Fresno County - Waterworks District 18

Water Rate Study



DRAFT Tables January 24, 2024



BARTLE WELLS ASSOCIATES Independent Public Finance Advisors

Table 1 Fresno County - Waterworks District 18 Current Water Rates (6/30/2023)

Friant		Tier 1	Tier 2	Tier 3
		Gallon	Gallon	Gallon
Customer	Billing Code	Usage	Usage	Usage
Residential	RES	1 - 18,700	18,701 - 46,700	46,701+
	Usage Min (gal)	1		
	Usage Max (gal)	18,700	46,700	500,000
	Base Rate	\$59.25		\$126.73
	Multiplier / 1000	\$0.00	\$2.41	\$3.35
Residential (Duplex Units)	RES1	Flat Rate		
	Base Rate	\$118.50		
Residential (Trailer Park)	RES3	Flat Rate		
	Base Rate	\$1,820.16		
Residential (The Village)	RES4	Flat Rate		
	Base Rate	\$5,688.00		
Commercial	СОМ	1 - 18,700	18,701 - 46,700	
	Usage Min (gal)	1	-, -	46,701
	Usage Max (gal)	18,700	46,700	500,000
	Base Rate	\$71.10	\$71.10	\$138.58
	Multiplier / 1000	\$0.00		\$3.35
Commercial	COM4	Flat Rate		
	Base Rate	\$497.70		
Industrial	IN01	Flat Rate		
	Base Rate	\$784.02		
Industrial	IN02	Flat Rate		
	Base Rate	\$460.87		
Industrial	IN04	Flat Rate		
	Base Rate	\$460.87		
Stand Pipe	STND	1 - 18,700	18,701 - 46,700	
	Usage Min (gal) Usage Max (gal)	1 17,600	,	50,001 500,000
	Base Rate	\$83.25		\$150.32
	Multiplier / 1000	\$0.00	\$2.07	\$2.83

Mira Bella		Tier 1	Tier 2	Tier 3
		Gallon	Gallon	Gallon
Customer	Billing Code	Usage	Usage	Usage
			•	
Residential	RESCOMBO	1 - 25,500	25,501 - 45,500	45,501+
	Usage Min (gal)	1	25,501	45,501
	Usage Max (gal)	25,500	45,500	500,000
	Base Rate Water	\$72.54	\$72.54	\$120.74
	Multiplier / 1000	\$0.00		\$3.35
Industrial	COM	1 - 25,500	25,501 - 45,500	45,501+
	Usage Min (gal)	1	25,501	45,501
	Usage Max (gal)	25,500	45,500	500,000
	Base Rate	\$100.00	\$100.00	\$148.20
	Multiplier / 1000	\$0.00	\$2.41	\$2.83
Club House	HOMIRA	Flat Rate		
		\$266.63		

Table 2 Fresno County - Waterworks District 18 Debt Repayment

Description	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34
Friant Ranch Loan* Friant Ranch Funding Agreement Friant Ranch Pledge Agreement Total Debt Repayment**	4,124 <u>3,677</u> 7,801	12,372 <u>11,032</u> 23,404	16,496 <u>14,709</u> 31,205									

Source: Friant Ranch Loan Interest Expense Calc Options FCWW * Assumed 5% interest rate amd 15-year payback period. ** 100% of total debt repayment allocated to water enterprise.

Table 3Fresno County - Waterworks District 18Water Equipment Replacement Cost

Description	Replacement Cost
10k Gal Mixer Tank	20,000
4k Gal. Sediment Tank	50,000
Submersible Pumps	2,000
Electric Mixers	15,000
Isolation Valves	2,250
Fire Hydrants	10,000
Water Meters	2,000
DI Pipe LF	150
C900 Pipe LF	100
Building Structures	10,000
Fencing	25
Backwash Structure	15,000
185K Gal Tank	125,000
Booster Pumps	10,000
Isolation Valves*	4,500
Fire Hydrants	10,000
Water Meters	4,500
DI Pipe LF	10,000
C900 Pipe LF*	2,000
Building Structures*	20,000
Fencing	25
Total:	298,400
Annual 5-Year CIP Cost:	59,680

* Partial grant funded items are assumed to be 50% grant funded.

Table 4 Fresno County - Waterworks District 18 Water Capital Improvement Plan

Description	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34
CIP (Current Dollars)										
Equipment Replacement						59,680	59,680	59,680	59,680	59,680
Total	-	-	-	-	-	59,680	59,680	59,680	59,680	59,680
CIP (Inflated Dollars)										
Equipment Replacement						79,977	83,976	88,175	92,583	97,212
Total	-	-	-	-	-	79,977	83,976	88,175	92,583	97,212

Table 5 Fresno County - Waterworks District 18 Water Rate Revenue Estimate

Customer	<u>Count</u>	Current Rate Equival	ent Dwelling Units	Annual Est. Revenue
Friant				
Residential	121	\$59.25	121.00	\$86,031
Residential - Not Billed	8	-	-	-
Commercial	30	71.10	36.00	25,596
Commercial - Not Billed	1	-	-	-
Industrial	2	460.87	15.56	11,061
Millerton State Park	1	784.02	13.23	9,408
Hydrant	1	251.72	4.25	3,021
The Village*	1	5,688.00	68.31	68,256
Trailer Park	1	1,820.16	30.72	21,842
Stand Pipe - Not Billed	25	-	-	-
Mira Bella				
Residential	49	\$72.54	49.00	42,654
Club House and Pool House	1	266.63	3.68	3,200
Mira Bella Club House	1	72.54	1.00	870
Landscaping	<u>1</u>	100	<u>1.38</u>	<u>1,200</u>
Total Billed	209		344	

Total Fixed Revenue

\$273,138

Volumetric Revenue	<u>Tier</u>	<u>2022/23 Usage (Kgal)</u>	Volumetric Rate \$/Kgal	Est. Volumetric Revenue
Friant	Tier 1 (0 - 18.7)	28,974	\$0.00	\$0
	Tier 2 (18.7 - 46.7)	3,515	\$2.41	8,471
	Tier 3 (46.7+)	3,271	\$3.35	10,958
Mira Bella	Tier 1 (0 - 25.5)	4,528	\$0.00	0
	Tier 2 (25.5 - 45.5)	492	\$2.41	1,186
	Tier 3 (45.5+) - Res.	794	\$3.35	2,660
	Tier 3 (45.5+) - Com	<u>868</u>	\$2.83	<u>2,456</u>
		42,442		\$25,731
Total Revenue Est.				\$298,869

* 2021 Fresno County Census data, Tables DP04 and B25033.

Table 6 Fresno County - Waterworks District 18 Water Operating Expenses

Inflation Factors		2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34
Inflation Factor			5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
	-				Projected				Exter	nded Projectio	on	
One setting Evenences	Catanami	Budget 2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34
Operating Expenses	Category	2023/24	2024/25	2025/20	2020/21	2027/20	2020/29	2029/30	2030/31	2031/32	2032/33	2033/34
Salaries and Wages	Administration	\$138,093	\$144,997	\$152,247	\$159,860	\$167,853	\$176,245	\$185,058	\$194,310	\$204,026	\$214,227	\$224,939
Water Purchases	Water Maintenance	9,280	9,744	10,231	10,743	11,280	11,844	12,436	13,058	13,711	14,396	15,116
Management Services	Operations	36,000	37,800	39,690	41,675	43,758	45,946	48,243	50,656	53,188	55,848	58,640
Utilities	Utilities	91,000	95,550	100,328	105,344	110,611	116,142	121,949	128,046	134,448	141,171	148,229
Telephone	Operations	6,168	6,476	6,800	7,140	7,497	7,872	8,266	8,679	9,113	9,569	10,047
Meters	Water Maintenance	720	756	794	833	875	919	965	1,013	1,064	1,117	1,173
Rent	Operations	25,740	27,027	28,378	29,797	31,287	32,851	34,494	36,219	38,030	39,931	41,928
Repairs and Maintenance	Water Maintenance	15,000	15,750	16,538	17,364	18,233	19,144	20,101	21,107	22,162	23,270	24,433
Office Supplies / Expense	Operations	6,750	7,088	7,442	7,814	8,205	8,615	9,046	9,498	9,973	10,471	10,995
Postage	Operations	2,760	2,898	3,043	3,195	3,355	3,523	3,699	3,884	4,078	4,282	4,496
Insurance	Operations	21,400	22,470	23,594	24,773	26,012	27,312	28,678	30,112	31,618	33,198	34,858
Water Treatment Supplies	Water Maintenance	29,100	30,555	32,083	33,687	35,371	37,140	38,997	40,947	42,994	45,144	47,401
Legal and Accounting	Operations	23,250	24,413	25,633	26,915	28,261	29,674	31,157	32,715	34,351	36,068	37,872
Dues & Memberships	Operations	1,104	1,159	1,217	1,278	1,342	1,409	1,479	1,553	1,631	1,713	1,798
Security	Operations	5,304	5,569	5,848	6,140	6,447	6,769	7,108	7,463	7,836	8,228	8,640
Engineering	Operations	4,800	5,040	5,292	5,557	5,834	6,126	6,432	6,754	7,092	7,446	7,819
Misc	Operations	1,980	2,079	2,183	2,292	2,407	2,527	2,653	2,786	2,925	3,072	3,225
(Less Wastewater Expenses)	ess Wastewater Expenses)* (3,328) (3,495) (3,670) (3,853) (4,046) (4,248)				(4,248)	(4,460)	(4,684)	<u>(4,918)</u>	<u>(5,164)</u>	(5,422)		
Total Operating Expenses		\$415,120	\$435,876	\$457,670	\$480,554	\$504,581	\$529,810	\$556,301	\$584,116	\$613,322	\$643,988	\$676,187

Source: "Preliminary Budget Forecast 2023-2024" * Excludes the permit fee due to the fee being added after budget completion.

Table 7 Fresno County - Waterworks District 18 Water Cash Flow Projection

	Projected					Extended Projection					
-	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34
– Beginning Fund Balance	\$234,012	\$127,529	\$67,749	\$77,180	\$113,638	\$154,457	\$199,931	\$200,488	\$215,590	\$233,161	\$253,373
% Rate Revenue Increase*	35.00%	0.00%	23.00%	10.00%	5.00%	5.00%	10.00%	7.00%	5.00%	5.00%	5.00%
Growth - %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
* Assumes April 1, 2024 implementation	on.										
REVENUES											
Operating Revenue											
Water Sales	325,021	403,475	496,274	545,901	573,196	601,856	662,042	708,384	743,804	780,994	820,044
Total Operating Revenues	325,021	403,475	496,274	545,901	573,196	601,856	662,042	708,384	743,804	780,994	820,044
Non Operating Revenue											
Interest (3%)	7,020	3.826	2,032	2,315	3,409	4,634	5,998	6,015	6,468	6,995	7,601
Subtotal Operating Revenues	7,020	3,826	2,032	2,315	3,409	4,634	5,998	6,015	6,468	6,995	7,601
Total Revenues	332,041	407,300	498,306	548,216	576,605	606,490	668,039	714,399	750,271	787,989	827,645
EXPENSES											
Operating Expenses											
Salaries and Wages	138,093	144,997	152,247	159,860	167,853	176,245	185,058	194,310	204,026	214,227	224,939
Water Purchases	9,280	9,744	10,231	10,743	11,280	11,844	12,436	13,058	13,711	14,396	15,116
Management Services	36,000	37,800	39,690	41,675	43,758	45,946	48,243	50,656	53,188	55,848	58,640
Utilities	91,000	95,550	100,328	105,344	110,611	116,142	121,949	128,046	134,448	141,171	148,229
Telephone	6,168	6,476	6,800	7,140	7,497	7,872	8,266	8,679	9,113	9,569	10,047
Rent	25,740	27,027	28,378	29,797	31,287	32,851	34,494	36,219	38,030	39,931	41,928
Repairs and Maintenance	15,000	15,750	16,538	17,364	18,233	19,144	20,101	21,107	22,162	23,270	24,433
Office Supplies / Expense	6,750	7,088	7,442	7,814	8,205	8,615	9,046	9,498	9,973	10,471	10,995
Postage	2,760	2,898	3,043	3,195	3,355	3,523	3,699	3,884	4,078	4,282	4,496
Insurance	21,400	22,470	23,594	24,773	26,012	27,312	28,678	30,112	31,618	33,198	34,858
Water Treatment Supplies	29,100	30,555	32,083	33,687	35,371	37,140	38,997	40,947	42,994	45,144	47,401
Legal and Accounting	23,250	24,413	25,633	26,915	28,261	29,674	31,157	32,715	34,351	36,068	37,872
Dues & Memberships	1,104	1,159	1,217	1,278	1,342	1,409	1,479	1,553	1,631	1,713	1,798
Security	5,304	5,569	5,848	6,140	6,447	6,769	7,108	7,463	7,836	8,228	8,640
Engineering	4,800	5,040	5,292	5,557	5,834	6,126	6,432	6,754	7,092	7,446	7,819
Misc	1,980	2,079	2,183	2,292	2,407	2,527	2,653	2,786	2,925	3,072	3,225
(Less Wastewater Expenses)*	(3,328) 415 120	(3,495) 425 976	(3,670)	(3,853)	(4,046)	(4,248)	(4,460)	(4,684)	(4,918) 612 222	(5,164)	<u>(5,422</u> 676 197
Total Operating Expenses	415,120	435,876	457,670	480,554	504,581	529,810	556,301	584,116	613,322	643,988	676,187
Net Revenues	(83,079)	(28,576)	40,636	67,663	72,024	76,679	111,739	130,283	136,950	144,001	151,457
Non Operating Expenses											
Friant Ranch Loan Debt Repayment	23,404	31,205	31,205	31,205	31,205	31,205	31,205	31,205	31,205	31,205	31,205
	<u>0</u>	<u>0</u>	0	0	0	0	<u>79,977</u>	<u>83,976</u>	88,175	92,583	97,212
Total Non Operating Expenses	23,404	31,205	31,205	31,205	31,205	31,205	111,182	115,181	119,379	123,788	128,417
Net Income	(106,483)	(59,781)	9,431	36,458	40,819	45,474	557	15,102	17,570	20,213	23,040
Ending Fund Balance	\$127,529	\$67,749	\$77,180	\$113,638	\$154,457	\$199,931	\$200,488	\$215,590	\$233,161	\$253,373	\$276,413
Fund Reserve Target: 25% O&M	103,780	108,969	114,418	120,138	126,145	132,453	139,075	146,029	153,330	160,997	169,047
Target Met	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Debt Service Coverage (Min. 1.25x)	(3.55)	(0.92)	1.30	2.17	2.31	2.46	3.58	4.18	4.39	4.61	4.85
Target Met	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 8Fresno County - Waterworks District 18Water Cost Allocation and Rate Derivation

Functional Allocation					
Allocation Category	5 Year Average	Fixed	Base Usage	Pumped Usage	Total
Operations	\$156,949	90%	10%	0%	100.00%
Administration	\$160,240	80%	20%	0%	100.00%
Utilities	\$105,595	70%	24%	6%	100.00%
Water Maintenance	\$62,777	4%	90%	6%	100.00%
Capital Projects	\$0	47%	47%	6%	100.00%
	Functional Allocation \$	\$345,874	\$129,585	\$10,102	\$485,561
	Functional Allocation %	71.2%	26.7%	2.1%	100.0%
	Revenue Requirement	\$287,402	\$107,678	\$8,394	\$403,475
	Allocation Units		Base	Pumped	
	Units		Projected kgal	Projected kgal	
_	Total		42,442	10,974	
	Rates				
			\$/kgal		
	Metered Rates		\$2.54		
	Pumping Surcharge		\$0.76		

Table 9Fresno County - Waterworks District 18Proposed Water Rate Calculation based on Meter Size

<u>Meter Size</u>	<u>Count</u>	<u>1" Meter Ratios</u>	<u>Meter Ratio Equivalents</u>	<u>Meter Charge per Month</u>
Residential	168	0.60	100.8	\$64.03
1"	19	1.00	19	\$106.72
1-1/2"	1	2.00	2	\$213.44
2"	8	3.20	25.6	\$341.51
3"	2	6.00	12	\$640.32
4"	1	10.00	10	\$1,067.20
Millerton Lake Trailer Park	32	0.42	13.44	\$1,434.32
Millerton Mobile Village	<u>99</u>	0.42	<u>41.58</u>	\$4,437.43
	330		224	
Fixed Cost			\$287,402	
Fixed Charge for 1" Meter			\$106.72	

Table 10Fresno County - Waterworks District 18Proposed Water Rate Schedule

	<u>4/1/2024</u>	<u>7/1/2025</u>	7/1/2026	<u>7/1/2027</u>	<u>7/1/2028</u>
Monthly Fixed Charge (\$/Meter Size)	<u> </u>	Р	rojected Rat	tes	
Residential	\$64.03	\$78.76	\$86.64	\$90.97	\$95.52
1"	\$106.72	\$131.27	\$144.39	\$151.61	\$159.19
1-1/2"	\$213.44	\$262.53	\$288.79	\$303.22	\$318.39
2"	\$341.51	\$420.05	\$462.06	\$485.16	\$509.42
3"	\$640.32	\$787.60	\$866.36	\$909.67	\$955.16
4"	\$1,067.20	\$1,312.66	\$1,443.93	\$1,516.12	\$1,591.93
Millerton Lake Trailer Park	\$1,434.32	\$1,764.22	\$1,940.64	\$2,037.67	\$2,139.55
Millerton Mobile Village	\$4,437.43	\$5,458.04	\$6,003.85	\$6,304.04	\$6,619.24
Volumetric Rate (\$/Kgal)		Р	rojected Rat	tes	
All Usage (\$/Kgal)	\$2.54	\$3.12	\$3.43	\$3.60	\$3.78
Booster Pumping Surcharge					
Pumping Surcharge (\$/Kgal)	\$0.76	\$0.94	\$1.03	\$1.09	\$1.14

Table 11 Fresno County - Waterworks District 18 Monthly Bill Impacts

	<u>Current</u>	<u>4/1/2024</u>	<u>7/1/2025</u>	<u>7/1/2026</u>	<u>7/1/2027</u>	<u>7/1/2028</u>
Friant Residential Bill Impact	Projected Bills					
3 Kgal	\$59.25	\$71.64	\$88.12	\$96.93	\$101.78	\$106.87
\$/Month Increase		\$12.39	\$16.48	\$8.81	\$4.85	\$5.09
% Increase		21%	23%	10%	5%	5%
9 Kgal	\$59.25	\$86.87	\$106.84	\$117.53	\$123.41	\$129.58
\$/Month Increase		\$27.62	\$19.98	\$10.68	\$5.88	\$6.17
% Increase		47%	23%	10%	5%	5%
12 Kgal	\$59.25	\$94.48	\$116.21	\$127.83	\$134.22	\$140.93
\$/Month Increase		\$35.23	\$21.73	\$11.62	\$6.39	\$6.71
% Increase		59%	23%	10%	5%	5%
Mira Bella Residential Bill Impact	* =0 = 4	Projected Bills				
3 Kgal	\$72.54	\$73.94	\$90.94	\$100.04	\$105.04	\$110.29
\$/Month Increase		\$1.40	\$17.01	\$9.09	\$5.00	\$5.25
% Increase		2%	23%	10%	5%	5%
9 Kgal	\$72.54	\$93.75	\$115.31	\$126.84	\$133.19	\$139.85
\$/Month Increase		\$21.21	\$21.56	\$11.53	\$6.34	\$6.66
% Increase		29%	23%	10%	5%	5%
	ф <u>до</u> с 4	¢400.00	¢407 50	¢4.40.05	¢4.47.00	<i>Ф4 Г 4 С О</i>
12 Kgal	\$72.54	\$103.66 \$31.12	\$127.50 \$23.84	\$140.25 \$12.75	\$147.26 \$7.01	\$154.62 \$7.36
\$/Month Increase % Increase		φ31.12 43%	\$23.04 23%	\$12.75 10%	\$7.01 5%	\$7.30 5%
% increase		4370	2370	1070	J /0	J /0
The Village Per-Unit Bill Impact		Projected Bills				
3 Kgal	\$57.45	\$52.43	\$64.49	\$70.94	\$74.49	\$78.21
\$/Month Increase		-\$5.02	\$12.06	\$6.45	\$3.55	\$3.72
% Increase		-9%	23%	10%	5%	5%
6 Kgal	\$57.45	\$60.04	\$73.86	\$81.24	\$85.30	\$89.57
\$/Month Increase		\$2.59	\$13.81	\$7.39	\$4.06	\$4.27
% Increase		5%	23%	10%	5%	5%
9 Kgal	\$57.45	\$67.66	\$83.22	\$91.54	\$96.12	\$100.92
\$/Month Increase	φ01.10	\$10.20	\$15.56	\$8.32	\$4.58	\$4.81
% Increase		18%	23%	10%	5%	5%





