Marina Coast Water District Water, Wastewater and Recycled Water Capacity Fee Study Draft November 25, 2019



Marina Coast Water District & MCWD Groundwater Sustainability Agency



BARTLE WELLS ASSOCIATES



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November 25, 2019

Mike Wegley District Engineer 11 Reservation Road Marina, CA 93933

RE: Revised Final Draft Water, Wastewater and Recycled Water Capacity Fee Study

Bartle Wells Associates (BWA) is pleased to submit the attached *Water, Wastewater and Recycled Water Capacity Fee Study*. The report develops updated water, wastewater and recycled capacity fees that are designed to equitably recover the costs of infrastructure and assets benefiting new development. Results were developed in conjunction with the 2019 Master Plan provided by Akel Engineering.

The District's prior capacity fee study was completed in September 2013 and recommended fees based on Equivalent Dwelling Unit for both water and wastewater. Recycled water assets and capital were included in the total for the water capacity fee. BWA has updated the fee calculation, EDU estimates, and water use factors.

A summary of proposed fees is shown on Table 11 of this report. The proposed fee calculation includes total fixed assets divided among all projected users in the near-term (2035) plus expansion-related capital projects divided by future users in the near-term.

Proposed Fees

Central Marina

- Water, \$/EDU: \$5,741
- Sewer, \$/EDU: \$2,791

Ord Community

- Water, \$/EDU: \$19,104
- Sewer, \$/EDU: \$5,930

We have enjoyed working with the District on this assignment and appreciate the input and assistance received from District staff throughout the project. Please contact us anytime if you have questions about this report or related impact fee issues.

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SUPPORTING DOCUMENTS

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1 Introduction, Background, and Government Code

1.1 Background

The Marina Coast Water District (District) retained AKEL Engineering to update its water, sewer and recycled water master plans. As subconsultants to AKEL, Bartle Wells Associates (BWA) has been retained to update the District's water, wastewater and recycled water capacity fees based on the new master plans. The current set of capacity fees were adopted in 2013 and have not been increased.

The District operates public water and sewer utilities that provide service to approximately 38,000 residents and associated public and commercial activities within the District's service area. Customers are located in two service areas, Central Marina (Marina) and the Ord Community (Ord). District operations are further split between water and sewer, resulting in four cost centers, Marina Water, Marina Sewer, Ord Water and Ord Sewer. The cost centers are maintained as separate enterprises and have distinct user rates and capacity fees. This report documents the methodology and assumptions used to develop updated capacity fees for the four enterprises.



1.2 Government Code

Capacity fees are governed by California Government Code Section 66000 et. seq This section of the Code was initially established by Assembly Bill 1600 (AB 1600) and is commonly referred to as the Mitigation Fee Act. Pursuant to the Code, a capacity fee is not a tax or special assessment but is instead a fee levied to defray the cost of public facilities needed to serve a new development.

Section 66013 of the Code specifically governs water and wastewater capacity fees. This section of the Code defines a "capacity charge" to mean "a charge for public facilities in existence at the time a charge is imposed or charges for new public facilities to be acquired or constructed in the future that are of proportional benefit to the person or property being charged." The Code distinguishes "capacity charges" from "connection fees" which are defined as fees for the physical facilities necessary to make a water or wastewater connection, such as costs related to installation of meters and pipelines from a new building to a water or wastewater main.

According to the Section 66013, a water or wastewater capacity fee "shall not exceed the estimated reasonable cost of providing the service for which the fee or charge is imposed" unless approved by a two-thirds vote of the electorate. As such, the capacity fees calculated in this report represent the maximum fees that the District can levy. Section 66013 does not detail any specific methodology for calculating capacity fees.

Section 66016 of the Code identifies the procedural requirements for adopting or increasing water and wastewater capacity fees and Section 66022 summarizes the general process by which the fees can be legally challenged.

2 Capacity Fee Methodology

2.1 Current Capacity Fees

The District's current capacity fees were last evaluated by Carollo Engineers in a September 2013 report which calculated fees using a combined buy-in and future cost approach. Recycled water infrastructure and capital are included in the water capacity fee calculation. Current fees are shown in Table 1.

Table 1: Current Capacity Fees

Residential Fees		
Water Capacity Fees	<u>Marina¹</u>	Ord ¹
Water Capacity Fee (per EDU)	\$4,526	\$8,010
Sewer Capacity Fee (per EDU)	\$2,333	\$3,322

1 Last updated 2013, does not include regional wastewater fees

2.1.1 Current EDU Calculation Methodology

The District's current capacity fees are charged based on an Equivalent Dwelling Unit (EDU) Evaluation of each customer.

Water EDUs are assigned per the District's Appendix C document (attached).

Wastewater EDUs are assigned as follows: Each residential connection including single family, multiple dwelling, condominium, trailer spaces and mobile homes is equal to one EDU. Non-residential wastewater EDUs are calculated based on plumbing fixture units at a current conversion rate of 20 fixture units per EDU. For each hotel/motel unit, a minimum of one EDU per room is applied. Each non-residential connection is a minimum of one EDU.

2.2 Facility Cost Valuation

There are a number of widely used methods for valuing infrastructure and assets for cost recovery via capacity fees. BWA developed the capacity fees in this report using an asset valuation approach known as Replacement Cost New Less Depreciation (RCNLD) – This approach escalates the depreciated accounting book value of each asset escalated into current dollars based on the change in the Engineering News-Record (ENR) Construction Cost Index from each asset's acquisition date. The ENR index is a widely used index for determining construction cost inflation. Asset values for each cost center were determined using the 2018 CAFR value escalated to current dollars less water rights, easements and depreciation.

2.3 Capacity Fee Calculation Overview

While the current fee calculation methodology is a widely used and generally appropriate way to recover the future share of the District's utility system assets and development costs, BWA proposes that the District adopt a more comprehensive cost recovery approach as summarized below.

Current Methodology: Average Cost

Existing Asset Value + Total CIP Total Units

Proposed Methodology: Hybrid Buy-In + Marginal Future Cost

 $\frac{Existing \ Asset \ Value}{Total \ Units} + \frac{Future \ User \ Share \ of \ CIP}{Future \ Units}$

2.3.1 Current Methodology: Average Cost Approach

The current capacity fees were calculated with an *average cost approach* fees using the District's existing system, future projects and buildout projections. Under this approach, new connections pay an average cost of the total value of the system escalated to current dollars and the total Capital Improvement Plan. The fees are calculated based on the total cost of facilities plus total CIP divided by the total capacity the District is projected to serve through build-out. This is a widely used and accepted approach for calculating capacity fees but may not comprehensively recover the future share of existing assets and development from future users. BWA recommends that the District adopt the proposed methodology for capacity fees in the future, as summarized in Section 2.3.2.



2.3.2 Proposed Methodology: Hybrid Buy-In + Marginal Future Cost Methodology

Under the proposed approach, new connections buy in to the District's current system based on an average share of the total system, including the value of each enterprise's assets escalated to current dollars and the present value of CIP benefiting all users. New connections also pay for the future cost of expansion by adding the present value of future CIP to the fee basis. The fees are calculated based on the total cost of facilities divided by the total capacity the District is projected to serve through the near-term (2035) plus future CIP divided by future capacity in the near-term. This fee would comprehensively recover the development share of existing facilities and CIP benefiting future users.

3 Capacity Fee Calculation

3.1 System Buy-In Component – Existing Assets

Under the methodology described in Section 2, updated capacity fees are designed to recover the cost of existing water, wastewater and recycled water system facilities and assets (in current dollars) as well as the cost of system upgrades and expansion needed to serve the District through 2035. Since a detailed list of assets was not available at the time of this study, BWA used the District's FY 2018 Comprehensive Annual Financial Report (CAFR) for the current value of each system's fixed assets by escalating the values in the latest audit to current dollars for the FY 2019 Fiscal Year. Non-depreciable assets such as water rights and easements are not included in the asset valuation.

3.2 Future Cost Component – Capital Improvement Projects

The District's 2019 Master Plan outlines the capital improvements needed for each utility to reach near-term buildout in 2035. These projects include upgrades, expansions, regular maintenance, and new facilities. The Master Plan divides project costs into two benefit groups: current customers and future customers. The present value of capital improvements benefiting future customers is included in the capacity fee calculation. Capital Improvement Projects are summarized in Table 2 and provided in the Master Plan developed by Akel Engineering.

		Nearterm 2035 CIP	
	Allocation to Existing	Allocation to Future	Total to Nearterm
Marina Water CIP	\$1,678,000	\$292,000	\$1,970,000
Marina Share Combined Water CIP	\$13,891,560	\$5,095,440	\$18,987,000
Ord Water	\$7,914,500	\$18,529,500	\$26,444,000
Ord Share Combined Water CIP	\$5,829,840	\$3,843,160	\$9,673,000
Total Water CIP	\$29,313,900	\$27,760,100	\$57,074,000
Marina Recycled Water (Adjusted) ¹	\$8,162,000	\$5,723,458	\$13,885,458
Ord Recycled Water (Adjusted) ¹	\$7,238,000	\$41,231,891	\$48,469,891
Total Recycled CIP	\$15,400,000	\$46,955,349	\$62,355,349
Total Marina Water ²	\$23,731,560	\$11,110,898	\$34,842,458
Total Ord Water ²	\$20,982,340	\$63,604,551	\$84,586,891
Marina Wastewater	\$5,033,148	\$2,166,654	\$7,199,802
Marina Share Combined Wastewater CIP	\$91,520		\$91,520
Ord Wastewater	\$14,850,151	-	\$34,401,672
Ord Share Combined Wastewater CIP	\$124,780	\$0	\$124,780
Total Wastewater CIP	\$20,099,599	\$21,718,175	\$41,817,774
Total Marina Wastewater	\$5,124,668	\$2,166,654	\$7,291,322
Total Ord Wastewater	\$14,974,931	\$19,551,521	\$34,526,452

Table 2: Capital Improvement Plan Summary

1 - Includes future interest costs, excludes capital contributions and grants See Table 2B

2 - Includes Water & Recycled Water CIP

See 2019 Master Plan, AKEL Engineering for Detail

Table 3 summarizes the adjustments made to the Recycled Water Capital Plan. Capital contributions and grants have been removed from the total project cost and the future user portion of interest costs on three proposed loans have been added to the total project cost. Existing users will pay their share of interest costs on the proposed loans through rates rather than capacity fees. Rates and debt service are paid annually whereas capacity fees are paid upfront for the entirety of the project, so total future interest costs are included in the project cost.



	Nearterm 203	5 Recycled Water CIP	
	Central Marina	Ord Community	Tota
Existing Users	\$0	\$0	\$0
Future Users			
Capital Improvement Project Cost	\$3,164,723	\$37,634,141	\$40,798,864
Plus Future Interest Costs ¹	\$996,206	\$11,846,641	\$12,842,847
(Less Capital Contributions & Grants)	(\$875,471)	(\$10,410,891)	(\$11,286,362)
Total Future Users	\$3,285,458	\$39,069,891	\$42,355,349
	\$3,285,458	\$39,069,891	\$42,355,349
Total Recycled Water Capital Improvement Pla	n (Nearterm)		
	Central Marina	Ord Community	Total
Existing Users	\$8,162,000	\$7,238,000	\$15,400,000
Future Users	\$5,723,458	\$41,231,891	\$46,955,349
	\$13,885,458	\$48,469,891	\$62,355,349
1 - 3 loans to fund RW projects, 30 year terms:			
\$18m @ 1.8% interest Year 1, \$11.5m @ 2.5%	6 interest Year 6, \$4.5m @ 3% ii	nterest Year 12 respectiv	ely
Source: MCWD			
Source - 2019 Master Plan, AKEL Engineering an	d MCWD Estimates		

Table 3: Recycled Water CIP Detail

Table 4 lists capital improvement projects that are included in the 2019 Master Plan but excluded from capacity fees. These projects are attributable to a single development.

Table 4: Master Plan CIP Projects Excluded from Capacity Fees

Projects attributable to a single development							
Marina Central - Water	Allocation to Existing	Allocation to Future	Total to Nearterm				
M-P3	\$0	\$2,997,000	\$2,997,000				
Total Water	\$0	\$2,997,000	\$2,997,000				
Ord Community - Water							
O-P7	\$0	\$2,108,000	\$2,108,000				
O-P9	\$0	\$535,000	\$535,000				
O-P10	\$0	\$4,312,000	\$4,312,000				
O-P25	\$0	\$5,349,000	\$5,349,000				
Total Ord Water	\$0	\$12,304,000	\$12,304,000				
Total Water	\$0	\$15,301,000	\$15,301,000				
Ord Community - Sewer							
O-P15	\$0	\$2,046,300	\$2,046,300				
Total Ord Sewer	\$0	\$2,046,300	\$2,046,300				
Total Sewer	\$0	\$2,046,300	\$2,046,300				
Total Exclusions	\$0	\$17,347,300	\$17,347,300				

See 2019 Master Plan, AKEL Engineering for Project Details

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3.3 Proposed Updates to Water Use Factors

3.3.1 Estimated Water Demand per EDU

Marina Coast WD currently defines a water equivalent dwelling unit as the amount a typical residential dwelling would use in a year or 0.33 AF per year. For non-residential development, the District utilizes "Appendix C, Assigned Water Use Factors for Determining Water Capacity Charges" to estimate the annual water use for various types of customers.

The District recently reviewed and updated its water use factors based on 0.28 AF per year. The updated Appendix C is provided following this report.

3.3.2 Estimated Sewer Flow per EDU

Table 5 summarizes the sewer flow per person in the District between 2010 and 2016. The sewer flow trend is downward during this period and the average sewer flow per person is 63 gallons. The District estimates a typical household population of 2.8 persons. Thus, the typical sewer flow from a single-family home is estimated at 174 gallons per day. BWA recommends that the District establish 174 gallons per day as the flow for one EDU.

Estimated population per household: 2.8 people.

		Sewer Flow
Year	Population	gpdc
2010	30,840	68
2011	31,141	67
2012	31,445	64
2013	31,752	64
2014	32,062	61
2015	32,375	56
2016	33,346	<u>58</u>
Average		63

ADWF sewer flow per day per person, the average from 2010 to 2016 is 63 gpcd. The sewer flow trend is downward from approximately 68 gpcd in 2010 to 58 gpcd in 2016.

Source: AKEL Engineering

3.4 Current and Projected Customers to Near-Term

Table 6 shows current and projected customers in EDUs. Water EDUs were calculated using AKEL Engineering and District updated estimates of average day demand at 0.28AF/yr/EDU and average day demand growth factors from present day to near-term growth in 2035. Wastewater EDUs were calculated using 0.195 AFY/EDU (or 174 gallons per day per BWA's findings in Section 3.3.2) and average day demand growth factors from present day to near-term growth in 2035.

The District is expecting significant growth to near-term buildout in 2035 per the projections in the latest Sewer Master Plan. BWA evaluated several methodologies for customer growth and concluded that the most reasonable methodology to apply is the projected change in average day demand from 2019 to near-term buildout, representing 24% growth in Marina and 79% growth in Ord between now and 2035. Average Day Water Demand projections are also shown in Table 6.

	Average Day Den	nands - Water		
	Central Marina	Ord Community	Total	
Development Horizon	(mgd)	(mgd)	(mgd)	
Existing (2019)	1.98	1.26	3.24	-
Nearterm (to 2035)	2.46	2.25	4.71	
Buildout (to 2050)	2.46	5.81	8.27	,
% Growth to Near Term	24%	79%	45%	-
% Growth to Buildout	24%	361%	155%	_
		Estimated EDUs @	0.28	AFY/EDU
			250	gpd
	Central Marina	Ord Community	Total	
Development Horizon	(EDU)	(EDU)	(EDU)	
Existing (2018)	7,921	5,041	12,962	
Nearterm (to 2035)	9,841	9,001	18,842	
Buildout (to 2050)	9,841	23,243	33,084	ļ
% Growth to Near Term	24%	79%	45%	-
% Growth to Buildout	24%	361%	155%	_
	Average Day Use			
Development underer	Central Marina	Ord Community	Total	
Development Horizon	(mgd) 1.10	(mgd) 0.90	(mgd) 2.00	-
Existing (2018) Nearterm (to 2035)	1.10	1.58	2.00	
Buildout (to 2050)	1.29	3.76	5.05	
Bundout (10 2030)	1.25	5.70	5.05	
% Growth to Near Term	17%	76%	44%	-
% Growth to Buildout	17%	318%	153%	_
		Estimated EDUs @	0.195	AFY/EDU
			174	gpd
	Central Marina	Ord Community	Total	
Development Horizon	(EDU)	(EDU)	(EDU)	_
Existing (2018)	6,322	5,172	11,494	ļ
Near Term (to 2035)	7,414	9,080	16,494	
Buildout (to 2050)	7,414	21,609	29,023	
% Growth to Near Term	17%	76%	44%	-

Table 6: Water Demand Projections & EDUs to Near-Term

ande - Ma

Source: Akel Engineering flow & use estimates, MCWD use factors

% Growth to Buildout



17%

318%

153%

Water and Wastewater EDUs were both estimated using these demand projections. EDU growth projections are summarized in Table 7.

Nearterm 2035 ¹ 24% 17%	Nearterm 2035 1,920 1,092	
	· · · · · ·	9,841 7,414
	· · · · · ·	-
17%	1,092	7,414
79%	3,961	9,001
76%	3,908	9,080
45%	5,881	18,842
44%	5,000	16,494
	76%	76% 3,908 45% 5,881

Table 7: Projected EDUs to Near-Term

3.5 Wastewater Capacity Fee Calculation

Table 8 shows the detailed calculation of the District's updated capacity fees using the methodology described in Section 2.3.2 and updated information described above in Section 3. Recycled Water assets and CIP are included in the water capacity fee featuring adjustments described in Section 3.2. Fees were calculated using EDUs to near-term as a dividing factor. Additional tables which provide further detail are provided following this report.



Table 8: Proposed Capacity Fee Calculation – Hybrid Buy-In + Marginal Future Cost

201	0		recovers dev	ela	opment share	of e	existing facilit	ies	+ future CIP
	-	64	arina Water		Ord Water		larina Sewer		Ord Sewe
Existing Asset Component - Applies to All Users	r Auj.	IVI	anna water		oru water	IV.	anna sewer		oru sewe
	A 4%	¢	29 329 840	¢	119,244,541	¢	11 566 871	¢	39,849,292
<u> </u>				- 2	(12,229,952)	- C.		- C.	(4,179,314
3 RCNLD of Water Infrastructure in Service (sum of 1 to 2)				_	107,014,589				35,669,978
Value of Other Depreciable Assets									
•	4.4%	Ś	-	Ś	(14,720,400)	Ś	-	Ś	(11,275,200
	4.4%	Ś	-	÷.	(59,977,800)		-		(15,973,200
6 RCNLD of Other Depreciable Assets (sum of 4 to 5)		\$	-		(74,698,200)		-		(27,248,400
7 Total Value of Capital Assets (3 + 6)		\$	12,053,654	\$	32,316,389	\$	5,979,786	\$	8,421,578
Existing and Future Customer Base- EDUS									
8 Total Existing EDUs			7,921		5,041		6,322		5,17
9 Number of Future EDUs to Nearterm - 2035			<u>1,920</u>		3,961		<u>1,092</u>		<u>3,90</u>
10 Total Number of EDUs to Nearterm (8+9)			9,841		9,001		7,414		9,08
11 Buy In Capacity Fee Component (7/10) \$/EDU		\$	1,225	\$	3,590	\$	807	\$	927
Future Cost Component - Applies to Future Users Only									
CIP allocated to Future Users - Nearterm 2035									
12 Water Master Plan		\$	5,387,440	\$	22,372,660	\$	-	\$	-
13 Sewer Master Plan		\$	-	\$	-	\$	2,166,654	\$	19,551,521
14 Recycled Water Master Plan ¹		<u>\$</u>	3,285,458	<u>\$</u>	39,069,891	<u>\$</u>	-	\$	-
15 Total Value of Future CIP to Nearterm (12+13+14)		\$	8,672,898	\$	61,442,551	\$	2,166,654	\$	19,551,521
Future Customer Base- EDUS									
16 Number of Future EDUs to Nearterm - 2035 (9)			1,920		3,961		1,092		3,90
17 Expansion Capacity Fee Component (15/16) \$/EDU		\$	4,517	\$	15,514	\$	1,984	\$	5,003
System Capacity Charge Results - EDUs									
18 Estimated System Capacity Charge (11+17) \$/EDU		\$	5,741	\$	19,104	\$	2,791	\$	5,930
19 Current Capacity Charge \$/EDU		\$	4,526	\$	8,010	\$	2,333	\$	3,322
20 Difference (18-19)		\$	1,215	\$	11,094	\$	458	\$	2,608
 - excludes Capital Contributions and Grants. Includes Interest Cost, See Table 20 CCI Adjusted Charge (Based on 2013 Charge) - \$/EDU 		\$	5,390	\$	9,540	\$	2,779	\$	3,956
ENR CCI 20-Cities Avg 2019/2013									



3.6 Estimated Plumbing Fixture Units per EDU

Many agencies, including the District, assign non-residential sewer EDUs based on the count of plumbing fixture units in a new building. Plumbing fixtures are defined in Chapter 7 of the California Plumbing Code (CPC) and various plumbing units are assigned fixture unit counts based on the relative flow associated with that unit. For example, a clothes washer is assigned 3 fixture units and a kitchen sink is assigned 2 fixture units. The District currently equates one EDU with 20 fixture units. As shown in Table 9, a typical single-family home with two bathrooms is currently rated at 19 DFUs based on Table 702.1 of the 2016 CPC. BWA recommends that the District update its fixture unit allocation per EDU to 19 fixture units.

Fixture Type	Quantity	DFU (1)	Total DFU				
Bathtub(with or without shower)	1	2	2				
Clothes Washer	1	3	3				
Dishwasher	1	2	2				
Lavatory Sink	2	1	2				
Shower (single)	1	2	2				
Kitchen Sink	1	2	2				
Toilet (1.28 gal per flush)	2	3	6				
Fixture Units in a Typical Single	Family Residence	=	19				
DELL Designers Finture Units on defined in Charter 7 of California Diversion Code							

 Table 9: Estimated Plumbing Fixture Units per EDU

1. DFU=Drainage Fixture Units as defined in Chapter 7 of California Plumbing Code

3.7 Accessory Dwelling Units

Recently enacted state law, Government Code Section 65852.2 (SB 1069) effective January 1, 2018, requires that the capacity fees charged to ADUs must proportionately account for impact on services based on the ADU's size or number of plumbing fixtures. Table 10 summarizes an example calculation for a hypothetical ADU containing a kitchen sink, bathroom (lavatory) sink, 1.28 gpf toilet and a shower. The ADU in this example would have a rating of 8 fixture units.

Table 10: Example Fixture Unit Calculation for Accessory Dwelling Unit

Fixture Type	Quantity	DFU (1)	Total DFU
Bathtub(with or without shower)	0	2	0
Clothes Washer	0	3	0
Dishwasher	0	2	0
Lavatory Sink	1	1	1
Shower (single)	1	2	2
Kitchen Sink	1	2	2
Toilet (1.28 gal per flush)	1	3	3
Fixture Units in Exam	ple ADU		8

1. DFU=Drainage Fixture Units as defined in Chapter 7 of the California Plumbing Code

3.8 Other Sewer EDU updates

MCWD proposes to revise the Water Code regarding sewer EDU calculations as follows:

- Each nineteen (19) fixture units are equivalent to one (1) equivalent dwelling unit -(EDU).
- Each Single-Family Residential connection is one (1) EDU
- Each Multi Family Residential Connection (multiple dwelling, condominium, trailer space or mobile home) is 0.8 EDU
- Each nonresidential connection is a minimum of one (1) EDU. -
- Hotels are considered non-residential units _
- Updated Sewer Flow per EDU = 62gpd * 2.8 persons/household = 174gpd/EDU -

4 **Conclusion and Recommendations**

4.1 Summary of Proposed Fees

Table 11 provides a summary of findings per the methodology and District information detailed in this report. BWA has calculated fees on a \$/EDU basis using the proposed methodology described in Section 2.3.2 and calculated in Table 8.

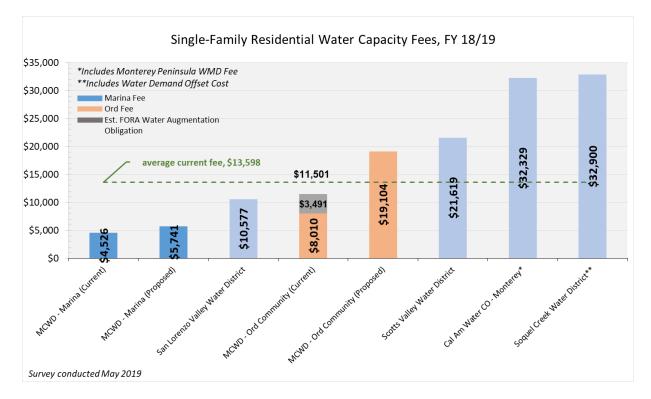
Marina	Central		
Proposed Capacity Fees - Hybrid Approach (Nearterm)	Current	Proposed	\$ Increase (Decrease)
Water Capacity Fee - \$/EDU	\$4,526	\$5,741	\$1,215
Sewer Capacity Fee - \$/EDU	\$2,333	\$2,791	\$458
Total Capacity Fee	\$6,859	\$8,532	\$1,673
Ord Con	nmunity		
	innunity		
Proposed Capacity Fees - Hybrid Approach (Nearterm)	Current	Proposed	\$ Increase (Decrease)
Water Capacity Fee - \$/EDU	\$8,010	\$19,104	\$11,094
Sewer Capacity Fee - \$/EDU	\$3,322	\$5,930	\$2,608
Total Capacity Fee	\$11,332	\$25,034	\$13,702
Non Residential Water Fees			
Each EDU is equivalent to 0.28 Acre foot water use per year.			
Refer to MCWD "Appendix C" for assigned water use factors			
Non Residential Sewer Fees			
Each nineteen (19) fixture units are equivalent to one (1) equ	uivalent dwelling un	it (EDU).	
Each Single Family Residential connection is one (1) EDU			
Each Multi Family Residential Connection (multiple dwelling, cor	ndominium, trailer sp	ace or mobile ho	me) is 0.8 EDU
Each nonresidential connection is a minimum of one (1) EDU.			
Hotels are considered non-residential units and are a minimum o	of one (1) EDU		

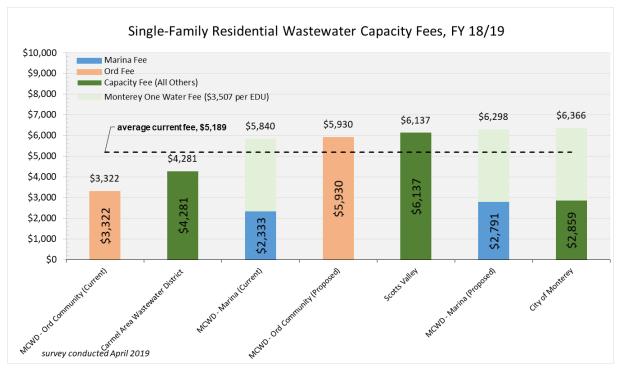
Table 11: Summary of Proposed Fees

Updated Sewer Flow per EDU = 62gpd * 2.8 persons/household = 174gpd/EDU

4.2 Capacity Fee Survey of Surrounding Agencies

BWA conducted a capacity fee survey of surrounding water and wastewater agencies to compare with the District's proposed fees. The results are shown below.





4.3 Conclusion

BWA finds that the proposed fees follow generally accepted fee design criteria and adhere to the substantive requirements of government code. BWA recommends that the District adopt the fees enclosed in this report by following the procedure to increase capacity fees as follows:

- 1. Create a nexus study to determine equitable capacity fees (Done by BWA)
- 2. Set notice the date of a public hearing as required in Government Code
- 3. Send notice of hearing to developers if specifically requested in writing
- 4. Hold public hearing and adopt new capacity fees via Resolution
- 5. Fees may become effective not less than 30 days after adoption

4.4 Future Fee Adjustments

In future years, BWA recommends that the District update its capacity fees annually by adjusting the fees by the change in the Engineering News-Record Construction Cost Index (20-Cities Average) to account for future construction cost inflation. Additionally, the District should review and consider updating its capacity fees when substantial revisions are made to anticipated capital improvement costs or to substantial changes in projected demand. In general, BWA recommends that capacity fees be independently reviewed and/or updated approximately once every five years.