



SOUTH FEATHER WATER AND POWER AGENCY WATER RATES WORKSHOP

May 30, 2024



SFWPA REVENUE SOURCES

Power Division Revenue

- Woodleaf Power House Energy Sales
- Forbestown Power House Energy Sales
- Kelly Ridge Power House Energy Sales

Outside of Place of Use Water Transfers

Short Term Revenue Opportunities
During Drought Years

SFWPA

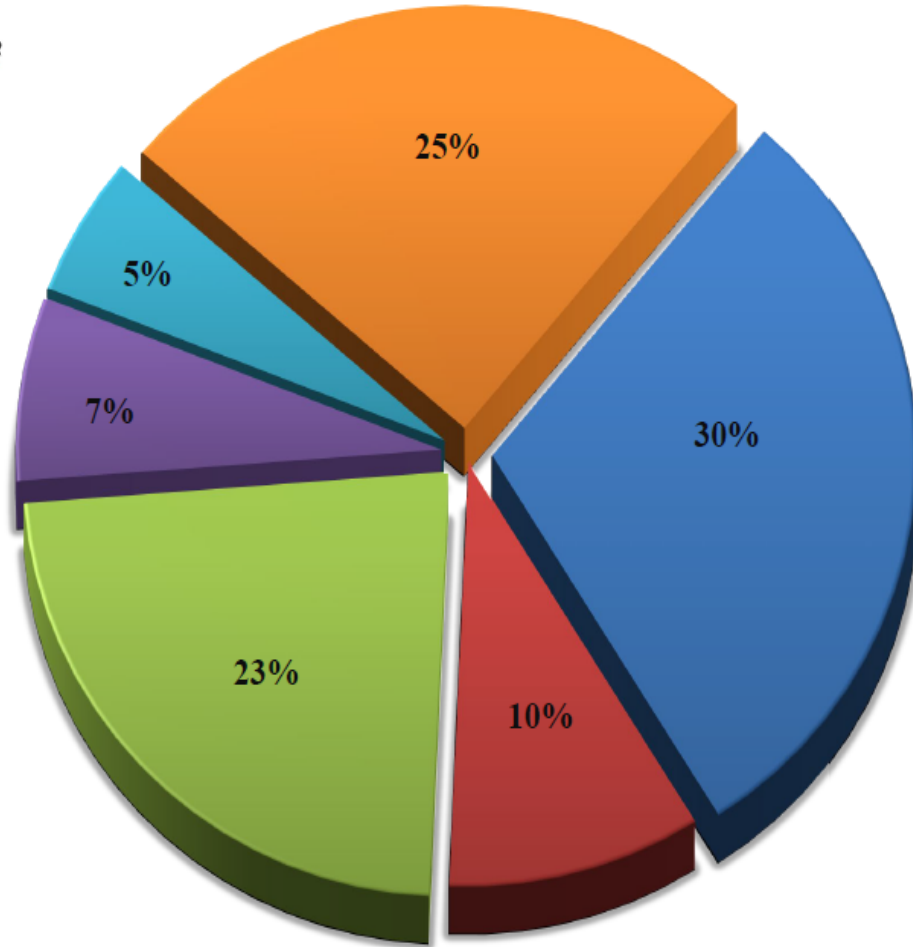
NYWD to Yuba City Water Sale

Supplemental Revenue

Water Division Revenue

- Domestic Treated Water Sales
- Raw Water Irrigation Sales
- Annexation Property Taxes
- New Service Connection Fees
- Sly Creek Power House Energy Sales**

2024 Water Division - Source of Funds



■ Water Sales & Service Charges
\$3,438,000 30%

■ Transfers from Power Division
\$1,109,000 10%

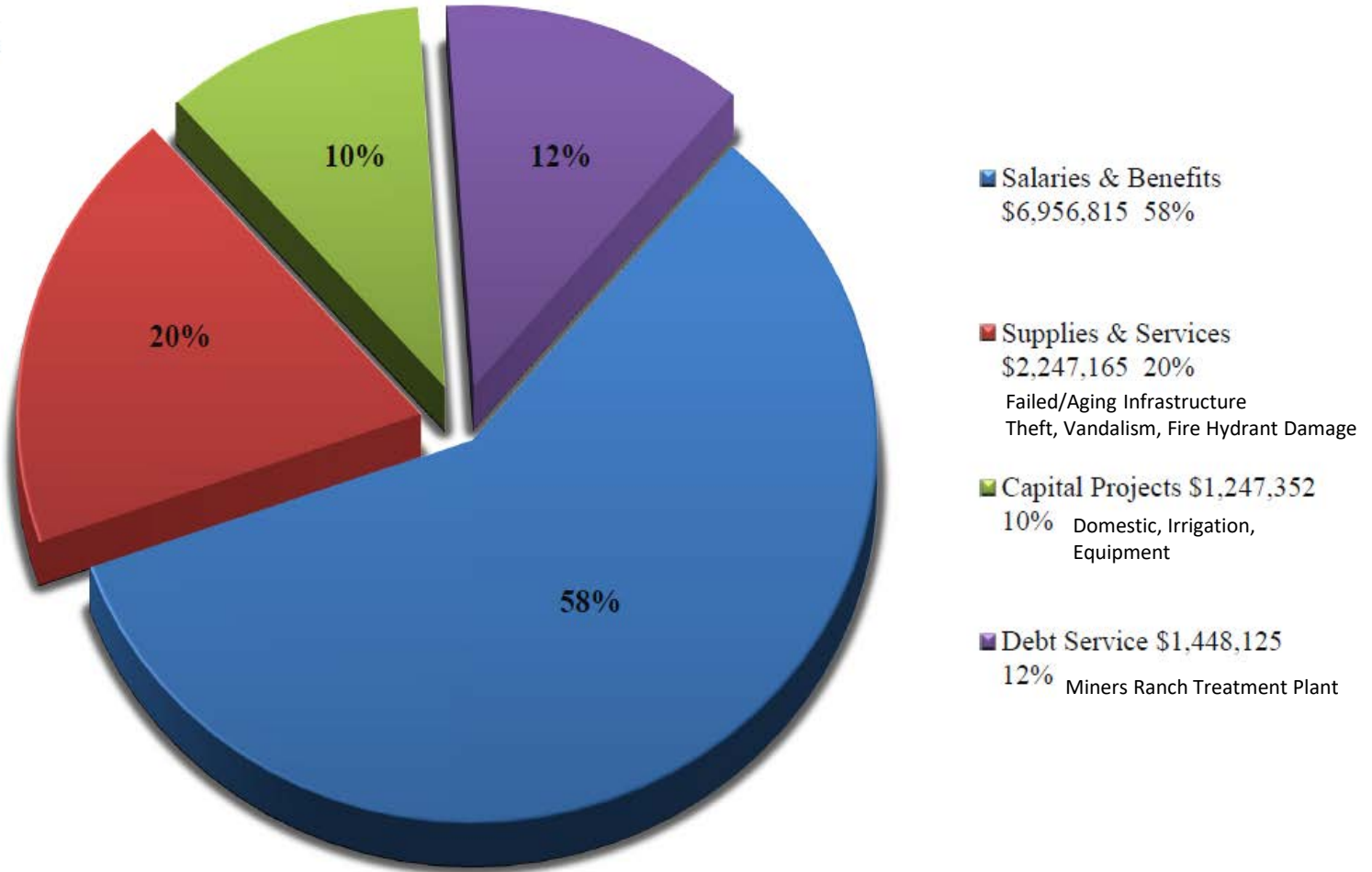
■ Sly Creek Power Generation
\$2,650,000 23%

■ Property Tax Revenue \$805,000 7%

■ Non-Operating Revenue \$624,000
5% Interest Earnings
Backflow Installations
Backflow Inspections
Mutual Aid

■ Net Revenue Payment \$2,850,000
25% Net Change in Position
Woodleaf, Forbestown, Kelly
Power House sale of energy

2024 Water Division - Use of Funds





Economic Factor's Impacting Subsidized Revenue to Water Division

- Value of Hydro Electric Sales
- Continued Increase in Compliance Fees (Post Lake Oroville Spillway Incident)
- FERC Re-licensing
- PG&E Standby Metering

- Miners Ranch Treatment Plant Debt Re-Payment Obligations
- Rising Operational Costs (Labor, Materials, Permits, Fuel)
- Aging Infrastructure Failures

<u>2010 - 2024</u>		Increase	
Compliance Fees			
MRTP COP's (Loan)	\$1.44M		
Raw Materials		30%	
Wages		56%	



2006 Hydro Energy Analysis and Forecast

Preliminary Valuation – Base Assumptions

South Feather Water & Power
 Total Project Revenues
 Maximum Revenue Scenario

Average Water Years

Fiscal Year	Annual Generation	Annual Energy Sales*	Annual Ancillaries	Annual Green	Annual Cash Flow	SFW&P 100%	Counterparty	PV SFW&P	PV Counterparty
Jun-10	522,564	35,788,346	2,057,535	92,961	37,938,842	37,938,842	-	34,885,187	-
Jun-11	522,564	36,788,463	2,067,532	92,961	38,948,956	38,948,956	-	33,915,001	-
Jun-12	522,564	37,656,905	2,083,836	92,961	39,833,701	39,833,701	-	32,833,579	-
Jun-13	522,564	38,340,869	2,074,502	92,961	40,508,332	40,508,332	-	31,585,376	-
Jun-14	522,564	39,006,365	2,060,567	92,961	41,159,893	41,159,893	-	30,357,900	-
Jun-15	522,564	39,735,994	2,050,554	92,961	41,879,509	41,879,509	-	29,206,937	-
Jun-16	522,564	40,495,894	2,067,692	92,961	42,656,547	42,656,547	-	28,114,001	-
Jun-17	522,564	41,238,808	2,068,141	92,961	43,399,910	43,399,910	-	27,070,619	-
Jun-18	522,564	41,996,502	2,071,202	92,961	44,160,665	44,160,665	-	26,068,580	-
Jun-19	522,564	42,796,334	2,115,925	92,961	45,005,220	45,005,220	-	25,142,998	-
Total	5,225,640	393,844,482	20,717,488	929,605	415,491,576	415,491,576	-	299,180,178	-

Average annual revenue:
 Equivalent Sales Price:

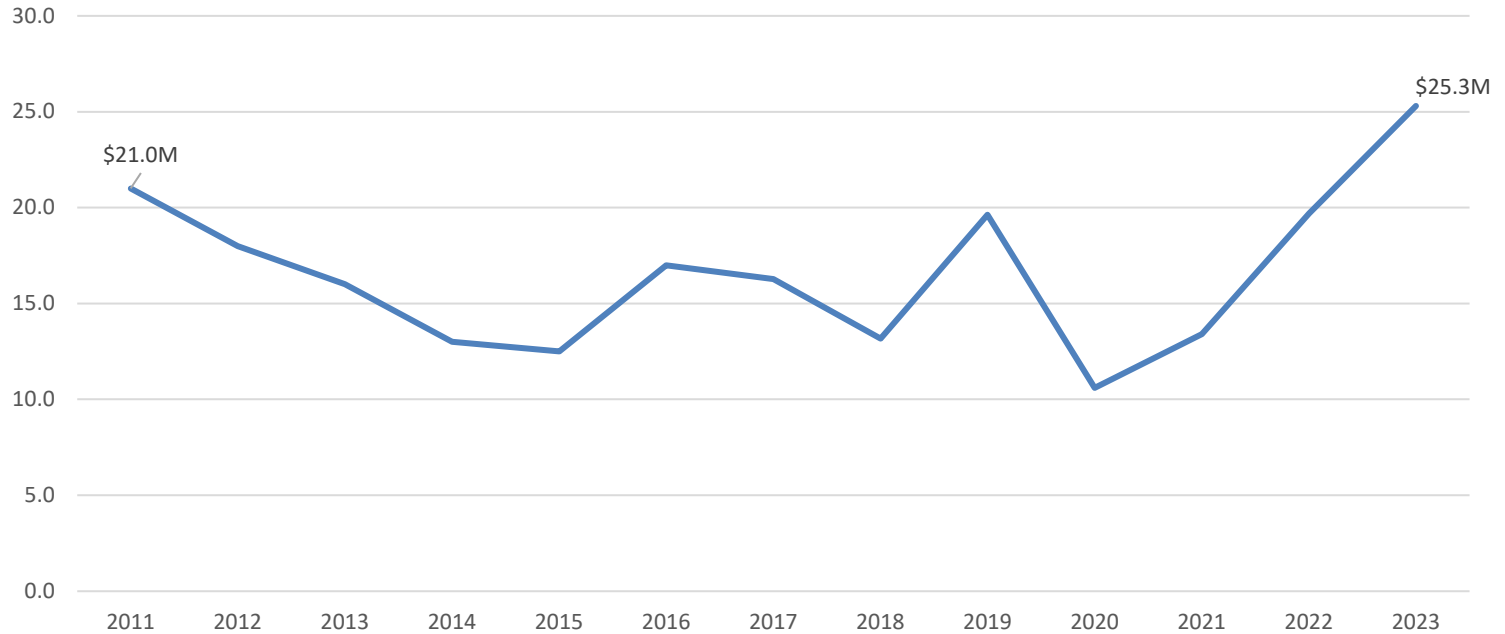
41,549,158
 83.50 \$/MWh

* Based on "Offer" side of Market. MP dampened curves.



Historical Actual

SFWPA Hydro Revenue Actual \$M



Pacific Gas & Electric 2010 – 2021

Northern California Power Agency 2022 - 2023



U.S. Hydropower Market Report

THE MEDIAN HYDROPOWER PPA PRICE IS \$48.47/MWH — the Median PPA Price Across All Electricity Generation Technologies Is \$47.61/MWh.

MORE THAN HALF OF THE RELICENSES REQUIRE SOME CONSTRUCTION — Most often, the construction was related to the addition/improvement of recreational facilities (e.g., boat launches, parking areas, trails) or environmental measures (e.g., installation of fish passage structures, replacement of turbines to improve their environmental performance).

Relicenses issued in the past decade include terms or conditions that restrict operational flexibility to some extent (e.g., new or tighter ramping rate restrictions, increased minimum flows).



Rate Analysis Assumptions

- Zero Net Revenue Distribution from Power Division
- 25% Fund Reserve Target for Operations and Maintenance
- Modest Growth in new accounts over the next five years
 - 130 SF Dwellings (River Ranch Development) \$45K annual
 - Potential 70 SF Dwellings (The Ridge) \$25K annual
 - 430 SF Connections (Palermo Clean Water) \$155K annual
- Potential 12 Dwellings (Lost Horizon, \$300K Capital Need) \$6K annual
- Potential 9-12 Dwellings (Circle Drive \$1.0M Capital) \$6K annual
- Bangor Treatment Plant Expansion
- Wyandotte / Foothill Backbone Extension



Bartle Wells Associates Rate Analysis

- **Historical Water Rate Increases**

- The District last increased its rates in 2020:
 - Domestic Treated Water Service Fee: \$15 to \$19 (\$4/month)
 - Irrigation Water Service Fee: \$17.50 to \$21.50 (\$4/month)
- The District previously increased its rates in 1993.

Reasons for Lack of Water Rate Increases

- Agency has held the line on rate increases due to forecasted Power Revenue subsidizing the water enterprise.
 - Net power sale revenues go toward offsetting the costs of debt service for potable users. The debt service was incurred to fund Miners Ranch TP.
- Property taxes also goes toward reducing water rates.
- Fund balance being drawn down to subsidize water rates.



Bartle Wells Associates Rate Analysis

- **Financial Plan**

- BWA proposes 68% overall rate increase by August 1, 2024, 55% in 2025, 12% in 2026, and 11% in 2027 and 2028.
- 3% per year overall rate revenue increases are projected for the following 5 years (CY 2029 to CY 2033).
- Proposed rate structures are phased in over 5 years.

Reasons for Necessary Rate Increases

- Without rate increases, the Agency is set to deplete its cash reserves by 2025.
- Needed to fund proposed CIP and the rising cost of O&M.



Bartle Wells Associates Rate Analysis

<u>Meter Size</u>	<u>Current Rate</u>	<u>Proposed Phase In Rates</u>				
		<u>8/1/2024</u>	<u>1/1/2025</u>	<u>1/1/2026</u>	<u>1/1/2027</u>	<u>1/1/2028</u>
<i>Potable</i>						
Multi-Family (per unit)	\$7.90	\$10.49	\$15.84	\$18.78	\$21.95	\$25.41
3/4" and below	\$19.00	\$22.42	\$30.09	\$31.71	\$32.93	\$33.88
1"	\$25.00	\$32.08	\$46.81	\$53.64	\$60.58	\$67.76
1 1/2"	\$35.00	\$48.23	\$75.58	\$93.01	\$112.81	\$135.52
2"	\$39.50	\$58.37	\$98.08	\$129.43	\$168.33	\$216.83
3"	\$69.00	\$103.41	\$176.25	\$235.90	\$311.17	\$406.55
4"	\$91.50	\$143.55	\$256.11	\$358.81	\$495.44	\$677.59
6"	\$124.00	\$210.29	\$405.54	\$614.16	\$916.68	\$1,355.18
<i>Irrigation</i>						
3/4" and below	\$21.50	\$24.75	\$32.41	\$33.32	\$33.76	\$33.88
1"	\$21.50	\$28.43	\$42.76	\$50.50	\$58.78	\$67.76
1 1/2"	\$21.50	\$32.66	\$56.42	\$76.54	\$102.33	\$135.52
2"	\$21.50	\$35.88	\$68.09	\$101.48	\$149.05	\$216.83
3"	\$21.50	\$40.69	\$87.56	\$147.97	\$246.44	\$406.55
4"	\$21.50	\$45.06	\$107.41	\$201.03	\$370.85	\$677.59
6"	\$21.50	\$51.76	\$141.72	\$304.71	\$645.69	\$1,355.18

Customer Service Charge¹:	N/A	\$13.98	\$25.90	\$27.23	\$27.96	\$28.44
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Volumetric Use (All Use, per CCF)	<u>Current Usage Rates</u>					
Treated Water	\$0.42	\$0.57	\$0.89	\$1.08	\$1.29	\$1.53
Raw Water	\$0.0867	\$0.1172	\$0.1801	\$0.2173	\$0.2585	\$0.3046

	<u>Current Unmetered Rates</u>					
Flat Rate Accounts	\$60.50	\$75.95	\$108.42	\$121.53	\$134.27	\$146.94
Miners Inch Account	\$21.50	\$27.64	\$40.42	\$46.40	\$52.51	\$58.85
Per Miner's Inch:	\$1.95	\$2.61	\$3.99	\$4.77	\$5.63	\$6.58

¹ Does not apply per unit for Multi-Family. Only per monthly bill.



Capacity Fee

- One-time fee paid by new customers as a condition of development.
- Levied to recover costs for capacity in facilities benefiting growth.
- Also collected for changes in property use that result in increased capacity needs.

The District's current and proposed capacity fees are for potable customers only.



Proposed Fees

	<u>Current</u>	<u>Proposed</u>
System Capacity Charges		
Meter Size		
3/4"	\$4,363	\$5,987
1"	\$10,903	\$11,973
1 1/2"	\$21,808	\$23,946
2"	\$34,897	\$38,314
3"	\$69,781	\$71,839
4"	\$109,035	\$119,732
6"	\$218,071	\$239,464
8"	\$523,368	\$383,143
10"	\$828,665	\$550,768
12"	\$1,090,349	\$1,029,696

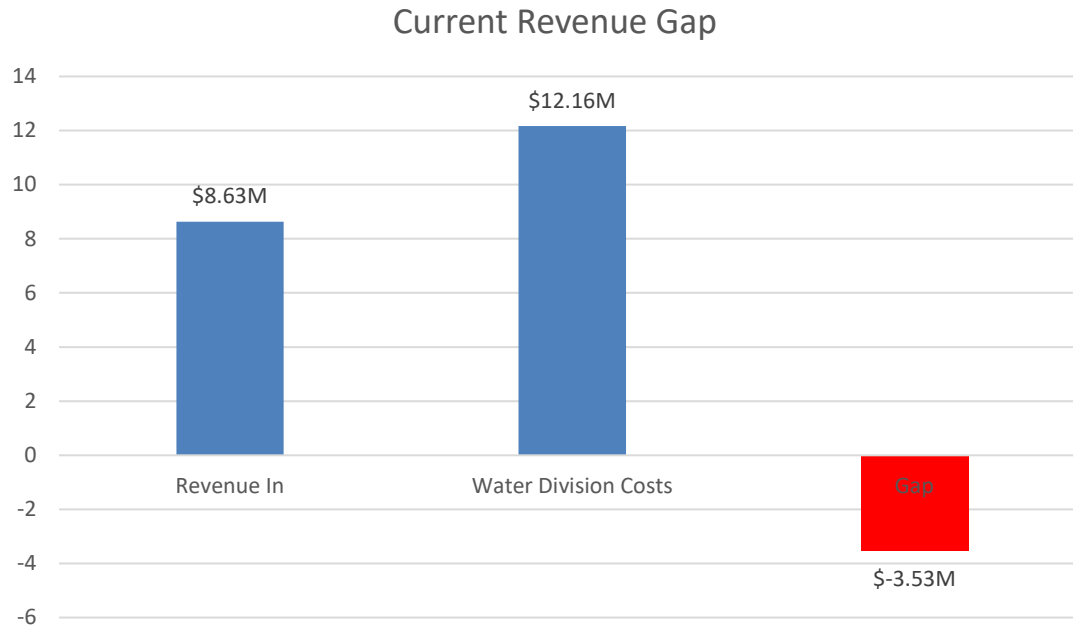


Rate Options Discussions

- How to address declining Potable Water Tier
- Irrigation Costs vs. Revenue Recovered
- Can there be different rates by classification?
 - Residential, Commercial, Agriculture, Institution (all at cost or subsidized)
- Linear increases over time while continuing subsidized rates via other sources of revenue
(Hydro, Property Developments, Additive Business Services)
- Water Transfers, Surface Water Exchange, Ground Water Recharge



Water Division Cost Gap

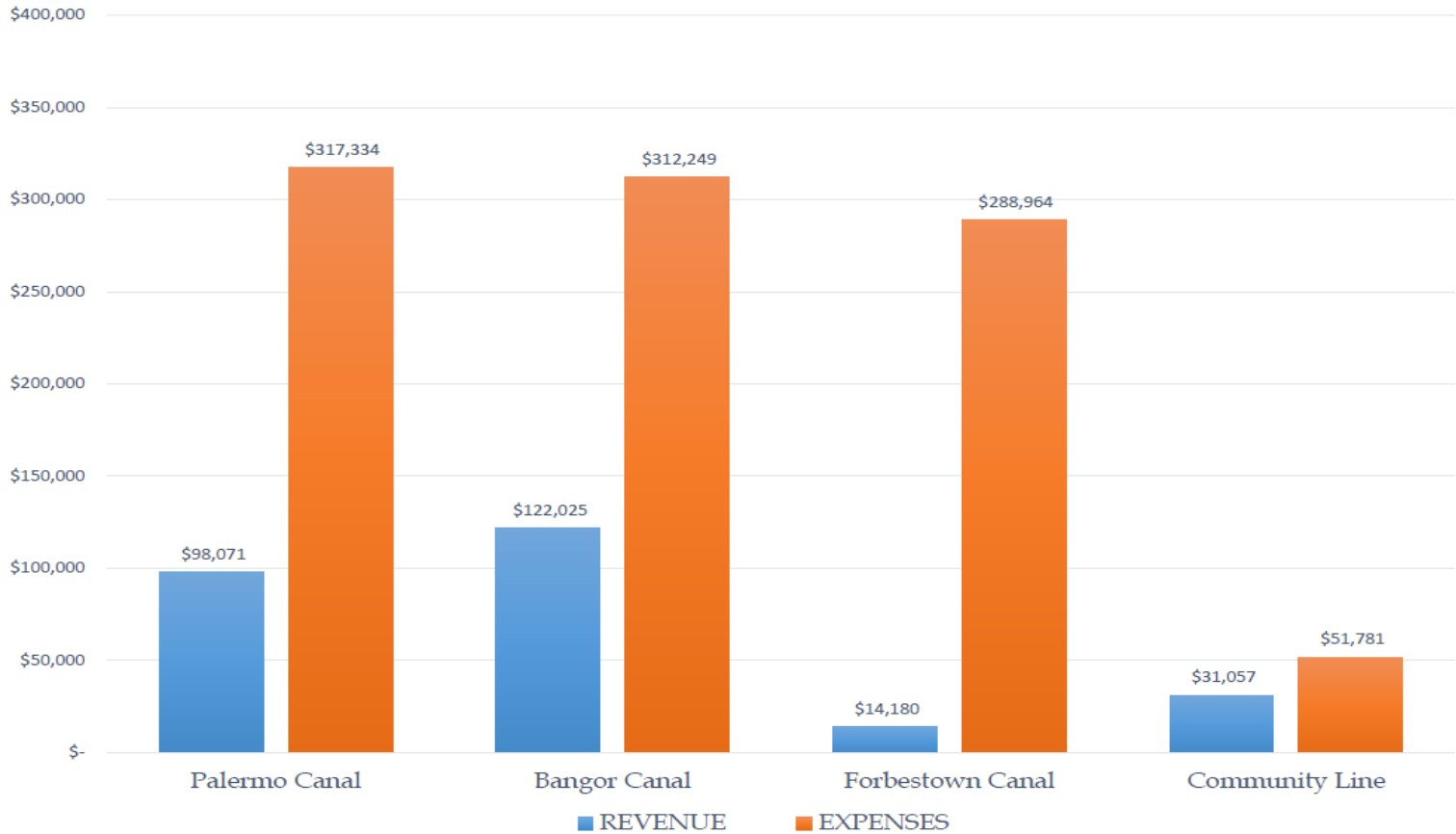


Equates to \$39.66 per rate payer/month gap in costs (no net revenue from Power Division)

Equates to \$22.47 per rate payer/month gap in costs (Historical avg. revenue \$1.5M)

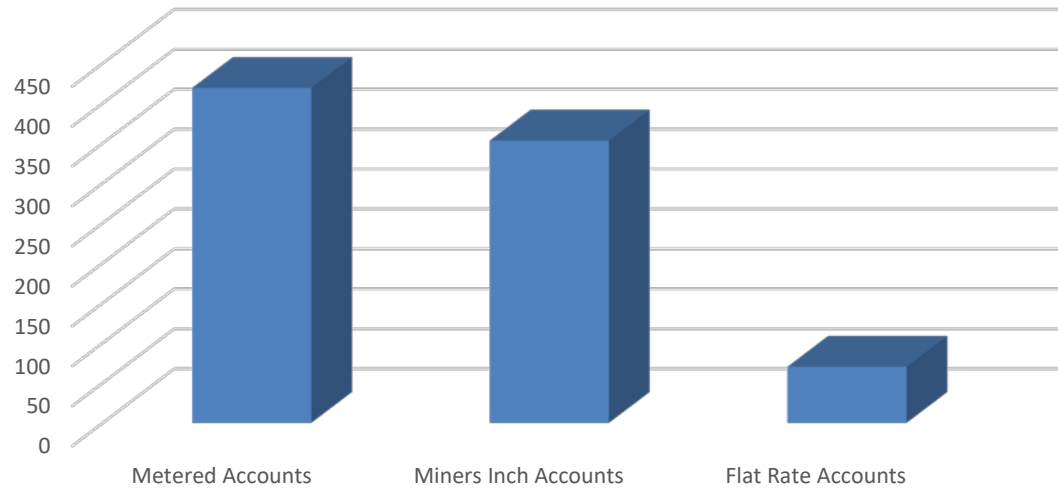


IRRIGATION COST RECOVERY



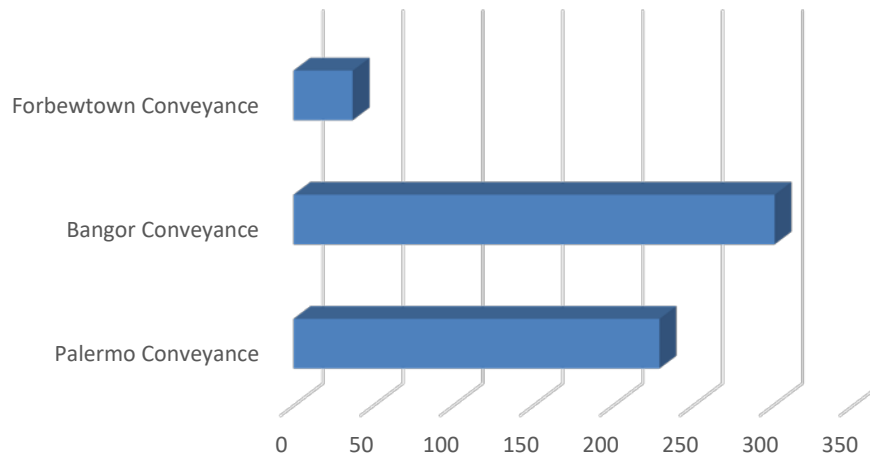


Irrigation by Type



Totals include active and suspended

Irrigation Conveyance Customers





Irrigation Conversion

MINER'S INCH

\$23.45 First Miner Inch

\$1.95 Each Additional Miner's Inch

(2MI would be billed as \$25.40)

1 Miner's Inch = 2,160 CF / 11.2 GPM

FLAT RATE

\$60.50/Month

\$2.01/Per Day

1,168 CF/Per Day

X 31 Days = 36,208 CF/Month

METERED

\$21.50 Base Fee

.0867¢ Per Unit

Unit = 748 Gallons

1 Miners Inch equals 16,157 gallons per day



Water Rates Feasibility Discussion

Rate History	<u>1993</u>	<u>2010</u>	<u>2012</u>	<u>2014</u>	<u>2024</u>
First 30 Units (22,440 Gallons) 748 GPD	\$0.67	\$0.64	\$0.53	\$0.42	\$0.42
Next 70 Units (52,360 Gallons) 1,745 GPD	\$0.50				
Remaining Units above 100	\$0.20	\$0.25	\$0.28	\$0.31	\$0.31

Example

Potential Potable Rates Adjustments	<u>Current</u>					
Tier 1 Consumption Rate	\$0.42					
Tier 2 Consumption Rate (AG – Requires Backflow)?	\$0.31					
		<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>
Potable One Rate Volumetric Consumption?		\$0.48	\$0.54	\$0.60	\$0.67	\$0.75
Monthly Fixed Fee		\$19.00	\$22.00	\$24.00	\$26.00	\$28.00

The largest impact are rate payers that are currently in the declining tier rate for potable

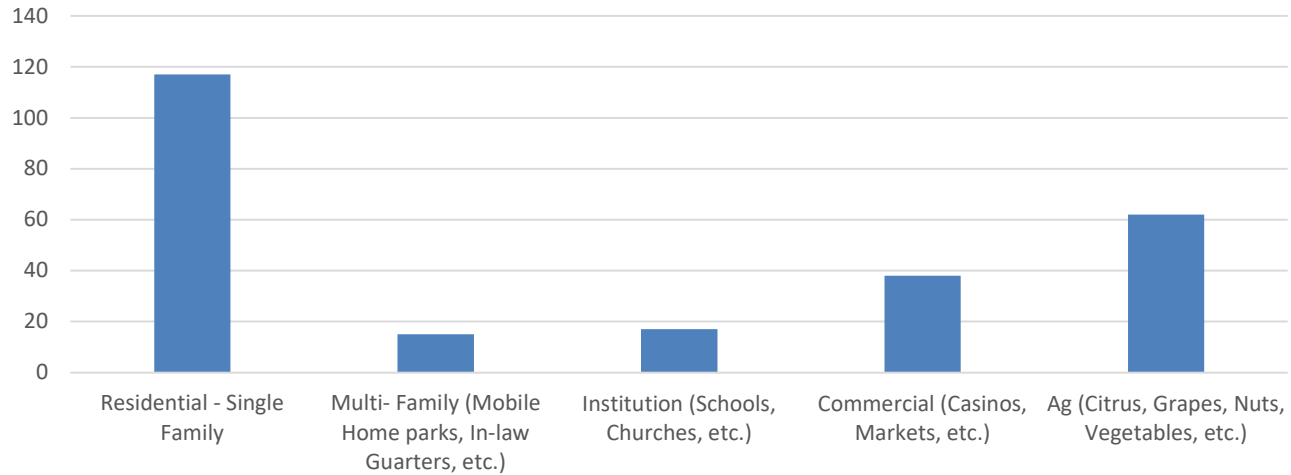
Example

Non-Potable Rates	<u>Current</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>
Monthly Fixed Rate Service Charge (Metered Accounts)	\$21.50	\$21.50	\$24.00	\$25.00	\$26.00	\$28.00
Miners Inch Account (per miners inch)	\$1.95	\$2.25	\$2.50	\$2.60	\$2.70	\$2.80
Flat Rate Accounts	\$60.50	\$65.50	\$68.50	\$70.50	\$71.50	\$72.50
Rate-of-Use Volumetric per CCF	\$0.0867	\$0.12	\$0.14	\$0.16	\$0.18	\$0.20

Note: A Flat Rate Account pays \$2.01/Day (one miners inch) for 16,157 gallons of water



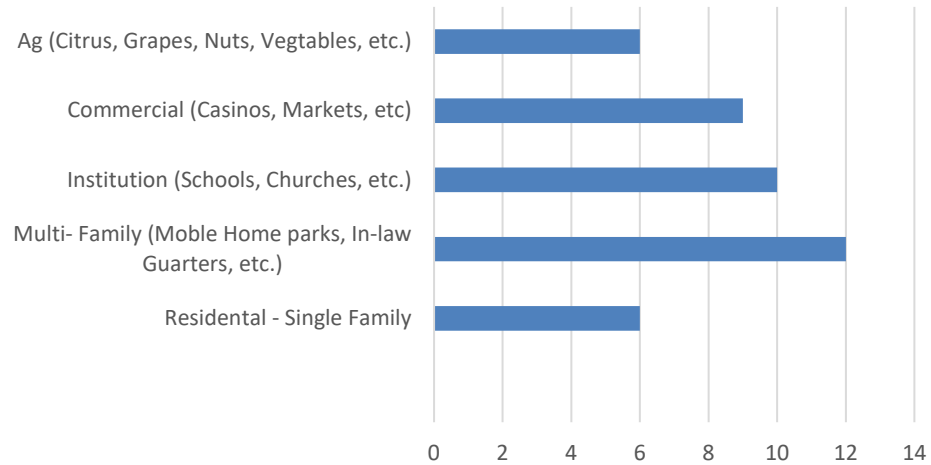
Declining Potable Tier Users by Classification Code



Declining Potable Tier Users by Classification Code		
Residential - Single Family	117	
Multi- Family (Mobile Home parks, In-law Quarters, etc.)	15	
Institution (Schools, Churches, etc.)	17	
Commercial (Casinos, Markets, etc.)	38	
Ag (Citrus, Grapes, Nuts, Vegetables, etc.)	62	
Total = 3.6% of rate payers	249	



Avg. Times per Year Billed Declining Tier



Avg. Times per Year Billed Declining Tier	Avg. Times per Year Billed Declining Tier		
Residential - Single Family	6		
Multi- Family (Moble Home parks, In-law Quarters, etc.)	12		
Institution (Schools, Churches, etc.)	10		
Commercial (Casinos, Markets, etc)	9		
Ag (Citrus, Grapes, Nuts, Vegetables, etc.)	6		



Example of Potable Costs for Tier 1 Customer

Single Family Dwelling

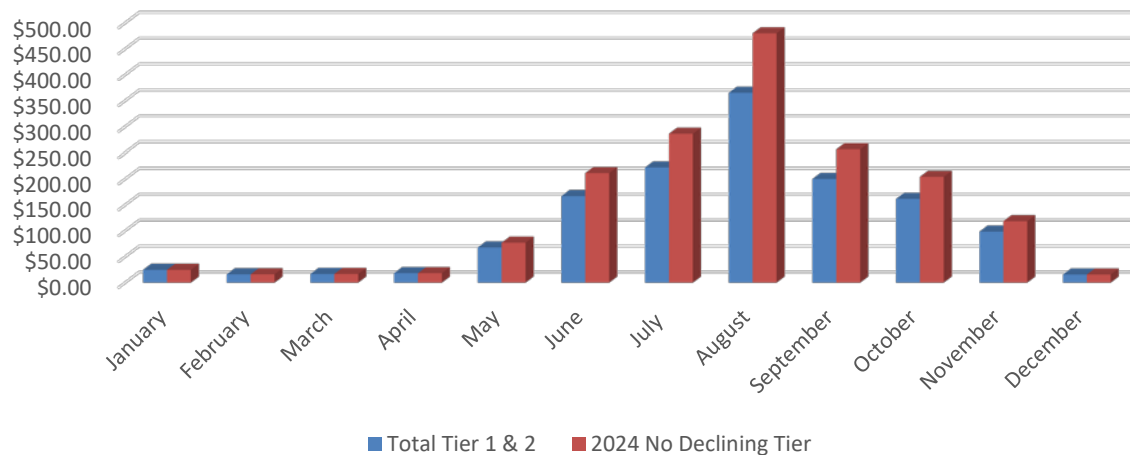
	.42 per unit	.31 per unit	Tier 1	Tier 1 & 2	.75 per unit	2024 Fixed Fee	2028 Fixed Fee	2024 Total Bill	2028 Total Bill		GPD
10 Units	\$4.20	\$0.00	\$4.20	\$4.20	\$7.50	\$19.00	\$28.00	\$23.20	\$35.50	10 Units	249.33
20 Units	\$8.40	\$0.00	\$8.40	\$8.40	\$15.00	\$19.00	\$28.00	\$27.40	\$43.00	20 Units	498.67
30 Units	\$12.60	\$0.00	\$12.60	\$12.60	\$22.50	\$19.00	\$28.00	\$31.60	\$50.50	30 Units	748.00
40 Units	\$16.80	\$0.00	\$16.80	\$16.80	\$30.00	\$19.00	\$28.00	\$35.80	\$58.00	40 Units	997.33
50 Units	\$21.00	\$0.00	\$21.00	\$21.00	\$37.50	\$19.00	\$28.00	\$40.00	\$65.50	50 Units	1,246.67
60 Units	\$25.20	\$0.00	\$25.20	\$25.20	\$45.00	\$19.00	\$28.00	\$44.20	\$73.00	60 Units	1,496.00
70 Units	\$29.40	\$0.00	\$29.40	\$29.40	\$52.50	\$19.00	\$28.00	\$48.40	\$80.50	70 Units	1,745.33
80 Units	\$33.60	\$0.00	\$33.60	\$33.60	\$60.00	\$19.00	\$28.00	\$52.60	\$88.00	80 Units	1,994.67
90 Units	\$37.80	\$0.00	\$37.80	\$37.80	\$67.50	\$19.00	\$28.00	\$56.80	\$95.50	90 Units	2,244.00
100 Units	\$42.00	\$0.00	\$42.00	\$42.00	\$75.00	\$19.00	\$28.00	\$61.00	\$103.00	100 Units	2,493.33



Example of Actual Customer Impact Without Declining Tier

2023	Tier 1 @.42	Tier 2 @.31	Total Tier 1 & 2	2024 No Declining Tier	2028 @.75 Unit
January	\$24.74	\$0.00	\$24.74	\$24.74	\$44.18
February	\$16.18	\$0.00	\$16.18	\$16.18	\$28.89
March	\$16.78	\$0.00	\$16.78	\$16.78	\$29.97
April	\$18.38	\$0.00	\$18.38	\$18.38	\$32.81
May	\$42.00	\$25.96	\$67.96	\$77.17	\$137.81
June	\$42.00	\$125.12	\$167.12	\$211.52	\$377.71
July	\$42.00	\$180.29	\$222.29	\$286.26	\$511.18
August	\$42.00	\$323.32	\$365.32	\$480.05	\$857.24
September	\$42.00	\$158.09	\$200.09	\$256.28	\$457.47
October	\$42.00	\$119.74	\$161.74	\$204.23	\$364.69
November	\$42.00	\$56.56	\$98.56	\$118.63	\$211.84
December	\$15.77	\$0.00	\$15.77	\$15.77	\$28.16

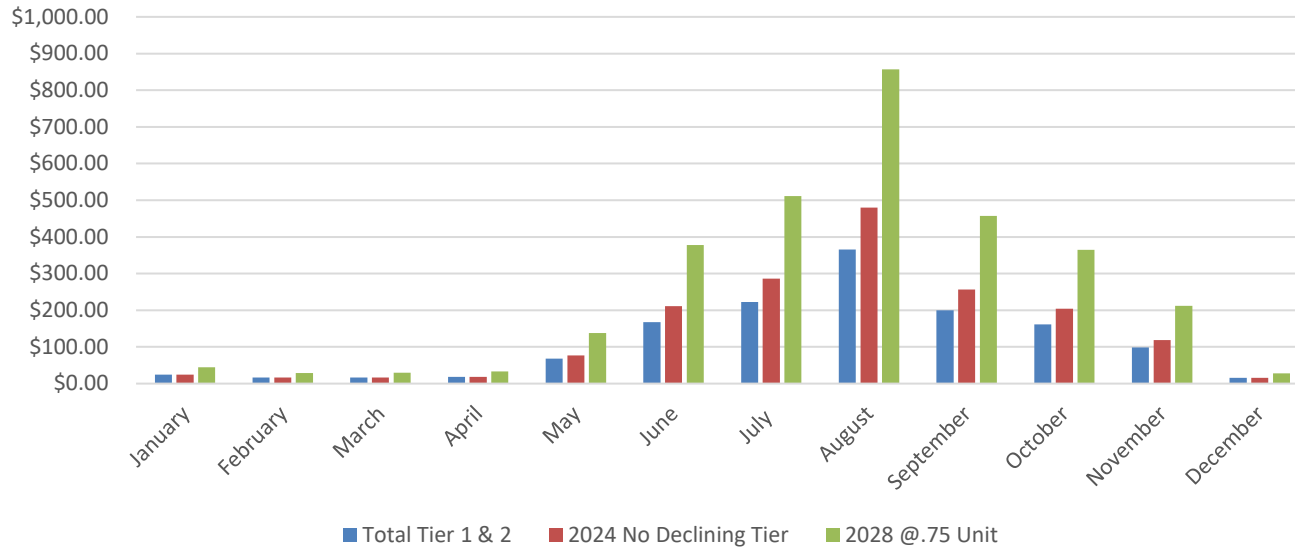
Sample 1" Service Consumption Dollars Only





Example of Actual Customer Impact Without Declining Tier

Sample 1" Service Consumption Dollars Only



Sample Annual Consumption Dollars Only





Action Items / Next Steps?