

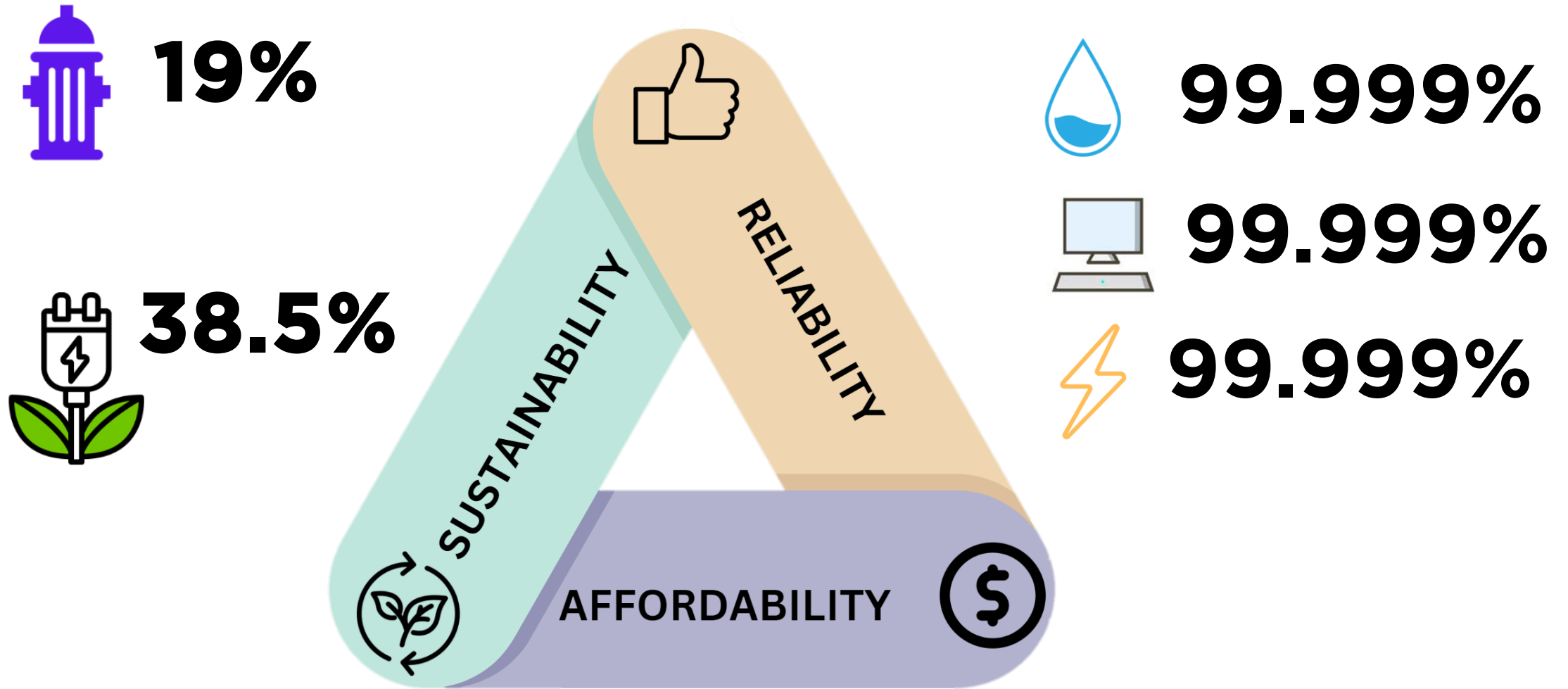
# FY 2023-24 & FY 2024-25 Proposed Budget

BWP Board  
April 6, 2023



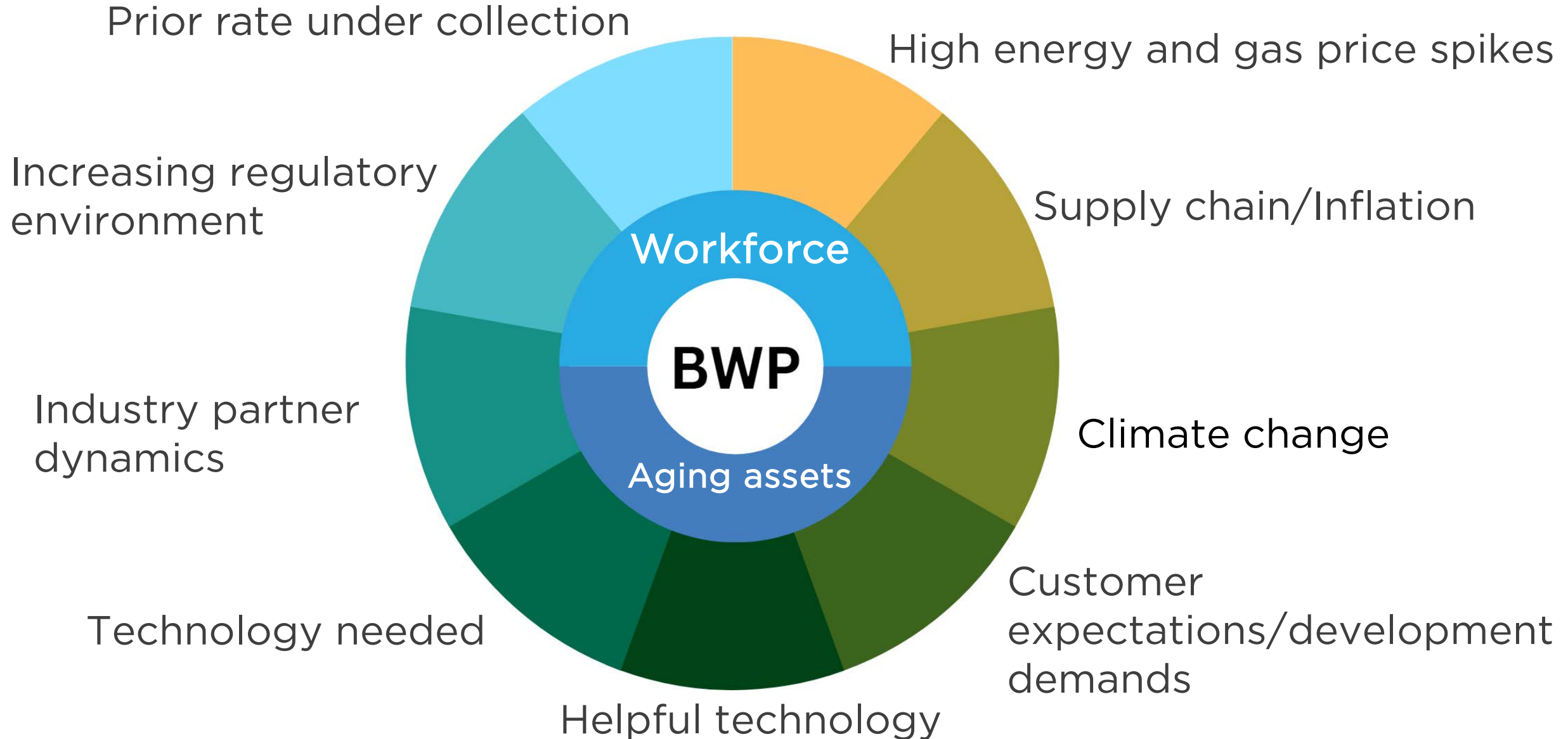
**WATER AND  
POWER**

# BWP Performance



 ***Low Regional Rates***

# BWP Challenges



# Inflation

Renewables  
up **2X – 3X**

New substation  
buildout up  
**47%**

Fiber optic  
cable up  
**20%**

Chlorine  
**205%**

Water  
meter boxes  
up **59%**

Transformers  
up **100%**

Copper coils  
for water  
service lines  
**doubled**

Fire hydrants  
up **41%**

Substation  
rebuild up  
**67%**

Ductile iron  
pipe up  
**52-79%**

# Historical Natural Gas and Energy Prices

	Natural Gas Prices (\$/MMBTU)	Energy Prices (\$/MWH)
2020	\$3.00	\$47.61
2021	\$7.10	\$61.81
2022	\$9.20	\$96.28
2023	\$15.30	\$100.16

# BWP Cost Savings and Avoidance



TDMS database	\$7,000,000
Early bond and loan redemptions	\$6,983,000
IPP STS Transmission Losses	\$5,578,291
Wholesale margin	\$2,360,000
Use of IPP	\$2,339,682
Prepayment of gas	\$989,176
Termination of gas contract	\$444,000
Other	\$1,423,187
<b>Total</b>	<b>\$ 27,117,336</b>



# Revenue Resources Offsetting Rate Increases



- Aid-in-construction
- Capacity charge
- Grants
- Investing
- Low Carbon Fuel Standard Credits
- OneBurbank
- Recycled water sales to LA
- Wholesale trading

# Pension Cost Reduction Strategies

- Pay down liability to CalPERs
  - Use one-time funds to pay down the unfunded liability
  - Improve long-term cash flow by reducing future payment amounts
  - Generate significant interest expense savings

	Electric	Water
Total 2-Year Commitment	\$2,062,200	\$330,000
FY 2023-24	\$1,031,100	\$165,000
FY 2024-25	\$1,031,100	\$165,000
Interest Savings	\$660,935	\$105,765
Pay-off Period	21 years	21 years



# Proposed Budget Authority

(\$ in 000's)	FY 2022-23 Adopted	FY 2023-24 Proposed	23-24 vs 22-23 Decr / (Incr) in Budget	FY 2024-25 Proposed	24-25 vs 23-24 Decr / (Incr) in Budget
Electric Fund	\$313,086	322,324	(\$9,238)	\$330,799	(\$8,475)
Water Fund	\$60,666	54,354	\$6,312	51,294	\$3,060
MPP Operating Fund	\$24,151	\$27,809	(\$3,658)	\$29,591	(\$1,781)
Tieton Hydro Operating	\$2,082	\$1,880	\$202	\$1,917	(\$38)
Street Lighting Fund	\$3,437	\$3,919	(\$482)	\$5,920	(\$2,000)
Communications Fund	\$4,417	\$5,112	(\$695)	\$4,408	\$704
<b>Total Authority</b>	<b>\$407,839</b>	<b>\$415,398</b>	<b>(\$7,559)</b>	<b>\$423,928</b>	<b>(\$8,530)</b>

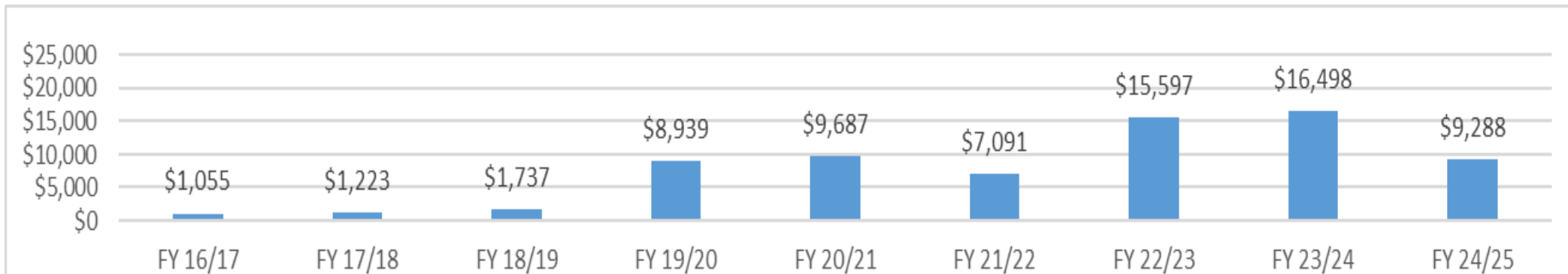
# Electric Fund



# Under-Collection

	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24	FY 24-25
<b>Customer Rate Increase %</b>	<b>2.1%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>1.0%</b>	<b>0.0%</b>	<b>2.5%</b>	<b>6.0%</b>	<b>8.5%</b>	<b>8.0%</b>
Under-Collection from Prior Year	4,738	1,055	1,223	1,737	8,939	9,687	7,091	15,597	16,498
New Drivers	4,591	2,058	1,136	8,848	7,999	6,608	19,257	25,560	12,314
New Reductions	(4,500)	1,890	(622)		(7,251)	(7,992)	(550)	(10,234)	(4,095)
Rate Increase	(3,774)	-	-	(1,646)	-	(1,212)	(10,201)	(13,925)	(15,429)
<b>Under-Collection (\$000)</b>	<b>1,055</b>	<b>1,223</b>	<b>1,737</b>	<b>8,939</b>	<b>9,687</b>	<b>7,091</b>	<b>15,597</b>	<b>16,498</b>	<b>9,288</b>

Under-Collection (\$000)





# Rate Drivers FY 23-24

(\$ in 000's)	\$	Rate Requirement
Under-collection from prior years	\$15,597	9.52%
Increased fuel and power costs	\$18,650	11.33%
Capital financing	\$6,500	3.97%
<b>2023-24 rate requirement</b>	<b>\$40,657</b>	<b>24.82%</b>
2023-24 rate increase	(\$13,925)	(8.50%)
ONE Burbank revenues	(\$400)	(0.24%)
Revenue from higher retail load	(\$618)	(0.38%)
Financing of IPP demolition	(\$2,000)	(1.22%)
Operational efficiencies	(\$1,386)	(0.85%)
Reduced pension funding plan	(\$1,664)	(1.02%)
Interest and other income	(\$4,166)	(2.54%)
<b>Projected under-collection</b>	<b>\$16,498</b>	<b>10.07%</b>

# Rate Drivers FY 24-25

(\$ in 000's)	\$	Rate Requirement
Under-collection from prior years	\$16,498	8.55%
Fuel and power supply	\$6,202	3.22%
Operations and maintenance	\$3,829	1.99%
Interest and other income	\$2,283	1.18%
<b>2024-25 rate requirement</b>	<b>\$28,812</b>	<b>14.94%</b>
2024-25 rate increase	(\$15,429)	(8.00%)
Revenue from higher retail load	(\$3,895)	(2.02%)
ONE Burbank revenues	(\$200)	(0.10%)
<b>Projected under-collection</b>	<b>\$9,288</b>	<b>4.82%</b>



# Highlights and Assumptions

- 0.43% and 2.48% higher demand
- 4.1% and 3.0% general inflation
- Utility costs rising @ 2 - 2.6x general inflation
- Higher energy prices
- IPP coal issues
- Investments in a sustainable future
- 42.5% and 45% renewables
- 8.5% and 8% rate increase
- Utilizing energy cost adjustment charge (ECAC) and reserves to stabilize rates



# Forecast Assumptions for Years 3-5

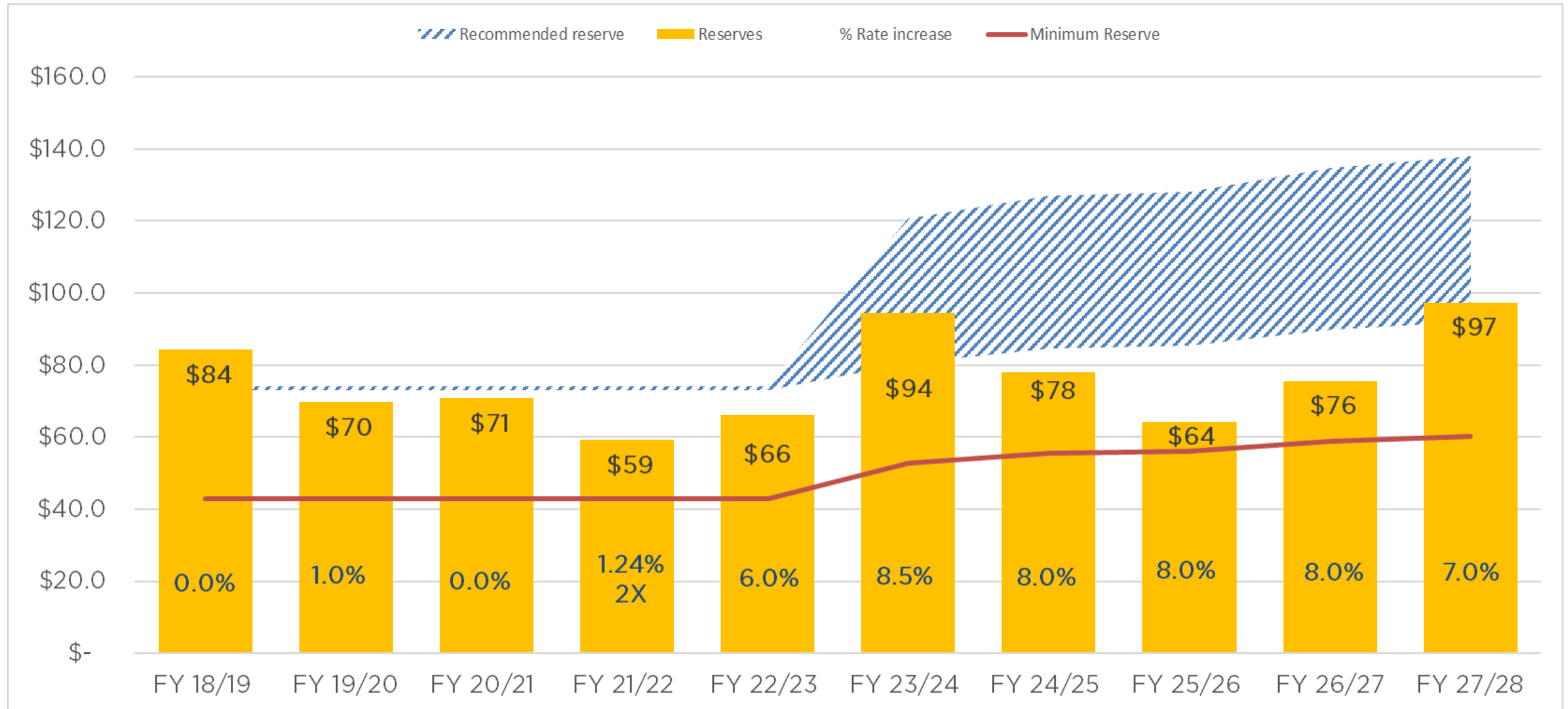
- 53% renewables
- IPP demolition
- New transmission planning
- Studies for hydrogen and carbon capture at MPP
- Investments in a sustainable future
- Increase in substation capacity
- Work force modernization
- Continue rate plan toward full cost recovery

A large blue diagonal graphic on the left side of the slide, transitioning from a darker blue at the top to a lighter blue at the bottom.

# Future Costs Not Included in the 5-year Forecast

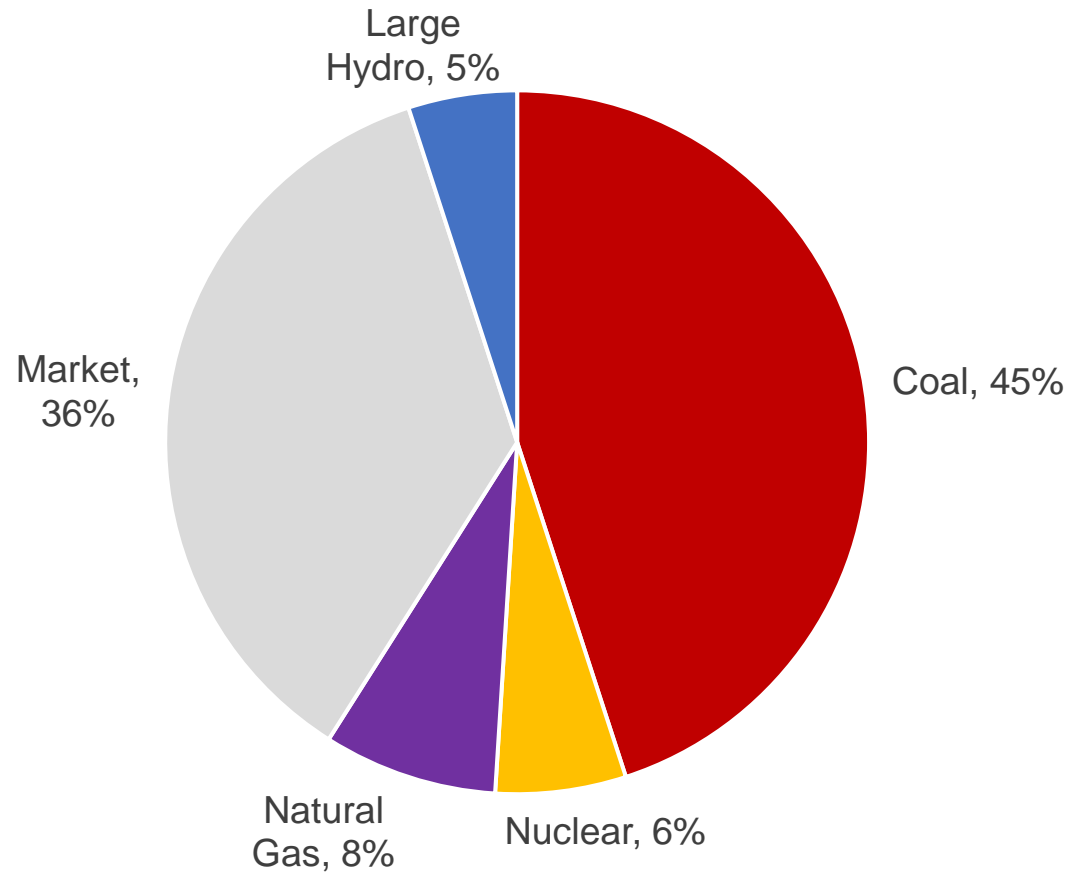
- Future staffing needs
- Transmission buildout
- Olive replacement with renewable peak generation units
- Additional pension liability prepayment
- IPP decommissioning costs
- Carbon capture & green hydrogen implementation
- Additional renewable price increases

# Cash Reserves in Millions \$

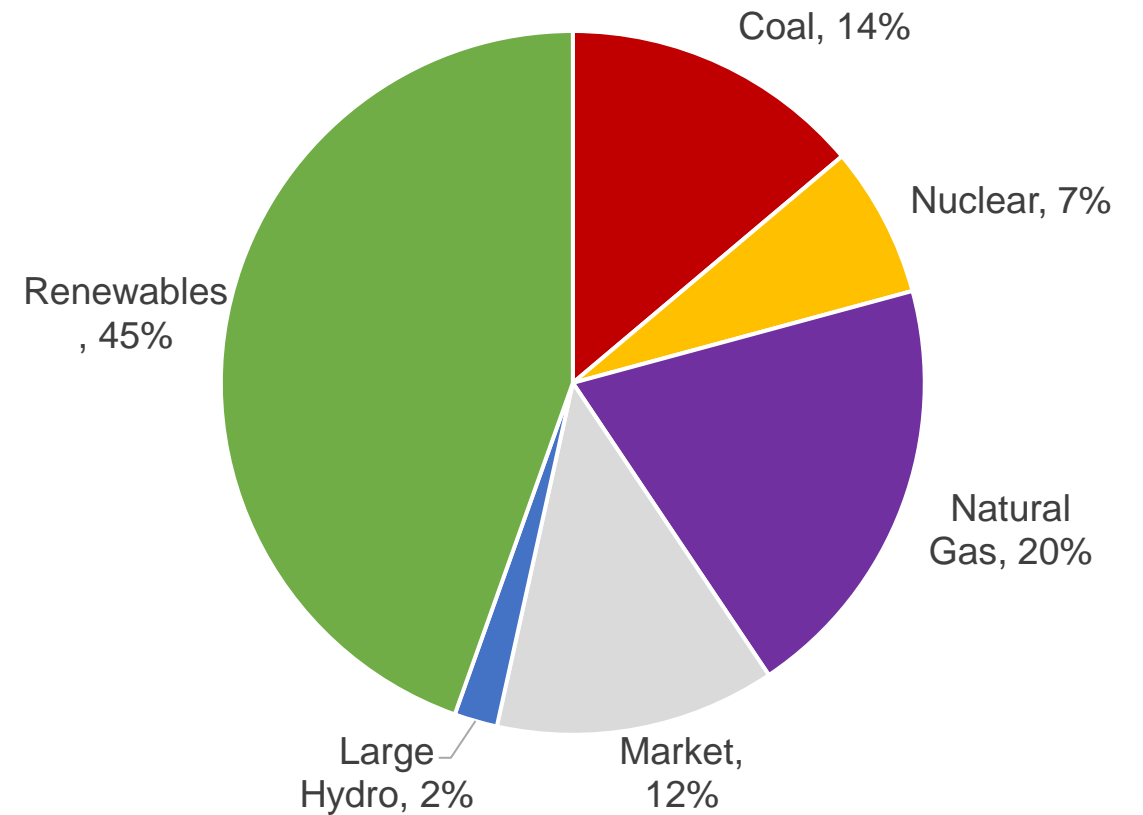


# Power Mix

FY 2001-2002



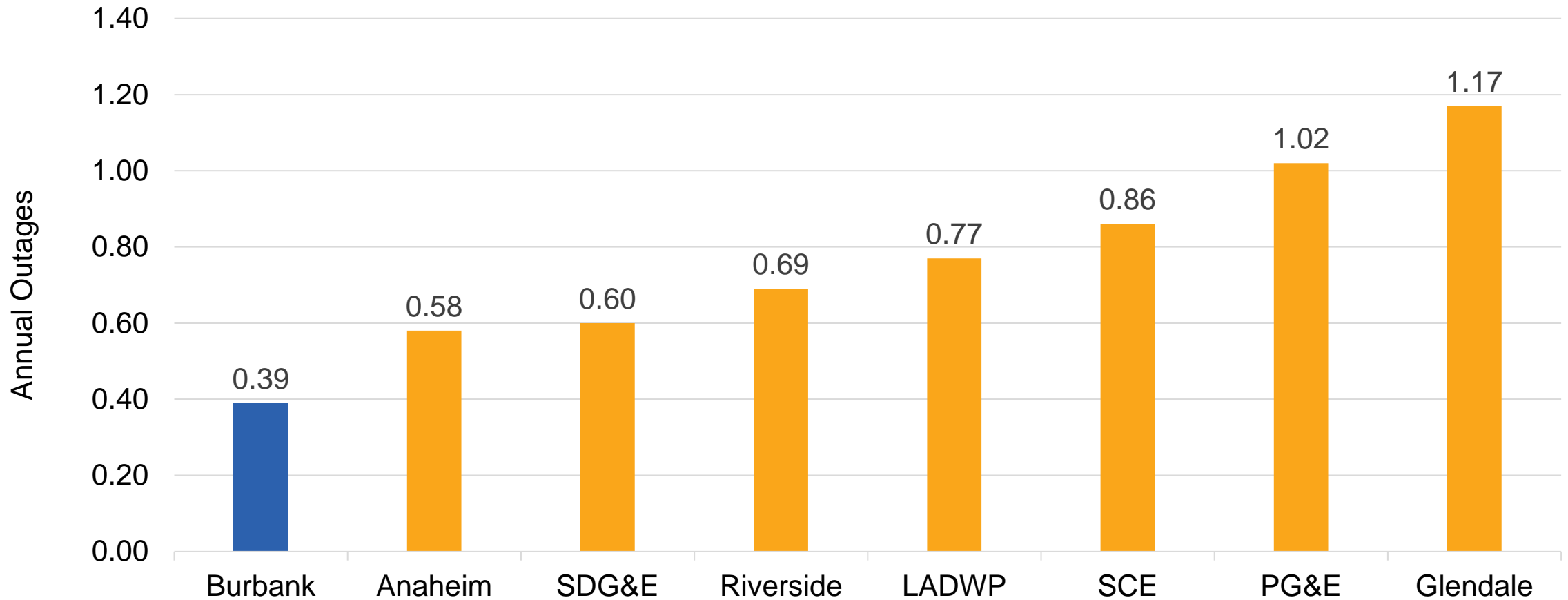
FY 2024-2025





# Annual Outages

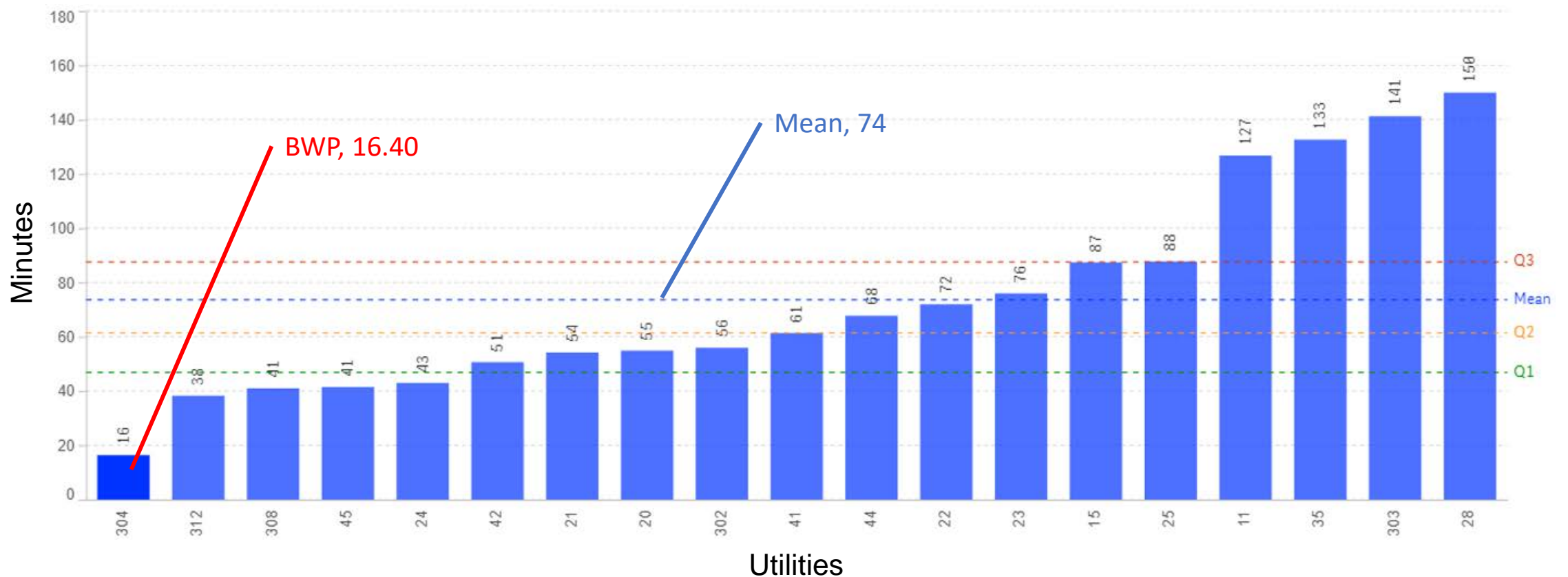
System Average Interruption Frequency Index (SAIFI)  
5 Year Average 2017-2021



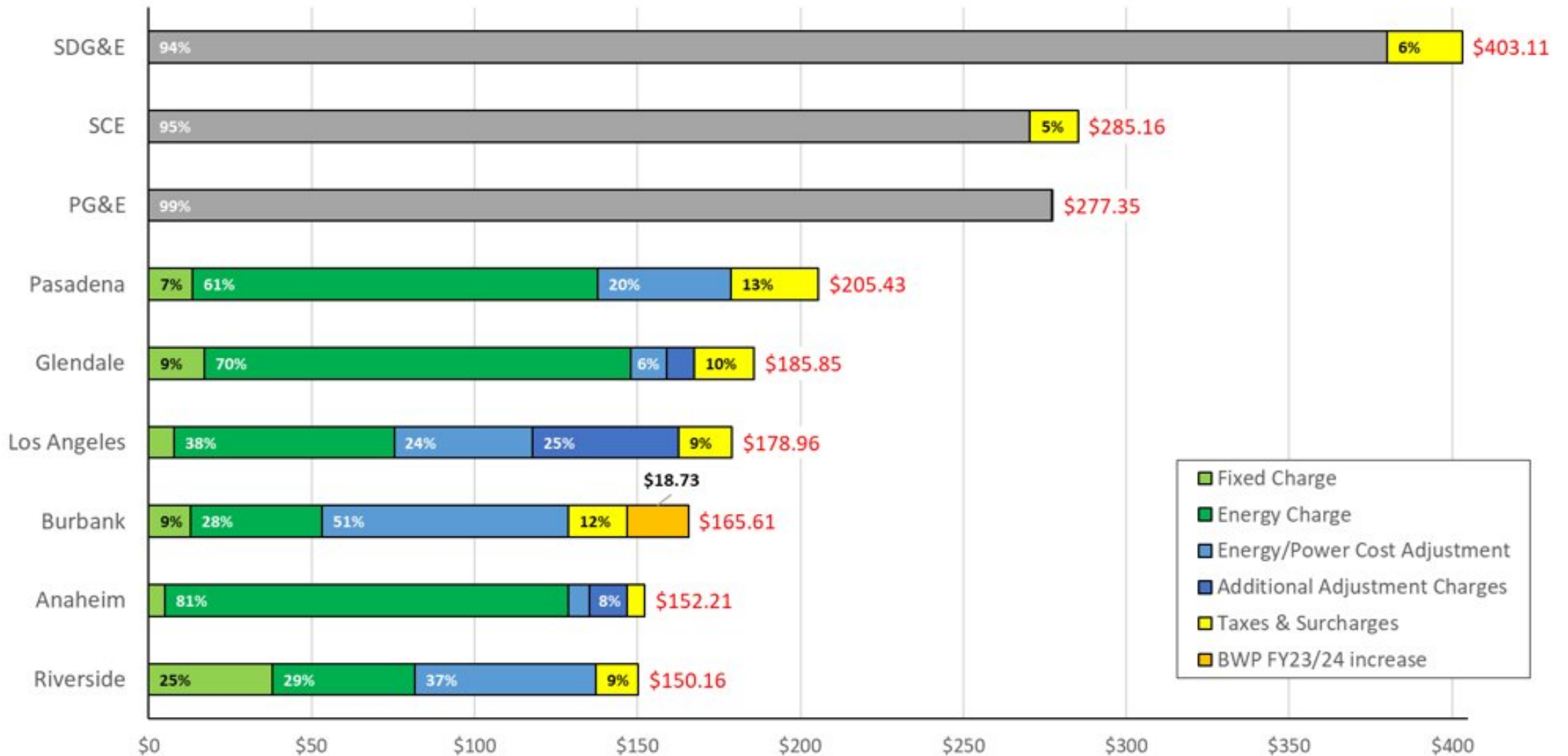
# Reliability

System Average Interruption Duration Index (SAIDI)  
2021 Industry Benchmark

Mean	Q1	Q2	Q3
74	47	61	88



# Residential Bill for Average Single-Family Monthly Consumption



# Income Statement

\$ in 000's	Adopted Budget FY 22-23		Proposed Budget FY 23-24		Proposed Budget FY 24-25	
Total Operating Revenues	\$	229,600	\$	244,123	\$	264,077
Total Power Expenses	\$	172,267	\$	192,325	\$	197,856
<b>Gross Margin</b>	<b>\$</b>	<b>57,333</b>	<b>\$</b>	<b>51,798</b>	<b>\$</b>	<b>66,221</b>
Total Operating Expenses (incl Depreciation)	\$	65,448	\$	65,184	\$	72,416
<b>Operating Income/(Loss)</b>	<b>\$</b>	<b>(8,116)</b>	<b>\$</b>	<b>(13,386)</b>	<b>\$</b>	<b>(6,195)</b>
Other Income / (Expense)	\$	(6,261)	\$	(3,125)	\$	(5,278)
<b>Net Income (before AIC)</b>	<b>\$</b>	<b>(14,376)</b>	<b>\$</b>	<b>(16,511)</b>	<b>\$</b>	<b>(11,473)</b>
Capital Contributions (AIC)		7,213		16,981		9,681
<b>Change in Net Assets</b>	<b>\$</b>	<b>(7,163)</b>	<b>\$</b>	<b>469</b>	<b>\$</b>	<b>(1,792)</b>

# Electric Capital Improvements

Project (In 000's)	FY 23-24 Proposed	FY 24-25 Proposed
4kV to 12kV Conversions	\$5,500	\$5,500
Media District 12kV Capacity	\$4,600	
Replace Deteriorated Overhead/Underground Electrical Dist. Lines	\$2,750	\$2,822
Campus Stormwater Management Program	\$1,967	\$1,311
Regional Intermodal Transportation Center (RITC) Solar and Battery	\$1,700	
Meter Data Management System Replacement/Upgrade	\$1,500	
ECC GIS Integration to Utility Network Model	\$750	
EcoCampus Solar and Storage	\$750	
Citywide Solar and Storage	\$700	\$10,000
Ontario Substation- 3rd Bank and Line		\$4,174
Replacement of AMI	\$183	\$2,263
Customer Payment Options		\$800
Other Remaining Projects	\$12,414	\$8,964
<b>Total Electric Fund CIP Projects</b>	<b>\$32,814</b>	<b>\$35,834</b>



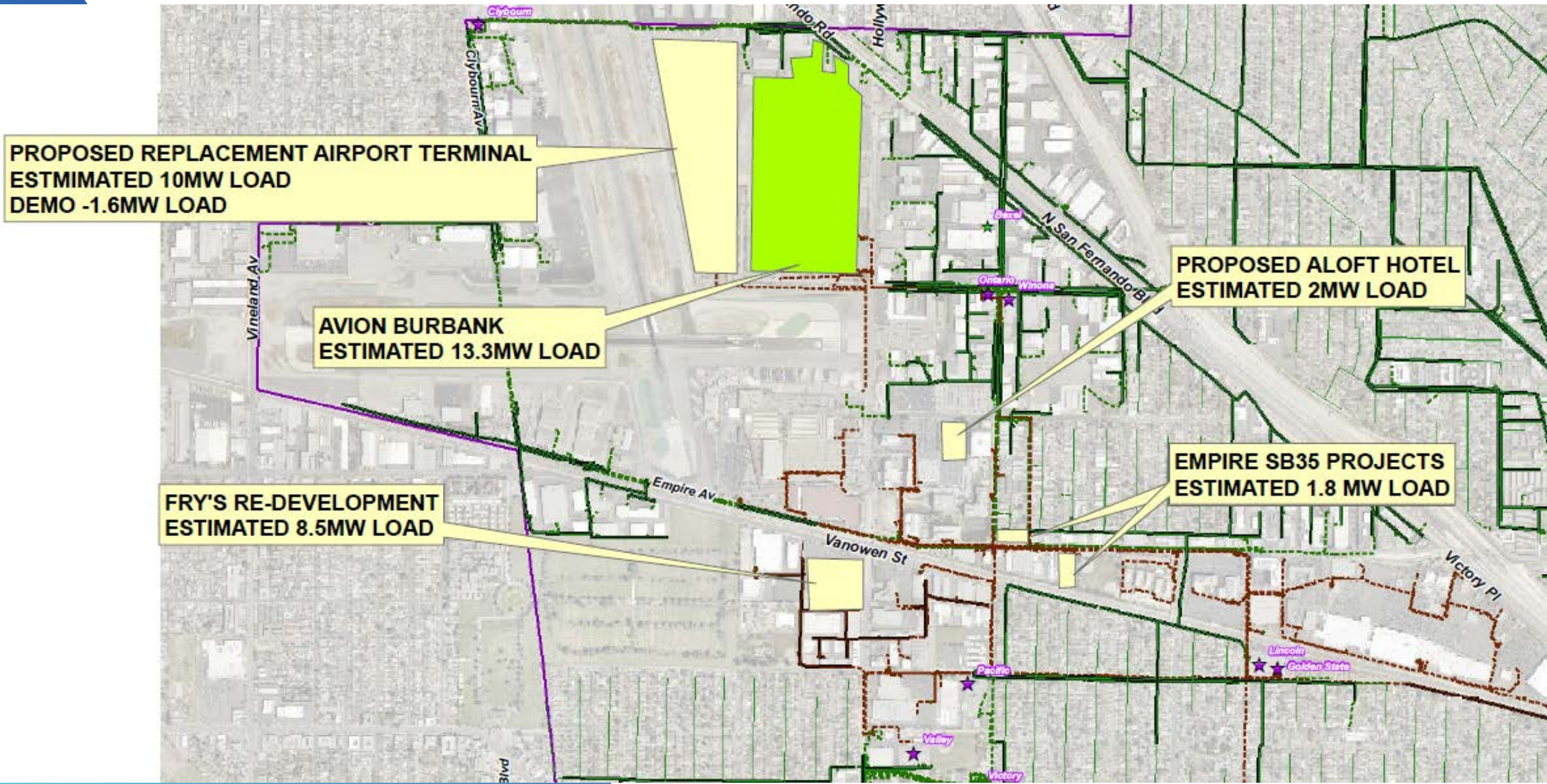


# Electric Aid-in-Construction

Project (In 000's)	FY 23-24 Proposed	FY 24-25 Proposed
Build Service to Large Project Over 1 MVA	\$8,000	\$8,000
Media District 12kV Capacity (AIC Share)	\$5,500	
Ontario Substation- 3rd Bank and Line (AIC Share)	\$2,000	
Build New Customer Transformer Stations, 750 kVA & Under	\$1,200	\$1,400
Provide Fiber Optic Services to Business Customers City Wide	\$250	\$250
69kV Line Metering and Protection Upgrades	\$31	\$31
<b>Total Electric Fund AIC Projects</b>	<b>\$16,981</b>	<b>\$9,681</b>

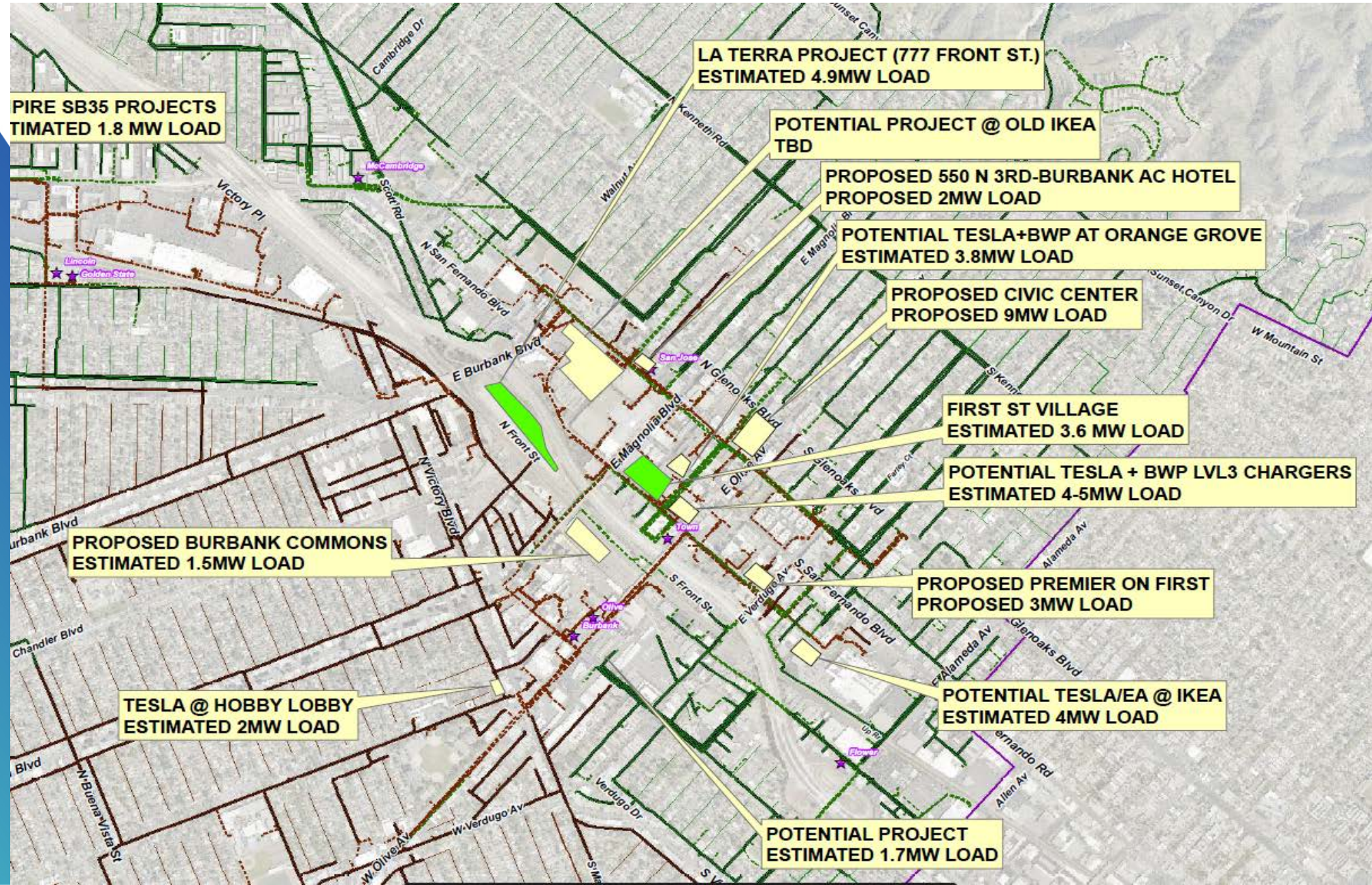


# Golden State Developments



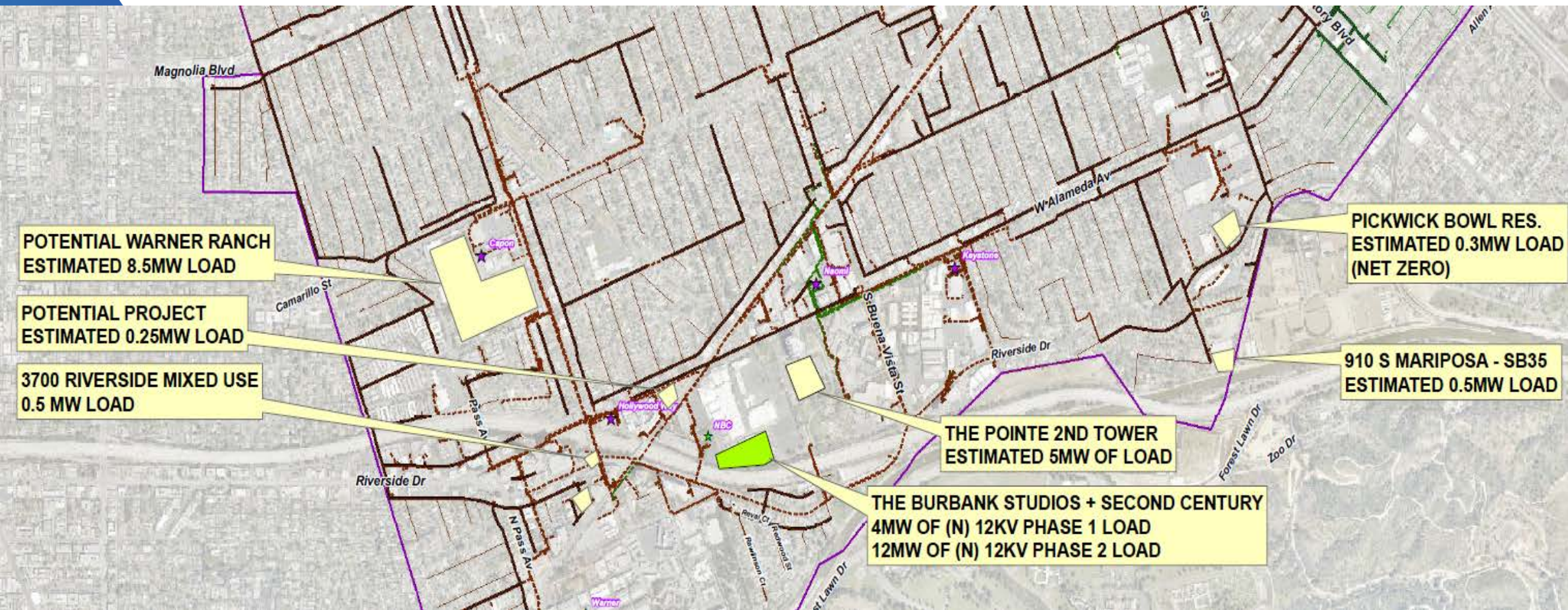


# Downtown Developments

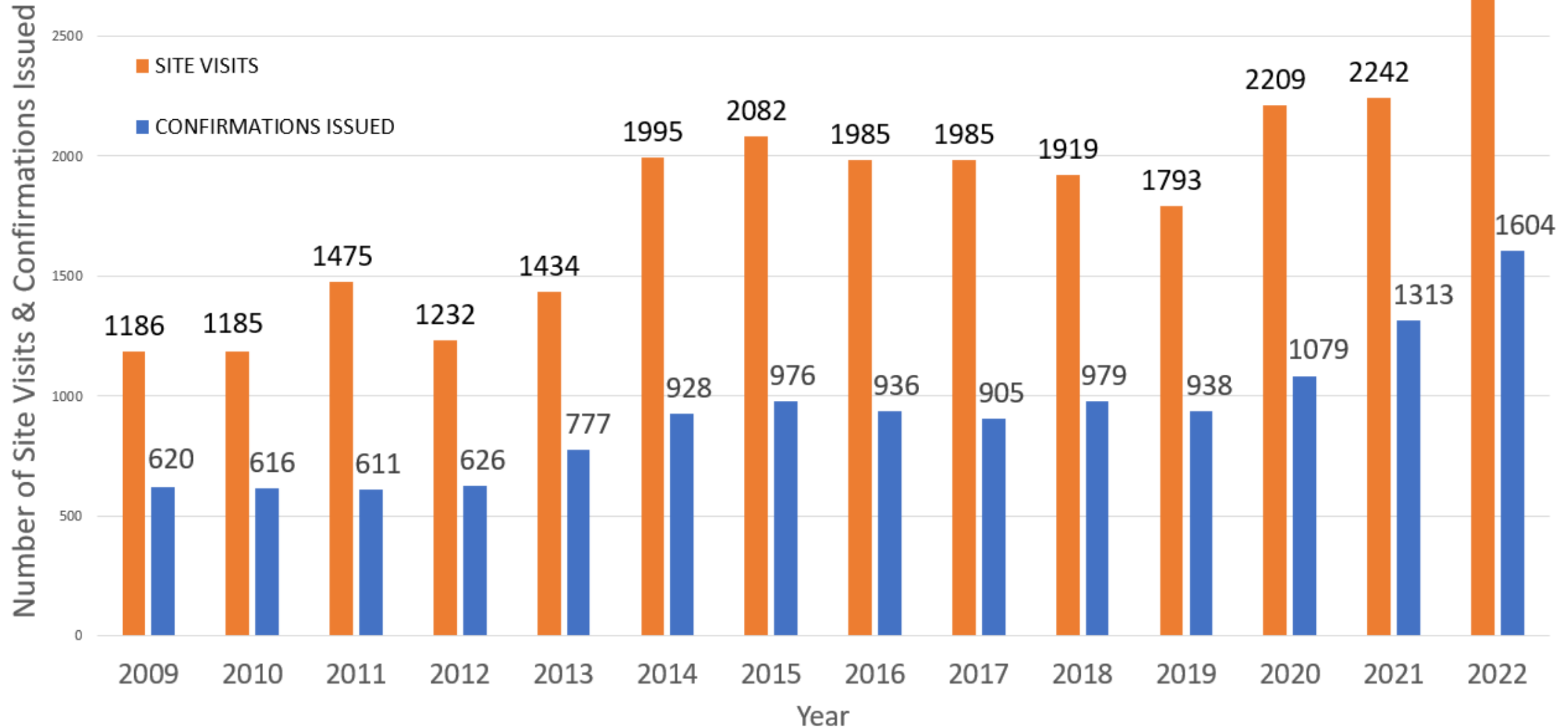




# Media District Developments



# Site Visits and Confirmations







# **Staffing Summary for FY 23/24 and FY 24/25**

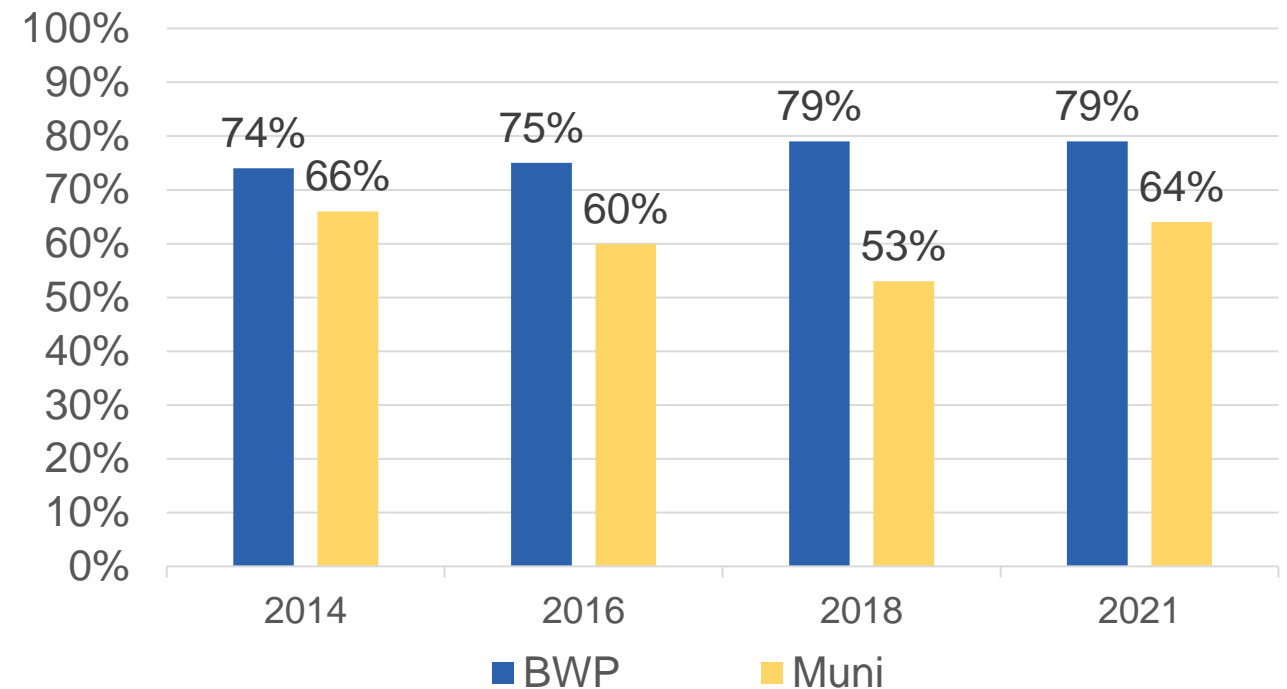
**Up to 356 employees  
including**

- 3.5 new positions**
- 8 upgrades**



# Residential Customer Satisfaction

2021 Independent Survey of Residential Customer Satisfaction – ***Very Satisfied***



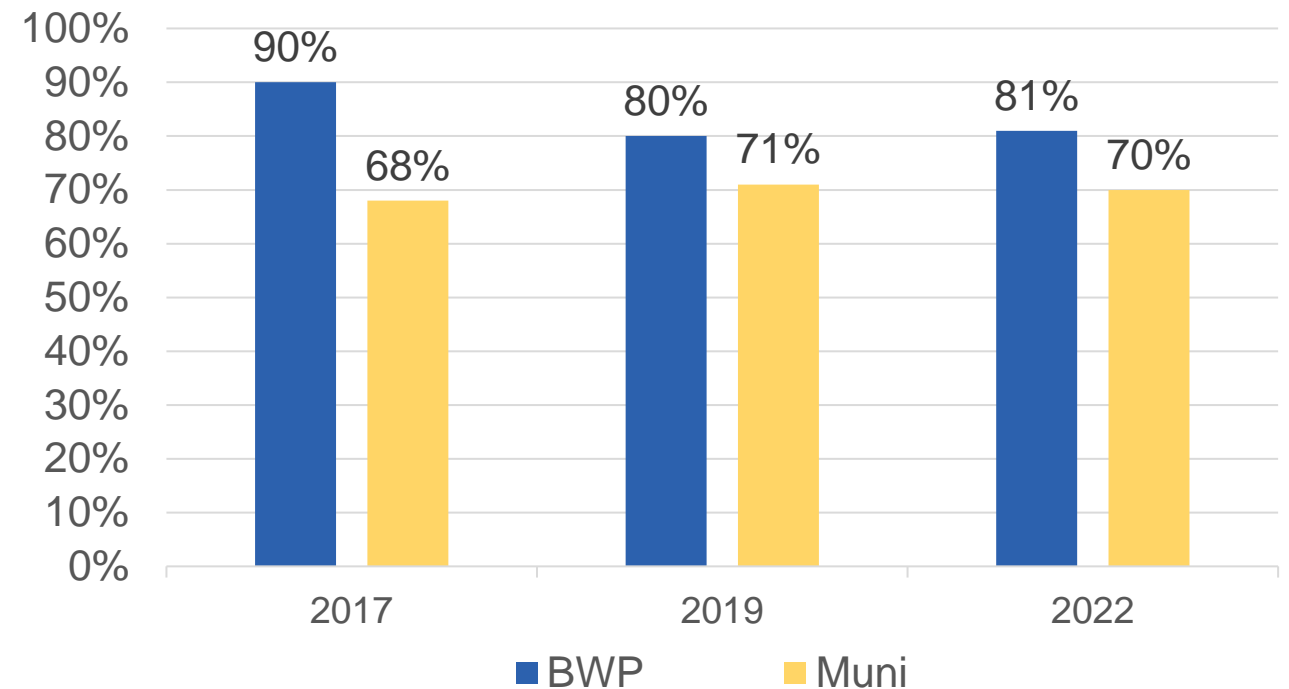
“Top 3 Box” = 8, 9, 10 on 0 = Dissatisfied to 10 = Very Satisfied scale.  
Base is customers contacting utility. (C-3a)





# Commercial Customer Satisfaction

## 2022 Independent Survey of Commercial Customer Satisfaction



"Top 3 Box" = 8, 9, 10 on 0 = Dissatisfied to 10 = Very Satisfied scale.

# Sustainability Programs

FY 2021-2022

2,548 Participants



**Investments:**  
**\$1.2M in electric**  
**\$116k in water**  
**\$758k in LCFS**



**Over 6.8**  
**million kWh of**  
**energy saved**



**Over 34.5**  
**million**  
**gallons of**  
**water saved**

# Community Benefits

FY 2021-2022



**Over \$865k in  
customer energy  
and water bill  
savings**



**EE programs  
avoided  
4,709 metric tons  
of GHG  
emissions**



**EV public  
charging sessions  
reduced  
290 metric tons  
of GHG  
emissions**

# FY 2021-2022

## \$2.3M in Utility Assistance



1,711 households active on Lifeline Rate

115 COVID Job-loss bill credits

80+ refrigerators replaced

\$1.2M CA Arrearage Payment

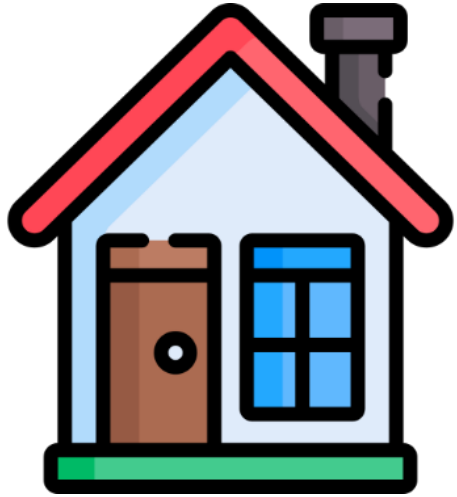
\$0.3M CA Water Arrearage Payment

\$0.2M CA Water-Waste Arrearage Payment





# FY 2022-2023 YTD



## **\$1.4M in YTD Utility Assistance**

**\$0.6M California Arrearage Payment**

**\$0.4M in Lifeline, BUSS, Project Share**

**205 Residential payment arrangements  
for \$0.4M**





# FY 23/24 Assistance Programs

	Benefit	Income Qualification (family of 4)	Other Requirements
<b>Lifeline Rate Assistance</b>	40% off electricity No 7% UUTax	<b>\$59,550</b>	<b>62+ or disabled household member</b>
<b>Federal Home Energy Assistance Program (HEAP)</b>	Utility assistance + weatherization and energy efficiency	<b>\$59,187</b>	-
<b>Life Support Rate</b>	No 7% UUTax	<b>None</b>	<b>In-home life-support equipment</b>



## FY 23/24 Assistance Programs (con't)

	Benefit	Income Qualification (family of 4)	Other Requirements
<b>Burbank Utility Service Subsidy</b>	12% electric rate discount	<b>\$92,600</b>	-
<b>Project Share</b>	\$100 bill credit for water or electric	<b>\$92,600</b>	<b>or Job Loss</b>
<b>Payment Arrangements</b>	Up to 24 months	<b>None</b>	-



# Making a Difference

Via email, phone or in person.

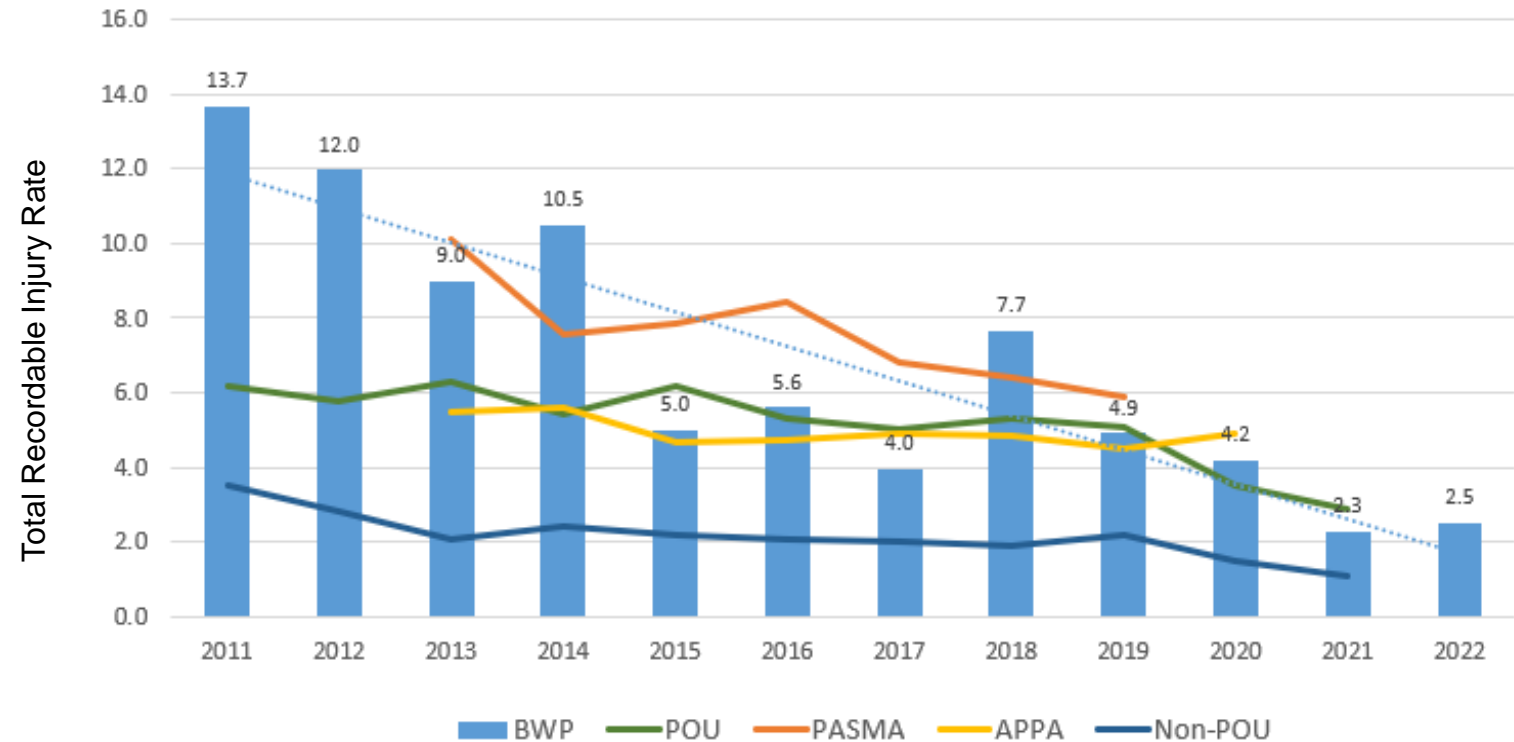
Payment arrangements available for every income level.

"Always there for you!"



# Safety

## OSHA Total Recordable Injury Rate (TRIR)



**OSHA Recordable Injury Rate** – Recordable cases per 100 full time employees.

**POU** – Publicly Owned Utilities – Bureau of Labor Statistics

**PASMA** – Public Agency Safety Management Association (Utilities only data)

**APPA** – American Public Power Authority – Avg. recordable injury rate, all respondents

**Non-POU** – Not a Publicly Owned Utility



# MPP Joint Power Authority



# Proposed Budget



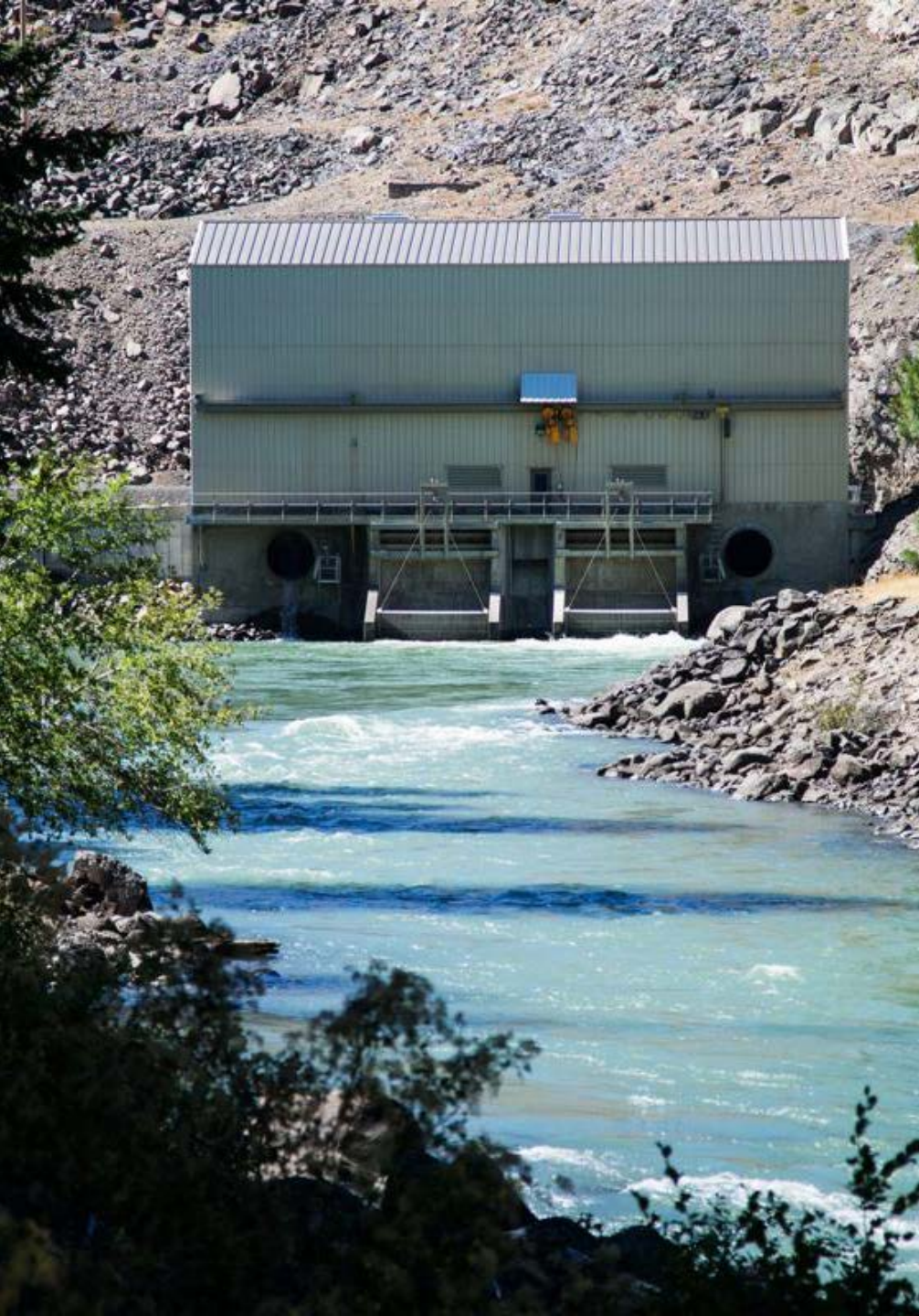
(\$ in 000's)	FY 22-23	FY 23-24	FY 24-25
Description	Adopted Budget	Proposed Budget	Proposed Budget
Est. Net Generation in MWh	1,320,480	1,459,523	1,261,955
Operating and Maintenance Expenses	\$ 23,593	\$ 26,620	\$ 28,473
Capital Expenditures	\$ 558	\$1,190	\$1,118
Operating Agent Budget (Fund 483)	<u>\$ 24,151</u>	<u>\$ 27,809</u>	<u>\$ 29,591</u>



# Tieton Joint Power Authority



# Proposed Budget



(\$ in 000's)	FY 22-23	FY 23-24	FY 24-25
Description	Adopted Budget	Proposed Budget	Proposed Budget
Est. Generation in MWh	47,299	47,704	47,704
Operating and Maintenance Expenses	\$ 1,826	\$ 1,734	\$ 1,770
Transmission Expenses	\$ 95	\$ 95	\$ 95
Capital Expenditures	\$ 161	\$ 51	\$ 52
<b>Operating Agent Budget (Fund 133)</b>	<b>\$ 2,082</b>	<b>\$ 1,880</b>	<b>\$ 1,917</b>

# Street Lighting Fund



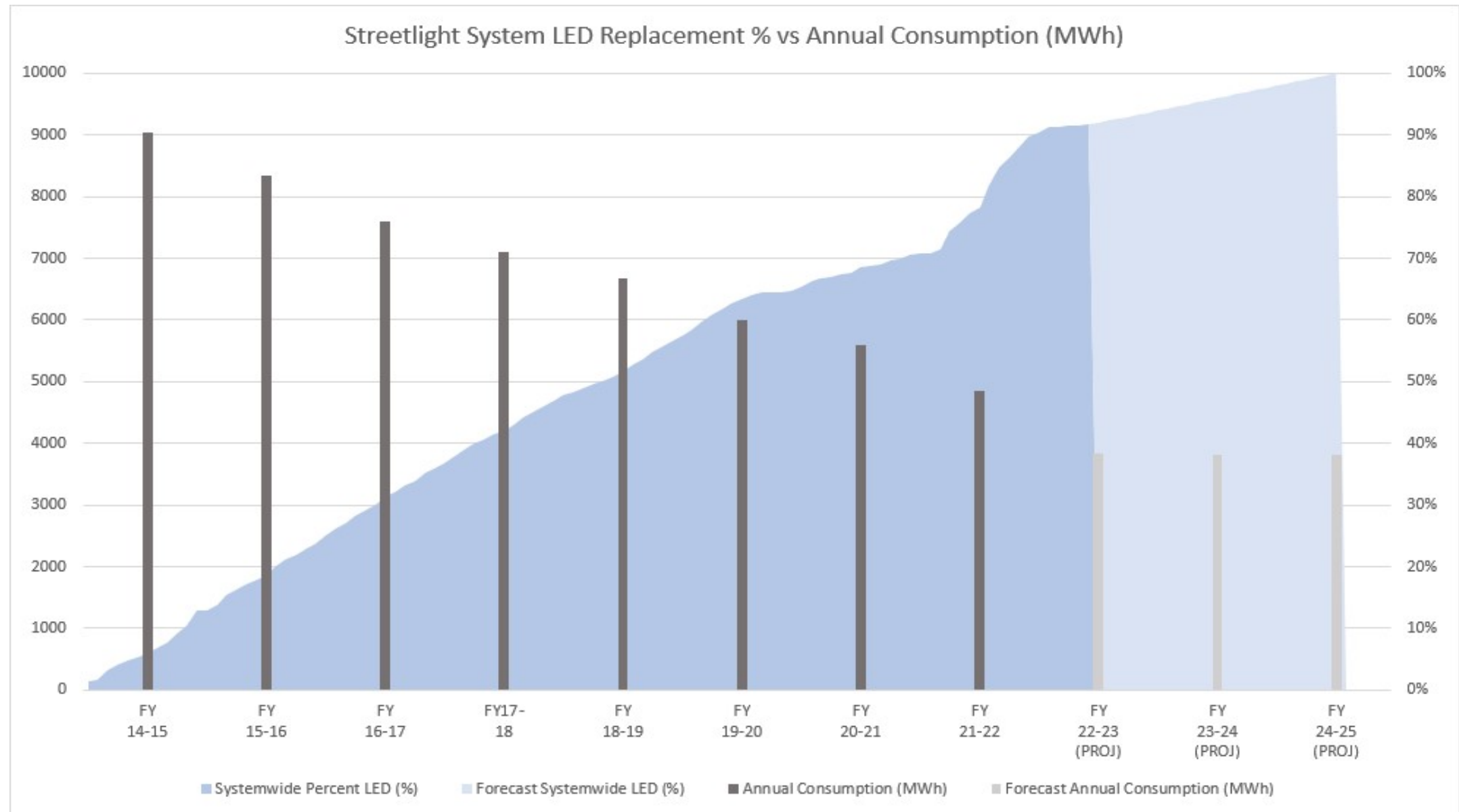




# Proposed Budget

(\$ in 000's)			
	FY 22-23	FY 23-24	FY 24-25
Description	Adopted Budget	Proposed Budget	Proposed Budget
Transfers	\$ 2,660	2,884	3,182
Operating Expenses			
Utilities	\$ 674	\$ 610	\$ 659
Street Lighting Maintenance	\$ 337	\$ 842	\$ 867
Other Operating Expenses	\$ 284	\$ 458	\$ 250
Total Operating Expenses	\$ 1,295	\$ 1,910	\$ 1,776
Net Income	\$ 1,365	\$ 974	\$ 1,406
Other Income			
Interest/Other Income and (Expense)	\$ 81	\$ 262	\$ 72
Aid-in-Construction	\$ 625	\$ 800	\$ 1,560
Total Other Income	\$ 706	\$ 1,062	\$ 1,632
Net Change in Net Assets (Net Income)	\$ 2,070	2,036	3,038
Capital Expenditures	\$ 2,142	\$ 2,009	\$ 4,144
Cash Balance at June 30	\$ 1,449	1,476	370

# LED Conversions



An abstract background featuring a dense bundle of blue fiber optic cables. The cables enter from the left, curve upwards, and then fan out towards the right. At the ends of the cables, numerous bright white and blue light points are visible, creating a starburst effect. The entire scene is set against a solid black background.

# ONEBurbank

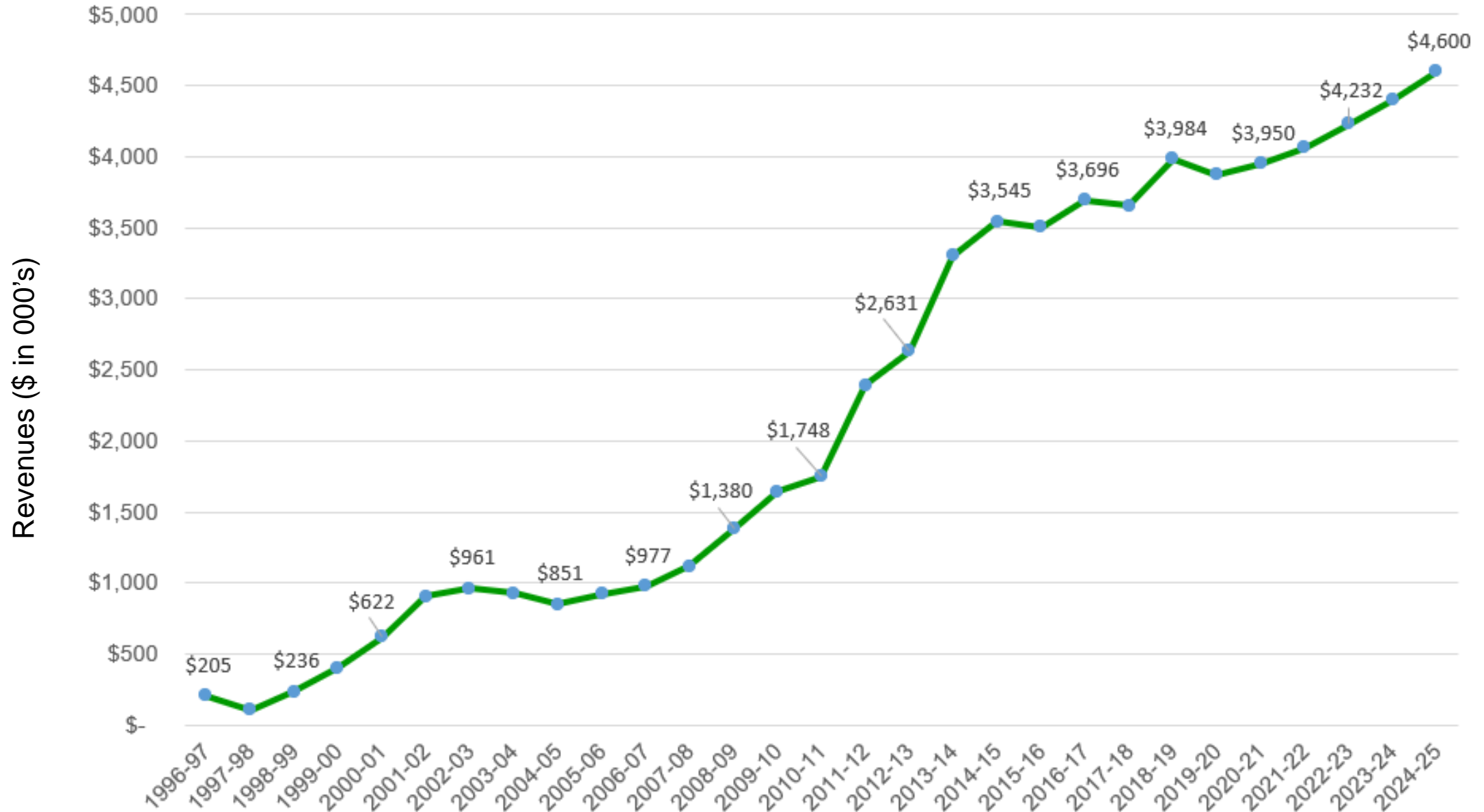


# Customers



- Animation Guild
- Buddy's All Stars
- Burbank Studios
- BUSD
- Cast & Crew
- Catalina Media
- CBS
- Century Link
- Critical Content
- Deluxe
- Digital Preservation Labs
- Disney
- Entertainment Partners
- Estrella Media
- FotoKem
- Hasbro
- Keycode Media
- Mobeon Media
- Moviola
- Music Express
- NBC Universal
- New Wave Entertainment
- MSG Entertainment
- Pixelogic Media
- Producers/Writers Guild
- SAG
- Sohonet
- Burbank YMCA
- Viacom Inc. (Nickelodeon)
- Warner Brothers
- Worthe Real Estate

# ONEBurbank Revenues





# Annual Broadband Benefits

- \$586k BWP cost savings
- \$659k City departments cost savings
- \$373k BUSD cost savings



# Communications Fund

The image shows two black office telephones. The one in the foreground is a desktop model with a large touchscreen displaying a blue interface with several icons. Below the screen is a numeric keypad and several function buttons. A handset is attached to the side. The second telephone is partially visible in the background, also featuring a touchscreen and keypad.

# Proposed Budget

(\$ in 000's)	FY 22-23 Adopted Budget	FY 23-24 Proposed Budget	FY 24-25 Proposed Budget
<b>Revenues</b>			
Charges for Services	\$ 3,069	\$ 3,234	\$ 3,297
<b>Total Operating Revenues</b>	<b>\$ 3,069</b>	<b>\$ 3,234</b>	<b>\$ 3,297</b>
<b>Operating Expenses</b>			
Operations and Maintenance	\$ 2,533	\$ 2,882	\$ 3,248
Depreciation	\$ 819	\$ 844	\$ 827
<b>Total Operating Expenses</b>	<b>\$ 3,352</b>	<b>\$ 3,726</b>	<b>\$ 4,075</b>
<b>Operating Income (Loss)</b>	<b>\$ (283)</b>	<b>\$ (492)</b>	<b>\$ (778)</b>
Interest & Other Income	\$ 69	\$ 135	\$ 111
<b>Total Operating Income (Loss)</b>	<b>\$ (214)</b>	<b>\$ (357)</b>	<b>\$ (668)</b>
<b>Extraordinary Expenses</b>			
Pension Repayment Plan	\$ (56)	\$ (21)	\$ (18)
<b>Net Change in Net Assets (Net Income)</b>	<b>\$ (270)</b>	<b>\$ (378)</b>	<b>\$ (685)</b>
Capital Expenditures	\$ 1,009	\$ 1,365	\$ 315
<b>Ending Cash at June 30</b>	<b>\$ 5,414</b>	<b>\$ 4,515</b>	<b>\$ 4,342</b>

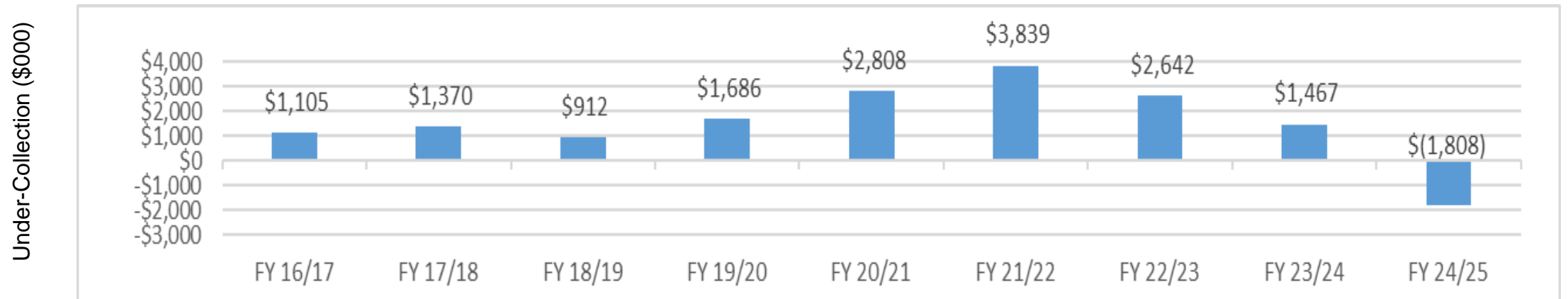


# Water Fund



# Under-Collection

	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24	FY 24-25
Customer Rate Increase %	3.4%	3.4%	4.9%	4.9%	0.0%	6.0%	9.0%	9.0%	9.0%
Under-Collection from Prior Year	\$551	\$1,105	\$1,370	\$912	\$1,686	\$2,808	\$3,839	\$2,642	\$1,467
New Drivers	\$3,506	\$2,318	\$1,618	\$2,342	\$1,554	\$2,145	\$4,443	\$3,428	\$469
New Reductions	(\$2,202)	(\$1,267)	(\$861)	(\$325)	(\$432)	(\$117)	(\$1,318)	(\$1,925)	(\$683)
Rate Increase	(\$750)	(\$786)	(\$1,215)	(\$1,243)	-	(\$997)	(\$4,322)	(\$2,678)	(\$3,060)
<b>Projected Under-Collection</b>	<b>\$1,105</b>	<b>\$1,370</b>	<b>\$912</b>	<b>\$1,686</b>	<b>\$2,808</b>	<b>\$3,839</b>	<b>\$2,642</b>	<b>\$1,467</b>	<b>(\$1,808)</b>





# Rate Drivers FY 23-24

(\$ in 000's)	\$	Rate Requirement
Under-collection from prior years	\$2,642	8.88%
Higher operating expenses	\$2,121	7.13%
Higher water supply expenses	\$1,307	4.39%
<b>2023-24 rate requirement</b>	<b>\$6,070</b>	<b>20.40%</b>
2023-24 potable rate increase	(\$2,678)	(9.00%)
Recycled revenues	(\$458)	(1.54%)
Higher sales volume	(\$928)	(3.12%)
Reduced pension funding plan	(\$367)	(1.23%)
Fee adjustments	(\$172)	(0.58%)
<b>Projected Under-collection</b>	<b>\$1,467</b>	<b>4.93%</b>

# Rate Drivers FY 24-25

(\$ in 000's)	\$	Rate Requirement
Under-collection from Prior Years	\$1,467	4.31%
Operation and Maintenance	\$469	1.38%
<b>2024-25 rate requirement</b>	<b>\$2,936</b>	<b>5.69%</b>
2024-25 Potable rate increase	(\$3,060)	(9.00%)
Recycled revenues	(\$342)	(1.01%)
Higher sales volume	(\$249)	(0.73%)
Fee adjustments	(\$92)	(0.27%)
<b>Additional Reserve Replenishment</b>	<b>(\$1,808)</b>	<b>(5.32%)</b>

# Highlights and Assumptions

- 9% rate increases in both years
- 5% and 7% increased water costs from MWD
- Lower sales compared to pre-COVID
- Must modernize infrastructure
- 6% system losses
- Water conservation continues
- Matching funds for potential grants





# Continued Price Increases

- High inflation for specialty products in FY 22:
  - 205% for chlorine gas
  - 14% for paving materials
  - 59% for water meter boxes
  - 52% to 79% for ductile iron pipe
- Continued high inflation for specialty products:
  - Chlorine gas:
    - 60% FY 23/24
    - 30% FY 24/25
  - Ductile iron pipe: 15% per year



# Forecast Assumptions for Years 3-5

- Rate plan that balances affordability, reliability, and sustainability
- Maintain a sustainable work force
- Higher water supply costs
- Higher water sales from development
- Continued emphasis on water conservation
- Investments in modernizing infrastructure
- Replenish cash reserves
- Continue rate plan toward full cost recovery



# Future Costs Not Included in the 5-year Forecast

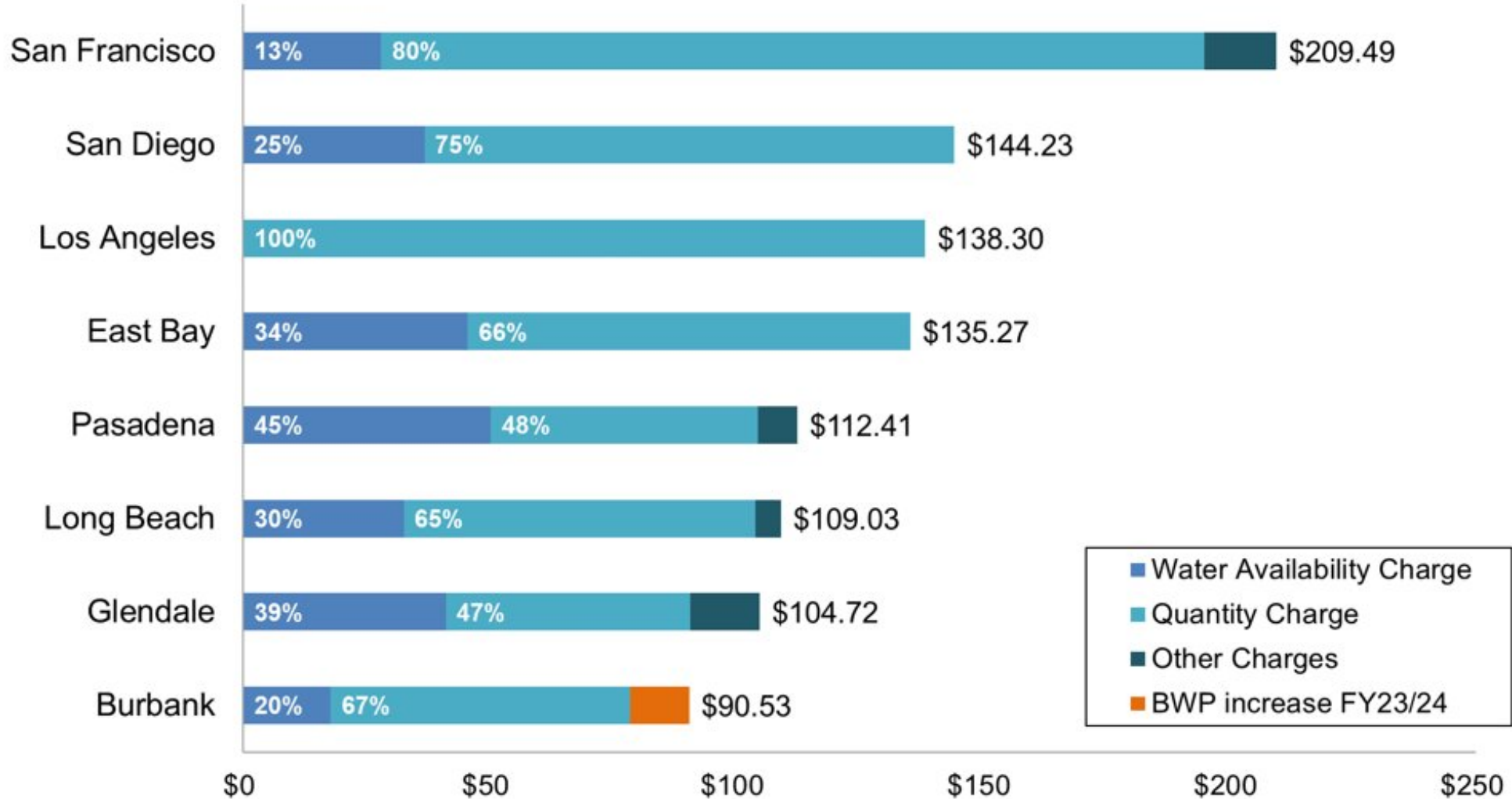
- Future staffing needs
- Increase in pipeline replacement rate
- Revenue loss due to uncertain and highly variable climatic conditions
- MWD rate increases to construct the delta conveyance project and other regional water supply projects not yet approved by their board
- Future regulations and permit requirements to treat new and emerging contaminants



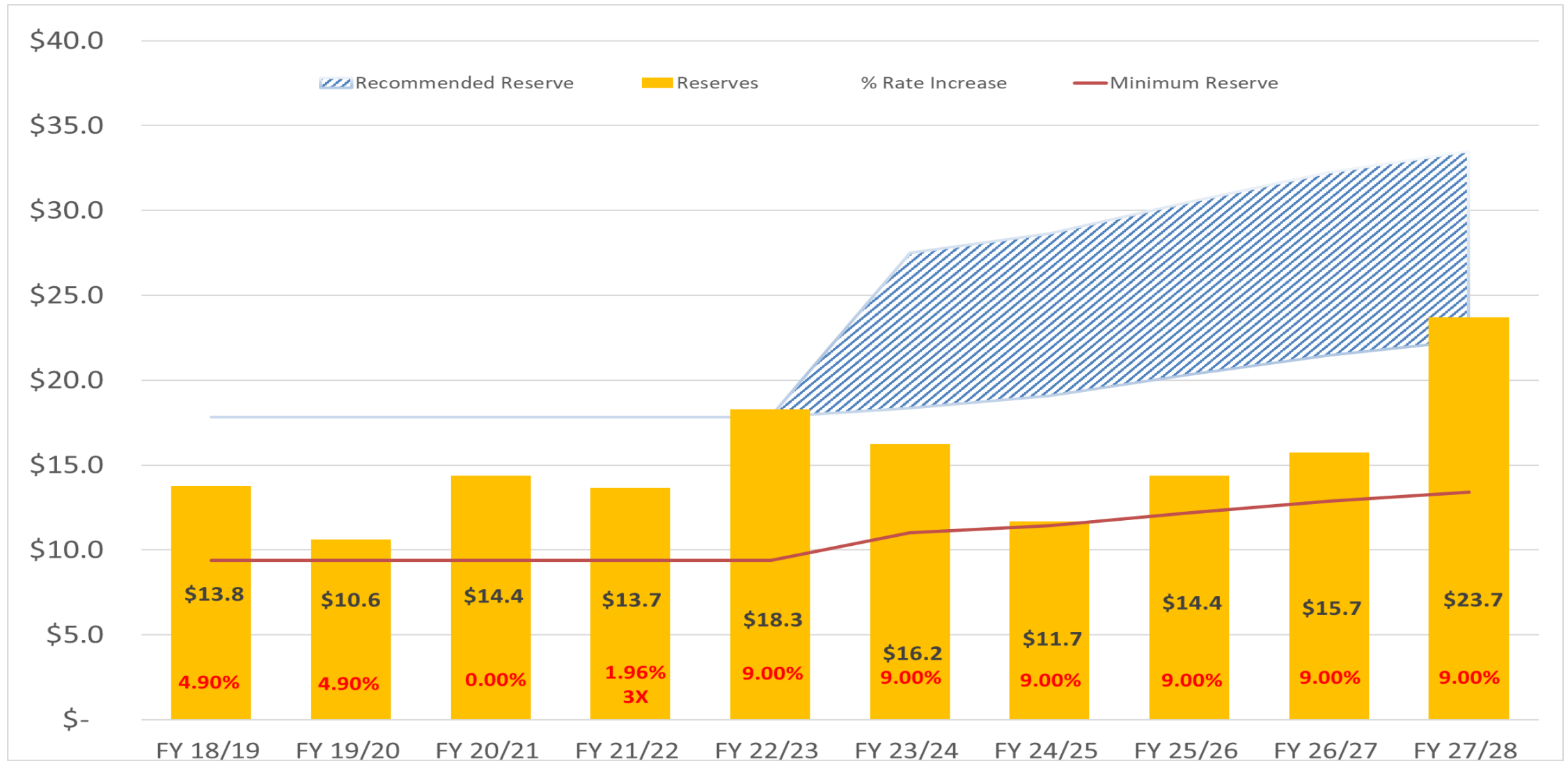


# Residential Bill Comparison

Medium home: 12,000 gallons with a 1" connection

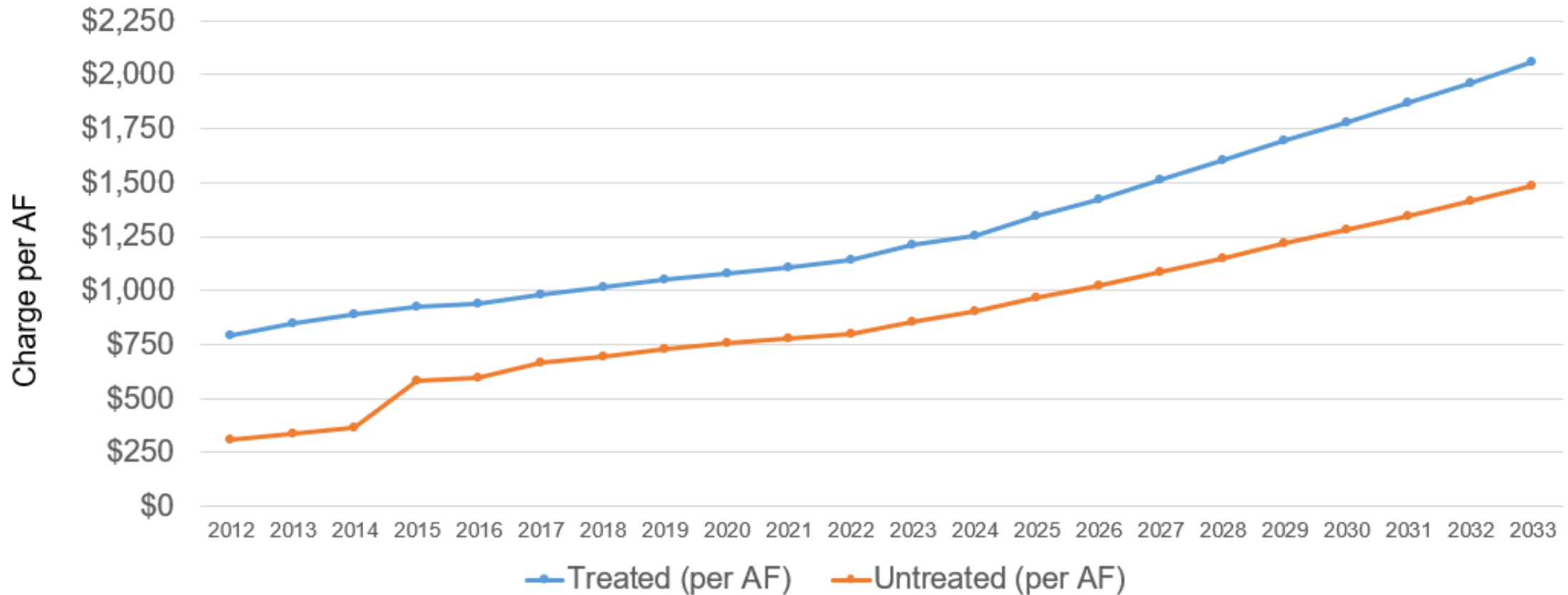


# Cash Reserves in Millions \$





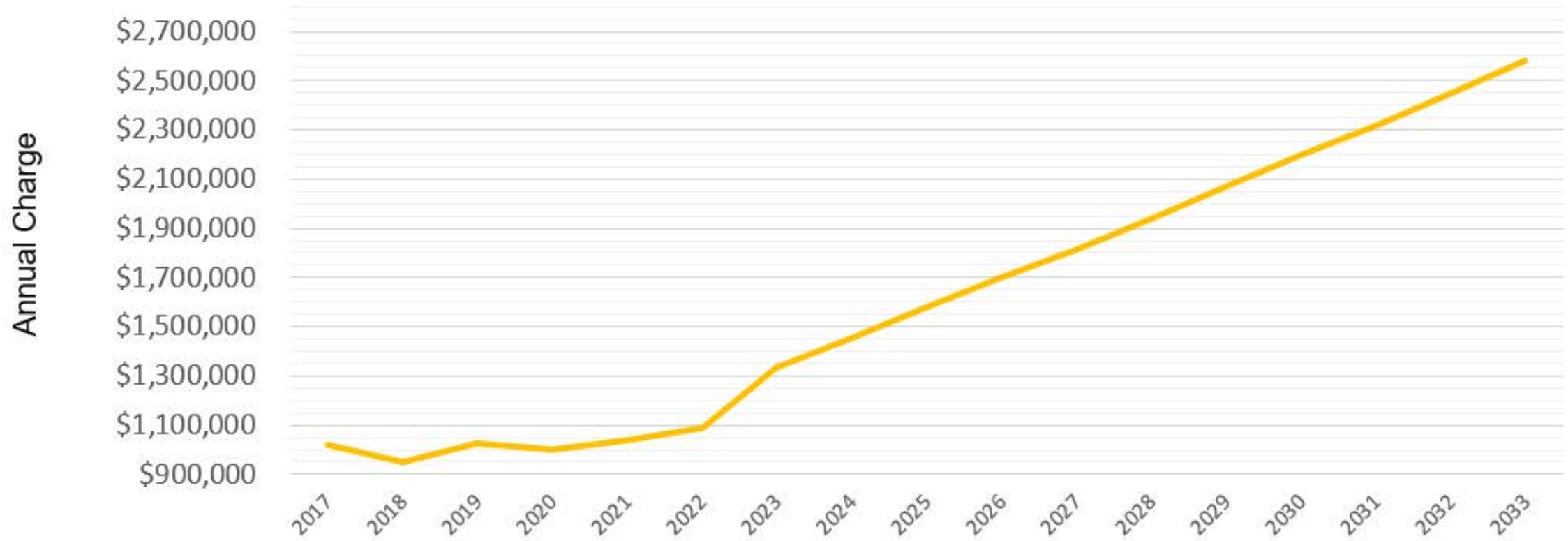
# MWD Variable Charges Rate Outlook





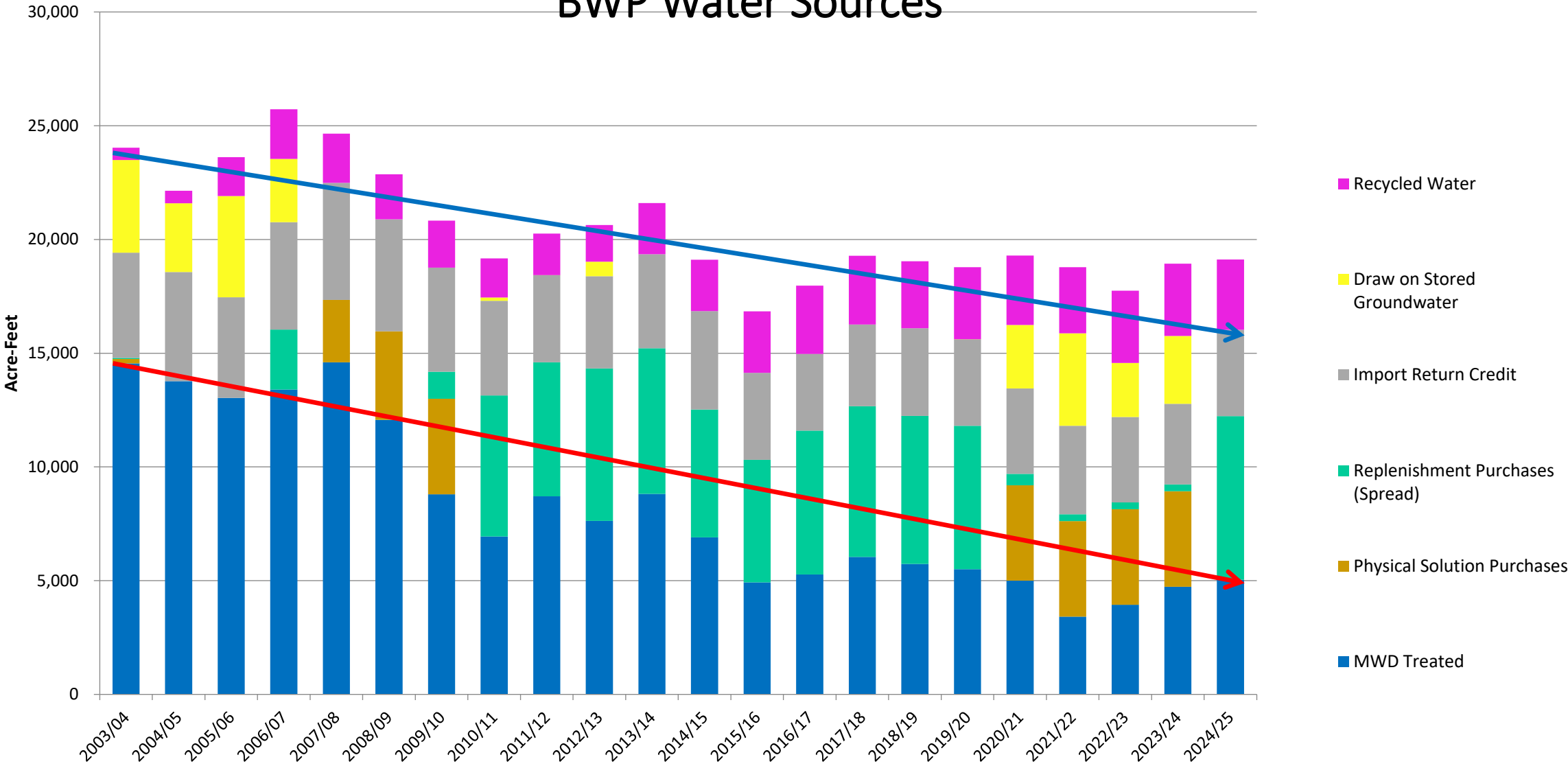


# MWD Fixed Charges Rate Outlook

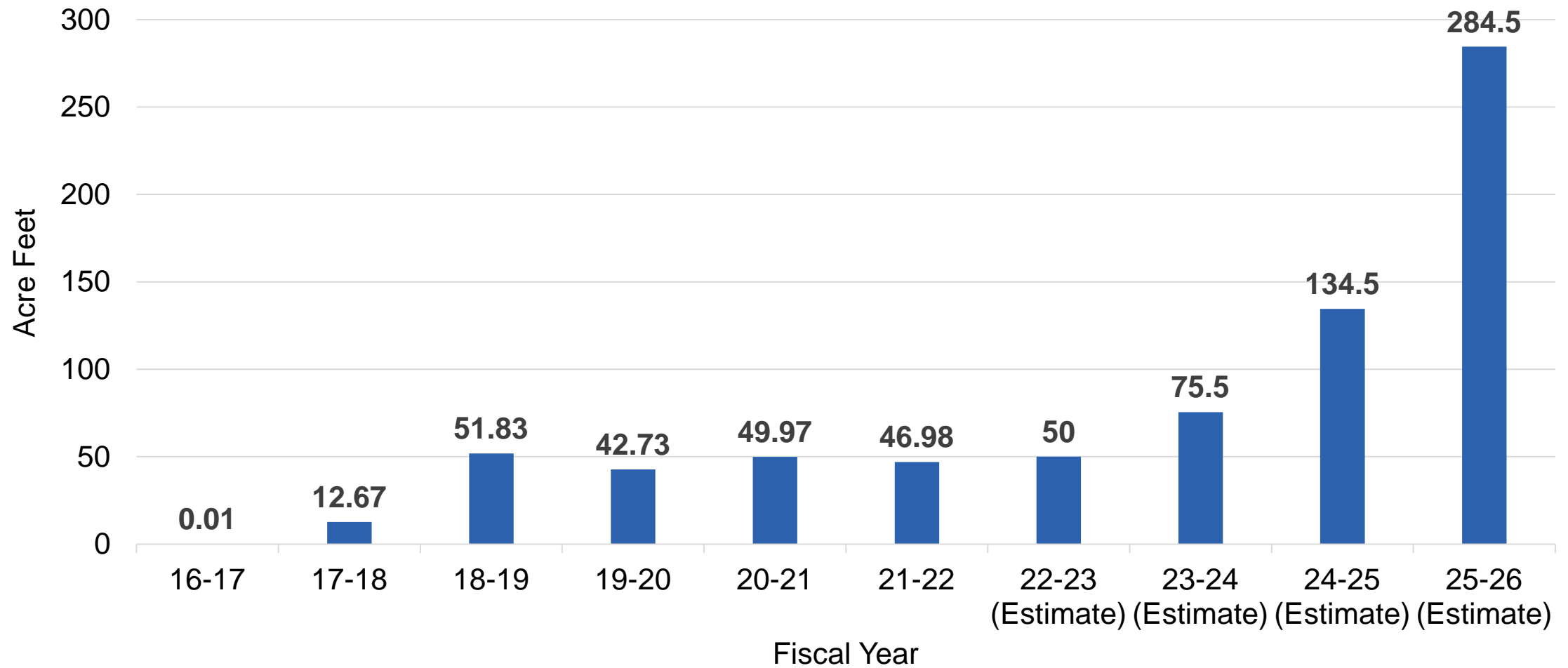


# Water Planning

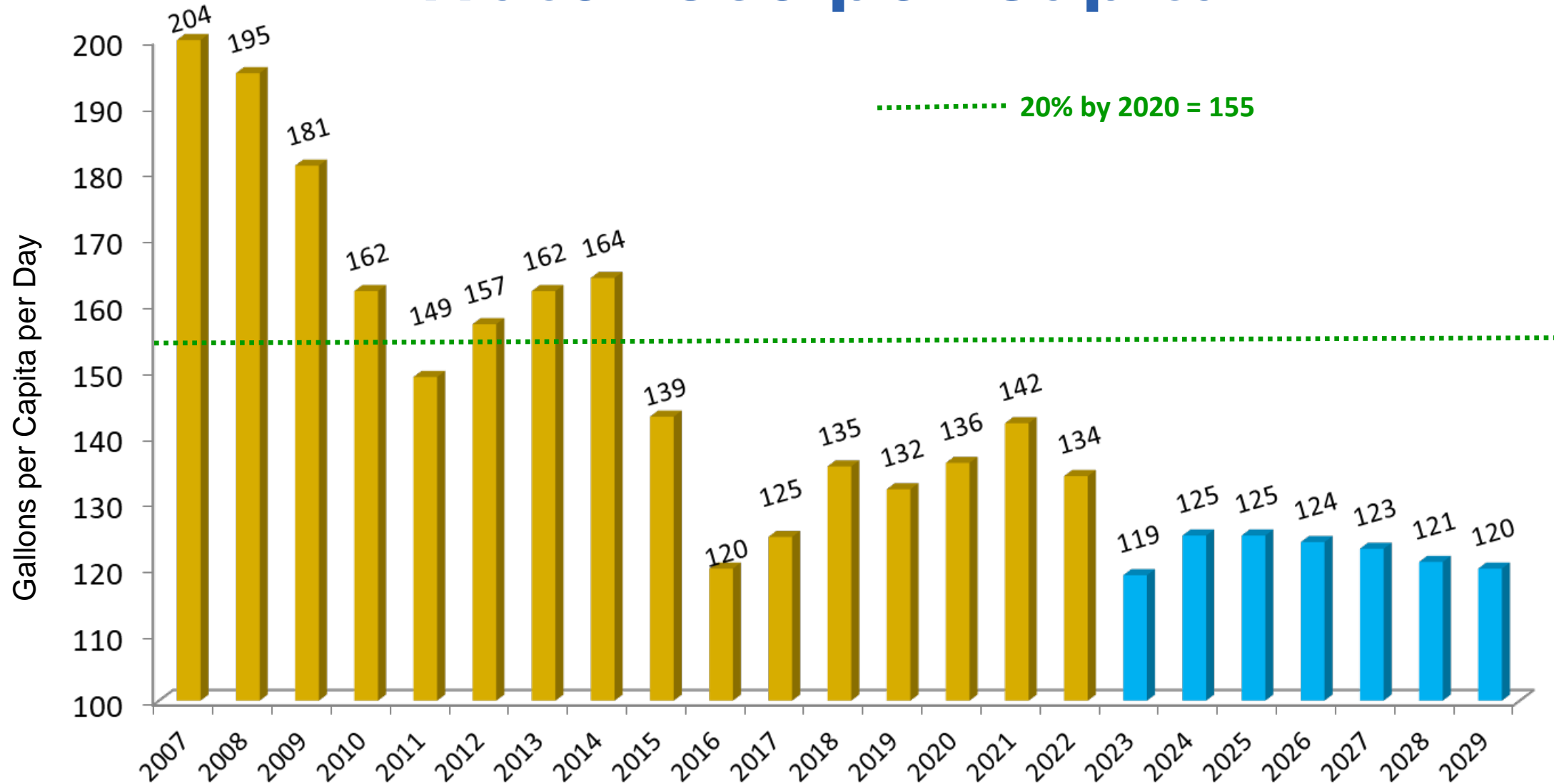
## BWP Water Sources



# LA Exchange



# Water Use per Capita



Gallons per day for fiscal years ending June 30th



# Income Statement

\$ in 000's	FY 22-23 Adopted Budget	FY 23-24 Proposed Budget	FY 24-25 Proposed Budget
Total Operating Revenues	\$ 35,996	\$ 40,868	\$ 44,861
WCAC Expense	\$ 12,732	\$ 15,230	\$ 15,485
Gross Margin	\$ 23,264	\$ 25,638	\$ 29,376
Total Operating Expenses (incl Depreciation)	\$ 21,831	\$ 23,767	\$ 24,115
Operating Income/(Loss)	\$ 1,433	\$ 1,871	\$ 5,261
Other Income / (Expense)	\$ (2,418)	\$ (2,050)	\$ (2,034)
Net Income (before AIC)	\$ (985)	\$ (179)	\$ 3,228
Capital Contributions (AIC)	684	634	634
Change in Net Assets	\$ (301)	\$ 455	\$ 3,862

# Potable Capital Improvements

Project (In 000's)	FY 23-24 Proposed	FY 24-25 Proposed
Potable Water Mains	\$2,605	\$2,970
Upper Zones Disinfection Residual Improvement/Upper Zones CL2 Booster	\$1,938	\$1,791
Design-Build Pipeline Project	\$1,690	
FEMA Seismic Pipeline Retrofit Grant	\$1,607	
System Expansion Services (AIC)	\$550	\$550
Meter Replacements	\$369	\$377
Pipeline Condition Assessment (various technologies)	\$250	
VPP Disinfection System		\$250
Valve Replacements	\$150	\$150
Other Remaining Projects	\$865	\$818
<b>Total for Potable Water System</b>	<b>\$10,024</b>	<b>\$6,905</b>
<b>Water Fund's Shared Projects</b>	<b>\$945</b>	<b>\$496</b>



# Recycled Capital Improvements

Project (In 000's)	FY 23-24 Proposed	FY 24-25 Proposed
RW Interior Tank Coating	\$270	\$107
Potable Reuse - Study/Program	\$200	\$200
Meters - Recycled Water	\$36	\$37
SCADA Software Upgrade		\$35
Other Remaining Projects	\$88	\$69
<b>Total for Recycled Water</b>	<b>\$594</b>	<b>\$448</b>





# Pipe Age and Break History

Year	Break/ Leak
2012	23
2013	27
2014	27
2015	13
2016	16
2017	23
2018	25
2019	16
2020	17
2021	17
2022	14

- 278 miles of pipe in Burbank
- 30 miles of pipe that are 100+ years old
- Aged pipe is cast iron
- Break history - calendar year
- Reliability exceeded 99.999% consistently over the last five years





# Water Main Monitoring & Condition Assessment

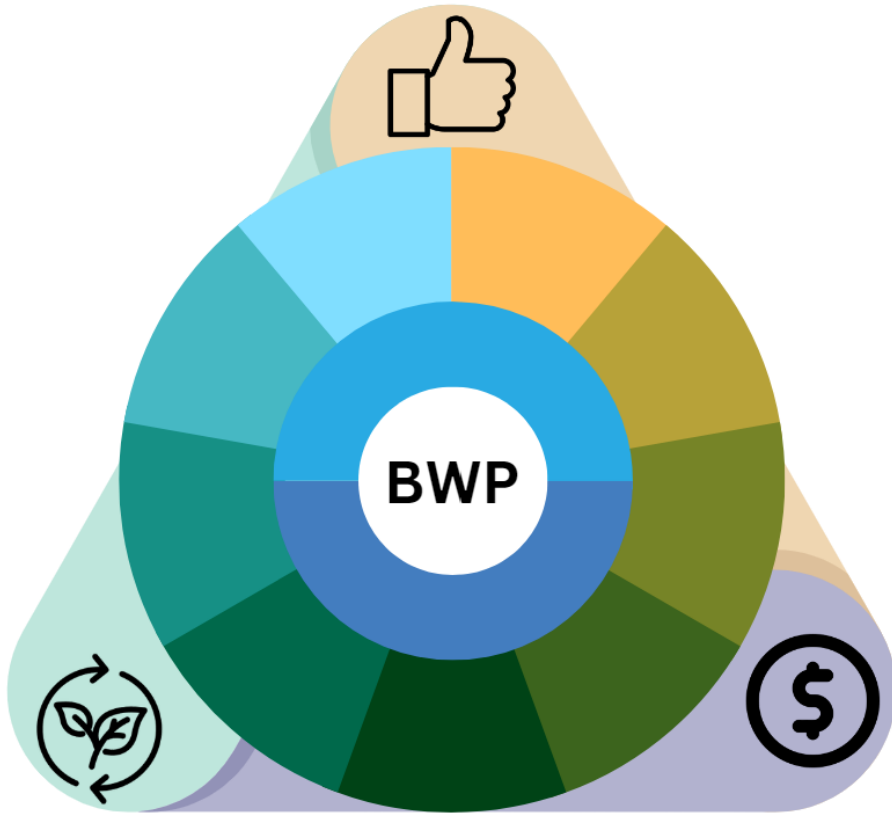
- **Statistical Study/Machine Learning:**
  - Pipeline risk assessment using artificial intelligence to determine:
    - Likelihood of Failure (LoF)
    - Consequence of Failure (CoF)
- **Satellite Leak Detection**
  - Images of our water system
    - 34 potential leaks were investigated
    - 13 locations were actual leaks that were immediately repaired



# Water Main Monitoring & Condition Assessment

- **Automated Leak Detection:**
  - 40 devices installed on critical pipelines
  - Detects leaks when they are small
  - One leak was identified and repaired
- **Acoustic Signal Processing:**
  - Predicts life-span of pipe
  - Approximately 10,000 feet of pipeline was surveyed

# BWP Budget Summary



- Extreme climate variability
- Increased focus on sustainability
- Balance affordability with prudent financial planning to reduce past revenue shortfalls
- Continue investments to maintain reliability
- Invest in our employees who continue to rise to the challenge

# Questions?



**WATER AND  
POWER**