

Biola Community Services District Water and Sewer Rate Study

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IGS
April 18, 2024

“Cost-of-Service Study”

- Rates collected must be allocated to each water and sewer, as billed
- Can't collect more than needed
- Customers must be charged in proportion to the cost to serve them
- Five year plan

Steps

1. Determine how much revenue is needed over next five years
2. Check existing billing for accuracy
3. Reset rate structure for updated allocations of cost
4. Send notices to customers

Overview

- Last Rate Change July 2014
- Bank accounts low on funds
- Unpaid customers 7% of billed amounts
- Large repair expenses this year

Water Projects This Fiscal Yr

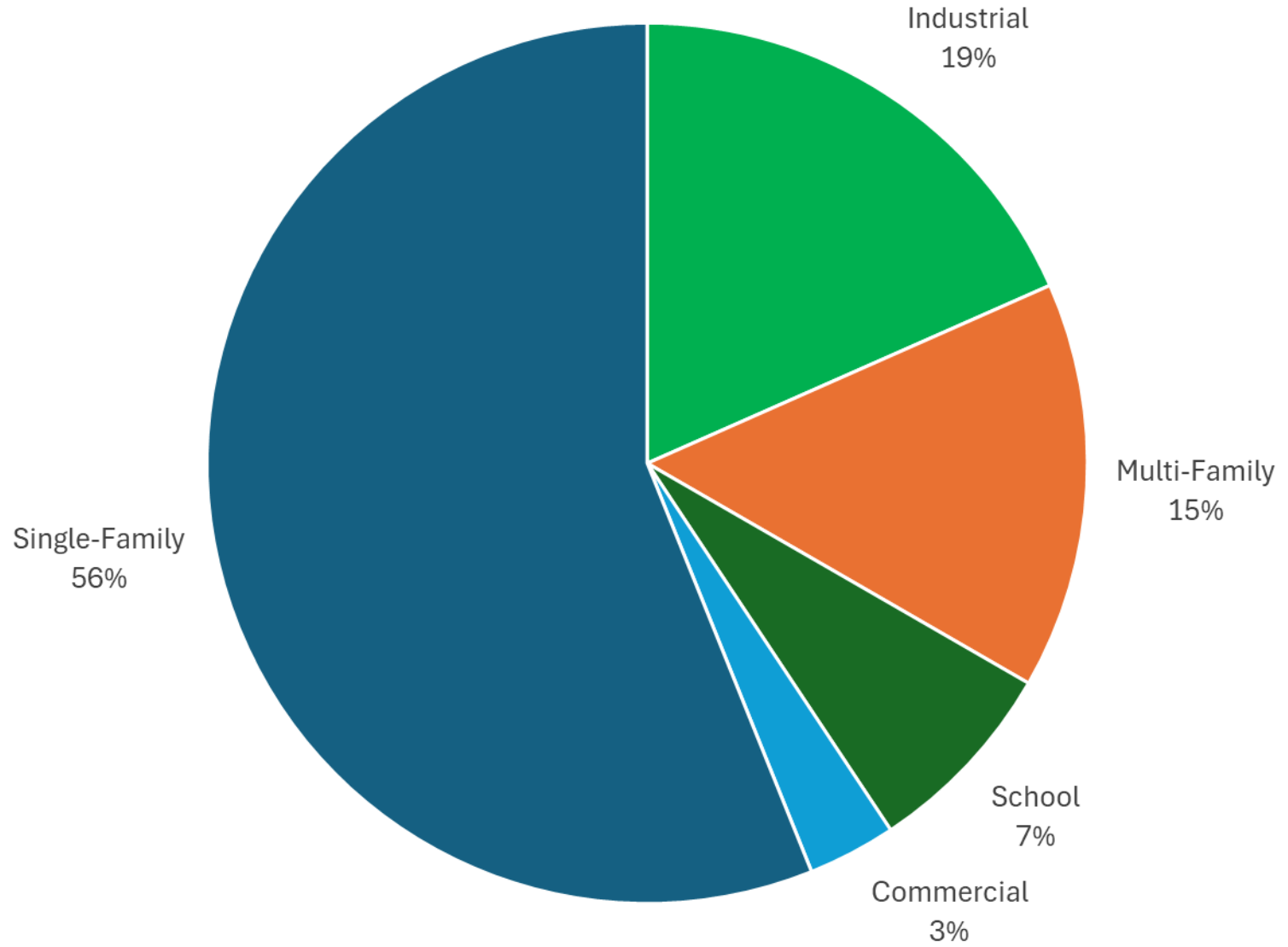
Replace hydrant at fire station	\$26,000 (rounded)
Leak repair on West Shaw	21,000
Pothole project	38,000
Other repairs, mostly leaks	<u>55,000</u>
Total through March	\$140,000

BIOLA WATER ENTERPRISE FUND

Historical and Projected Revenues and Expenses

						1	2	3	4	5	Inflation Factors
	FY19/20	FY20/21	FY21/22	FY22/23	FY23/24	FY24/25	FY25/26	FY26/27	FY27/28	FY28/29	
	<u>Audited</u>	<u>Audited</u>	<u>Audited</u>	<u>Unaudited</u>	<u>Projected</u>	<u>Projected</u>	<u>Projected</u>	<u>Projected</u>	<u>Projected</u>	<u>Projected</u>	↓
Revenues:				<i>Revenue Increases:</i>		50%	4%	4%	4%	4%	
Revenue from Rates	224,118	\$204,878	\$216,305	\$204,000	\$204,000	\$306,000	\$318,000	\$331,000	\$344,000	\$358,000	
Operating Grant	-	-	27,723	-	-	-	-	-	-	-	
Unpaid Bills / Bad Debt based on 7%	-	-	(27,723)	(14,280)	(14,280)	(21,420)	(22,260)	(23,170)	(24,080)	(25,060)	
Total Operating Revenue	\$224,118	\$204,878	\$216,305	\$189,720	\$189,720	\$284,580	\$295,740	\$307,830	\$319,920	\$332,940	
Operation & Maintenance Expenses:											
Personnel	42,122	34,442	37,432	45,367	47,600	50,000	52,500	55,100	57,900	60,800	5.0%
Contract services	30,968	31,600	30,336	31,261	32,200	33,200	34,200	35,200	36,300	37,400	3.0%
License and fees	5,878	7,000	9,650	19,143	19,700	20,300	20,900	21,500	22,100	22,800	3.0%
Sustainable Ground Water Act	-	-	-	4,000	4,000	8,200	8,900	9,700	10,400	11,200	
Maintenance and repairs	15,733	17,316	57,972	34,030	140,000	70,000	70,000	70,000	70,000	70,000	
Professional services	24,178	15,063	25,340	31,637	32,600	33,600	34,600	35,600	36,700	37,800	3.0%
Telephone and communications	3,454	3,326	3,535	5,706	5,900	6,100	6,300	6,500	6,700	6,900	3.0%
Insurance	5,329	7,121	7,764	9,242	9,500	9,800	10,100	10,400	10,700	11,000	3.0%
Office expense	2,442	1,117	936	697	720	740	760	780	800	820	3.0%
Supplies and tools	1,525	-	188	254	260	270	280	290	300	310	3.0%
Utilities	28,014	30,663	21,353	17,964	18,900	19,800	20,800	21,800	22,900	24,000	5.0%
Memberships and publications	697	925	1,672	2,309	2,400	2,500	2,600	2,700	2,800	2,900	3.0%
Total Operating Expenses	\$160,340	\$148,573	\$196,178	\$201,610	\$313,780	\$254,510	\$261,940	\$269,570	\$277,600	\$285,930	
Nonoperating Adjustments											
DWR Loan	(8,850)	(8,850)	(8,850)	(8,850)	(8,850)	(8,850)	(8,850)	-	-	-	
Interest (net)	9,666	2,574	4,756	4,524	5,000	5,000	5,000	5,000	5,000	5,000	
Total	\$816	(\$6,276)	(\$4,094)	(\$4,326)	(\$3,850)	(\$3,850)	(\$3,850)	\$5,000	\$5,000	\$5,000	
Total Gain (Loss)	\$64,594	\$50,029	\$16,033	(\$16,216)	(\$127,910)	\$26,220	\$29,950	\$43,260	\$47,320	\$52,010	
Fund Balance: Cash and Investments	\$755,430	\$688,544	\$718,769	\$262,769	\$134,859	\$161,079	\$191,029	\$234,289	\$281,609	\$333,619	
Notes:											
Excludes depreciation											

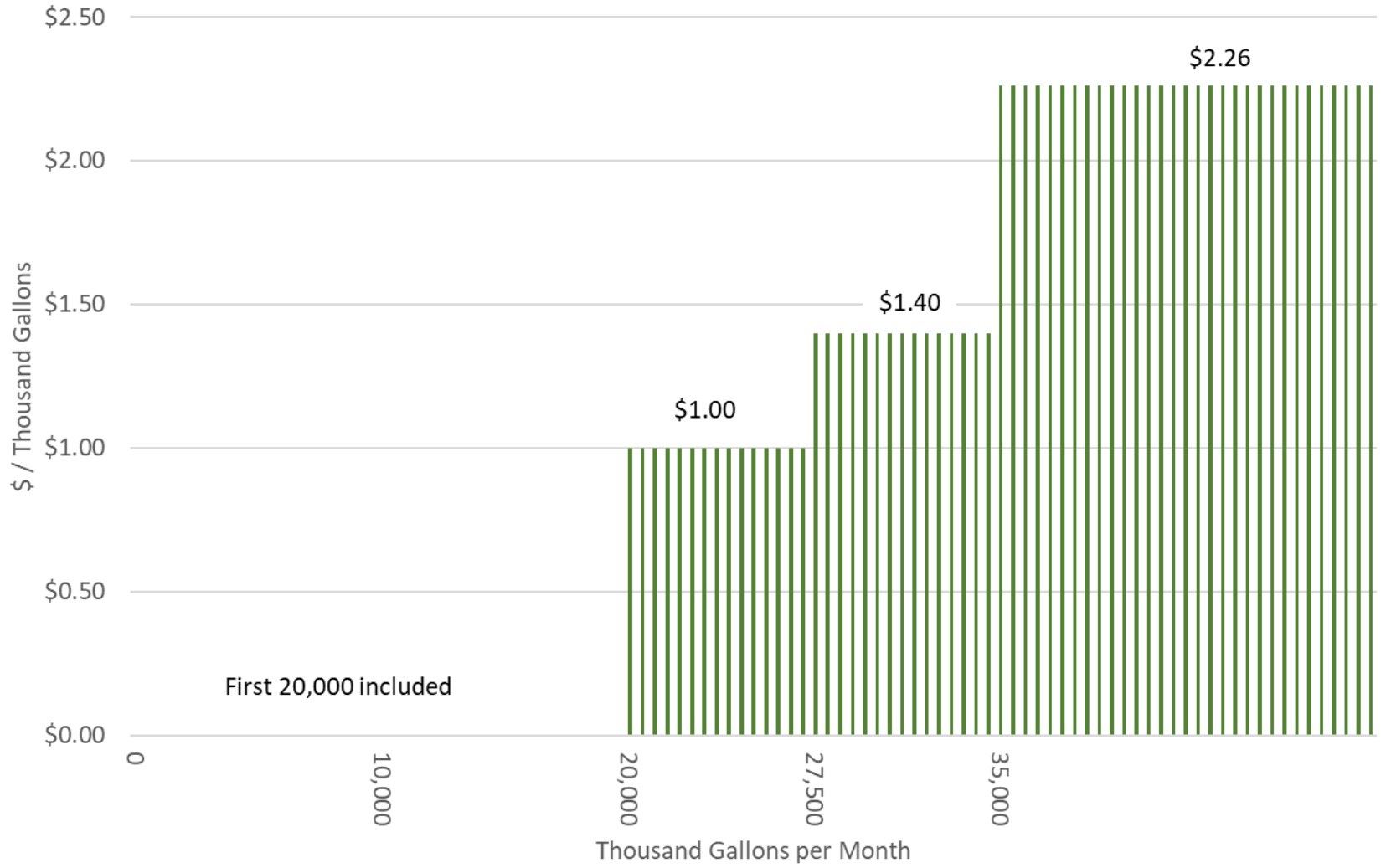
Annual Water Usage by Customer Group



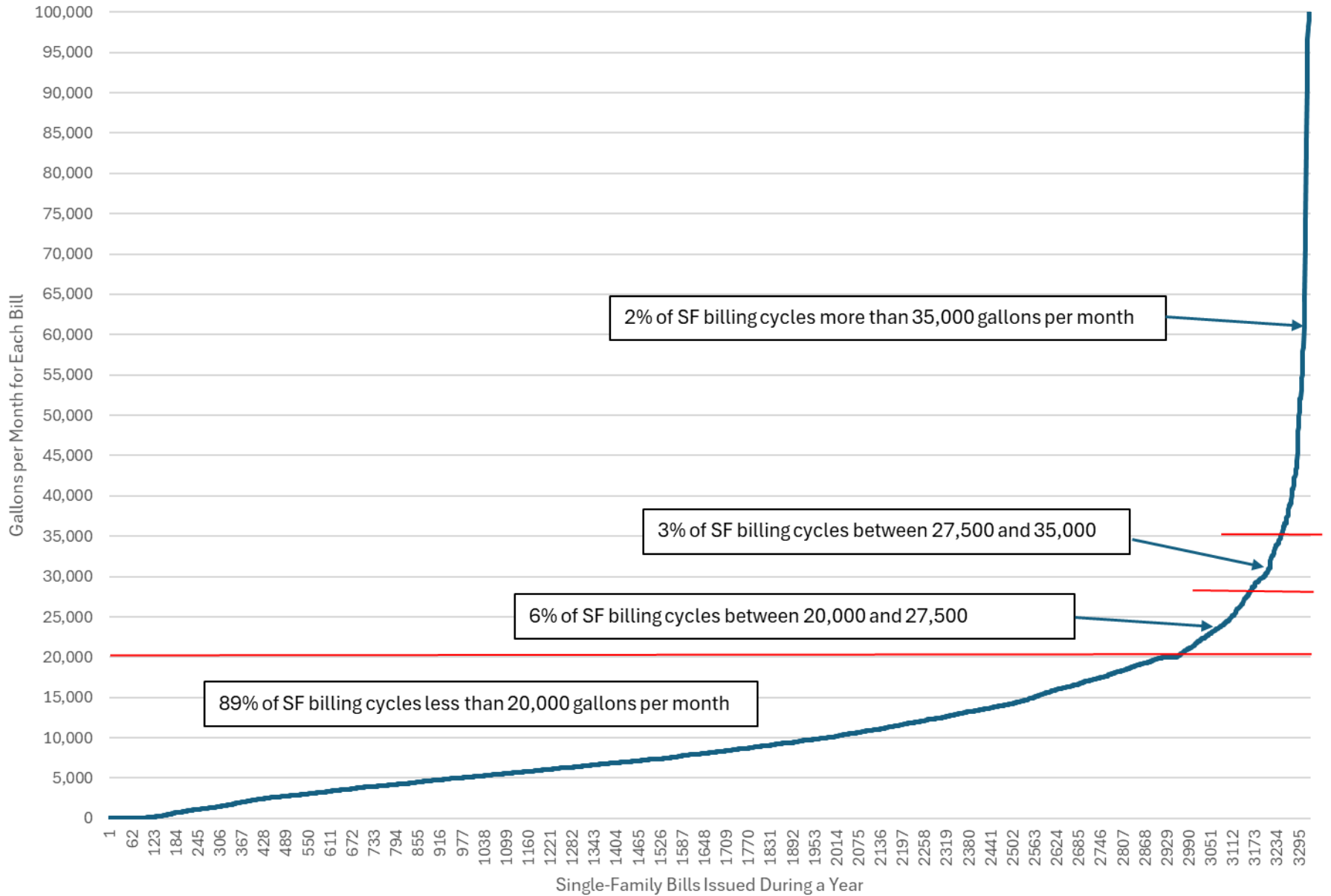
Calculation of Unbilled Water

Month 2023	Billed Gallons	Produced Gallons			Unbilled	
		Well #3	Well #4	Total Produced		
1	3,177,982	2,350,500	1,692,000	4,042,500	864,518	21%
2	3,239,178	1,515,000	2,661,667	4,176,667	937,489	22%
3	3,604,400	349,000	4,155,500	4,504,500	900,100	20%
4	4,388,292	1,682,000	3,557,400	5,239,400	851,108	16%
5	4,388,292	3,799,000	3,361,400	7,160,400	2,772,108	39%
6	5,341,849	4,502,200	3,420,600	7,922,800	2,580,951	33%
7	6,875,946	6,016,300	3,680,900	9,697,200	2,821,254	29%
8	7,110,830	5,386,500	3,341,700	8,728,200	1,617,370	19%
9	7,500,530	4,660,000	3,053,050	7,713,050	212,520	3%
10	6,115,240	3,780,000	2,993,750	6,773,750	658,510	10%
11	5,028,040	2,507,250	2,639,750	5,147,000	118,960	2%
12	3,430,988	1,142,750	3,092,250	4,235,000	804,012	19%
Total	60,201,567	37,690,500	37,649,967	75,340,467	15,138,900	20%

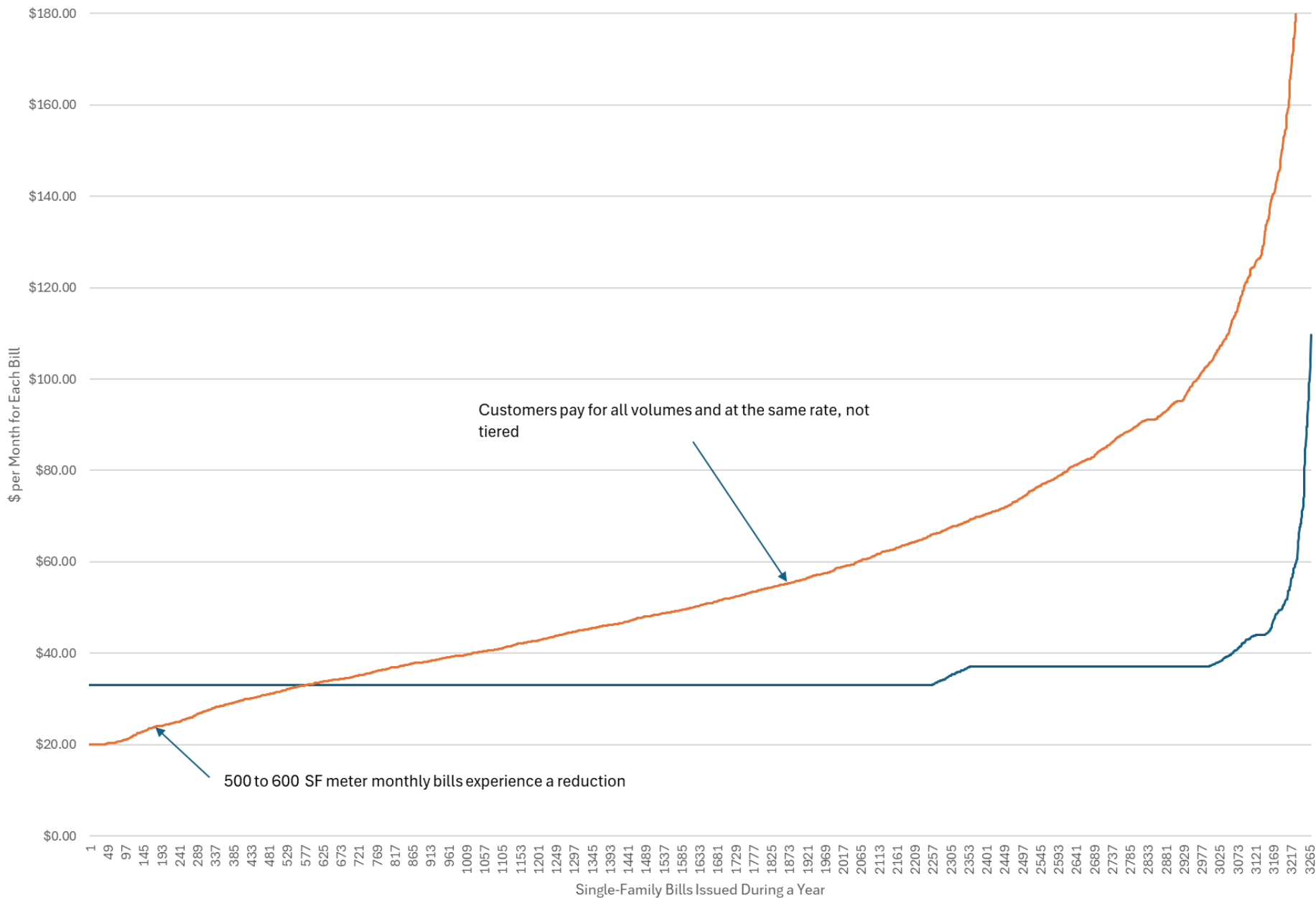
Existing Volume Rates



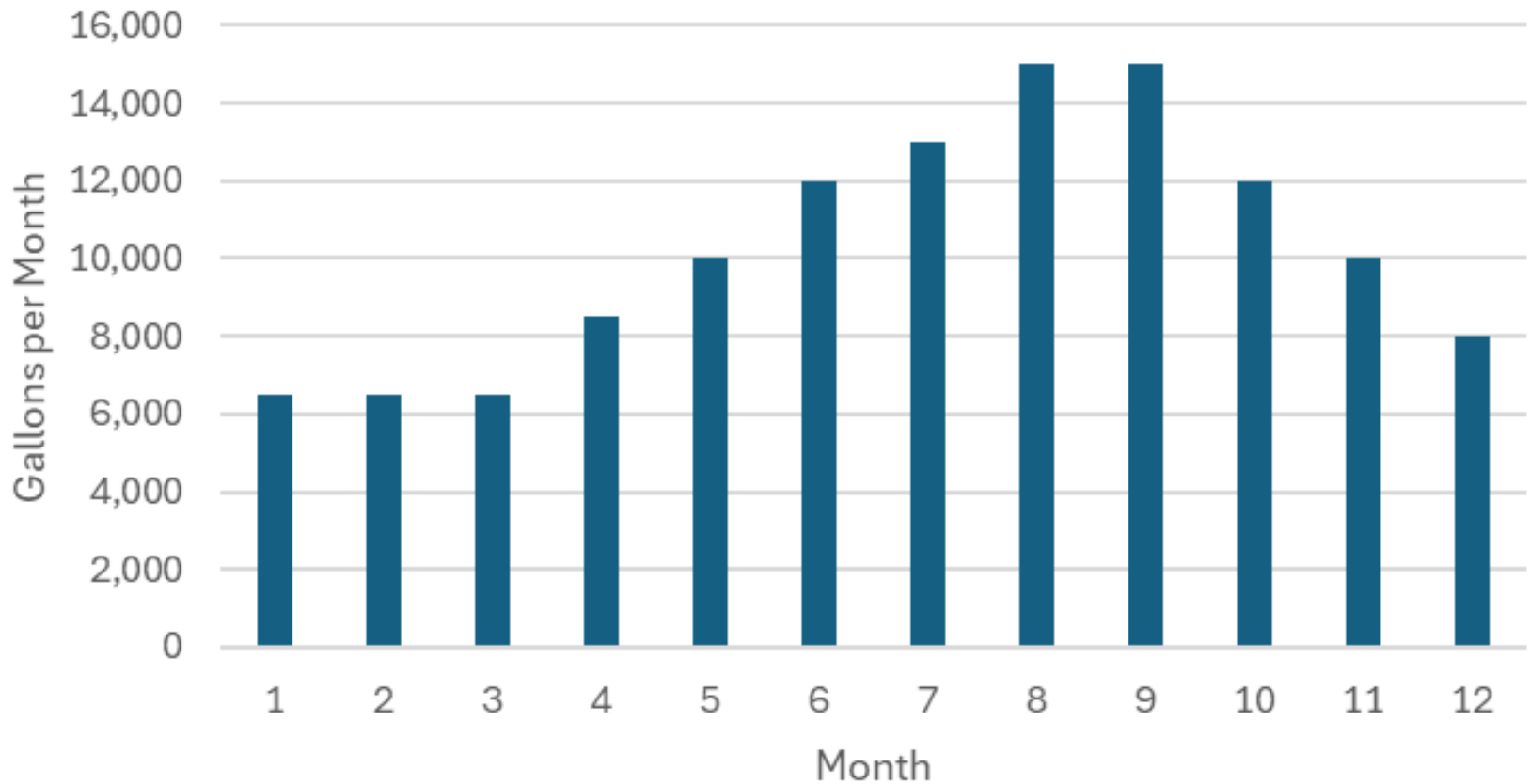
Distribution of Single-Family Billing Volumes



Present vs Proposed SF Billing Amounts

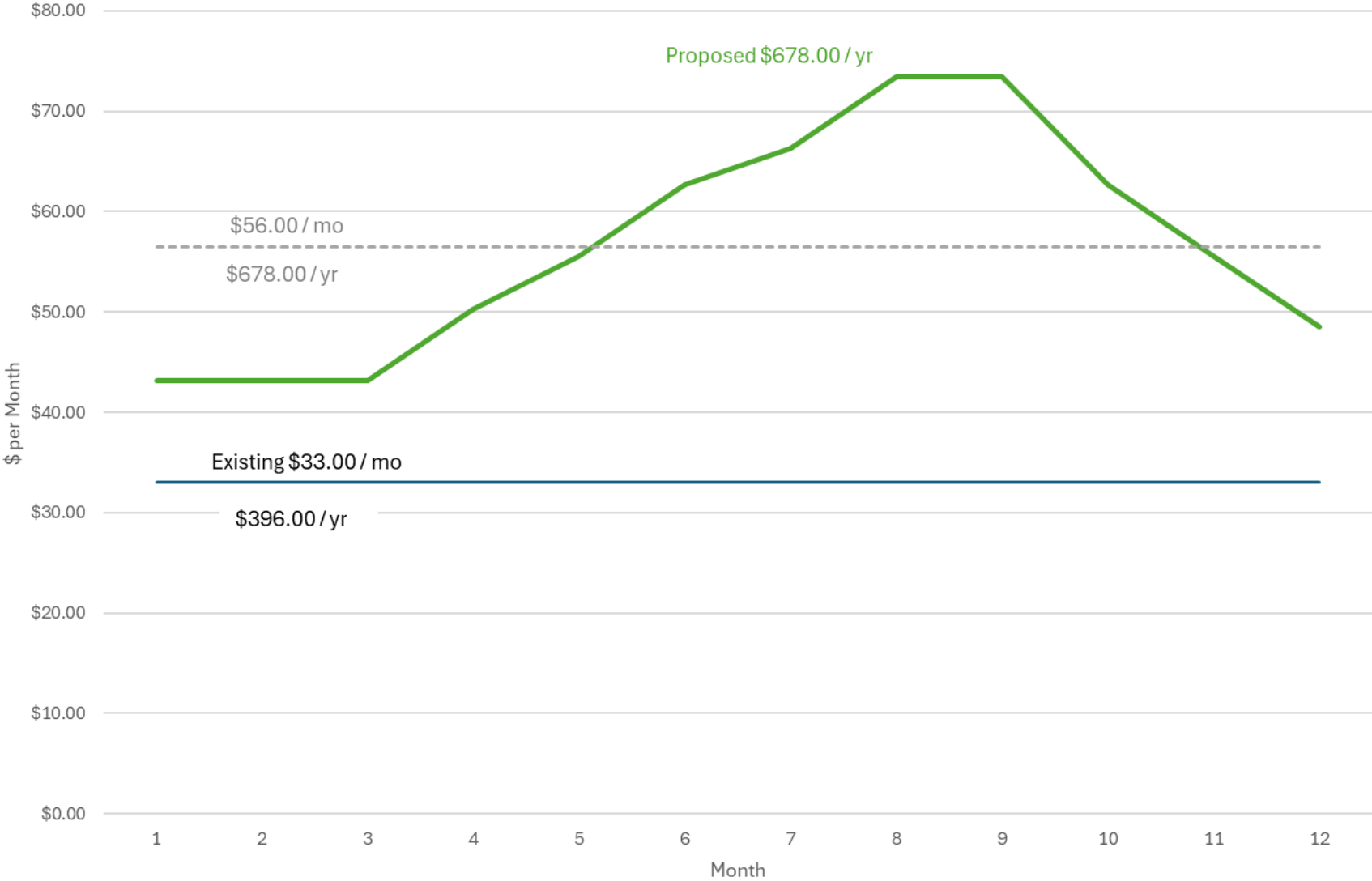


Average Single-Family Usage Profile in Biola CSD

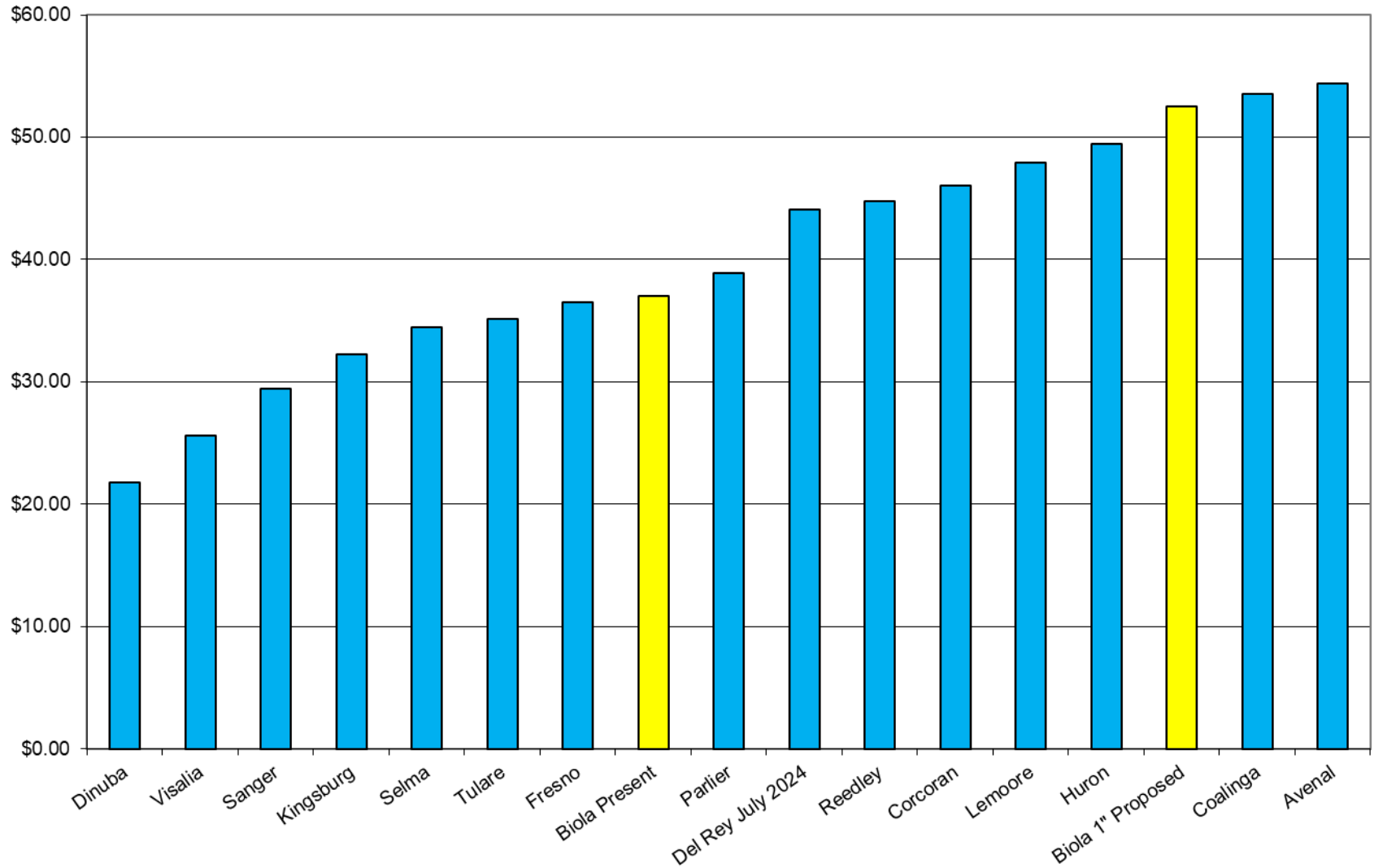


123,000 gallons per year total

Average Single-Family Monthly Water Bill



Single-Family Residential Water Cost Comparison
Median Customer at 8,000 Gallons / Month with 1" Meter

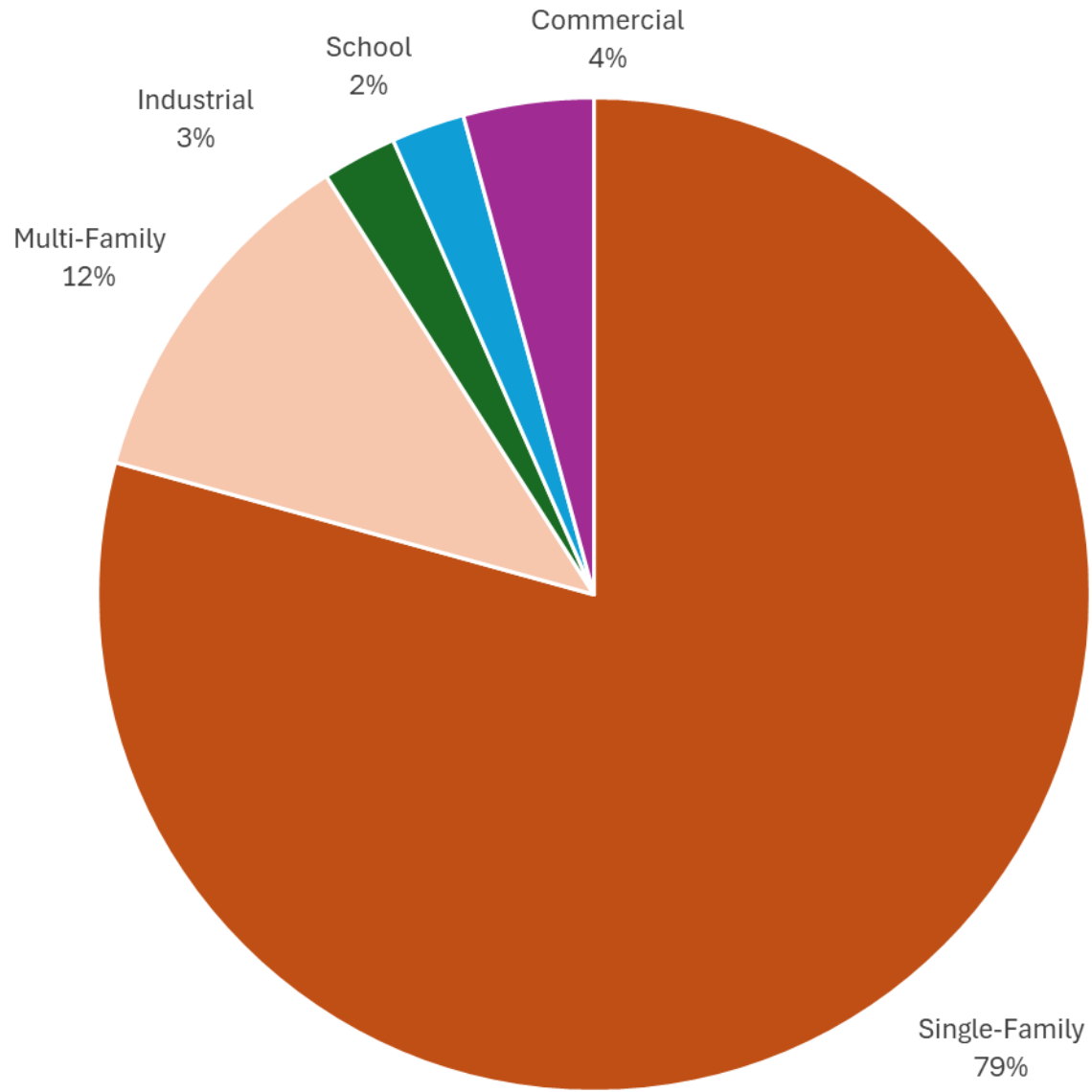


Biola CSD Water Rates and Charges

	Current Rates	Proposed Rates					
		7/1/2024		7/1/2025	7/1/2026	7/1/2027	7/1/2028
		Percent Change	New Rate	4%	4%	4%	4%
Fixed Charge (\$/Mo)							
3/4" meter size	\$33.00	-39%	\$20.00	\$20.80	\$21.63	\$22.50	\$23.40
1"	\$37.00	-35%	\$24.00	\$24.96	\$25.96	\$27.00	\$28.08
1.5"	\$44.00	9%	\$48.00	\$49.92	\$51.92	\$54.00	\$56.16
2"	\$73.00	5%	\$77.00	\$80.08	\$83.28	\$86.61	\$90.07
3"	\$163.00	-12%	\$144.00	\$149.76	\$155.75	\$161.98	\$168.46
4"	\$290.00	-17%	\$240.00	\$249.60	\$259.58	\$269.96	\$280.76
6"	\$664.00	-28%	\$480.00	\$499.20	\$519.17	\$539.94	\$561.54
Volume Charge (\$/TG)							
0 to 20 TG	\$0.00	new	\$3.56	\$3.70	\$3.85	\$4.00	\$4.16
20.0 to 27.5 TG	\$1.00	256%	\$3.56	\$3.70	\$3.85	\$4.00	\$4.16
27.5 to 35 TG	\$1.40	154%	\$3.56	\$3.70	\$3.85	\$4.00	\$4.16
Above 35 TG	\$2.26	58%	\$3.56	\$3.70	\$3.85	\$4.00	\$4.16

Sewer Enterprise

Sewer Revenue Contribution by Customer Type



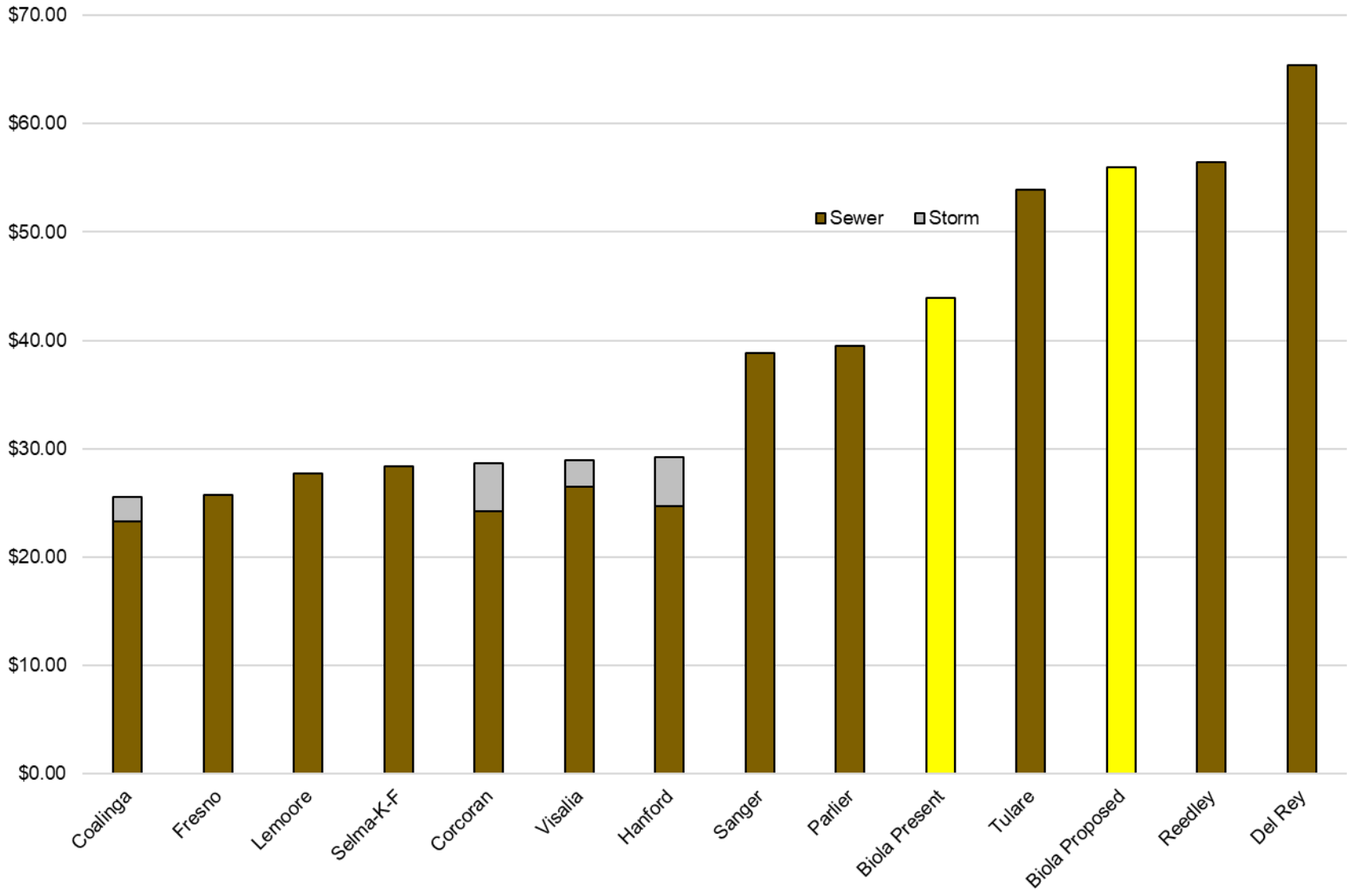
BIOLA SEWER ENTERPRISE FUND

Historical and Projected Revenues and Expenses

						¹	²	³	⁴	⁵	Inflation Factors	
	FY19/20	FY20/21	FY21/22	FY22/23	FY23/24	FY24/25	FY25/26	FY26/27	FY27/28	FY28/29		
	Audited	Audited	Audited	Unaudited	Projected	Projected	Projected	Projected	Projected	Projected		
Revenues:												
					<i>Revenue Increases:</i>		60%	4%	4%	4%	4%	▼
Revenue from rates	\$192,972	\$180,071	\$183,261	\$183,884	\$184,000	\$294,000	\$306,000	\$318,000	\$331,000	\$344,000		
Late Fees / Connection / Turn on	404	1,200	-	23	-	-	-	-	-	-		
Unpaid Bills / Bad Debt based on 7%	-	-	-	(12,872)	(12,880)	(20,580)	(21,420)	(22,260)	(23,170)	(24,080)		
Total Operating Revenue	\$193,376	\$181,271	\$183,261	\$171,035	\$171,120	\$273,420	\$284,580	\$295,740	\$307,830	\$319,920		
Operation & Maintenance Expenses:												
Personnel	35,199	31,790	33,744	43,655	45,800	48,100	50,500	53,000	55,700	58,500	5.0%	
Contract Services	51,472	44,240	45,504	51,994	53,600	55,200	56,900	58,600	60,400	62,200	3.0%	
License and fees	20,073	22,260	24,163	25,457	26,200	27,000	27,800	28,600	29,500	30,400	3.0%	
Maintenance and repairs	22,861	16,511	12,663	58,996	50,000	50,000	50,000	50,000	50,000	50,000		
Professional services	25,705	16,399	22,391	32,772	33,800	34,800	35,800	36,900	38,000	39,100	3.0%	
Telephone and communications	4,867	3,965	4,305	5,722	5,900	6,100	6,300	6,500	6,700	6,900	3.0%	
Insurance	6,437	8,621	7,764	9,242	9,700	10,200	10,700	11,200	11,800	12,400	5.0%	
Office expense	985	1,920	869	2,080	2,100	2,200	2,300	2,400	2,500	2,600	3.0%	
Utilities	30,029	29,656	21,645	17,964	18,900	19,800	20,800	21,800	22,900	24,000	5.0%	
Memberships and publications	1,377	810	1,421	2,059	2,100	2,200	2,300	2,400	2,500	2,600	3.0%	
Total Operating Expenses	\$199,005	\$176,172	\$174,469	\$249,941	\$248,100	\$255,600	\$263,400	\$271,400	\$280,000	\$288,700		
Nonoperating Adjustments												
Principal Paid	(2,558)	(1,319)	-	-	-	-	-	-	-	-		
Total Gain (Loss) excluding Depreciation	(\$8,187)	\$3,780	\$8,792	(\$78,906)	(\$76,980)	\$17,820	\$21,180	\$24,340	\$27,830	\$31,220		
Cash and Investments	\$11,046	\$16,218	\$4,356	(\$74,550)	(\$151,530)	(\$133,710)	(\$112,530)	(\$88,190)	(\$60,360)	(\$29,140)		
						39,626	Thousand Gallons Influent					
						\$7.42	per Thousand Gallons Influent					

Biola Sewer Billing Model							
	Revenue Requirement		\$294,000	<i>a</i>			
	Thousand Gallons / Year Influent to Plant		39,626	<i>b</i>			
	Revenue required per Thousand Gallons Influent to Plant		\$7.42	<i>c = a/b</i>			
	Thousand Gallons / Month / Base Service Unit (BSU)		7.5	<i>d</i>			
Account#	Customer	BSU Count	TG/Mo	TG/Yr	\$/Yr	\$/Mo	\$/Cust/Mo
		<i>e</i>	<i>f = e * d</i>	<i>g = f * 12</i>	<i>h = d * g</i>	<i>l = h/12</i>	
	SINGLE FAMILY TOTAL COUNT	280	2,100	25,200	\$186,966	\$15,581	\$55.64
0263	BIOLA VILLAGE APARTMENTS	44	330	3,960	\$29,380	\$2,448	
0001	F H A BIOLA APTS 211819	12	90	1,080	\$8,013	\$668	
0045	CENTRAL UNIFIED SCHOOL DIST (200 students)	10	75	900	\$6,677	\$556	
0141	LORENZO JIMENEZ & GREGORIA DOMINGUEZ DE JIMENEZ	2	15	180	\$1,335	\$111	
0114	BIOLA CONGREGATIONAL CHURCH / House	1	8	90	\$668	\$56	
0115	BIOLA CONGREGATIONAL CHURCH / Church	2	15	180	\$1,335	\$111	
0154	US POSTAL SERVICE	1	8	90	\$668	\$56	
0153	CHARLES CARDOSO/POSTAL OFFICE	1	8	90	\$668	\$56	
0064	LEOPOLDO CHAVEZ	3	23	270	\$2,003	\$167	
0203	STAKE CLUB	3	23	270	\$2,003	\$167	
0235	NORTH CENTRAL FIRE DIST (based on non peaking months)	3	23	270	\$2,003	\$167	
0099	CIPRIANO DE JESUS	2	15	180	\$1,335	\$111	
0005	KULWANT DEOL- SHAW MARKET	2	15	180	\$1,335	\$111	
0180	BIOLA FRESH	1	8	90	\$668	\$56	
0179	BIOLA FRESH	1	8	90	\$668	\$56	
0206	BEST MARKET	2	15	180	\$1,335	\$111	
0217	POLYCELL PACKAGING CORP	12	90	1,080	\$8,013	\$668	
0245	NUTRI AG USA LTD (Average monthly)	4	30	360	\$2,671	\$223	
0220	ACTAGRO LLC (BIOLA CA)	54	407	4,886	\$36,254	\$3,021	
	Totals	440	3,302	39,626	\$294,000	\$24,500	

Residential Sewer Rate Comparison



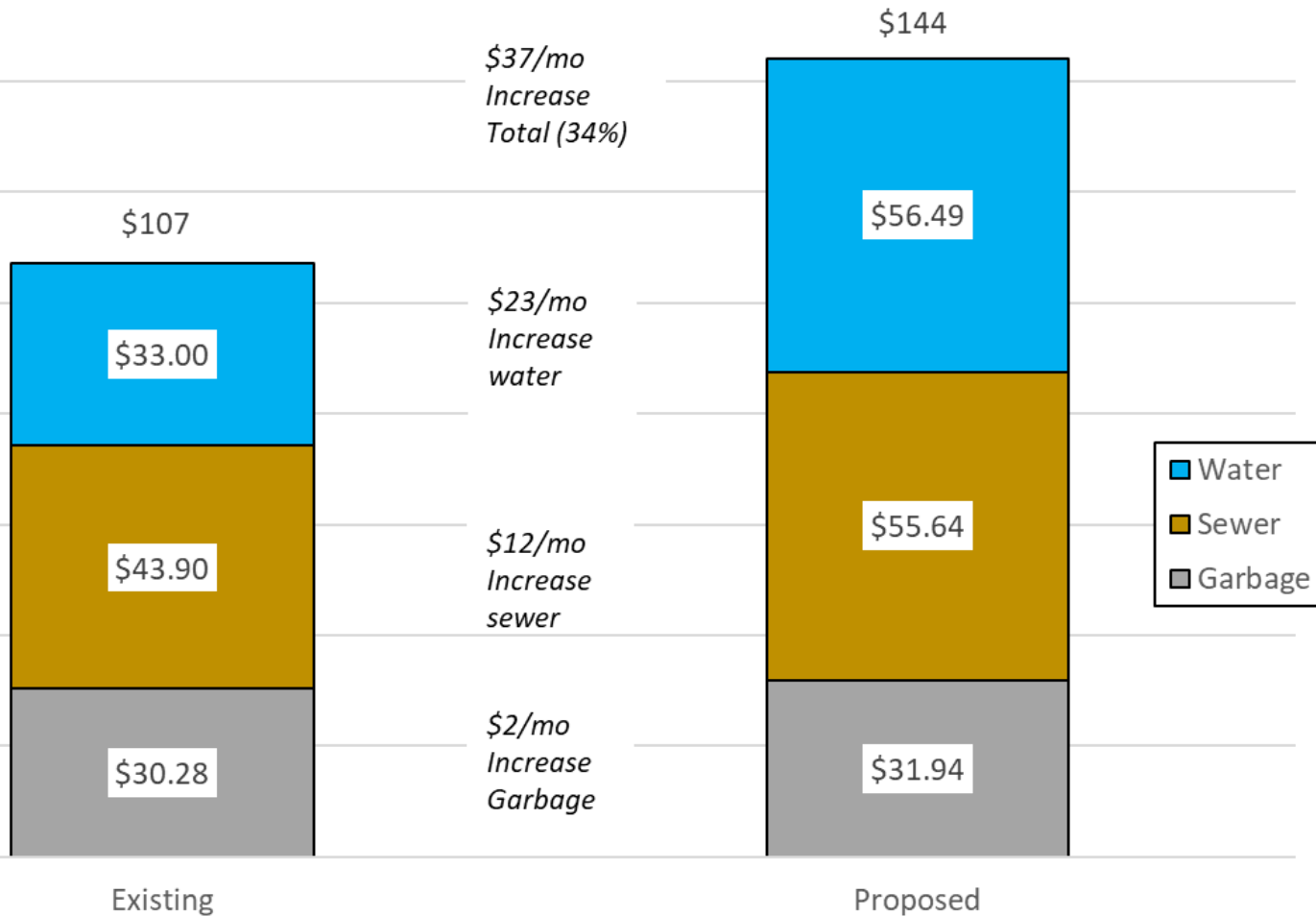
Biola CSD Sewer Rates and Charges

Preliminary

Customer Group	Current Rates	Proposed Rates					
		7/1/2024 Percent Change	Rate	7/1/2025 4%	7/1/2026 4%	7/1/2027 4%	7/1/2028 4%
Single-Family	\$43.90	27%	\$55.64	\$57.87	\$60.18	\$62.59	\$65.09
Duplex or two dwelling units on one account	\$87.80	27%	\$111.29	\$115.74	\$120.37	\$125.18	\$130.19
Multi-Family (per dwelling unit)	\$43.90	27%	\$55.64	\$57.87	\$60.18	\$62.59	\$65.09
Commercial Facilities							
Small Commercial with no food service	\$43.90	27%	\$55.64	\$57.87	\$60.18	\$62.59	\$65.09
Small Market	\$43.90	154%	\$111.29	\$115.74	\$120.37	\$125.18	\$130.19
Church	\$87.80	27%	\$111.29	\$115.74	\$120.37	\$125.18	\$130.19
Fire Station	\$87.80	90%	\$166.93	\$173.61	\$180.55	\$187.77	\$195.28
Restaurant with seating	\$87.80	90%	\$166.93	\$173.61	\$180.55	\$187.77	\$195.28
Public Works Facility	\$87.80	90%	\$166.93	\$173.61	\$180.55	\$187.77	\$195.28
Elementary School	\$373.07	49%	\$556.45	\$578.70	\$601.85	\$625.92	\$650.96
Industrial Rate (\$ / Thousand Gallons)	Varied	Varied	\$7.42	\$7.72	\$8.03	\$8.35	\$8.68
Industrial monthly charges shall be based on the calculated volume of discharge from each industrial customer, multiplied by the cost per thousand gallons shown above to process the discharge. In the event industrial discharge is more concentrated in Biochemical Oxygen Demand (BOD) or Total Suspended Solids (TSS), causing the system concentration averages to increase, monthly charges may be increased in proportion to the concentrations.							

Note: The basis for establishing equitable sewer rates is the cost to collect and treat wastewater applied to a customer in proportion to a customer's volumes discharged. At the request of a customer, or if necessary because a rate does not exist, an equitable rate may be calculated by the District Engineer. Calculations shall be available for customer review and all calculated rates other than Industrial Rates must be approved by the Biola CSD Board.

Existing vs Proposed Single-Family Bill (Average Water Usage)



Next Steps

By April 24, 2024

Water and Sewer rate notice issued (w/ Board approval)

June 20, 2024

Rate Hearing: Determines level of protest and asks for Board approval of Rate Adjustments

July 1, 2024

Assuming approval from Board, new rates go into effect for billing cycles beginning July 1st and thereafter

Discussion
