

# User Fee Rate Model

## 2020-21



### Modified Rate Model #3

1. Cuts to O&M \$591K
2. Discretionary CalPERS UAL Payment \$200K
3. No Cut to Capital componenet

Budget Committee Review: 03-13-20

Preliminary Board Meeting: 03-26-20

Final Board Meeting: 06-25-20

Summary Rate Model History

3/13/20

User Group	Count	Units	Actual 2010-11	Actual 2011-12	Actual 2012-13	Actual 2014-15	Actual 2015-16	Actual 2016-17	Actual 2017-18	Actual 2018-19	Actual 2019-20	% Change	Model 20-21			Proposed Rates					
													Rates	% Change	Annual Est. Revenue	Annual Rates	Monthly Rate	% Change 20-21	Annual Est. Revenue		
Veterinary Offices	3	each	693.50	724.00	776.80	1,242.32	1,406.20	1,496.16	1,621.48	1,748.92	1,892.64	8.22%	1,938.79	2.44%	5,816.36	1,938.79	161.57	2.44%	5,816.36		
Animal Hosp & Board	1	each	1,676.00	1,750.00	1,876.00	3,549.50	4,017.72	4,277.74	4,636.04	5,000.44	5,411.36	8.22%	5,543.29	2.44%	5,543.29	5,543.29	461.94	2.44%	5,543.29		
Bakery	4	each	1,123.00	1,170.00	1,255.00	2,198.30	2,369.08	2,487.40	2,726.44	3,002.30	3,163.94	5.38%	3,339.11	5.54%	13,356.45	3,339.11	278.26	5.54%	13,356.45		
Bar	28	each	588.00	605.82	650.50	864.82	981.04	1,049.60	1,136.96	1,225.20	1,327.44	8.34%	1,358.00	2.30%	38,024.03	1,358.00	113.17	2.30%	38,024.03		
Beauty Salon	32	each	430.00	452.00	486.00	717.46	819.78	867.32	937.98	1,012.12	1,100.86	8.77%	1,121.27	1.85%	35,880.68	1,121.27	93.44	1.85%	35,880.68		
Business/Govt/Retail	935	per 10 employees	219.40	230.42	247.70	311.50	355.02	391.92	424.10	456.10	495.42	8.62%	505.37	2.01%	472,524.35	505.37	42.11	2.01%	472,524.35		
Camera/Photo	2	each	308.00	318.92	343.00	456.96	515.96	540.98	586.62	633.34	684.52	8.08%	702.21	2.58%	1,404.42	702.21	58.52	2.58%	1,404.42		
Church/Synagogue/Mi	33	ERU = 150	313.00	330.00	355.80	478.50	546.72	582.88	630.36	677.20	736.58	8.77%	750.24	1.86%	24,758.05	750.24	62.52	1.86%	24,758.05		
Conv. Hospital	9	beds	174.90	182.26	196.00	260.20	295.10	309.56	335.34	361.40	391.50	8.33%	400.58	2.32%	3,605.24	400.58	33.38	2.32%	3,605.24		
Dental Office	15	each Dentist	350.00	350.00	367.16	485.80	561.02	588.36	634.78	678.92	742.66	9.39%	751.60	1.20%	11,273.95	751.60	62.63	1.20%	11,273.95		
Gym/Health Spa	3	each	415.00	431.12	462.00	612.82	699.50	752.92	814.44	875.36	951.58	8.71%	969.84	1.92%	2,909.53	969.84	80.82	1.92%	2,909.53		
Hotel/Motel	1,256	room	188.00	194.78	209.40	260.68	295.60	320.50	347.20	381.48	413.22	8.32%	422.83	2.33%	531,073.23	422.83	35.24	2.33%	531,073.23		
Laundromats	29	per machine	319.50	334.60	360.00	587.30	676.40	727.10	784.92	840.48	918.06	9.23%	930.63	1.37%	26,988.24	930.63	77.55	1.37%	26,988.24		
Laundry	3	each	1,482.00	1,553.00	1,666.66	2,262.74	2,514.96	2,691.76	2,929.36	3,183.98	3,411.96	7.16%	3,533.93	3.57%	10,601.79	3,533.93	294.49	3.57%	10,601.79		
Market	19	each	544.10	571.32	614.00	1,053.90	1,143.46	1,200.06	1,313.28	1,442.00	1,525.26	5.77%	1,603.04	5.10%	30,457.80	1,603.04	133.59	5.10%	30,457.80		
Medical Office	21	each Physician	190.00	196.00	202.00	247.18	283.18	299.62	318.16	334.26	364.94	9.18%	364.47	-0.13%	7,653.82	364.94	30.41	0.00%	7,663.74		
Residential	7,113	each	370.50	388.00	417.10	514.32	575.46	647.14	703.18	767.84	825.78	7.55%	851.85	3.16%	6,059,224.36	851.85	70.99	3.16%	6,059,224.36		
Restaurants	14,400	Seat/Meal	26.22	27.54	28.90	43.36	46.98	49.36	54.02	59.36	62.74	5.69%	65.98	5.17%	950,121.29	65.98	5.50	5.17%	950,121.29		
Schools	2,500	Population	14.32	14.90	15.94	20.76	23.88	26.84	28.98	31.04	33.90	9.21%	34.36	1.36%	85,903.53	34.36	2.86	1.36%	85,903.53		
Service Stations	26	per pump	1,186.00	1,256.94	1,346.20	1,619.06	1,830.54	1,940.98	2,104.06	2,270.46	2,455.60	8.15%	2,517.14	2.51%	65,445.54	2,517.14	209.76	2.51%	65,445.54		
Supermarkets	2	each	11,451.08	12,013.78	12,918.34	14,152.08	15,350.08	16,915.86	18,513.28	20,330.52	21,500.58	5.76%	22,601.65	5.12%	45,203.30	22,601.65	1883.47	5.12%	45,203.30		
SPECIAL	57	ERU=150	325.60	338.02	363.50	480.32	548.60	594.48	642.96	690.84	751.26	8.75%	765.37	1.88%	43,626.37	765.37	63.78	1.88%	43,626.37		
<b>TOTALS</b>															<b>\$8,471,395.65</b>			<b>\$8,471,405.57</b>			

Proposed vs. Model 9.92

Residential Rate Change

	<b>Model</b>	<b>Proposed</b>
\$ Change	3.16%	3.16%
Monthly Charge	\$70.99	\$70.99
\$ increase	\$2.17	\$2.17

**CARMEL AREA WASTEWATER DISTRICT - REVENUE PROGRAM  
FORM 1 - SUMMARY OF USERS AND WASTEWATER CHARACTERISTICS**

3/13/20

USER GROUP	COUNT	UNITS	FLOW (gpd/unit)	ADWF (MGD)	BOD (mg/l)	SS (mg/l)	DESIGN FLOW (MGD)	BOD (lbs/day)	SS (lbs/day)	VOLUME (MG)	BOD (lbs)	SS (lbs)
Veterinary Offices	3	each	355	0.0011	300	275	0.0011	2.665	2.443	0.389	973	892
Animal Hosp & Boarding	1	each	1,015	0.0010	300	275	0.0010	2.540	2.328	0.370	927	850
Bakery	4	each	265	0.0011	1,300	1,100	0.0011	11.493	9.724	0.387	4,195	3,549
Bar	28	each	255	0.0071	275	265	0.0071	16.376	15.780	2.606	5,977	5,760
Beauty Salon	32	each	228	0.0073	200	235	0.0073	12.170	14.299	2.663	4,442	5,219
Business/Govt/Retail	935	per 10 employees	100	0.0935	225	245	0.0935	175.453	191.049	34.128	64,038	69,730
Camera/Photo	2	each	125	0.0003	210	400	0.0003	0.438	0.834	0.091	160	304
Church/Synagogue/Mission	33	ERU = 150	153	0.0050	190	245	0.0050	7.974	10.283	1.837	2,911	3,753
Conv. Hospital	9	beds	75	0.0007	300	245	0.0007	1.689	1.379	0.246	616	503
Dental Office	15	each Dentist	170	0.0026	175	135	0.0026	3.722	2.871	0.931	1,358	1,048
Gym/Health Spa	3	each	195	0.0006	225	225	0.0006	1.098	1.098	0.214	401	401
Hotel/Motel	1,256	room	79	0.0992	350	200	0.0992	289.635	165.506	36.217	105,713	60,408
Laundromats	29	per machine	205	0.0059	185	155	0.0059	9.173	7.685	2.170	3,348	2,805
Laundry	3	each	510	0.0015	500	450	0.0015	6.380	5.742	0.558	2,329	2,096
Market	19	each	150	0.0029	900	1,005	0.0029	21.392	23.888	1.040	7,808	8,719
Medical Office	21	each Physician	87	0.0018	175	135	0.0018	2.667	2.057	0.667	973	751
Minimum/Vacant/Storage	0	each	0	0.0000	0	0	0.0000	0.000	0.000	0.000	0	0
Public	0	ERU=175	0	0.0000	0	0	0.0000	0.000	0.000	0.000	0	0
Residential	7,113	each	135	0.9603	375	415	0.9603	3,003.198	3,323.539	350.493	1,096,131	1,213,052
Restaurants	14,400	Seat/Mcal	6	0.0864	1,300	700	0.0864	936.749	504.403	31.536	341,902	184,101
Schools	2,500	Population	8	0.0188	175	175	0.0188	27.366	27.366	6.844	9,988	9,988
Service Stations	26	per pump	455	0.0118	240	350	0.0118	23.679	34.532	4.318	8,643	12,604
Supermarkets	2	each	2,100	0.0042	925	1,000	0.0042	32.401	35.028	1.533	11,826	12,785
Theaters	0	Seats	3	0.0000	250	190	0.0000	0.000	0.000	0.000	0	0
SPECIAL	57	ERU~150	155	0.0088	200	240	0.0088	14.737	17.684	3.225	5,379	6,454
<b>TOTALS</b>			<b>6,828</b>	<b>1.3218</b>	<b>418</b>	<b>399</b>	<b>1.3218</b>	<b>4,602.99</b>	<b>4,399.52</b>	<b>482.462</b>	<b>1,680,036</b>	<b>1,605,771</b>

**CARMEL AREA WASTEWATER DISTRICT - REVENUE PROGRAM  
FORM 2 - OPERATION AND MAINTENANCE COSTS AND DEBT SERVICE**

3/13/20

<b>COST CATEGORY</b>	<b>Est. CURRENT YEAR 19-20</b>	<b>ESTIMATED COST 20-21</b>
<b>TREATMENT FACILITIES</b>		
Fixed costs	4,648,941.00	5,134,549.00
Replacement costs	1,200,000.00	<b>1,200,000.00</b>
Total fixed costs	4,648,941.00	5,134,549.00
Replacement costs	1,200,000.00	1,200,000.00
<b>SUB TOTAL</b>	<b>5,848,941.00</b>	<b>6,334,549.00</b>
<b>COLLECTION SYSTEM</b>		
Fixed costs	1,480,355.00	1,384,768.00
Replacement costs	450,000.00	<b>450,000.00</b>
Total fixed costs	1,480,355.00	1,384,768.00
Replacement costs	450,000.00	450,000.00
<b>SUB-TOTAL</b>	<b>1,930,355.00</b>	<b>1,834,768.00</b>
<b>ADMINISTRATION</b>		
Fixed Costs	1,627,697.00	1,302,714.00
Replacement Costs	0.00	<b>0.00</b>
Variable costs	0.00	0.00
<b>SUB-TOTAL</b>	<b>1,627,697.00</b>	<b>1,302,714.00</b>
OPERATING RESERVES -	0.00	0.00
OTHER		
TOTAL FIXED COSTS	7,756,993.00	7,822,031.00
TOTAL REPLACEMENT COSTS	1,650,000.00	1,650,000.00
Less PBCSD	1,200,000.00	1,200,000.00
Less CalPERS UAL	0.00	(200,000.00)
<b>LESS PBCSD</b>	<b>1,200,000.00</b>	<b>1,000,000.00</b>
<b>TOTAL CAWD O&amp;M COSTS</b>	<b>8,206,993.00</b>	<b>8,472,031.00</b>
DEBT SERVICE	0.00	0.00

**CARMEL AREA WASTEWATER DISTRICT - 2020-21 REVENUE PROGRAM  
FORM 3 - CAPITAL COST ALLOCATION**

3/13/20

COSTS	TOTAL COST	FLOW		BOD		SS	
		%	\$	%	\$	%	\$
Collection System	0	100.00	0	0.00	0	0.00	0
Treatment Plant	0	34.00	0	33.00	0	33.33	0
Outfall/Intercept.	0	100.00	0	0.00	0	0.00	0
Step 3 Admin.							
Step 1 & 2							
<b>SUBTOTAL - ALL COSTS</b>							
Less Exclusions							
Total G.F. Costs							
Total N.G.F. Costs							
Federal Grant at 75% of 9							
Annual ICR							
<b>LOCAL SHARE</b> (8+12-1/2% of 9)							

**CARMEL AREA WASTEWATER DISTRICT - REVENUE PROGRAM  
FORM 4 - UNIT COST DETERMINATION**

3/13/20

COST CATEGORY	PARAMETER ALLOCATION PERCENTAGE	ANNUAL COST TO EACH PARAMETER	TOTAL QUANTITIES	UNIT COST FOR EACH PARAMETER
<b>1. COLLECTION SYSTEM O&amp;M</b>				
I/I (MG)	0.000	\$0	0.00	
Flow (MG)	100.000	\$2,127,348	482.46	\$4,409.35579
BOD (lbs)	0.000	\$0	1,680,036.19	\$0.00000
SS (lbs)	0.000	\$0	1,605,770.93	\$0.00000
<b>2. DEBT SERVICE</b>				
I/I (MG)			0.00	
Flow (MG)			350.00	\$0.00000
BOD (lbs)			1,680,036.19	\$0.00000
SS (lbs)			1,605,770.93	\$0.00000
<b>3. CAPITAL OUTLAY</b>				
I/I (MG)	0.000	\$0	0.00	
Flow (MG)	0.000	\$0	325.00	\$0.00000
BOD (lbs)	0.000	\$0	1,680,036.19	\$0.00000
SS (lbs)	0.000	\$0	1,605,770.93	\$0.00000
			9.50	
<b>4. TREATMENT &amp; DISPOSAL O&amp;M</b>				
I/I (MG)	0.00	\$0	0.00	
Flow (MG)	33.33	\$2,114,894	482.46	\$4,383.54329
BOD (lbs)	33.33	\$2,114,683	1,680,036.19	\$1.25871
SS (lbs)	33.33	\$2,114,894	1,605,770.93	\$1.31706
<b>5. ADMINISTRATIVE COSTS (Allocated above)</b>				
TO T&D	77.54	\$1,010,134		
TO COLLECTION	22.46	\$292,580		
<b>TOTAL O&amp;M COST</b>		<b>\$8,471,819</b>		

**CARMEL AREA WASTEWATER DISTRICT - REVENUE PROGRAM  
FORM 5 - SUMMARY OF FUND COSTS - O & M**

3/13/20

USER GROUPS	COUNT	FLOW		BOD		SS		TOTAL ANNUAL REVENUE	AVERAGE ANNUAL REVENUE	AVERAGE MONTHLY REVENUE
		UNIT COST= 8,792.90		UNIT COST= 1.258712697		UNIT COST= 1.317058437				
		FLOW - MG	DOLLARS	BOD - lbs.	DOLLARS	SS-lbs.	DOLLARS			
Veterinary Offices	3	0.389	3,418	973	1,224	892	1,174	5,816	1,938.79	161.57
Animal Hosp & Boarding	1	0.370	3,258	927	1,167	850	1,119	5,543	5,543.29	461.94
Bakery	4	0.387	3,402	4,195	5,280	3,549	4,675	13,356	3,339.11	278.26
Bar	28	2.606	22,915	5,977	7,523	5,760	7,586	38,024	1,358.00	113.17
Beauty Salon	32	2.663	23,416	4,442	5,591	5,219	6,874	35,881	1,121.27	93.44
Business/Govt/Retail	935	34.128	300,080	64,038	80,606	69,730	91,839	472,524	505.37	42.11
Camera/Photo	2	0.091	802	160	201	304	401	1,404	702.21	58.52
Church/Synagogue/Mission	33	1.837	16,151	2,911	3,664	3,753	4,943	24,758	750.24	62.52
CONF/MEETING	0	0.000	0	0	0	0	0	0	0.00	0.00
Conv. Hospital	9	0.246	2,166	616	776	503	663	3,605	400.58	33.38
Dental Office	15	0.931	8,184	1,358	1,710	1,048	1,380	11,274	751.60	62.63
Gym/Health Spa	3	0.214	1,878	401	504	401	528	2,910	969.84	80.82
Hotel/Motel	1,256	36.217	318,450	105,713	133,063	60,408	79,560	531,073	422.83	35.24
Laundromats	29	2.170	19,080	3,348	4,214	2,805	3,694	26,988	930.63	77.55
Laundry	3	0.558	4,910	2,329	2,931	2,096	2,760	10,602	3,533.93	294.49
Market	19	1.040	9,147	7,808	9,828	8,719	11,483	30,458	1,603.04	133.59
Medical Office	21	0.667	5,864	973	1,000	600	790	7,654	364.47	30.37
Residential	7,113	350.493	3,081,850	1,096,131	1,379,714	1,213,052	1,597,660	6,059,224	851.85	70.99
Restaurants	14,400	31.536	277,293	341,902	430,356	184,101	242,472	950,121	65.98	5.50
Schools	2,500	6.844	60,176	9,988	12,572	9,988	13,155	85,904	34.36	2.86
Service Stations	26	4.318	37,967	8,643	10,878	12,604	16,600	65,446	2,517.14	209.76
Supermarkets	2	1.533	13,480	11,826	14,885	12,785	16,838	45,203	22,601.65	1,883.47
Theaters	0	0.000	0	0	0	0	0	0	0.00	0.00
SPECIAL	57	3.225	28,355	5,379	6,770	6,454	8,501	43,626	765.37	63.78
<b>TOTALS</b>		<b>482.462</b>	<b>4,242,242</b>	<b>1,680,036</b>	<b>2,114,458</b>	<b>1,605,620</b>	<b>2,114,696</b>	<b>8,471,396</b>		