

# CITY OF BRE A

## WATER RATE STUDY

October 6, 2015



# AGENDA

- Draft Financial Plan
  - Key Assumptions
  - Revenue Adjustments
  - Reserves
- Cost of Service Analysis
- Proposed Water Rates
  - Monthly Charges
  - Residential
    - Customer Impacts
  - Commercial
  - Other Customers
- Next Steps

# DRAFT FINANCIAL PLAN



# CHANGES TO MODEL

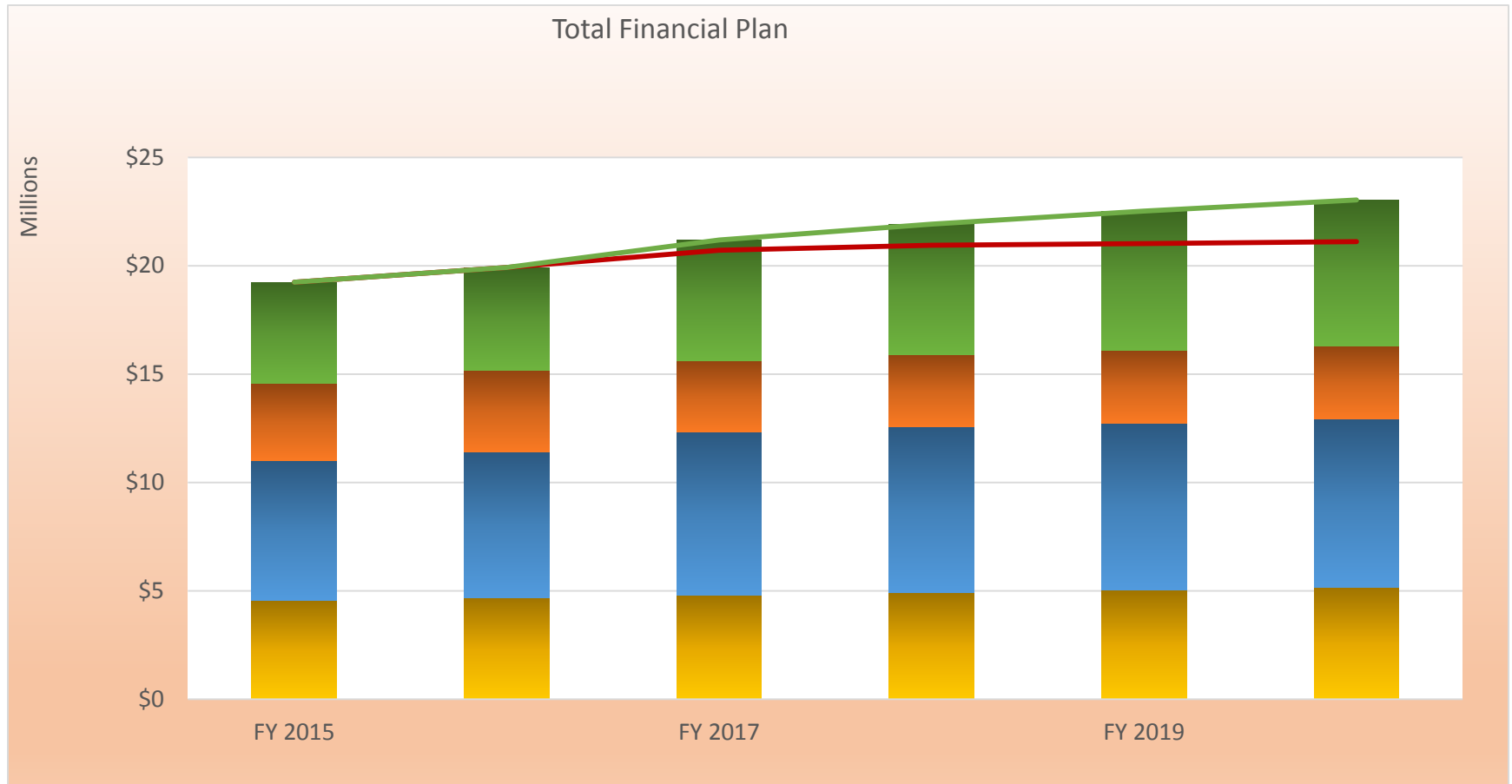
- Updated water supply unit costs
- Revised water sales assumptions
- Revised water supply calculation
  - Costs now calculated on sub-source of water (CDWC Common Stock, Water Right, Class A Stock, Purchases above Entitlement)
- Passing through water supply cost changes in 2016
- Revised capital expenditures
- Revised starting reserves balance
  - Accounted for July- December revenue losses

# PROPOSED REVENUE ADJUSTMENTS

Fiscal Year	Proposed Adjustments
2015	
2016	3%*
2017	2.5%
2018	2.5%
2019	2.5%
2020	2%

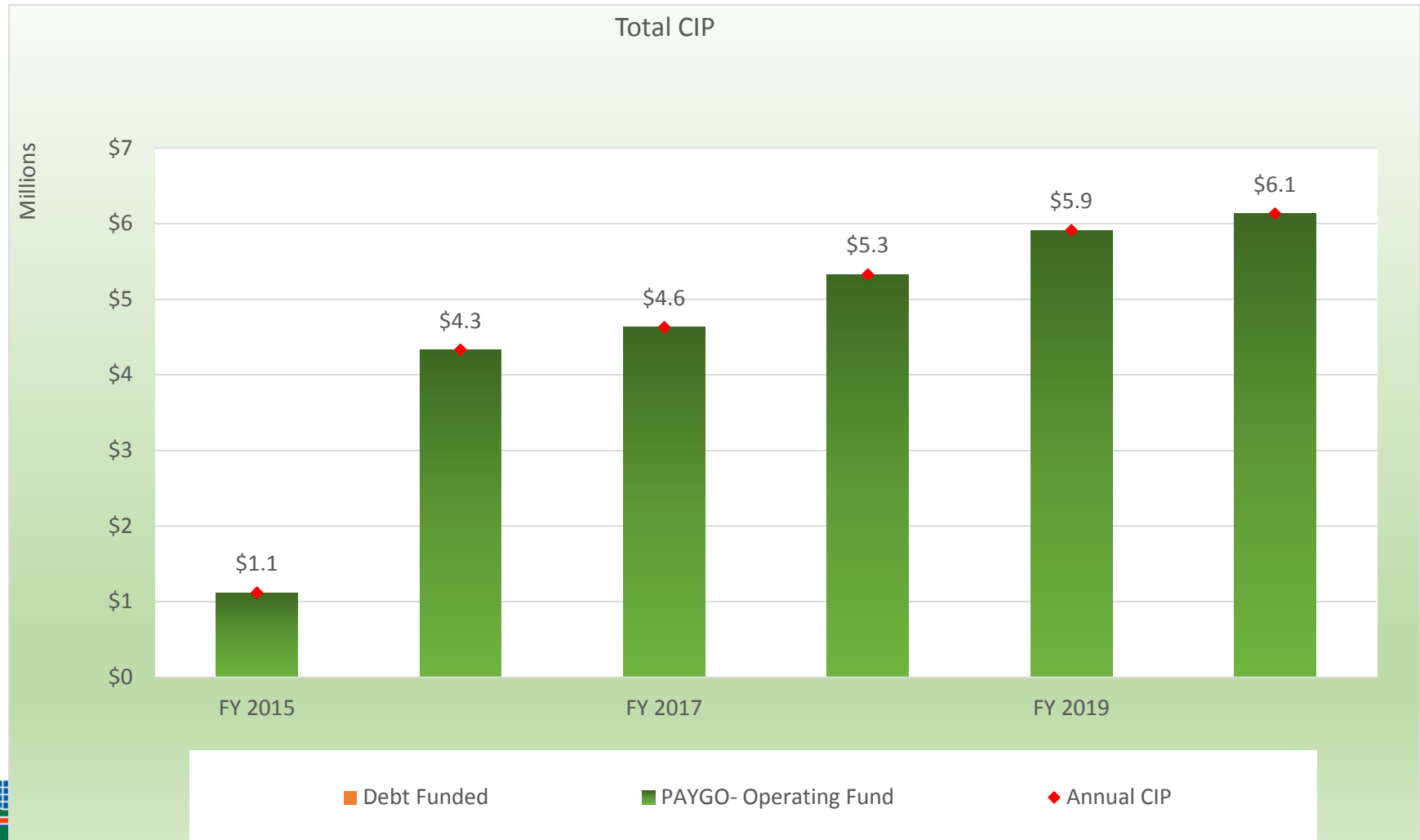
- Indicates that the revenue adjustment is already in effect
- Adjustments in FY 2017 through 2020 are in addition to pass-through

# OPERATING FINANCIAL PLAN



■ O&M Expenses   
 ■ Water Supply Cost   
 ■ Debt Service   
 ■ To Reserves   
 — Rev - Existing Rates   
 — Rev - Proposed Rates

# CIP FUNDING SOURCES

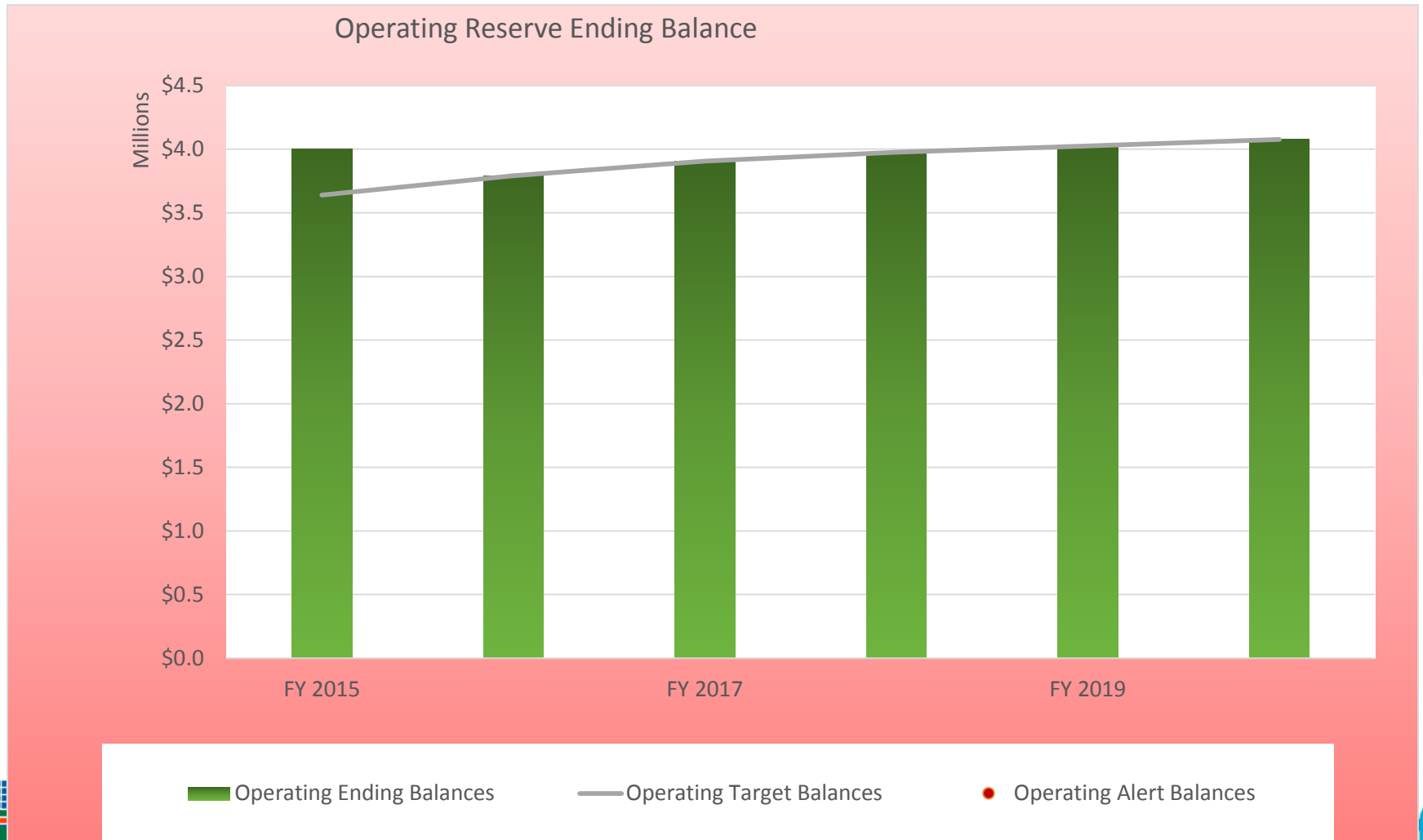


# RESERVE TARGETS

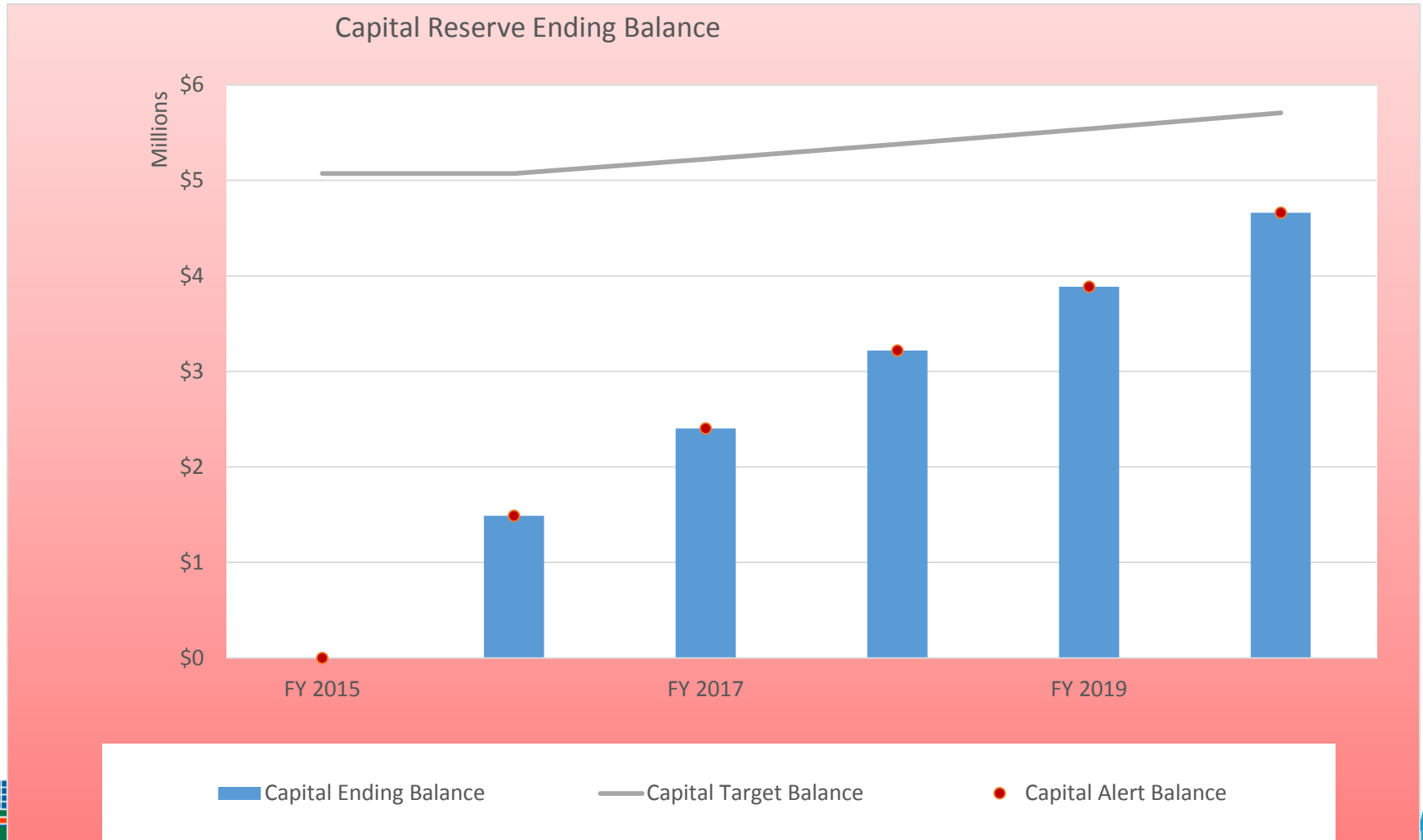
- Operating Fund
  - Minimum balance – 90 days of O&M expenses ~\$3 M
  - 25% of annual debt payment ~\$1 M
  - Approximately \$4 M
- Capital Improvement Fund
  - Inflated Average of CIP Expenditures for FY 2015 through FY 2025
  - Capital Reserve Target of \$5 M in FY 2016, reaches \$5.6M in FY 2025



# RESERVES BALANCE



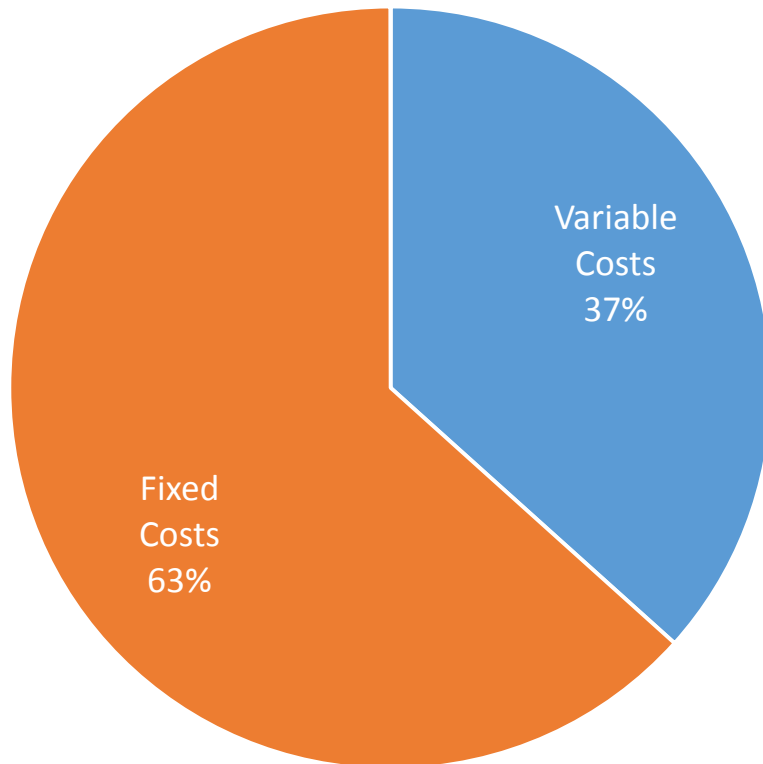
# CAPITAL RESERVE ENDING BALANCE



# COST OF SERVICE ANALYSIS

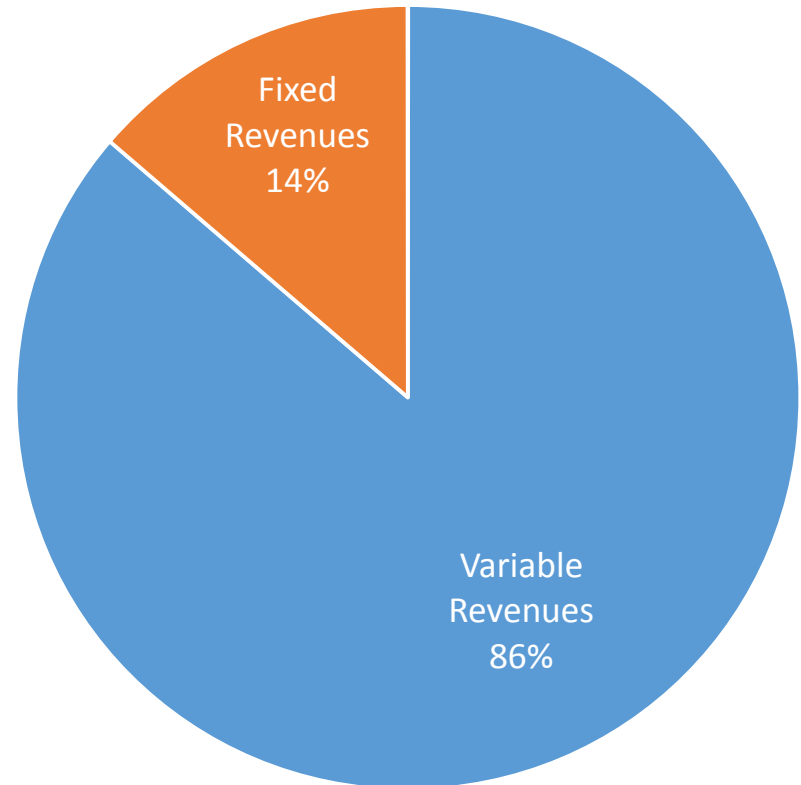
# FIXED/VARIABLE O&M COSTS & REVENUES

FY 2016 Budgeted Expenses



■ Variable Costs ■ Fixed Costs

FY 2016 Projected Revenues



■ Variable Revenues ■ Fixed Revenues

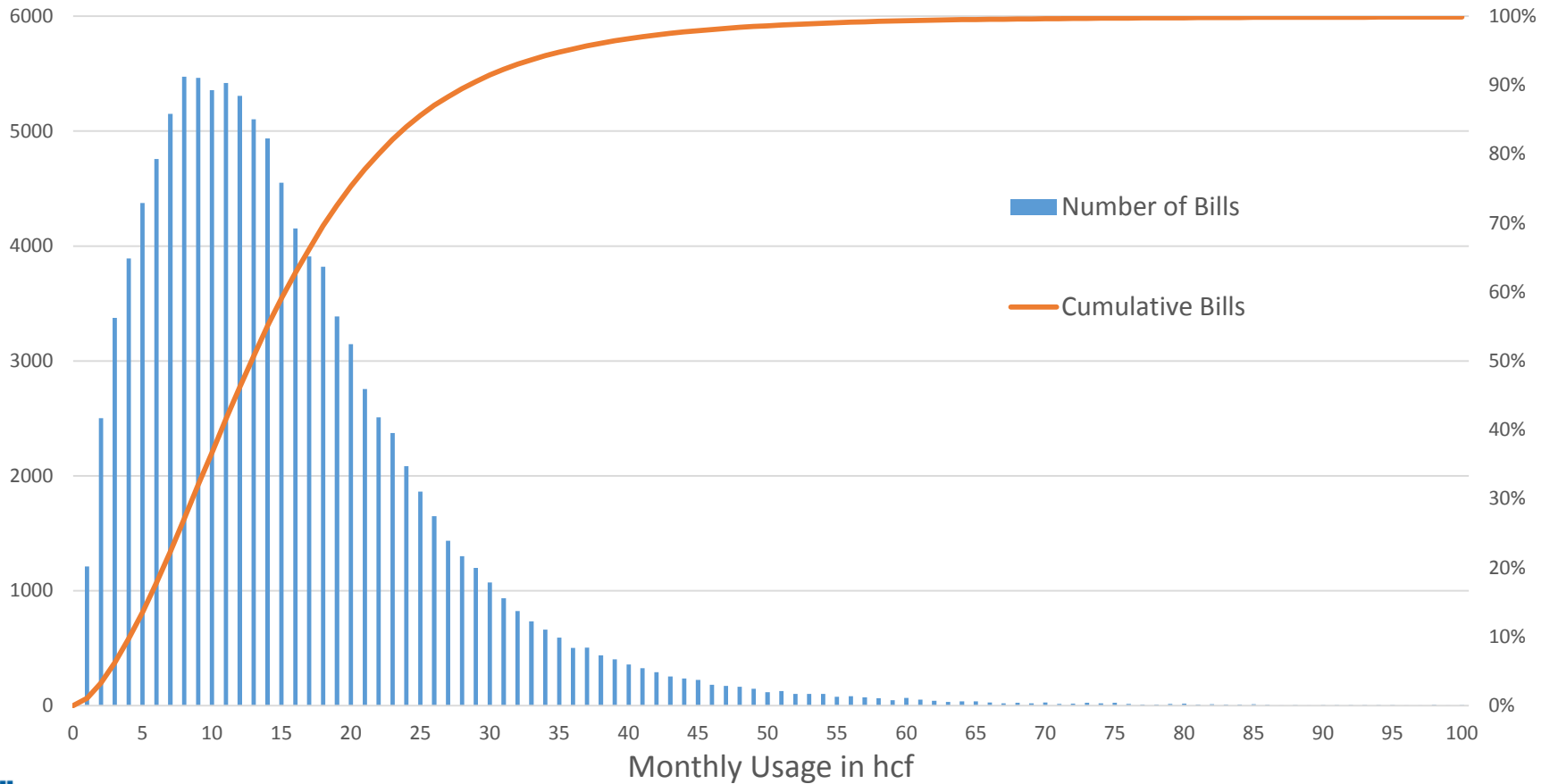
\* Indicates projected revenue under proposed rates

# PROPOSED FIXED CHARGES

Meter Size	Meter Count	FY 2016 Current Charge	FY 2016 Proposed Rate	Difference (\$)	Difference (%)
5/8"	3,156	\$9.66	\$10.81	\$1.15	12%
3/4"	127	\$9.66	\$10.81	\$1.15	12%
1"	8,280	\$9.66	\$10.81	\$1.15	12%
1 1/2"	126	\$42.99	\$34.66	-\$8.33	-19%
2"	743	\$73.52	\$52.55	-\$20.97	-29%
3"	57	\$160.77	\$109.20	-\$51.57	-32%
4"	35	\$282.90	\$192.68	-\$90.22	-32%
6"	11	\$631.81	\$392.45	-\$239.36	-38%
8"	1	\$1,120.31	\$839.67	-\$280.64	-25%
10"	0	\$1,748.38	\$1,257.09	-\$491.29	-28%
12"	0	\$2,446.23	\$1,585.05	-\$861.18	-35%

# RESIDENTIAL BILL HISTOGRAM

Residential Histogram



# RATE OPTIONS

- Uniform Rates for all customers
  - Rates that are equal for all customer classes and at all usage levels
  - Easy to understand, water always the same price
- Tiered Rates for Single Family Residence (SFR)
  - Blended rate (calculated by averaging cost of MWDOC and CDWC water)
  - Differentiated rate (allocate lowest cost CDWC water first to lower tiers, give water MWDOC costs for higher tiers)

# UNIFORM RATES

## Uniform Rate

<b>Uniform Rate Cost (\$/hcf)*</b>	<b>\$3.46</b>
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\*hcf is short for hundred cubic feet. Equivalent to 748 gallons.



# TIER JUSTIFICATION

- 4 Tiers
  - Tier 1 (1-10 hcf) represents average indoor use
  - Tier 2 (11-20 hcf) represents average summer use
  - Tier 3 (21-30 hcf) represents bills up to the 90<sup>th</sup> percentile of usage
  - Tier 4 (>30 hcf) all other usage
- 3 Tiers
  - Tier 1 (1-9 hcf) water provided by CDWC rights and stocks
  - Tier 2 (10-15 hcf) CDWC purchased above entitlement
  - Tier 3 (>15 hcf) MWDDOC water

# WATER RATES – NON-SFR RATES

Customer Classes	Delivery Costs	Peaking Costs	Blended Supply	Proposed Rate	Current Rate	Diff.
Multiple Family						
Residential	\$1.03	\$0.55	\$1.35	\$2.94	\$3.51	-\$0.57
Non Residential	\$1.03	\$1.11	\$1.35	\$3.50	\$3.51	-\$0.01
Greenbelt	\$1.03	\$1.56	\$1.35	\$3.95	\$3.51	\$0.44
Outside Brea	\$1.32	\$1.06	\$1.72	\$4.11	\$4.26	-\$0.15
Brea Creek Golf						
Course	\$1.03	\$0.00	\$0.93	\$1.97	\$1.71	\$0.26
Construction	\$1.03	\$3.16	\$1.35	\$5.55	\$5.27	\$0.28

Note: these rates and all following rates are rounded up in the “Proposed Rate” column.

# WATER RATES – 4 TIERED SFR WITH BLENDED SUPPLY

SFR Monthly Tiers		Delivery Costs	Peaking Costs	Blended Supply	Proposed Rate	Current Rate	Diff.
Tier 1	1-10 Units	\$1.03	\$0.29	\$1.35	\$2.68	\$2.79	-\$0.11
Tier 2	11-20 Units	\$1.03	\$1.28	\$1.35	\$3.67	\$3.92	-\$0.25
Tier 3	21-30 Units	\$1.03	\$2.62	\$1.35	\$5.01	\$4.99	\$0.02
Tier 4	>30 Units	\$1.03	\$3.58	\$1.35	\$5.96	\$6.36	-\$0.40

# WATER RATES – 4 TIERED SFR WITH DIFFERENTIATED SUPPLY

SFR Monthly Tiers		Delivery Costs	Peaking Costs	Differentiated Supply	Proposed Rate	Current Rate	Diff.
Tier 1	1-10 Units	\$1.03	\$0.29	\$0.75	\$2.08	\$2.79	-\$0.71
Tier 2	11-20 Units	\$1.03	\$1.28	\$1.99	\$4.31	\$3.92	\$0.39
Tier 3	21-30 Units	\$1.03	\$2.62	\$2.32	\$5.98	\$4.99	\$0.99
Tier 4	>30 Units	\$1.03	\$3.58	\$2.32	\$6.94	\$6.36	\$0.58

# CONSERVATION RATES – BLENDED SUPPLY

## PERCENTAGE BASED INCREASE MODEL

Percentage Model Conservation Rates	Current Rate	Proposed Rate	10% Conservation Rate (6% Rate Hike)	Diff. (\$)	24% Conservation Rate (17% Rate Hike)	Diff. (\$)
<b>SFR</b>						
Tier 1	\$2.79	\$2.68	\$2.83	\$0.15	\$3.14	\$0.46
Tier 2	\$3.92	\$3.67	\$3.88	\$0.21	\$4.30	\$0.63
Tier 3	\$4.99	\$5.01	\$5.29	\$0.28	\$5.86	\$0.85
Tier 4	\$6.36	\$5.96	\$6.30	\$0.34	\$6.97	\$1.01
<b>Multiple Family</b>						
Residential	\$3.51	\$2.94	\$3.11	\$0.17	\$3.44	\$0.50
Non Residential	\$3.51	\$3.50	\$3.70	\$0.20	\$4.10	\$0.60
Greenbelt	\$3.51	\$3.95	\$4.17	\$0.22	\$4.62	\$0.67
Outside Brea	\$4.26	\$4.11	\$4.34	\$0.23	\$4.81	\$0.70
Brea Golf Course	\$1.71	\$1.98	\$2.10	\$0.12	\$2.32	\$0.34
Construction	\$5.27	\$5.55	\$5.86	\$0.31	\$6.49	\$0.94

# CONSERVATION RATES – DIFFERENTIATED SUPPLY

## PERCENTAGE BASED INCREASE MODEL

Percentage Model Conservation Rates	Current Rate	Proposed Rate	10% Conservation Rate <i>(6% Rate Hike)</i>	Diff. (\$)	24% Conservation Rate <i>(17% Rate Hike)</i>	Diff. (\$)
<b>SFR</b>						
Tier 1	\$2.79	\$2.08	\$2.21	\$0.13	\$2.49	\$0.41
Tier 2	\$3.92	\$4.31	\$4.58	\$0.27	\$5.15	\$0.84
Tier 3	\$4.99	\$5.98	\$6.36	\$0.38	\$7.15	\$1.17
Tier 4	\$6.36	\$6.94	\$7.38	\$0.44	\$8.30	\$1.36
<b>Multiple Family</b>						
Residential	\$3.51	\$2.94	\$3.13	\$0.19	\$3.52	\$0.58
Non Residential	\$3.51	\$3.50	\$3.72	\$0.22	\$4.19	\$0.69
Greenbelt	\$3.51	\$3.95	\$4.20	\$0.25	\$4.72	\$0.77
Outside Brea	\$4.26	\$4.11	\$4.37	\$0.26	\$4.91	\$0.80
Brea Golf Course	\$1.71	\$1.98	\$2.11	\$0.13	\$2.37	\$0.39
Construction	\$5.27	\$5.55	\$5.90	\$0.35	\$6.63	\$1.08

# RESIDENTIAL CUSTOMER IMPACT – NORMAL USE BLENDED RATE

Usage Level	Monthly Usage	Current Bill-Base Rate	Proposed Bill-Base Rate	Diff. (\$)	Diff. (%)
Very Low	5	\$23.61	\$24.21	\$0.60	3%
Low	10	\$37.56	\$37.61	\$0.05	0%
Average	15	\$57.16	\$55.96	-\$1.20	-2%
High	30	\$126.66	\$124.41	-\$2.25	-2%
Very High	55	\$285.66	\$273.41	-\$12.25	-4%

Bills assume 1" meter

# RESIDENTIAL CUSTOMER IMPACT – NORMAL USE DIFFERENTIATED RATE

Usage Level	Monthly Usage	Current Bill-Base Rate	Proposed Bill-Base Rate	Diff. (\$)	Diff. (%)
Very Low	5	\$23.61	\$21.21	-\$2.40	-10%
Low	10	\$37.56	\$31.61	-\$5.95	-16%
Average	15	\$57.16	\$53.16	-\$4.00	-7%
High	30	\$126.66	\$134.51	\$7.85	6%
Very High	55	\$285.66	\$308.01	\$22.35	8%

Bills assume 1" meter



# RESIDENTIAL CUSTOMER IMPACT – CONSERVATION RATES 24% BLENDED RATE

Usage Level	Monthly Usage	Current Bill-Base Rate	Proposed Bill-24% Conservation With Percentage Based Rates	Diff. (\$)	Diff. (%)
Very Low	5	\$23.61	\$26.51	\$2.90	12%
Low	10	\$37.56	\$42.21	\$4.65	12%
Average	15	\$57.16	\$63.71	\$6.55	11%
High	30	\$126.66	\$143.81	\$17.15	14%
Very High	55	\$285.66	\$318.06	\$32.40	11%

See model to get other rates and conservation scenarios.

Bills assume 1" meter



# RESIDENTIAL CUSTOMER IMPACT – CONSERVATION RATES 24% DIFFERENTIATED RATE

Usage Level	Monthly Usage	Current Bill-Base Rate	Proposed Bill-24% Conservation with Percentage Based Rates	Diff. (\$)	Diff. (%)
Very Low	5	\$23.61	\$23.26	-\$0.35	-1%
Low	10	\$37.56	\$35.71	-\$1.85	-5%
Average	15	\$57.16	\$61.46	\$4.30	8%
High	30	\$126.66	\$158.71	\$32.05	25%
Very High	55	\$285.66	\$366.21	\$80.55	28%

See model to get other rates and conservation scenarios.

Bills assume 1" meter

# DISCUSSION/Q&A



# WATER RATES –

## 3 TIERED SFR WITH BLENDED SUPPLY

SFR Monthly Tiers		Delivery Costs	Peaking Costs	Blended Supply	Proposed Rate	Current Rate	Diff.
Tier 1	1-9 Units	\$1.03	\$0.26	\$1.35	\$2.65	\$2.79	-\$0.14
Tier 2	10-15 Units	\$1.03	\$0.91	\$1.35	\$3.30	\$3.92	-\$0.62
Tier 3	>16 Units	\$1.03	\$2.49	\$1.35	\$4.88	\$4.99	-\$0.11
					\$4.88	\$6.36	-\$1.48

# WATER RATES –

## 3 TIERED SFR WITH DIFFERENTIATED SUPPLY

SFR Monthly Tiers		Delivery Costs	Peaking Costs	Differentiated Supply	Proposed Rate	Current Rate	Diff.
Tier 1	1-9 Units	\$1.03	\$0.26	\$0.67	\$1.97	\$2.79	-\$0.82
Tier 2	10-15 Units	\$1.03	\$0.91	\$1.76	\$3.71	\$3.92	-\$0.21
Tier 3	>16 Units	\$1.03	\$2.49	\$2.32	\$5.85	\$4.99	\$0.86
		\$1.03	\$0.00	\$0.00	\$5.85	\$6.36	-\$0.51

# CONSERVATION RATES – BLENDED SUPPLY

## PERCENTAGE BASED INCREASE MODEL 3 TIERS

Percentage Model Conservation Rates	Current Rate	Proposed Rate	10% Conservation Rate (5.5% Rate Hike)	Diff. (\$)	24% Conservation Rate (16% Rate Hike)	Diff. (\$)
<b>SFR</b>						
Tier 1	\$2.79	\$2.65	\$2.80	\$0.15	\$3.08	\$0.43
Tier 2	\$3.92	\$3.30	\$3.48	\$0.18	\$3.84	\$0.54
Tier 3	\$4.99	\$4.88	\$5.15	\$0.27	\$5.67	\$0.79
<b>Multiple Family</b>						
Residential	\$3.51	\$2.94	\$3.11	\$0.17	\$3.42	\$0.48
Non Residential	\$3.51	\$3.50	\$3.70	\$0.20	\$4.07	\$0.57
Greenbelt	\$3.51	\$3.95	\$4.17	\$0.22	\$4.59	\$0.64
Outside Brea	\$4.26	\$4.11	\$4.34	\$0.23	\$4.78	\$0.67
Brea Golf Course	\$1.71	\$1.98	\$2.09	\$0.11	\$2.30	\$0.32
Construction	\$5.27	\$5.55	\$5.86	\$0.31	\$6.45	\$0.90

# CONSERVATION RATES – DIFFERENTIATED SUPPLY

## PERCENTAGE BASED INCREASE MODEL 3 TIERS

Percentage Model Conservation Rates	Current Rate	Proposed Rate	10% Conservation Rate (5.5% Rate Hike)	Diff. (\$)	24% Conservation Rate (16% Rate Hike)	Diff. (\$)
<b>SFR</b>						
Tier 1	\$2.79	\$1.97	\$2.10	\$0.13	\$2.34	\$0.37
Tier 2	\$3.92	\$3.71	\$3.95	\$0.24	\$4.40	\$0.69
Tier 3	\$4.99	\$5.85	\$6.22	\$0.37	\$6.94	\$1.09
<b>Multiple Family</b>						
Residential	\$3.51	\$2.94	\$3.13	\$0.19	\$3.49	\$0.55
Non Residential	\$3.51	\$3.50	\$3.72	\$0.22	\$4.15	\$0.65
Greenbelt	\$3.51	\$3.95	\$4.20	\$0.25	\$4.68	\$0.73
Outside Brea	\$4.26	\$4.11	\$4.37	\$0.26	\$4.87	\$0.76
Brea Golf Course	\$1.71	\$1.98	\$2.11	\$0.13	\$2.35	\$0.37
Construction	\$5.27	\$5.55	\$5.90	\$0.35	\$6.58	\$1.03

# RESIDENTIAL CUSTOMER IMPACT – NORMAL USE

## BLENDED RATE 3 TIERS

Usage Level	Monthly Usage	Current Bill- Base Rate	Proposed Bill- Base Rate	Diff. (\$)	Diff. (%)
Very Low	5	\$23.61	\$24.06	\$0.45	2%
Low	10	\$37.56	\$37.31	-\$0.25	-1%
Average	15	\$57.16	\$53.81	-\$3.35	-6%
High	30	\$126.66	\$119.11	-\$7.55	-6%
Very High	55	\$285.66	\$241.11	-\$44.55	-16%

Bills assume 1" meter charge.



# RESIDENTIAL CUSTOMER IMPACT – NORMAL USE

## DIFFERENTIATED RATE 3 TIERS

Usage Level	Monthly Usage	Current Bill- Base Rate	Proposed Bill- Base Rate	Diff. (\$)	Diff. (%)
Very Low	5	\$23.61	\$20.66	-\$2.95	-12%
Low	10	\$37.56	\$30.51	-\$7.05	-19%
Average	15	\$57.16	\$49.06	-\$8.10	-14%
High	30	\$126.66	\$126.11	-\$0.55	0%
Very High	55	\$285.66	\$272.36	-\$13.30	-5%

Bills assume 1" meter charge.

# RESIDENTIAL CUSTOMER IMPACT – CONSERVATION RATES 24%: 3 TIERS BLENDED RATE

Usage Level	Monthly Usage	Current Bill-Base Rate	Proposed Bill-24% Conservation With Percentage Based Rates	Diff. (\$)	Diff. (%)
Very Low	5	\$23.61	\$26.21	\$2.60	11%
Low	10	\$37.56	\$41.61	\$4.05	11%
Average	15	\$57.16	\$60.81	\$3.65	6%
High	30	\$126.66	\$136.71	\$10.05	8%
Very High	55	\$285.66	\$278.46	-\$7.20	-3%

See model to get other rates and conservation scenarios.

Bills assume 1" meter charge.

# RESIDENTIAL CUSTOMER IMPACT – CONSERVATION RATES 24%: 3 TIERS DIFFERENTIATED RATE

Usage Level	Monthly Usage	Current Bill-Base Rate	Proposed Bill-24% Conservation w/ Percentage Based Rates	Diff. (\$)	Diff. (%)
Very Low	5	\$23.61	\$22.51	-\$1.10	-5%
Low	10	\$37.56	\$34.21	-\$3.35	-9%
Average	15	\$57.16	\$56.21	-\$0.95	-2%
High	30	\$126.66	\$147.61	\$20.95	17%
Very High	55	\$285.66	\$321.11	\$35.45	12%

See model to get other rates and conservation scenarios.

Bills assume 1" meter charge.