Fixed %			Proposed Fixed %			Proposed Fixed %		
		70%	75%	80%	70%	75%	80%	70%	75%	80%	70%	75%	80%	70%	75%	80%
<u>Metered</u>																
3/4"	\$90.00	\$98.55	\$107.10	\$113.94	\$107.42	\$116.74	\$124.19	\$117.09	\$127.25	\$135.37	\$127.63	\$138.70	\$147.56	\$134.64	\$146.33	\$155.67
1"	150.30	164.58	178.86	190.28	179.39	194.95	207.40	195.54	212.50	226.07	213.13	231.63	246.42	224.86	244.36	259.97
1 1/2"	299.70	328.17	356.64	379.42	357.71	388.74	413.57	389.90	423.73	450.79	424.99	461.86	491.36	448.37	487.27	518.38
2"	479.70	525.27	570.84	607.30	572.55	622.22	661.96	624.08	678.22	721.53	680.24	739.26	786.47	717.66	779.92	829.73
Care 3/4"	72.00	78.84	85.68	91.15	85.94	93.39	99.36	93.67	101.80	108.30	102.10	110.96	118.04	107.72	117.06	124.54
Care 1"	120.24	131.66	143.09	152.22	143.51	155.96	165.92	156.43	170.00	180.86	170.51	185.30	197.13	179.89	195.49	207.98
Care 1 1/2"	239.76	262.54	285.31	303.54	286.17	310.99	330.85	311.92	338.98	360.63	339.99	369.49	393.09	358.69	389.81	414.71
<u>Consumption</u>																
Block 1 (1 - 45 CCF)	\$1.25	\$1.37	\$1.11	\$0.89	\$1.49	\$1.21	\$0.97	\$1.63	\$1.32	\$1.06	\$1.77	\$1.43	\$1.15	\$1.87	\$1.51	\$1.22
Block 2 (45 + CCF)	1.88	2.06	1.67	1.34	2.24	1.82	1.46	2.45	1.98	1.59	2.67	2.16	1.74	2.81	2.28	1.83
Block 1 (Care)	1.00	1.10	0.89	0.71	1.19	0.97	0.78	1.30	1.05	0.85	1.42	1.15	0.92	1.50	1.21	0.97
Block 2 (Care)	1.50	1.65	1.45	1.07	1.80	1.58	1.17	1.96	1.72	1.27	2.13	1.88	1.39	2.25	1.98	1.47

Residential Fixed/Variable % (Least Risky) Bill Comparison – Year 1

South Tahoe PUD - Least Risky Water Utility Bill Comparison: Fixed/Variable Relation - YEAR 1							
Consumption (CCF)	Present Metered Rate	70%		75%		80%	
		\$	% Change	\$	% Change	\$	% Change
Metered - 3/4"							
0	\$90.00	\$98.55	9.5%	\$107.10	19.0%	\$113.94	26.6%
2	92.50	101.29	9.5%	109.32	18.2%	115.72	25.1%
8	100.00	109.50	9.5%	115.96	16.0%	121.07	21.1%
14	107.50	117.71	9.5%	122.61	14.1%	126.42	17.6%
20	115.00	125.93	9.5%	129.25	12.4%	131.77	14.6%
26	122.50	134.14	9.5%	135.90	10.9%	137.12	11.9%
32	130.00	142.35	9.5%	142.54	9.6%	142.46	9.6%
38	137.50	150.56	9.5%	149.19	8.5%	147.81	7.5%
44	145.00	158.78	9.5%	155.83	7.5%	153.16	5.6%
50	184.00	201.48	9.5%	190.38	3.5%	180.97	-1.6%
56	195.28	213.83	9.5%	200.38	2.6%	189.02	-3.2%
62	206.56	226.18	9.5%	210.37	1.8%	197.06	-4.6%
68	217.84	238.53	9.5%	220.37	1.2%	205.10	-5.8%
74	229.12	250.89	9.5%	230.36	0.5%	213.15	-7.0%
80	240.40	263.24	9.5%	240.35	0.0%	221.19	-8.0%
86	251.68	275.59	9.5%	250.35	-0.5%	229.23	-8.9%
92	262.96	287.94	9.5%	260.34	-1.0%	237.28	-9.8%
Meter Charge by Size							
3/4"	\$90.00	\$98.55	9.5%	\$107.10	19.0%	\$113.94	26.6%
1"	150.30	164.58	9.5%	178.86	19.0%	190.28	26.6%
1 1/2"	299.70	328.17	9.5%	356.64	19.0%	379.42	26.6%
2"	479.70	525.27	9.5%	570.84	19.0%	607.30	26.6%
Care 3/4"	72.00	78.84	9.5%	85.68	19.0%	91.15	26.6%
Care 1"	120.24	131.66	9.5%	143.09	19.0%	152.22	26.6%
Care 1 1/2"	239.76	262.54	9.5%	285.31	19.0%	303.54	26.6%
Consumption							
Block 1 (0-45 CCF)	\$1.25	\$1.37	9.5%	\$1.11	-11.4%	\$0.89	-28.7%
Block 2 (45+ CCF)	1.88	2.06	9.5%	1.67	-11.4%	1.34	-28.7%
Block 1 (Care)	1.00	1.10	9.5%	0.89	-11.4%	0.71	-28.7%
Block 2 (Care)	1.50	1.65	9.5%	1.45	-3.6%	1.07	-28.7%

Residential Fixed/Variable % (Least Risky)



Average residential consumption is 27.3 CCF/Quarter (9.1/Month)

Summary of the Rate Study Update

- Rate adjustments are needed to fund the operating and capital needs of the District over the next 10-year period
 - Metering program
 - Other capital funding
 - Inflationary impacts to O&M expenses
- No proposed change in the rate structure
 - Increased all components of the rate structure equally both metered and un-metered
- Proposed rates fund the operating and capital needs of the district
 - Based on the timing of the current plan