



- **Board of Directors**
Finance and Insurance Committee

9/14/2021 Board Meeting

9-4

Subject

Report on Rate Refinement Workgroup's Review of Demand Management Cost Recovery Alternatives

Executive Summary

Metropolitan's demand management program consists of the Conservation program, the Local Resources Program (LRP), and the Future Supply Actions program. For the past five years, the total annual demand management revenue requirement budget has been \$96 million on average, made up of approximately \$34 million for conservation, \$38 million for LRP, \$2 million for Future Supply Actions, and \$23 million for departmental operations & maintenance (O&M) net of interest income. The Ten-year forecast in the current biennial budget projects those costs to increase to \$151 million by fiscal year (FY) 2030/31, which does not include the potential increase in conservation due to the present drought emergency. While the Board has discretion to increase or decrease the budget for conservation (except any contractual commitments), Future Supply Actions, and planned LRP that are not yet approved, Metropolitan has a nondiscretionary obligation to pay on LRP agreements that are already under contract.

Currently, Metropolitan is not collecting revenues to fund its demand management costs; those costs are being paid from reserves in the Water Stewardship Fund, which will run out by mid-FY 2022/23. While the Board, staff, and member agency representatives have undergone various processes to evaluate the most appropriate cost recovery method of demand management costs going forward, consensus on one alternative has not yet been reached. In this letter, staff presents a summary of the ongoing Member Agency Rate Refinement Workgroup's review of demand management alternatives for further discussion by the Board.

Details

Background

Demand Management Overview

Metropolitan's Integrated Resources Plan (IRP) evaluates the total projected need for water within its service area and accounts for all water available within the service area, including water produced or imported by other water agencies and all conservation within the service area. The IRP is a comprehensive view of all water resources and demands within the service area to determine the potential wholesale demand on Metropolitan by the 26 member agencies. The purpose of demand management as it relates to Metropolitan's service was explained in the 1996 IRP, followed by further analysis and support in the 2004, 2010, and 2015 IRP Updates and the 2017 IRP Policy Principles. Local projects and increased conservation were ways to reduce the need for Metropolitan to increase imported supplies and offset the need to transport or store additional water into or within the Metropolitan service area, reducing infrastructure costs. Since 1999, the legislature has also directed Metropolitan to expand conservation, recycling, and groundwater recovery efforts as a result of SB 60 (Hayden), and therefore, Metropolitan's demand management program also serves and meets the legal direction to expand those efforts.

The actual production and use of local resources and conservation of water under Metropolitan's demand management programs takes place at the member agency or end-user level, meaning they produce or conserve water for their own use and the water is not Metropolitan's. Although water produced in local projects is not available for Metropolitan to deliver and water conserved may not necessarily proportionately reduce member agencies' demands on Metropolitan, managing regional demand was intended and has shown to reduce overall

demands on Metropolitan by its member agencies. **As a result, Metropolitan's demand management programs benefit all member agencies regardless of project location. These programs help to increase regional water supply reliability, reduce demands for imported water supplies, decrease the burden on Metropolitan's infrastructure and reduce system costs that would have resulted if Metropolitan were required to import additional water, and free up conveyance capacity to the benefit of all system users.**

Records show that Metropolitan's demand management programs have significantly increased Southern California's ability to manage long-term drought and climate change. Demand management has reduced demand for imported supplies, which reduces the costs to build, expand, operate, maintain, and refurbish facilities. This has a regional benefit for all member agencies throughout Southern California and will continue to be needed going forward as the Board and management have continued to indicate. **However, these programs need a clearly identified funding source, which has not yet been adopted by the Board.**

Background of Cost Allocation of Demand Management Costs

Since 2003, the Water Stewardship Rate (WSR) has been a component of: (1) the full-service rate for water purchases; (2) the pre-set wheeling rate effective through August 18, 2020; and (3) until its suspension beginning in 2018, the contractual price for the exchange agreement with San Diego County Water Authority. The WSR has been used to fund Metropolitan's demand management programs, including conservation device rebates, turf removal, customized member agency administered programs, advertising to promote conservation, new programs within disadvantaged communities, pilot programs for stormwater capture, and incentive payments for LRP projects. The WSR rate element was established when the Board adopted a revised unbundled rate structure in 2001, effective 2003. The unbundled rate structure divided costs according to Metropolitan's operational functions and allocated those costs to various rate components: the variable components consist of Supply Rate (Tiers 1 and 2), System Access Rate (SAR), System Power Rate (SPR), and the WSR, and the volumetric-based fixed charges consist of the Readiness-to-Serve (RTS) Charge and Capacity Charge. Each volumetric rate component was assigned to either supply or transportation. Supply rates are recovered only through Metropolitan's full-service rates for sales to its member agencies, and the transportation rates, including the WSR, were previously recovered from transactions using Metropolitan's system, including sales, wheeling, and exchanges. **The assignment of the WSR as a transportation rate was based on Metropolitan's 1996 IRP 25-year capital plan, determining that investment in region-wide demand management would be more cost effective and avoid or defer additional capital investment that would be necessary to meet projected demands.**

In 2018, before the closing of the 1996 IRP 25-year capital planning period and after the decision on the 2011-2014 WSR in *San Diego County Water Authority v. Metropolitan*, 12 Cal.App.5th 1124 (2017), staff proposed, and the Board approved, a cost allocation study for demand management costs going forward. Staff retained consultants and underwent a cost allocation study based on the operational function of demand management for Metropolitan based on the operational and resource circumstances today and going forward.

In December 2019, staff presented demand management cost recovery alternatives to the Board resulting from the consultants' work, but the Board did not select any of those alternatives. Instead, the Board directed staff to use the balance of the Water Stewardship Fund to fund demand management costs for the FYs 2020/21 and 2021/22 biennial budget and to not incorporate into the calendar years (CYs) 2021 and 2022 rates and charges any demand management cost recovery mechanism. The Board directed staff to work with member agency managers in a rate refinement process to address many issues related to budget and rates, including a cost recovery mechanism for demand management. Because the balance of the Water Stewardship Fund is expected to be depleted by January 2023, the rate refinement workgroup prioritized demand management cost recovery and the status of the group's work is provided in this letter.

Financial Outlook for Demand Management Funding

Due to the Board's direction to use reserves from the Water Stewardship Fund to fund all demand management program costs in the FYs 2020/21 and 2021/22 Biennial Budget, to determine the financial outlook of demand management funding, it is important to review the projected expenditures from that fund and the forecasted revenues potentially available in CY 2023 to begin replenishing the fund.

Tables 1 and 2 provide information regarding the budgeted and projected demand management expenditures in the budget and the ten-year forecast. Table 1 highlights the LRP expenditures and Table 2 shows expenditures for all demand management programs.

Table 1. Budgeted and Projected Local Resources Program Expenditures

based on fiscal years 2020/21 and 2021/22 biennial budget and 10 year financial forecast, in million of dollars

Fiscal Year Ending	2022	2023	2024	2025	2026	2027	2028	2029	2030
Estimated cost of contracted LRP projects	\$ 18	\$ 22	\$ 22	\$ 26	\$ 27	\$ 31	\$ 31	\$ 30	\$ 29
On-Site Retrofit Program	2	3	3	3	3	3	3	3	3
Future Projects to meet 170,000 IRP Target	-	1	6	11	16	22	27	32	38
Total Local Resources Program	\$ 20	\$ 25	\$ 31	\$ 40	\$ 47	\$ 55	\$ 61	\$ 65	\$ 70

The projected cost for LRP projects is shown on the first line in Table 1, based on estimated production and incentive rate for existing LRP contracts when the FYs 2020/21 and 2021/22 budget was prepared. O&M costs are included in the Table as well. After adoption of the budget, the Board approved two new LRP agreements for a total of 113 LRP projects, and those costs are included in the ten-year projections shown here. The third row in Table 1 shows the estimated cost of future projects (including those approved after the budget was adopted) needed to meet the 170,000 acre-feet (AF) IRP goal. Total LRP costs are expected to increase from \$19 million in FY 2020/21 to \$70 million in FY 2029/30. The LRP budget also includes \$2 million to \$3 million per year for the on-site retrofit program.

Table 2. Total Budgeted and Projected Demand Management Expenditures

based on fiscal years 2020/21 and 2021/22 biennial budget and 10 year financial forecast, in million of dollars

Fiscal Year Ending	2022	2023	2024	2025	2026	2027	2028	2029	2030
Local Resources Program	\$ 20	\$ 25	\$ 31	\$ 40	\$ 47	\$ 55	\$ 61	\$ 65	\$ 70
Conservation Program	43*	43	43	43	43	43	43	43	43
Future Supply Actions / Stormwater Pilot	7	3	2	2	2	2	2	2	2
O&M costs net of interest income	23	26	28	30	31	34	34	35	37
Demand Management Revenue Requirement	\$ 93	\$ 97	\$ 104	\$ 115	\$ 123	\$ 133	\$ 139	\$ 144	\$ 151

* The FY 2021/22 conservation budget is \$24M. \$43 reflects the appropriation.

Table 2 shows the total demand management revenue requirement, which refers to all demand management costs including LRP, conservation, Future Supply Actions, Stormwater Pilot Program, and the O&M to support those programs. The O&M component includes costs from Water Resource Management, External Affairs, administrative and general costs from other groups, professional services, and other operating costs offset by interest income. In total, total demand management costs are expected to increase from almost \$93 million in FY 2021/22 to \$151 million in FY 2029/30.

Table 3 shows the overall adopted and estimated rate increases for all rates and charges necessary to meet all revenue requirements at Metropolitan. The second line shows the \$65/AF WSR for 2020 and for CYs 2023-2030, a placeholder rate is used to show recovery of demand management costs (the hypothetical Demand Management Rate). For illustrative purposes, we have assumed a completely variable rate that applies to all forecasted water transactions. The \$53/AF Demand Management Rate in 2023 represents the entire 5 percent overall rate increase for that year (based on 1.60 million acre-feet (MAF) of water transactions). No increases to other rates or charges are reflected for 2023. A \$53/AF rate may not generate enough revenue to recover the full cost of demand management in FY 2022/2023. Establishing a revenue collection mechanism equivalent to the current \$65/AF in 2023 would require a 6.1 percent overall rate increase.

Table 3. WSR and Placeholder Demand Management Rate (CY)

Calendar Year	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Overall Rate Increase for all Rates and Charges		3%	4%	5%	5%	4%	3%	3%	3%	3%	3%
Demand Management Rate* (\$/AF)	\$65	-	-	\$53	\$65	\$71	\$73	\$79	\$82	\$84	\$89

* The 2020 \$65/AF rate is the WSR, for CYs 2023-2030 the rate represent only a placeholder until the Board approves a method to recover demand management costs.

The \$53/AF represents the entire 5% rate increase for 2023.

Table 4 shows the revenues that would be generated from the hypothetical Demand Management Rate shown in Table 3.

Table 4. Placeholder Demand Management Rate Revenues (FY)

Fiscal Year Ending	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Demand Management Revenues (\$M)	\$ 46	\$ -	\$ 39	\$ 96	\$ 115	\$ 125	\$ 132	\$ 140	\$ 145	\$ 151

Table 4 is in fiscal years so there can be two different calendar year rates in effect during that FY, as forecasted in Table 3.

In Table 5, one can see the impact of the demand management revenue requirements and the projected demand management revenues on the Water Stewardship Fund balance. When subtracting the demand management revenue requirement from the demand management revenues, it shows the amount of over/(under) collection. The June 30, 2021 Water Stewardship Fund balance was \$125 million. For the second year of the current biennial budget period, the \$74 million estimated under-collection will come from the Water Stewardship Fund balance. It is projected that at the end of the current biennial budget period (end of FY 2021/22), the Water Stewardship Fund balance will be only \$50 million. Thereafter, in FY 2022/23, the placeholder Demand Management Rate of \$53/AF is anticipated to not generate enough revenue to fund the demand management programs and there would not be enough funds in the Water Stewardship Fund. As such, in FY 2022/23, there would be an estimated \$26 million shortfall. Under this placeholder scenario, shortfalls would continue through the end of FY 2024/25. This analysis does not account for any additional demand management spending the Board may approve to deal with the present emergency drought.

Table 5. Water Stewardship Fund (WSF) (FY)

Fiscal Year Ending	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Demand Management Revenues (\$M)	46	-	39	96	115	125	132	140	145	151
Demand Management Revenue Requirements (\$M)	54	93	97	104	115	123	133	139	144	151
Over/(under) collection (\$M)	(8)	(93)	(57)	(8)	(1)	2	(2)	1	1	(0)
End of year WSF Balance (\$M)	125	31	-	-	-	2	1	2	3	2
			26	8	1	-	-	-	-	-

The Demand Management Rate does not generate enough revenue to fund the entire program and the WSF has been depleted.

Projected shortfalls in the Water Stewardship Fund balance can be met by: (1) taking actions to reduce demand management costs; (2) establishing a higher rate, charge, or other revenue collection mechanism that generates more revenues; or (3) establishing a replacement demand management revenue collection mechanism that goes into effect earlier than CY 2023.

Review of Demand Management Cost Recovery Alternatives Presented to the Board and to the Rate Refinement Workgroup

Pursuant to the Board's direction, Metropolitan undertook a demand management cost allocation study. Documents relating to that study are available at <https://www.mwdh2o.com/who-we-are/budget-finance/demand-management-cost-allocation/>. In the first phase of the study, Metropolitan, along with its consultant, Peter Mayer of WaterDM, reviewed and determined the function of demand management within Metropolitan's services.

Managing demand is a core utility function of public water providers. Metropolitan's conservation and local water resource development programs comply with the California State Legislature's unique direction to Metropolitan through Senate Bill 60, signed into law in 1999, to increase local resource efforts. Metropolitan's demand management programs also supported the region's compliance with the requirements of Senate Bill X7-7, passed in 2009, which was enacted to reduce urban per capita water use by 2020. Additionally, demand management helps urban water retail providers in the region comply with the future targets under SB 1668 and SB 606 implementing the Long-Term Efficiency Framework. Demand management is a powerful tool for providing a diverse and reliable water service across the region because the actual dollars spent on demand management expenditures avoid spending even more dollars on infrastructure and resources.

The WaterDM Report recognizes the role of demand management within Metropolitan's wholesale water services and assigns demand management costs (the expenses incurred) to certain functions within Metropolitan's operations. Unlike the operational circumstances in 1996, which were forecast to extend for 25 years, Metropolitan's current operations and projections going forward do not anticipate capital expansion. Instead, Mr. Mayer found that current planning documents reflect the success of past demand management efforts, resulting in a long-term demand reduction. Metropolitan decided to continue to incorporate demand management on an ongoing basis to continue to avoid and reduce the need to import water supplies that would then necessitate improvements, refurbishment, additional operations and maintenance, and expansion of Metropolitan's current integrated system. **It would not be possible under any scenario to import water into the service area without using the statewide system that transports water to the 26 member agencies. Accordingly, Mr. Mayer determined that the operational function of demand management includes the supply, conveyance and aqueduct, distribution, and storage operational functions.**

In the second phase, Metropolitan's consultant, Rick Giardina of The Raftelis Group, reviewed and coincided with the functional assignment of demand management costs proposed in the WaterDM Report. Mr. Giardina proposed four alternatives for demand management cost recovery. **Three of the alternatives (#1, #2, and #3A) apply the functionalization of demand management costs proposed in Mr. Mayer's work, meaning demand management costs are allocated based on the function demand management serves within Metropolitan's operations and recovered based on system utilization.** The fourth alternative (#3B), shown with two different metrics, does not require the functionalization of demand management costs as costs are not recovered based on system usage but other metrics like population or assessed valuation. The alternatives are summarized in Table 1.

Table 1. Demand Management Cost Recovery Alternatives from Raftelis

Cost Recovery Component	Approx % of DM Costs ¹	Billing Determinant	Charge / Rate
Alt 1 - Existing COS Methodology			
T1 Supply	25%	Sales	\$/AF
System Access Rate	75%	All Transactions	\$/AF
Alt 2 - Modified COS Methodology			
T1 Supply	25%	Sales	\$/AF
System Access Rate	50%	All Transactions	\$/AF
System Power Rate	13%	All Transactions	\$/AF
Readiness-to-Serve Charge	10%	Existing RTS	\$/M
Capacity Charge	2%	Existing CC	\$/cfs
Alt 3A - Functionalized Fixed Charge			
Supply Portion	100%	10-yr Avg Sales	Fixed \$
Transportation Portion		10-yr Avg Transactions	
Alt 3B - Non-Functionalized Fixed Charge based on Population			
	100%	Population	Fixed \$
Alt 3B - Non-Functionalized Fixed Charge based on Assessed Valuation			
	100%	Assessed Valuation	Fixed \$

¹ Using a hypothetical Revenue Requirement share; the actual relative shares will be calculated as a part of each cost of service analysis and will differ

The approximate percentages of demand management costs recovered in the alternatives are hypothetical as the actual functionalization of costs is dependent on the prospective cost-of-service analyses and budgeted expenditures. The approximate percentages are provided so member agencies can get a sense of how the alternatives might impact them. Importantly, when the Board approves a demand management cost recovery method, it will approve a methodology, *not specific percentages or budgeted demand management expenditures*. Under any of the proposed alternatives, there would no longer be a volumetric Water Stewardship Rate component in Metropolitan's rate structure and no alternative proposes a 100 percent allocation to transportation going forward due to changed circumstances going forward.

Table 2 below shows the estimated member agency impacts of the proposed demand management cost recovery alternatives, in thousands of dollars. The analysis is prepared on a hypothetical Demand Management Revenue Requirement of \$100 million. The columns correspond to the alternatives listed in Table 1 above.

For purposes of computing member agency impacts, staff used a five-year average of total transactions and total sales to smooth the year-to-year variability that may occur, rather than data for one specific year, for Alternatives #1 and #2.

The alternatives presented affect member agencies differently, but generally Alternatives #1, #2, and #3A will result in higher allocations of costs to member agencies that purchase relatively more water from Metropolitan, or use the transportation system relatively more, than their share of population or assessed valuation.

Table 2: Estimated Member Agency Impacts of Demand Management Cost Recovery Alternatives from Raftelis. In thousands of dollars, based on hypothetical \$100 million demand management revenue requirement.

	Alt #1 - Existing COS	Alt #2 - Modified COS	Alt #3A - Functionalized Fixed Charge	Alt #3B - Fixed Charge, Population	Alt #3B - Fixed Charge, AV
Anaheim	\$ 918	\$ 954	\$ 1,107	\$ 1,920	\$ 1,578
Beverly Hills	672	680	636	230	1,188
Burbank	933	917	836	570	810
Calleguas MWD	5,932	6,009	6,115	3,338	3,495
Central Basin MWD	2,545	2,572	2,679	8,247	5,056
Compton	0	11	47	483	158
Eastern MWD	5,988	6,053	5,551	4,355	2,720
Foothill MWD	524	532	511	433	634
Fullerton	445	458	499	715	680
Glendale	1,005	1,025	1,006	979	1,091
Inland Empire	3,599	3,650	3,652	4,534	3,883
Las Virgenes MWD	1,296	1,309	1,245	371	850
Long Beach	1,963	1,986	1,921	2,506	1,724
Los Angeles	16,360	16,726	16,409	21,258	20,730
MWDOC	13,703	13,775	13,147	12,447	17,067
Pasadena	1,203	1,215	1,146	877	1,049
SDCWA	22,442	21,644	24,182	17,009	17,368
San Fernando	1	1	2	129	66
San Marino	60	63	51	70	222
Santa Ana	581	599	678	1,756	902
Santa Monica	238	261	335	495	1,276
Three Valleys MWD	4,058	4,084	3,820	2,741	2,341
Torrance	1,010	1,024	973	721	992
Upper San Gabriel	2,635	2,494	2,040	4,587	3,580
West Basin MWD	7,472	7,484	7,018	4,301	6,929
Western MWD	4,417	4,475	4,392	4,931	3,610
Total	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000

Alternative #1: Use Existing Cost-of-Service Methodology

Alternative #1 uses Metropolitan's existing cost-of-service methodology with the updated functionalization assigning demand management to supply, transportation (conveyance & aqueduct, and distribution), and storage. Demand management expenditures are treated like other O&M expenditures, which are allocated to Fixed Commodity in the cost-of-service process. Fixed commodity costs are then distributed to volumetric rates, so demand management costs would be recovered through the Tier 1 Supply Rate and the System Access Rate (recovering transportation costs).

Under Alternative #1, those member agencies that purchase relatively more water or that use the conveyance and distribution system relatively more will pay more of the demand management costs. Alternative #1 utilizes only volumetric rates, so the revenues generated will vary as sales and transaction volumes vary.

Alternative #2: Modify Existing Cost-of-Service Methodology

For Alternative #2, Metropolitan would modify its cost-of-service methodology to acknowledge that in the absence of demand management expenditures, Metropolitan would deliver more water and more expenditures would be required for power and capital financing costs, as well as O&M. Therefore, in addition to fixed commodity costs as in Alternative #1, demand management expenditures would also be allocated to fixed demand, fixed standby, and variable commodity. This results in expanding cost recovery to also include the System Power Rate, the Readiness-to-Serve Charge, and the Capacity Charge, as well as the rates in Alternative #1 (Tier 1 Supply Rate and SAR).

Under Alternative #2, those member agencies that purchase relatively more water or that use the conveyance and distribution system relatively more will pay more of the demand management costs. Alternative #2 primarily utilizes volumetric rates, so that a portion of the revenues generated will vary as sales and transaction volumes vary. Some revenue, estimated at 12 percent of demand management costs, will be recovered through the RTS Charge and the Capacity Charge and provide a more assured revenue stream.

Alternative #3A: Functionalized Fixed Charge

Demand management costs are largely fixed in nature. The LRP incentives are provided under contractual commitments with terms from 15 to 25 years, and the Board has stated a desire that conservation programs (incentives and messaging) should be funded on a consistent basis, and not ramped up and down. Accordingly, Raftelis provided a fixed charge option.

Under Alternative #3A, Metropolitan would follow its cost-of-service process to functionalize demand management costs to the impacted functions. Those costs could then be aggregated and apportioned to member agencies based on selected metrics, or billing determinants. Under Alternative #3A, the costs are recouped through fixed charges, not volumetric rates. In Tables 1 and 2, costs functionalized as supply have been apportioned to member agencies based on each member agency's ten-year rolling average of all sales; costs functionalized as transportation-related have been apportioned to member agencies based on each member agency's ten-year rolling average of all transactions (sales, wheeling, and exchanges). The two amounts are then added to determine each member agency's total fixed charge.

Under Alternative #3A, those member agencies that have purchased relatively more water or that used the conveyance and distribution system relatively more over the last ten years will pay more of the demand management costs through their fixed charges, as their averages increase. Unlike Alternatives #1 and #2, the charge is fixed and will generate an assured revenue stream.

Alternative #3B: Non-Functionalized Fixed Charge

Alternative #3B highlights that demand management costs are a necessary and legislatively directed activity that improves reliability for all water systems in Metropolitan's service area. By providing conservation incentives that reduce the use of local resources and LRP incentives that improve the reliability of local resources, offsetting the need to import water, even water systems without a physical connection to Metropolitan benefit. Therefore, Alternative #3B proposes a fixed charge to member agencies that aligns with the benefits of demand management for all member agencies based on water users in their service areas.

In the two examples for Alternative #3B, demand management costs are aggregated and apportioned to member agencies based first on population and then on assessed valuation. Both metrics provide a measure of the reliance—and potential reliance—for water service on Metropolitan. Other metrics, or a combination of metrics, could be used instead.

2021 Rate Refinement Workgroup

In December 2020, Metropolitan staff presented on the intent to form a workgroup to review Metropolitan's rate structure and develop recommendations for potential refinements for Board consideration. The priority of the Rate Refinement Workgroup's (Workgroup) meetings has been to establish a mechanism to recover demand management. **Metropolitan and staff from our member agencies have now participated in 12 workgroup meetings in which they prioritized updating the rate refinement principles to guide their review of all rate-related issues and the review of demand management cost recovery.** Through that process, the Workgroup reviewed and evaluated the alternatives presented by Raftelis and presented additional suggestions for cost recovery alternatives. Table 3 summarizes the alternatives developed by the Rate Refinement Workgroup.

Table 3. Demand Management Cost Recovery Alternatives from Rate Refinement Workgroup

Cost Recovery Component	Approx % of DM Costs	Billing Determinant	Charge / Rate
Alt 3B – Non-Functionalized Fixed Charge based on 50/50 Pop/AV	50%	Population	Fixed \$
	50%	Assessed Valuation	
100% Supply			
T1 Supply	100%	Sales	\$/AF
Variable Costs			
T1 Supply	22% ¹	Sales	\$/AF
System Power Rate	78% ¹	All Transactions	\$/AF
Short Term Marginal Cost- Tier 2			
T1 Supply	58% ¹	Sales	\$/AF
System Power Rate	42% ¹	All Transactions	\$/AF
Short Term Marginal Cost- Drought			
T1 Supply	76% ¹	Sales	\$/AF
System Power Rate	24% ¹	All Transactions	\$/AF
Short Term Marginal Cost- Historical Drought			
T1 Supply	62% ¹	Sales	\$/AF
System Power Rate	38% ¹	All Transactions	\$/AF

¹ Using a hypothetical Revenue Requirement share; the actual relative shares will be calculated as a part of each cost of service analysis and will differ.

Similar to the Raftelis alternatives, the approximate percentages of demand management costs recovered in the Workgroup alternatives are hypothetical as the actual functionalization of costs is dependent on the prospective cost-of-service analyses and budgeted expenditures. The approximate percentages are provided so member agencies can get a sense of how the alternatives might impact them. Importantly, when the Board approves one of the alternatives, it will approve a methodology, not explicit percentages or budgeted demand management expenditures.

Table 4 below shows the estimated member agency impacts of the proposed demand management cost recovery alternatives suggested by the Rate Refinement Workgroup, in thousands of dollars. The columns correspond to the alternatives listed in **Table 3** above.

For purposes of computing estimated member agency impacts, staff used a five-year average of total transactions and total sales to smooth the year-to-year variability that may occur, rather than data for one specific year, for the 100 percent Supply, Variable Cost, Short-term Marginal Cost – Tier 2 and Short-term Marginal Cost – Drought alternatives.

Each of the alternatives presented below suggested by the Rate Refinement Workgroup are 100 percent volumetric rates, except for the modification of Raftelis Alternative 3B with 50 percent Property Tax and 50 percent Population.

Table 4: Estimated Member Agency Impacts of Demand Management Cost Recovery Alternatives from Rate Refinement Workgroup. In thousands of dollars, based on hypothetical \$100 million demand management revenue requirement.

	Alt #3B - 50/50 AV/Pop	100% Supply	Variable Cost	Short Term Marginal Cost Tier 2	Short Term Marginal Cost Drought	Short Term Marginal Cost Historical Drought
Anaheim	\$ 1,749	\$ 988	\$ 896	\$ 938	\$ 960	\$ 944
Beverly Hills	709	724	656	687	703	691
Burbank	690	1,005	911	954	976	960
Calleguas MWD	3,416	6,387	5,793	6,064	6,206	6,100
Central Basin MWD	6,651	2,741	2,486	2,602	2,663	2,617
Compton	321	0	0	0	0	0
Eastern MWD	3,537	6,447	5,847	6,121	6,265	6,157
Foothill MWD	533	564	512	536	548	539
Fullerton	697	479	435	455	466	458
Glendale	1,035	1,082	981	1,027	1,051	1,033
Inland Empire	4,209	3,875	3,515	3,679	3,766	3,701
Las Virgenes MWD	610	1,395	1,265	1,325	1,356	1,332
Long Beach	2,115	2,114	1,917	2,007	2,054	2,019
Los Angeles	20,994	17,616	15,976	16,725	17,117	16,823
MWDOC	14,757	14,754	13,381	14,008	14,337	14,090
Pasadena	963	1,295	1,175	1,230	1,258	1,237
SDCWA	17,188	16,491	24,261	20,715	18,854	20,249
San Fernando	98	1	1	1	1	1
San Marino	146	64	58	61	62	61
Santa Ana	1,329	626	567	594	608	597
Santa Monica	885	256	232	243	249	244
Three Valleys MWD	2,541	4,370	3,963	4,149	4,246	4,173
Torrance	856	1,087	986	1,032	1,057	1,038
Upper San Gabriel	4,084	2,837	2,573	2,693	2,756	2,709
West Basin MWD	5,615	8,045	7,297	7,638	7,818	7,683
Western MWD	4,271	4,756	4,314	4,516	4,622	4,542
Total	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000

Hybrid Alternative 3B: 50 percent Assessed Value/ 50 percent Population

This alternative builds on the Raftelis Alternative 3B to create a new non-functionalized alternative that has half of the demand management costs collected via share of population and half via share of assessed value. As noted for Alternative 3B, both metrics provide a measure of the reliance—and potential reliance—for water service on Metropolitan. The costs are not functionalized, which is supported by the legislative directive to Metropolitan to engage in demand management programs.

Alternative: 100 percent Supply

This alternative functionalizes all demand management costs to the supply function. Based on both internal and external cost of service experts' review, reduction of Metropolitan's need to import water impacts more than its supply functions; it would not be possible to import water to meet additional demands without transporting, storing, and managing that process. Demand management functions to reduce capital costs for system expansion and reduces other O&M costs like power to move the water. This option excludes all other functions from demand management programs, which is not consistent with Metropolitan's consultants' analysis and conclusions regarding cost of service principles. Under this option, member agencies that purchase water would incur all the costs of demand management. There would be no cost recovery from current wheeling or exchange transactions.

Alternative: Variable Cost

The Variable Cost Alternative is similar in approach to the Raftelis Alternative #1 in that costs are functionalized. However, based on feedback from the Rate Refinement Workgroup that variable costs are what is avoided year-to-year, this alternative assigns the costs only to variable functions. The only functional costs that vary with water sales are in the water supply rate and System Power Rate. As shown in Table 3, the functionalized costs are very

similar to the results for Raftelis Alternative #1 in terms of the shares collected via transportation rates versus the supply rate.

Alternative: Short-term Marginal Cost Tier 2

Member agencies requested an alternative to assign demand management costs only based on marginal costs, based on the idea that drought management's primary purpose is to avoid the purchase of more expensive water. Staff presented three options for such an alternative. The first references the historical marginal supply cost, which is the basis of the current Tier 2 rate, which is based on the Yuba Accord, and the power costs to move water from the Delta. The functionalization of demand management costs for the Short-term Marginal Cost Tier 2 Alternative is based on comparing the Tier 2 Supply Rate to the power costs to move water from the Delta. Using the hypothetical revenue requirements of FY 2021, the Tier 2 Supply Rate is \$285 per AF and the marginal power cost is \$210 per AF which yields a split of 58% of demand management costs to the Tier 1 Supply Rate and 42% of costs to the System Power Rate.

Alternative: Short-term Marginal Cost Drought

The second marginal cost alternative uses marginal costs in a drought setting, using the most recent actual cost of supply acquisition for North of Delta transfers that the Metropolitan Board approved in April 2021, and allocates demand management costs based only on those marginal costs. The proposal is based on the idea that the primary purpose of demand management is to avoid purchasing water during times of drought. There are challenges with this approach as demand management is funded in both wet and dry years. The spot market for transfer water is also volatile and dependent on market conditions. It is unclear how this method would be updated and administratively implemented during wet years and whether the most recent drought price is the appropriate measure given the long-term benefits from demand management. For example, conservation and LRP funding pays dividends in terms of offset demand on Metropolitan for upwards of 30 years. The Functionalization of demand management costs for the Short-term Marginal Cost Drought Alternative replaces the Tier 2 rate with the maximum the Board authorized to pay during the current critically dry supply condition. Using the hypothetical revenue requirements of FY 2021, the marginal power cost to move water from the Delta is \$210 per AF and the marginal supply cost is \$675 per AF. This yields a hypothetical split of demand management costs to the Tier 1 Supply rate of 76% and 24% of costs to the System Power Rate.

Alternative: Short-term Marginal Cost Historical Drought

The third marginal cost alternative is based on historical marginal costs in a drought setting, using the ten-year average actual cost of supply acquisition for North of Delta transfers from 2008 to 2018 during years with a declared stage of the Water Supply Allocation Plan by the Metropolitan Board, and allocates demand management costs based only on that average cost weighted by the volume of water delivered. The average dry year transfer price during declared allocations was \$346 per AF for 2008 through 2018 and the marginal costs to move the North of Delta water is \$210 per AF. The resulting alternative using FY 2021 hypothetical revenue requirements would be collected from the Tier 1 supply rate for 62 percent of demand management costs and the system power rate for 38 percent of demand management costs.

August 2021 Rate Refinement Workgroup Top Alternatives

Among the eleven different alternatives developed thus far, the Rate Refinement Workgroup has provided feedback on their top three choices. Only eight of the eleven alternatives were selected by at least one-member agency as a top 1st, 2nd or 3rd choice. The member agencies' top choices are summarized in Table 5 and represents feedback from 24 of the 26 member agencies (two member agencies chose not to participate in the process). After reviewing the results, the Rate Refinement Workgroup provided information on which of the eight remaining alternatives they would like to eliminate. Twenty-three of the 26 member agencies provided feedback and the results of that survey are shown in the far-right column in Table 5.

Table 5: Summary of Member Agency Top Alternatives and Recommended Eliminations (compiled August 2021)

Alternative	1st Choice Count	2nd Choice Count	3rd Choice Count	Total	Rank	Eliminate
Variable Cost	6	7	6	19	#1	1
Alt #1 - Existing COS	3	11	5	19	#2	2
Alt #2 - Modified COS	7	1	3	11	#3	1
Short Term MC Historical Drought	5	0	2	7	#4	7
Short Term Marginal Cost Drought	0	3	1	4	#5	22
100% Supply	2	1	0	3	#6	13
Short Term Marginal Cost Tier 2	0	1	1	2	#7	21
Alt #3B - Fixed Charge, Population	0	0	1	1	#8	22

Next Steps

Metropolitan's robust demand management programs have been enormously successful and have helped build Southern California's current high degree of water reliability and resilience. Additionally, the successful implementation of demand management has been cost effective and reduced the need for Metropolitan to spend on more costly infrastructure and supplemental water resources. To continue these successful programs will require adoption of a funding mechanism before the existing funding runs out in FY 2022/23. Staff seeks board direction to bring back demand management cost recovery options for approval to incorporate into the FY 2022/23 and FY 2023/24 Budget and Cost of Service analysis.

Policy

Metropolitan Administrative Code Section 5107: Biennial Budget Process

Metropolitan Administrative Code Section 5108: Appropriations

Metropolitan Administrative Code Section 5109: Capital Financing

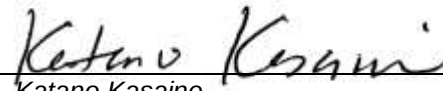
By Minute Item 51164, on April 10, 2018, the Board approved suspension of billing and collection of the Water Stewardship Rate on exchange agreement deliveries to San Diego County Water Authority for (a) CYs 2019 and 2020 during the Demand Management cost allocation study period, and (b) CY 2018.

By Minute Item 51828, on December 10, 2019, the Board directed staff: (1) to incorporate the use of the 2019/20 fiscal-year-end balance of the Water Stewardship Fund to fund all demand management costs in the proposed fiscal years 2020/21 and 2021/22 Biennial Budget; and (2) to not incorporate the Water Stewardship Rate, or any other rates or charges to recover demand management costs, with the proposed rates and charges for calendar years 2021 and 2022.

By Minute Item 51962, on April 14, 2020, the Board approved the biennial budget for FYs 2020/21 and 2021/22; adopted resolutions fixing and adopting the water rates and charges for CYs 2021 and 2022; and adopted the resolution finding that for FYs 2020/21 and 2021/22, the ad valorem property tax rate limitation of Metropolitan Water District Act Section 124.5 is not applicable because it is essential to Metropolitan's fiscal integrity to collect ad valorem property taxes in excess of the limitation.

Fiscal Impact

None. This is an informational report.



Katano Kasaine
Assistant General Manager/
Chief Financial Officer

9/8/2021

Date



Adel Hagekhalil
General Manager

9/8/2021

Date

Ref# cfo12675692