

Marina Coast

Water District

Recycled Water Rate Study

Final Report / March 29, 2022



March 14, 2022

Remleh Scherzinger
General Manager
Marina Coast Water District
11 Reservation Road
Marina, CA 93933

Subject: Recycled Water Study Report

Dear Mr. Scherzinger,

Raftelis Financial Consultants, Inc. (Raftelis) is pleased to provide this Recycled Water Rate Study Report (Report) for the Marina Coast Water District (District) to establish initial water rates for the newly operational recycled water system that are cost-justified and based on industry standards.

The major objectives of the study include the following:

- Identify the forecasted expenses (i.e. revenue requirements) for the new utility,
- Forecast multi-year recycled water connections and water demand,
- Develop five years of rates to equitably recover costs from recycled water customers

The Report summarizes the key findings and rate recommendations related to the development of recycled water rates.

It has been a pleasure working with you, and we thank you and the District staff for the support provided during the course of this study.

Sincerely,

Kevin Kostiuk
Manager

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1. Introduction

1.1. System Overview

In 2020, the Marina Coast Water District (District) engaged Raftelis to conduct a rate study for the soon-to-be operational recycled water utility. The District had previously entered into an agreement with Monterey One Water (M1W) to take delivery of up to 1,427-acre feet (AF) of produced recycled water per year. The District will be billed periodically by M1W for their share of the costs incurred by M1W for the operation of their recycled water treatment facility, including operations and maintenance (O&M) costs, annual renewal reserve requirements, and debt service. The District operates and maintains a transmission system for the recycled water, for which they incur ongoing O&M costs and debt service. A portion of these costs is reimbursed by M1W. The District also recently completed a local distribution system to serve its retail customers which is the sole responsibility of the District.

The major objectives of the study include the following:

- Identify the forecasted expenses (i.e. revenue requirements) for the new utility,
- Forecast multi-year recycled water connections and water demand,
- Develop five years of rates to equitably recover costs from recycled water customers

This report summarizes the key findings and rate recommendations related to the development of the financial plan for the recycled water utility and the development of the cost-based recycled water rates.

1.2. Rate Setting Methodology

This study adheres to the rate-setting methodology requirements of Prop 218, although based on the opinion of the District's legal counsel the rates established through this study are not subject to Prop 218 procedural requirements of public notice and holding a public protest hearing at this time. The conventional process in establishing or changing water rates by a public water district requires that a Proposition 218 public notice be sent to all parcel owners connected to the District's Recycled Water System listed on the most recent equalized assessment tax roll of the County. The notice informs the parcel owners of the proposed rates, the reason for the established rates, and how the rates were calculated. The notice also provides the dates for a public hearing for the District to receive input from the parcel owners and ratepayers before any rate or rate change is adopted.

As stated in AWWA's *Principles of Water Rates, Fees, and Charges: Manual of Water Supply Practices M1*, 6th edition (*M1 Manual*), "water rates and charges should be recovered from classes of customers in proportion to the cost of serving those customers." Proposition 218 requires that rates cannot be arbitrary, meaning that the rate-setting methodology must be sound and that there must be a nexus between the costs and the rates charged. This study follows industry-standard rate-setting methodologies set forth by the *M1 Manual*, adhering to cost of service principles.

The District's recycled water system benefits its potable customers. The system will alleviate pressure on the District's potable water source, local groundwater. In reducing the extraction of groundwater, the recycled water system will help drive down potable demands over time by converting existing irrigators. This will help the District achieve the water demand targets within the 2020 Urban Water Management Plan (UWMP) and assist in achieving long-term groundwater sustainability goals in the future Groundwater Sustainability Plan (GSP), a part of implementing the

Sustainable Groundwater Management Act (SGMA) of 2014. This benefit and nexus to potable users have been confirmed in case law, particularly the Pajaro decision of 2013.¹

As part of the process, eligible parcels are determined on whether the fee or charge can be presently imposed, or immediately available to, the owner of the property in question. There are no parcels within the District that currently meet the criteria identified Under Cal. Const. Art. XIII D, Sec. 6 as an eligible parcel. Because the district currently has no current recycled accounts and cannot identify any parcels that can receive “immediate service” the District will send the notices to those irrigation accounts that can acquire service at some later date. If a parcel owner submits a written comment regarding the rates to the District those comments will be provided to the Board at the time of the hearing.

2. Recycled Water Expenses

A review of the Recycled Water fund’s revenue requirements is a key step in the rate study process. This section of the report provides a discussion of the payments to M1W for recycled water production, estimates of District O&M costs, and debt service incurred to construct the system. Numbers shown in all the tables of this section are rounded, therefore, hand calculations based on the displayed numbers, such as summing or multiplying, may not equal the exact results shown.

The Study period is for Fiscal Years (FY) 2023 to FY 2027. Most tables in the report also FY 2022, the current fiscal year, and, in places, FY 2021 the most recent year of actual expenses. For all cost-of-service analyses in this report, the rate-setting year is FY 2023, the first year the District expects to have customers connected to the recycled water system and revenues generated from recycled water rates.

2.1. Cost Inflation

Expenses associated with payments to M1W were provided by District staff for FY 2022. The study assumes that these costs will increase at 5% per year for O&M costs and 6% per year for capital renewal reserve contributions. District costs associated with transmission, distribution, and administrative overhead are forecasted to increase at 5%.

Figure 2-1: Inflation Factors

Escalation Rates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast
M1W Costs						
Renewal Reserve	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%
O&M	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
MCWD Costs						
System Operations	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Administration	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%

Griffith v. Pajaro Valley Water Management Agency

2.2. Reserve Policy

A reserve policy is a document that provides a basis for the District to manage with unanticipated reductions in revenues, offset fluctuations in costs of providing services, and emergencies such as asset failure and natural disaster. It also provides guidelines for sound financial management with an overall long-range perspective to maintain financial solvency and mitigate financial risks. Additionally, adopting and adhering to a sustainable reserve policy enhances financial management transparency and helps achieve or maintain a certain credit rating for existing and future debt.

The appropriate amount of reserves and reserve types are determined by a variety of factors, such as the size of the operating budget, the amount of debt, the type of rate structure, frequency of customer billings, age of infrastructure, evaluation of critical assets, and risk of natural disaster. In the District's case, most expenses associated with providing recycled water are related to annual debt service payments, which have their own required reserve funding requirements that are included in the cost of providing service. Additionally, since the system is in new condition, there is little need for a capital repair and replacement program and any reserves that are associated with a long-term capital program. Due to these considerations, Raftelis recommends a modest reserve target consisting of the following two components:

Operating Reserve - 90 to 120 days of District recycled water operations and maintenance (O&M) expenses. This target aligns with the target of the potable water utilities. An Operating Reserve provides working capital for routine expenses incurred by the District in operating the recycled water system. The recommended target equals \$200,000 (approximately 120 days) and will be achieved over a period of four years by the proposed rates to smoothly and sustainably increase the degree of reserves.

Emergency Reserve – To ensure available funds to cope with any asset failure, while minimizing rates to future recycled water users, Raftelis recommends the District maintain a line of credit with a banking institution. For many agencies with similar service as the District, this has proven to be a low-cost option to manage risk without increasing the burden on ratepayers.

2.3. Treatment Costs

Figure 2-2 presents the District's share of M1W's most recent estimate of FY 2022 treatment costs. Per the existing contract, the District is responsible for a proportional share of O&M costs, such as power and chemicals, based on the amount of water the District actually takes (1,427 AF). Annual renewal reserves are determined using the proportion of predetermined production capacity the District reserved.

Figure 2-2: Forecast of Water Treatment Costs

Line	Treatment Costs	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
		Budget	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast
O&M								
1	<i>Power / Utilities</i>	\$ -	\$ 542,923	\$ 570,069	\$ 598,572	\$ 628,501	\$ 659,926	\$ 692,922
2	<i>Chemicals</i>	-	409,434	429,906	451,401	473,971	497,670	522,553
3	<i>Labor</i>	-	281,186	295,246	310,008	325,508	341,784	358,873
4	<i>Land Leases</i>	-	-	-	-	-	-	-
5	<i>Laboratory Analysis / Techn</i>	-	256,643	269,476	282,949	297,097	311,952	327,549
6	<i>Indirect Costs</i>	-	90,207	94,717	99,453	104,426	109,647	115,129
7	Subtotal: O&M	\$ -	\$ 1,580,393	\$ 1,659,413	\$ 1,742,384	\$ 1,829,503	\$ 1,920,978	\$ 2,017,027
8	Annual Renewal Reserve		\$ 212,011	\$ 224,732	\$ 238,216	\$ 252,509	\$ 267,660	\$ 283,719
9	Debt Service	\$ 382,615	\$ 732,474	\$ 732,474	\$ 732,474	\$ 732,474	\$ 732,474	\$ 732,474
10	SFR Reserve Funding		732,474	-	-	-	-	-
11	Total: Treatment Costs	\$ 382,615	\$ 3,257,353	\$ 2,616,619	\$ 2,713,074	\$ 2,814,486	\$ 2,921,111	\$ 3,033,220

2.4. Transmission Costs

Water transmission costs for the District include debt service payments on three bond issues that financed the construction of pipelines and other assets for delivering recycled water. The District also incurs ongoing O&M costs associated with the system. District staff conducted a detailed analysis of these costs, including replacement costs of various pieces of hardware and equipment as well as the labor costs necessary to carry out improvements. This local O&M cost is shown on Line 12 of Figure 2-3. M1W is responsible for a proportion of these costs based on the capacity of the transmission system. The District is allocated 1,427 AF out of 5,600 AF (recycled water taken, discussed more in Section 3), while M1W receives the remainder (4,173 AF / 5,600 AF = 74.5%). M1W also has an annual payment for existing pipeline facilities constructed by the District to be used as part of the recycled water transmission system, based on a value of \$1,002,400 to be paid over 30 years.

Figure 2-3: Forecast of Transmission Costs

Line	Transmission Costs	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
		Budget	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast
Debt Service								
MCWD 8184-110 SRF								
1	Principal	\$ -	\$ -	\$ 134,839	\$ 137,266	\$ 139,737	\$ 142,252	\$ 144,813
2	Interest	-	-	95,437	93,010	90,539	88,024	85,463
3	Subtotal:	\$ -	\$ -	\$ 230,276	\$ 230,276	\$ 230,276	\$ 230,276	\$ 230,276
MCWD 8184-110 Loan								
4	Principal	\$ -	\$ -	\$ 42,237	\$ 42,997	\$ 43,771	\$ 44,559	\$ 45,361
5	Interest	-	-	29,895	29,134	28,361	27,573	26,771
6	Subtotal:	\$ -	\$ -	\$ 72,132	\$ 72,132	\$ 72,132	\$ 72,132	\$ 72,132
2015 Bonds								
7	Principal	\$ 238,050	\$ 250,700	\$ 259,900	\$ 273,700	\$ 284,050	\$ 299,000	\$ 313,950
8	Interest	279,301	267,398	257,370	244,375	233,427	219,225	204,275
9	Subtotal:	\$ 517,351	\$ 518,098	\$ 517,270	\$ 518,075	\$ 517,477	\$ 518,225	\$ 518,225
10	Subtotal: Debt Service	\$ 517,351	\$ 518,098	\$ 819,678	\$ 820,483	\$ 819,885	\$ 820,633	\$ 820,633
11	Debt Service Reserve			\$ 302,408				
12	MCWD O&M	\$ -	\$ 46,988	\$ 49,337	\$ 51,804	\$ 54,394	\$ 57,114	\$ 59,969
Payment from M1W								
13	Existing Pipeline Facilities	\$ -	\$ (33,413)	\$ (33,413)	\$ (33,413)	\$ (33,413)	\$ (33,413)	\$ (33,413)
14	Share of O&M	-	(35,014)	(36,765)	(38,603)	(40,533)	(42,560)	(44,688)
15	Subtotal:	\$ -	\$ (68,427)	\$ (70,178)	\$ (72,016)	\$ (73,947)	\$ (75,973)	\$ (78,101)
16	Total: Transmission Costs	\$ 517,351	\$ 496,658	\$ 1,101,245	\$ 800,270	\$ 800,332	\$ 801,773	\$ 802,501

2.5. Distribution Costs

Costs to maintain the local distribution system used to serve recycled water customers are entirely the responsibility of the District. Costs include debt service on two borrowings as well as an estimate of O&M, determined through a similar analysis as the transmission O&M discussed above.

Figure 2-4: Forecast of Distribution Costs

Line	Distribution Costs	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
		Budget	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast
Debt Service								
MCWD 8184-120 SRF								
1	<i>Principal</i>	\$ -	\$ -	\$ 153,265	\$ 147,874	\$ 150,535	\$ 153,245	\$ 156,003
2	<i>Interest</i>	-	-	94,805	100,197	97,536	94,826	92,068
3	Subtotal:	\$ -	\$ -	\$ 248,071	\$ 248,071	\$ 248,071	\$ 248,071	\$ 248,071
MCWD 8184-120 Loan								
4	<i>Principal</i>	\$ -	\$ -	\$ 51,397	\$ 52,322	\$ 53,264	\$ 54,223	\$ 55,199
5	<i>Interest</i>	-	-	36,378	35,453	34,511	33,553	32,577
6	Subtotal:	\$ -	\$ -	\$ 87,775	\$ 87,775	\$ 87,775	\$ 87,775	\$ 87,775
7	Subtotal: Debt Service	\$ -	\$ -	\$ 335,846	\$ 335,846	\$ 335,846	\$ 335,846	\$ 335,846
8	Debt Service Reserve	\$ -	\$ -	\$ 335,846	\$ -	\$ -	\$ -	
9	MCWD O&M	\$ -	\$ 291,476	\$ 306,050	\$ 321,352	\$ 337,420	\$ 354,291	\$ 372,005
10	Total: Distribution Costs	\$ -	\$ 291,476	\$ 977,743	\$ 657,199	\$ 673,266	\$ 690,137	\$ 707,852

2.6. Administrative Overhead Costs

The District currently allocates administrative overhead costs such as engineering, laboratory, and finance department costs to each of the potable water and sewer utilities. The methodology is based on an analysis of direct operations costs for each operation and was completed most recently in conjunction with the District’s late rate study by Carollo Engineers; for example, Marina Water accounted for 24% of direct O&M costs in 2019 and is therefore allocated 24% of overhead costs. Raftelis updated this calculation to now include the recycled water utility. District staff indicated that the transmission and distribution work of the recycled system indicated above would primarily be performed within the Ord Water service area, offsetting costs in that department. In the Adj. O&M column of Figure 2-5, these costs are removed from Ord Water and transferred to the recycled utility and a new percent allocation is calculated in the column labeled Adj. Percent. This 3% factor is then applied to the allocable departments in Figure 2-6 to derive a total overhead cost of \$186,339 using the FY 2021 budget (the year available at the time this analysis was completed). This amount is escalated by 5% inflation, as discussed in section 2.1, before inclusion in the FY 2022 column of Figure 2-7.

Figure 2-5: Administrative Overhead Cost Allocation

Line	Administration Allocation	FY 2019			
		O&M	Percent	Adj. O&M	Adj. Percent
Utility					
1	Marina Water	\$ 2,888,624	24%	\$ 2,888,624	24%
2	Marina Sewer	684,419	6%	684,419	6%
3	Ord Water	6,914,178	57%	6,591,832	54%
4	Ord Sewer	1,710,054	14%	1,710,054	14%
5	Recycled	-	0%	322,346	3%
6	Total:	\$12,197,275	100.0%	\$12,197,275	100.0%

Figure 2-6: Recycled Utility Administrative Costs

Line	Administration Overhead	2021 Budget	Allocation Factor	Allocation
Admin Department				
1	Allocable	\$ 3,990,215	3%	\$ 105,452
2	Direct to Recycled	944,485		
3	Direct to W/WW	3,451,735		
4	Subtotal: Admin	\$ 8,386,435		
5	Laboratory Department	\$ 365,273	3%	9,653
6	Conservation Department	464,164	0%	-
7	Engineering Department	2,106,990	3%	55,683
8	Water Resources Department	588,429	3%	15,551
9	Total:	\$11,911,291		\$ 186,339

2.7. Total Revenue Requirements

Figure 2-7 summarizes the expenses presented in the preceding sub-sections. Line 17 of the forecast reflects the fact that SRF reserve contributions for the loans associated with the transmission and distribution systems will initially be funded by revenue from the District’s potable utilities, but will be repaid in the subsequent three years by recycled water ratepayers.

Figure 2-7: Revenue Requirement Summary

Line	Required Revenue	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
		Forecast	Forecast	Forecast	Forecast	Forecast	Forecast
Treatment							
1	MCWD Share of M1W O&M	\$ 1,580,393	\$ 1,659,413	\$ 1,742,384	\$ 1,829,503	\$ 1,920,978	\$ 2,017,027
2	MCWD Share of Renewal Replacement	212,011	224,732	238,216	252,509	267,660	283,719
3	MCWD Share of M1W SRF	732,474	732,474	732,474	732,474	732,474	732,474
4	MCWD Share of SRF Reserve	732,474	-	-	-	-	-
5	Subtotal	\$ 3,257,353	\$ 2,616,619	\$ 2,713,074	\$ 2,814,486	\$ 2,921,111	\$ 3,033,220
Transmission							
6	MCWD SRF	518,098	819,678	820,483	819,885	820,633	820,633
7	MCWD Share of MCWD O&M	11,973	12,572	13,201	13,861	14,554	15,281
8	M1W Share of Existing Pipeline	(33,413)	(33,413)	(33,413)	(33,413)	(33,413)	(33,413)
9	Debt Service Reserve	-	302,408	-	-	-	-
10	Subtotal	\$ 496,658	\$ 1,101,245	\$ 800,270	\$ 800,332	\$ 801,773	\$ 802,501
Distribution							
11	MCWD O&M	\$ 291,476	\$ 306,050	\$ 321,352	\$ 337,420	\$ 354,291	\$ 372,005
12	MCWD SRF	-	335,846	335,846	335,846	335,846	335,846
13	Debt Service Reserve	-	335,846	-	-	-	-
14	Subtotal	\$ 291,476	\$ 977,743	\$ 657,199	\$ 673,266	\$ 690,137	\$ 707,852
Additional Costs							
15	MCWD Administration Overhead	\$ 195,656	\$ 205,439	\$ 215,711	\$ 226,497	\$ 237,822	\$ 249,713
16	Reserve Funding	-	50,000	50,000	50,000	50,000	-
17	SRF Reserve Payback	-	(638,254)	212,751	212,751	212,751	-
18	Subtotal	\$ 195,656	\$ (382,815)	\$ 478,463	\$ 489,248	\$ 500,573	\$ 249,713
19	Total: Expenses	\$ 4,241,143	\$ 4,312,791	\$ 4,649,005	\$ 4,777,333	\$ 4,913,595	\$ 4,793,285
	<i>Increase</i>		1.7%	7.8%	2.8%	2.9%	-2.4%
						FY22 - FY27 CAGR	3.11%

3. Customer Demand

The second step of the rate-setting process is to develop a forecast of customer connections and their projected recycled water use. Since the recycled water system has only just been completed, District staff identified existing potable irrigation customers who will be converted to recycled water service over the next five years. Figure 3-1 shows the number of retail recycled customers, by meter size, in each year of the study period. The expected volumes

from these retail customers are shown in Figure 3-2, Line 1. Values are shown in both Centum Cubic Feet² (CCF) and AF. The District also expects to begin providing approximately 457 AF per year of recycled water to the Bayonet/Blackhorse Golf Course with a 6” metered connection.

The District is currently contracted with California State University, Monterey Bay (CSUMB) to provide 87 AF per year of recycled water. The rate for this water is determined by the contract; the first-year rate shall be equal to the 2017 Ord Tier 1 potable water rate plus an amount determined by the District’s cost to construct the onsite infrastructure necessary to deliver the water.

Although the District plans to purchase the maximum amount of water allowed from MIW, 1,427 AF per year, retail and university use is expected to plateau at approximately 752 AF in FY 2025, absent additional conversions or new customer connections. The District is currently negotiating with additional potential customers to provide recycled water under contract. The remainder of any water not sold will be used for other purposes by the District, such as groundwater replenishment. An estimate of District use is shown on Line 5 of Figure 3-2.

Figure 3-1: Forecast of Customer Connections

Line	Projected Customers	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
		Forecast	Forecast	Forecast	Forecast	Forecast	Forecast
Recycled Customers							
1	5/8"	-	-	-	-	-	-
2	3/4"	-	-	11	11	11	11
3	1"	-	-	23	23	23	23
4	1.5"	-	11	15	15	15	15
5	2"	-	1	6	17	17	17
6	3"	-	-	-	-	-	-
7	4"	-	-	-	-	-	-
8	6"	-	-	-	-	-	-
9	8"	-	-	-	-	-	-
10	Total: Retail Accounts	-	12	55	66	66	66
11	Golf Course - 6"	-	1	1	1	1	1

² A CCF is also known as Hundred Cubic Feet (HCF) which is 748 gallons and is the common billing unit for water utility service in the United States

Figure 3-2: Forecast of Recycled Water Volume

Line	Water Sales Summary	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
		Forecast	Forecast	Forecast	Forecast	Forecast	Forecast
Volume (Ccf)							
1	Retail	-	9,822	29,758	57,062	57,062	57,062
2	Golf Course	-	199,069	199,069	199,069	199,069	199,069
3	University	-	37,897	37,897	37,897	37,897	37,897
4	Contractual Customers	-	-	-	-	-	-
5	MCWD Utility Use	-	374,813	354,877	327,573	327,573	327,573
6	Total Purchased	-	621,601	621,601	621,601	621,601	621,601
Volume (AF)							
7	Retail	-	23	68	131	131	131
8	Golf Course	-	457	457	457	457	457
9	University	-	87	87	87	87	87
10	Contractual Customers	-	-	-	-	-	-
11	MCWD Utility Use	-	860	815	752	752	752
12	Total Purchased	-	1,427	1,427	1,427	1,427	1,427

4. Rate Design

Now that the revenue requirement has been determined in Section 2 and customer connections and demand have been forecasted in Section 3, rates can be designed to recover costs from customers. However, setting rates for a newly operational utility expected to phase in every customer in the near future presents a unique challenge. If FY 2023 rates were set using that year’s expenses *and* that year’s customer demand, the rates would be unreasonably high since all costs, which are primarily incurred on a fixed basis (costs that don’t vary with the number of customers, such as debt service), would be recovered from a small number of customers. Therefore, Raftelis and the District have derived the proposed rates using FY 2023 expenses and FY 2025 customer demand, which includes all customers currently expected to connect/convert to the recycled water system.

The FY 2023 revenue requirement from Figure 2-7 is first allocated between retail ratepayers (including the Golf Course) and contractual or utility use on the basis of volume demanded, shown in Lines 7 to 12 of Figure 4-1. These allocation factors are applied to each component of the revenue requirement. Rates will be set to recover the retail cost of \$1,777,089 on Line 6.

The overall average unit cost of recycled water in FY 2023 is \$6.94/CCF, determined by dividing the total revenue requirement by the total volume forecasted to be sold (\$4,312,791/621,601 CCF).

Figure 4-1: Retail Cost Allocation

Line	Cost Allocation to Retail	Allocation		Common to All Costs		
		Retail	Contractual / Potable	Retail	Contractual / Potable	Total
Cost Component						
1	Treatment	41.2%	58.8%	\$ 1,078,180	\$ 1,538,439	\$ 2,616,619
2	Transmission	41.2%	58.8%	329,161	469,676	798,837
3	Distribution	41.2%	58.8%	264,494	377,402	641,896
4	Overhead	41.2%	58.8%	84,651	120,788	205,439
5	Contribution to Reserves	41.2%	58.8%	20,603	29,397	50,000
6	Total:			\$ 1,777,089	\$ 2,535,703	\$ 4,312,791
FY 2025 Volume						
7	Retail	57,062	41.2%	Average Unit Ccf Cost: \$ 6.94		
8	Golf Course	199,069				
9	University	37,897				
10	Contractual	-	58.8%			
11	Potable	327,573				
12	Total:	621,601				

Once the retail revenue requirement has been determined, costs are assigned to different cost components shown in Figure 4-2. Costs assigned to the volume component will be recovered in the volumetric charge per CCF; costs assigned to the customer component are recovered equally from all customers on a fixed monthly basis, and capacity costs are recovered on a fixed basis from all customers that vary by meter size.

Raftelis allocated an amount of transmission and distribution costs to the capacity component in order to provide a reasonable level of fixed revenue to the District’s recycled water fund and to align proposed recycled water meter charges with the rates paid by connections to be converted. Transmission and, to a greater degree, distribution facilities are sized to meet peak capacity (sometimes called extra-capacity) demands and so it is reasonable and common practice to recover a portion of these costs through meter-based fixed charges. A portion of the overhead costs is allocated to customers to recover costs associated with meter reading, billing, and collections as determined by the District’s 2018 rate study and then inflated to FY 2023 cost levels.

After deriving the total costs by component in Line 6 of Figure 4-3, the costs are divided by the units of service: volume demanded, number of customers, and 5/8” | 3/4” equivalent meters. Volume and customers for FY 2025 are shown above in Tables 3-1 and 3-2; equivalent meters are derived in Figure 4-2. Meter flow rates for each meter size are divided by the flow rate for a 3/4” meter to develop the ratios shown in the Figure. Ratios are based on standard maximum hydraulic capacity ratios as provided by the American Water Works Association (AWWA) with maximum flow rates shown in gallons per minute (gpm). The ratio is then multiplied by the number of accounts at each meter size to determine the number of equivalent meters in the last column.

Figure 4-2: Equivalent Meter Calculation

Line	3/4" Equivalent Meters				
	Meter Size	AWWA Flow Rate (gpm)	Ratio	Accounts	Eq. Meters
1	5/8"	20.0	1.0	-	-
2	3/4"	30.0	1.0	11	11.0
3	1"	50.0	1.7	23	38.3
4	1.5"	100.0	3.3	15	50.0
5	2"	160.0	5.3	17	90.7
6	3"	350.0	11.7	-	-
7	4"	630.0	21.0	-	-
8	6"	1,300.0	43.3	1	43.3
9	8"	2,800.0	93.3	-	-
10	Total			67.0	233.3

The annual unit cost in Line 10 of Figure 4-3 is calculated by dividing the costs on Line 6 by the units on Line 9 for each cost component.

Figure 4-3: Retail Cost of Service

Line	Retail Cost of Service	Cost Components			Total
		Volume	Customers	Eq. Meters	
FY 2023 Expenses					
1	Treatment	100%		0%	\$ 1,078,180
2	Transmission	85%		15%	329,161
3	Distribution	85%		15%	264,494
4	Overhead	82%	18%	0%	84,651
5	Contribution to Reserves	100%		0%	20,603
6	Total	\$ 1,672,831	\$ 15,209	\$ 89,048	\$ 1,777,089
FY 2025 Units of Service					
7	Retail	57,062	66	190	
8	Golf Course	199,069	1	43	
9	Total	256,131	67	233	
10	Annual Unit Cost	\$ 6.53	\$ 227.00	\$ 381.64	
11	Monthly Unit Cost		\$ 18.92	\$ 31.80	

Figure 4-4 adds the customer and capacity components for each meter size to calculate the total monthly fixed charge. The equivalent meter unit cost for a 5/8" | 3/4" meter is multiplied by the AWWA capacity ratio for each meter size shown in Figure 4-2, while the customer unit cost is the same (uniform charge) for all customers as it costs the same to read, bill, and provide customer services to connections irrespective of the meter size.

Figure 4-4: Proposed Fixed Charges

Line	Proposed Fixed Charges	Rate Components		
		Customer	Capacity	Total
Meter Size				
1	5/8"	\$ 18.92	\$ 31.80	\$ 50.72
2	3/4"	18.92	31.80	50.72
3	1"	18.92	53.00	71.92
4	1.5"	18.92	106.01	124.93
5	2"	18.92	169.62	188.53
6	3"	18.92	371.03	389.95
7	4"	18.92	667.86	686.78
8	6"	18.92	1,378.13	1,397.04
9	8"	18.92	2,968.27	2,987.19

Figure 4-5 shows the proposed volume charge, which only includes the volume component unit cost shown in Line 10 above.

Figure 4-5: Proposed Volume Charges

Line	Proposed Volume Charges	Rate
Customer		
1	Retail	\$ 6.53
2	Golf Course	\$ 6.53

Figure 4-6 provides the proposed five-year rate schedule, starting with the FY 2023 rates shown in Figures 4-4 and 4-5. Based on the average increase in the recycled water fund’s revenue requirements (shown in Figure 2-7) Raftelis recommends increasing recycled water rates by 3.5% per year over the five-year horizon.

Figure 4-6: Five-Year Rate Forecast

Recycled Rate Forecast	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
	Forecast	Forecast	Forecast	Forecast	Forecast
Monthly Fixed Charge					
5/8"	\$ 50.72	\$ 52.50	\$ 54.34	\$ 56.25	\$ 58.22
3/4"	50.72	52.50	54.34	56.25	58.22
1"	71.92	74.44	77.05	79.75	82.55
1.5"	124.93	129.30	133.83	138.52	143.37
2"	188.53	195.14	201.97	209.04	216.36
3"	389.95	403.60	417.73	432.36	447.50
4"	686.78	710.82	735.70	761.45	788.11
6"	1,397.04	1,445.95	1,496.56	1,548.94	1,603.16
8"	2,987.19	3,091.75	3,199.97	3,311.97	3,427.89
Volume (per Ccf)					
Retail	\$ 6.53	\$ 6.76	\$ 7.00	\$ 7.25	\$ 7.51
Golf Course	6.53	6.76	7.00	7.25	7.51

5. Financial Plan Forecast

As discussed above, the-cost-of- service-based rates are designed to collect the full revenue requirement from retail ratepayers after all customers have completed their connections to the system. This means that in the first years of operation, revenue will only be collected from the first customers who are connected to the system at that time, leading to a shortfall in revenue compared to expenses that must be covered by the District’s potable utilities. Figure 5-1 shows a forecast of revenue to be collected from retail customers, the Golf Course, and CSUMB (as well as any yet-to-be contracted customers). Revenue varies greatly by year, increasing over time as new customers connect to the system as forecasted in Section 3. Figure 5-1 also forecasts recycled utility expenses, as summarized in Section 2. Line 12, the Net Potable Responsibility, represents the difference between retail revenue collected and expenses that must be funded by the District’s potable operations. It is important to note that the Net Potable Responsibility includes the direct take of recycled water for the potable utilities’ use. This volume is projected at 860 AF in FY 2023 and 752 AF in FY 2027.

Figure 5-1: Recycled Utility Cash Flow

Financial Plan Summary	Projected Financial Plan						
	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Recycled Rate Revenue							
Retail	\$ -	\$ -	\$ 82,902	\$ 265,964	\$ 493,164	\$ 510,713	\$ 528,949
Golf Course	-	-	1,316,915	1,363,059	1,411,443	1,461,839	1,514,248
Contractual	-	-	-	-	-	-	-
University	-	-	232,097	236,739	239,106	241,497	243,912
Total: Rate Revenue	\$ -	\$ -	\$ 1,631,914	\$ 1,865,762	\$ 2,143,713	\$ 2,214,049	\$ 2,287,108
Expenses							
Treatment	\$ 382,615	\$ 3,257,353	\$ 2,616,619	\$ 2,713,074	\$ 2,814,486	\$ 2,921,111	\$ 3,033,220
Transmission	517,351	496,658	1,101,245	800,270	800,332	801,773	802,501
Distribution	-	291,476	977,743	657,199	673,266	690,137	707,852
Overhead	-	195,656	205,439	215,711	226,497	237,822	249,713
Contribution to Reserves	-	-	50,000	50,000	50,000	50,000	-
Total: Expenses	\$ 899,966	\$ 4,241,143	\$ 4,951,046	\$ 4,436,254	\$ 4,564,581	\$ 4,700,843	\$ 4,793,285
Net: Potable Responsibility	\$ 899,966	\$ 4,241,143	\$ 3,319,132	\$ 2,570,492	\$ 2,420,868	\$ 2,486,794	\$ 2,506,177

Figure 5-2 provides more detail for FY 2023, the first year of service, and recycled water rates. The potable utility responsibility for fixed charge revenue, shown in Line 1, is the difference between the COS allocated amount determined in Figure 4-2 and the actual amount collected from retail customers in this year; the same explanation applies for Line 2. Line 3 is the difference between the cost of providing service to the university, calculated at the average of \$6.94 / CCF for approximately 38,000 CCF, and the amount the university is required to pay per the existing contract. The Potable Utility Use is also calculated using the average unit cost per CCD and the demand estimate from Figure 3-2. The potable responsibility for retail revenue shortfalls is projected to decrease to zero over time as more customers convert and connect to the system.

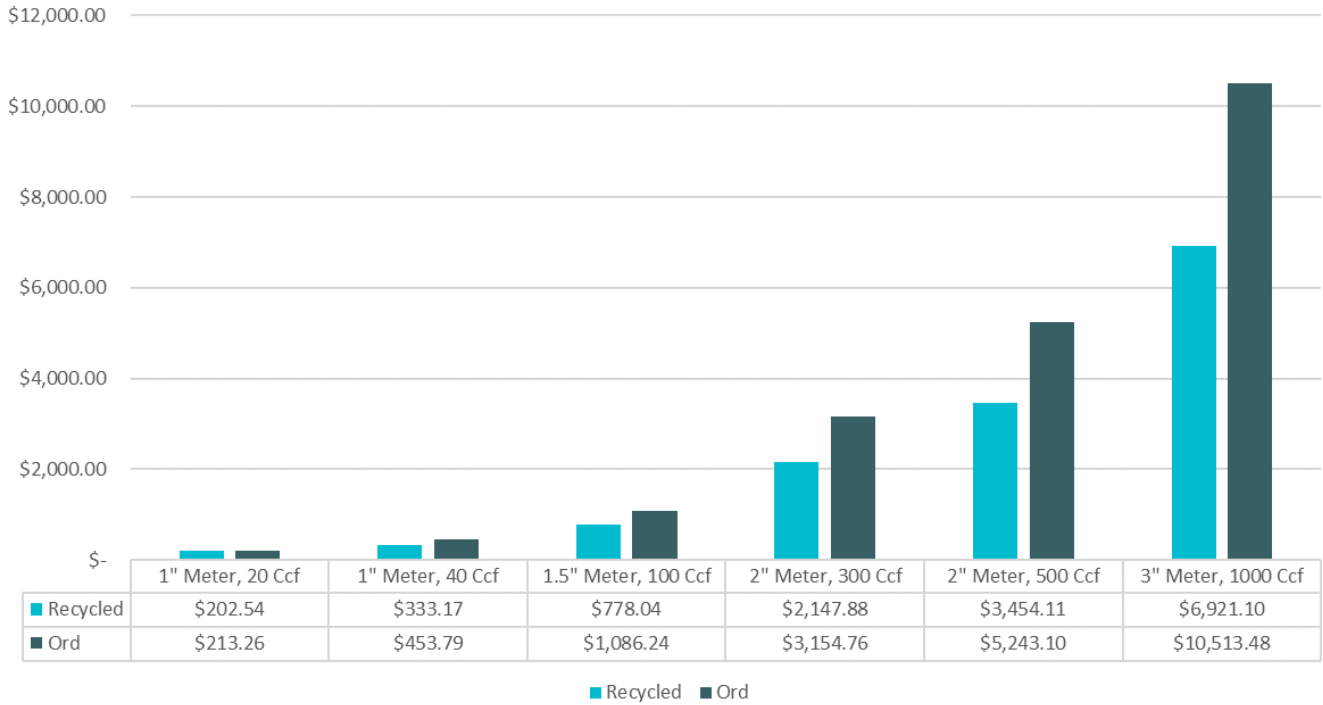
Figure 5-2: FY 2023 Revenue by Customer

Line	FY 2023 Potable Responsibility Detail	Forecasted Recycled Rate Revenue	Potable Utility Responsibility	COS Allocated Amount
Recycled Rate Revenue				
1	Fixed Charge Revenue	\$ 35,517	\$ 68,740	\$ 104,257
2	Volume Charge	1,364,300	308,532	1,672,831
3	University	232,097	30,841	262,938
4	Potable Utility Use		2,272,764	2,272,764
5	SRF Reserve Funding		638,254	638,254
6	Total	\$ 1,631,914	\$ 3,319,132	\$ 4,951,046

5.1. Bill Impacts

Figure 5-3 provides examples of recycled water bills under the proposed FY 2023 rates at various levels of usage compared to an Ord or Marina potable water bill for the same level of use.

Figure 5-3: Bill Impacts



**Marina Coast Water District
Agenda Transmittal**

Agenda Item: 4-B

Meeting Date: March 29, 2022

Prepared By: Kelly Cadiente

Approved By: Remleh Scherzinger

Agenda Title: Approval of Public Notice and Set Date, Time, and Location for a Public Hearing for Proposed Recycled Water Rates

Staff Recommendation: Staff recommends that the Board approve the Notice of Public Hearing and set date, time, and location for a Public Hearing for the proposed Recycled Water Rates for the Marina Coast Water District. Staff recommends that the hearing be scheduled for May 16, 2022, at 7:00 p.m. via teleconference.

Background: *Strategic Plan Mission Statement – To provide our customers with high-quality water, wastewater collection, and conservation services at a reasonable cost, through planning, management, and the development of water resources in an environmentally sensitive manner.*

Discussion/Analysis: In the previous agenda item, the Board was requested to approve the 2022 Five-Year Recycled Water completed by Raftelis. The Rate Study was conducted to establish recycled water rates for FY 2022/2023 through FY 2026/2027.

The conventional process in setting or increasing certain water rates by a public water district requires that a Proposition 218 public notice be sent to all affected parcel owners as listed on the most recent equalized assessment tax roll of Monterey County. The notice informs the owners of the proposed rates, the reason for the established rates, and how the rates were calculated. The notice also provides the dates for a public hearing for the District to receive input from the parcel owners and ratepayers before any rate or rate change is adopted. The public hearing can be held no sooner than 45 days after the notice has been mailed to all parcel owners connected to the District’s recycled water system.

However, Cal. Const. Art. XIII D, Sec. 6, requires an agency to identify “the parcels upon which a fee or charge is proposed for imposition.” Whether a parcel falls into this category turns on whether the fee or charge can actually be *presently* imposed, e.g., “unless that service [recycled water] is actually used by, or immediately available to, the owner of the property in question.” (Art. XIII D, Sec. 6(b)(4)) Caselaw interpreting the “immediately available” requirement holds that if a parcel in question has “the necessary service connections” then the parcel may be identified as being subject to the fee or charge, and is entitled to receive a notice and may file a protest. (See *Paland v. Brooktrails Township CSD* (2009) 179 Cal. App. 4th 1358, 1370.)

Because MCWD recycled water system is a new, and a limited service there are no actual or even immediate potential hookups to the service, there are no parcels that meet the criteria required under Proposition 218.

Until there are identifiable eligible parcels for which MCWD could satisfy Art. XIII, Sec. 6(b)(4), Staff identified those irrigation parcels that could in the future request service in an effort to informally comply with the Proposition 218 process. This will allow those potentially affected by

the rate to be informed of the rate-setting process and allow the parcel owners the opportunity to communicate with the Board to inform its deliberations.

Further, because of the District's commitment to transparency, and the value it places on input from its customers and ratepayers, Staff recommends that a public hearing be held to provide the public with the opportunity to provide input on the proposed recycled water rates that will be effective once the recycled water becomes available.

Again, the Notice will be sent to those parcel owners that the District determines may be subject to the proposed rates in the future, which, at the moment, includes all irrigation accounts.

Environmental Review Compliance: None required.

Financial Impact: Yes No **Funding Source/Recap:** Publication and mailing of the Notice will be funded by the Recycled Water Cost Center.

Other Considerations: None.

Material Included for Information/Consideration: Notice of Public Hearing.

Action Required: Resolution Motion Review

Board Action

Motion By _____ Seconded By _____ No Action Taken _____

Ayes _____ Abstained _____

Noes _____ Absent _____



NOTICE OF PROPOSED RECYCLED WATER RATES FOR THE MARINA COAST WATER DISTRICT

NOTICE OF PUBLIC HEARING

A public hearing for the proposed recycled water rates will be held on:

Date: Monday, May 16, 2022

Time: 7:00 p.m.

This meeting may be accessed remotely using the following Zoom link:

Link: <https://us02web.zoom.us/j/89768695550?pwd=aExTNlVuc3h5cERoWU1SNFR1bjkxQT09>

Passcode: 171822

To participate via phone: 1-669-900-9128 **Meeting ID:** 897 6869 5550 **Passcode:** 171822

Generally, Proposition 218 requires local districts to provide notice of proposed rates for recycled water service to record owners of eligible parcels which are currently receiving recycled water service from the District. Although there are no eligible parcels for which recycled water service is immediately available, this notice is being sent to you as an informational item in the event that you may be a direct recycled water customer in the future. The Marina Coast Water District Board of Directors will consider the new recycled water rates identified herein during the public hearing listed above. This notice also provides information on the reasons and the basis for calculating the new recycled water rates.

PROPOSED RATES FOR RECYCLED WATER

The Marina Coast Water District (MCWD or District) proposes the following rates to be able to operate, maintain, and improve the District's recycled water facilities to comply with Water Code Section 31007. This notice only pertains to those recycled water rates as set forth herein.

HOW THE RATES WERE CALCULATED

A rate study to determine the appropriate amount of the recycled water rates has been conducted by Raftelis, an independent consulting firm. That study concluded that the proposed rate structure will provide the necessary funds for the District to recover the cost of operation & maintenance, administration of MCWD's recycled water systems. All rates for recycled water are calculated based on the cost to provide recycled water services. The recycled water rates are calculated based on (1) the size of the meter; and (2) the amount of recycled water used. The monthly meter charge increases with the size of the meter because customers with larger meters have the potential to use more recycled water. The recycled water systems must be sized with adequate capacity to meet this potential demand. The volume rates are calculated based on the amount of recycled water provided measured in centum cubic feet (Ccf), which equals approximately 748 gallons of water. For a more detailed account of the proposed recycled water rate calculations, The Raftelis Rate Study may be viewed at www.mcwd.org.

MCWD MONTHLY RECYCLED WATER SERVICE FEES

	Existing Tier 2 Potable Rates as of 01/01/2022 (Ord)	Proposed Rates (Effective 07/01/2022)	Proposed Rates (Effective 07/01/2023)	Proposed Rates (Effective 07/01/2024)	Proposed Rates (Effective 07/01/2025)	Proposed Rates (Effective 07/01/2026)
Volume(per Ccf)	\$9.19	\$6.53	\$6.76	\$7.00	\$7.25	\$7.51
5/8"	\$47.09	\$50.72	\$52.50	\$54.34	\$56.25	\$58.22
3/4"	\$47.09	\$50.75	\$52.50	\$54.34	\$56.25	\$58.22
1"	\$66.16	\$71.92	\$74.44	\$77.05	\$79.75	\$82.55
1.5"	\$113.82	\$124.93	\$129.30	\$133.83	\$138.52	\$143.37
2"	\$171.02	\$188.53	\$195.14	\$201.97	\$209.04	\$216.36
3"	\$323.55	\$389.95	\$403.60	\$417.73	\$432.36	\$447.50
4"	\$495.14	\$686.78	\$710.82	\$735.70	\$761.45	\$788.11
6"	\$971.80	\$1,397.04	\$1,446.95	\$1,496.56	\$1,458.94	\$1,603.16
8"	\$1925.11	\$2,987.19	\$3,091.75	\$3,199.97	\$3,311.97	\$3,427.89

You are receiving this notice because you may be purchasing recycled water from MCWD when it becomes available. As an owner of a potentially eligible parcel, your input on the proposed recycled water rates is appreciated. For that purpose, if you desire to submit a written comment to the proposed recycled water rates, please follow the instructions below. A written objection should:

- 1) be in writing;
- 2) state opposition to the proposed recycled water rate;
- 3) state the location of the owner’s parcel by County Assessor’s Parcel Number (APN) or by the parcel’s street address;
- 4) list the owner’s name(s);
- 5) have an original signature; and
- 6) be received at or before the time of the above public hearing.

You may mail or personally deliver your letter to Marina Coast Water District, 11 Reservation Road, Marina, CA 93933. All comments should be received no later than the time set for the public hearing so they may be provided to the Board for their consideration. You also may comment at the public hearing.

**If you have any questions
please call (831) 384-6131.**

**Si usted necesita ayuda en
español con esta noticia, por
favor llame al (831) 384-6131.**