



COSTA MESA
SANITARY DISTRICT

Wastewater 2022 Rate Study

Costa Mesa Sanitary District

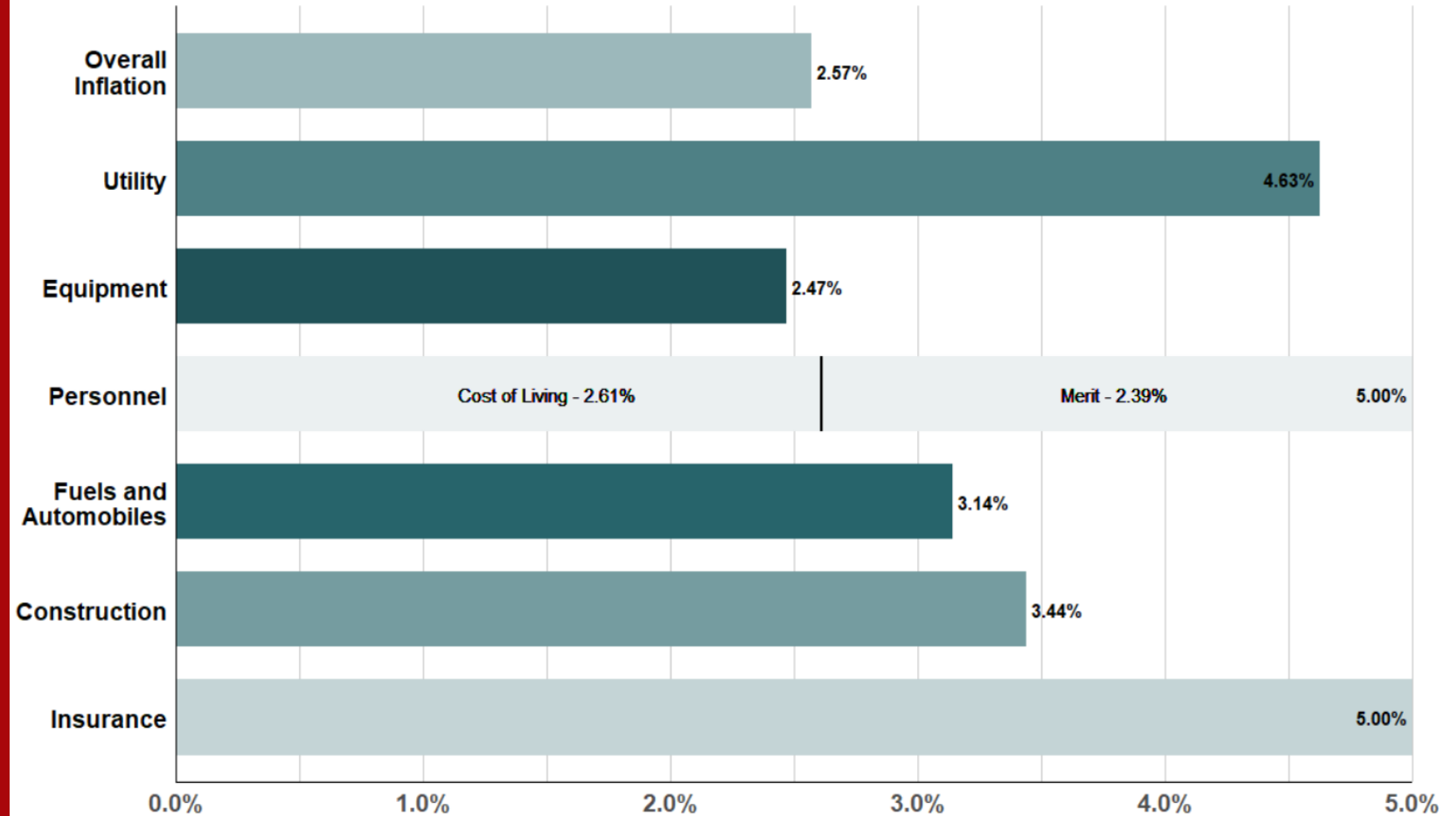
ROBERT D. NIEHAUS, INC.

12/14/2021

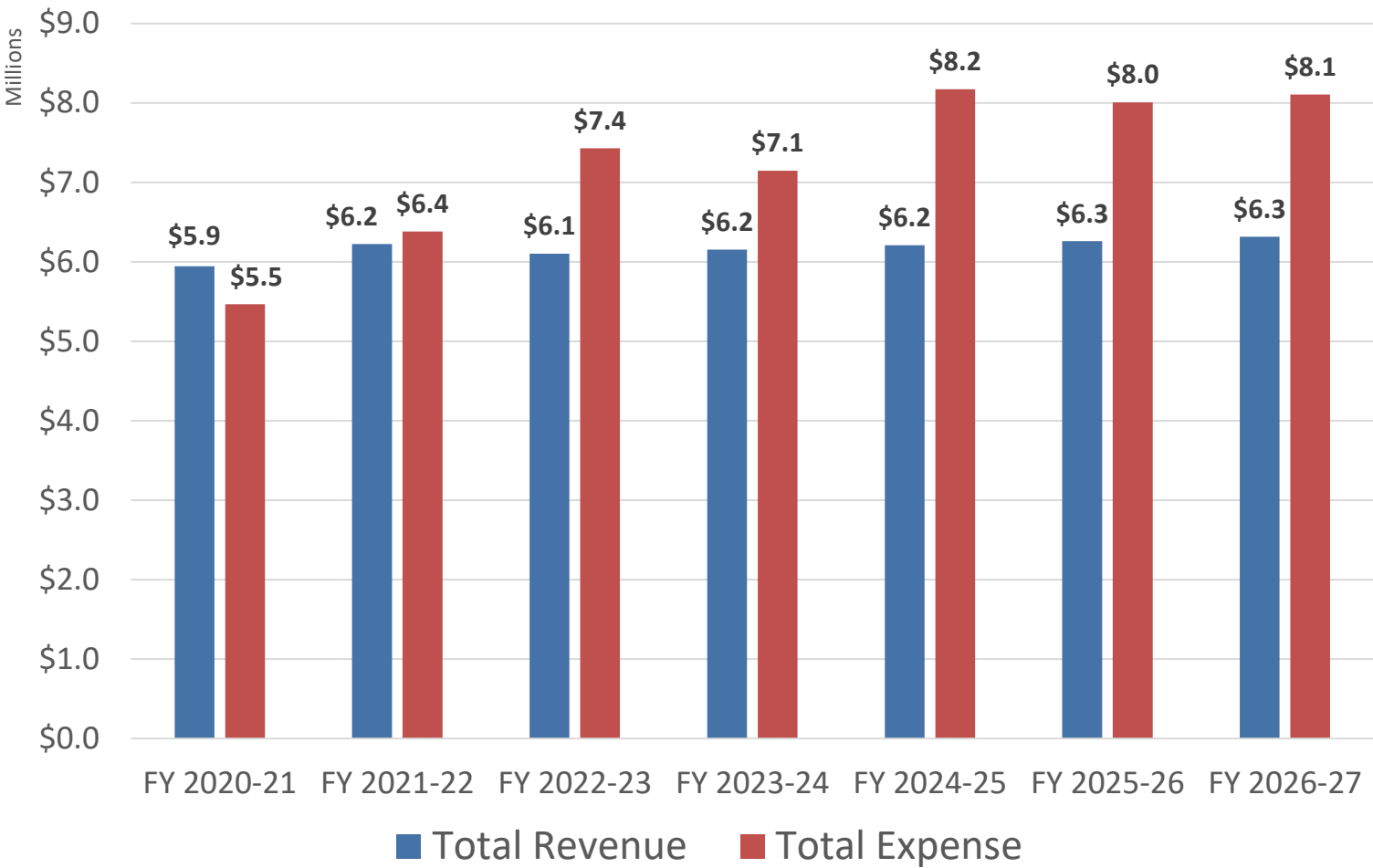


Escalation Factors

- US BLS 20-year average for Los Angeles-Long Beach-Anaheim
- District's historical data for personnel and insurance expense
- Engineering News Record (ENR) Los Angeles Building Cost Index



Revenue vs. Expense



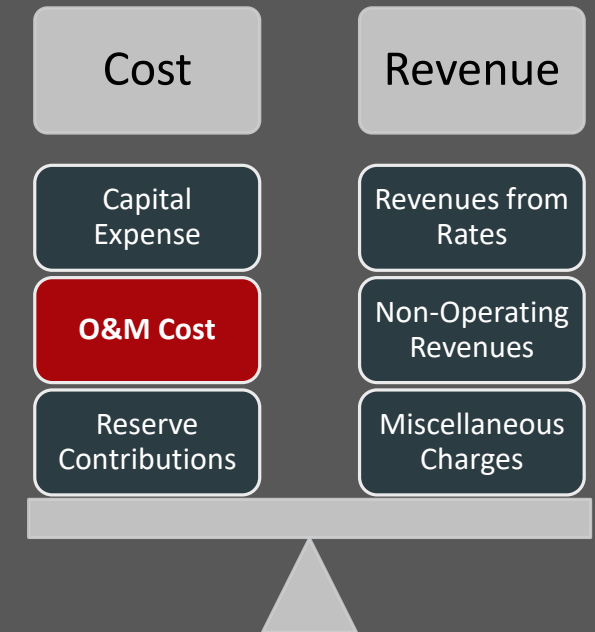
O&M

Two Wastewater Maintenance Workers	\$265,300
General Engineering Support & Resource	\$25,000
Flow Meter Rental and Cloud Access	\$45,000
IT Security Maintenance & Monitoring	\$17,000

Capital Outlay

One Combo Cleaning Unit	\$464,000
One Pickup Truck	\$77,500
One Forklift	\$46,000

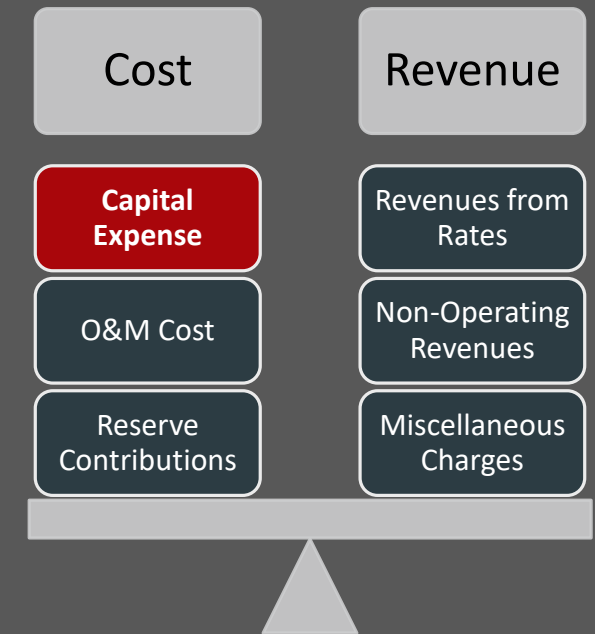
Key Operations Expenses



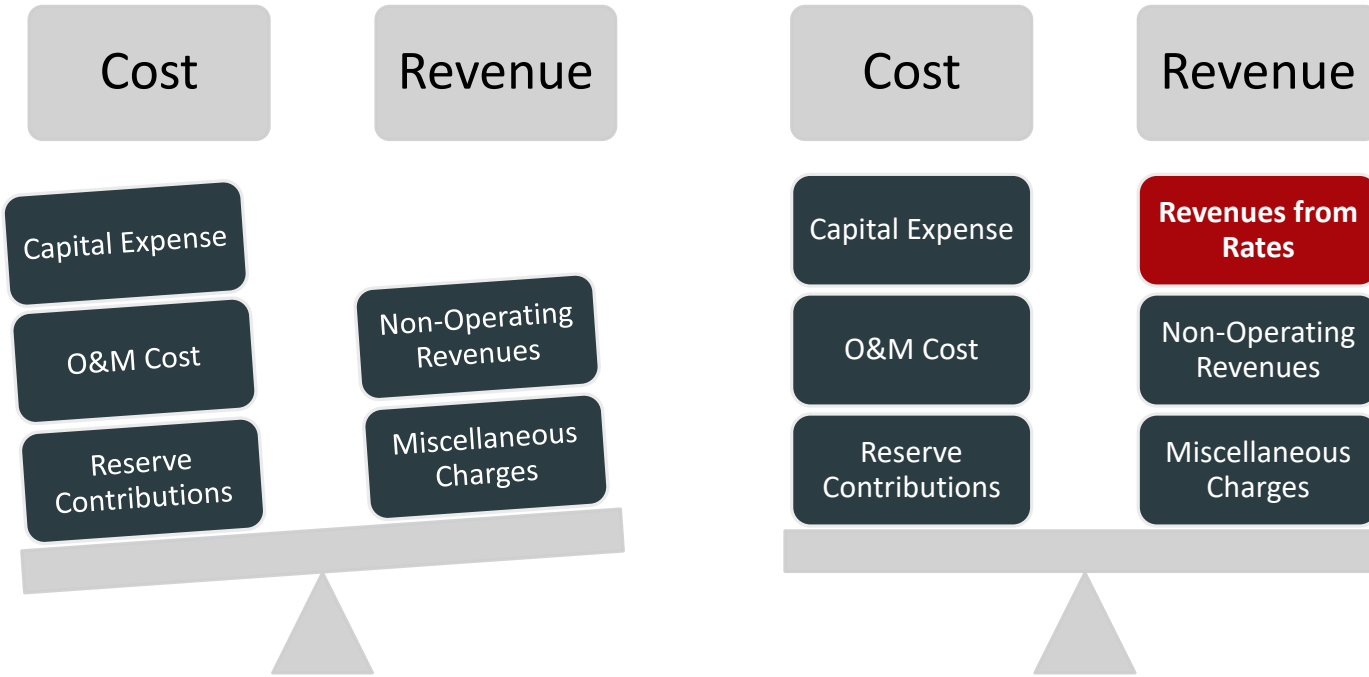
Capital Improvement Projects

Five-year Capital Improvement Projects

Force Main Replacements/Rehabilitations	\$3,665,000
Manhole Rehabilitation	\$1,571,000
Pump Station Rehabilitation	\$1,408,000
Standby Generators at Pump Stations	\$1,167,000
Grade 4 Pipe Segment Repairs/Rehabilitation	\$1,029,000
Calcium Removal	\$842,000
Odor Control at Pump Stations	\$592,000
Siphon Rehabilitations	\$310,000
Miscellaneous	\$1,383,000
Total	\$11,967,000

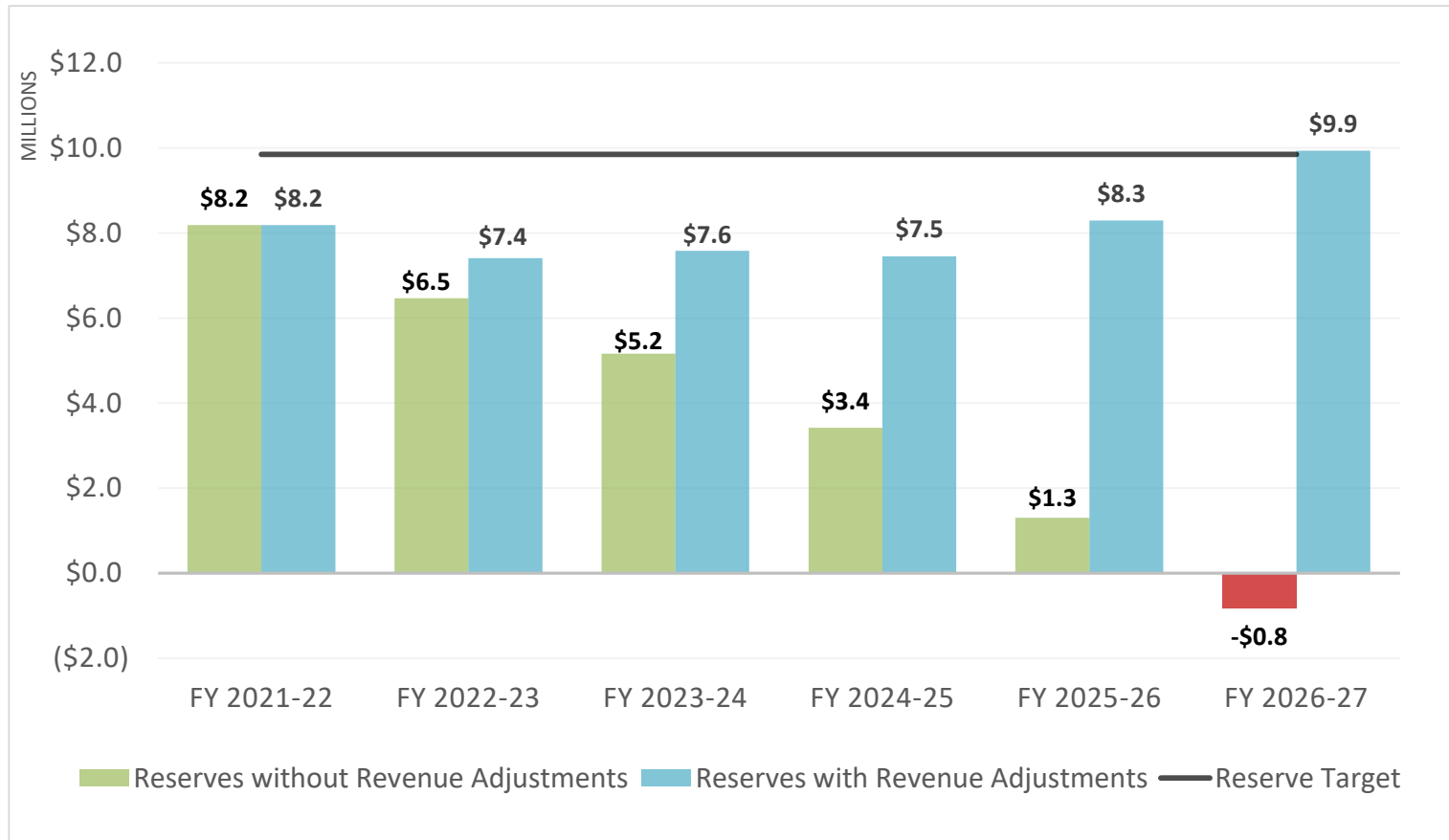


Revenue Requirements



Description	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27
	Current	Test Year				
Other Operating Revenues	(\$52,000)	(\$75,000)	(\$75,225)	(\$75,451)	(\$75,677)	(\$75,904)
O&M Expenses	\$4,581,200	\$4,959,700	\$4,904,584	\$5,106,946	\$5,401,281	\$5,529,851
Non-operating Revenues	(\$503,800)	(\$326,800)	(\$329,463)	(\$332,168)	(\$334,916)	(\$337,707)
Other Obligations	\$0	\$2,902,339	\$2,684,423	\$3,004,999	\$3,059,156	\$2,964,260
Contribution to Reserves		(\$2,270,592)	(\$2,684,423)	(\$2,959,689)	(\$3,045,925)	(\$2,957,491)
PAYGO		(\$631,746)	\$0	(\$45,310)	(\$13,230)	(\$6,769)
Net Balance	\$0	(\$1,211,772)	(\$276,293)	(\$67,457)	\$391,939	\$1,250,656
Revenue Requirements	\$4,025,400	\$6,248,466	\$6,908,025	\$7,636,868	\$8,441,783	\$9,331,156

Wastewater	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27
Revenue Adjustment	9.60%	9.60%	9.60%	9.60%	9.60%



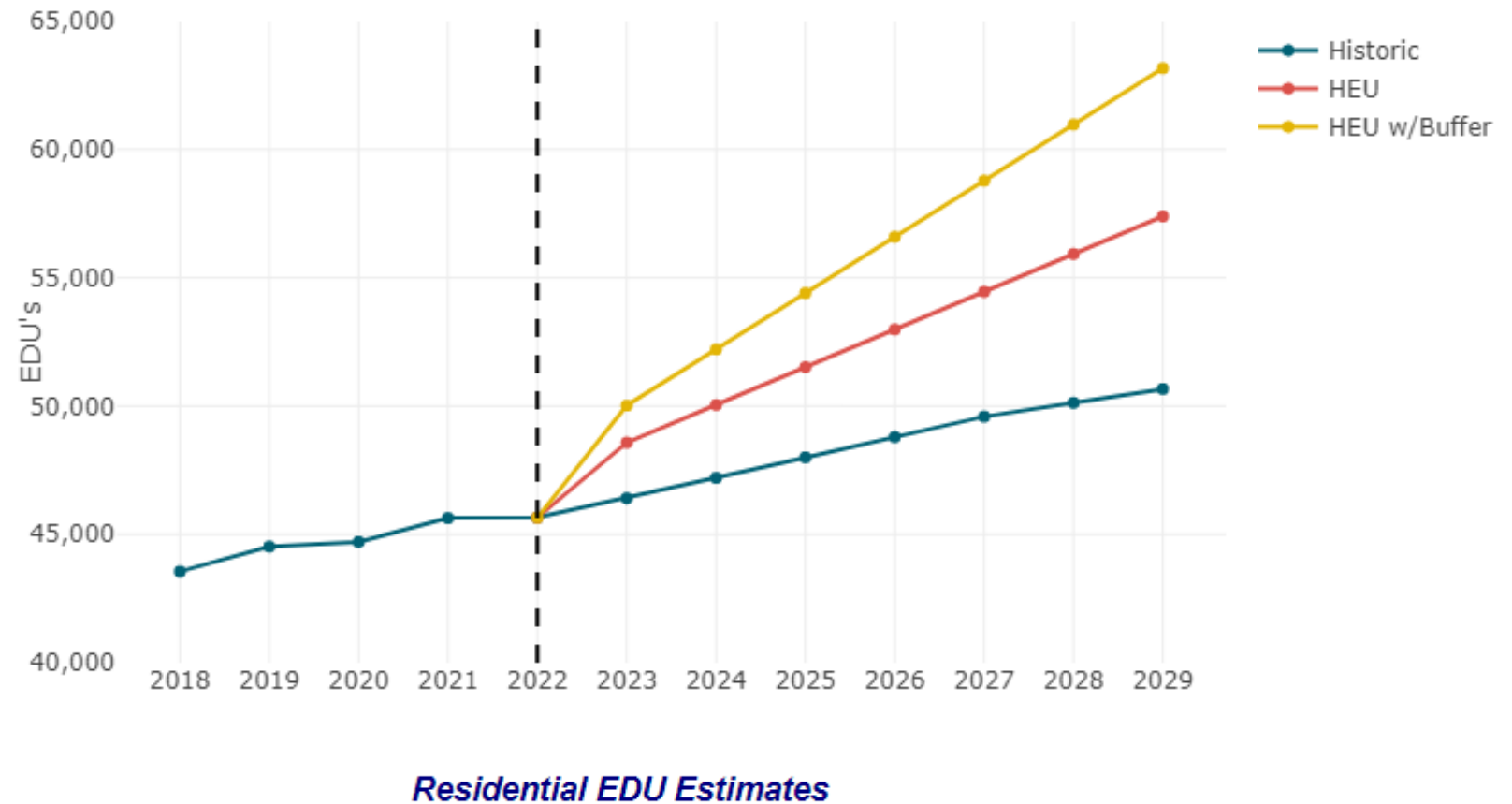
Proposed Revenue Adjustment

- Operating Reserve: 25% of total O&M - \$1.4M by FY 2027
- Asset Replacement Fund: Accumulate to replace vehicles, computers, and equipment - \$3.3M by FY 2027
- Asset Management Fund: Maintain \$5.0M (currently \$5.2M)

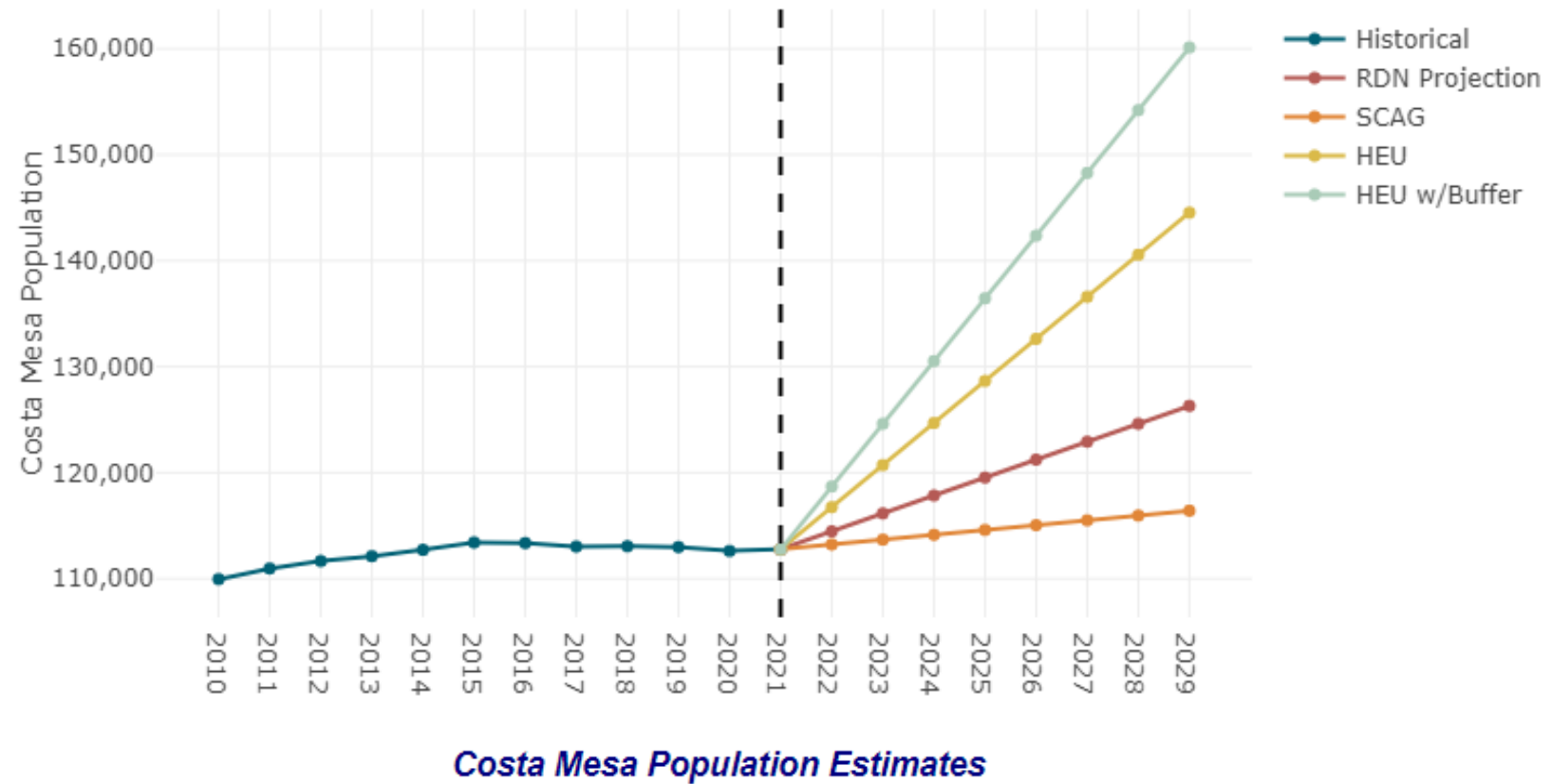
EDU Growth Projections

We weighed three options:

- Growth based on historical precedent and known development
- Growth based on planning document housing needs
- Growth based on the maximum possible capacity

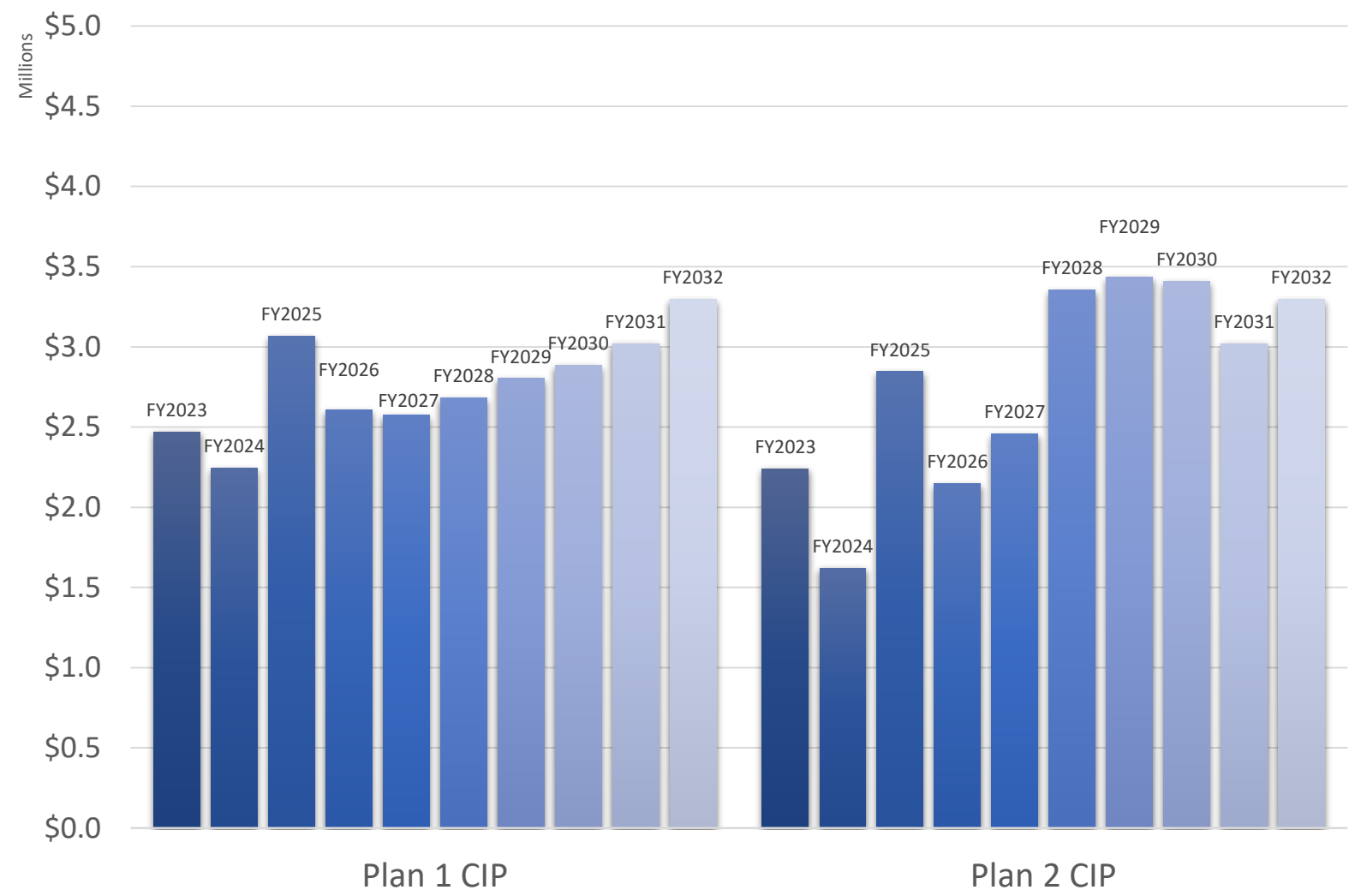


Population Growth Projections



Alternative Capital Plan

- Plan 1: Original Plan
- Plan 2: Reduced CIP Plan (some moved to FY 2028 and later)



Options

Option A:
9.6 % x 5 years

- Fiscally sound based on RDN growth projection
- All CIPs executed
- No substantial rate increase expected after the study period
- Could lower the increases if growth happens

Option B:
9.6 % x 2 years

- Creates \$4.2 M deficit under RDN projection and \$2.6 M deficit under fast growth if no additional action is taken
- Needs another Prop 218 that will cost \$50K in two years

Option C:
17.0% x 2 years

- Fiscally sound based on RDN growth projection
- All CIPs executed
- Mild rate increases after this study period (4%)
- Could not lower the increases if growth happens after the 3rd year

Option D:
8.1 % x 5 years

- Fiscally sound based on RDN growth projection
- Reduced CIPs during the first five years
- Mild rate increases after this study period (3%)

Option E:
9.5%, 8.5%, 8.0%,
7.5%, 6.0%

- Fiscally sound based on RDN growth projection
- Reduced CIPs executed during the first five years
- Mild rate increases after this study period (3%)
- \$0.4 M more in cash balance at the end of FY 2027

RDN Proposed Rates Option A

Wastewater	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27
Revenue Adjustment	9.60%	9.60%	9.60%	9.60%	9.60%

Customer Class	Current Rates	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27
Single Family Residential	\$92.38	\$94.82	\$103.92	\$113.90	\$124.83	\$136.82
Multi-Family Residential	\$54.21	\$71.97	\$78.88	\$86.45	\$94.75	\$103.85
Commercial - Ave Strength	\$41.09	\$41.34	\$45.31	\$49.66	\$54.43	\$59.65
Commercial - High Strength	\$44.81	\$46.03	\$50.45	\$55.29	\$60.60	\$66.42
Industrial	\$105.48	\$106.45	\$116.67	\$127.87	\$140.14	\$153.60
Trailer	\$54.21	\$66.84	\$73.26	\$80.29	\$88.00	\$96.44
ADU	\$0.00	\$34.85	\$38.20	\$41.86	\$45.88	\$50.29

Option B: 2-Year Rate Schedule w/ 9.6 %

Wastewater	FY 2022-23	FY 2023-24
Revenue Adjustment	9.60%	9.60%

Customer Class	FY 2022-23	FY 2023-24	FY 2023-24 NEW RATE STUDY
Single Family Residential	\$94.82	\$103.92	
Multi-Family Residential	\$71.97	\$78.88	
Commercial - Ave Strength	\$41.34	\$45.31	
Commercial - High Strength	\$46.03	\$50.45	
Industrial	\$106.45	\$116.67	
Trailer	\$66.84	\$73.26	
ADU	\$34.85	\$38.20	

- Creates \$4.2M deficit based on RDN projection and \$2.6M deficit based on fast growth at the end of FY 2027
- Must complete another rate study
 - that might take up to one year
 - Requires another Proposition 218 Hearing
 - \$50,000 in additional expense Staff hours

Option C: 2-Year Rate Schedule w/ 17.0 %

- Fiscally sound based on RDN growth projection
- All CIPs executed
- Mild rate increases for the following five-year period (4%)
- Could not lower the increases if growth happens after the 3rd year

Wastewater	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27
Revenue Adjustment	17.00%	17.00%	0.00%	0.00%	0.00%

Customer Class	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27
Single Family Residential	\$101.22	\$118.43	\$118.43	\$118.43	\$118.43
Multi-Family Residential	\$76.83	\$89.89	\$89.89	\$89.89	\$89.89
Commercial - Ave Strength	\$44.13	\$51.63	\$51.63	\$51.63	\$51.63
Commercial - High Strength	\$49.14	\$57.49	\$57.49	\$57.49	\$57.49
Industrial	\$113.64	\$132.96	\$132.96	\$132.96	\$132.96
Trailer	\$71.35	\$83.48	\$83.48	\$83.48	\$83.48
ADU	\$37.21	\$43.54	\$43.54	\$43.54	\$43.54

Option D: Annual 8.1% w/Deferred CIPs

- Fiscally sound based on RDN growth projection
- Reduced CIPs executed during the first five years
- Mild rate increases for the following five-year period (3%)

Wastewater	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27
Revenue Adjustment	8.10%	8.10%	8.10%	8.10%	8.10%

Customer Class	Proposed	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27
Single Family Residential	\$93.75	\$101.34	\$109.55	\$118.43	\$128.02
Multi-Family Residential	\$70.90	\$76.64	\$82.85	\$89.56	\$96.82
Commercial - Ave Strength	\$40.73	\$44.03	\$47.60	\$51.45	\$55.62
Commercial - High Strength	\$45.36	\$49.03	\$53.01	\$57.30	\$61.94
Industrial	\$104.90	\$113.40	\$122.58	\$132.51	\$143.24
Trailer	\$65.81	\$71.14	\$76.90	\$83.13	\$89.87
ADU	\$34.31	\$37.09	\$40.09	\$43.34	\$46.85

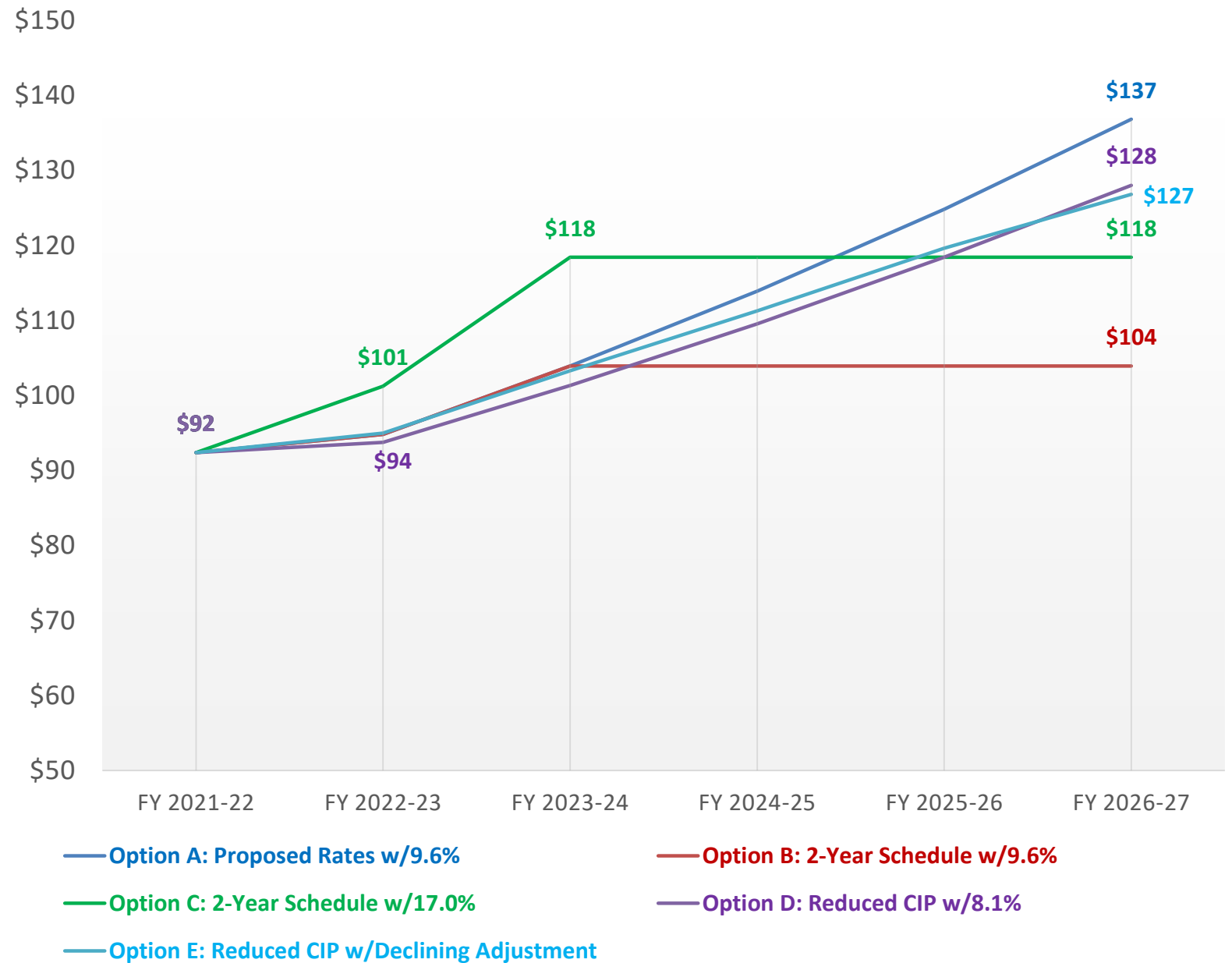
Option E: 9.5, 8.5, 8.0, 7.5. 6.0% w/Deferred CIPs

- Fiscally sound based on RDN growth projection
- Reduced CIPs executed during the first five
- Mild rate increases for the following five-year period (3%)
- \$0.4 M more in cash balance at the end of FY 2027 can be used for additional CIP

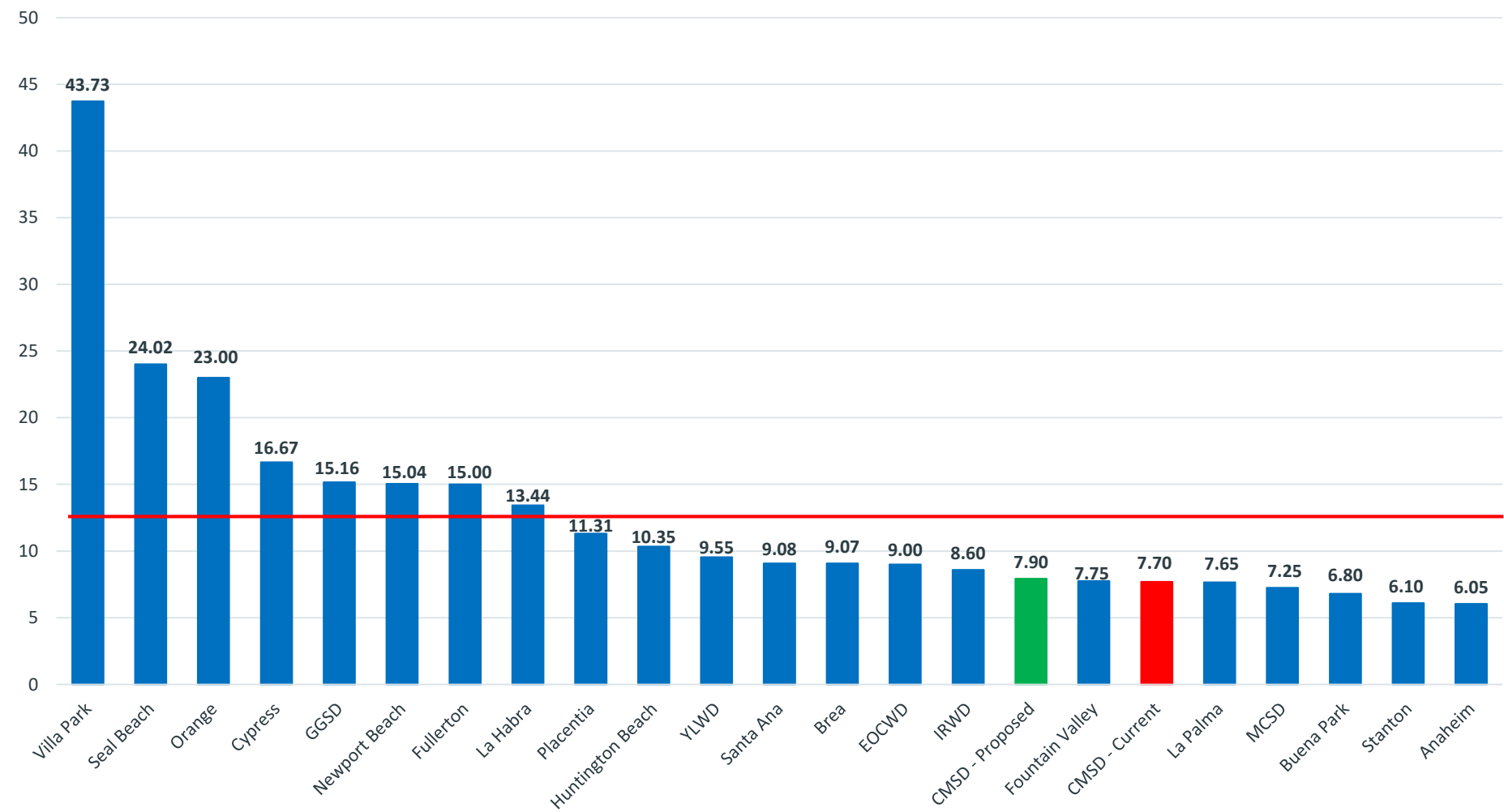
Wastewater	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27
Revenue Adjustment	9.50%	8.50%	8.00%	7.50%	6.00%

Customer Class	Proposed	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27
Single Family Residential	\$94.96	\$103.03	\$111.27	\$119.62	\$126.80
Multi-Family Residential	\$71.81	\$77.91	\$84.15	\$90.46	\$95.89
Commercial - Ave Strength	\$41.25	\$44.76	\$48.34	\$51.96	\$55.08
Commercial - High Strength	\$45.95	\$49.86	\$53.84	\$57.88	\$61.36
Industrial	\$106.26	\$115.29	\$124.52	\$133.85	\$141.89
Trailer	\$66.66	\$72.33	\$78.11	\$83.97	\$89.01
ADU	\$34.75	\$37.70	\$40.72	\$43.77	\$46.40

Five Options Rate Comparison

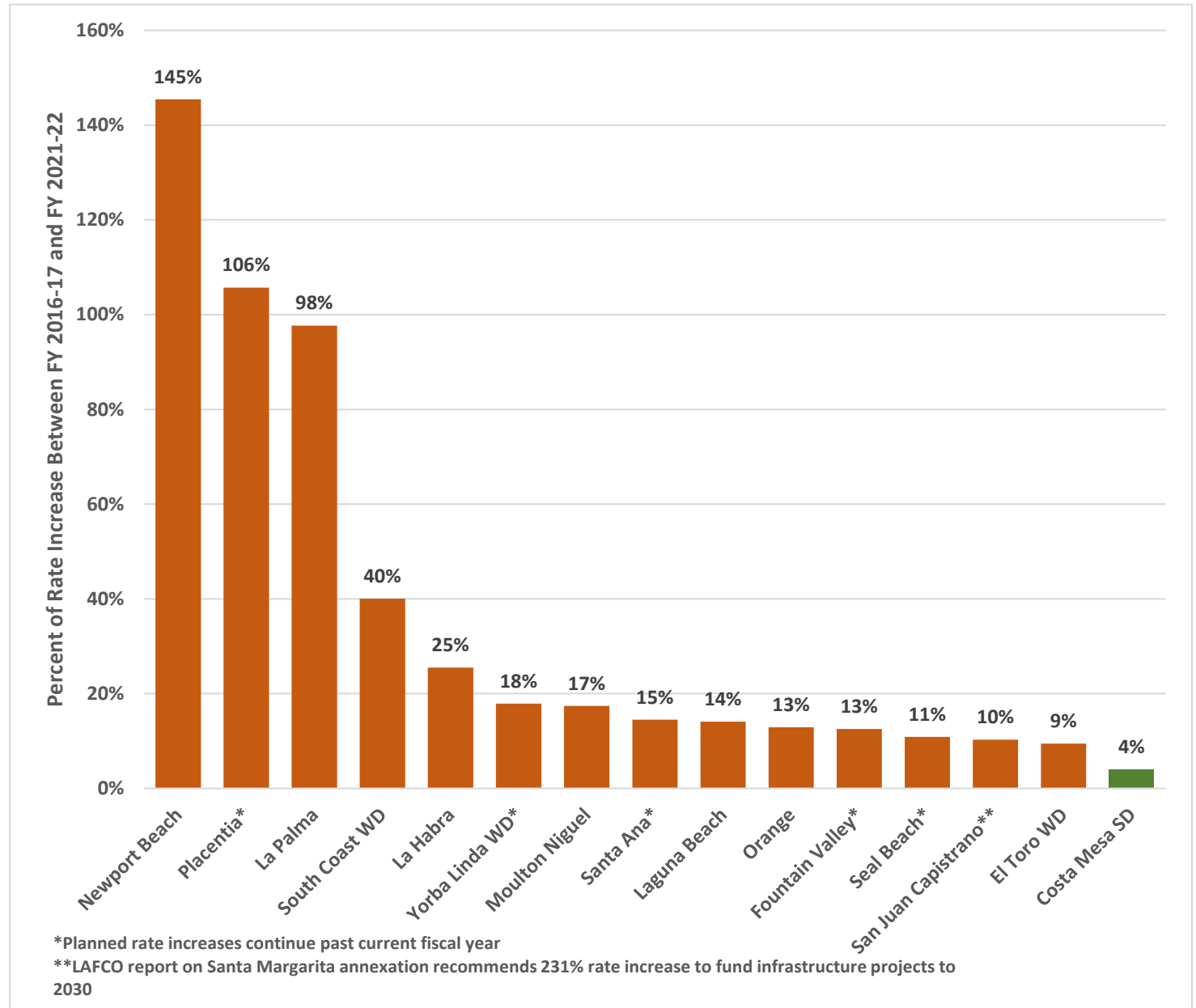


Single Family Residential Wastewater Monthly Rates



Percent of Rate Increase

FY 2016-17 – FY 2021-22

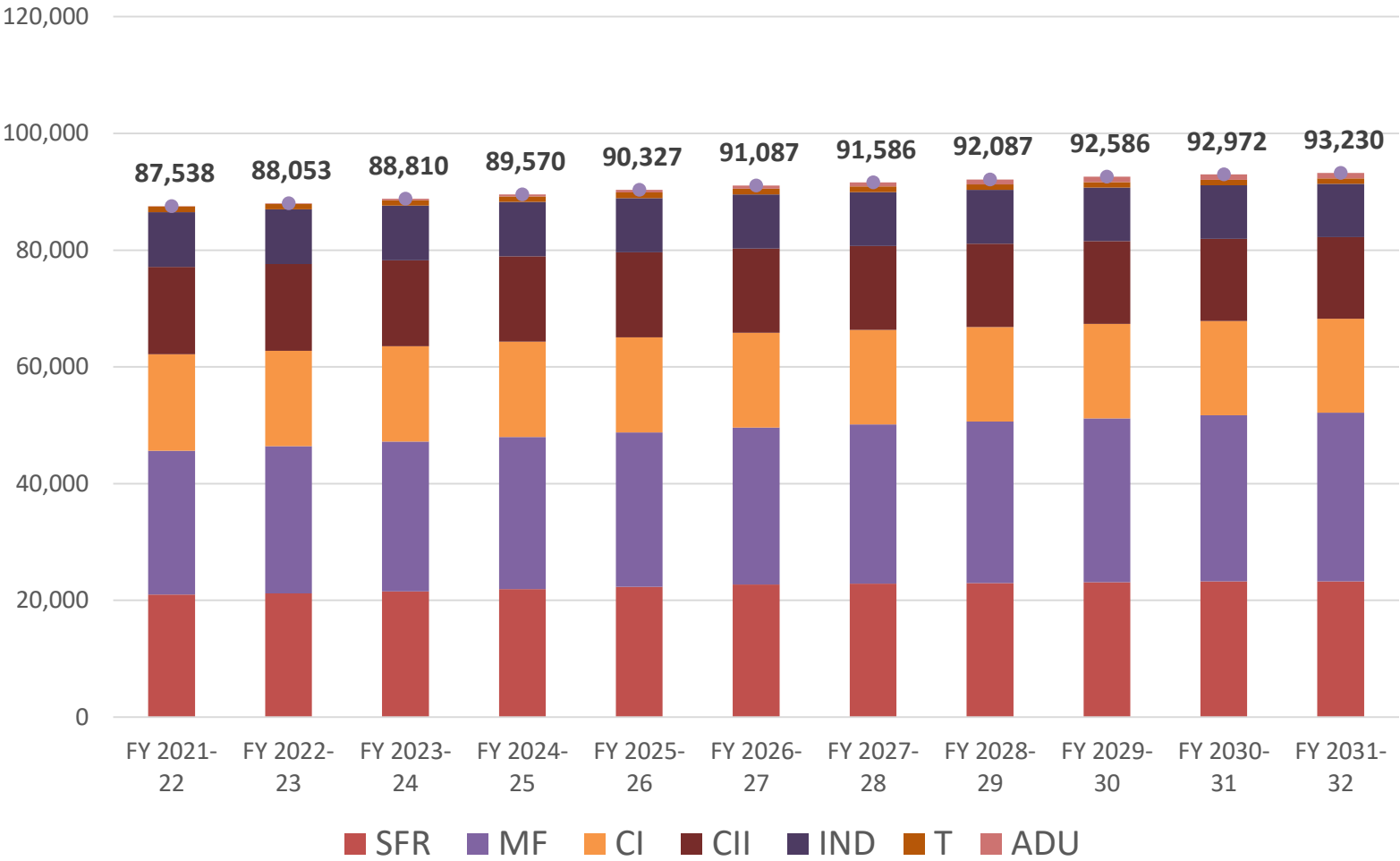


Questions?



RDN's EDU Growth Projections

- EDUs are projected to increase about 500-760 per year during study period
- One Metro West Development is projected to add 264 units per year
- 113 new ADUs per year



2012 Study

Total Flow: 11.1 million gpd

55 gpcd for SFR and 40 for
MFR customers

Total Flow – Residential Flow
= Non Residential Use

RDN Study

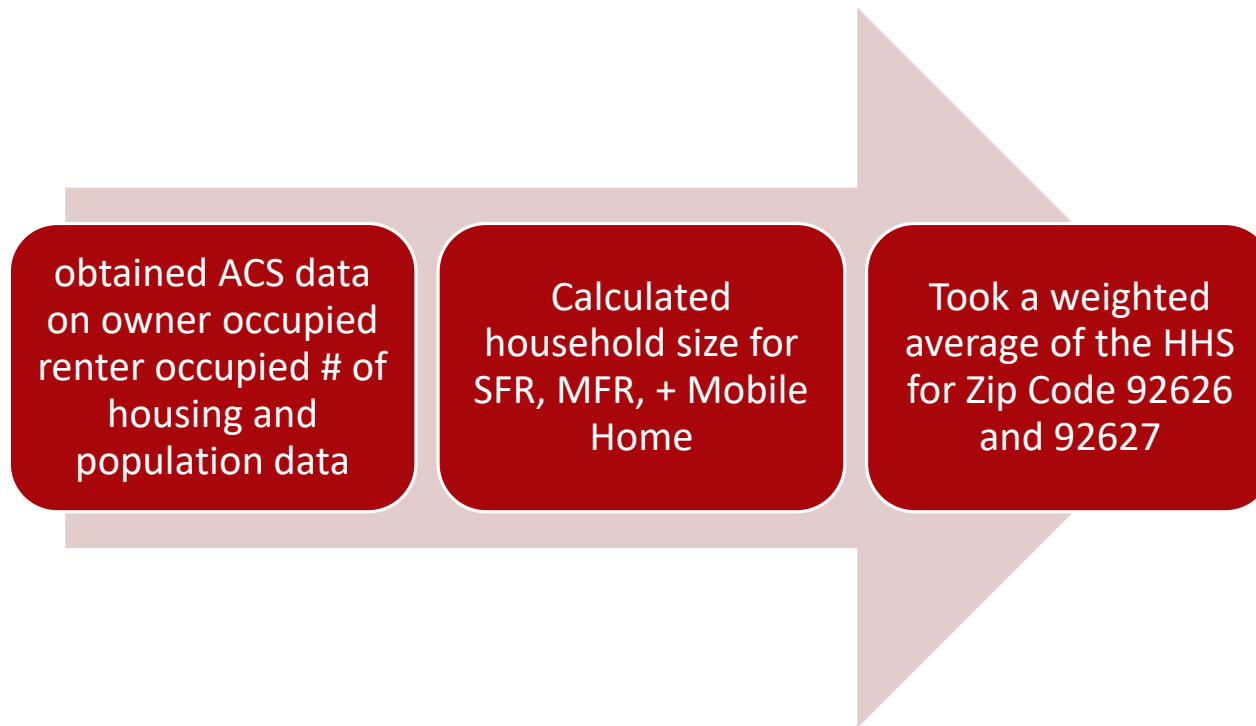
Total Flow: 8.6 million gpd

55 gpcd for all Residential
customers

Flow estimated for individual
Class and scaled down to
match the total flow

Flow Estimate

Flow for each customer class
was estimated based on
2020 Master Plan



Household Size Analysis

Single Family Residential Customers Household Size

Zip Code	# of SFR Housing	SFR Population	HHS
Owner Occupied 92626	7,232	21,636	2.99
Owner Occupied 92627	6,774	18,500	2.73
Renter Occupied 92626	1,622	5,299	3.27
Renter Occupied 92627	4,097	12,458	3.04
Weighted Average			2.94

Multi-Family Residential Customers Household Size

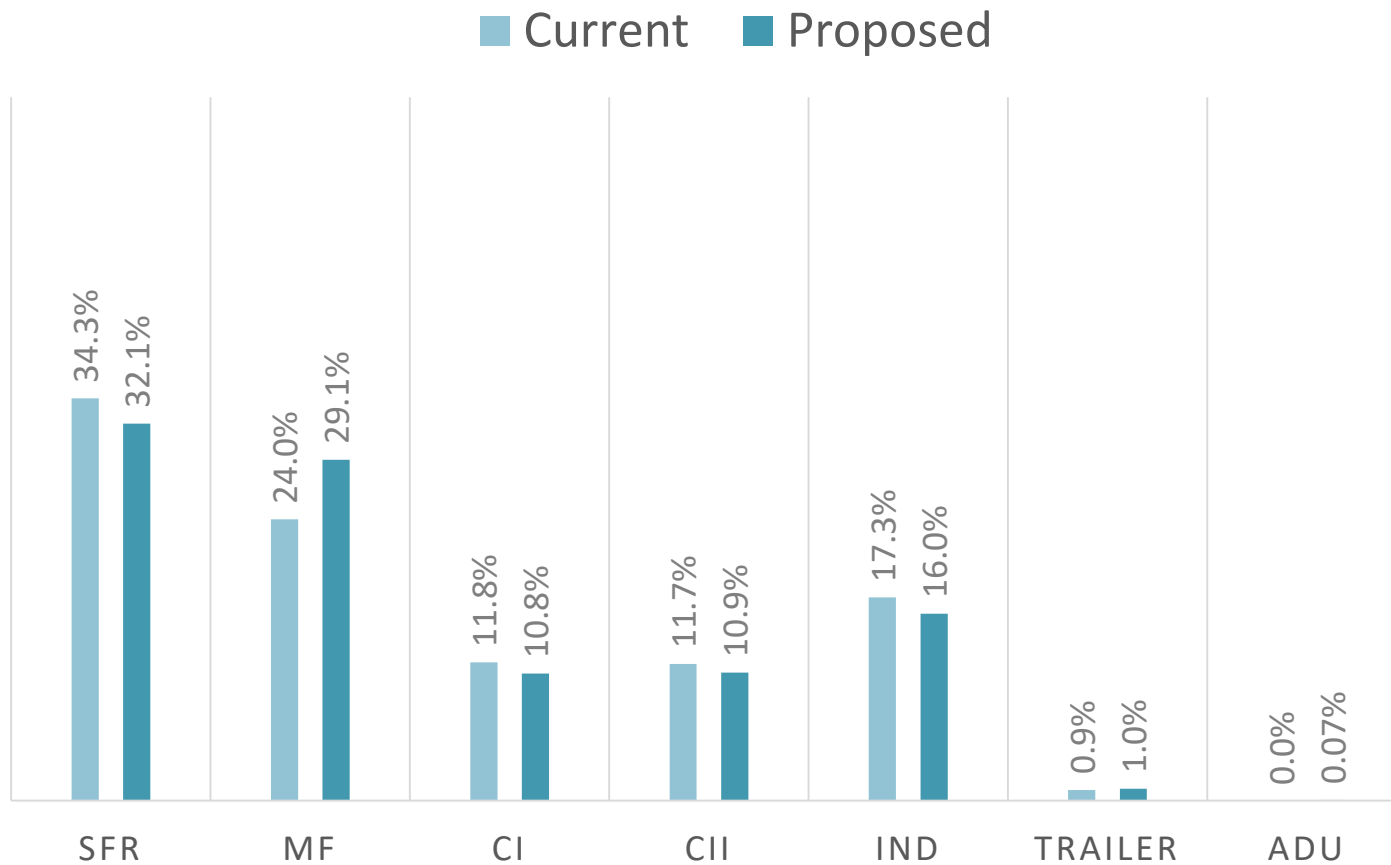
Zip Code2	# of MFR Housing	Population	HHS
Owner Occupied 92626	288	535	1.86
Owner Occupied 92627	688	1,887	2.74
Renter Occupied 92626	9,719	22,155	2.28
Renter Occupied 92627	9,695	26,991	2.78
Weighted Average			2.53

Trailer Customers Household Size

Zip Code2	# of Mobile Homes	Population	HHS
Owner Occupied 92626	24	24	1.00
Owner Occupied 92627	645	1,313	2.04
Renter Occupied 92626	62	30	0.48
Renter Occupied 92627	221	754	3.41
Weighted Average			2.23

Household Size Analysis

Customer Class	HHS	EDU
SFR	2.94	1.00
MFR	2.53	0.86
Trailer	2.23	0.76
ADU	1.25	0.43



Cost of Service

% of revenue
requirements for
which each customer
class is responsible