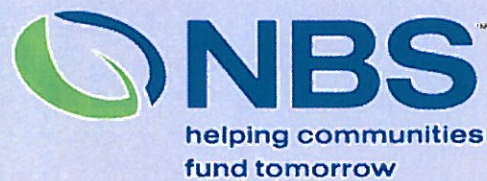


Idyllwild Water District

Water and Sewer Rate Study

April 10, 2018

Presented by
Greg Henry, Consultant



Sewer Utility

Proposed Rates



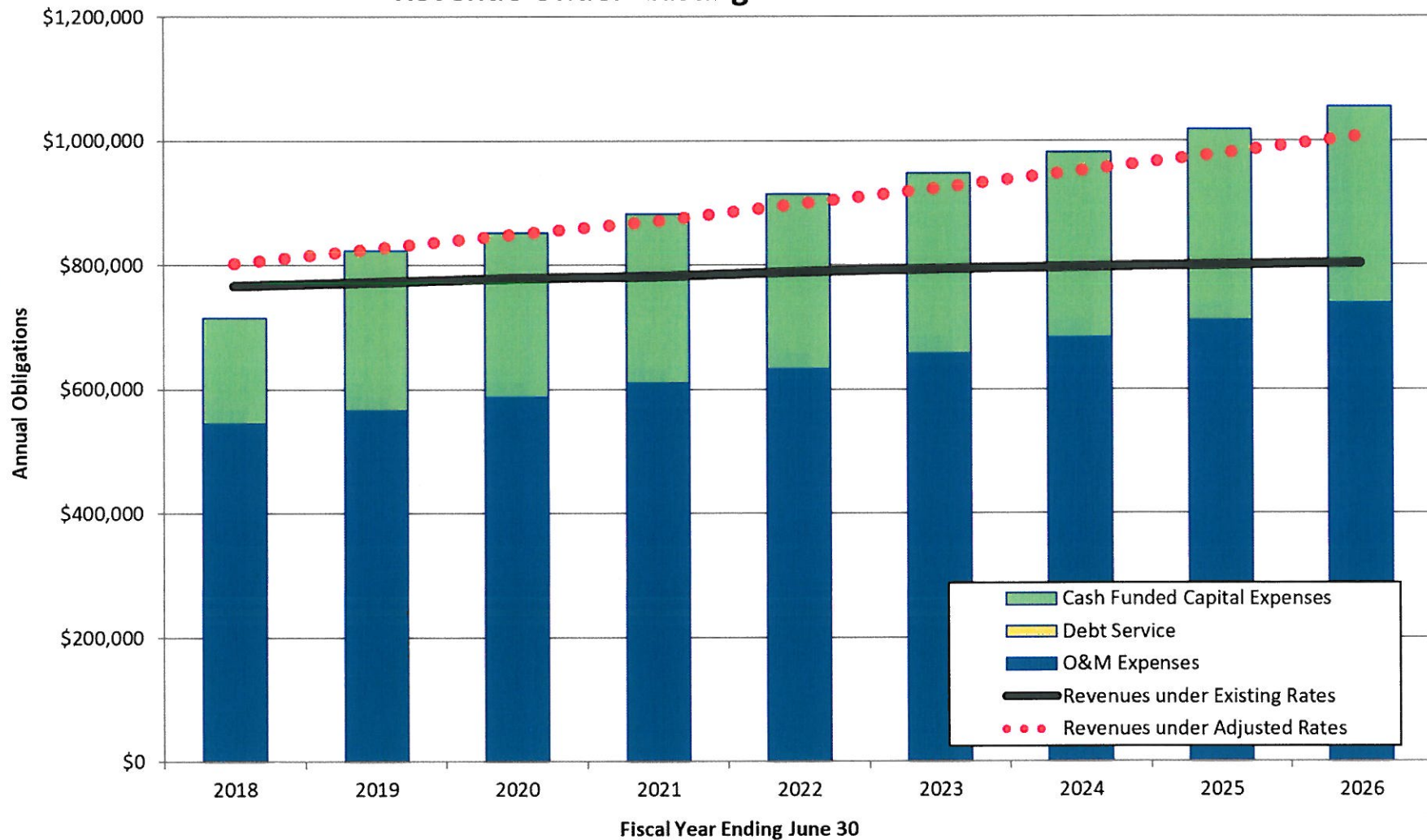
Slide 2

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Kim B, 4/9/2018

Financial Analysis

**Sewer Revenue Requirements vs.
Revenue Under Existing and Increased Rates**

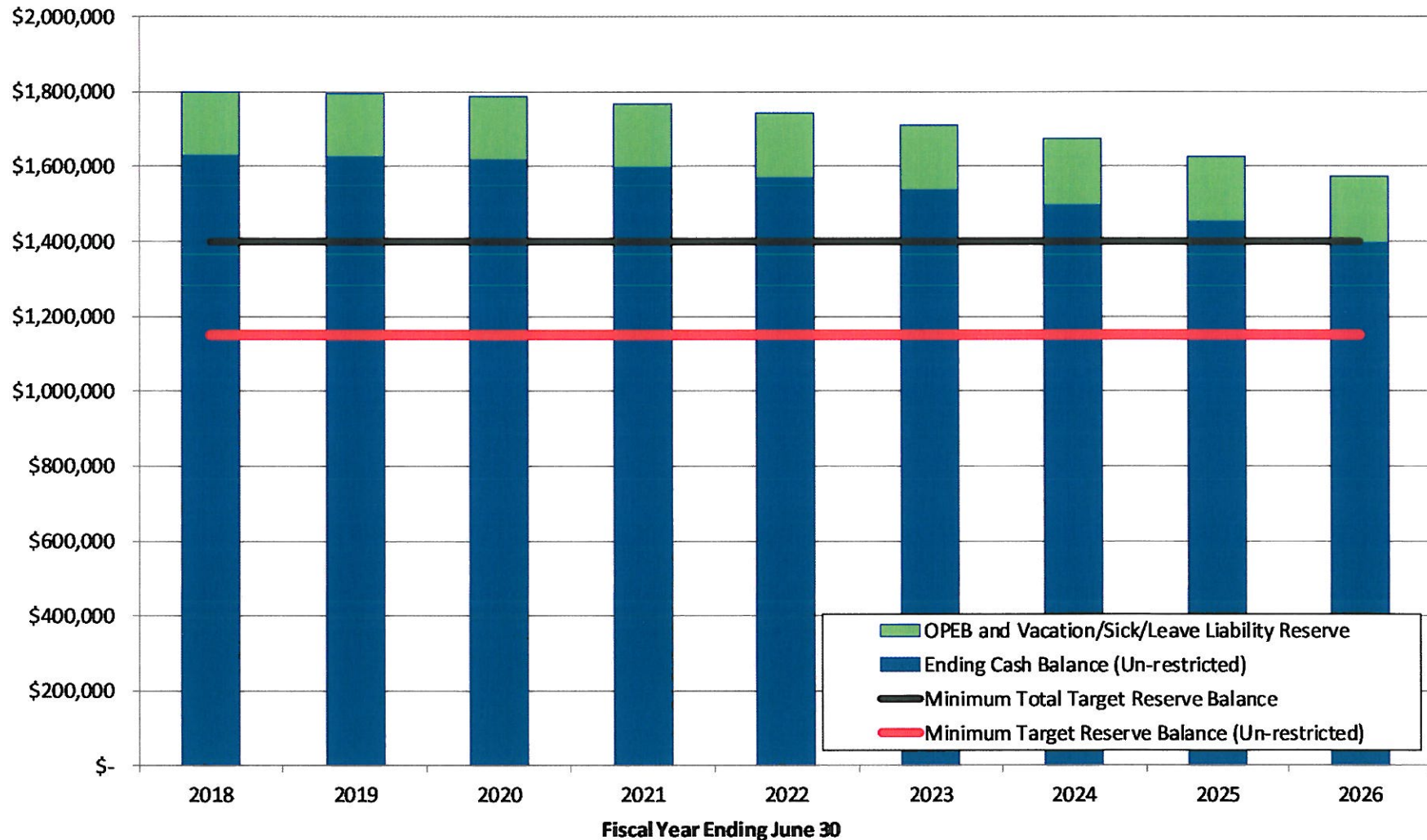


Financial Analysis, cont.

Fiscal Year	Total Rate Revenue
FY 2017/18	\$ 630,006
FY 2018/19	668,640
FY 2019/20	687,412
FY 2020/21	706,711
FY 2021/22	726,552
FY 2022/23	746,950

Financial Analysis, cont.

Un-Restricted Cash Balances vs. Recommended Reserve Targets



Cost of Service

Customer Class	Number of Accounts (1)	Number of EDUs (1)	Percentage of Assigned EDUs	Average EDUs per Account
Apartment	9	35.5	2.5%	3.9
Business	93	246.9	17.7%	2.7
Camp	3	50.0	3.6%	16.7
Church	11	19.5	1.4%	1.8
Motel	25	82.0	5.9%	3.3
Park	2	30.0	2.2%	15.0
Residential	419	445.0	31.9%	1
Restaurant	17	120.7	8.7%	7.1
School	5	227.4	16.3%	45.5
Trailer Park	2	136.0	9.8%	68.0
Total	586	1,393.0	100.0%	2.4

1. Source: Commercial Sewer EDUs.xlsx and Income Statement 02-14-18.pdf (residential EDUs).

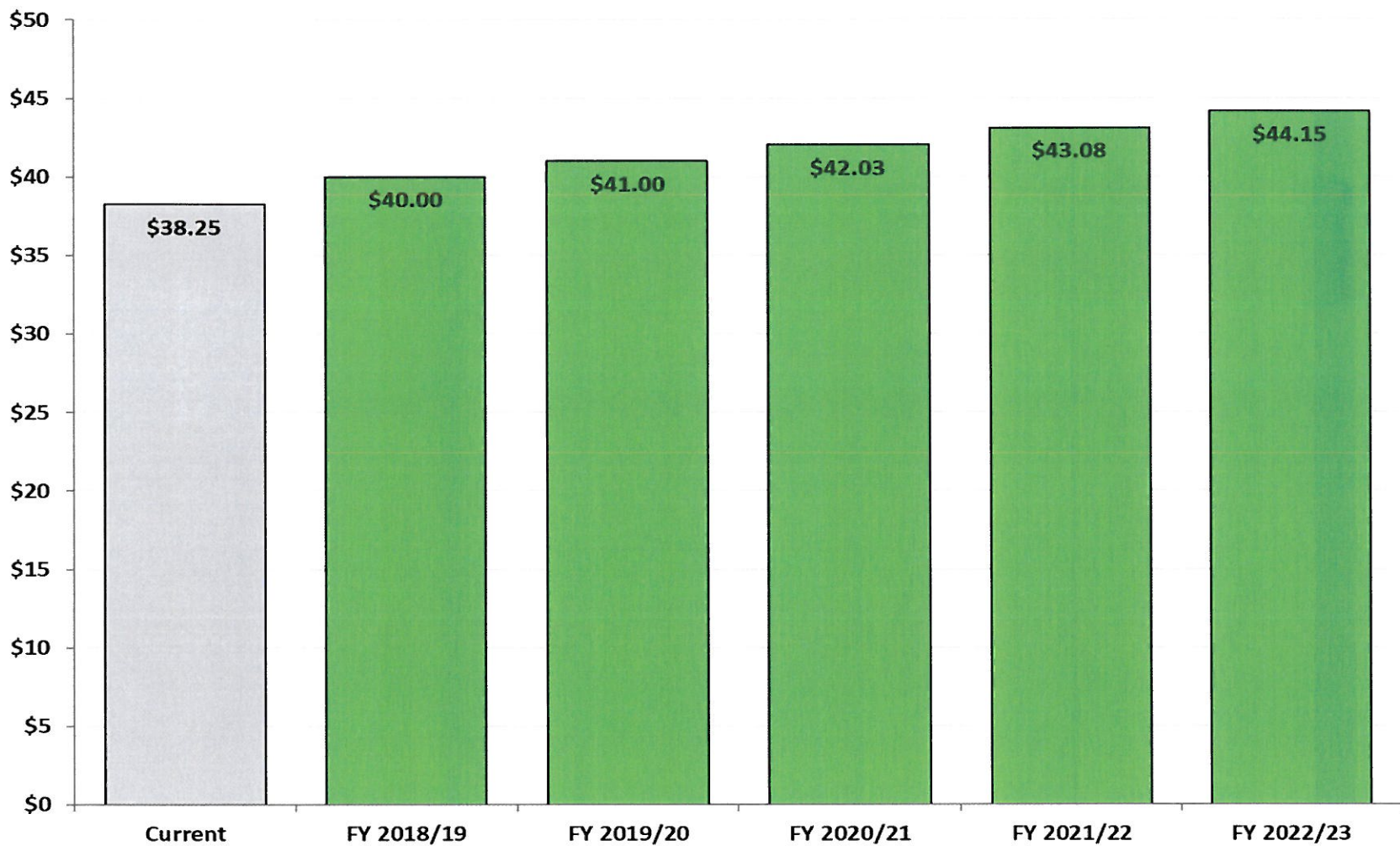
Rate Design

Sewer Rate Schedule	Current Monthly Rates <i>(1)</i>	Proposed Monthly Sewer Rates				
		FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23
Rate Per EDU	\$38.25	\$40.00	\$41.00	\$42.03	\$43.08	\$44.15

1. Sewer customers are charged on the basis of their number of assigned Equivalent Dwelling Units (EDUs).

Bill Impact

Single Family Residential Sewer Bill Comparison
Current vs. Proposed Rates (Assumes 1 EDU/SFR Account)



Bill Impact, cont.

**Average Commercial Sewer Bill Comparison
Current vs. Proposed**



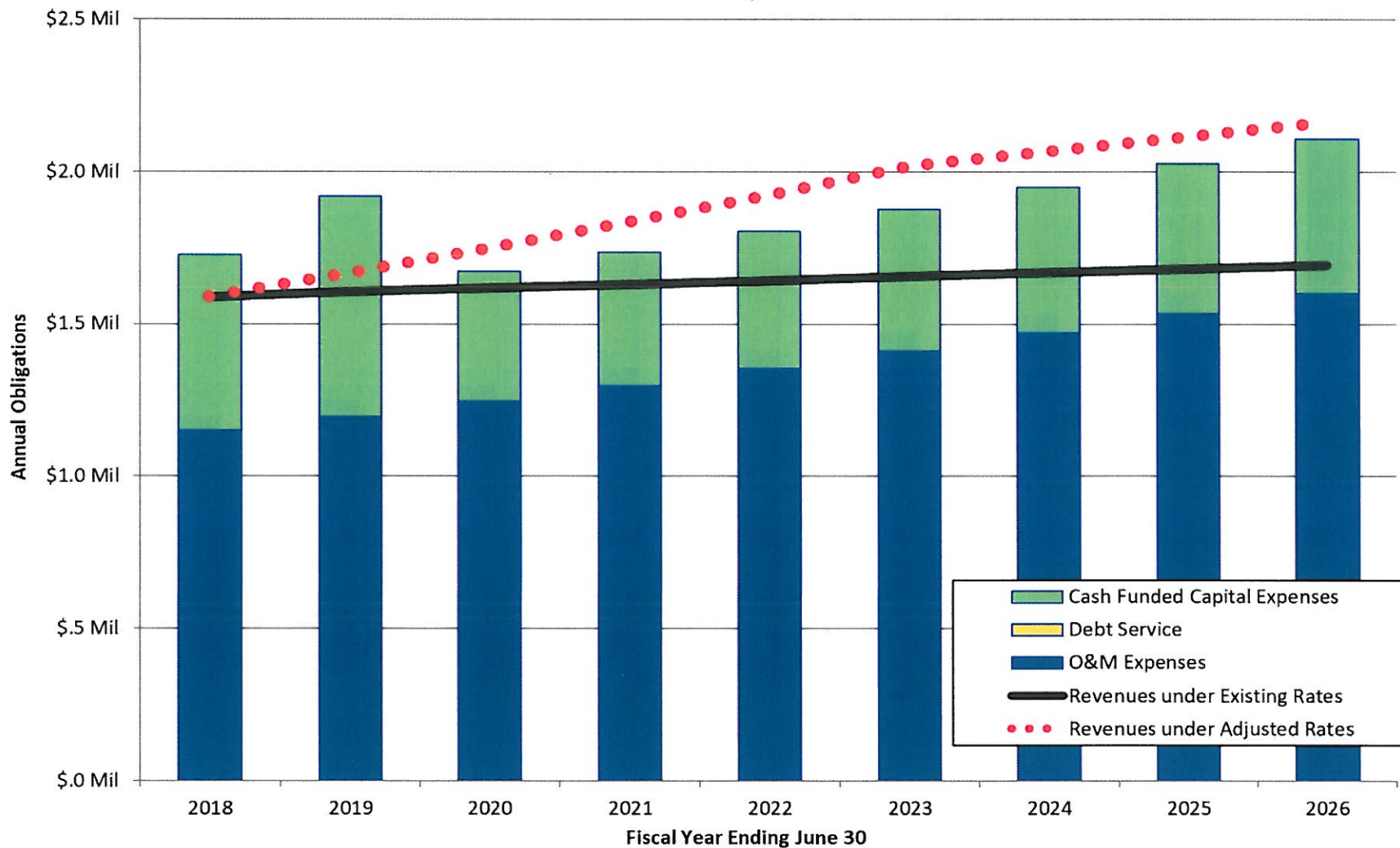
Water Utility

Proposed Rates



Financial Analysis

**Water Revenue Requirements vs.
Revenue Under Existing and Increased Rates**

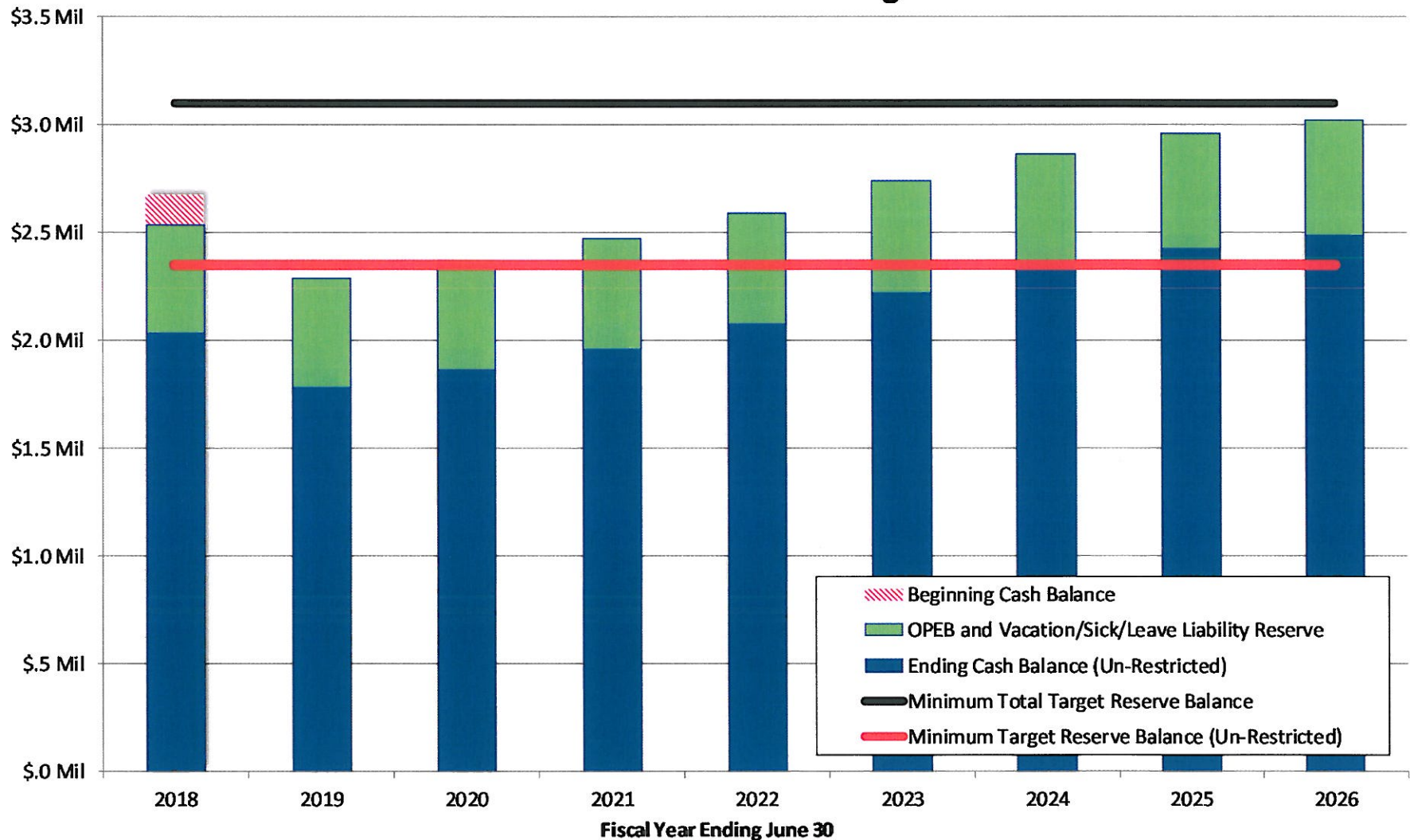


Financial Analysis, cont.

Fiscal Year	Rate Revenue Requirements
FY 2017/18	\$1.27 Mil
FY 2018/19	\$1.34 Mil
FY 2019/20	\$1.42 Mil
FY 2020/21	\$1.50 Mil
FY 2021/22	\$1.58 Mil
FY 2022/23	\$1.66 Mil

Financial Analysis, cont.

**Cash Balances vs.
Recommended Reserve Targets**



Cost of Service – Classification



Commodity related costs are those that change as the volume of water produced and delivered changes. These commonly include the costs of water quality testing, energy related to pumping for transmission and distribution, and source of supply.



Capacity related costs are associated with sizing facilities to meet the maximum, or peak demand. This includes both operating costs and capital infrastructure costs incurred to accommodate peak system capacity events.



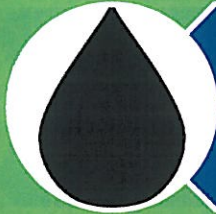
Customer related costs are associated with having a customer on the water system, such as meter reading, postage and billing.



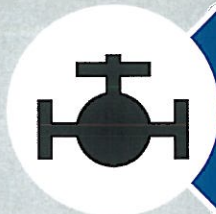
Fire Protection related costs are associated with providing sufficient capacity in the system for fire meters and other operations and maintenance costs of providing water to properties for private fire service protection.

Cost of Service – Classification

Variable
Expense



Commodity 13.4%



Capacity 83.8%

Fixed
Expenses



Customer 2.8%



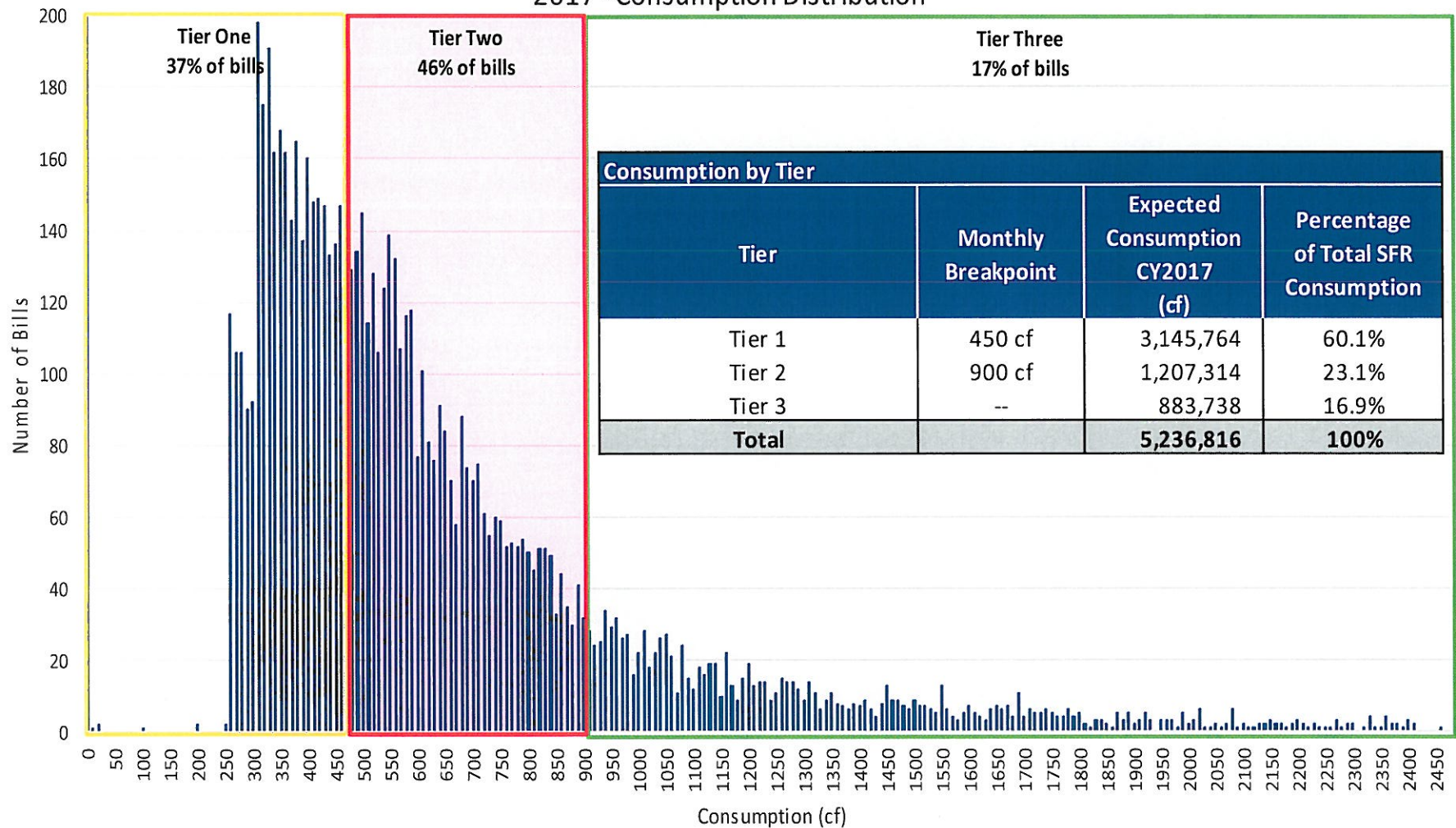
Fire Protection .04%

Cost of Service – Customer Classes

Customer Class	Commodity Allocation	Capacity Allocation	Customer Allocation	Fire Protection Allocation
Single Family Residential	56%	53%	89%	0%
Idyllwild Arts Academy	12%	10%	0%	0%
All Other Standard Meters	32%	37%	11%	0%
Fire Service	0%	0%	0%	100%
Allocation Methodology	Total Consumption	Peak Consumption	Number of Customers	Only to Fire Meters

Cost of Service – Customer Classes, cont.

Idlywild Water District Single Family
2017 - Consumption Distribution

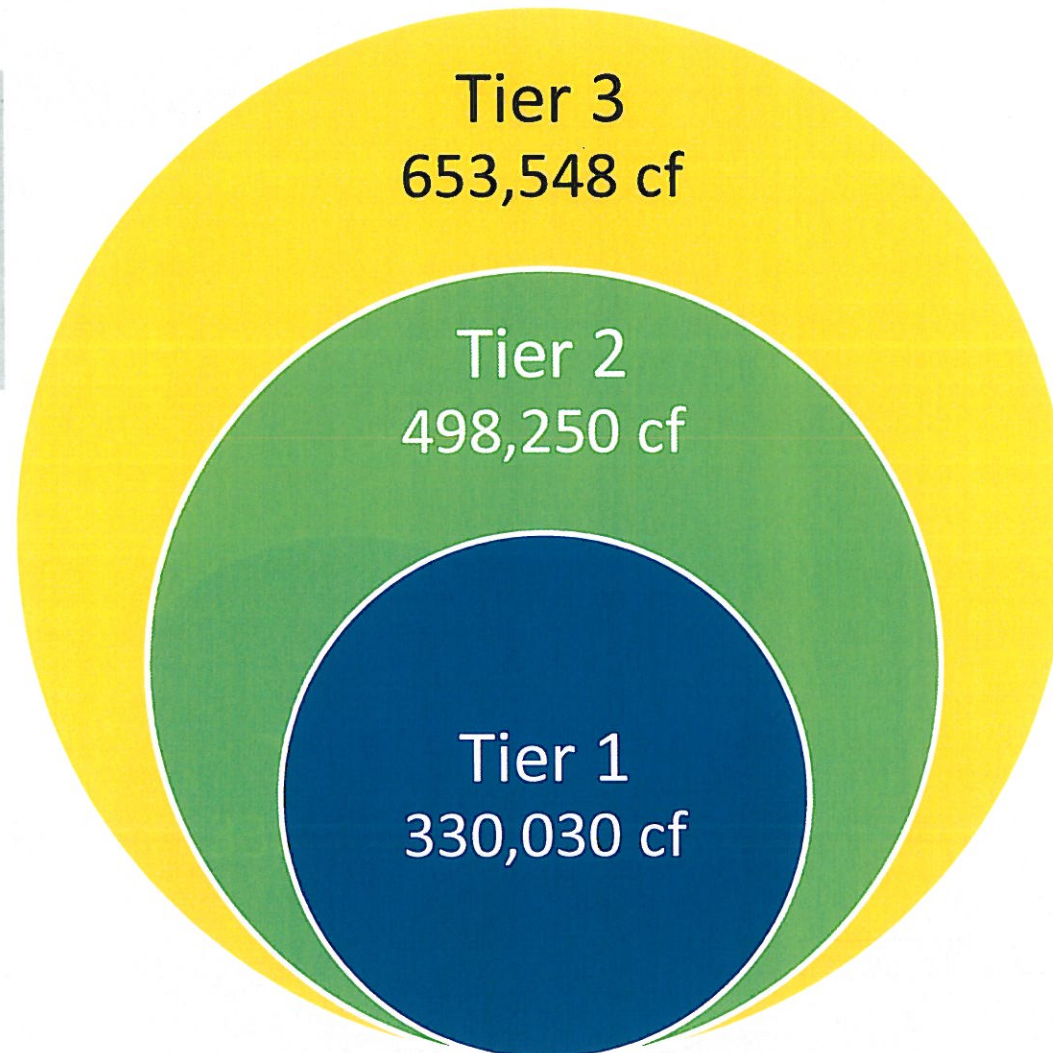


Rate Design

Classification Categories	<i>COSA Results</i>	<i>Rate Alternative A</i>	<i>Rate Alternative B</i>	<i>Rate Alternative C</i>
	Unadjusted Net Revenue Requirements (2018-19) 87% Fixed / 13% Variable	Adjusted Net Revenue Requirements (2018-19) 55% Fixed / 45% Variable	Adjusted Net Revenue Requirements (2018-19) 60% Fixed / 40% Variable	Adjusted Net Revenue Requirements (2018-19) 65% Fixed / 35% Variable
Variable Costs:				
Commodity - Related Costs	13.4%	13.4%	13.4%	13.4%
Capacity - Related Costs (volumetric allocation)	0.0%	31.6%	26.6%	21.6%
Sub-Total Variable Costs	13.4%	45.0%	40.0%	35.0%
Fixed Costs:				
Capacity - Related Costs (fixed allocation)	83.8%	52.2%	57.2%	62.2%
Customer - Related Costs	2.8%	2.8%	2.8%	2.8%
Fire Protection - Related Costs	0.0%	0.0%	0.0%	0.0%
Sub-Total Variable Costs	86.6%	55.0%	60.0%	65.0%
Net Revenue Requirement	100%	100%	100%	100%

Rate Design, Tiered Rate

Allocating
Volumetric
Capacity
Costs



Rate Design, cont.

Alternative A - Net Revenue Requirements (55% Fixed / 45% Variable)

Water Rate Schedule	Number of Customers	Current Rates	Proposed Rates				
			FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23
Monthly Fixed Service Charges:							
Single Family Residential							
5/8 inch	1,427	\$29.70	\$30.76	\$32.30	\$33.92	\$35.61	\$37.39
3/4 inch	12	\$40.35	\$45.20	\$47.46	\$49.83	\$52.32	\$54.94
1 inch	24	\$61.25	\$74.06	\$77.77	\$81.65	\$85.74	\$90.02
All Other Customers:							
5/8 inch	109	\$20.90	\$30.76	\$32.30	\$33.92	\$35.61	\$37.39
3/4 inch	30	\$31.35	\$45.20	\$47.46	\$49.83	\$52.32	\$54.94
1 inch	59	\$52.25	\$74.06	\$77.77	\$81.65	\$85.74	\$90.02
1.5 inch	13	\$104.50	\$146.23	\$153.54	\$161.22	\$169.28	\$177.74
2 inch	5	\$167.20	\$232.83	\$244.47	\$256.69	\$269.53	\$283.00
3 inch	1	\$313.50	\$463.76	\$486.94	\$511.29	\$536.85	\$563.70
Idyllwild Arts Academy							
3 inch	1	\$313.50	\$4,978.68	\$5,227.61	\$5,488.99	\$5,763.44	\$6,051.61
Fire Service Charges:							
2 inch	0	--	\$7.18	\$7.54	\$7.92	\$8.31	\$8.73
3 inch	0	--	\$13.45	\$14.12	\$14.83	\$15.57	\$16.35
4 inch	2	--	\$25.00	\$26.25	\$27.56	\$28.94	\$30.39

Rate Design, cont.

Alternative A - Net Revenue Requirements (55% Fixed / 45% Variable)

Water Rate Schedule	Number of Customers	Current Rates	Proposed Rates				
			FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23
Monthly Commodity Charges per cf of water consumed							
<u>Current</u> <u>Proposed</u>							
Tiered Rate (Commercial Customers)							
Tier 1	1000 cf	\$0.0333	--	--	--	--	--
Tier 2	4000 cf	\$0.0633	--	--	--	--	--
Tier 3	8000 cf	\$0.1000	--	--	--	--	--
Tier 4	8001+ cf	\$0.1000	--	--	--	--	--
Uniform Potable Rate (Commercial Customers)			\$0.0682	\$0.0716	\$0.0752	\$0.0789	\$0.0829
Tiered Rate (SFR Customers)							
Tier 1	300 cf 450 cf	\$0.0000	\$0.0192	\$0.0202	\$0.0212	\$0.0223	\$0.0234
Tier 2	600 cf 900 cf	\$0.0633	\$0.1154	\$0.1212	\$0.1273	\$0.1336	\$0.1403
Tier 3	1500 cf 900+ cf	\$0.1000	\$0.1406	\$0.1476	\$0.1550	\$0.1627	\$0.1709
Tier 4	1500+ cf --	\$0.1000	N/A	N/A	N/A	N/A	N/A

Rate Design, cont.

Alternative B - Net Revenue Requirements (60% Fixed / 40% Variable)

Water Rate Schedule	Number of Customers	Current Rates	Proposed Rates - Rate Alternative B				
			FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23
Monthly Fixed Service Charges:							
Single Family Residential							
5/8 inch	1,427	\$29.70	\$33.39	\$35.06	\$36.82	\$38.66	\$40.59
3/4 inch	12	\$40.35	\$49.14	\$51.60	\$54.18	\$56.89	\$59.73
1 inch	24	\$61.25	\$80.64	\$84.67	\$88.90	\$93.35	\$98.01
All Other Customers:							
5/8 inch	109	\$20.90	\$33.39	\$35.06	\$36.82	\$38.66	\$40.59
3/4 inch	30	\$31.35	\$49.14	\$51.60	\$54.18	\$56.89	\$59.73
1 inch	59	\$52.25	\$80.64	\$84.67	\$88.90	\$93.35	\$98.01
1.5 inch	13	\$104.50	\$159.38	\$167.35	\$175.71	\$184.50	\$193.72
2 inch	5	\$167.20	\$253.86	\$266.56	\$279.89	\$293.88	\$308.57
3 inch	1	\$313.50	\$505.83	\$531.12	\$557.68	\$585.56	\$614.84
Idyllwild Arts Academy							
3 inch	1	\$313.50	\$5,709.00	\$5,994.45	\$6,294.18	\$6,608.88	\$6,939.33
Fire Service Charges:							
2 inch	0	--	\$7.18	\$7.54	\$7.92	\$8.31	\$8.73
3 inch	0	--	\$13.45	\$14.12	\$14.83	\$15.57	\$16.35
4 inch	2	--	\$25.00	\$26.25	\$27.56	\$28.94	\$30.39

Rate Design, cont.

Alternative B - Net Revenue Requirements (60% Fixed / 40% Variable)

Water Rate Schedule	Number of Customers	Current Rates	Proposed Rates - Rate Alternative B				
			FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23
Monthly Commodity Charges per cf of water consumed							
<u>Current</u> <u>Proposed</u>							
Tiered Rate (Commercial Customers)							
Tier 1	1000 cf	\$0.0333	--	--	--	--	--
Tier 2	4000 cf	\$0.0633	--	--	--	--	--
Tier 3	8000 cf	\$0.1000	--	--	--	--	--
Tier 4	8000+ cf	\$0.1000	--	--	--	--	--
Uniform Potable Rate (Commercial Customers)			\$0.0604	\$0.0635	\$0.0666	\$0.0700	\$0.0735
Tiered Rate (SFR Customers)							
Tier 1	300 cf 450 cf	\$0.0000	\$0.0192	\$0.0202	\$0.0212	\$0.0223	\$0.0234
Tier 2	600 cf 900 cf	\$0.0633	\$0.1002	\$0.1052	\$0.1105	\$0.1160	\$0.1218
Tier 3	1500 cf 900+ cf	\$0.1000	\$0.1214	\$0.1274	\$0.1338	\$0.1405	\$0.1475
Tier 4	1500+ cf --	\$0.1000	N/A	N/A	N/A	N/A	N/A

Rate Design, cont.

Alternative C - Net Revenue Requirements (65% Fixed / 35% Variable)

Water Rate Schedule	Number of Customers	Current Rates	Proposed Rates - Rate Alternative C				
			FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23
Monthly Fixed Service Charges:							
Single Family Residential							
5/8 inch	1,427	\$29.70	\$36.02	\$37.82	\$39.72	\$41.70	\$43.79
3/4 inch	12	\$40.35	\$53.09	\$55.74	\$58.53	\$61.45	\$64.53
1 inch	24	\$61.25	\$87.21	\$91.57	\$96.15	\$100.96	\$106.01
All Other Customers:							
5/8 inch	109	\$20.90	\$36.02	\$37.82	\$39.72	\$41.70	\$43.79
3/4 inch	30	\$31.35	\$53.09	\$55.74	\$58.53	\$61.45	\$64.53
1 inch	59	\$52.25	\$87.21	\$91.57	\$96.15	\$100.96	\$106.01
1.5 inch	13	\$104.50	\$172.53	\$181.15	\$190.21	\$199.72	\$209.71
2 inch	5	\$167.20	\$274.90	\$288.65	\$303.08	\$318.23	\$334.15
3 inch	1	\$313.50	\$547.91	\$575.30	\$604.07	\$634.27	\$665.99
Idyllwild Arts Academy							
3 inch	1	\$313.50	\$6,439.33	\$6,761.29	\$7,099.36	\$7,454.33	\$7,827.04
Fire Service Charges:							
2 inch	0	--	\$7.18	\$7.54	\$7.92	\$8.31	\$8.73
3 inch	0	--	\$13.45	\$14.12	\$14.83	\$15.57	\$16.35
4 inch	2	--	\$25.00	\$26.25	\$27.56	\$28.94	\$30.39

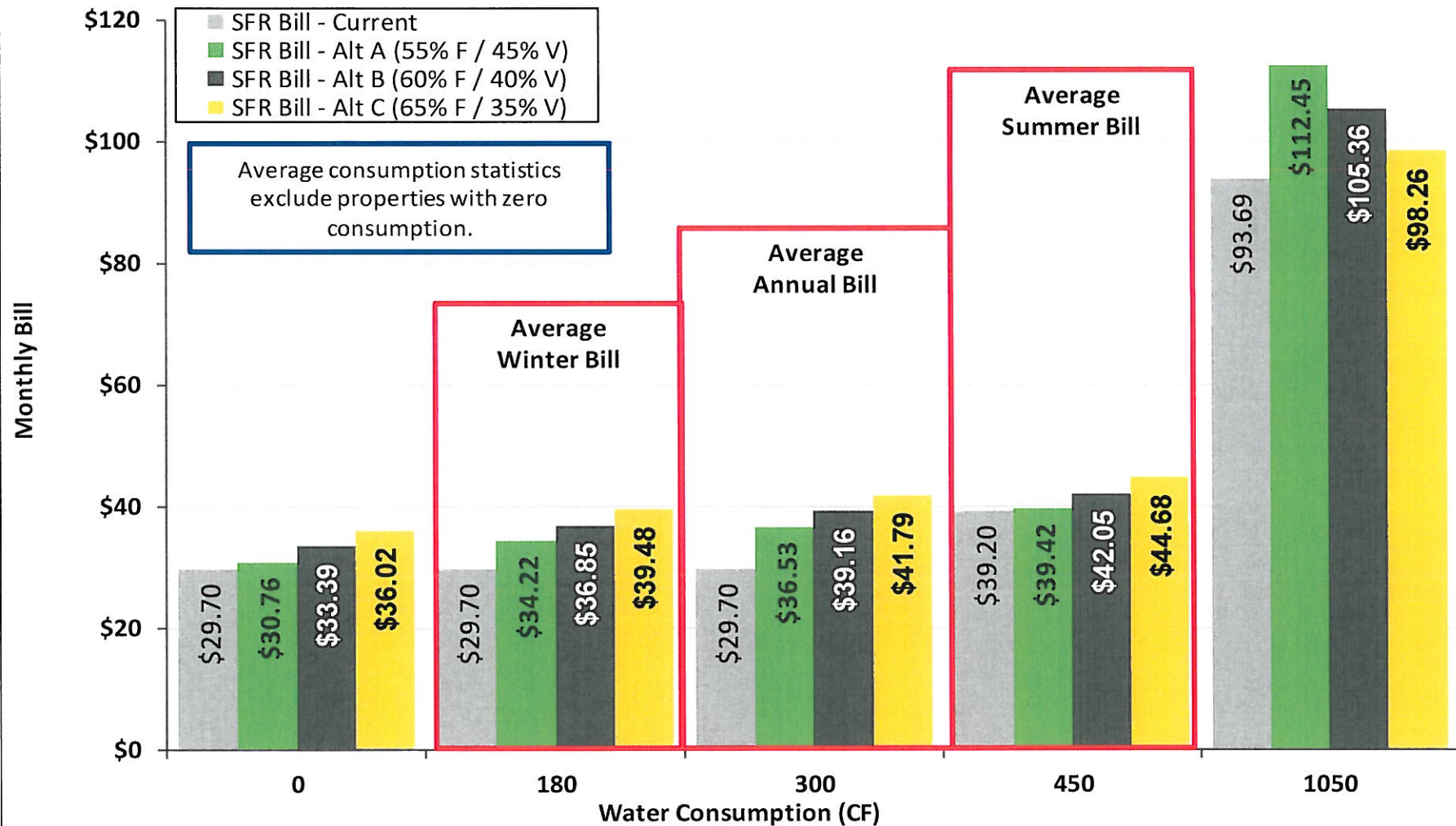
Rate Design, cont.

Alternative C - Net Revenue Requirements (65% Fixed / 35% Variable)

Water Rate Schedule	Number of Customers	Current Rates	Proposed Rates - Rate Alternative C				
			FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23
Monthly Commodity Charges per cf of water consumed							
<u>Current</u> <u>Proposed</u>							
Tiered Rate (Commercial Customers)							
Tier 1	1000 cf	\$0.0333	--	--	--	--	--
Tier 2	4000 cf	\$0.0633	--	--	--	--	--
Tier 3	8000 cf	\$0.1000	--	--	--	--	--
Tier 4	8000+ cf	\$0.1000	--	--	--	--	--
Uniform Potable Rate (Commercial Customers)			\$0.0527	\$0.0553	\$0.0581	\$0.0610	\$0.0641
Tiered Rate (SFR Customers):							
Tier 1	300 cf 450 cf	\$0.0000	\$0.0192	\$0.0202	\$0.0212	\$0.0223	\$0.0234
Tier 2	600 cf 900 cf	\$0.0633	\$0.0850	\$0.0893	\$0.0937	\$0.0984	\$0.1033
Tier 3	1500 cf 900+ cf	\$0.1000	\$0.1022	\$0.1073	\$0.1127	\$0.1183	\$0.1242
Tier 4	1500+ cf --	\$0.1000	N/A	N/A	N/A	N/A	N/A

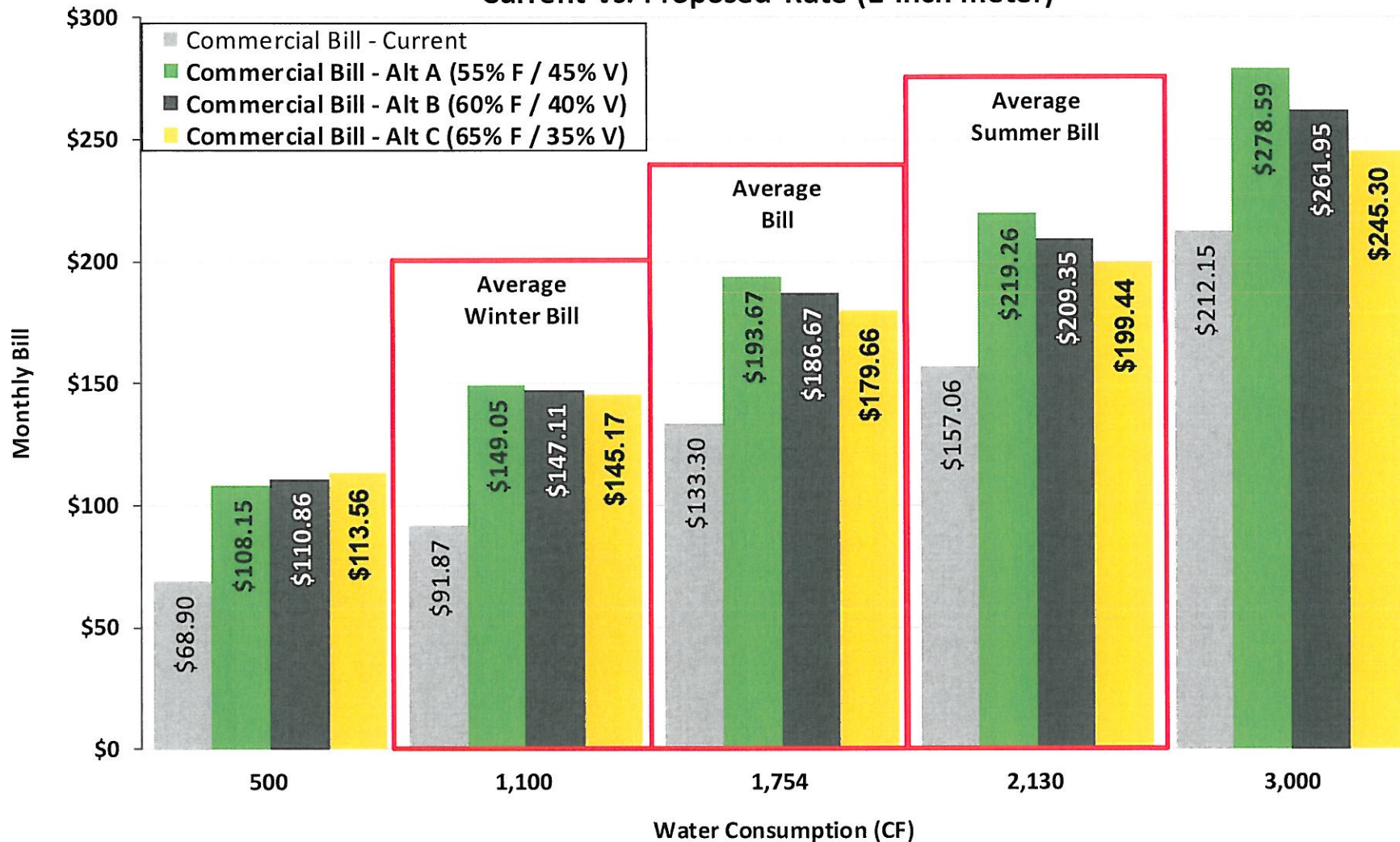
Bill Impact

Residential Water Bill Comparison Current vs. Proposed



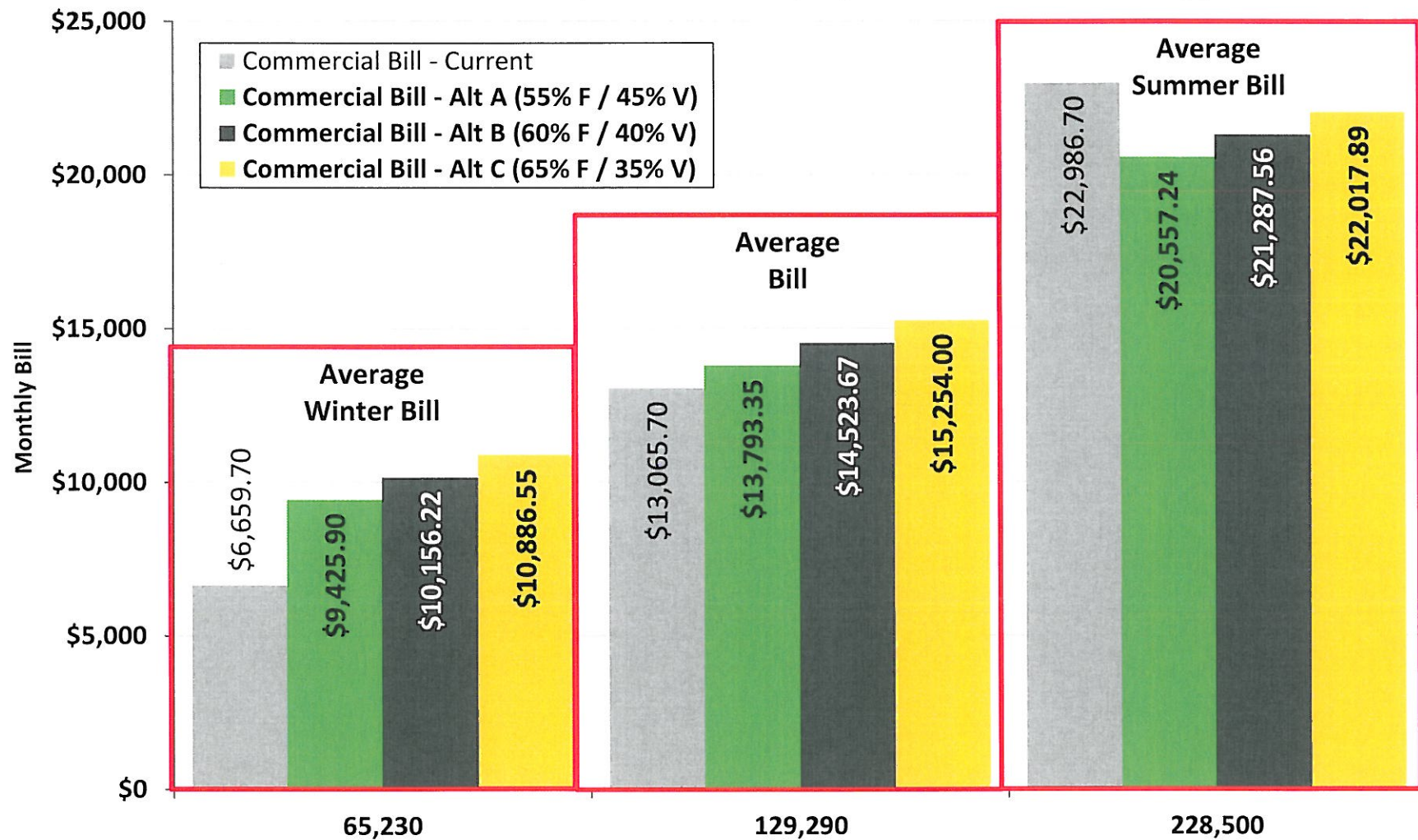
Bill Impact, cont.

Commercial Water Bill Comparison
Current vs. Proposed Rate (1-inch meter)



Bill Impact, cont.

Commercial Water Bill Comparison
Current vs. Proposed Rate (Idyllwild Arts Academy)



Questions and Answers

