

Water Rate Study

4/25/2024



Table 1
Bodega Bay PUD - Water Rate Study
Current Bi-Monthly Water Rates

	Fixed Meter Rates		Volumetric Rates							
Meter Size	\$ / BiMonthly	Tier 1 Usage	\$/hcf	Tier 2 Usage	\$/hcf					
5/8" or 3/4"	\$78.05	0-8 hcf	\$0.00	8+ hcf	\$10.02					
1"	\$130.08	0-14 hcf	\$0.00	14+ hcf	\$10.02					
1.5"	\$260.15	0-28 hcf	\$0.00	28+ hcf	\$10.02					
2"	\$416.25	0-44 hcf	\$0.00	44+hcf	\$10.02					
3"	\$832.75	0-89 hcf	\$0.00	89+hcf	\$10.02					

	Fire Meter Rates ¹
Fire Meter Size	\$ / BiMonthly
5/8" or 3/4"	\$17.00
1"	\$17.00
1.5"	\$25.50
2"	\$34.00
3"	\$51.00

¹Monthly flat rate charge for private fire service: \$8.50 per month per inch of diameter per connection.

Table 2
Bodega Bay PUD - Water Rate Study
Water Customer Information

Meter Size	Meters Count	Flow Capacity (gpd)	RUE Ratio ¹	Water RUEs	Fire Meters Count
3/4" or less	974	30	1.00	974	1
1"	151	50	1.67	252	2
1.5"	16	100	3.33	53	1
2"	8	160	5.33	43	4
3" & Over	<u>7</u>	320	10.67	<u>75</u>	<u>3</u>
Totals	1,156			1,396	11

 $^{^{1}}$ Flow capacities and ratios from American Water Works Association Manual M22

Table 3

Bodega Bay PUD - Water Rate Study
Estimated Revenues - Current Fixed & Volumetric Water Revenues

				Tier 1 Water		Tier 1 Water	Tier 2 Water	Tier 2 Water	Tier 2 Water
Meter Size	Meter Rate	Meter Count	Fixed Revenue	Consumption (hcf)	Tier 1 Water Rates	Revenue	Consumption (hcf)	Rates	Revenue
3/4" and below	\$78.05	974	\$456,124.20	29,364	\$0.00	\$0.00	25,451	\$10.02	\$255,019.52
1"	\$130.08	151	117,852.48	4,583	\$0.00	\$0.00	14,991	\$10.02	150,205.51
1.5"	\$260.15	16	24,974.40	2,192	\$0.00	\$0.00	8,321	\$10.02	83,377.92
2"	\$416.25	8	19,980.00	1,562	\$0.00	\$0.00	2,017	\$10.02	20,206.53
3"	\$832.75	<u>7</u>	<u>34,975.50</u>	<u>1,857</u>	\$0.00	<u>\$0.00</u>	<u>2,554</u>	\$10.02	25,586.77
Total Fixed Revenue		1,156	\$653,906.58	39,557		\$0.00	53,333		\$534,396.26

Table 3A
Bodega Bay PUD - Water Rate Study
Estimated Revenues - Private Fire Services

Fire Meter Size	Meter Rate	Meter Count	Fixed Revenue
3/4" and below	\$17.00	1	\$102.00
1"	\$17.00	2	204.00
1.5"	\$25.50	1	153.00
2"	\$34.00	4	816.00
3"	\$51.00	<u>3</u>	<u>918.00</u>
Total Fixed Revenue		11	\$2,193.00

Table 4
Bodega Bay PUD - Water Rate Study
2023/24 Water Operating Expenses

		Water	Allocation
Water Expenses	2023/24 Estimated	%	\$
Office Wages	\$334,000	50%	\$167,000
Field Wages	552,000	50%	276,000
Employee Benefits			,
Health	176,000	50%	88,000
Dental	9,600	50%	4,800
Life	4,000	50%	2,000
Vision	2,600	50%	1,300
SSC	68,000	50%	34,000
Retirement	40,000	50%	20,000
Retire Med	36,000	50%	18,000
Retirement Health	79,000	50%	39,500
Directors Fees	6,000	50%	3,000
Gas-Trucks	12,000	50%	6,000
Gas-Equipment	7,000	50%	3,500
Insurance	73,000	50%	36,500
Membership	23,000	50%	11,500
Permits, Licenses & Fees	55,000	50%	27,500
Office Supplies	17,500	50%	8,750
Chemicals	53,000	20%	10,600
Repairs-Truck	5,000	50%	2,500
Repairs-Generator	2,000	50%	1,000
Professional Services	247,000	50%	123,500
Repairs and Maintenance	175,000	50%	87,500
Small Tools	5,000	50%	2,500
Research & Monitoring	91,000	50%	45,500
Safety Training & Equipment	10,000	50%	5,000
Professional Development	5,000	50%	2,500
PG&E	257,000	25%	64,250
Cell Phones	1,500	50%	750
Voice & Internet	10,000	50%	5,000
Propane	2,100	50%	1,050
Other	<u>500</u>	50%	<u>250</u>
Net of Depreciation & Interest Expense	\$2,358,800		\$1,099,250
Debt Servicing	133,137	100%	133,137
Capital Outlay	327,000	100%	327,000
Total Water Expenses	\$2,818,937		\$1,559,387

Table 5 Bodega Bay PUD - Water Rate Study Water Capital Improvement Projects

	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2023/34	Total
Water Production												
WP-002 Salmon Creek Water Treatment Plant Relocation	\$0	\$0	\$0	\$0	\$20,000	\$0	\$0	\$0	\$0	\$0	\$0	\$20,000
WP-003 Ropollo Well Water Treatment and Softening	115,000	0	0	0	0	0	0	0	0	0	0	115,000
WP-004 Automated Flushing/Operation of Dunes Well Field	60,000	0	0	0	0	0	0	0	0	0	0	60,000
Water Distribution												
WD-003 Highway 1- 4" Water Main Abandonment (Tides-Smith Bros.)	0	0	0	0	85,000	0	0	0	0	0	0	85,000
Water Storage												
WS-002 Storage Tank Replacements	152,000	405,000	0	0	400,000	0	0	0	0	0	0	957,000
Capital Projects	<u>0</u>	70,000	<u>0</u>	<u>0</u>	<u>0</u>	219,576	230,555	242,083	254,187	266,896	280,241	1,563,537
Total Water CIP Projects - All Projects	\$327,000	\$475,000	\$0	\$0	\$505,000	\$219,576	\$230,555	\$242,083	\$254,187	\$266,896	\$280,241	\$2,800,537
Water Facility Reserves												
Minimum Reserve Target, net of restricted debt ²	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$3,300,000
Total Capital Projects and Reserves	\$627,000	\$775,000	\$300,000	\$300,000	\$805,000	\$519,576	\$530,555	\$542,083	\$554,187	\$566,896	\$580,241	\$6,100,537

¹Source: BBPUD Depreciation and Reserve Policy (August 2017)

Table 6
Bodega Bay PUD - Water Rate Study
Water Debt Summary

 Existing Debt Service
 % Water Share
 2023-24
 2024-25
 2025-26
 2026-27
 2027-28

 '22 Refunding 2015 Loan & ISA
 50%¹
 \$133,137
 \$133,203
 \$133,203
 \$133,148
 \$133,034

 Total Existing Debt
 \$133,137
 \$133,203
 \$133,203
 \$133,148
 \$133,034

¹Composite percentage based on water fund obligation from two prior 2015 loans.

Table 7
Bodega Bay PUD - Water Rate Study
Misc Water Revenues

	2023/24	Water Al	location
Misc Revenues	Estimated	%	\$
Leases	\$46,000	50%	\$23,000
Permits and inspections	0	50%	0
BHHO Effluent ¹	10,000	0%	0
Late Charges	15,000	50%	7,500
Water Connection Charges	9,500	100%	9,500
Interest	50,000	50%	25,000
Taxes	550,000	25%	137,500
Other	<u>0</u>	50%	<u>0</u>
Total Misc Water Revenues	\$680,500		\$202,500

¹ Bodega Harbour Homeowners Assoc.

Table 8
Bodega Bay PUD - Water Rate Study
Water Cash Balances & Fund Reserve Requirements

Account	Total Cash Balance at 06/30/2023	% Water Allocation	Water Fund Cash Balances at 06/30/2023
General Cash Account	\$72,014	50%	\$36,007
Water Facility Reserve	2,639,110	100%	2,639,110
Operational Reserve	<u>1,000,000</u>	50%	<u>500,000</u>
Estimated 6/30/2023 Water Balances	\$3,711,124		\$3,175,117

Table 9	
Bodega Bay PUD - Water Rate Study	
Water Cash Flow Projection	

Water Cash Flow Projection										
	2024/25	2025/26	2026/27	2027/28	Project 2028/29	2029/30	2030/31	2031/32	2032/33	2033/34
Beginning Fund Balance	\$2,993,285	\$2,645,804	\$2,753,767	\$2,840,092	\$2,397,525	\$2,214,046	\$2,018,323	\$1,809,477	\$1,587,024	\$1,349,373
% Rate Revenue Increase	3.5%	3.5%	3.5%	3.5%	3.5%	5.5%	5.5%	5.5%	5.5%	5.5%
% Growth	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
W. L. D. L. D.										
Water Rate Revenues Water Service Charges- Fixed	\$676,793	\$700,481	\$724,998	\$750,373	\$776,636	\$819,351	\$864,415	\$911,958	\$962,116	\$1,015,032
Water Service Charges - Variable	553,100	572,459	592,495	613,232	634,695	669,603	706,432	745,285	786,276	829,521
Private Fire Service Charges	2,193	2,193	2,193	2,193	2,193	2,193	2,193	2,193	2,193	2,193
Total Water Rate Revenues	\$1,232,086	\$1,275,133	\$1,319,686	\$1,365,798	\$1,413,524	\$1,491,147	\$1,573,040	\$1,659,436	\$1,750,585	\$1,846,746
Water Misc Revenues										
Leases	\$23,460	\$23,929	\$24,408	\$24,896	\$25,394	\$25,902	\$26,420	\$26,948	\$27,487	\$28,037
Permits and inspections	0	0	0	0	0	0	0	0	0	0
BHHO Effluent	0	0	0	0	0	0	0	0	0	0
Late Charges	7,500	7,500 9,500	7,500	7,500	7,500 9,500	7,500 9,500	7,500	7,500	7,500	7,500 9,500
Water Connection Charges Interest	9,500 25,500	26,010	9,500 26,530	9,500 27,061	27,602	28,154	9,500 28,717	9,500 29,291	9,500 29,877	30,475
Taxes	137,500	137,500	137,500	137,500	137,500	137,500	137,500	137,500	137,500	137,500
Total Water Misc Revenues	\$203,460	\$204,439	\$205,438	\$206,457	\$207,496	\$208,556	\$209,637	\$210,740	\$211,864	\$213,012
TOTAL WATER REVENUES	\$1,435,546	\$1,479,572	\$1,525,124	\$1,572,255	\$1,621,020	\$1,699,703	\$1,782,677	\$1,870,176	\$1,962,449	\$2,059,758
Water Operating Expenses										
Office Wages	\$175,350	\$184,118	\$193,323	\$202,990	\$213,139	\$223,796	\$234,986	\$246,735	\$259,072	\$272,025
Field Wages	289,800	304,290	319,505	335,480	352,254	369,866	388,360	407,778	428,167	449,575
Health	96,800	106,480	117,128	128,841	141,725	155,897	171,487	188,636	207,499	228,249
Dental	5,040	5,292	5,557	5,834	6,126	6,432	6,754	7,092	7,446	7,819
Life	2,100	2,205	2,315	2,431	2,553	2,680	2,814	2,955	3,103	3,258
Vision	1,365	1,433	1,505	1,580	1,659	1,742	1,829	1,921	2,017	2,118
SSC Retirement	35,700 37,212	37,485 39,073	39,359 41,026	41,327 43,078	43,394 45,231	45,563 47,493	47,841 49,868	50,233 52,361	52,745 54,979	55,382 57,728
Retire Med	18,900	19,845	20,837	21,879	22,973	24,122	25,328	26,594	27,924	29,320
Retirement Health	41,475	43,549	45,726	48,012	50,413	52,934	55,580	58,359	61,277	64,341
Directors Fees	3,150	3,308	3,473	3,647	3,829	4,020	4,221	4,432	4,654	4,887
Gas-Trucks	6,300	6,615	6,946	7,293	7,658	8,041	8,443	8,865	9,308	9,773
Gas-Equipment	3,675	3,859	4,052	4,254	4,467	4,690	4,925	5,171	5,430	5,701
Insurance	38,325	40,241	42,253	44,366	46,584	48,913	51,359	53,927	56,623	59,455
Membership	12,075	12,679	13,313	13,978	14,677	15,411	16,182	16,991	17,840	18,732
Permits, Licenses & Fees	28,875	30,319	31,835	33,426	35,098	36,853	38,695	40,630	42,662	44,795
Office Supplies Chemicals	9,188	9,647	10,129	10,636	11,167	11,726	12,312	12,928	13,574	14,253
Repairs-Truck	11,130 2,625	11,687 2,756	12,271 2,894	12,884 3,039	13,529 3,191	14,205 3,350	14,915 3,518	15,661 3,694	16,444 3,878	17,266 4,072
Repairs-Generator	1,050	1,103	1,158	1,216	1,276	1,340	1,407	1,477	1,551	1,629
Professional Services	129,675	136,159	142,967	150,115	157,621	165,502	173,777	182,466	191,589	201,168
Repairs and Maintenance	91,875	96,469	101,292	106,357	111,675	117,258	123,121	129,277	135,741	142,528
Small Tools	2,625	2,756	2,894	3,039	3,191	3,350	3,518	3,694	3,878	4,072
Research & Monitoring	47,775	50,164	52,672	55,306	58,071	60,974	64,023	67,224	70,585	74,115
Safety Training & Equipment	5,250	5,513	5,788	6,078	6,381	6,700	7,036	7,387	7,757	8,144
Professional Development	2,625	2,756	2,894	3,039	3,191	3,350	3,518	3,694	3,878	4,072
PG&E	67,463	70,836	74,377	78,096	82,001	86,101	90,406	94,927	99,673	104,656
Cell Phones Voice & Internet	788 5,250	827 5,513	868 5,788	912 6,078	957 6,381	1,005 6,700	1,055 7,036	1,108 7,387	1,163 7,757	1,222 8,144
Propane	1,103	1,158	1,216	1,276	1,340	1,407	1,477	1,551	1,629	1,710
Other	263	276	289	304	319	335	352	369	388	407
Total Operating Expenses	\$1,174,825	\$1,238,406	\$1,305,650	\$1,376,789	\$1,452,070	\$1,531,760	\$1,616,143	\$1,705,525	\$1,800,233	\$1,900,619
Water Non-Operating Expenses	4	A46	A46- · ·	A46	446	A46	A.c		A.c	440
Debt Service	\$133,203	\$133,203	\$133,148	\$133,034	\$132,852	\$133,111	\$133,297	\$132,917	\$132,971	\$132,953
Capital Outlay Total Non-Operating Expenses	475,000 \$608,203	<u>0</u> \$133,203	<u>0</u> \$133,148	505,000 \$638,034	219,576 \$352,428	230,555 \$363,666	242,083 \$375,380	254,187 \$387,104	266,896 \$399,867	280,241 \$413,193
TOTAL EXPENSES	\$1,783,028	\$1,371,609	\$1,438,798	\$2,014,822	\$1,804,499	\$1,895,426	\$1,991,523	\$2,092,629	\$2,200,100	\$2,313,813
NET INCOME	-\$347,481	\$107,963	\$86,325	-\$442,568	-\$183,479	-\$195,723	-\$208,846	-\$222,453	-\$237,651	-\$254,055
Ending Fund Balance	\$2,645,804	\$2,753,767	\$2,840,092	\$2,397,525	\$2,214,046	\$2,018,323	\$1,809,477	\$1,587,024	\$1,349,373	\$1,095,319
Operating Reserves	426,909	442,804	459,561	477,231	495,870	516,051	537,333	559,299	583,029	608,107
Water Facility Reserve	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000
Reserve Target Met	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Debt Service Coverage	1.96	1.81	1.65	1.47	1.27	1.26	1.25	1.24	1.22	1.20
Target Met	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes

Table 10 Bodega Bay PUD - Water Rate Study Proposed Cost Allocation

		Fixed	Charges	Volumetric Charges		
Water Expenses	2024/25	%	\$	%	\$	
Office Wages	\$175,350	55%	\$96,638	45%	\$78,712	
Field Wages	289,800	55%	159,713	45%	130,087	
Employee Benefits						
Health	96,800	55%	53,348	45%	43,452	
Dental	5,040	55%	2,778	45%	2,262	
Life	2,100	55%	1,157	45%	943	
Vision	1,365	55%	752	45%	613	
SSC	35,700	55%	19,675	45%	16,025	
Retirement	21,000	55%	11,573	45%	9,427	
Retire Med	18,900	55%	10,416	45%	8,484	
Retirement Health	41,475	55%	22,857	45%	18,618	
Directors Fees	3,150	55%	1,736	45%	1,414	
Gas-Trucks	6,300	55%	3,472	45%	2,828	
Gas-Equipment	3,675	55%	2,025	45%	1,650	
Insurance	38,325	55%	21,121	45%	17,204	
Membership	12,075	55%	6,655	45%	5,420	
Permits, Licenses & Fees	28,875	55%	15,913	45%	12,962	
Office Supplies	9,188	55%	5,063	45%	4,124	
Chemicals	11,130	55%	6,134	45%	4,996	
Repairs-Truck	2,625	55%	1,447	45%	1,178	
Repairs-Generator	1,050	55%	579	45%	471	
Professional Services	129,675	55%	71,466	45%	58,209	
Repairs and Maintenance	91,875	55%	50,634	45%	41,241	
Small Tools	2,625	55%	1,447	45%	1,178	
Research & Monitoring	47,775	55%	26,329	45%	21,446	
Safety Training & Equipment	5,250	55%	2,893	45%	2,357	
Professional Development	2,625	55%	1,447	45%	1,178	
PG&E	67,463	55%	37,180	45%	30,283	
Cell Phones	788	55%	434	45%	353	
Voice & Internet	5,250	55%	2,893	45%	2,357	
Propane	1,103	55%	608	45%	495	
Other	<u>263</u>	55%	<u>145</u>	45%	<u>118</u>	
Total Water Operating Expenses	\$1,158,613		\$638,528		\$520,084	
Non Operating Expenses						
Debt Servicing	133,203	55%	73,410	45%	59,793	
Capital Outlay	<u>475,000</u>	55%	<u>261,779</u>	45%	<u>213,221</u>	
Total Non Operating Expenses	\$608,203		\$335,190		\$273,014	
Total Water Expenses	\$1,766,816		\$973,718		\$793,098	
Adjustments						
Less: Non Rate Revenue	-203,460	55%	-112,130	45%	-91,330	
Less: Use of Reserves	-329,547	55%	-181,618	45%	-147,929	
Total Adjustments	(\$533,007)		(\$293,748)		(\$239,259)	
Water System Revenue Requirements	\$1,233,809		\$1,267,466		\$1,032,357	

Table 11 Bodega Bay PUD - Water Rate Study Proposed Rates - Single Family Home

	Fiscal Year Effective Date		2024/25 7/1/2024	2025/26 7/1/2025	2026/27 7/1/2026	2027/28 7/1/2027	2028/29 7/1/2028	
	% Rate Rev	renue Increase	3.5%	3.5%	3.5%	3.5%	3.5%	
Meter Size	Ratio	Current Rate	Proposed Bimonthly Fixed Rate					
5/8" or 3/4"	1.00	\$78.05	\$80.78	\$83.61	\$86.54	\$89.57	\$92.70	
1"	1.67	\$130.08	\$134.63	\$139.35	\$144.23	\$149.28	\$154.50	
1.5"	3.33	\$260.15	\$269.27	\$278.70	\$288.47	\$298.57	\$309.00	
2"	5.33	\$416.25	\$430.83	\$445.92	\$461.55	\$477.71	\$494.40	
3"	10.67	\$832.75	\$861.92	\$892.12	\$923.38	\$955.71	\$989.11	
Tier	Bimonthly Use	Current Rate	Proposed Bimonthly Volumetric Rate					
1	0-8 hcf	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
2	8+ hcf	\$10.02	\$10.37	\$10.73	\$11.11	\$11.50	\$11.90	

Table 12 Bodega Bay PUD - Water Rate Study Bill Impacts - Single Family Home

	hcf/bimonthly	y					
Low use:	5	Current Rate	7/1/2024	7/1/2025	7/1/2026	7/1/2027	7/1/2028
Fixed Charges		\$78.05	\$80.78	\$83.61	\$86.54	\$89.57	\$92.70
Tier 1		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Tier 2		<u>\$0.00</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$0.00</u>
Total Bimonthly		\$78.05	\$80.78	\$83.61	\$86.54	\$89.57	\$92.70
Average uses	10						
Average use:	10	ć70.0F	¢00.70	Ć02.C1	Ć0C F4	ć00 F7	¢02.70
Fixed Charges		\$78.05	\$80.78	\$83.61	\$86.54	\$89.57	\$92.70
Tier 1		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Tier 2		<u>\$20.04</u>	<u>\$20.74</u>	<u>\$21.46</u>	<u>\$22.22</u>	<u>\$23.00</u>	<u>\$23.80</u>
Total Bimonthly		\$98.09	\$101.52	\$105.07	\$108.76	\$112.57	\$116.50
High use:	15						
_	13	¢70.05	¢00.70	Ć02 61	Ć96 F4	¢90.F7	¢02.70
Fixed Charges		\$78.05	\$80.78	\$83.61	\$86.54	\$89.57	\$92.70
Tier 1		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Tier 2		<u>\$70.14</u>	<u>\$72.59</u>	<u> \$75.11</u>	<u>\$77.77</u>	<u>\$80.50</u>	<u>\$83.30</u>
Total Bimonthly		\$148.19	\$153.37	\$158.72	\$164.31	\$170.07	\$176.00

