PALMDALE WATER DISTRICT

SUMMARY OF FINDINGS – 15 AUGUST 2019

WATER RATE ANALYSIS, WATER RATE STRUCTURE MODIFICATIONS,
MULTI-YEAR WATER RATE PLAN, AND
PROPOSITION 218 PROCESS PUBLIC OUTREACH SUPPORT

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AGENDA

- Current Challenges
- Process of Rate Study
- PWD Financial Outlook
- What is a Cost of Service Analysis?
- Recommended Rate Adjustments
- Customer Bill Impacts

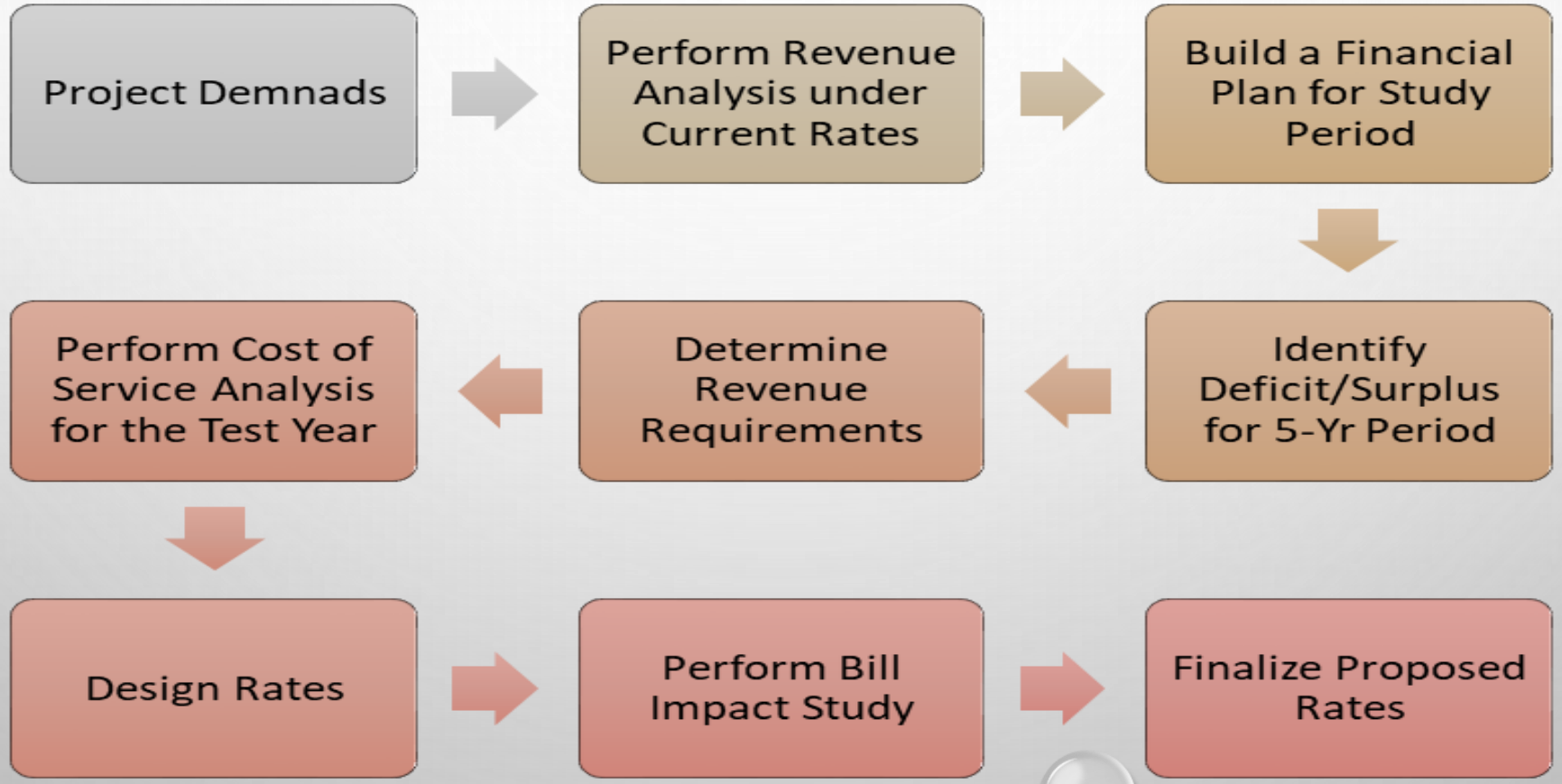


CURRENT CHALLENGES

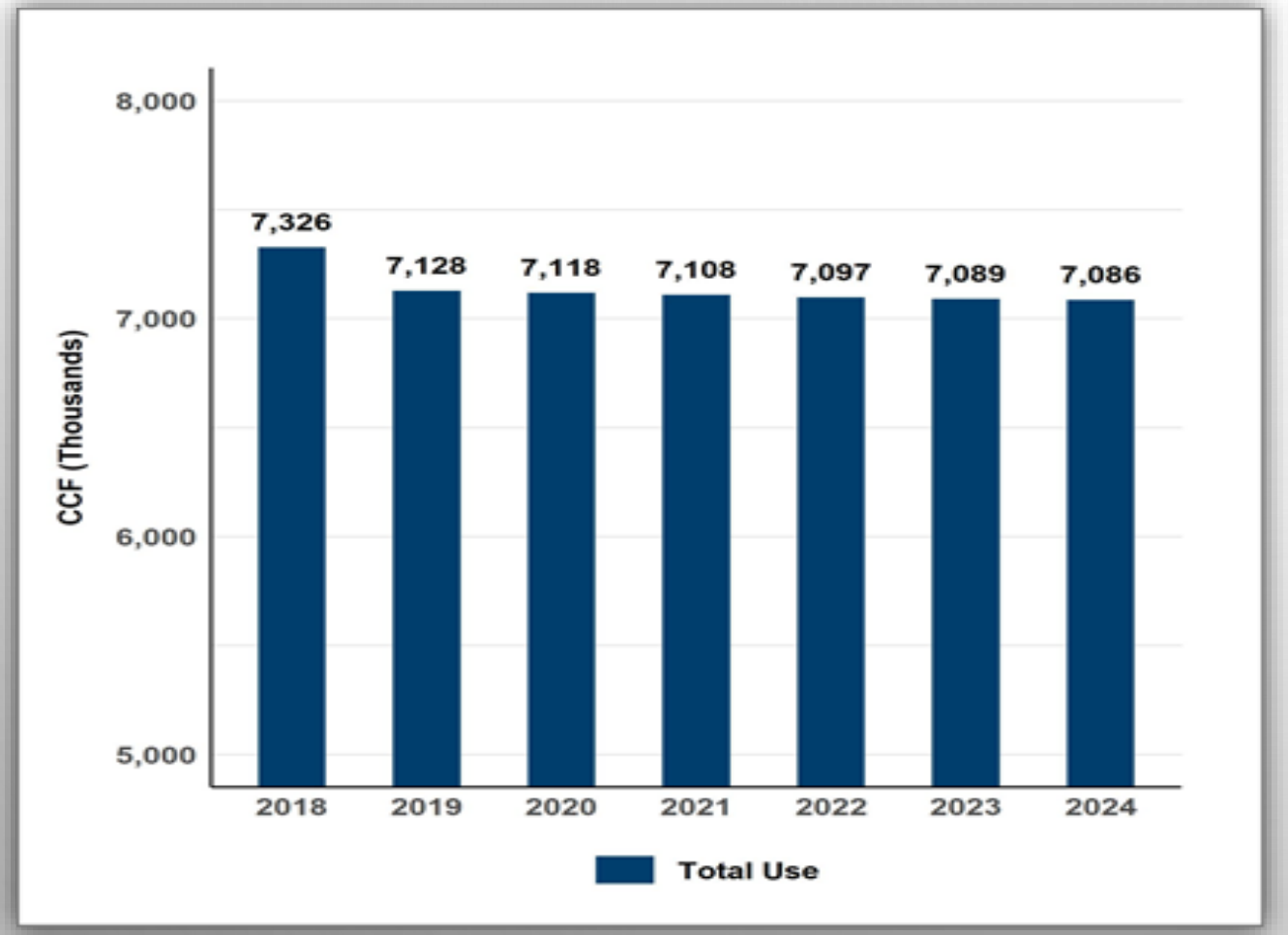
- Increasing Operating and Maintenance (O&M) needs
- Capital improvements and reinvestment in aging infrastructure
- Building reserves to prepare for emergencies
- Regulatory requirements becoming more stringent

RATE STUDY PROCESS

5-Yr Study Period: CY 2020 – CY 2024, Test Year: CY 2020



DEMAND PROJECTIONS



Class	Annual Change
Commericial & Industrial	-2
Construction	-2
Irrigation	-1
Multi-Family Residential	2
Single-Family Residential	21



REVENUE ANALYSIS

Revenue Type	CY 2019	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
Revenues from rates	$23.1	$23.1	$23.1	$23.1	$23.0	$23.0
Other operating revenues	$1.2	$1.2	$1.2	$1.2	$1.2	$1.2
Non-operating revenues	$2.9	$2.9	$2.9	$3.0	$3.0	$3.1
Total	**$27.2**	**$27.2**	**$27.2**	**$27.2**	**$27.3**	**$27.3**



O&M EXPENSE

	CY 2019	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
Total O&M Expense	$21.8	$23.1	$23.8	$24.6	$25.3	$26.1
% Annual Increase		5.8%	3.1%	3.1%	3.1%	3.2%

Expense Escalation Factors	CY 2019	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
Overall Inflation Rate:	*2.4%*	*2.4%*	*2.4%*	*2.4%*	*2.4%*	*2.4%*
Utility/Chemical Inflation Rate:	*4.1%*	*4.1%*	*4.1%*	*4.1%*	*4.1%*	*4.1%*
Treatment Inflation Rate:	*3.3%*	*3.3%*	*3.3%*	*3.3%*	*3.3%*	*3.3%*
Purchased Water Inflation Rate	*7.3%*	*7.3%*	*7.3%*	*7.3%*	*7.3%*	*7.3%*
Employee Expenses Inflation Rate:	*2.6%*	*2.6%*	*2.6%*	*2.6%*	*2.6%*	*2.6%*
Equipment Inflation Rate:	*0.8%*	*0.8%*	*0.8%*	*0.8%*	*0.8%*	*0.8%*
Fuels and Automobile Inflation Rate:	*3.6%*	*3.6%*	*3.6%*	*3.6%*	*3.6%*	*3.6%*
Construction Inflation Rate:	*3.0%*	*3.0%*	*3.0%*	*3.0%*	*3.0%*	*3.0%*
No Escalation:	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*

CIP EXPENSE

Total = $30 million

	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
Replacement/New Equipment	$440,217	$608,922	$375,113	$373,115	$483,704
Studies and Planning	$604,985	$125,000	$200,000	$125,000	$125,000
Water Supply	$512,177	$786,976	$806,143	$1,101,034	$0
Replacement Capital Projects	$3,056,808	$3,985,035	$4,469,925	$5,758,578	$2,554,233
New Capital Projects	$578,810	$0	$529,664	$0	$3,120,913
Total CIP Expense	**$5,192,998**	**$5,505,934**	**$6,380,845**	**$7,357,728**	**$6,283,850**

DEBT SERVICE

	CY 2019	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
Principal	$1.9	$1.9	$2.0	$2.7	$2.6	$2.8
Interest	$2.6	$2.5	$2.5	$3.1	$3.1	$3.0
Debt Service Total	**$4.5**	**$4.5**	**$4.5**	**$5.8**	**$5.7**	**$5.8**

- 2012 Private Placement
- 2013A Series Water Revenue Bonds
- 2018A Series Water Revenue Bond
- Capital Leases Payable – 2017
- 2021 Bond Issuance - $20 million

OTHER OBLIGATIONS

Reserves: District's Goal based on Reserve Policy Resolution No, 18-10 is $16.2 million = $950,000 Annual Contribution

Water Conservation Rebate Program/Change in Investment in PRWA = $535,500

REVENUE REQUIREMENTS

CY 2020

O&M Expense - $23.1 million

CIP Expense - $5.2 million

Debt Service - $4.5 million

Other Obligations - $1.5 million

Total Cost - $34.3 million

Offset by Non-Rate Revenues - $4.1 million

Revenue Requirements - $30.2 million

REVENUE REQUIREMENTS

CY 2020

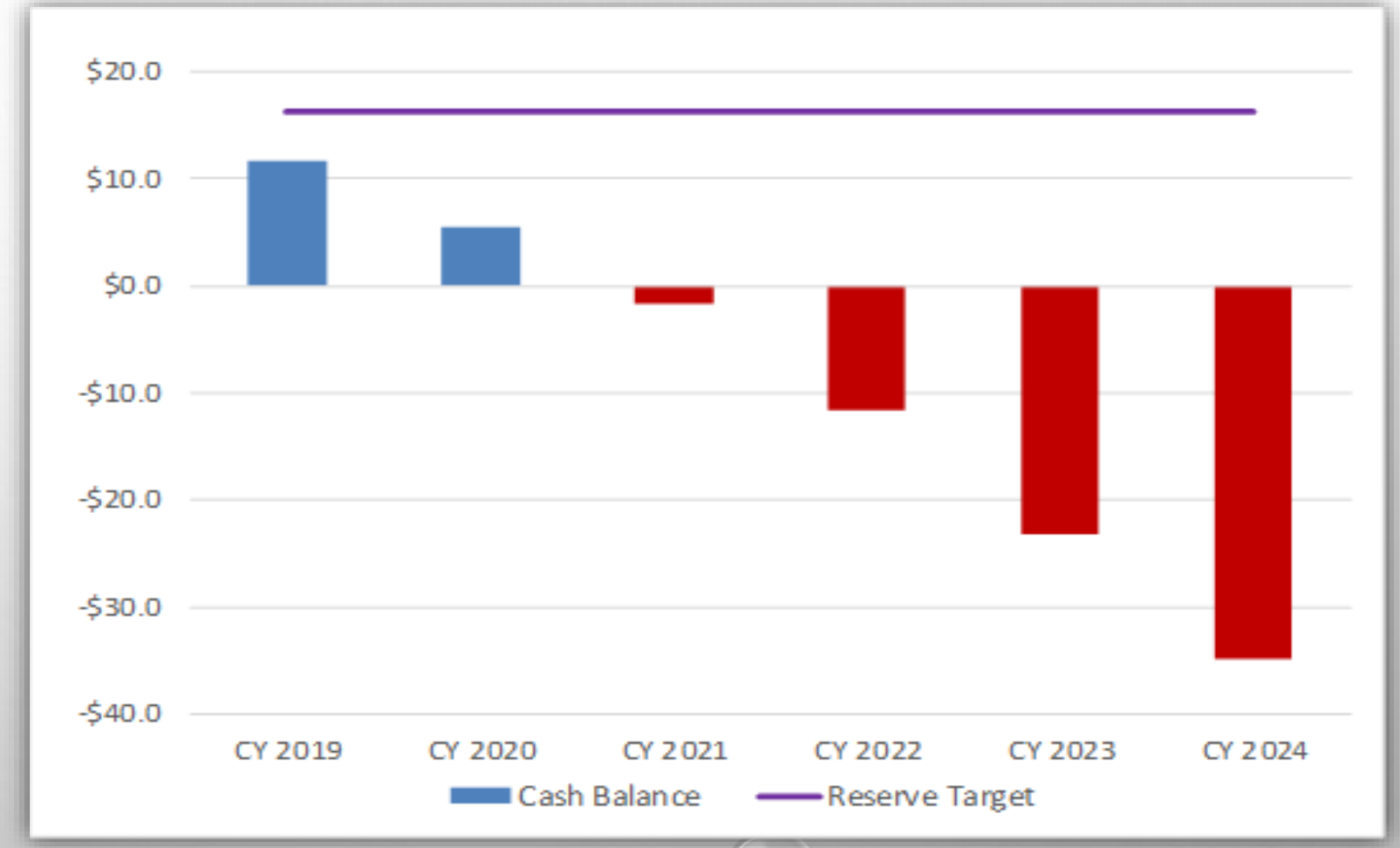
Revenues from Rates - $23.1 million

Revenue Requirements - $30.2 million

Deficit- $7.1 million

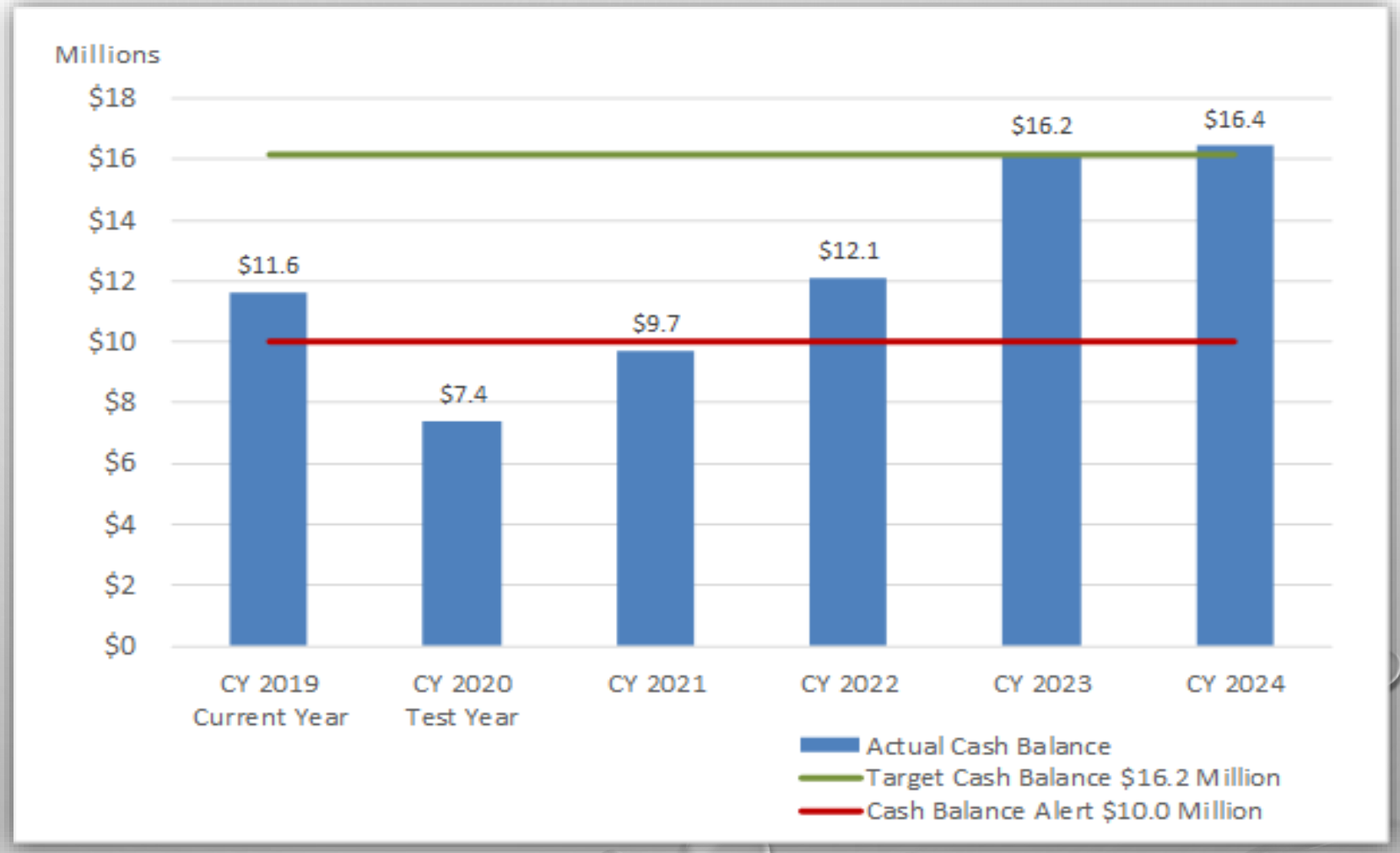
NO ACTION IS TAKEN

An annual 0 percent rate increase, plus no new bond issuance



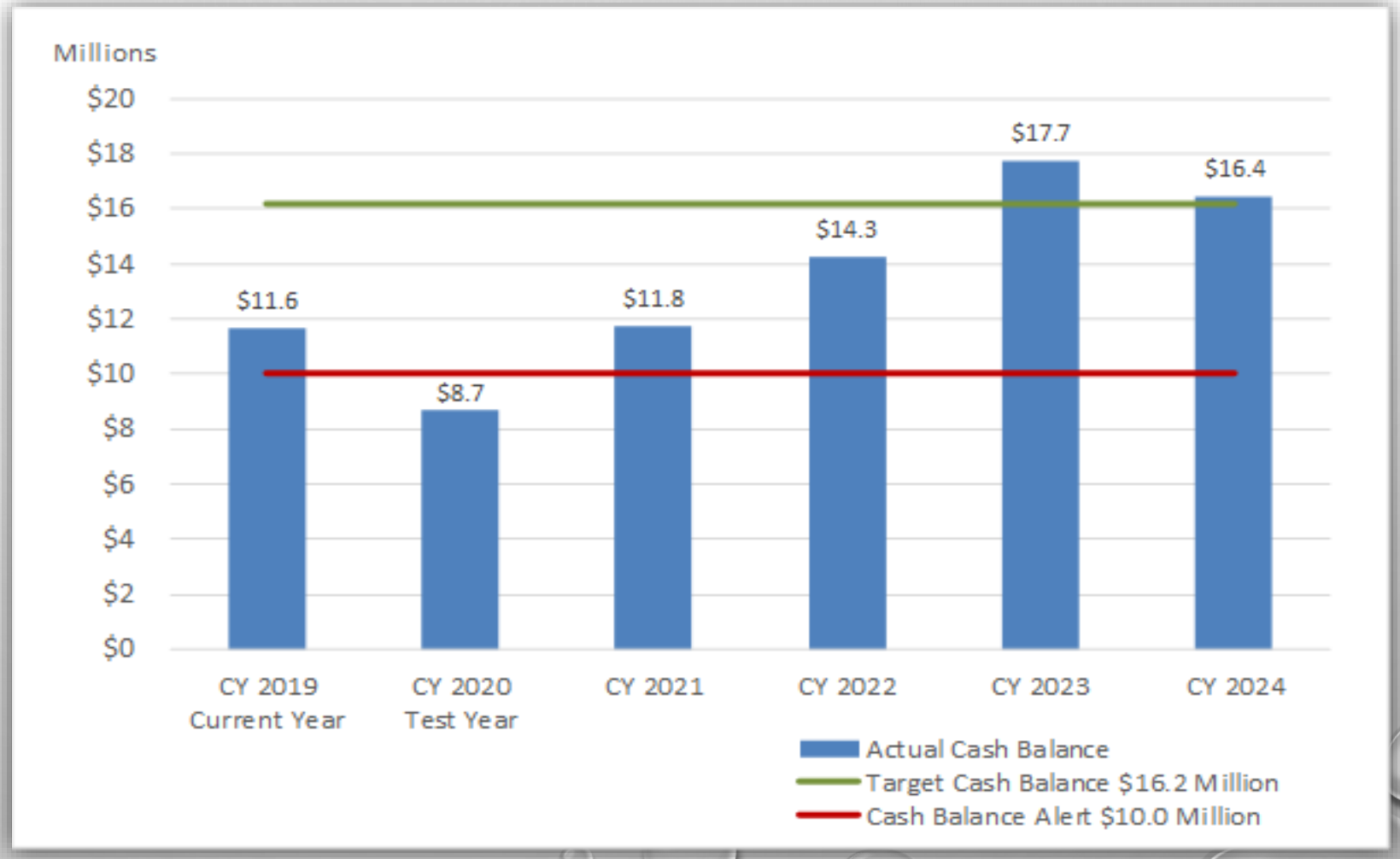
OPTION 1

An annual 8.2 percent rate Increase



OPTION 2 (RDN Recommended)

An initial 13.9 percent increase plus 5.5 percent for subsequent years



OPTION 3 (District Proposed)

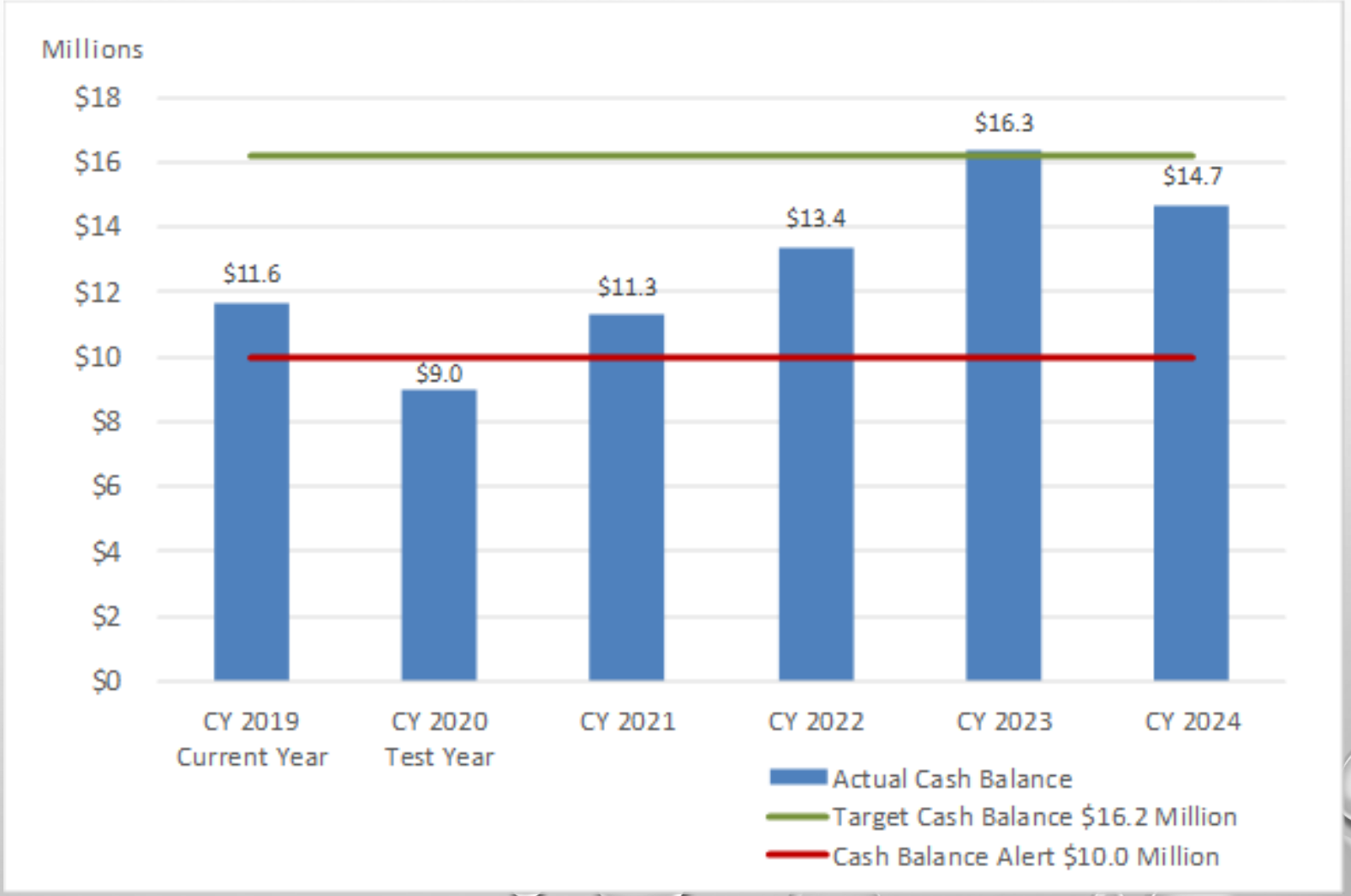
- Move $1.2 million CIPs from CY 2020 to CY 2021

  ➡ prevents District's cash balance from falling too low

- Reduce the target reserve level from $16.2 million to $14.6 million ➡ reduces rate increase %

OPTION 3 (District Proposed)

An initial 9.6 percent increase plus 6.8 percent for subsequent years

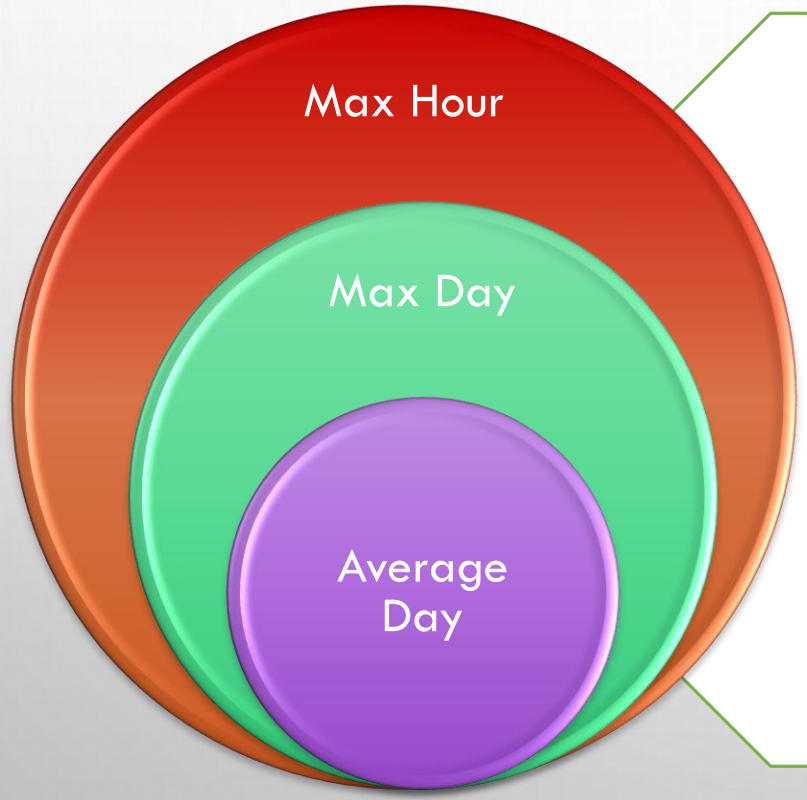


COST OF SERVICE ANALYSIS

How should costs be allocated equitably among all customers?

"The amount of the fee or charge imposed upon any parcel shall not exceed the proportional cost of service attributable to the parcel"- Proposition 218

COST OF SERVICE ANALYSIS



Cost Causative Components

- Water Supply
- Peaking Costs
  - Average Day
  - Max Day
  - Max Hour
- Customer/Billing
- Water Conservation
- Public Fire Hydrants

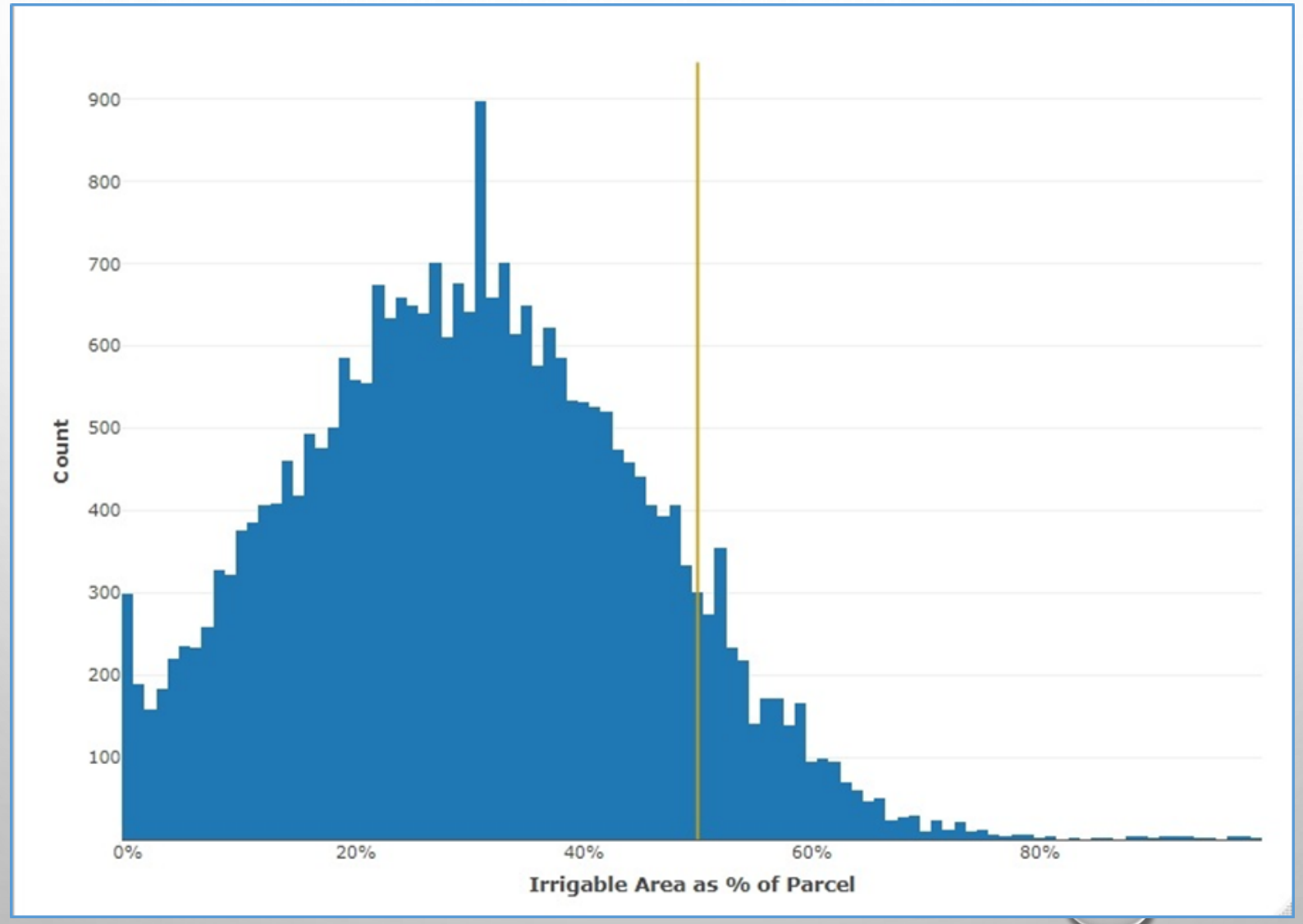
COST OF SERVICE ANALYSIS

		Peaking Cost						
	Water Supply	Base	Max Day	Max Hour	Meters	Customer Service	Fire Protection Service	Water Conservation
O&M Cost	$3,861,070	$8,381,502	$3,162,820	$2,302,764	$708,055	$3,980,228	$312,327	$395,807
CIP Costs/Other Obligations		$5,248,721	$2,674,553	$1,271,394	$734,226	$280,144	$699,054	$2,131
Water Conservation								$236,500
Total Expense	**$3,861,070**	**$13,630,223**	**$5,837,372**	**$3,574,158**	**$1,442,281**	**$4,260,372**	**$1,011,381**	**$634,438**
Cost Distribution	**11%**	**40%**	**17%**	**10%**	**4%**	**12%**	**3%**	**2%**

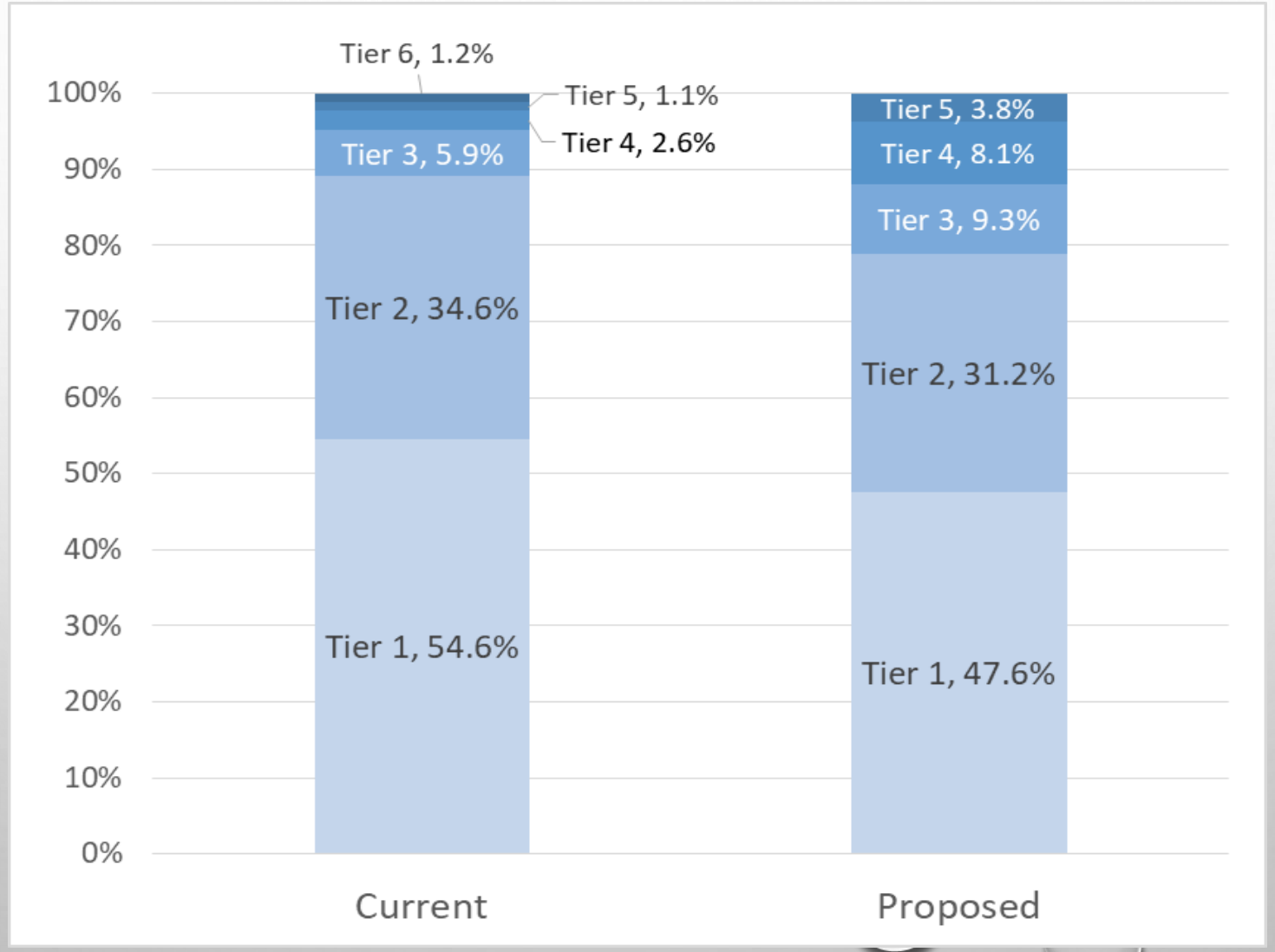
RECOMMENDED STRUCTURAL CHANGE

- Reduce number of tiers from six to five
- Reduce water allocation per person per day from 66 gallons per person per day to 55 gallons
- Establish of “Irrigable Area” for each parcel using Eagle Arial data
- Change allocation calculation method for Multi-Family residential customers

RECOMMENDED STRUCTURAL CHANGE

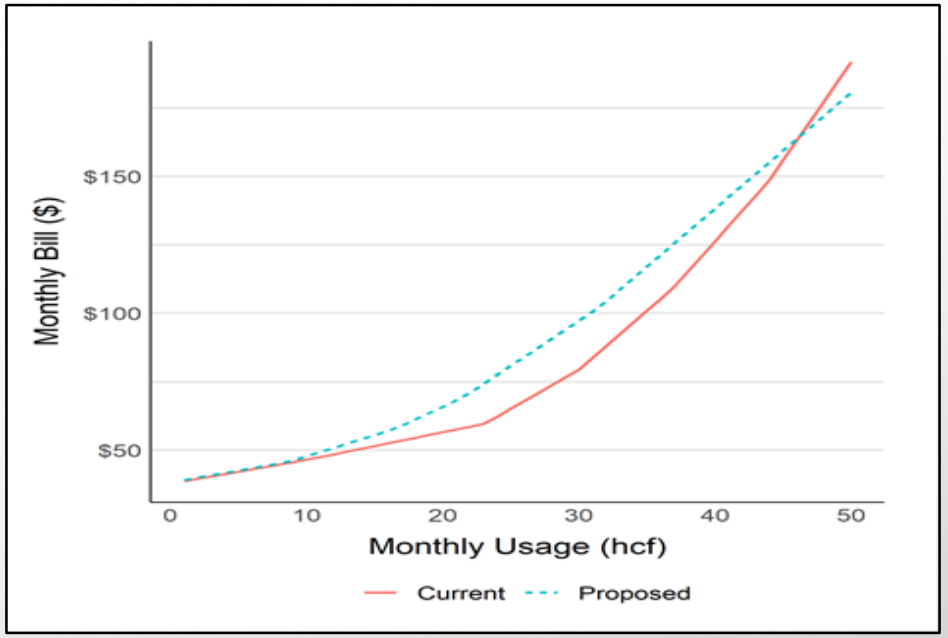


RECOMMENDED STRUCTURAL CHANGE



PROPOSED RATES – OPTION 1

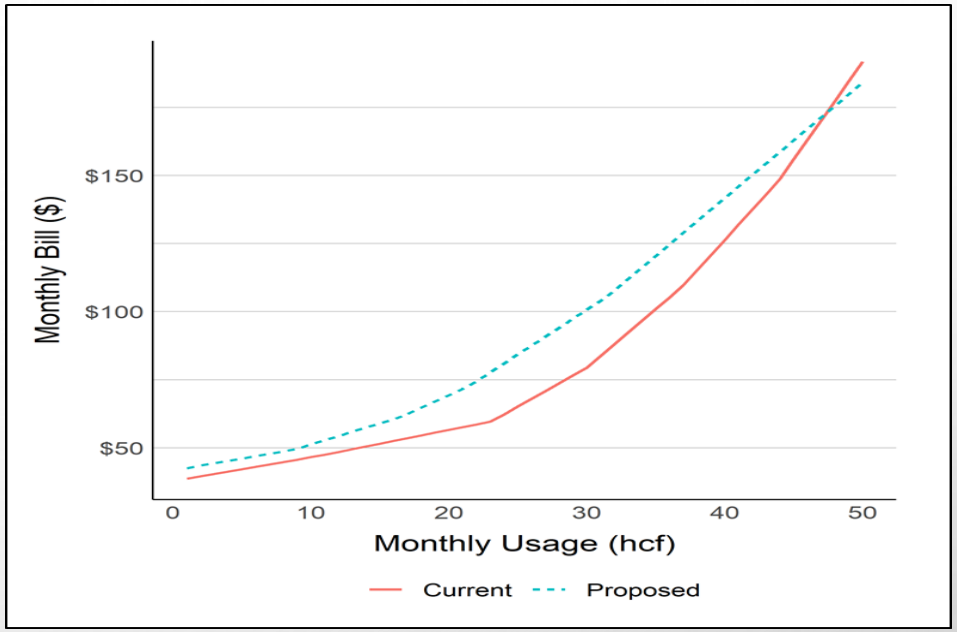
Fixed Charge Monthly					
Meter Size	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
5/8-in	$41.67	$43.94	$46.76	$49.31	$52.00
3/4-in	$41.67	$43.94	$46.76	$49.31	$52.00
1-in	$41.67	$43.94	$46.76	$49.31	$52.00
1 1/2-in	$104.00	$109.72	$117.08	$123.52	$130.28
2-in	$158.45	$167.18	$178.52	$188.35	$198.66
3-in	$467.01	$492.79	$526.65	$555.71	$586.16
4-in	$920.77	$971.64	$1,038.62	$1,095.94	$1,156.02
6-in	$1,465.29	$1,546.25	$1,652.98	$1,744.22	$1,839.84
8-in	$2,100.56	$2,216.64	$2,369.73	$2,500.55	$2,637.64
10-in	$3,915.62	$4,132.02	$4,417.59	$4,661.48	$4,917.05



Volumetric Charges per HCF					
Proposed Rates	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
Tier 1	$0.88	$0.92	$0.97	$1.02	$1.07
Tier 2	$1.55	$1.65	$1.74	$1.85	$1.96
Tier 3	$2.30	$2.13	$2.24	$2.36	$2.49
Tier 4	$3.29	$3.59	$3.37	$3.55	$3.74
Tier 5	$4.24	$4.90	$5.17	$5.45	$5.76

PROPOSED RATES – OPTION 2

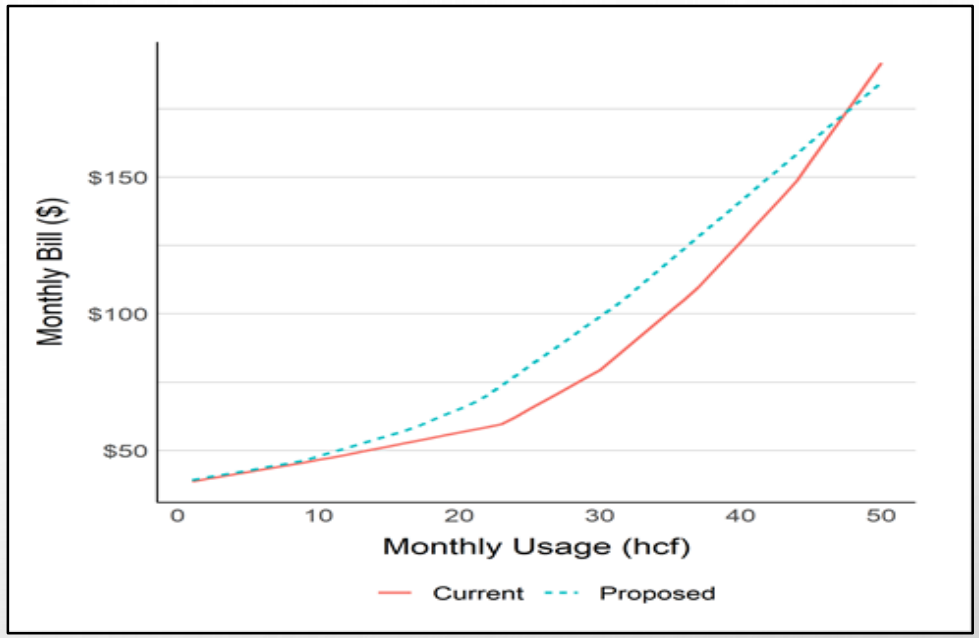
Fixed Charge Monthly					
Meter Size	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
5/8-in	$38.22	$41.62	$45.80	$49.83	$54.20
3/4-in	$38.22	$41.62	$45.80	$49.83	$54.20
1-in	$38.22	$41.62	$45.80	$49.83	$54.20
1 1/2-in	$92.99	$101.53	$112.41	$122.61	$133.65
2-in	$140.84	$153.88	$170.60	$186.19	$203.06
3-in	$411.98	$450.51	$500.34	$546.46	$596.36
4-in	$810.72	$886.73	$985.26	$1,076.27	$1,174.75
6-in	$1,289.21	$1,410.19	$1,567.16	$1,712.04	$1,868.82
8-in	$1,847.44	$2,020.90	$2,246.05	$2,453.77	$2,678.56
10-in	$3,442.39	$3,765.77	$4,185.72	$4,573.01	$4,992.11



Volumetric Charges per HCF					
Proposed Rates	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
Tier 1	$0.88	$0.94	$1.00	$1.06	$1.13
Tier 2	$1.55	$1.67	$1.79	$1.92	$2.06
Tier 3	$2.30	$2.15	$2.29	$2.44	$2.60
Tier 4	$3.29	$3.64	$3.42	$3.65	$3.90
Tier 5	$4.24	$4.99	$5.36	$5.76	$6.20

PROPOSED RATES – OPTION 3

Fixed Charge Monthly					
Meter Size	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
5/8-in	$38.36	$41.11	$45.40	$48.64	$52.10
3/4-in	$38.36	$41.11	$45.40	$48.64	$52.10
1-in	$38.36	$41.11	$45.40	$48.64	$52.10
1 1/2-in	$93.70	$100.58	$112.25	$120.44	$129.17
2-in	$142.05	$152.54	$170.65	$183.16	$196.49
3-in	$416.02	$446.98	$501.61	$538.57	$577.98
4-in	$818.93	$879.97	$988.30	$1,061.24	$1,139.00
6-in	$1,302.42	$1,399.55	$1,572.34	$1,688.45	$1,812.21
8-in	$1,866.48	$2,005.74	$2,253.71	$2,420.18	$2,597.63
10-in	$3,478.11	$3,737.70	$4,200.49	$4,510.86	$4,841.69



Volumetric Charges per HCF					
Proposed Rates	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
Tier 1	$0.88	$0.92	$0.98	$1.03	$1.09
Tier 2	$1.52	$1.62	$1.73	$1.85	$1.97
Tier 3	$2.13	$2.17	$2.30	$2.43	$2.58
Tier 4	$3.60	$3.73	$3.00	$3.19	$3.39
Tier 5	$4.34	$4.91	$5.24	$5.57	$5.95

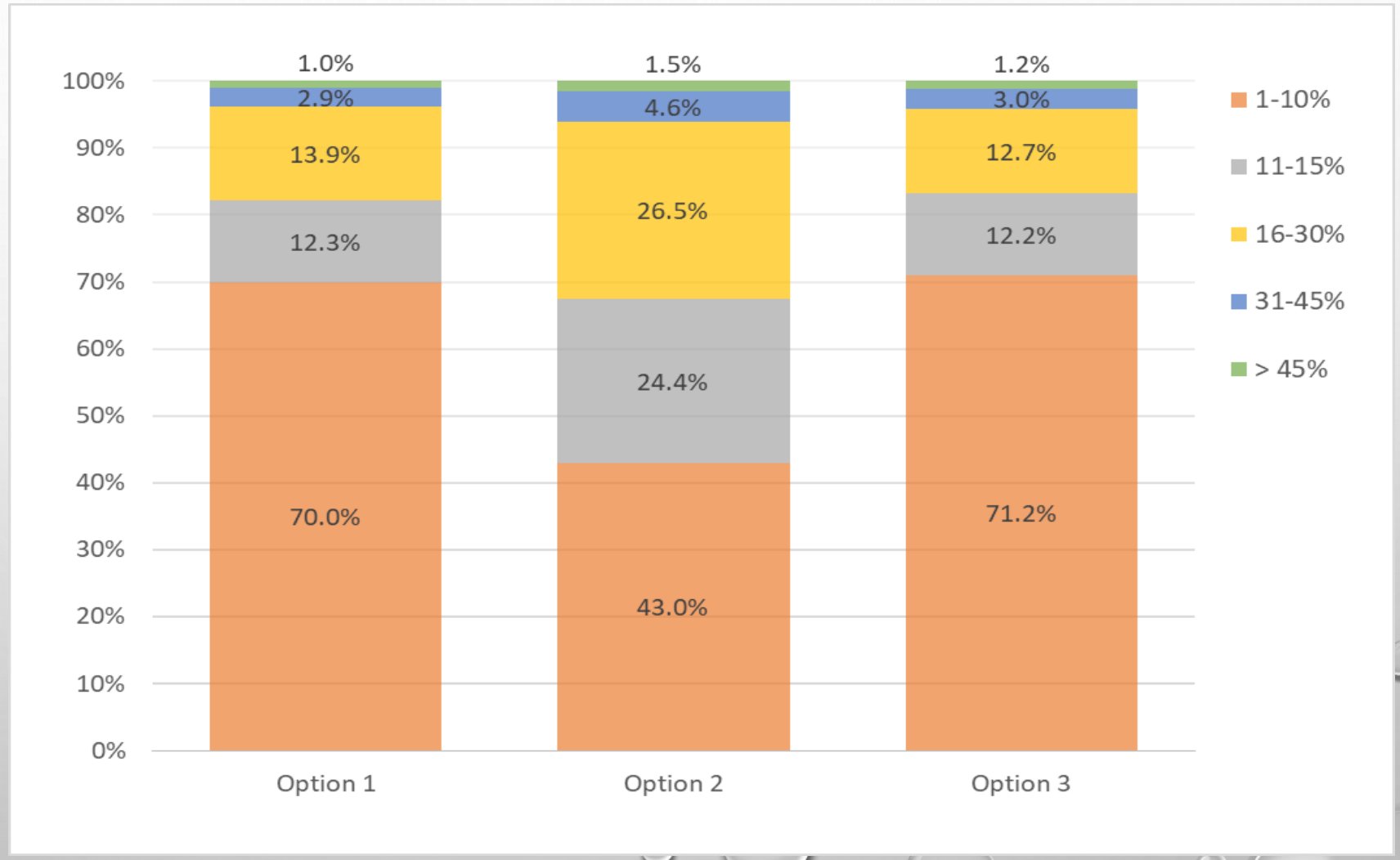
BILL IMPACTS

CY 2020

Usage	Current	Option 1	Option 2	Option 3
5 hcf	$42.17	$42.62	$46.07	$42.76
10 hcf	$46.57	$47.81	$51.25	$47.91
17 hcf	$53.51	$58.54	$61.99	$58.44
35 hcf	$100.98	$117,06	$120.51	$119.56
45 hcf	$156.01	$159.46	$162.91	$162.96

BILL IMPACTS

CY 2020



QUESTIONS

