

Alameda County Water District

Financial Workshop

Presenters

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Rick Simonsen, HF&H Consultants

Workshop Overview

Agenda

- Recap guidance provided at the July workshop
- Provide status update on delinquent accounts and potential approaches to collections
- Review updated financial planning scenarios/metrics, suggested rates increase amounts and duration of notice
- Provide updated bill comparison charts
- Review the State Water Project Override Tax
- Review options for drought surcharges (stage rates)
- Summary of South Coast Water Agency billing practices
- Next Steps

Workshop Overview

Rate-Setting Schedule

- *May 18, 2022: Budget workshop*
- *June 9, 2022: Budget adoption*
- *July 20, 2022: Rate-setting workshop*
- **August 25, 2022: Rate-setting workshop**
 - Discussion of using the property tax bill for delinquent collections and follow-up from July
- September 22, 2022: Rate-setting workshop
 - Follow-up from August workshop
- December 8, 2022: Consider issuing a rate notice
- February 9, 2023: Consider approval of rate proposal

Workshop Overview

Board Guidance

- Receive Board feedback and direction regarding:
 - Potential approach to delinquent accounts
 - Potential rate increase amounts and duration of rate notice
 - Approach to the State Water Project Override Tax
 - Approach to stage rates

Intent is to seek Board feedback on these key issues and then continue discussion at the September workshop as needed

Review of July Workshop

At the July 20 workshop, the Board provided the following direction for this rates process:

- Maintain the current uniform rate structure
- Maintain the same ratio between service charge and commodity charge revenue recovery
- Maintain the established approach to funding the CIP and wait until reserves are substantially spent down before considering alternatives
- Staff should prepare to 1) present options for stage rates, and 2) provide an overview of the State Water Project Override Tax, at the August workshop

Alameda County Water District

Update on Delinquent Accounts and Potential Use of the Property Tax Bill for Collections

Delinquent Accounts and Balances

Past Due Accounts/Balances as of July 2021:

- Number of Active Past Due – 3,937
 - Residential – 3,161 (Owner-Occupied – 2,806)
 - Non-Residential – 776
- Total Active Past Due Balances – \$1,757,001
 - Residential – \$1,264,495 (Owner-Occupied – \$1,034,928)
 - Non-Residential - \$492,506

Past Due Accounts/Balances as of July 2022:

- Number of Active Past Due – 2,283
 - Residential – 1,754 (Owner-Occupied – 1,324)
 - Non-Residential – 529
- Total Active Past Due Balances – \$959,373
 - Residential – \$614,667 (Owner-Occupied – \$450,539)
 - Non-Residential - \$344,706
- Accounts with Payment Arrangements: 189

Collections and Delinquencies

Past Due Balances/Accounts as of July 2021:

- 72% of past due balances due to residential customers
- 80% of past due accounts due to residential customers

Past Due Balances/Accounts as of July 2022:

- 64% of past due balances due to residential customers
- 77% of past due accounts due to residential customers

Service Terminations Since Reinstating Collections:

- Total Disconnections – 282 (262 Customers)
 - Residential – 241 (226 Customers)
 - Non-Residential – 41 (36 Customers)
- Locations Pending Reconnection: 30 (21 residential)
 - Due to location being possibly vacant, customer never occupying location, or customer has history of nonpayment

Assistance Programs

Low Income Household Water Assistance Program (LIHWAP):

- Federally-funded, one-time assistance for income qualified customers
- Program available from June 27, 2022 to August 15, 2023
- 6 accounts have received assistance for \$2,489
- Total participation may be limited due to strict income requirements, but staff has heard that a number of applications are in progress

Covid-19 State Arrearages Program:

- Federally-funded, one-time assistance for customers with a past due balance of 60 days or greater during March 4, 2020 through June 15, 2021
- 1,601 accounts received assistance for \$892,785.60

Help on Tap:

- District-administered assistance program for income qualified customers (\$40 per bimonthly bill)
- 1,410 accounts receive assistance

Current Collection Process

Collections on Active Accounts (Processed by District Staff):

- Based on Board approved Collection and Residential Water Service Termination Policy
- Policy outlines process and timeline for collecting on past due balances for active accounts
- Process includes written and verbal notifications, including hanging of door tags
- Provides process for appeals and disputes, including payment arrangements

Collections on Closed Accounts (Involves Third-Party Agency):

- Process includes written and verbal notifications to customers
- Balance is written off to Third-Party Collection Agency after 60 days past due
- On average, 57 accounts for total of \$17,000 is written off on a monthly basis to Third-Party Collection Agency

Potential Hybrid Collection Process

Collections on Active Accounts:

- Use of Property Tax Roll would be supplement to current process
- Based on Board approved Collection and Residential Water Service Termination Policy, accounts would be subject to fees and disconnection for non-payment throughout the year
- Once a year reporting of active single family, residential accounts listed under the property owner that are over 60 days past due as of July 1
- Provides process for appeals and disputes, including payment arrangements, for balances subject to disconnection

Collections on Closed Accounts:

- No suggested changes to current process.

Workflow Comparison

Current Process:

- Board Approved Collection and Residential Water Service Termination Policy
- Established process and timelines
- Provides process for appeals and disputes
- Results in disconnection for non-payment

Property Tax Hybrid Process:

- Combine Board Approved Policy during the year with Property Tax Roll reporting at end of fiscal year
- Assess delinquencies on active accounts that are under property owner's name to Property Tax Roll on annual basis
- Will need to establish process and timelines for property owner notification
- Results in both disconnection and/or property tax roll reporting

Workflow Comparison

Current Process:

Number of Days from Bill Issuance Date:

- Late Fee Assessed – Day 28
- Final Notice Mailed – Day 67
- 48 Hour Door Tag Issued – Day 74
- Courtesy Phone Call – Day 80
- Service Disconnected – Day 81
- Funds Received – Starting Day 82

Customers may enter into a payment arrangement, which would delay these timelines

Property Tax Hybrid Process:

Bills generated up to April 11:

- Payment Arrangements Cutoff – June 30
- Property Tax Assignment – July 1
- Funds Received – January or May of following year

Advantages and Disadvantages

Current Process:

Advantages:

- Allows flexibility for District to work directly with customers
- Funds received up to 90 days after bill date

Disadvantages:

- Service disconnection
- May not fully collect funds

Property Tax Process:

Advantages:

- Fully collect certain past due balances for active residential accounts under the property owner's name

Disadvantages:

- Lose flexibility on payment plans
- Does not capture accounts closed during the year
- Could be used as interest-free loan

Historical Delinquencies

Past Due Accounts/Balances IF Assigned in June 2017:

- Number of Active Past Due – 262
- Total Active Past Due Balances – \$31,597

Past Due Accounts/Balances IF Assigned in June 2018:

- Number of Active Past Due – 260
- Total Active Past Due Balances – \$45,909

Past Due Accounts/Balances IF Assigned in June 2019:

- Number of Active Past Due – 231
- Total Active Past Due Balances – \$46,431

Past Due Accounts/Balances IF Assigned in June 2022:

- Number of Active Past Due – 196
- Total Active Past Due Balances – \$116,148

Collections Options

| | Current Process | Hybrid Property Tax – Owner Occupied Residential |
|-------------------------------|-----------------|--|
| Service Disconnection | ✓ | ✓ |
| Flexibility | ✓ ✓ ✓ | ✓ ✓ |
| Funds Fully Collected | ✓ ✓ | ✓ ✓ ✓ |
| Timeliness of Collections | ✓ ✓ ✓ | ✓ ✓ |
| Administrative Considerations | ✓ ✓ ✓ | ✓ ✓ |
| Beneficiary Pays | ✓ ✓ ✓ | ✓ ✓ ✓ |

Items of Consideration

Under Water Code Sections 31701 et seq.:

- Notify property owners with delinquent charges to be collected on the property tax roll each year
- By a simple majority, adopt a resolution containing a statement of delinquent charges and approving a Service Agreement with the County

Under Water Code Section 31007.5:

- District may require property owners to assume responsibility for the water account if previous residential tenants have become delinquent
- Only active accounts at time the list is generated will be assigned to property tax roll. Accounts closed during the year would still be referred to the District's third-party collection agency

Past due balances for non-residential and tenant-occupied residential accounts would follow established policy.

Recommendation

Continue with Board Approved Collections & Residential Water Termination Policy:

- All accounts would follow established policy

OR

Hybrid Process for Owner-Occupied Residential Accounts by Collecting on Property Tax Bill:

- As a supplement to current process, any outstanding balances over 60 days past due on active residential accounts listed under the property owner's name would be assigned to the property tax roll

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Questions?

Alameda County Water District

Financial Planning Scenarios/Metrics

Financial Plan Review

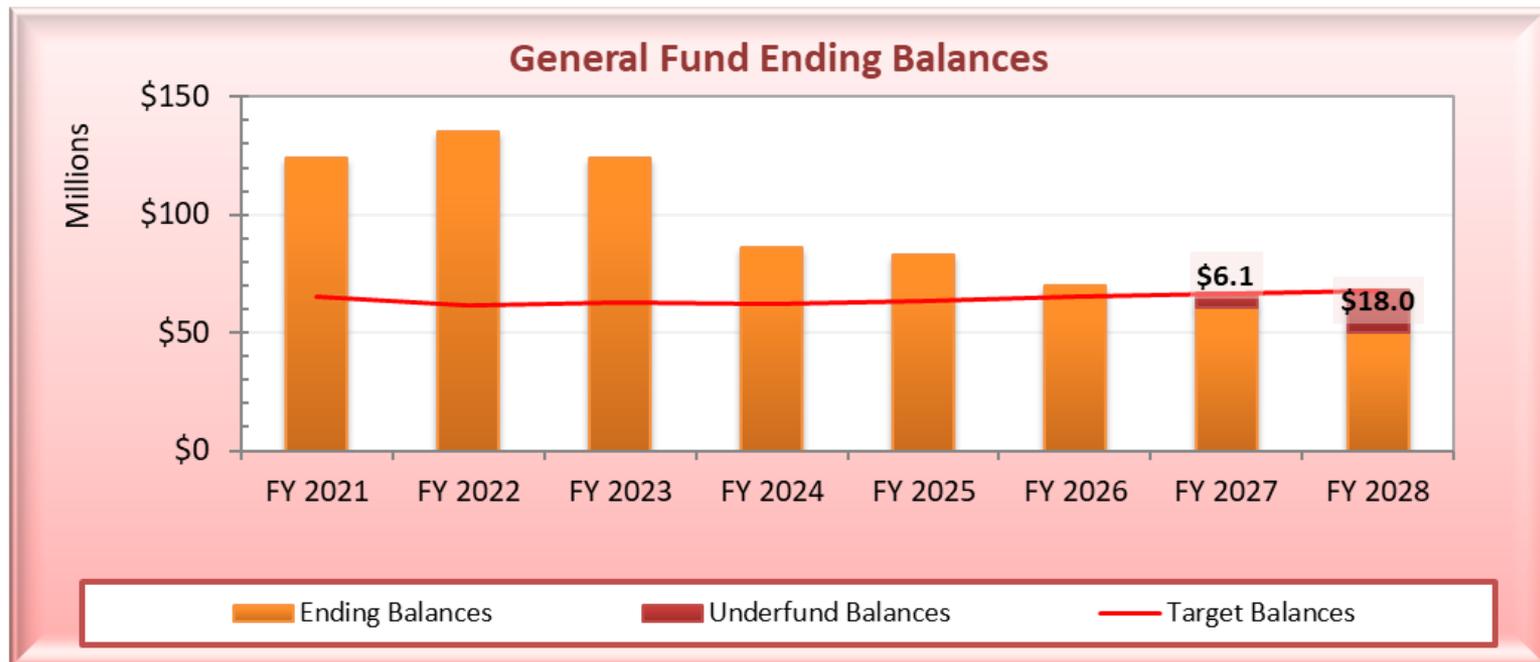
Key assumptions and metrics presented at the July Workshop

- Projected billed demands based on conservation targets and modest drought rebound
- Assumed future annual rate increase of 3%
- Labor and benefit costs consistent with labor contracts
- Contributions for pension and retiree health benefits maintained at more aggressive levels through June 2032
- SPFUC wholesale water rate increases (15.9% increase effective July 1, 2022)
- Fully fund the capital program
- Debt issuance (\$30 million) in FY 2024/25 to help fund the capital program

General Fund Ending Balances

July 2022 Workshop

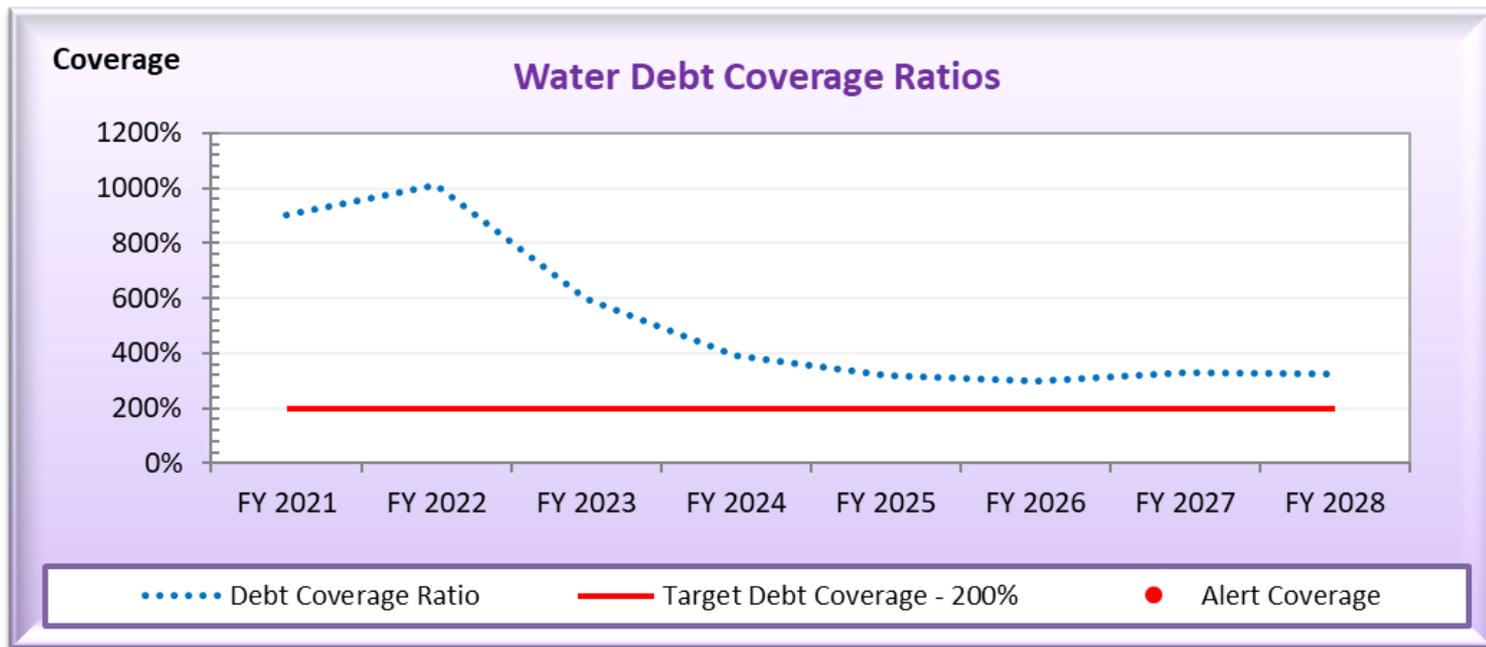
- General Fund balance projected to go below target level within planning horizon:
 - Low balance of \$50 million (\$18 million below target) – key change from budget adoption in June 2022 was assuming continued pension/OPEB contributions through 2032



Debt Coverage

July 2022 Workshop

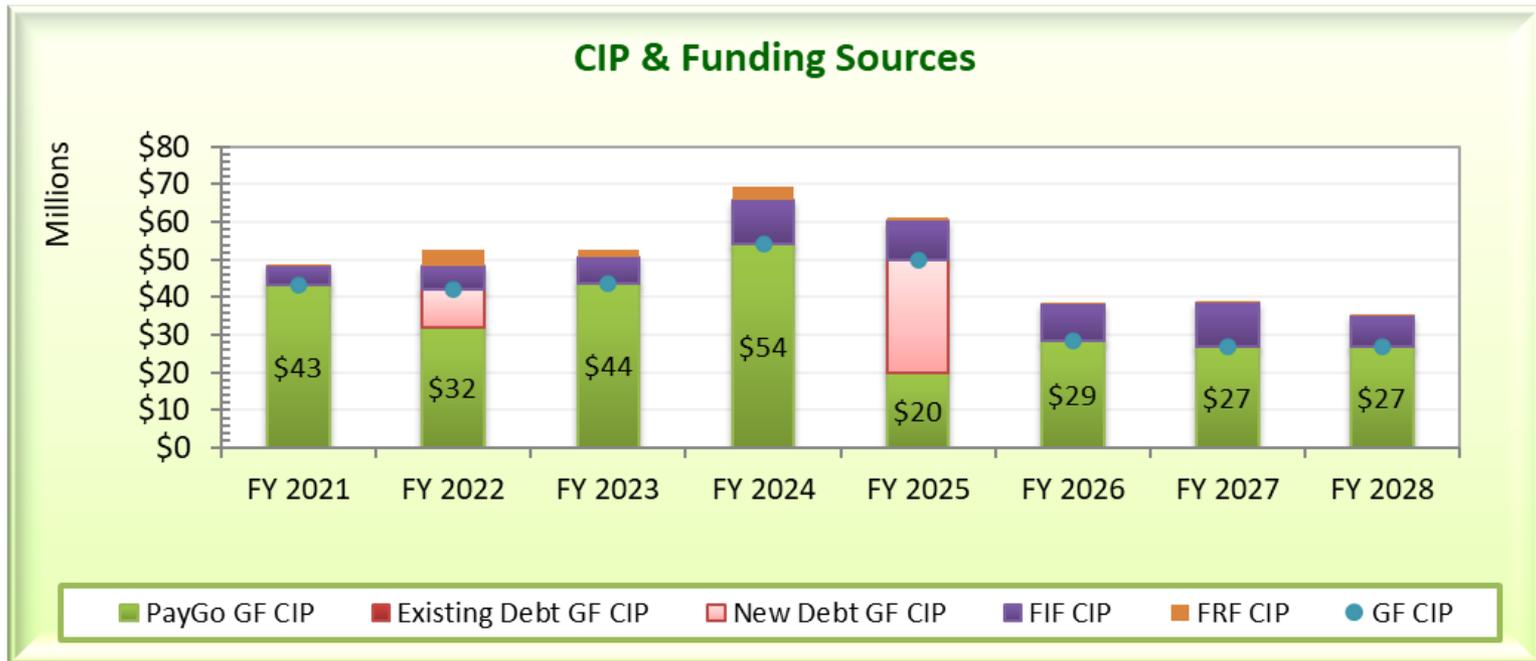
- District continues to maintain strong debt coverage ratios: 300% in low year
- Credit Ratings: Standard & Poor's (S&P): AAA; Moody's: Aa1



Capital Improvement Program (CIP)

July 2022 Workshop

- PayGo GF CIP totals \$200 million for FYE 2023-2028
- Assumed debt issuance (\$30 million) in FYE 2025 to help fund the CIP



Financial Plan Review

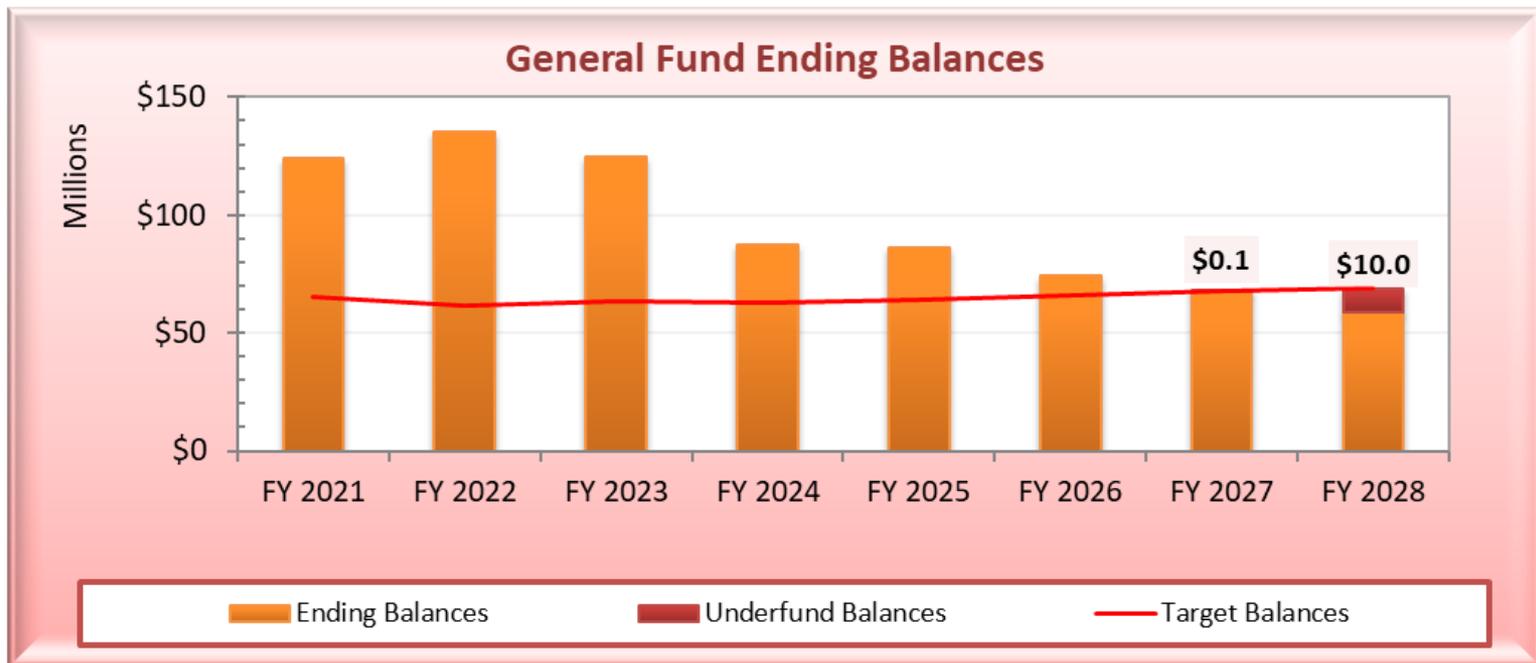
Updates since the July 2022 Workshop include:

- Increasing capital expenditures by \$3.2 million for 6 MGD PFAS project
- Adding \$920,000 annually in operations & maintenance costs for 6 MGD PFAS project (estimates in the range of \$870,000 – \$970,000)
- 4% annual rate increases for 2 years, then drop back to 3%

General Fund Ending Balances

6 MGD PFAS Project O&M Cost

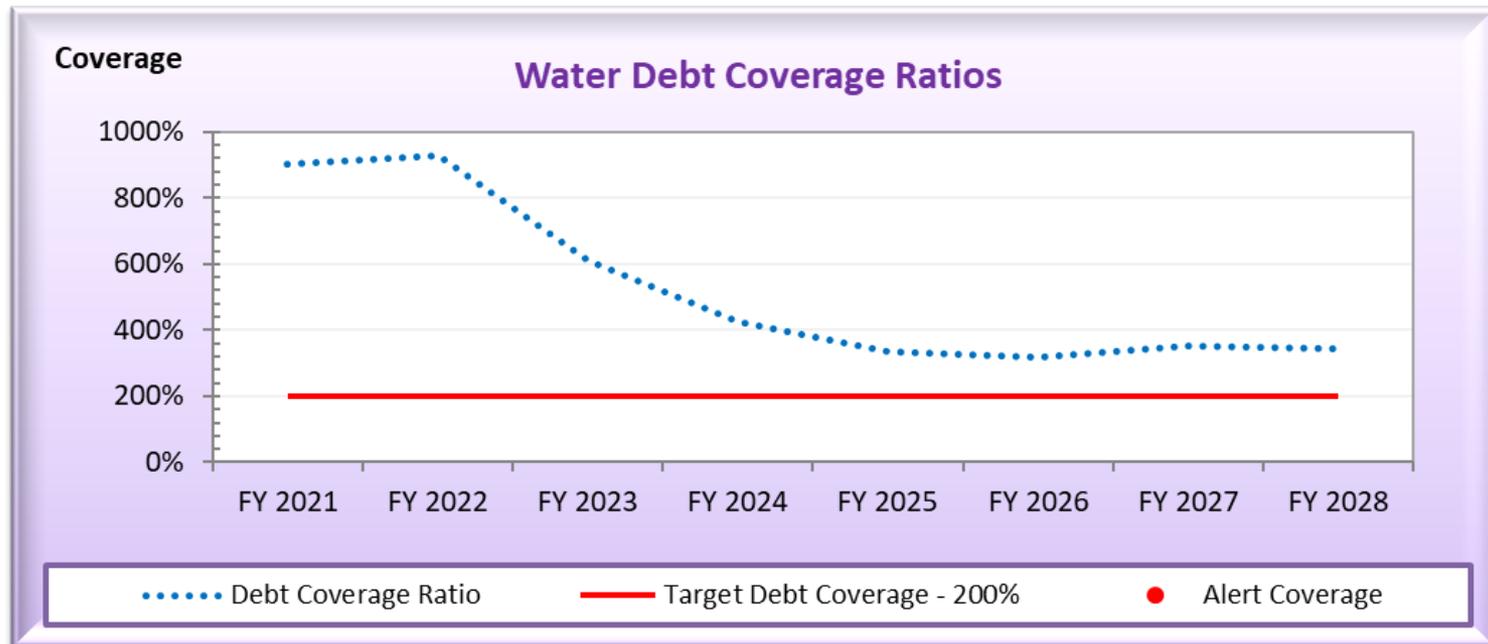
- General Fund balance projected to go below target level within planning horizon:
 - Low balance of \$58.9 million (\$10.0 million below target)



Debt Coverage

6 MGD PFAS Project O&M Cost

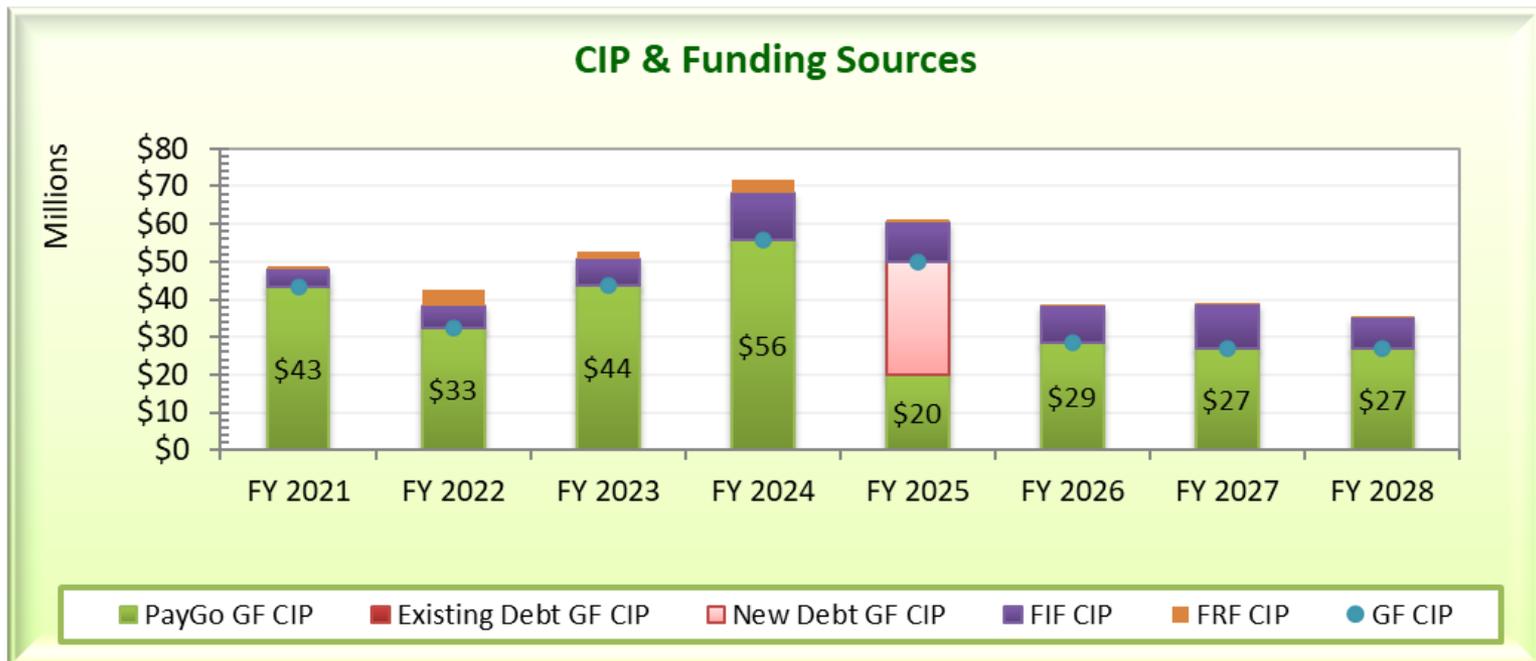
- District continues to maintain strong debt coverage ratios: 319% in low year
- Credit Ratings: Standard & Poor's (S&P): AAA; Moody's: Aa1



Capital Improvement Program (CIP)

6 MGD PFAS Project O&M Cost

- PayGo GF CIP totals \$202 million for FYE 2023-2028
- Assumed debt issuance (\$30 million) in FYE 2025 to help fund the CIP



Financial Plan Review

Alternative PFAS Treatment Scenario - Financial Assumptions:

- Adding updated PFAS capital expenditures upscaling from 6 MGD to 15 MGD project
- Increasing PFAS treatment operations & maintenance costs due to larger treatment project
- All other financial assumptions are consistent with July workshop presentation

Financial Plan Review

15 MGD PFAS Project Cost

Potential 15 MGD PFAS Project Cost Estimate Upscaling from 6 MGD to 15 MGD

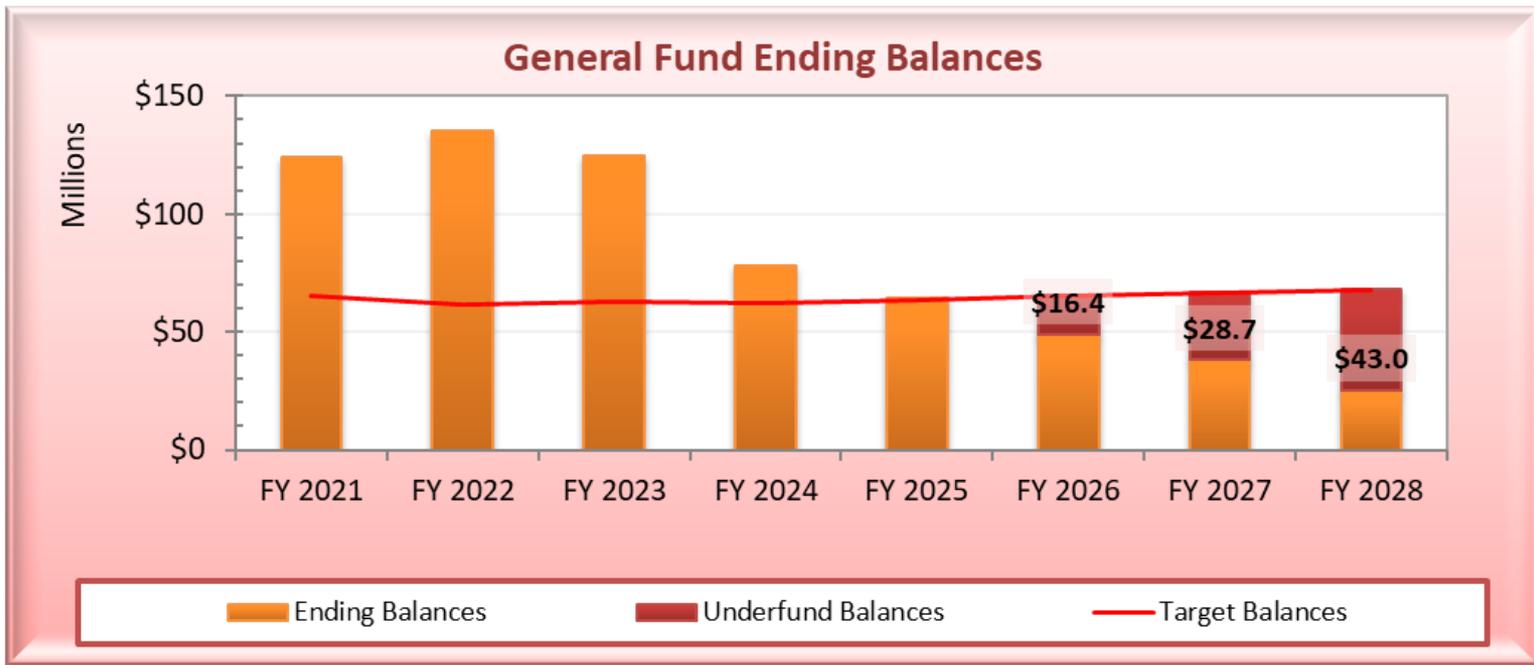
| | Estimated Costs |
|----------------------|---------------------------|
| Capital Expenditures | \$37,110,000 |
| Annual O&M Costs | \$2,000,000 - \$2,200,000 |

- Cost estimates were reviewed with the Board at the August 18 Workshop
- Adopted CIP and budget include \$14.0M for 6MGD PFAS capital costs and no additional costs for operations and maintenance

General Fund Ending Balances

15 MGD PFAS Project Cost

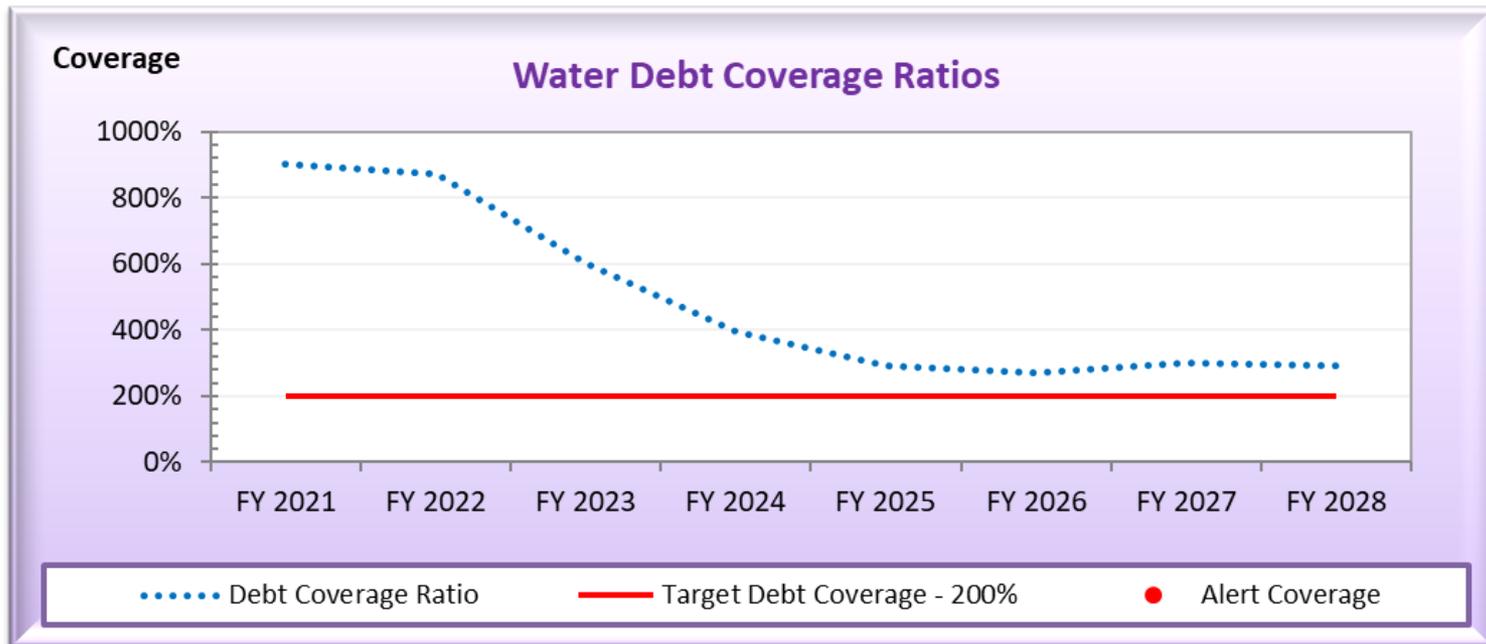
- General Fund balance projected to go below target level within planning horizon (assumes 3% annual rate increases):
 - Low balance of \$25.1M (\$43.0M below target)



Debt Coverage

15 MGD PFAS Project Cost

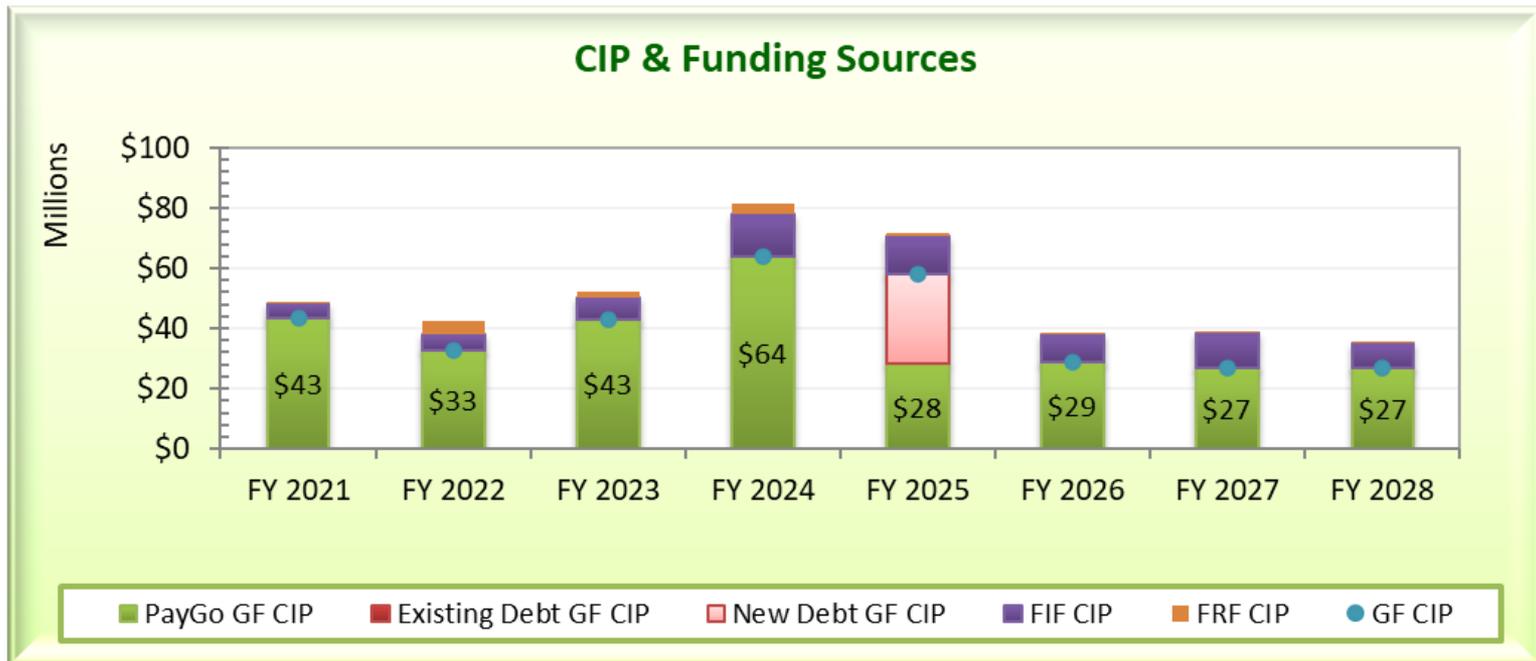
- District continues to maintain strong debt coverage ratios: 273% in low year
- Credit Ratings: Standard & Poor's (S&P): AAA; Moody's: Aa1



Capital Improvement Program (CIP)

15 MGD PFAS Project Cost

- PayGo GF CIP totals \$218M for FYE 2023-2028
- Assumed debt issuance (\$30 million) in FYE 2025 to help fund the CIP



Financial Planning Review

15 MGD PFAS Project Cost Alternative Scenarios

- Alternative Scenario #1
 - \$30M in bonds in FY 2024/25 (already included in current assumptions)
 - 5% annual rate increases for 5 years, then drop back to 3%

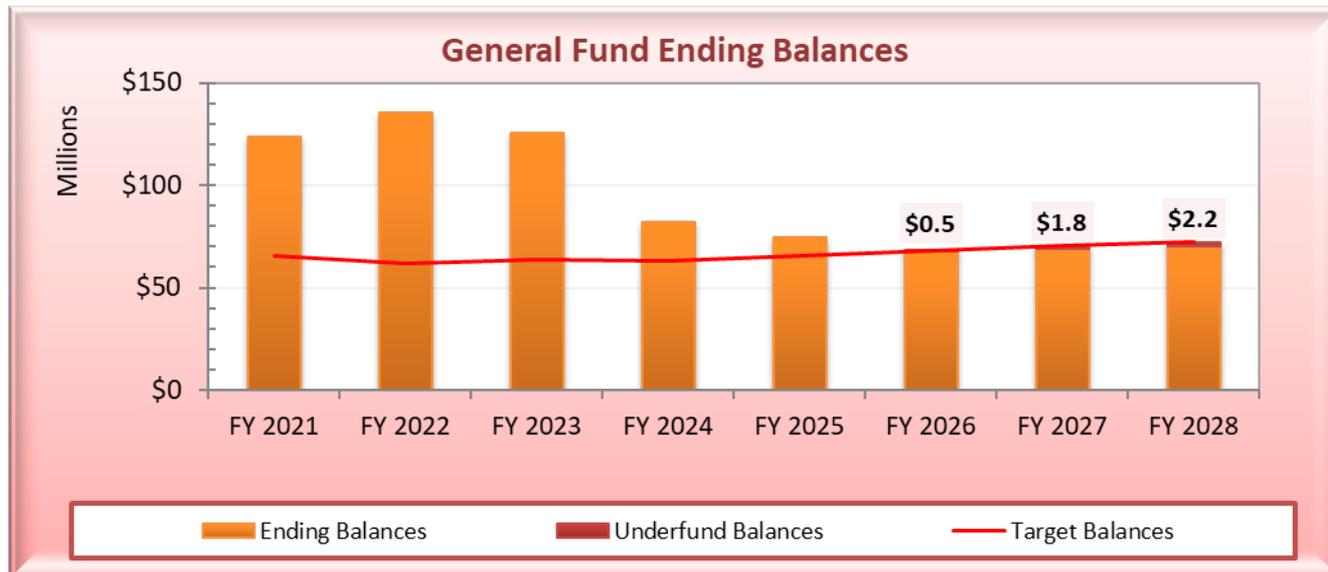
- Alternative Scenario #2
 - Add \$30M in bonds in FY 2024/25 for a total of \$60M
 - 4% annual rate increases for 5 years, then drop back to 3%

General Fund Ending Balances

15 MGD PFAS Project Cost

Alternative Scenario #1 (5% rate increase for 5 years)

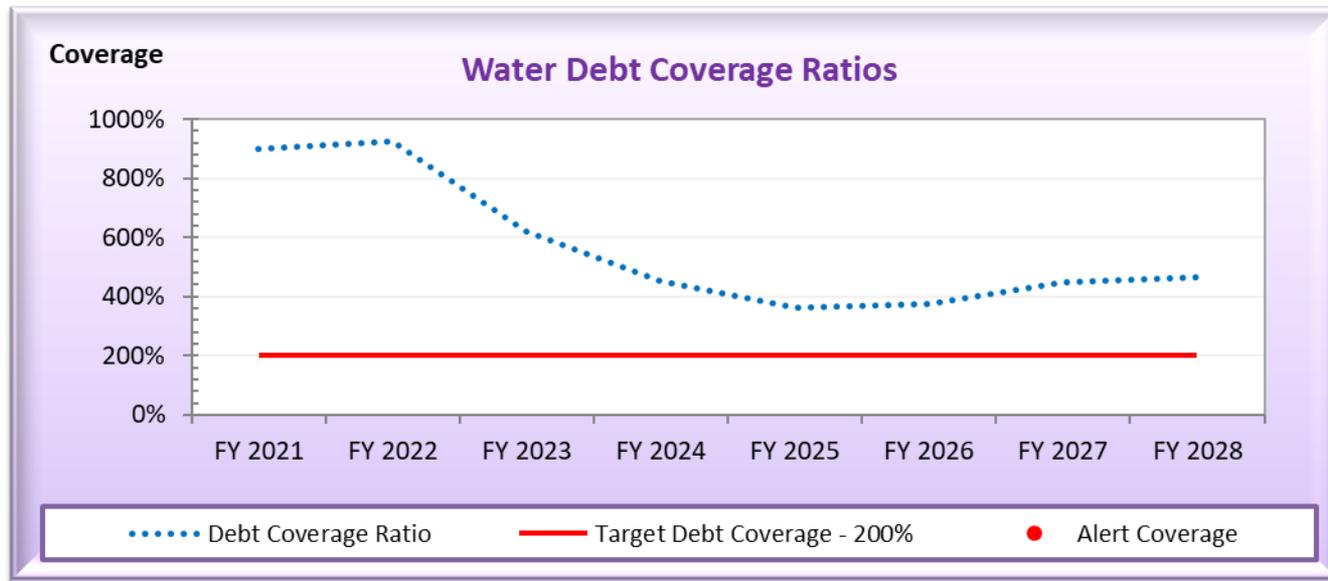
- General Fund balance projected to go below target level within planning horizon:
 - Low balance of \$70.1 million (\$2.2 million below target)



Debt Coverage

15 MGD PFAS Project Cost Alternative Scenario #1

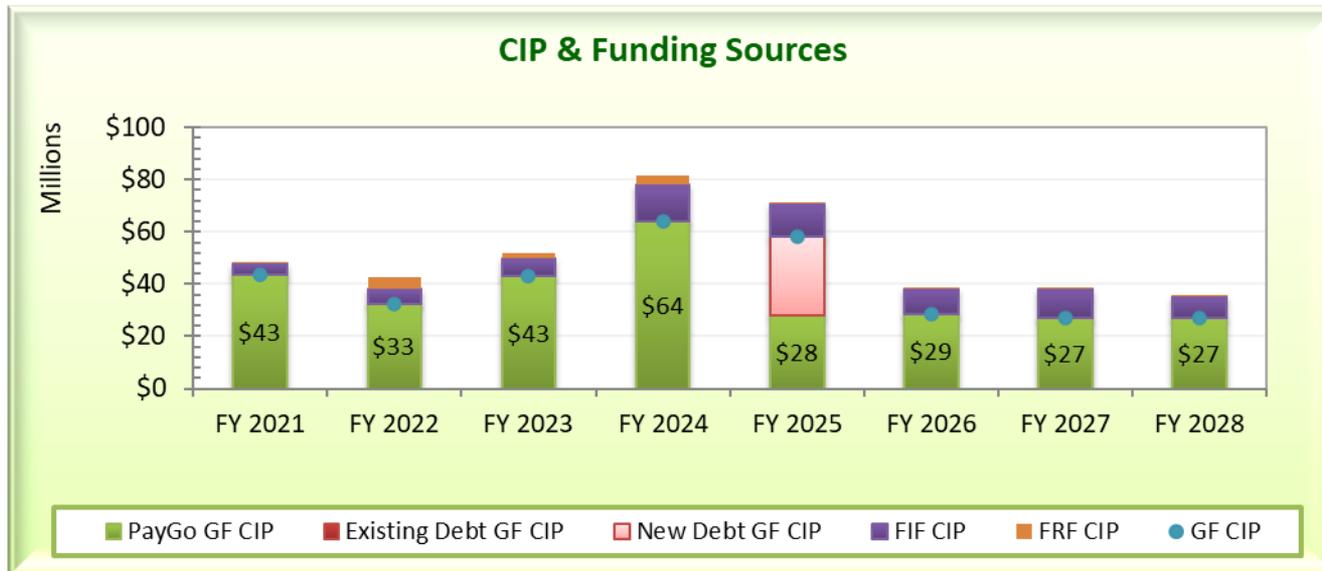
- District continues to maintain strong debt coverage ratios: 361% in low year
- Credit Ratings: Standard & Poor's (S&P): AAA; Moody's: Aa1



Capital Improvement Program (CIP)

15 MGD PFAS Project Cost Alternative Scenario #1

- PayGo GF CIP totals \$218 million for FYE 2023-2028
- Assumed \$30 million debt issuance in FYE 2025 to help fund the CIP

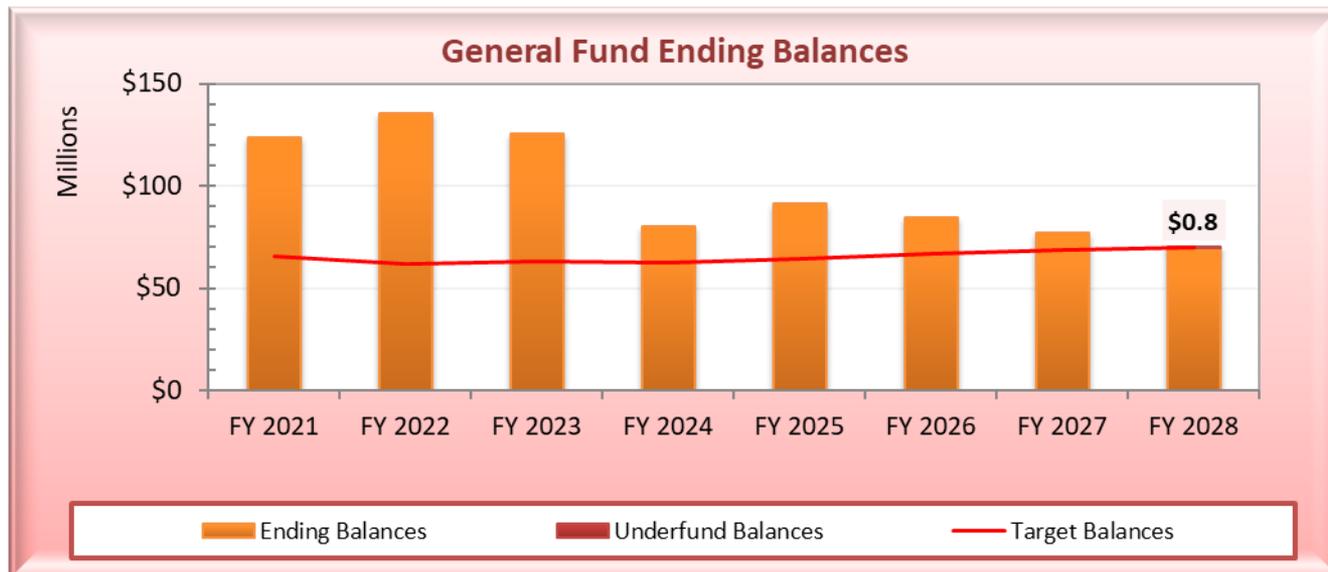


General Fund Ending Balances

15 MGD PFAS Project Cost

Alternative Scenario #2 (add \$30M bonds, 4% rate increase for 5 years)

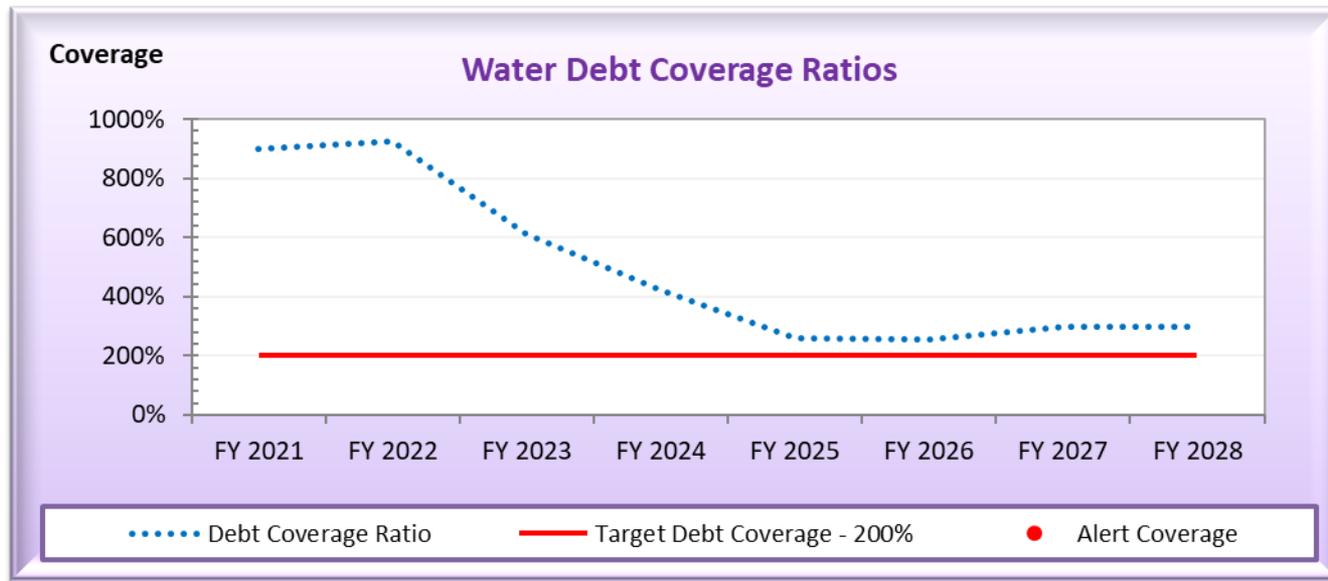
- General Fund balance projected to go below target level within planning horizon:
 - Low balance of \$69.3M (\$0.8M below target)



Debt Coverage

15 MGD PFAS Project Cost Alternative Scenario #2

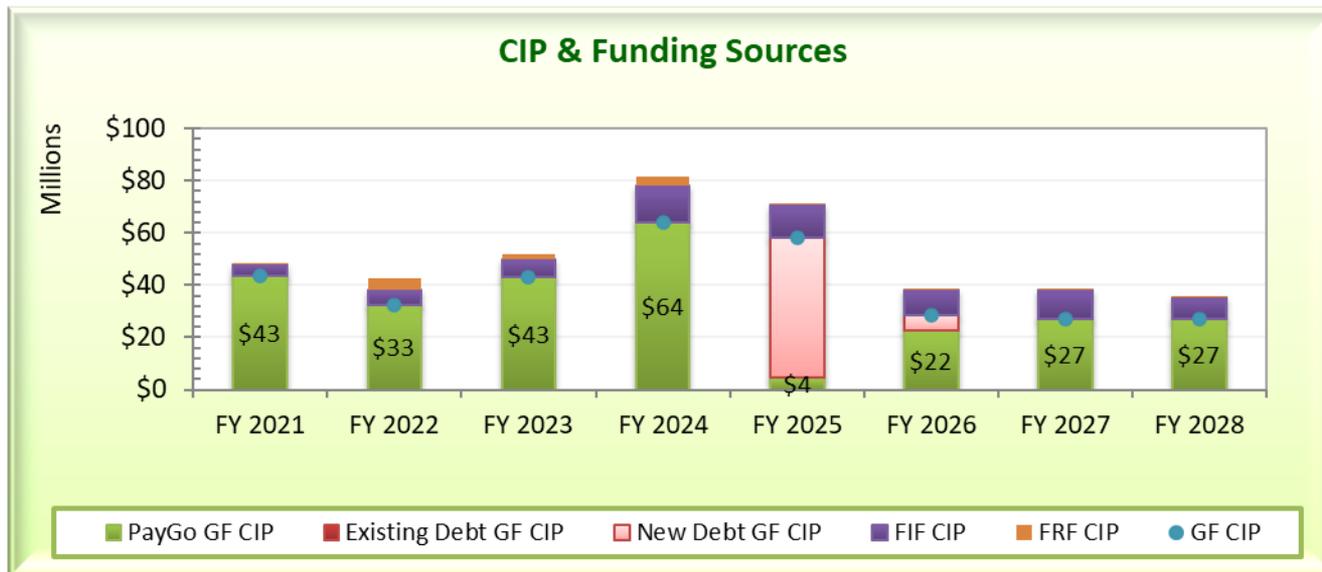
- District continues to maintain strong debt coverage ratios: 257% in low year
- Credit Ratings: Standard & Poor's (S&P): AAA; Moody's: Aa1



Capital Improvement Program (CIP)

15 MGD PFAS Project Cost Alternative Scenario #2

- PayGo GF CIP totals \$188 million for FYE 2023-2028
- Assumed \$60 million in debt issuance in FYE 2025 to help fund the CIP



Financial Planning Review

Recommended Rate Increase

- Regardless of approach on PFAS, rate increases of 4% per year are recommended for the next two years (instead of 3% assumed at budget adoption) due to 1) CalPERS investment losses of 6.1% from FY 2021/22 that increase long-term pension costs, and 2) additional costs for PFAS treatment at 6 MGD
- Actual approach on PFAS, success obtaining grant funds, and actual financial results the next couple of years would affect the following:
 - Actual amount of debt issuance in FY 2024/25
 - How quickly the District can return to annual 3% rate increases

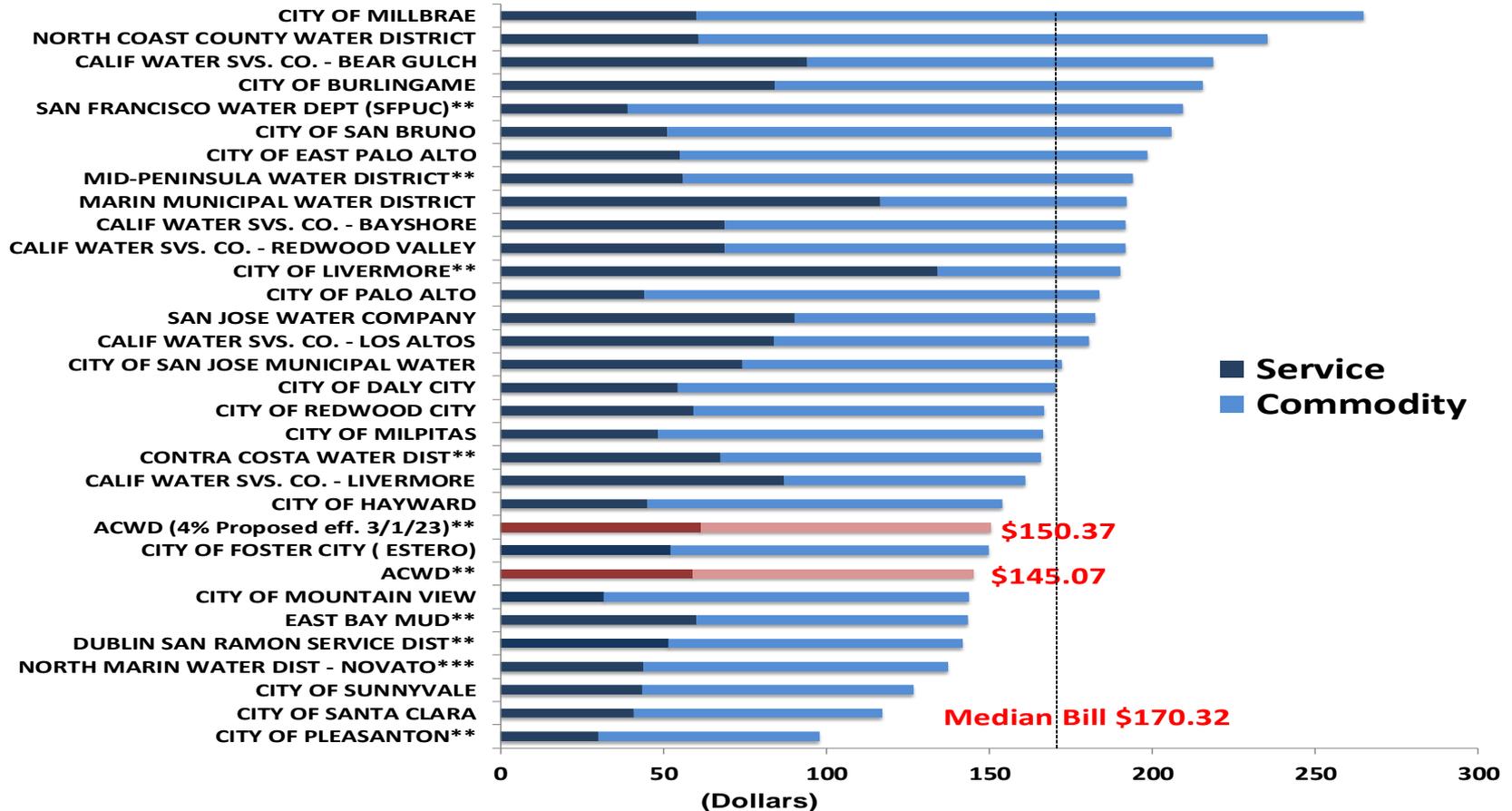
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Bill Comparison Charts

Median Bill Comparison

2022 MEDIAN WATER BILL COMPARISON*

Based on 16 HCF (200 gallons per day) Consumption Bimonthly and a 5/8 or 3/4 inch meter

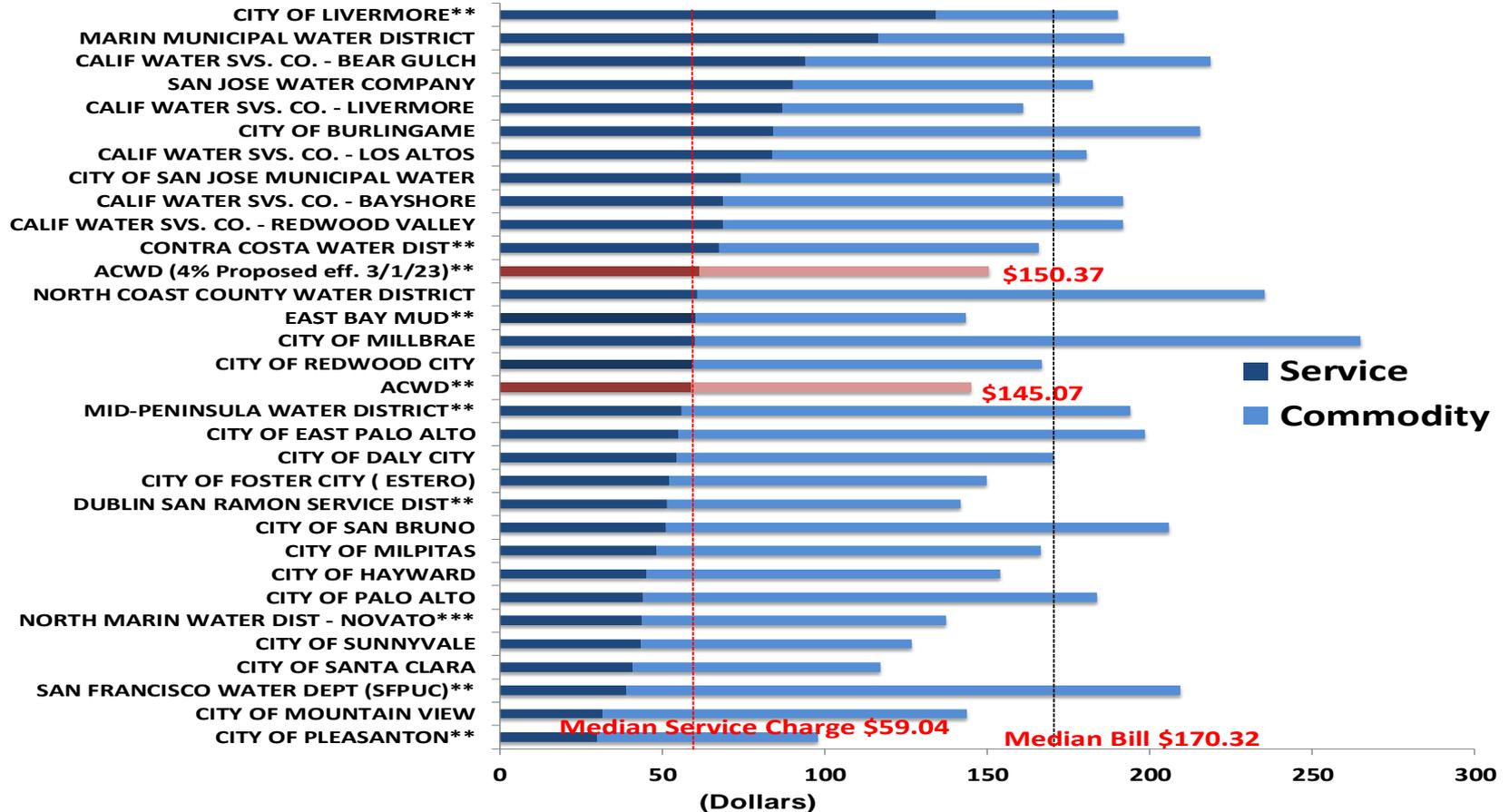


* Comparison based on July 26, 2022 data. Comparison of Commodity and Service charges only. Ranking is based on Total Cost including surcharges.
 ** Indicates Drought -related surcharges in effect.
 *** North Marin Water Dist - Novato drought surcharge effective over 300 gallons per day. This chart illustrates consumption of 200 gallons per day.

Median Bill Comparison

2022 MEDIAN WATER BILL COMPARISON*

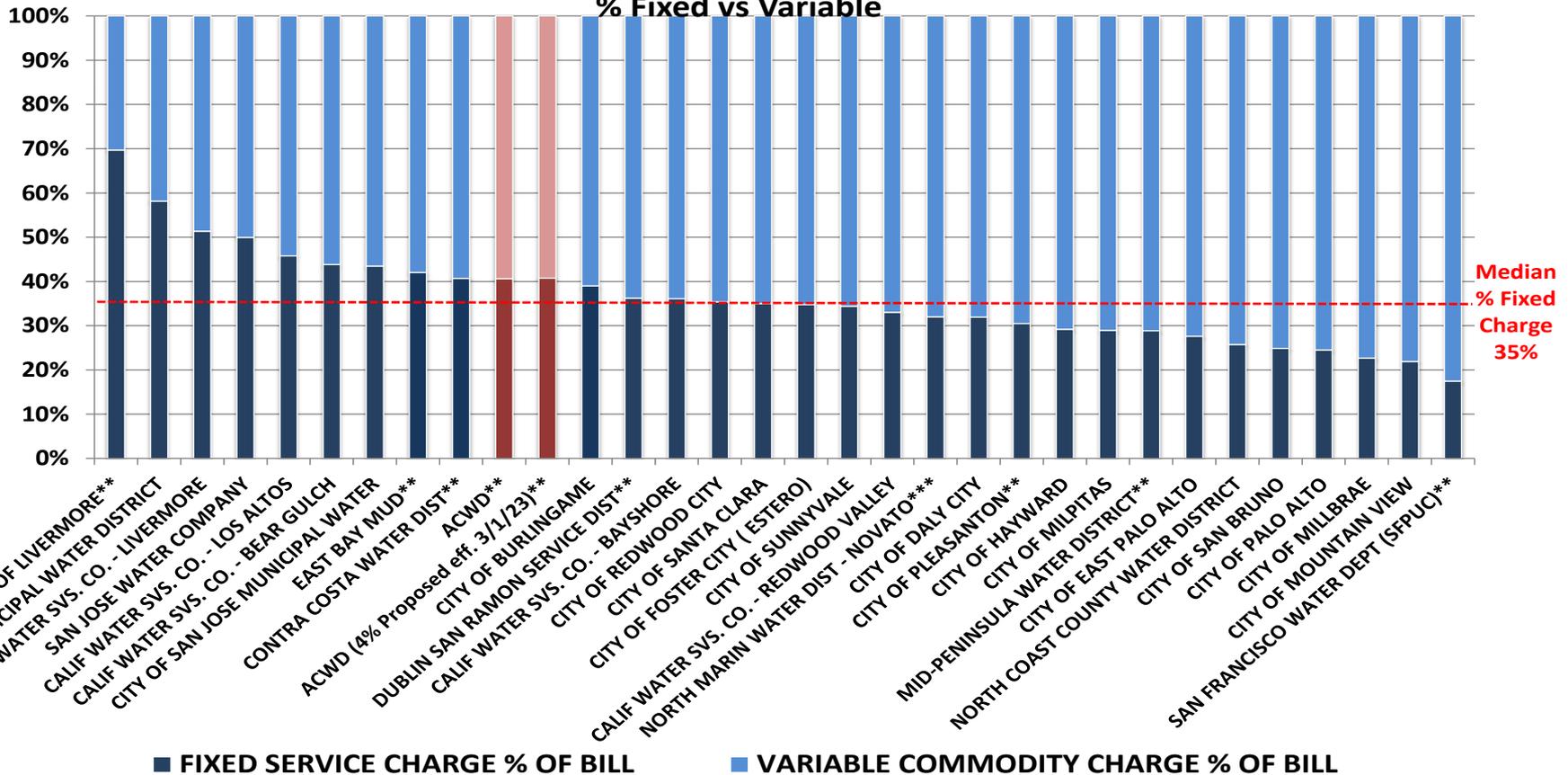
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Bill Comparison

Bi-monthly Water Bill * 3/4" Meter at 16 HCF % Fixed vs Variable



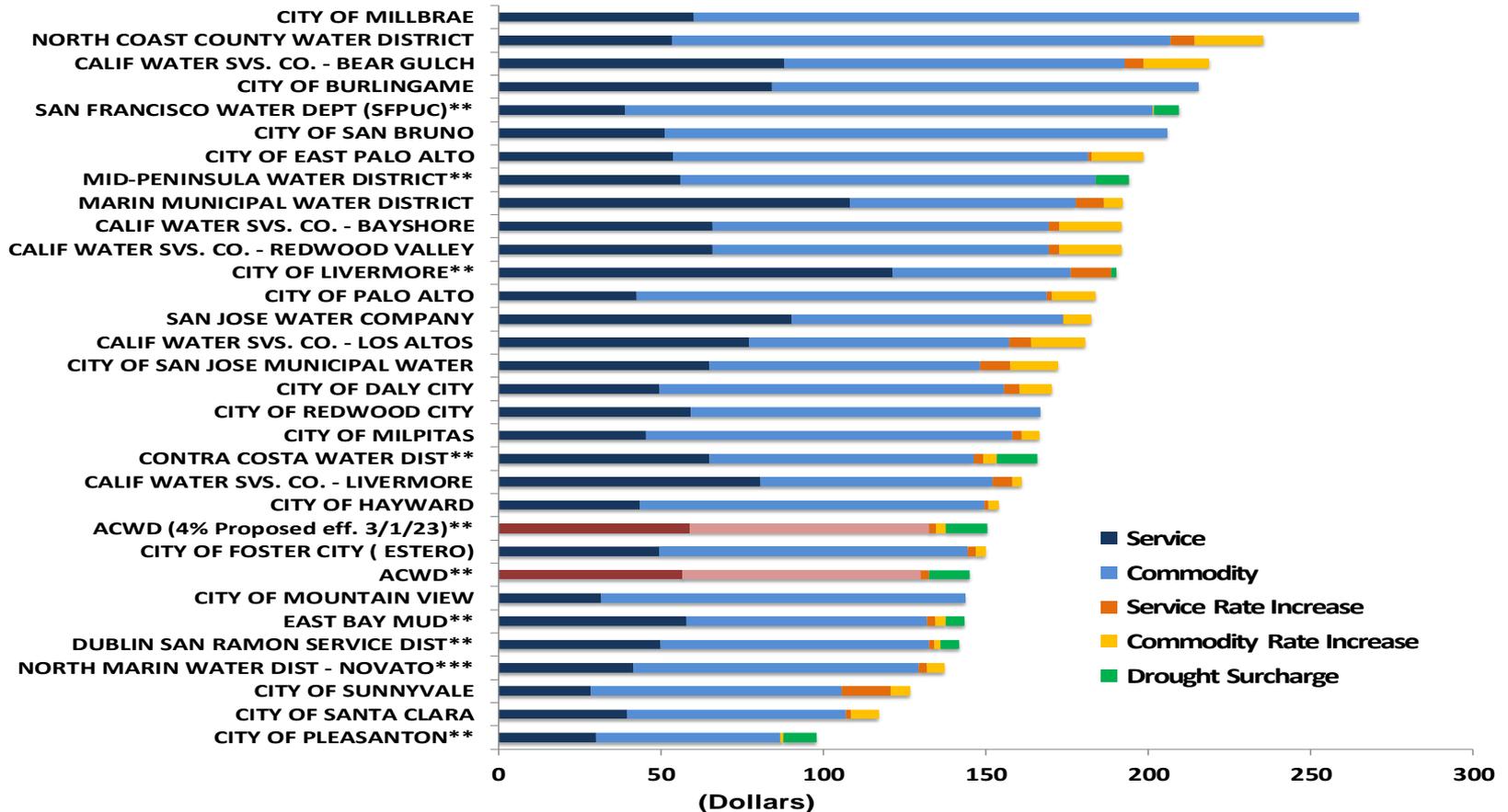
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Bill Comparison

2022 MEDIAN WATER BILL COMPARISON*

Based on 16 HCF (200 gallons per day) Consumption Bimonthly and a 5/8 or 3/4 inch meter



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 *** North Marin Water Dist - Novato drought surcharge effective over 300 gallons per day. This chart illustrates consumption of 200 gallons per day.

Bill Comparison

| Agencies with Drought-related Surcharge | Drought-related Surcharge | Additional Service Charge Increase | Additional Commodity Rate Increase |
|--|---|---|---|
| CITY OF LIVERMORE | \$0.13/HCF (4%) Tier1. \$0.18/HCF (5%)Tier 2. | 10.5% | - |
| DUBLIN SAN RAMON SERVICE DIST | \$0.35/HCF (30%) | 3.2% | 2.5% |
| EAST BAY MUD | \$0.37/HCF (8%) | 4.0% | 4.1% |
| SAN FRANCISCO WATER DEPT (SFPUC) | \$0.48/HCF (5%) | - | - |
| MID-PENINSULA WATER DISTRICT | \$0.65/HCF (11%) | - | - |
| CITY OF PLEASANTON | \$0.65/HCF (18%) | - | 1.7% |
| NORTH MARIN WATER DIST - NOVATO | \$0.75/HCF over 300 gallons per day | 6.0% | 6.0% |
| ACWD | \$0.787/HCF (17%) | 4.1% | - |
| CONTRA COSTA WATER DIST | \$0.79/HCF (15%) | 4.2% | 5.1% |

Alameda County Water District

State Water Project Override Tax

State Water Project Override Tax

Overview of current District Practice

- The District recovers State Water Project (SWP) costs through a property tax assessment according to the following methodology:
 - Fixed Costs are recovered from the override tax based on the nominal design capacity of the District's groundwater and surface water production facilities; excluding SFPUC take-off capacity.
 - Variable Costs are recovered from the override tax based on the percentage of state water deliveries used to directly recharge the groundwater basin (as opposed to being delivered to WTP2).
- This methodology appears to have been in place since 1993 with fixed cost allocation percentages revised in 2001 and 2017.

State Water Project Override Tax

SWP Tax Allocation Methods

- Groundwater portion used to allocate fixed costs of the SWP for tax collection
 - 1993: 74.0%; 2001: 60.0%; 2017: 67.7%

| Facility | 2001 (MGD) | 2017 (MGD) |
|--|---------------|---------------|
| Mission San Jose Water Treatment Plant | 7.80 | 0 |
| Water Treatment Plant #2 | 21.00 | 28.00 |
| Newark Desalination Facility | 0 | 12.50 |
| Groundwater/Mowry and Peralta-Tyson WellFields | 43.20 | 46.30 |
| Total | 72.00 | 86.80 |
| Groundwater Portion | 60.0% | 67.7% |

State Water Project Override Tax

Policies of Other South-Bay Aqueduct State Water Contractors

- Valley Water
 - 100% State Water Project cost recovery through an override tax.
- Zone 7 Water Agency
 - Fixed costs are recovered through an override tax and variable costs are recovered through water rates
 - South-Bay Aqueduct expansion debt service is recovered 20% through the override tax and 80% from developer fees.
- Valley Water and Zone 7 are both wholesale agencies who do not directly bill end-users.

State Water Project Override Tax Customer Impact Analysis

| Current Policy - Home Purchase Year | | | |
|--|------------------|-----------------|-----------------|
| Annual SWP Costs | 2022 | 2012 | 1997 |
| Property Tax | \$ 81.79 | \$ 32.89 | \$ 26.84 |
| Water Bills (16 HCF/bill) | \$ 23.51 | \$ 23.51 | \$ 23.51 |
| Total | \$ 105.29 | \$ 56.40 | \$ 50.34 |

*Highlights impact of home purchase year (based on median home value in purchase year with 2% annual increase in assessed value per State law)

| Customer Impact - Various Override Tax Rates | | | |
|---|------------------|------------------|-----------------|
| Annual SWP Costs | 100% | 67% | 0% |
| Property Tax (Median) | \$ 122.07 | \$ 81.79 | \$ - |
| Water Bills (16 HCF/bill) | \$ - | \$ 23.51 | \$ 71.24 |
| Total | \$ 122.07 | \$ 105.29 | \$ 71.24 |

*Highlights impact of allocation between an override tax and water bills (based on current median home value)

State Water Project Override Tax Customer Impact Analysis

| Customer Impact - Different Consumption Levels | | | |
|---|-----------------|------------------|------------------|
| Annual SWP Costs | 8 HCF | 16 HCF | 32 HCF |
| Property Tax (Median) | \$ 81.79 | \$ 81.79 | \$ 81.79 |
| Water Bills | \$ 16.98 | \$ 23.51 | \$ 36.56 |
| Total | \$ 98.77 | \$ 105.29 | \$ 118.34 |

*Highlights effect of consumption on a customer's State Water costs (based on current policy and current median home value)

State Water Project Override Tax

- The override tax is a tax (not a fee) and is therefore charged according to a property owner's assessed property value
- Total State Water costs in FY 2022/23 are budgeted at \$11.2M or about 6.4% of total budgeted expenditures
- Currently about 2/3 of State Water costs are recovered through the tax and 1/3 through water rates. Delta Conveyance costs are separate:
 - Current District financial planning assumes Delta Conveyance costs are recovered 100% through water rates.
- Override Tax revenues are factored into the calculation of the Replenishment Assessment charged to private pumpers
- Any revisions to the amount recovered through the Override Tax should be done in conjunction with a rates process so water rates appropriately consider Override Tax revenues
- Discussion: Is the current approach satisfactory or should adjustments be considered?

Review Key Rate-setting Options

Overview of Drought Surcharge Options and Summary of South Coast Water Agency Billing Practices

ALAMEDA COUNTY WATER DISTRICT

ALAMEDA COUNTY WATER DISTRICT

RATE DESIGN AND FINANCIAL ADVISORY SERVICES

Board Workshop

August 25, 2022



HF&H Consultants

PRESENTATION OUTLINE

- Stage rates (drought surcharges)
 - Three options
 - Examples
- South Coast Water District
 - Billing on tax rolls
- Board direction

STAGE RATES

- During water shortages, customers are asked to conserve more than usual
 - Conservation reduces revenue from consumption charges
- Conservation reduces certain variable costs but most fixed costs are unchanged
 - Certain costs increase during water shortages
- A revenue deficit will occur unless consumption charges are increased to cover the fixed costs with lower water sales
 - Reserves are drawn down by deficits unless rates are adjusted
- Stage rates are added to base rates
 - Stage rates should reflect cost-based, revenue neutral adjustments
 - Derived to offset revenue shortfalls associated with each shortage reduction stage
 - Stage rates should net out any cost savings resulting from reduced water production

STAGE RATE OPTIONS

- Option 1: Fixed surcharge
 - Option 1A - Equal charge per account
 - Option 1B - Graduated charge per account based on meter size
- Option 2: Uniform per HCF surcharge to consumption rate
 - ACWD's current methodology
 - Applied to all water use
- Option 3: Tiered per HCF surcharge to consumption rate
 - For water use above a specified threshold (e.g., no increase in the rate per HCF until water use exceeds 12 HCF)

OPTION I. FIXED SURCHARGE

- Two approaches
 - Option IA - Equal surcharge to each account
 - Surcharge equals revenue deficit divided by number of accounts
 - Option IB - Graduated surcharge in proportion to meter size
 - Surcharge equals revenue deficit divided by equivalent meter units
- Advantage
 - Revenue stability
 - Converts revenue deficit from reduced consumption to a fixed surcharge
 - Option IB – reflects potential demand
- Disadvantage
 - Rate payer equity
 - Does not reflect customers' efforts to conserve
 - Option IA – not related to flow

OPTION 1A EXAMPLE

- Equal surcharge to each account

| Stage | Demand Reduction | Annual | | | Net Lost Revenue | Number of Accounts | Bi-Monthly Surcharge per Account |
|-------|------------------|----------------------------------|-------------------------|---------------|------------------|--------------------|----------------------------------|
| | | Consumption Revenue ¹ | Revenue after Reduction | Cost Savings | | | |
| 0 | 0% | \$78,531,368 | \$78,531,368 | \$0 | \$0 | 85,335 | \$0.00 |
| 1 | 10% | \$78,531,368 | \$70,678,231 | (\$233,100) | \$7,620,037 | 85,335 | \$14.88 |
| 2a | 15% | \$78,531,368 | \$66,751,663 | (\$349,650) | \$11,430,055 | 85,335 | \$22.32 |
| 2b | 20% | \$78,531,368 | \$62,825,094 | (\$466,200) | \$15,240,074 | 85,335 | \$29.77 |
| 3a | 25% | \$78,531,368 | \$58,898,526 | (\$582,750) | \$19,050,092 | 85,335 | \$37.21 |
| 3b | 30% | \$78,531,368 | \$54,971,958 | (\$590,173) | \$22,969,237 | 85,335 | \$44.86 |
| 4 | 40% | \$78,531,368 | \$47,118,821 | (\$649,656) | \$30,762,891 | 85,335 | \$60.08 |
| 5 | 50% | \$78,531,368 | \$39,265,684 | (\$1,296,933) | \$37,968,751 | 85,335 | \$74.16 |
| 6 | 60% | \$78,531,368 | \$31,412,547 | (\$1,750,027) | \$45,368,794 | 85,335 | \$88.61 |

1. $17,086,895 \text{ HCF} \times 4.5\% = \$78,531,368$

OPTION 1B EXAMPLE

- Graduated surcharge in proportion to meter size

| Stage | Demand Reduction | Annual | | | Net Lost Revenue | Number of EMUs ² | Bi-Monthly Surcharge per Account |
|-------|------------------|----------------------------------|-------------------------|---------------|------------------|-----------------------------|----------------------------------|
| | | Consumption Revenue ¹ | Revenue after Reduction | Cost Savings | | | |
| 0 | 0% | \$78,531,368 | \$78,531,368 | \$0 | \$0 | 115,224 | \$0.00 |
| 1 | 10% | \$78,531,368 | \$70,678,231 | (\$233,100) | \$7,620,037 | 115,224 | \$11.02 |
| 2a | 15% | \$78,531,368 | \$66,751,663 | (\$349,650) | \$11,430,055 | 115,224 | \$16.53 |
| 2b | 20% | \$78,531,368 | \$62,825,094 | (\$466,200) | \$15,240,074 | 115,224 | \$22.04 |
| 3a | 25% | \$78,531,368 | \$58,898,526 | (\$582,750) | \$19,050,092 | 115,224 | \$27.56 |
| 3b | 30% | \$78,531,368 | \$54,971,958 | (\$590,173) | \$22,969,237 | 115,224 | \$33.22 |
| 4 | 40% | \$78,531,368 | \$47,118,821 | (\$649,656) | \$30,762,891 | 115,224 | \$44.50 |
| 5 | 50% | \$78,531,368 | \$39,265,684 | (\$1,296,933) | \$37,968,751 | 115,224 | \$54.92 |
| 6 | 60% | \$78,531,368 | \$31,412,547 | (\$1,750,027) | \$45,368,794 | 115,224 | \$65.62 |

1. 17,086,895 HCF x \$4.596 = \$78,531,368

2. Equivalent Meter Units

OPTION 1B EXAMPLE (CONTINUED)

■ Example surcharges for Stage 2a

| Meter Size | Current Rate | Ratio | Bi-monthly |
|--------------------|--------------|--------|-------------------|
| | | | Surcharge per EMU |
| 5/8" & 3/4" Meters | \$58.94 | 1.00 | \$16.53 |
| 1" Meters | \$94.18 | 1.60 | \$26.42 |
| 1 1/2" Meters | \$182.25 | 3.09 | \$51.12 |
| 2" Meters | \$287.95 | 4.89 | \$80.77 |
| 3" Meters | \$622.64 | 10.56 | \$174.66 |
| 4" Meters | \$1,115.87 | 18.93 | \$313.01 |
| 6" Meters | \$2,824.56 | 47.92 | \$792.31 |
| 8" Meters | \$4,938.41 | 83.79 | \$1,385.26 |
| 10" Meters | \$7,404.57 | 125.63 | \$2,077.04 |

OPTION 2. UNIFORM SURCHARGE PER HCF

- ACWD's current methodology
 - Surcharge equals revenue deficit divided by water sales associated with each shortage reduction stage
- Advantages
 - Relatively simple to implement given ACWD's current uniform rate structure for all customers
 - Rate payer equity
 - Correlates with customer water use
- Disadvantage
 - Applies the same level of cutback to all customers
 - Does not reflect each customer's discretionary water uses, which is where cutbacks could be targeted

OPTION 2 EXAMPLE

| Stage | Demand Reduction | Annual | | | Net Lost Revenue | Demand (HCF) | Surcharge per HCF |
|-------|------------------|----------------------------------|-------------------------|---------------|------------------|--------------|-------------------|
| | | Consumption Revenue ¹ | Revenue after Reduction | Cost Savings | | | |
| 0 | 0% | \$78,531,368 | \$78,531,368 | \$0 | \$0 | 17,086,895 | \$0.00 |
| 1 | 10% | \$78,531,368 | \$70,678,231 | (\$233,100) | \$7,620,037 | 15,378,205 | \$0.50 |
| 2a | 15% | \$78,531,368 | \$66,751,663 | (\$349,650) | \$11,430,055 | 14,523,860 | \$0.79 |
| 2b | 20% | \$78,531,368 | \$62,825,094 | (\$466,200) | \$15,240,074 | 13,669,516 | \$1.11 |
| 3a | 25% | \$78,531,368 | \$58,898,526 | (\$582,750) | \$19,050,092 | 12,815,171 | \$1.49 |
| 3b | 30% | \$78,531,368 | \$54,971,958 | (\$590,173) | \$22,969,237 | 11,960,826 | \$1.92 |
| 4 | 40% | \$78,531,368 | \$47,118,821 | (\$649,656) | \$30,762,891 | 10,252,137 | \$3.00 |
| 5 | 50% | \$78,531,368 | \$39,265,684 | (\$1,296,933) | \$37,968,751 | 8,543,447 | \$4.44 |
| 6 | 60% | \$78,531,368 | \$31,412,547 | (\$1,750,027) | \$45,368,794 | 6,834,758 | \$6.64 |

I. 17,086,895 HCF x \$4.596 = \$78,531,368

OPTION 3. TIERED SURCHARGE PER HCF

- Similar to Option 2 but focuses surcharge on higher, potentially discretionary water use
- Tiers
 - Tier 1 - No surcharge for essential water use
 - Threshold could equal 50 gpd per capita for a household of 3 (12 HCF per bi-monthly period) for Stage 1 and less with successive stage reductions
 - Tier 2 – Surcharge for potentially non-essential uses (e.g., irrigation)
 - All use above Tier 1 (up to Tier 3, if an additional tier is added)
 - Optional Tier 3 – Surcharge for excessive use
 - All use above Tier 2
 - Excessive use defined by shortage reduction stage
 - E.g., in a 20% shortage reduction, excessive use applies to the highest 20% of water users
 - Not recommended without creating customer classes

OPTION 3. TIERED SURCHARGE PER HCF (CONT)

- Surcharge equals revenue deficit assigned to each tier divided by water use in each tier
- Advantages
 - Does not surcharge essential water use
 - Shifts recovery of revenue deficit to potentially discretionary water use
- Disadvantages
 - Relatively complex
 - Deriving shortage reductions for higher tiers and associated revenue deficits
 - Requires communication with customers to understand that surcharges are not penalties

OPTION 3 EXAMPLE: SFR ONLY; 2 TIERS

- Tier breakpoint at 50 gpd per capita for a household of 3 (12 HCF bi-monthly)
- All other customers use Option 2 surcharges

| Stage | Demand Reduction | Annual | | | Net Lost Revenue | Demand (HCF) ² | Surcharge per HCF |
|-------|------------------|----------------------------------|-------------------------|--------------|------------------|---------------------------|-------------------|
| | | Consumption Revenue ¹ | Revenue after Reduction | Cost Savings | | | |
| 0 | 0% | \$31,366,805 | \$31,366,805 | \$0 | \$0 | 2,864,116 | \$0.00 |
| 1 | 10% | \$31,366,805 | \$28,230,124 | (\$93,104) | \$3,043,576 | 2,284,008 | \$1.33 |
| 2a | 15% | \$31,366,805 | \$26,661,784 | (\$139,656) | \$4,565,364 | 2,004,191 | \$2.28 |
| 2b | 20% | \$31,366,805 | \$25,093,444 | (\$186,208) | \$6,087,153 | 1,731,198 | \$3.52 |
| 3a | 25% | \$31,366,805 | \$23,525,104 | (\$232,761) | \$7,608,941 | 1,465,031 | \$5.19 |
| 3b | 30% | \$31,366,805 | \$21,956,763 | (\$235,725) | \$9,174,316 | 1,226,163 | \$7.48 |
| 4 | 40% | \$31,366,805 | \$18,820,083 | (\$259,484) | \$12,287,238 | 789,375 | \$15.57 |
| 5 | 50% | \$31,366,805 | \$15,683,402 | (\$518,018) | \$15,165,385 | 407,186 | \$37.24 |
| 6 | 60% | \$31,366,805 | \$12,546,722 | (\$698,991) | \$18,121,091 | 202,442 | \$89.51 |

1. 6,824,805 HCF x \$4.596 = \$31,366,805

2. 2,864,116 HCF in demand above 12 HCF; Demand reduced above 12 HCF at each stage per Staff billing analysis

SUMMARY OF CUSTOMER IMPACTS

- Impacts per account at various consumption levels at Stage 2a
- Impacts are in addition to non stage rate bills
- Option 3 calculations apply to Single Family customers only

| Customer Impact - Stage 2a (3/4" meter) | | | |
|--|--------------|---------------|---------------|
| Stage Rate Option | 8 HCF | 16 HCF | 32 HCF |
| Option 1A | \$22.32 | \$22.32 | \$22.32 |
| Option 1B | \$16.53 | \$16.53 | \$16.53 |
| Option 2 | \$6.32 | \$12.64 | \$25.28 |
| Option 3 | \$0.00 | \$9.11 | \$45.56 |

SUMMARY OF OPTIONS – BOARD DIRECTION

- Which option for Single Family Residential?
- Which option for Commercial/Multi-Family?
- If tiered, how many? Appropriate breakpoints? Tier 1 surcharge?

| | Option 1A | Option 1B | Option 2 | Option 3 |
|---------------------------------|-------------|----------------|----------|-----------|
| Fixed Component | per account | per meter size | None | None |
| Surcharge on Consumption | | | | |
| Single Family Residential | | | | |
| Tiers | None | None | Uniform | 2 or 3 |
| Breakpoints [1] | None | None | Uniform | Note 2 |
| Tier 1 surcharge? | None | None | None | yes or no |
| Commercial | | | | |
| Tiers | None | None | Uniform | 2 or 3 |
| Breakpoints | None | None | Uniform | Note 3 |
| Tier 1 surcharge? | None | None | None | yes or no |

1. Breakpoints will reduce as stages increase
2. 12 HCF (50 gpd per person, 3 people); 18 HCF (average day demand); other?
3. Uniform, 155 HCF (average day demand), other?

SOUTH COAST WATER DISTRICT

- Serving about 12,500 water and sewer accounts in southern Orange County
- Service charges – by meter size
 - SFR billed on tax rolls (26%)*
 - All others billed monthly (5%)
 - 31% of total revenue
- Peak demand charges – 2nd highest monthly demand in prior year
 - Discourages peaking
 - Recalculated annually
 - SFR billed on tax rolls (19%)
 - All others billed monthly (10%)
 - 30% of total revenue (rounded)
- 39% of revenue from consumption charges per HCF
 - Billed monthly
 - SFR – 3 tiers (21%)
 - All others billed various uniform rates (18%)
- 61% of revenue from semi-fixed annual charges
 - Service and peak demand charges
 - 45% annually on tax rolls
 - 16% monthly on bills

*Note: All percentages are approximate values derived by HF&H for a recent fiscal year and have not been verified by SCWD.

SOUTH COAST WATER DISTRICT

■ Billing on tax rolls versus monthly bills

■ Modifies cash flow

- Shifts cash flow from monthly to annual
- Requires maintaining higher reserves to cover costs between remittances from County
- Guarantees collection of delinquencies

■ Divides the total cost of water between two types of billing at different frequencies

- 68% of SFR bills is billed annually
- 32% of SFR bills is billed monthly
- Customers do not receive monthly information on the total cost of water
- Splitting the bills between the tax rolls and monthly bills does not appear to weaken conservation signal

■ Different financial incentive to conserve

- With 55% of SFR revenue from consumption charges, a 20% reduction in water use reduces bills 11% on average

■ Implementation and administration

■ Stage rates were not adopted

- Reliance instead on higher fixed charges

■ Setting rates is less flexible

- Must be coordinated with placing charges on tax rolls only in August

■ Placing charges on tax rolls does not reduce staffing needs

- Accounting, tax roll preparation, billing adjustments, customer service
- The cost of billing on the tax rolls is in addition to the cost of monthly billing

Conclusion

Recap Board guidance

- Approach to collection on delinquent accounts
- Potential rate increase amount and duration of notice
- State Water Project Override Tax
- Approach to drought surcharges (stage rates)

Next Steps

- Discuss more specific scenarios and refine proposal at Board workshop September 22
- At December 8 Board meeting, consider approval to issue a rate notice

Alameda County Water District

Questions?