

# Western Hills Water District

## Water Rate Study

Board Meeting – Project Status Update  
September 29, 2021

HF&H Consultants, LLC



# Agenda

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- Introductions
- Purpose of the Meeting
- Current Rates, Rate Structure, and Revenues
- Revenue Requirements
- Proposed Rates
- Bill Comparisons (current vs proposed rates)
- Questions & Discussion

# Purpose of the Meeting

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- Inform Board and public of the rate study process and status
- Present analysis
- Elicit input from Board members

# Current Rates, Rate Structure, and Observations

Customer Class	Service Charge		Usage Charge	
	Per Month	% of Revenue	Per Unit/mo. <sup>1</sup>	% of Revenue
<b>Treated Water</b>				
Residential	\$100.69	84%	\$1.49	16%
Residential - HOA	\$0.00	0%	\$5.87	100%
Non-Residential <sup>2</sup>	\$0.00	<u>0%</u>	\$5.87	<u>100%</u>
<i>Combined %</i>		78%		22%
<b>Raw Water</b>				
	\$0.00	0%	\$4.01	100%
			= \$1,747,63/AF	

<sup>1</sup> Unit = 750 gallons

<sup>2</sup> Non-residential includes COAs, District office, clubhouse, fire station

## Observations:

- 78% of revenue coming from fixed charges provides the District a high-level of revenue reliability
- **Current revenue < cost of service.**
- Current rates do not allow for contributions to operating or capital reserves

# Revenue at Current Rates ~ \$931,000

	Current Meter Count	Current Service Chg per meter per mo	Projected Annual Service Charge Revenue	Projected Usage (per Unit)	Current Usage Charge per 750 gal/unit	Projected Annual Usage Charge Revenue	Annual Revenue Current Cust.
<b>Treated Water</b>							
Residential	588	\$100.69	\$ 710,469	100,702	\$1.49	\$ 150,047	\$ 860,515
Residential HOA	4	\$0.00	\$ -	8,342	\$5.87	\$ 48,968	48,968
Subtotal Residential	592		710,469	109,044		199,014	909,483
			78%			22%	
<b>Non-Residential</b>							
Commercial Owners Assoc (COA) (2")	8	\$0.00	-	3,639	\$5.87	\$ 21,364	21,364
Golf Course			-				
1" Meter	1	\$0.00	-	-	\$5.87	-	-
2" Meter	1	\$0.00	-	-	\$5.87	-	-
District Office	1	\$0.00	-	117	\$5.87	689	689
Fire Station	1	\$0.00	-	25	\$5.87	144	144
Subtotal Non-Residential	12		-	3,781		22,197	22,197
<b>Total Treated Water</b>	604		\$ 710,469	112,826		\$ 221,211	\$ 931,680
			76%			24%	
<b>Raw Water</b>							
Vineyard	1	\$0.00	\$ -	-	\$4.01	\$ -	\$ -
Golf Course	1	\$0.00	-	-	\$4.01	-	-
2" Meter (COA #9)	1		-	-	\$4.01	-	-
<b>Total Raw Water</b>	3		\$ -	-		\$ -	\$ -
<b>Grand Total</b>	607		\$ 710,469	112,826		\$ 221,211	\$ 931,680

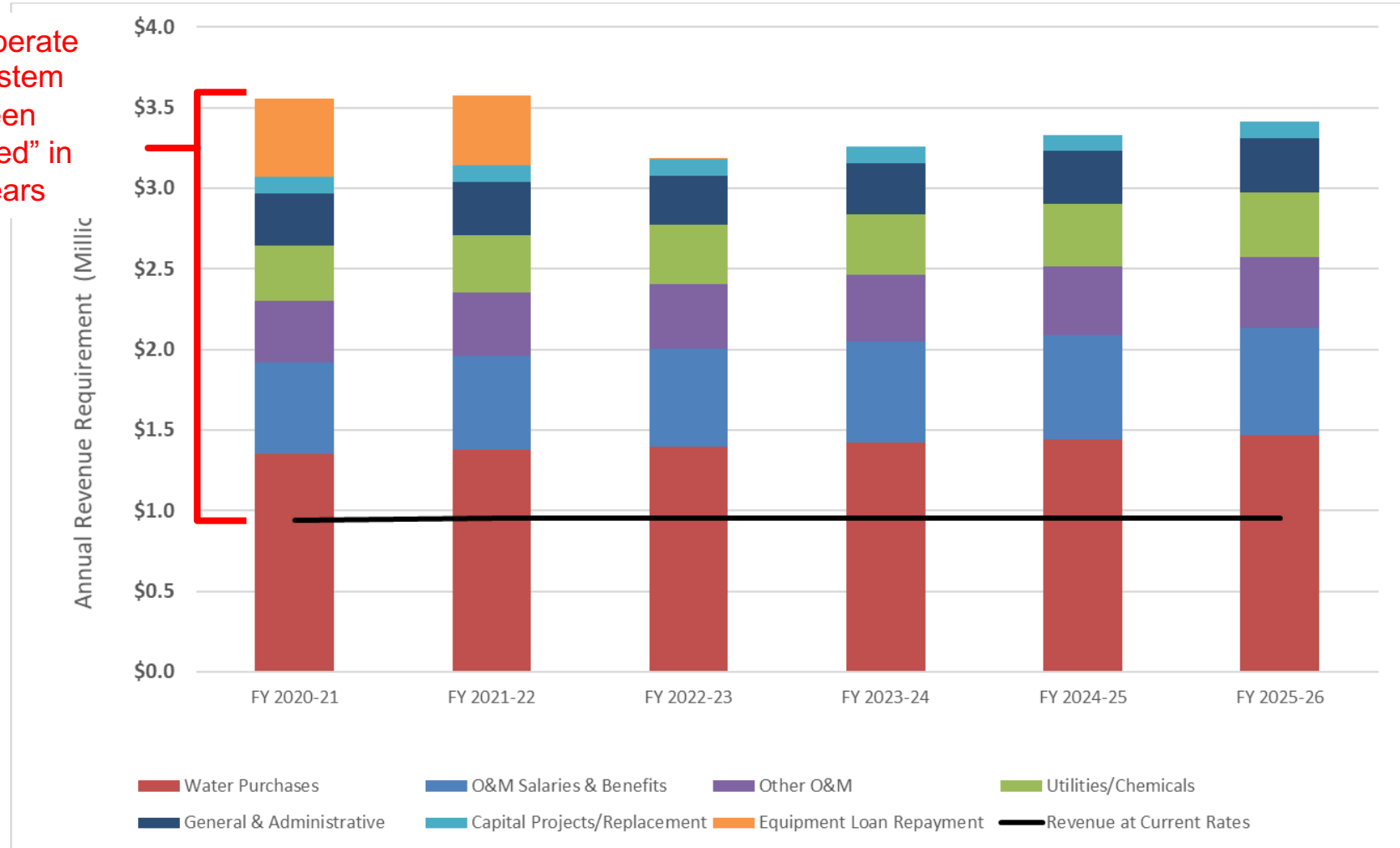
## Assumptions:

- CY 2019 use increased by a factor of 1.30 per District estimate
- Golf course and vineyard no longer receiving water; Historical use: ~200,000 CCF per year



# Projected Revenue Requirements

Cost to operate water system has been “subsidized” in prior years



- Revenue line includes \$12,000 – 28,000 annually of non-operating revenue



# Revenue Requirements – Key Assumptions

- FY 2021-22 Net Revenue Requirement from Water Rates = ~\$3.55 million

Annual Revenue Requirement	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Water Purchases	\$ 1,351,686	\$ 1,373,930	\$ 1,396,547	\$ 1,419,544	\$ 1,442,926	\$ 1,466,702
O&M Salaries & Benefits	568,659	587,262	606,547	626,544	647,285	668,803
Utilities/Chemicals	344,020	354,341	364,971	375,920	387,198	398,813
Other O&M	381,227	391,938	402,951	414,272	425,913	437,880
Equipment Loan Repayment	483,127	437,676	4,798	0	0	0
General & Administrative	324,720	330,784	308,848	317,733	326,881	336,301
Capital Projects/Replacement	101,660	101,660	101,660	101,660	101,660	101,660
<b>Total Expenses</b>	<b>3,555,098</b>	<b>3,577,590</b>	<b>3,186,321</b>	<b>3,255,673</b>	<b>3,331,862</b>	<b>3,410,160</b>
(Less) Non-Rate Revenue	(11,925)	(25,459)	(26,172)	(26,904)	(27,658)	(28,432)
<b>Net Revenue Requirement</b>	<b>3,543,173</b>	<b>3,552,132</b>	<b>3,160,149</b>	<b>3,228,768</b>	<b>3,304,205</b>	<b>3,381,728</b>
<i>Annual increase</i>		0.3%	-11.0%	2.2%	2.3%	2.3%

- Started with TOTAL District-wide FY 2019-20 budget, adjusted as follows:
  - Annual inflationary adjustments:
    - 2.8% general inflation (CPI) -- 8.0% benefits
    - 3.0% salaries/wages -- 3.0% Utilities
  - Excludes sanitary sewer and storm sewer expenses (~\$700-820k)
- Equipment loans will be paid off by end of FY 2022-23

# FY 2021-22 Cost-of-Service Rates

Monthly Proposed Rates		
Residential Charge per Account		\$134.99
<b>Residential Consumption Rates</b>	<b>Tiered Use (Units/mo)</b>	
Tier 1	0-6	\$1.88
Tier 2	>6-13	\$2.57
Tier 3	>13-20	\$3.21
Tier 4	20+	\$5.42
<b>Commercial Consumption Rate</b>		<b>\$4.25</b>
<i>Each Unit = 750 gal for all customers</i>		

- Residential Tiers calculated from 2019 Use
- **Tier 1** = Winter water use, 2 lowest months of the year (February, March)
  - ~6 units/month (**4,500 gallons = 150 gal/day**)
- **Tier 2** = Annual residential consumption divided by number of accounts
  - 13 units/month (**9,750 gallons = 325 gal/day**)
- **Tier 3** = Max Day Demand
  - 1.5 x Tier 2 = 20 units monthly (**15,000 gallons = 500 gal/day**)
- **Tier 4** = Usage greater than 20 units per month
  - **>500 gal/day**





# FY 2021-22 Proposed Rates

Residential Proposed Rates	Tiered Use (Units/mo)	Future Use Rates (per 750 gal)	Future Use (per 750 gal)	Volumetric Revenue
Tier 1	0-6	\$1.88	9,065	\$16,998
Tier 2	>6-13	\$2.57	22,207	\$56,992
Tier 3	>13-20	\$3.21	18,606	\$59,736
Tier 4	20+	\$5.42	50,824	\$275,366
<i>Each Unit = 750 gal</i>			100,702	<b>\$409,092</b>

Residential Service Charge	Service Charge Revenue
Residential Accounts	588
Charge per Residential Account Monthly	\$134.99
	<b>\$952,479</b>

Commercial Proposed Rate	Rate	Future Use (per 750 gal)	Volumetric Revenue
	\$4.25	12,123	<b>\$51,584</b>

Component	Amount
Residential Volumetric	\$409,092
Residential Fixed	\$952,479
	<b>\$1,361,571</b>
Non-residential	\$51,584
<b>Total Revenue</b>	<b>\$1,413,155</b>
Total Revenue Requirement	\$3,552,132
<b>District Subsidy</b>	<b>(\$2,138,977)</b>

- **Proposed Rates do NOT eliminate shortfall**
  - Proposed Rates **reduce shortfall** current rate revenues would generate by **~\$480,000**
  - \$1,410,000 vs. \$931,000 at projected consumption

# Sample Bill Impacts

Bill Impacts	Monthly Service Charge	Monthly Usage (750 gal)	Charge per 750 gal	Monthly Usage Charge	Total Bill (Service + Usage)
<b>Low Water Use Month (50% of average)</b>					
@ Current Rates	\$100.69	6.5	\$1.49	\$9.69	<b>\$110.38</b>
@ Proposed Rates Tier 1	\$134.99	6.0	\$1.88	\$11.25	<b>\$146.24</b>
@ Proposed Rates Tier 2		0.5	\$2.57	\$1.28	<b>\$1.28</b>
@ Proposed Rates					<b>\$147.52</b>
				<b>Monthly \$ Impact</b>	<b>\$37.15</b>
<b>Average Water Use Month</b>					
@ Current Rates	\$100.69	13.0	\$1.49	\$19.37	<b>\$120.06</b>
@ Proposed Rates Tier 1	\$134.99	6.0	\$1.88	\$11.25	<b>\$146.24</b>
@ Proposed Rates Tier 2		7.0	\$2.57	\$17.96	<b>\$17.96</b>
@ Proposed Rates					<b>\$164.20</b>
				<b>Monthly \$ Impact</b>	<b>\$44.14</b>
<b>High Water Use Month (2x average)</b>					
@ Current Rates	\$100.69	26.0	\$1.49	\$38.74	<b>\$139.43</b>
@ Proposed Rates Tier 1	\$134.99	6.0	\$1.88	\$11.25	\$146.24
@ Proposed Rates Tier 2		7.0	\$2.57	\$17.96	\$17.96
@ Proposed Rates Tier 3		7.0	\$3.21	\$22.47	\$22.47
@ Proposed Rates Tier 4		6.0	\$5.42	\$32.51	\$32.51
@ Proposed Rates					<b>\$219.19</b>
				<b>Monthly \$ Impact</b>	<b>\$79.76</b>
<b>Very High Water Use Month (3x average)</b>					
@ Current Rates	\$100.69	39.0	\$1.49	\$58.11	<b>\$158.80</b>
@ Proposed Rates Tier 1	\$134.99	6.0	\$1.88	\$11.25	\$146.24
@ Proposed Rates Tier 2		7.0	\$2.57	\$17.96	\$17.96
@ Proposed Rates Tier 3		7.0	\$3.21	\$22.47	\$22.47
@ Proposed Rates Tier 4		19.0	\$5.42	\$102.94	\$102.94
@ Proposed Rates					<b>\$289.62</b>
				<b>Monthly \$ Impact</b>	<b>\$130.82</b>



# Monthly Water Rates Comparison

**Average water usage bills (13 units – 9,750 gallons = 325 gal/day):**

Jurisdiction	Fixed	Commodity	Total
City of Tracy	\$ 30.90	\$ 26.13	\$ 57.03
City of Modesto	\$ 36.11	\$ 25.74	\$ 61.85
Oakwood Lake Water District	\$ 55.50	\$ 21.84	\$ 77.34
Golden Hills Community Services District	\$ 29.01	\$ 44.43	\$ 73.44
Mountain House	\$ 77.65	\$ 11.18	\$ 88.83
Western Hills (Current)	\$ 100.69	\$ 19.37	\$ 120.06
Western Hills Water District (COS)	\$ 134.99	\$ 29.22	\$ 164.20

Assumptions:

- Residential Rates
- 1” meter

**High water usage bills (26 units – 19,500 gallons = 750 gal/day):**

Jurisdiction	Fixed	Commodity	Total
City of Tracy	\$ 30.90	\$ 52.26	\$ 83.16
City of Modesto	\$ 36.11	\$ 51.48	\$ 87.59
Oakwood Lake Water District	\$ 55.50	\$ 43.68	\$ 99.18
Mountain House	\$ 77.65	\$ 22.37	\$ 100.02
Golden Hills Community Services District	\$ 29.01	\$ 92.01	\$ 121.02
Western Hills (Current)	\$ 100.69	\$ 38.74	\$ 139.43
Western Hills Water District (COS)	\$ 134.99	\$ 84.20	\$ 219.19

# QUESTIONS & DISCUSSION



# How to Handle Water Banking Revenue?

1. Preliminary rates assume water banking revenue is not used to “buy down” the rates.
2. Options:
  - A. “Buying down” the rates by \$100k reduces necessary rate increases by 10% (~\$31/month). **Presents a risk that actual water banking revenues are less than the “buy down” in the rates.**
  - B. Provide a credit on bills when actual banking revenue is received.
  - C. Save water banking revenue in a reserve account to cover unexpected expenses
  - D. Combination of Options A, B, and C
  - E. Combination of Options B and C

Water Banking Income Received	
Year	
2011	\$ 816,183.98
2012	\$ 602,255.01
2013	\$ 404,360.00
2014	\$ (285,178.01)
2015	\$ 141,962.00
2016	\$ 668,999.65
2017	\$ 1,006,044.99
2018	\$ 159,329.00
2019	\$ 964,720.00
Average	\$ 497,630.74